MEMORANDUM FOR THE DIRECTOR OF CIVIL WORKS


1. **General.** The dual-purpose navigation and ecosystem restoration plan for the Upper Mississippi River and Illinois Waterway (UMR-IWW) was authorized by Title VIII of the Water Resources Development Act of 2007 (WRDA 07) substantially in accordance with the plan in the report of the Chief of Engineers dated 15 December 2004. While it does not change the features of the plan in the Chief of Engineers Report, the WRDA 07 authorization provides additional implementation and reporting requirements. The authorized plan for navigation includes small scale and nonstructural measures consisting of mooring facilities at seven locations, switchboats at Locks 20-25 on the Upper Mississippi River, and development and testing of an appointment scheduling system (traffic management) at an authorized cost of $256 million. Large scale navigation measures consist of new 1,200-foot locks at Locks 20, 21, 22, 24 and 25 on the Upper Mississippi River and LaGrange Lock and Peoria Lock on the Illinois Waterway at an authorized cost of $1.948 billion including mitigation. The ecosystem restoration portion of the plan consists of large scale projects for fish passage and dam point control to facilitate water level management at locations specifically identified in the feasibility study and a programmatic authorization for various types of ecosystem restoration projects with a total single project cost not to exceed $25 million and a limitation of $35 million per fiscal year for land acquisition. The total ecosystem restoration authorized cost is $1.717 billion of which not more than $245 million shall be available for fish passage and not more than $48 million shall be available for dam point control.

2. **Funding.** The UMR-IWW has not been budgeted for Preconstruction Engineering and Design (PED) but a total of $24 million was appropriated for PED in FY05 and FY06. The FY07 work plan included $14 million for PED and the Energy and Water Development and Related Agencies Appropriations Act of 2008 included $8.856 million for PED. There is a capability to initiate construction of projects for navigation mooring cells and ecosystem restoration in FY09. This implementation guidance does not constitute a commitment to budget for the UMR-IWW but is issued in recognition that Congress has appropriated PED funding and may appropriate construction funding in the future.
3. **Incremental Adaptive Implementation.** The UMR-IWW project will be implemented under an incremental adaptive management approach. The adaptive management approach will focus on delivering meaningful navigation and restoration benefits as early as possible, scheduling projects to provide early benefits and learning that can be applied to future projects, scheduling projects recognizing their mutual dependency in realizing navigation and ecosystem restoration system benefits, and phasing large projects to provide early benefits.

4. **Navigation Improvements - Small Scale and Nonstructural Measures.** The mooring facilities authorized by Section 8003(a) will be implemented through the preparation and approval of Design Documentation Reports by the District commands in accordance with the process outlined in ER 1110-2-1150. Implementation of a pilot program to test the effectiveness of switchboats will be implemented in accordance with an implementation plan coordinated with the vertical project development team and approved by the Division Commander. Appropriate traffic management measures, particularly traffic management measures during lock construction, will be coordinated with the vertical project development team and approved by the District Commander with no further delegation.

5. **Navigation Improvements - New Locks.** The new locks authorized by Section 8004(b) will be implemented through the preparation and approval of Design Documentation Reports by the District commands without further delegation in accordance with the process outlined in ER 1110-2-1150 and in accordance with policies under development for Safety Assurance Review, and External Peer Review of post authorization documents, as applicable.

6. **Mitigation for Navigation Improvements.** Mitigation for small scale and nonstructural measures and new locks, including any acquisition of lands or interests in lands, shall be undertaken or acquired concurrently with lands and interests in land for the projects and physical construction required for the purposes of mitigation shall be undertaken concurrently with the physical construction of the locks. Mitigation will be accomplished in cooperation with Federal and State resource agencies.

7. **Ecosystem Restoration.**

   a. **General.** The ecosystem restoration plan authorized in Title VIII of WRDA 2007 is the initial increment of a framework plan developed by identifying broad ecosystem goals to meet the planning objective of restoring the ecosystem of the UMR-IWW including addressing the cumulative impacts and ongoing effects of the navigation
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system. These broad goals were further refined into systemic goals and site specific objectives which were the basis of identifying the general locations, sizes, shapes, and features of projects. These potential projects were combined into alternatives and evaluated. The potential projects were developed at less than a feasibility level of detail. The authorized ecosystem restoration first increment plan includes about 225 projects in three categories as presented in the following paragraphs.

b. Fish Passage and Dam Point Control. The authorized plan includes construction of fish passage at dams 4, 8, 22, and 26 on the UMR along with engineering and design for fish passage at dam 19 on the UMR. Dam point control will augment hinge point control for water level management and is authorized at dams 16 and 25 on the UMR. The total authorized cost for fish passage is $245 million and $48 million is authorized for dam point control. The projects will be implemented through the preparation and approval of feasibility level Project Implementation Reports (PIR). Approval of these reports is delegated to the Chief of Engineers with no further delegation. As measures that modify the operation of structures for navigation, these projects are 100 percent Federal funded. Land or interest in land will be from willing sellers through conveyance of fee title or flood plain conservation easement except that condemnation will be used when title cannot be cured and condemnation may be used where agreement cannot be reached with the landowner on price and the landowner concurs in use of condemnation.

c. Ecosystem Restoration Projects Located Below Ordinary High Water Mark or in Connected Backwater; That Modify the Operation of Structures for Navigation; or That Are Located on Federally Owned Land. This consists of about 210 projects as generally described in the feasibility report that are located below ordinary high water or on connected backwater; that modify operation of structures for navigation; or that are located on Federally-owned land. These projects represent approximately $1.1 billion of the total initial authorization of $1.7 billion for ecosystem restoration and include water level management, island building, backwater restoration, side channel restoration, wing dam alteration, island and shoreline protection, topographic diversity improvement, and dam embankment lowering. The projects will be implemented through the preparation and approval of feasibility level PIRs. The approval of these reports is delegated to the Chief of Engineers with further delegation to the Mississippi Valley Division (MVD) Commander. For projects with a total cost of $5 million or less, report approval authority is delegated to the District Commander with no further delegation. These projects are 100 percent Federal and have a total cost limit of $25 million per project. Except for temporary construction easements, these projects should generally require no acquisition of land or easements. Where limited acquisition of fee title is required, for example at the top of bank for an island or shoreline protection project, such acquisition can be accomplished at 100 percent Federal cost and Federal acquisition as long as the land or interest in land is acquired from willing sellers. Condemnation will be used when title
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cannot be cured and condemnation may be used where agreement cannot be reached with the landowner on price and the landowner concurs in use of condemnation. Operation, maintenance, replacement, repair and rehabilitation (OMRR&R) responsibility for these projects is with the Federal or State agency managing the land and/or water area on which the project is located except that, in accordance with the recommendation in the Chief of Engineer’s report, the Corps of Engineers may undertake, at full Federal expense, the major rehabilitation of any measure damaged by a major flood event.

d. Ecosystem Restoration Projects Involving Land and Easement Acquisition–Primarily Floodplain Restoration Projects. This consists of about 35,000 acres of floodplain acquisition for purposes of floodplain connectivity and wetland and riparian habitat protection and restoration at an estimated total cost of $300 million. Projects will be implemented in two phases: the feasibility phase and, assuming construction funds are appropriated, the design and implementation phase under a process similar to the implementation of continuing authority projects as described in Appendix F of ER 1105-2-100. Project approval is delegated to the Chief of Engineers with further delegation to MVD and no further delegation. These projects require cost sharing with a qualified non-Federal sponsor in accordance with Section 221 of the Flood Control Act of 1970 (42 U.S.C. 1962d-5b). A non-Federal sponsor may include a nonprofit entity with the consent of the affected local government, primarily the State, in which the project is located. The non-Federal sponsor must meet the requirements specified in section F-3h of Appendix F of ER 1105-2-100. The cost sharing applicable to the project is 65 percent Federal and 35 percent non-Federal and the non-Federal sponsor has the responsibility to OMRR&R the completed project except that the Corps of Engineers may cost share in the major rehabilitation of any measure damaged by a major flood event. The non-Federal sponsor will provide all lands, easements, and rights-of-way including lands for the disposal areas; perform or assure the performance of all relocations; and provide any required improvements to disposal areas (LERRD). Land or interest in land will be from willing sellers through conveyance of fee title or flood plain conservation easement except that condemnation will be used when title cannot be cured and condemnation may be used where agreement cannot be reached with the landowner on price and the landowner concurs in use of condemnation. The value of LERRD will be a part of project costs and be credited toward the non-Federal 35 percent share. The non-Federal sponsor shall provide during the period of construction any additional funds as necessary to make its total contribution equal to 35 percent. These floodplain restoration projects must meet ecosystem goals for restoring floodplain structure and function including opportunities for restoration of lateral connectivity and in addition to land acquisition must include active restoration measures. Consistent with the connectivity and floodplain restoration goals established in the Chief of Engineers Report of 15 December 2004 and the reports of the district and division engineers which require the acquisition of floodplain or formerly floodplain areas, there is no maximum land acquisition ceiling.
established for these projects. The policy on land intensive ecosystem restoration projects and voluntary waiver of reimbursement of the value LERRD that exceed the non-Federal sponsor’s percentage share of total project costs will not apply. Value of LERRD above the required 35 percent non-Federal share will be reimbursed, subject to the availability of funds, limitations on total project costs, and the annual program limits for land acquisition. The total cost of any single project may not exceed $25 million. Not more than $35 million in any fiscal year may be used for land acquisition. This limitation applies to all land acquisition including any acquisition required for the projects described in paragraphs 6B and 6C.

e. Project Implementation Process for 100 Percent Federal Project.

(1) PIR Content. The Chief of Engineers’ report and the reports of the district and division commanders established a Federal interest in the ecosystem restoration plan, established the justified scope of the plan, and identified preliminary locations of projects. The remaining objective is the detailed formulation and description of recommended project plans. This objective will be accomplished by preparation of a PIR decision document for the projects. PIRs will be initiated upon appropriation of Preconstruction Engineering and Design (PED) or Construction General funds based on priorities established in a collaborative process with the Federal agency partners, the five states, non-governmental organization (NGO) partners, other stakeholders and the Advisory Panel (See paragraph 3.i.). Minimum requirements for a PIR are: (1) a clear description of the recommended plan; (2) project justification based on reasonably maximizing net National Ecosystem Restoration (NER) benefits, demonstrating the selected plan is cost effective and justified to achieve the desired level of outputs, and considering the degree to which the project contributes to learning in an adaptive management context; (3) documentation of compliance with appropriate Federal, State, and local environmental and regulatory requirements; (4) a description of the real estate required for the project and a completed Real Estate Plan, in accordance with Chapter 12 of ER 405-1-12; (5) identification of the anticipated operation, maintenance, repair, replacement, and rehabilitation (OMRR&R) activities, including estimated costs; (6) description of non-Federal OMRR&R responsibilities, as appropriate; (7) the feasibility level ITR certification; and (8) District Counsel statement of legal sufficiency for the decision documentation and NEPA compliance. PIRs for the specifically authorized fish passage and dam point control projects will be evaluated under the criteria of EC 1105-2-408 and the 30 March 2007 Director of Civil Works memorandum on the peer review process to assess the need for external peer review. PIRs for projects of $25 million or less which are authorized programmatically will generally not be subject to external peer review due to their limited scope and complexity and non-controversial nature except for exceptional circumstances as defined in the implementing guidance for
Section 2034 of WRDA 2007. In addition, in accordance with the requirements of Section 8004(d), the PIR will establish ecosystem restoration goals and specific performance measures indicators: establish the without-project condition or baseline for each performance indicator; and for each separable element of the ecosystem restoration, identify specific target goals for each performance indicator. Performance measures identified in the current Budget EC should be considered including acres of habitat restored, river miles of habitat restored, and acres/river miles of nationally significant habitat restored per dollar invested. Other performance measures identified by Section 8004(d)(2) include specific measurable environmental outcomes such as changes in water quality or the well being of indicator species, the population and distribution of which are representative of the abundance and diversity of ecosystem-dependent aquatic and terrestrial species. The PIR shall include a monitoring plan for the performance measures including a timeline to achieve the identified target goals and a timeline for the demonstration of project completion. The scope and complexity of goal setting and performance monitoring will be consistent with the scope and complexity of the project. The PIR will include documentation that the project and monitoring plan have been developed in consultation with the Department of the Interior and the involved State. The MVD Commander will establish the details of the PIR requirements and format; however, PIRs should provide feasibility level of detail required to support decision making and budget requests.

(2) PIR Approval Process. The single milestone in the PIR approval process is an Alternative Formulation Briefing that takes place after alternative plans have been formulated and prior to release of the draft PIR for public review. Additional milestones for fish passage and dam point control projects may be added at the discretion of the MVD Commander. The purpose of the AFB is to ensure that plans have been properly formulated, any legal and policy issues have been identified and resolution has been reached, and MVD concurs with the plan that will likely proceed into the design and implementation phase. The HQ MVD Regional Integration Team (RIT) participation will be limited to PIRs on fish passage and dam point control and cases where there are policy issues requiring HQ resolution. Approval of the PIR will be by letter of the MSC Commander to the District Commander, with a copy furnished to the MVD RIT. The approval letter will certify that the requirements for approving the PIR have been satisfied; summarize the findings, conclusions, and rational for approving the decision document; and certify that the project addressed in the PIR is justified. For the specifically authorized fish passage and dam point control projects, the PIR will be submitted to the MVD RIT for HQ approval. The feasibility phase ends upon approval of the PIR. Upon appropriation and allocation of funds for construction, the project shall be implemented through execution of the activities that would normally be included in the PED and construction phases of a specifically authorized project. Prior to initiation of construction in those cases where the project OMRR&R will be accomplished by the
U.S. Fish and Wildlife Service or a state, the District Engineer will execute an agreement with the appropriate entity for the OMRR&R of the completed project. The agreement will be similar to the Memorandums of Agreement currently executed in the Environmental Management Program. In those limited cases where land or interest in land must be acquired, construction contracts should not be solicited until the District Chief of Real Estate has certified in writing that sufficient real property interests are available to support construction under such contracts. More detail on limitations on solicitation of contracts and contract bid opening is provided in paragraphs F-11 e. and f. of Appendix F of ER 1105-2-100.


(1) Feasibility Cost Sharing Agreement (FCSA). Upon appropriation of funds up to $100,000 will be allocated to the project for the preparation of a Project Management Plan for the PIR and negotiation of a FCSA. No FCSA is required if the feasibility phase can be completed for $100,000 or less. Any feasibility costs in excess of $100,000 will be shared 50/50 with the non-Federal sponsor pursuant to the terms of a FCSA executed by the District Commander and the non-Federal sponsor. An adaptation of the Continuing Authorities Program FSCA reflecting the authority of Section VIII of WRDA 2007 will be used as a base and close coordination maintained through the vertical team in development of the initial study specific FCSA. Work will be initiated in HQ on a model FCSA and delegation of approval authority for the UMR-IWW ecosystem restoration program. Until the model FCSA is approved and delegation of approval authority is provided, the MVD Commander must forward to the MVD RIT one hardcopy and an electronic copy of a FCSA package containing: a clean copy of the negotiated draft FCSA; a copy of the draft FCSA with the deviations from the model CAP FCSA along with detailed reasons for each deviation; Certificate of Legal Review signed by the District Counsel; current letter of intent from the non-Federal sponsor, and sponsor self-certification of financial capability. All documents requiring signature (Certificate of Legal Review, letter of intent, and sponsor self-certification of financial capability) must be scanned so that required signatures are contained in the electronic file. The FCSA will be executed upon HQ approval. No funds in excess of the $100,000 will be allocated to the project until the FCSA is executed. Subsequent to execution of the FCSA, no work may be initiated until the non-Federal sponsor’s appropriate proportional share of costs over $100,000 has been made available either in cash or through an agreement on a schedule for an estimated value of non-Federal feasibility work. In accordance with the principles of Section 105(a) of WRDA 86, as amended, the non-Federal sponsor may be afforded credit against its share of study costs for the value of non-Federal feasibility work performed during the feasibility phase. Credit afforded is
limited to credit for the non-Federal work that does not result in any reimbursement to the non-Federal sponsor, including consideration of cost incurred by the non-Federal sponsor for participation in the study coordination team and certain audit-related activities. (See F-15 b. (2) of Appendix F of ER 1105-2-100).

(2) PIR Content. The PIR requirements are the same as for 100 percent Federal projects except that the PIR must also include a completed Real Estate Plan consistent with the requirements of Chapter 12, ER 405-1-12; the non-Federal sponsor self-certification of financial capability; District Real Estate certification that the non-Federal sponsor has the capability to acquire and provide the required real estate interests; and a detailed description of the non-Federal sponsor's local cooperation requirements. A detailed discussion of the interest in land required for ecosystem restoration is contained in paragraph F-20b.(2) of ER 1105-2-100.

(3) PIR Approval Process. The approval authority for the PIRs is delegated to the Chief of Engineers with further delegation to the MVD Commander. The requirements for an AFB are the same as for 100% Federal projects.

(4) Project Partnership Agreement (PPA). Subject to appropriation of construction funding, the design and implementation phase will be conducted under the provision of a PPA executed by the District Commander and the non-Federal sponsor. Since there is no approved model agreement for the Upper Mississippi River and Illinois Waterway (UMR-IWW) ecosystem restoration program and WRDA 2007 contained changes that will impact all model PPAs, the previously approved model agreement and implementing memoranda for single purpose ecosystem restoration should be used as a base and close coordination maintained through the vertical team in development of the initial project specific design/construction PPA. Work will be initiated in HQ on a model PPA and delegation of approval authority for the UMR-IWW ecosystem restoration program. Until the model PPA and delegation of approval authority is approved, the MVD Commander must forward to the MVD RIT one hardcopy and an electronic copy of a PPA package containing: a clean copy of the negotiated draft agreement; a copy of the draft agreement with the deviations from the single purpose model ecosystem restoration agreement indicated by redline/strikeout along with detailed reasons for each deviation; Certificate of Legal Review signed by the District Counsel; PPA Checklist (the CAP Checklist should be adapted and used); current letter of intent from the non-Federal sponsor, and sponsor self-certification of financial capability. All documents requiring signature (PPA checklist, Certificate of Legal Review, letter of intent, and sponsor self-certification of financial capability) must be scanned so that required signatures are contained in the electronic file. The PCA will be executed upon HQ approval.
(5) **Credit for In-Kind Contributions.** Section 2003 (a) (4) of WRDA 2007 established that a PPA may provide credit to the non-Federal share of the cost of a project for the value of in-kind contributions made by the non-Federal interests. Implementing guidance for this provision is under development.

(6) **Construction.** Upon appropriation and allocation of Construction, General funds the project shall be implemented through execution of the activities that would normally be included in the PED and construction phases of a specifically authorized project. Construction contracts should not be solicited until the District Chief of Real Estate has certified in writing that sufficient real property interests are available to support construction under such contracts. In exceptional circumstances the District Commander may proceed and issue a solicitation contrary to this general policy after full assessment of the risks and benefits of proceeding and solicitation documents should advise potential bidders of such facts. However, sufficient real property interests must be available to support implementation under a contract before bids are opened. More detail on limitations on solicitation of contracts and contract bid opening is provided in paragraphs F-11 e. and f. of Appendix F of ER 1105-2-100.

g. **Monitoring and Adaptive Management.** The authorized ecosystem restoration plan includes systemic and project specific monitoring and adaptive management at a total cost of about $300 million. The systemic program will include ecosystem modeling, biological data and physical data collection and adaptation of the plan in response to the results of the systemic evaluation. On an individual project level monitoring will assess the project’s success in meeting goals and performance measures. The results will be used to adapt the project or future projects to the lessons learned. The construction phase of the project extends through completion of the project specific monitoring and adaptive management. For cost shared projects, project monitoring and adaptive management are shared as a project cost. The one-percent limit on monitoring costs and five year limit on duration of monitoring, the prohibition on adaptive management applicable to CAP projects, and the three percent limit on adaptive management costs do not apply but monitoring and adaptive management must be accomplished within the framework and cost authorized for those purposes as reflected in the feasibility report. In accordance with Section 8004 (c) of WRDA 2007, long term resource monitoring, computerized data inventory and analysis and the applied research program will be carried out at 100% Federal cost and shall consider and adopt the monitoring program established for the Environmental Management Program. The long term resource monitoring program authorization is limited to $10,420,000 per fiscal year if such sum is not appropriated for the EMP Program. The long term resource monitoring is only one part of the authorized systemic monitoring and adaptive management program.
h. Consultation and Funding Agreements. In accordance with Section 8004 (e) the ecosystem restoration program will be carried out in consultation with the Secretary of the Interior and the five States. Section 8004(e)(2) provides authority for the Secretary of the Army to transfer funds to the Secretary of the Interior, the Upper Mississippi River Basin Association and the five States for the planning, implementation, and evaluation of the ecosystem restoration projects and programs. In general, fund transfers will be made for specific tasks based on considerations of cost effectiveness and the expertise and capability of the Department of the Interior, the Upper Mississippi River Basin Association and the five states to accomplish the task. Transfers will not be made for coordination activities that are part of Federal and State agencies and the Upper Mississippi River Basin Association’s usual responsibilities. The fund transfers will support work on 100 percent Federal projects or systemic or program wide activities and not cost shared projects and is only for work to be accomplished by State and agency personnel and not by contract. The authority to execute transfers is delegated to the MVD Commander with further delegation to the District Commanders for funding transfers not exceeding a total of $200,000 to any of the listed States and agencies in any fiscal year and for funding transfers that are not for project construction. For cost shared projects with the states, planning, implementation and evaluation activities would be accomplished with state funds with appropriate credit under the terms of a FCSA or PPA.

i. Implementation Reports. In accordance with Section 8004 (g), in 2009 and every 4 years thereafter, MVD will prepare an implementation report that will assess the progress in meeting the goals for ecosystem restoration projects. Each report will include the baselines, milestones, goals and priorities for the projects completed during the reporting period. MVD will establish a schedule for the first implementation report in consultation with the vertical team that will be submitted to Committee on Environment and Public Works of the Senate and Committee on Transportation and Infrastructure of the House of Representatives not later than 30 June 2009.

j. Advisory Panel. In accordance with Section 8004 (g) (2), the Secretary shall appoint and convene an Advisory Panel to provide independent guidance in the development of the implementation report. The authority to appoint and convene the Advisory Panel will be retained by the Secretary of the Army. The panel shall include one representative of each of the five States’ resource agencies or a designee of the Governor of the State; one representative of the Department of Agriculture; one representative of the Department of Transportation; one representative of the United States Geological Survey; one representative of the United States Fish and Wildlife Service; one representative of the Environmental Protection Agency; one representative of affected landowners; two representatives of conservation and environmental advocacy groups and two representatives of agriculture and industry advocacy groups for a total of 16 members. The Secretary of the Army representative will be the chairperson of the
Advisory Panel. The Advisory Panel and any working groups established by the Advisory Panel will not be considered an advisory committee under the Federal Advisory Committee Act. While the panel is described as providing implementing guidance for the implementation report, Section 8004(h) also indicates that the Advisory Panel will, in consultation with the Secretary of the Army, develop a system to rank proposed projects. Section 8004(h) also directs that the ranking system will give greater weight to projects that restore natural river processes. The vertical study team will consider the Advisory Panel’s role in establishing the institutional framework for project implementation. The Advisory Panel role does not have to be limited to the functions specified in Title VIII. “Independent guidance” will be interpreted as independent from the Corps of Engineers and does not mean that Advisory Panel members cannot be otherwise involved in the planning, evaluation, and implementation of the ecosystem restoration plan. Please provide your recommendations on how the Advisory Panel would be established, its specific roles and responsibilities, how it will operate in conjunction with the ASA(CW)’s role, and how it would be funded. It is envisioned that funding would be absorbed by the member’s respective offices.

8. Comparable Progress. In accordance with Section 8005, the schedules being established for the UMR-IWW dual purpose plan will assure that navigation and ecosystem restoration projects are being carried out at comparable rates. Comparable rate does not mean that funding in any given fiscal year for navigation and ecosystem restoration must be allocated proportionally to the total amount authorized for the navigation and ecosystem restoration purposes but that the funds be allocated in accordance with schedules and management plans that assure that the authorized navigation and ecosystem restoration projects be funded efficiently and be completed in the same timeframe. Beginning in 2009 an annual report will be submitted to Congress regarding whether this objective is being met. Section 8005 provides that the Secretary of the Army or Congress may adjust annual funding requests to ensure that the projects move toward completion at a comparable rate.

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