PROJECT REVIEW PLAN

WHITE RIVER NAVIGATION IMPROVEMENT PROJECT
FROM THE ARKNASAS POST CANAL TO NEWPORT, ARKANSAS SECTION 363
GENERAL RE-EVALUATION

U.S. Army Corps of Engineers
Memphis District

July 2009

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1. PURPOSE

Pursuant to Engineering Circular (EC) 1165-209 "Civil Works Review Policy," EC 1105-2-410, "Review of Decision Documents, EC 1105-2-408, "Peer Review of Decision Documents," Office of Management and Budget's "Final Information Quality Bulletin for Peer Review," and the 30 May 2007 memorandum from Major General Don Riley, USACE Director of Civil Works, a Project Review Plan (PRP) has been created for the White River Navigation Project from the Arkansas Post Canal (River Mile 10) to Newport Arkansas (River Mile 255), Section 363 General Re-Evaluation Study PRP dated July 2009.

This PRP presents the process for District Quality Control (DQC), Agency Technical Review (ATR), and Independent External Peer Review (IEPR) that will be implemented as part of the White River Navigation Improvement Project, Draft General Re-evaluation Study. These processes are essential to improving the quality of the products that we produce. The Project Management Plan (PMP) for the study will be amended to include this PRP since the PRP is considered a component of the PMP.

2. APPLICABILITY

The document provides the PRP for the White River Navigation Improvement, from the Arkansas Post Canal to Newport, Arkansas, Section 363 General Re-Evaluation Study. It identifies the DQC, ATR and IEPR process for all work conducted as part of the study, including in-house, non-Federal sponsor, and contract work efforts.

3. REFERENCES

EC 1165-2-209 "Civil Works Review Policy" dated 1 July 2009
EC 1105-2-410 "Review of Decisions Documents" dated 22 August 2008
EC 1105-2-408 "Peer Review of Decision Documents" dated 31 May 2005
EC 1105-2-407 "Planning Models Improvement Program: Model Certification" dated 31 May 2005
ER 1105-2-100 "Planning Guidance Notebook," dated April 2000
Major General Riley Memorandum on Peer Review Process, dated 30 May 2007

4. GENERAL

A. Project Description

The White River Navigation Improvement Project (WRNIP) is a reevaluation study of a navigation improvement project formally termed "White River Navigation to Batesville,

Arkansas" (USACE-MVM 1979a, b, c). The PRP of the WRNIP only addresses the portion of the White River from the city of Newport (River Mile 255) downstream to the Arkansas Post Canal (River Mile 10) joining the McClellan-Kerr Arkansas River Navigation System. Following a 1967 study resolution and recommendations in 1979, the original project was authorized under the Water Resources Development Act (WRDA) of 1986. The project was subsequently deauthorized by WRDA of 1988, and reauthorized by WRDA of 1996.

Engineering studies initiated in FY 1998 indicated that a channel with a bottom width of 125 feet and a depth of 9 feet is potentially economically and environmentally feasible, providing a 95 percent annual availability from the Arkansas Post Canal (River Mile 10) to Newport, AR (River Mile 255). The existing authority is for an 8 foot deep by 100 foot wide channel from August to Newport, AR at stages equivalent to or exceeding 12 foot on the Clarendon gage, with a 5 foot minimum depth at lower stages. Annual maintenance is authorized within the project limits and through snagging and dredging.

The project was deauthorized by the WRDA of 1988, Pub. L. 100-676, §52(b)(2), and again reauthorized by WRDA 1996, Pub. L. 104-303, §363 (b). Subsequent to the reauthorization of WRDA 1996, ten objectives for the reauthorized WRNIP were developed. The objectives are listed as follows:

1. To achieve 95% or greater annual availability for commercial barge traffic to utilize the Lower White River between Newport (River Mile 255) and Arkansas Post Canal (River Mile 10).
2. To provide a bottom width of 125 feet (38.1m) and depth of 9 feet (2.74m) 95% of the time for the same stretch of river cited above (more narrow width employed to minimize potential effects to the environment).
3. To minimize construction aimed at stabilization of riverbanks.
4. To install and maintain shore aids to navigation.
5. To provide recreational features such as overlook and park complexes, or otherwise improve the recreational development of the Lower White River.
6. To acquire land to serve as mitigation, if necessary, for impacts to wildlife.
7. To provide mitigation for the Fat Pocketbook Pearly Mussel (based on the original authorization) and/or other endangered species of freshwater mussel in the WRNIP area.
8. To improve aquatic habitat through construction of weirs (based on the original authorization) and /or other current needs and opportunities identified.
9. To place no dredged materials on terrestrial settings adjacent to the river channel.
10. To implement features that facilitates sustaining and/or improving environmental resources of the WRNIP area.

The ten objectives were incorporated in the *preliminary* draft general reevaluation report (GRR) and supplemental environmental impact statement (SEIS). The draft report was completed in December 2002. The proposed Navigation plan had a Benefit to Cost Ratio of 1.16 with a first cost of $30,834,000. Subsequently, completion of the GRR and SEIS was delayed to allow for the evaluation of additional environmental features, preparation of a

recreation plan and additional coordination with resource agencies. All activities were suspended due to lack of funding in both FY 2006 and FY 2007. The FY 2008 Consolidated Appropriations Act extended the project authorization to include a navigation channel to Batesville, AR (River Mile 296). This section of the river was included in the original study, but was found to be economically unfeasible. Recent interest in a navigable channel to Batesville stems from plans to convert an existing Batesville plant to a bio-fuel plant.

Funds provided in the FY 2009 Omnibus Bill are being used for a two-fold purpose; (1) to conduct a reconnaissance level study to determine Federal interest in a navigation project from Newport to Batesville and (2) to update the PMP for the ongoing general reevaluation study. The PMP update will reflect current project conditions and incorporate current planning and policy guidelines that govern Corp projects. The sponsor is the Arkansas Waterways Commission.

B. Description of Project Area

The White River in its entirety flows approximately 720 miles from its source in the Ozarks to where it empties into the Mississippi River. The river receives water mainly from the Buffalo, Black Cache, Little Red and Strawberry Rivers in Arkansas and the James, North Fork, Current, and Eleven Point Rivers in Missouri. The White River Basin comprises an area of approximately 27,756 square miles, three-fourths of which are in the Ozark Highlands.

The project area encompasses all or parts of twenty-four counties located in eastern Arkansas. These include: Fulton, Randolph, Izard, Sharp, Lawrence, Greene, Stone, Jefferson, Van Buren, Independence, Jackson, Craighead, Cleburne, Poinsett, White, Woodruff, Cross, Lonoke, Prairie, Monroe, St. Francis, Lee, Arkansas, and Phillips. The area is largely rural and agricultural in nature. Some of the major crops in the area include cotton, rice, corn, corn silage, wheat, oats, barley, sorghum, potatoes, vegetables, fruits, nuts, and soybean. Various livestock, dairy and poultry raising are also prevalent in the area. Considerable emphasis is placed on export, storage and processing of goods.

Forested areas are basically divided into two major categories: upland hardwoods and bottomland hardwoods. Most of the study area lies within the coastal plain which is conducive to bottomland hardwood species such as oak, gum, and cypress. Upland hardwood species such as oak and hickory are found in the Ozark foothills and along Grand Prairie Ridge. These forested areas are suitable habitat for an abundance and diversity of wildlife such as raccoons, beavers, minks, deer, river otters, and red foxes. Aquatic species include an abundance and variety of fish; catfish, drum, carp, gizzard shad, small mouth buffalo, spotted gar, largemouth bass, white bass, bluegill and white crappie.

The project will likely be highly controversial, in that there will be significant public dispute as to the size, nature, or effects of the project on economic and environmental costs and/or benefits of the project. However the project will not likely have significant social affects, such as:

- more than negligible adverse impacts on scarce or unique cultural, historic, or tribal resources.
- substantial adverse impacts on fish and wildlife species or their habitat, prior to implementation of mitigation.

Still there may be more than negligible impacts on species listed as endangered or threatened. Potential endangered and threatened species within the project area include: pallid sturgeon, fat pocketbook pearly mussel, pink mucket, interior least tern, speckled pocketbook, american burying beetle, pondberry, curtis pearlymussel, scaleshell, gray myotis, Indiana bat, running buffalo clover, Missouri bladderpod (Threatened), red cockaded woodpecker, turgid blossom, and Cambarus zophonastes (crayfish).

In addition, two candidate species may be found in the project area: yellowcheek darter and Ozark hellbender. Also, it is important to note that the paddlefish and bald eagle are two species of concern. Care will be given to avoid violating the Bald and Golden Eagle Protection Act. There are innumerable "inventory element" species present in the area which have special concern to both the state and global environmental communities. For the 24 counties listed in the project area, more detailed information regarding endangered and threatened species can be found at: http://www.naturalheritage.com/rare-species/rarespecies-search.aspx.

Manufacturing in the area is primarily composed of relatively small and dispersed production plants which produce and export such items as furniture, tool handles, metal tubings, paper products, electrical control devices, and textiles. Many grain storage facilities and transfer/dock facilities have been located at various sites along the river. Riceland Rice, located less than 20 miles from the White River, in Stuttgart, Arkansas Co., Arkansas, has one of the country's largest storage and processing facilities for rice.

C. Project Delivery Team

The Project Delivery Team (PDT) is comprised of those individuals directly involved in the development of the decision document. The individual contact information and disciplines of the District PDT are included in Appendix A of this document. All products will undergo ATR.

D. Model Certification

EC 1105-2-407, Planning Models Improvement Program: Model Certification establishes the process and requirements for certification of planning models. This circular is specifically directed to software used in USACE planning studies, to ensure that only high quality software is being used for key planning decisions. Planning models 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. It includes all models used for planning, regardless of their scope or source. This Circular does not cover engineering models used in planning studies, which will be certified under a separate process to be established in the future.

The computational models used in the White River Navigation Improvement, from the Arkansas Post Canal to Newport, Arkansas, Draft General Re-evaluation Study have been developed by or for the USACE. Model certification and approval for all identified planning models will be coordinated through the PCX as needed. Project schedules and resources will be adjusted to address this process for certification and PCX coordination. The planning models used are:

1. IWR Plan Environmental/Economic model – For environmental restoration, involving habitat unit analysis, this model will be used.
2. Envirofish – The model is a corporate model that was developed by Engineer Research and Development Center, Environmental Lab. EnviroFish is a hydraulic modeling procedure coupled to a spreadsheet that estimates acres of functional reproductive habitat for fishes in riverine floodplains. The hydraulic model is written in JAVA and is designed to directly accept data in direct storage system (DSS) file formats. EnviroFish calculates average daily flooded acres for an array of project alternatives. Acres are weighted using Habitat Suitability Indices (HSIs), which reflect the biological value of water depth, duration of flooding, and land use to fish reproduction. The output of EnviroFish is Habitat Unites, typically used in the Habitat Evaluation Procedure to assess impacts and benefits of water resource projects. EnviroFish can calculate Habitat Units for specific floodplain habitats with each habitat providing different values for spawning and rearing fishes. In order of least to most preferred habitats, they include agricultural fields, fallow fields, bottomland hardwood forests, and permanent water bodies. The user of the software can define hydraulic criteria (magnitude, depth, and duration of flooding) for successful spawning and rearing of fishes, use any combination of land use categories, and calculate Habitat Unites for individual of groups of species providing that adequate data are available to support the analysis. Otherwise, default values are provided to guide the decision-making process of parameterizing the model. Overall, EnviroFish integrates hydrology, land use, and empirically-based knowledge of fish reproductive strategies in riverine floodplains to predict a biological response to different flooding scenarios suitable for standard Federal planning processes. EnviroFish has been used on multiple flood-control projects and has provided a unifying method to determine impacts of a project on fish habitat, and using the same variables, identify numerical requirements of mitigation (e.g., number of acres to reforest) to fully compensate for impacts.
3. Duck-Use Day Model **(**Waterfowl Assessment Methodology) – Historically, waterfowl managers have estimated habitat values and waterfowl population requirements for specific areas and regions by determining daily and period-specific

energy use of birds present or anticipated to use the area and the carrying capacity of habitats in that area. "Duck-use-days" (DUD) or duck-energy-days (DED) represent the energy needs of one duck for one day. Calculations of DUD's for various habitats requires information on: 1) area of specific habitat types, 2) amount of food produced and available to waterfowl species in various habitats, 3) energetic and metabolic values of specific food types, and 4) amount of food consumed by ducks of different species and annual event periods. The model input includes, but is not limited to habitat type, flooding duration and data from USFWS midwinter waterfowl aerial surveys. Model output is the number of waterfowl that can be supported based for a given alternative.

4. Regional Guidebook for Applying the Hydrogeomorphic Approach to Assessing Wetland Functions of Forested Wetlands in the Delta Region of Arkansas, Lower Mississippi River Alluvial Valley - The model is used in the Clean Water Act Section 404 Regulatory Program permit review in Arkansas to consider alternatives, minimize impacts, assess unavoidable project impacts, determine mitigation requirements and monitor the success of mitigation projects. It is also used to plan and design mitigation and restoration projects.

The following are considered engineering models and undergo a different review and approval process for usage. Their certification is not addressed in this Review Plan.

1. MCACES MII - cost estimating models
2. HEC-RAS – hydraulic water profile examination

5. REVIEW REQUIREMENTS

A. District Quality Control (DQC)

DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the White River Navigation Improvement, Section 363 General Re-Evaluation Study PMP. It is managed by the Memphis District in accordance with the Major Subordinate Command (MSC) and district Quality Management Plan (QMP). The DQC and may be conducted by staff in the home district as long as they are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a QMP providing for seamless review, quality checks and reviews, supervisory reviews, PDT reviews, etc. Additionally, 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 approval by the District Commander. For the White River Navigation Improvement, from the Arkansas Post Canal to Newport, Arkansas, Section 363 General Re-Evaluation Study, non-PDT members and/or supervisory staff will conduct this review for major draft and final products. It is expected that the Major Subordinate Command (MSC)/District QMP addresses the conduct and documentation of this fundamental level of review. A Quality Control Plan (QCP) is included in the PMP for this study and addresses DQC, which is required for this study. DQC is not addressed further in the Review Plan.

B. Agency Technical Review (ATR)

ATR will be conducted or managed by the lead Planning Center of Expertise (PCX). ATR (which replaces the level of review formerly known as Independent Technical Review [ITR]) is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district that is not involved in the day-today production of a project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team reviews the various work products and assures that all the parts fit together in a coherent whole. ATR teams will be comprised of senior USACE personnel (Regional Technical Specialists (RTS), etc.), and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the home MSC. EC 1105-2-408 requires that DrChecks (ProjNet) (https://www.projnet.org/projnet/) be used to document all ATR comments, responses, and associated resolution accomplished. This PRP outlines the planned approach for meeting this requirement for the White River Navigation Improvement, from the Arkansas Post Canal to Newport, Arkansas, Draft General Re-evaluation Study. ATR is required for this study.

C. Independent External Peer Review (IEPR)

This 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. IEPR is generally for feasibility and reevaluation studies and modification reports with EISs. IEPR is managed by an outside eligible organization (OEO) that is described in Internal Revenue Code Section 501(c) (3), is exempt from Federal tax under section 501(a), of the Internal Revenue Code of 1986; is independent; is free from conflicts of interest; does not carry out or advocate for or against Federal water resources projects; and has experience in establishing and administering IEPR panels. The scope of review will address all the underlying planning, engineering, including safety assurance, economics, and environmental analyses performed, not just one aspect of the project. The White River Navigation Improvement, from the Arkansas Post Canal to Newport, Arkansas, Section 363 General Re-Evaluation Study does meet the risk and magnitude criteria. Information presented in the decision document will not be based on novel methods, nor contain precedent-setting methods or models, but may present complex challenges. The potential for failure or controversy and uncertainties of predictions and outcomes is considered likely. Costs associated with this project are estimated to be $41.9 million ($30 million Federal and $11.9 million non-Federal) at the October 1996 price levels. It is assumed that at today's price levels, the project would exceed the $45 million threshold for completing an IEPR. For these reasons, an IEPR will be performed. DrChecks (ProjNet) (https://www.projnet.org/projnet/) will be used to document all IEPR comments and responses.

D. Policy and Legal Compliance Review

In addition to the technical reviews described above, decision documents will be reviewed throughout the study process for their compliance with law and policy. These reviews culminate in Washington-level 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 Chief of Engineers. Guidance for policy and legal compliance reviews is addressed further in Appendix H, ER 1105-2-100. The technical review efforts addressed in this Circular are to augment and complement the policy review processes by addressing compliance with published Army policies pertinent to planning products, particularly policies on analytical methods and the presentation of findings in decision documents. DQC and ATR efforts are to include the necessary expertise to address compliance with published planning policy. Counsel will generally not participate on ATR teams, but may at the discretion of the district or as directed by higher authority. When policy and/or legal concerns arise during DQC or ATR efforts that are not readily and mutually resolved by the PDT and the reviewers, the district will seek issue resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H, ER 1105-2-100. IEPR teams are not expected to be knowledgeable of Army and administration policies, nor are they expected to address such concerns. An IEPR team should be given the flexibility to bring important issues to the attention of decision makers. Legal reviews will be conducted concurrent with ATR of the preliminary, draft, and final general re-evaluation report and environmental impact statement.

E. Safety Assurance Review

This safety assurance review (SAR)will address the adequacy, appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety, and welfare. The purpose of the Safety Assurance Review is to ensure that good science, sound engineering, and public health, safety, and welfare are the most important factors that determine a project's fate. The White River Navigation Improvement, from the Arkansas Post Canal to Newport, Arkansas, Section 363 General Re-Evaluation Study is an inland navigation improvement project. The project meets the risk and magnitude criteria that would necessitate performing an (SAR). Information presented in the decision document will not be based on novel methods, nor contain precedent-setting methods or models, but it may present complex challenges. The potential for failure or controversy and uncertainties of predictions and outcomes is considered likely.

F. Planning Center of Expertise (PCX) Coordination

This project is an inland navigation project. Pursuant to EC 1105-2-408, the District will coordinate with the Inland Navigation Planning Center of Expertise (PCXIN) in the Great Lakes and Ohio River Division (LRD) Planning Center located in Huntington, West Virginia, as the lead PCX to organize teams to perform the reviews at various stages throughout the study. This PCX is responsible for the accomplishment and quality of ATR and IEPR for this study. The PDT Team Lead will coordinate with Cost Engineering Directorate of

Expertise (DX) at Walla Walla District for ATR of the Mii cost estimates, construction schedules, and contingencies for all documents requiring Congressional authorization. The decision document will require Congressional authorization.

6. REVIEW PROCESS AGENCY TECHNICAL REVIEW (ATR)

A. General

The ATR process will be conducted throughout the study process. Once the ATR team has been identified, copies of PDT meeting notes will be provided to ATR team for information. ATR participation in PDT meetings on a quarterly basis (at a minimum) will be recommended.

As part of the QCP for the White River Navigation Improvement Draft General Re-evaluation Study, an ATR team will be formed to perform periodic reviews of the study efforts, including the project assumptions, analyses, and calculations, as needed throughout the planning study process.

The ATR team will meet with PDT members on a quarterly basis or as needed. These quarterly meetings will be documented as required by ER 1165-2-203. Coordination throughout the study will be accomplished through individual contact between the PDT and the ATR team. The ATR will focus on the following:

- Review of the planning study process,
- Review of the methods of analysis and design of the alternatives and recommended plan,
- Compliance with program and NEPA requirements, and
- Completeness of study and support documentation

The ATR team will document the findings of their review and forward an executive summary to the Memphis District, thru the PCX.

B. ATR Team

The ATR is best conducted by experienced peers within the same discipline who are not directly involved with the development of the study or project being reviewed. Management of ATR reviews are conducted by professionals outside of the home district. For planning feasibility-level studies the ATR is managed by the appropriate Planning Center of Expertise (PCX) with appropriate consultation with the allied Communities of Practice such as engineering and real estate. The Inland Navigation PCX is responsible for identifying the ATR team members. The ATR team members will reside outside the Memphis District with the ATR team leader from outside the Mississippi Valley Division. The ATR team has been identified and the names and disciplines of the ATR team will be included in Appendix A of this document. The public, including scientific or professional societies, may elect to nominate potential external peer reviewers, subject to the approval of the PCX.

It is anticipated that the review team will consist of six reviewers, one from each of the following disciplines: engineering design / hydraulics & hydrology, economics, environmental resources / EIS, real estate / Lands, plan formulation, and cost engineering. A brief description of the disciplines required for the ATR team are identified below:

a. Engineering Design/ Hydraulics & Hydrology – the reviewer(s) should have extensive knowledge of HEC-RAS models, channel design and studies relative to inland navigation. (10 years experience required.)

b. Economics – the reviewer should have a strong understanding of economic models or studies relative to inland navigation. (10 years experience required.)

c. Environmental Resources / EIS – the reviewer(s) should have strong background in aquatic ecosystems, the EIS/NEPA process, and Arkansas environmental laws and regulations. (10 years experience required.)

d. Real Estate / Lands – the reviewer should have knowledge in reviewing RE Plans for feasibility studies and general re-evaluations (e.g. navigation servitude). (10 years experience required.)

e. ATR Manager / Plan Formulation – the reviewer(s) should have strong people skills and be familiar with the ATR process, as well as having a strong knowledge in current planning policies and guidance. (10 years experience required.)

f. Cost Engineering – the reviewer should have a strong knowledge of the cost estimating practices for inland draft navigation projects, especially underwater dike systems. (10 years experience required.)

C. Review Cost

The cost for ATR is estimated to be $50,000.

7. REVIEW PROCESS INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

A. General

As part of the QCP for the White River Navigation Improvement Draft General Re-evaluation Study, an IEPR team will be formed to perform a review of the study efforts, including the project assumptions, analyses, and calculations, as needed throughout the planning study process.

This IEPR will be documented in a detailed Review Report. The Review Report shall disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer.

- Include the charge to the reviewers.
- Describe the nature of their review and their findings and conclusions.
- 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.

DrChecks (ProjNet) (https://www.projnet.org/projnet/) will be used to document all IEPR comments and responses to the Review Report The comments and responses to the Review Report shall be used to explain the agreement or disagreement with the views expressed in the report, the actions undertaken or to be undertaken in response to the report, and the reasons those actions are believed to satisfy the key concerns stated in the report (if applicable).

The PCX shall disseminate the final Review Report as necessary, and shall forward all review documents to the Memphis District. Any issues arising out of the Review Report that would require a change to the decision document should be highlighted, so that changes can be incorporated into the decision document. A summary report shall be prepared by the IEPR team and submitted to the Memphis District thru the PCX, for use in the Chief of Engineers' report for decision documents.

The IEPR team will meet with PDT members as needed. These meetings will be documented as required by ER 1165-2-203. Coordination throughout the study will be accomplished through individual contact between the PDT and the IEPR team. The IEPR will focus on the following:

- Review of the planning study process,
- Review of the methods of analysis and design of the alternatives and recommended plan,
- Compliance with program and NEPA requirements, and
- Completeness of study and support documentation

B. IEPR Team

The IEPR is best conducted by experienced peers within the same discipline who are not directly involved with the development of the study or project being reviewed. Management of IEPR reviews are conducted by professionals outside of the USACE but will be nominated by USACE. For planning feasibility-level studies the IEPR is managed by the appropriate Planning Center of Expertise (PCX) with appropriate consultation with the allied Communities of Practice such as engineering and real estate. The Inland Navigation PCX is responsible for identifying the IEPR team members. The IEPR team members and team leader will reside outside of the USACE. The IEPR team has been identified and the names and disciplines of the IEPR team will be included in Appendix A of this document. The public, including scientific or professional societies, may elect to nominate potential external peer reviewers, subject to the approval of the PCX.

It is anticipated that the review team will consist of six reviewers, one from each of the following disciplines: engineering design / hydraulics & hydrology, economics, environmental resources / EIS, real estate / Lands, plan formulation, and cost engineering. A brief description of the disciplines required for the IEPR team are identified below:

a. Engineering Design/ Hydraulics & Hydrology – the reviewer(s) should have extensive knowledge of HEC-RAS models, channel design and studies relative to inland navigation. (10 years experience required.)

b. Economics – the reviewer should have a strong understanding of economic models or studies relative to inland navigation. (10 years experience required.)

c. Environmental Resources / EIS – the reviewer(s) should have strong background in aquatic ecosystems, the EIS/NEPA process, and Arkansas environmental laws and regulations. (10 years experience required.)

d. Real Estate / Lands – the reviewer should have knowledge in reviewing RE Plans for feasibility studies and general re-evaluations (e.g. navigation servitude). (10 years experience required.)

e. IEPR Manager / Plan Formulation – the reviewer(s) should have strong people skills and be familiar with the IEPR process, as well as having a strong knowledge in current planning policies and guidance. (10 years experience required.)

f. Cost Engineering – the reviewer should have a strong knowledge of the cost estimating practices for inland draft navigation projects, especially underwater dike systems. (10 years experience required.)

C. Review Cost

Based on EC 1165-2-209 guidelines, the cost for the IEPR is estimated to be approximately $337,500.

8. PROJECT REVIEW PLAN

The components of the PRP were developed pursuant to the requirements of EC 1105-2-408, EC 1105-2-410, and EC 1165-209.

A. General Information

The decision documents that will undergo peer review are the Draft General Re-evaluation Report (including Economic Appendix), Environmental Assessment, and Engineering Appendix. The project is a fully Federally funded inland navigation project, and as such, there are no products or work-in-kind provided by the non-Federal sponsor, Arkansas Waterways Commission, during this phase. During the Construction phase, the project

sponsor will be responsible for cost-sharing. There will likely be significant interagency interest from such agencies as the US Fish and Wildlife Service. The project will not likely involve significant threat to human life. The decision document will require Congressional authorization.

B. Scientific Information

The final general re-evaluation report and EA (and supporting documentation) are anticipated to contain standard engineering, environmental and economic analyses and information; therefore no influential scientific information is likely to be contained in any of the documentation.

C. Timing

Subject to availability of funds, the peer review process will begin in April 2010 with the initiation of the ATR team and subsequent review of the FSM package during the initial plan formulation phase of the study. The IEPR will take place in 2012.

Review Schedule (Subject to Funds Availability)

TASK	**Proposed Date**
Update of Project Review Plan	July 2009
Coordinate with MSC and post on website	August 2009
PCX identifies ATR team	Jan 2010
ATR review of Feasibility Scoping Meeting (FSM) decision documents	April 2010
FSM	July 2010
Review of Models	2010 - 2012
ATR of AFB decision documents	July 2011
IEPR of AFB decision documents	2012

D. Public Comment

A Public Involvement Plan will be formulated to ensure public involvement throughout the general re-evaluation study process. Public comments will be made available on the project website. Significant and relevant public comments will be provided to reviewers before they conduct their review.

TASK	START DATE	FINISH DATE
Public Scoping Meeting	TBD	TBD
Public Involvement Plan	TBD	TBD
Public Review of Draft Gen Re-eval Report & EA	2012	2012

E. Dissemination of Public Comments

Proceedings from all public meetings and comments received during public review will be included in the draft EA with responses included. Comments and corresponding responses will be summarized in the draft EA and provided to the ATR team.

F. Posting Review Plans

a. The Review Plan will be posted on the MVM's public website. In posted documents, lists of the names of USACE reviewers may be displayed. PCX, MSC and HQ postings will link to the district's site. The Memphis District shall establish a mechanism on the MVM web site for allowing the public to comment on the adequacy of the Review Plans, and shall consider public comments on Review Plans.

b. This review plan will link to the CECW-CP site that lists all Review Plans.

G. Points of Contact

Questions about this Review Plan may be directed to [redacted], Memphis District Planning, [redacted], Study Manager [redacted], or [redacted], Program Manager PCX Inland Navigation [redacted].

WHITE RIVER NAVIGATION IMPROVEMENT PROJECT
FROM THE ARKNASAS POST CANAL TO NEWPORT, ARKANSAS SECTION 363
GENERAL RE-EVALUATION
PROJECT REVIEW PLAN

APPENDIX A – Review Plan Teams

PROJECT DELIVERY TEAM

NAME	TITLE/ORG.	PHONE	EMAIL
[redacted]	Lead Hydraulic Engineer CEMVM-EC-H	[redacted]	[redacted]
[redacted]	Hydraulic Engineer CEMVM-EC-H	[redacted]	[redacted]
[redacted]	River Engineer CEMVM-EC-H	[redacted]	[redacted]
[redacted]	Geographic Information System CEMVM-EC-G	[redacted]	[redacted]
[redacted]	Geotechnical Engineer CEMVM-EC-G	[redacted]	[redacted]
[redacted]	Cost & Relocations CEMVM-EC-D	[redacted]	[redacted]
[redacted]	Civil Design Branch CEMVM-EC-D	[redacted]	[redacted]
[redacted]	Construction Branch CEMVM-EC-C	[redacted]	[redacted]
[redacted]	Supervisory Project Manager CEMVM-PM-P	[redacted]	[redacted]
[redacted]	Senior Project Manager CEMVM-PM-P	[redacted]	[redacted]
[redacted]	Study Manager CEMVM-PM-P	[redacted]	[redacted]
[redacted]	Economist CEMVM-PM-E	[redacted]	[redacted]
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