DEPARTMENT OF THE ARMY
MISSISSIPPI VALLEY DIVISION, CORPS OF ENGINEERS
P.O. BOX 80
VICKSBURG, MISSISSIPPI 39181-0080

REPLY TO
ATTENTION OF:

CEMVD-PD-SP

14 July 2011

MEMORANDUM FOR Commander, Rock Island District

SUBJECT: Review Plan Approval for Blackhawk Bottoms, Section 206, Des Moines County, Iowa

1. Reference memorandum, CEMVR-PD-F, 14 June 2011, subject: Continuing Authorities Program (CAP) Section 206 Blackhawk Bottoms, Des Moines County, Iowa (Project) Review Plan (RP) (encl 1).

2. The enclosed Review Plan (encl 2) defines the review requirements for the decision document for the Blackhawk Bottoms, Section 206 CAP project. It includes the MVD Review Plan Checklist for CAP and has been prepared in accordance with EC 1165-2-209. The Review Plan has been reviewed by the appropriate MVD functional offices and the Upper District Support Team.

3. Blackhawk Bottoms, Section 206, Des Moines County, Iowa, Project Review Plan, is approved and in compliance with all applicable policy, engineering, and environmental analyses, and other aspects of plan development. Non-substantive changes to this Review Plan do not require further approval. The District should post the approved Review Plan to its web site.

4. The MVD point of contact is Mr. Fred Ragan, CEMVD-PD-SP, (601) 634-5926.

2 Encls

for CHARLES B. BARTON
Chief, Upper District Support
Team, St. Louis, Rock Island,
St. Paul

DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, ROCK ISLAND DISTRICT
CLOCK TOWER BUILDING - PO BOX 2004
ROCK ISLAND, ILLINOIS 61204-2004

REPLY TO
ATTENTION OF

14 JUN 2011

CEMVR-PD-F

MEMORANDUM FOR Commander, US Army Corps of Engineers, Mississippi Valley Division (CEMVD-PD-SP/Ragan), PO Box 80, 1400 Walnut Street, Vicksburg, Mississippi 39181-0080

SUBJECT: Continuing Authorities Program (CAP) Section 206 Blackhawk Bottoms, Des Moines County, Iowa (Project) Review Plan (RP)

1. The CAP RP and MVD RP checklists (Encl 1&2) for the subject Project is submitted for your review and approval. An electronic copy of the subject CAP RP and the MVD RP checklist has been sent to Mr. Fred Ragan, CEMVD-PD-SP.

2. The points of contact are Mr. Jason Smith, Study Manager, (309)794-5690, or e-mail: jason.t.smith2@usace.army.mil, and Mr. Hank DeHaan, Environmental CAP Program Manager, (309)794-5853, or e-mail: henry.c.dehaan@usace.army.mil.

SHAWN P. MCGINLEY
COL, EN
Commanding

2 Encls
as

Encl 1

REVIEW PLAN

Using the MVD Model Review Plan
for
Continuing Authorities Program
Section 14, 107, 111, 204, 206, 208, or 1135 Projects,
or Projects directed by Guidance
to use CAP processes

Blackhawk Bottoms Aquatic Ecosystem Restoration, Des Moines County, Iowa
Section *206* Project

Rock Island District

MSC Approval Date: *Pending*
Last Revision Date: *None*

US Army Corps
of Engineers ®

Review Plan
Using the MVD Model Review Plan

Blackhawk Bottoms Aquatic Ecosystem Restoration, Des Moines County, Iowa
Section *206* Project

TABLE OF CONTENTS

REVIEW PLAN

Section 206 Blackhawk Bottoms Aquatic Ecosystem Restoration, Des Moines County, Iowa

1. Purpose and Requirements.

a. Purpose. This Review Plan defines the scope and level of peer review for the *Blackhawk Bottoms Aquatic Ecosystem Restoration, Des Moines County, Iowa*, Section *206 Project* products. *Products to be reviewed include the Definite Project Report (DPR) with Integrated Environmental Assessment and all associated appendices. Specific areas for technical review include; environmental and cultural assessment; cost estimate; hydraulic and hydrologic analysis; geotechnical analysis; real estate plan; and drawings and specifications.*

Section 206 of the Water Resources Development Act of 1996, Public Law 104-305, authorizes the Secretary of the Army to carry out a program of aquatic ecosystem restoration with the objective of restoring degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition considering the ecosystem's natural integrity, productivity, stability and biological diversity. This authority is primarily used for manipulation of the hydrology in and along bodies of water, including wetlands and riparian areas. This authority also allows for dam removal. This is a Continuing Authorities Program (CAP) which focuses on water resource related projects of relatively smaller scope, cost and complexity. Unlike the traditional Corps' civil works projects that are of wider scope and complexity, the Continuing Authorities Program is a delegated authority to plan, design, and construct certain types of water resource and environmental restoration projects without specific Congressional authorization.

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

b. Applicability. This review plan is based on the MVD Model Review Plan for Section 14, 107, 111, 204, 206, 208, or 1135 Projects or Programs directed by guidance to follow CAP processes, which is applicable to projects that do not require Independent External Peer Review (IEPR), as defined by the mandatory Type I IEPR triggers contained in EC 1165-2-209, Civil Works Review Policy.

c. References:

(1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 January 2010.
(2) Director of Civil Works' Policy Memorandum #1, CECW-P, dated 19 January 2011.
(3) EC 1105-2-412, Assuring Quality of Planning Models, 31 March 2010.
(4) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 September 2006.
(5) ER 1105-2-100, Planning Guidance Notebook, Appendix F, Continuing Authorities Program, Amendment #2, 31 January 2007.
(6) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 November 2007.
(7) Blackhawk Bottoms Project Management Plan. Approved September 2010.

2. Review Management Organization (RMO) Coordination.

The RMO is responsible for managing the overall peer review effort described in this review plan. The RMO for Section *206* is MVD. MVD will coordinate and approve the review plan and manage the Agency Technical review (ATR). The home District will post the approved review plan on its public website.

3. Project Information.

a. Decision Document. The *Section 206 Blackhawk Bottoms Aquatic Ecosystem Restoration, Des Moines County, Iowa* decision document will be prepared in accordance with ER 1105-2-100, Appendix F, Amendment #2. The approval level of the decision document (if policy compliant) is MVD. An Environmental Assessment (EA) will be prepared along with the decision document.

b. Study/Project Description. *The Section 206 Blackhawk Bottoms Aquatic Ecosystem Restoration Project (Project) is a feasibility level study for the purpose of aquatic ecosystem restoration at a site in pool 19 on the Mississippi River known as Blackhawk Bottoms. The Non-Federal Sponsor (NFS) is the Iowa Department of Natural Resources (IADNR) which owns and operates the property the proposed Project lies within. This Project was initially authorized by section 204 of WRDA of 1992 (as amended) of which the feasibility report was developed in the Feasibility Phase. The cost sharing rules for section 204 of WRDA 1992 (as amended) apply to the feasibility phase with regard to cost sharing responsibilities. The Project Design and Implementation Phase is authorized by section 206 of the WRDA of 1996 (as amended). The section 206 cost sharing rules apply to the design and implementation phase.*

The proposed Project at Blackhawk Bottoms is located south of Burlington, Iowa on the southern fringe of an area of the Upper Mississippi River (UMR) that has been designated as a Ramsar "Wetland of International Importance". In addition, the IADNR has identified the Blackhawk Bottoms Project area as a significant resource in their "String of Pearls" management strategy for restoring critical moist soil unit (MSU) habitat for migratory waterfowl along the Mississippi River Flyway.

The Project area is currently an agricultural and scrub/shrub field on the floodplain of Spring Creek. The IADNR presently owns and manages the existing site. Current land management practices include: crop rotation of corn and soybeans on most of the bottomland field habitat; and an open prairie region on the elevated area at the northwest portion of the site. Corn is left standing throughout the winter for wildlife food. The sandy hilltop and hillsides of the Project site have been seeded in native grasses and forbs, which are burned every 5 to 6 years to control invading woody plants. Some mowing and disking is done to set back woody succession and promote annual herbaceous plant growth for wildlife food and cover. The existing water level at the site fluctuates directly with Spring Creek flows and Mississippi River high and low water events. The IADNR's management program for this area is to promote more MSU and open prairie habitat which are much less prevalent in the area than bottomland hardwood forests and scrub shrub areas.

The Product Delivery Team (PDT) identified a number of possible measures to address a suite of habitat goals for the area. The PDT evaluated primarily berm and water control measures in a variety of size and shape configurations as alternatives and identified a plan that maximized the environmental benefits while accounting for the Project effectiveness, efficiency, acceptability and completeness.

The National Ecosystem Restoration (NER) Plan for this Project is identified in the DPR as B2W4S1 and includes; a 6,300-foot Earthen Berm, a 5-foot wide Concrete Water Control Structure, and a Stop Log Structure.

The estimated Project costs are; lands and damages ($361,200), Fish and Wildlife Features ($1,109,860), Planning, Engineering and Design ($859,008), and Construction Management ($150,000) for a total project cost of $2,480,068.

c. Factors Affecting the Scope and level of Review. *It has been determined that the MVD Model Review Plan for Section 206 Continuing Authorities Program (CAP) Projects is appropriate for this Project. The Project shall receive District Quality Control and undergo Agency Technical Review in accordance with Director of Civil Works' Policy Memorandum #1, 19 January 2011 and MVD Review Procedures for CAP Sections 14, 107, 111,204, 206, 208, or 1135. The Section 206 Blackhawk Bottoms Aquatic Ecosystem Restoration Continuing Authorities Project has been determined to be a low-risk level project. The project poses no human life safety issues and the nature of the project is similar to many projects that have been constructed in the Upper Mississippi River Basin in the past. IEPR is not anticipated to be required for the project as it does not meet any of the mandatory IEPR triggers in ER 1165-2-209, Civil Works Review Policy as listed below:*

- *The project involves a significant threat to human life/safety assurance;*
- *The total project cost is more than $45 million;*
- *There is a request by the Governor of an affected state for a peer review by independent experts;*
- *The project requires an Environmental Impact Statement (EIS),*
- *The project/study involves significant public dispute as to the size, nature, or effects of the project;*
- *The project/study involved significant public dispute as to the economic or environmental cost or benefit of the project;*
- *The information in the decision document or anticipated project design is likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices;*
- *The project design is anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule; and*
- *There are circumstances where the Chief of Engineers or Director of Civil Works determines Type I IEPR is warranted.*

d. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to District Quality Control (DQC) and ATR, similar to any products developed by USACE. *The Iowa Department of Natural Resources (IADNR) is expected to perform in-kind contributions in two forms. The first form of in-kind contribution will be the seeding the berm with an erosion control mix following berm construction. The second in-kind contribution will be project monitoring in accordance with section 2039 of WRDA 2007. The IADNR, as the NFS, will perform water level management and vegetation and wildlife surveys in order to evaluate the benefits accrued from the Project. This monitoring will be cost shared as part of the Federal Project.*

4. District Quality Control (DQC).

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

(PMP). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC.

a. **Documentation of DQC.** DQC review will be conducted pre-ATR, pre-AFB, following public review and prior to final approval. Pre-ATR products that undergo DQC will have a memorandum drafted and provided to ATR reviewers to assure DQC has been conducted in accordance with the requirements of EC 1165-2-209. The submittal letter for submission of the draft report for AFB and final approval are acknowledgement that DQC review has been conducted.

MVR has conducted pre-AFB DQC Reviews of the Blackhawk Bottoms Project in accordance with EC 1165-2-209 Paragraph 8. The PDT has conducted a review of the product (Feasibility Report with Integrated Environmental Assessment, including appendices). It has been reviewed by the technical writer/editor and the Plan Formulation Branch Chief. It meets the requirements for a Pre-AFB Agency Technical Review. The ATR team was provided a Memorandum for Record dated 02 May 2011, Subject: District Quality Control – Blackhawk Bottoms Section 206 Feasibility Report to assure DQC had been conducted.

b. **Products to Undergo DQC.** *Pre-AFB DQC has undergone DQC review. Post AFB DQC will be conducted. Final report submittal will undergo DQC Review.*

c. **Required DQC Expertise.** *The DQC review requires the expertise of hydrology and hydraulics engineering, plan formulation, civil engineering, environmental (biology and cultural resources) and cost engineering.*

5. Agency Technical Review (ATR).

One ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.), however additional ATRs may be performed if deemed warranted. ATR will normally be performed on the AFB documentation with a continuing review on major changes leading up to completion and the District Commander signing the final report. 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. The ATR team lead will be from within the home MSC.

a. Products to Undergo ATR. *The Blackhawk Bottoms Aquatic Ecosystem Restoration Feasibility Report with Integrated Environmental Assessment and associated appendices. Products that will undergo ATR review include the Pre-Alternative Formulation Briefing and Pre-Final report if major changes are encountered during the Alternative Formulation briefing.*

b. Required ATR Team Expertise. *It is anticipated that there will be eight senior technical reviewers including the ATR lead for the Feasibility Report with Integrated Environmental Assessment. The following table contains a list of the ATR team members needed for the review and their required expertise.*

ATR Team Members/Disciplines	*Expertise Required*
ATR Lead/*Plan Formulator*	*The ATR lead should be a senior professional preferably with experience in preparing Section 206 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 will also serve as a reviewer for plan formulation and*

	should be a senior water resources planner with experience in CAP project and general planning policy. The ATR Lead MUST be from outside the Rock Island District.
Cultural Resources	*The Cultural Resources reviewer should be a senior professional with specialized experience in NEPA requirements.*
Biology	*The Biologist reviewer will be a senior level biologist familiar with the Wildlife Habitat Appraisal Guide (WHAG) methodology of evaluation.*
Hydraulic Engineering	*The hydraulic engineering reviewer will be an expert in the field of hydraulics and have a thorough understanding of open channel dynamics and basin routing.*
Cost Engineering	*Cost DX Staff or Cost DX Pre-Certified Professional with experience preparing cost estimates for CAP projects.*
Geotechnical Engineering	*The Geotechnical Engineering reviewer will be an expert in the geotechnical field.*
Real Estate	*The Real Estate Reviewer should be a senior level expert appraiser/economist familiar with CAP projects, and should be experienced in LERRD crediting and gross appraisals.*
Structural Engineering	*The structural engineer reviewer should be familiar with the design of reinforced concrete structures.*

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. Any editorial comments should be provided informally by email to the PDT.

6. Policy And Legal Compliance Review.

All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the MVD 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.

7. Cost Engineering Directory of Expertise (DX) Review And Certification.

For CAP projects, ATR of the costs may be conducted by pre-certified district cost personnel within the region or by the Walla Walla Cost DX. The pre-certified list of cost personnel has been established and is maintained by the Cost DX at https://kme.usace.army.mil/EC/cost/CostAtr/default.aspx. The cost ATR member will coordinate with the Cost DX for execution of cost ATR and cost certification. The Cost DX will be responsible for final cost certification and may be delegated at the discretion of the Cost DX.

8. Model Certification And Approval.

Approval of planning models under EC 1105-2-412 is not required for CAP projects. MSC commanders remain responsible for assuring the quality of the analyses used in these projects. ATR will be used to ensure that models and analyses are compliant with Corps policy, theoretically sound, computationally

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

EC 1105-2-412 does not cover engineering models used in planning. 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. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on Corps studies and these models should be used whenever appropriate. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

Planning and Engineering Models. The following models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study
Wildlife Habitat Appraisal Guide (WHAG) (Ulrich, et al., 1984)	*The WHAG was developed by the Missouri Dept of Conservation and the U.S. Dept of Agriculture, Soil Conservation Service (now NRCS). It is a field evaluation procedure designed to estimate habitat quality and account for changes due to land management practices. A pre-selected list of species was used in the habitat matrices of the Non-forested Wetland WHAG model to represent a guild of other similar species that utilize the habitat found at Blackhawk Bottoms.*
CE-ICA	*The Cost Effectiveness – Incremental Cost Analysis software model was developed by the Institute of Water Resources. This software is required to evaluate the efficiency of environmental restoration projects based on their incremental costs versus the benefits realized.*
Example: HEC-HMS 1.2.4 (Flood Damage Analysis)	*The HEC-HMS model was developed by the Kansas City District in 2005 and compared to USGS sincle-variable regression equations for the State of Iowa and to gage data for 7 similarly sized basins located within 125 miles of Blackhawk Bottoms. The model was later modified by the Rock Island District in 2009 to include a new elevations-storage relationship and water control structure. The total number of HMS alternatives studied is 29.*

9. Review Schedules And Costs.

ATR Schedule and Cost. *The second round of pre-AFB ATR (Section 206) kicked off in May 2011 and was completed in June 2011. The total cost for pre-AFB ATR was budgeted at $15,000 for completion. Post AFB and pre-approval ATR is not anticipated unless major concerns are encountered during the public review phase. If concerns are encountered the pre-approval ATR will be conducted in August 2011 at an estimated cost of $10, 000 for completion.*

10. 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. *The Section 206 Blackhawk Bottoms Feasibility Report with Integrated Environmental Assessment will be available on the Rock Island District webpage for public comment for 30 days once it has been approved for release to the public at the Alternative Formulation Briefing. A post card and/or compact discs will be mailed to designated agency contacts as identified in the distribution list to provide them of the location of the report and appendices for review. Following approval of the final decision document the report will be posted to the Rock Island District webpage for at least the period of time during construction..*

11 Review Plan Approval And Updates.

The MVD DST Chief is responsible for approving this review plan and ensuring that use of the MVD Model Review Plan is appropriate for the specific project covered by the plan. The review plan is a living document and may change as the study progresses. The home district is responsible for keeping the review plan up to date. Minor changes to the review plan since the last MVD approval are documented in Attachment 2. Significant changes to the review plan (such as changes to the scope and/or level of review) should be reapproved by MVD following the process used for initially approving the plan. Significant changes may result in MVD determining that use of the MVD Model Review Plan is no longer appropriate. In these cases, a project specific review plan will be prepared and approved in accordance with EC 1165-2-209. The latest version of the review plan, along with the MVD approval memorandum, will be posted on the home district's webpage.

12. Review Plan Points Of Contact.

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

- *Jason Smith, Civil Engineer, Rock Island District, (309) 794-5690*
- *Fredrick Ragan, Program Manager, Mississippi Valley Division, (601) 634-5926*

Attachment 1: Team Rosters

Product Delivery Team (PDT) Roster

Role	Name	District/Organization	
Project Manager	Hank Dehaan	MVR	309-794-5853
Study Manager/Plan Formulation	Jason Smith, P.E.	MVR	309-794-5690
Environmental Studies	Randy Kraciun	MVR	309-794-5174
Project Engineer	Kara Mitvalsky, P.E.	MVR	309-794-5623
Cost Estimator	Garrett Mattila	MVR	309-794-5524
Cultural Resources	James Ross	MVR	309-794-5540
Geotechnical Engineer	Jotham Povitch, P.E.	MVR	309-794-5402
Structural Engineer	Cory Delong, P.E.	MVR	309-794-5306
GIS/Mapping	Mike Siadak and Robert Willhite	MVR	309-794-5343 309-794-5393
Hydraulics and Hydrology	Tom Gambucci, P.E.	MVR	309-794-5848
Outreach	Angela Freyermuth	MVR	309-794-5341
Engineering Technician	Emily Johnson	MVR	309-794-5526
Real Estate	Jason Appel	MVR	309-794-5489
Socio-Economic Analysis	Sharryn Jackson	MVR	309-794-5309
Technical Editor	Mary Rodkey	MVR	309-794-5499
Non-Federal Sponsor Representative	Mike Griffin	IA DNR	563-872-5700

ATR Team Roster

Role	Name	District	Phone
ATR Lead/Plan Formulation	Shawn Phillips	MVM	309-544-3321
Cultural Resources	Dr. Robert Dunn	MVM	309-544-0706
Biology	Alan Bennett	MVM	309-544-4313
Structural Engineering	Mark Mazzone	MVM	309-544-3482
Hydraulic Engineering	Bennie Wilkenson	MVM	309-544-4314
Cost Engineering	Jerry Welch	MVM	309-544-3236
Geotechnical Engineering	Charles Lord	MVM	309-544-3323
Real Estate	Doug Young	MVM	309-544-3154

Shawn Phillips, P.E. *experience includes:*
Corps of Engineers – Memphis District (2001-Present)

- *NEPA Documentation – Lead development of two Supplemental EIS Documents for the St. Johns Bayou and New Madrid Floodway, MO, Project (2002 and 2006)*
- *Planning Associate Graduate 2007*
- *Study Manager for the Upper Fifteen Mile Bayou General Reevaluation Report, West Memphis and Vicinity, AR (2009) [Project underwent formal ATR review, AFB meetings, etc.]*

- *Numerous CAP Projects from Reconnaissance through PPA negotiation and design work and have completed construction on two CAP projects.*
- *ATR Team Leader for Walla Walla River Basin GI Feasibility Study 2010*

Prior experience of 12 years with the CERCLA (Superfund) Cleanup and BRAC Programs for the Navy and Defense Logistics Agency

***Robert Dunn, Ph.D., RPA** has over 26 years of Corps professional experience in the fields of archaeology and cultural resources management. He has been a registered professional archaeologist (RPA) since 2001. Prior to joining the COE in 1983 he worked as a principal investigator in Wyoming for two archaeological contract firms. He has a B.A. in Anthropology from the University of Pennsylvania, an M.A. in Anthropology (Archaeology focus) from Temple University, and a Ph.D. in Geography from Louisiana State University (HQUSACE sponsored LTT) with a dual specialization in historical and ethnic geography. He began his Corps career in 1983 with Rock Island District (1 year) then served as District Archaeologist in Little Rock District (10 years) and later Philadelphia District (3 years). He also served for nine years (1994-2003) at ERDC's Environmental Laboratory as a research archaeologist and human geographer. He has numerous publications in the fields of archaeology and ethnic geography. He now serves as the MVM Tribal Liaison and is a NEPA specialist.*

***Alan Bennett** has over 12 years of professional experience in the environmental field. He graduated from the University of Florida with a B.S in Wildlife Ecology and a minor in Forestry. He has served as a Biologist with the U.S. Army Corps of Engineers since March 2001, first with the New Orleans District (03/01 to 01/09) and then Memphis District (01/09 to present). Technical review experience includes the Riverfront Development Study for Caruthersville, Missouri, and several in-house reviews of environmental assessments for the New Orleans District. Previous experience has been with the U.S. Fish and Wildlife Service, and the wildlife departments for the State of Virginia and the State of North Carolina.*

***Mark Mazzone, P.E.** has over 11 years of experience in Structural Engineering. He has a Bachelors of Civil Engineering from the Georgia Institute of Technology. Mark has been with the Memphis District, Army Corps of Engineers Civil Design Branch since 2008. He has served as technical lead for several floodwall projects in New Orleans for the Hurricane Protection Office. For each of those projects he has led the ATR and BCOE efforts reviewing the construction documents produced by A/E's for quality and completeness.*

***Bennie Wilkinson, P.E.** has over 32 years of engineering experience, 18 years with the USDA NRCS in Louisiana, 5 with the Directorate of Public Works Fort Polk, Louisiana and 9 with USACE Memphis District. He has a B.S. from Louisiana Tech University and is registered in Louisiana and Mississippi.*

***Jerry Welch, C.C.C.,** is a Department of Defense Certified Cost Consultant and Chief of the Cost and Relocations team of the Civil Design Branch, Engineering and Construction Division of the Memphis District. He has over 27 years experience in Cost and 10 years experience in water resources planning with the Corps. He holds a Bachelors of Science in Agricultural Engineering from Arkansas State University and a Master of Science in Civil Engineering from the University of Memphis. He has worked on numerous Regional ATR's for authorization documents including the Katrina and the Gulf Coastal Reconstruction efforts and also serves as a Corps Prospect instructor for Cost.*

***Charles (Randy) Lord, E.I.T,** has close to a year of professional experience in the geotechnical field. He has a B.S. in Civil Engineering and will soon complete an M.S. in Geotechnical Engineering. Randy has been with the Memphis District, Army Corps of Engineers Geotechnical Branch since 2009.*

Douglas Young *has over 27 years of professional experience in the Real Estate and Economic fields with the Memphis District, Corps of Engineers. He has a B.B.A. in Real Estate, B.S.E. in Education, M.A.T. in Economics, and M.A. in Economics. Douglas was assigned in 1997 to the Appraisal Branch and is presently a staff appraiser/economist on all Continuing Authorities Program projects. Prior to transferring to the Appraisal Branch, Douglas worked as an economist in the Economic and Social Analysis Branch for 14 years. He has performed Internal Technical Reviews for in-house reports, and Agency Technical Reviews for other Corps Districts. As a Project Delivery Team member, he prepares costs estimates, gross appraisals, Real Estate Plans, tract appraisals, and LERRDs crediting for the Real Estate Division.*

MVD Review Team Roster

Role	*Name*	*Phone*
Plan Formulation	*Susan Smith*	*601-634-5827*
Biology	*David Vigh*	*601-634-5854*
Cost Engineering	*Phil Hegwood*	*601-631-7513*
Economics	*Larry Kilgo*	*601-634-5848*
Real Estate	*Robin Broils-Cox*	*601-634-5860*

Attachment 2: Review Plan Revisions

Revision Date	Description of Change	Page/Paragraph Number

Date:	May 2011
Originating District:	Rock Island District
Project/Study Title:	Blackhawk Bottoms Aquatic Ecosystem Restoration Feasibility Report with Integrated Environmental Assessment
P2# and AMSCO#:	P2# 109558
District POC:	Jason Smith
MSC Reviewer:	Fred Ragan
CAP Authority:	Section 206
Other Program Directed to follow CAP Processes:	

Please fill out this checklist and submit with the draft Review Plan when coordinating with the MSC. Any evaluation boxes checked "No" may indicate the project may not be able to use the MVD Model Review Plan. Further explanation may be needed or a project specific review plan may be required. Additional coordination and issue resolution may be required prior to MSC approval of the Review Plan. Checklist may be limited to Section I or Section II or Both, depending on content of review plan (or subsequent amendments).

Section I - Decision Documents

REQUIREMENT	EVALUATION
1. Is the Review Plan (RP) for a Continuing Authorities Project? **Or Other Program Directed to follow CAP Processes?**	Yes ☒ No ☐ Yes ☐ No ☐
a. Does it include a cover page identifying it as following the Model RP and listing the project/study title, originating district or office, and date of the plan?	a. Yes ☒ No ☐
b. Does it include a table of contents?	b. Yes ☒ No ☐
c. Is the purpose of the RP clearly stated?	c. Yes ☒ No ☐
d. Does it reference the Project Management Plan (PMP) of which the RP is a component?	d. Yes ☒ No ☐
e. Does it succinctly describe the levels of review: District Quality Control (DQC), Agency Technical Review (ATR), and Independent External Peer Review (IEPR) if applicable for Sec 103 or Sec 205?	e. Yes ☒ No ☐
f. Does it include a paragraph stating the title, subject, and purpose of the decision document to be reviewed?	f. Yes ☒ No ☐
g. Does it list the names and disciplines of the Project Delivery Team (PDT)?* **Note: It is highly recommended to put all team member names and contact information in an appendix for easy updating as team members change or the RP is updated.* **Comments:**	g. Yes ☒ No ☐

2. Is the RP detailed enough to assess the necessary level and focus of the reviews?	Yes ☒ No ☐
3. Does the RP define the appropriate level of review for the project/study?	Yes ☒ No ☐
a. Does it state that DQC will be managed by the home district in accordance with the MVD and district Quality Management Plans?	a. Yes ☒ No ☐
b. Does it state that ATR will be managed by MVD?	b. Yes ☒ No ☐
c. Does it state whether IEPR will be performed? For Sec 103 and Sec 205, see additional questions in 5. below. **Comments:**	c. Yes ☒ No ☐
4. Does the RP explain how ATR will be accomplished?	Yes ☒ No ☐
a. Does it identify the anticipated number of reviewers?	a. Yes ☒ No ☐
b. Does it provide a succinct description of the primary disciplines or expertise needed for the review (not simply a list of disciplines)?	b. Yes ☒ No ☐
c. Does it indicate that ATR team members will be from outside the home district?	c. Yes ☒ No ☐
d. Does it indicate where the ATR team leader will be from?	d. Yes ☒ No ☐
e. If the reviewers are listed by name, does the RP describe the qualifications and years of relevant experience of the ATR team members?* **Note: It is highly recommended to put all team member names and contact information in an appendix for easy updating as team members change or the RP is updated.* **Comments:**	e. Yes ☒ No ☐
5. For Sec 103 and Sec 205 projects, does the RP explain how IEPR will be accomplished?	Yes ☐ No ☐ n/a ☒
a. Is an exclusion being requested, requiring CG approval?	a. Yes ☐ No ☐
b. Does it provide a defensible rationale for the decision on IEPR?	b. Yes ☐ No ☐
c. If IEPR is required, does it state that IEPR will be managed by an Outside Eligible Organization, external to the Corps of Engineers?	c. Yes ☐ No ☐
d. If IEPR is required, does the RP indicate which PCX will manage the IEPR and whether any coordination with the PCX has occurred? **Comments:**	d. Yes ☐ No ☐
6. Does the RP address review of sponsor in-kind contributions?	Yes ☒ No ☐

7. Does the RP address how the review will be documented?	Yes ☒ No ☐
a. Does the RP address the requirement to document ATR and IEPR comments using Dr Checks? b. Does the RP explain how the IEPR will be documented in a Review Report? c. Does the RP document how written responses to the IEPR Review Report will be prepared? c. Does the RP detail how the district will disseminate the final IEPR Review Report, USACE response, and all other materials related to the IEPR on the internet and include them in the applicable decision document? **Comments:**	a. Yes ☒ No ☐ b. Yes ☐ No ☐ n/a ☒ c. Yes ☐ No ☐ n/a ☒ d. Yes ☐ No ☐ n/a ☒
8. Does the RP address Policy Compliance and Legal Review?	Yes ☒ No ☐
9. Does the RP present the tasks, timing and sequence (including deferrals), and costs of reviews?	Yes ☒ No ☐
a. Does it provide a schedule for ATR including review of the Alternative Formulation Briefing (AFB) materials and final report? b. Does it present the timing and sequencing for IEPR? c. Does it include cost estimates for the reviews?	a. Yes ☒ No ☐ b. Yes ☐ No ☐ n/a ☒ c. Yes ☒ No ☐
10. Does the RP indicate the study will address Safety Assurance factors? Factors to be considered include: • Where failure leads to significant threat to human life • Novel methods\complexity\ precedent-setting models\policy changing conclusions • Innovative materials or techniques • Design lacks redundancy, resiliency of robustness • Unique construction sequence or acquisition plans • Reduced\overlapping design construction schedule	Yes ☐ No ☐ n/a ☒ **Comments:**
11. Does the RP address opportunities for public participation?	Yes ☒ No ☐
12. Does the RP indicate ATR of cost estimates will be conducted by pre-certified district cost personnel who will coordinate with the Walla Walla Cost DX?	Yes ☒ No ☐
13. Has the approval memorandum been prepared and does it accompany the RP?	Yes ☒ No ☐

Section II - Implementation Documents

Please fill out this checklist and submit with the draft Review Plan or subsequent Review Plan amendments when coordinating with the MSC. For DQC, the District is the RMO; for ATR and Type II IEPR, MVD is the RMO. Any evaluation boxes checked "No" indicate the RP possibly may not comply with MVD Model Review Plan and should be explained. Additional coordination and issue resolution may be required prior to MVD approval of the Review Plan.

REQUIREMENT	EVALUATION
1. Are the implementation documents/products described in the review or subsequent amendments?	Yes ☐ No ☐
2. Does the RP contain documentation of risk-informed decisions on which levels of review are appropriate?	Yes ☐ No ☐
3. Does the RP present the tasks, timing, and sequence of the reviews (including deferrals)?	Yes ☐ No ☐
a. Does it provide an overall review schedule that shows timing and sequence of all reviews? b. Does the review plan establish a milestone schedule aligned with the critical features of the project design and construction?	a. Yes ☐ No ☐ b. Yes ☐ No ☐
4. Does the RP address engineering model review requirements?	Yes ☐ No ☐
a. Does it list the models and data anticipated to be used in developing recommendations? b. Does the RP identify any areas of risk and uncertainty associated with the use of the proposed models? c. Does it indicate the certification/approval status of those models and if review of any model(s) will be needed? d. If needed, does the RP propose the appropriate level of review for the model(s) and how it will be accomplished?	a. Yes ☐ No ☐ b. Yes ☐ No ☐ c. Yes ☐ No ☐ d. Yes ☐ No ☐
5. Does the RP explain how and when there will be opportunities for the public to comment on the study or project to be reviewed?	Yes ☐ No ☐
6. Does the RP address expected in-kind contributions to be provided by the sponsor? If expected in-kind contributions are to be provided by the sponsor, does the RP list the expected in-kind contributions to be provided by the sponsor?	Yes ☐ No ☐ Yes ☐ No ☐

7. Does the RP explain how the reviews will be documented?	Yes ☐ No ☐
a. Does the RP address the requirement to document ATR comments using Dr Checks and Type II IEPR published comments and responses pertaining to the design and construction activities summarized in a report reviewed and approved by the MSC and posted on the home district website?	a. Yes ☐ No ☐
b. Does the RP explain how the Type II IEPR will be documented in a Review Report?	b. Yes ☐ No ☐
c. Does the RP document how written responses to the Type II IEPR Review Report will be prepared?	c. Yes ☐ No ☐
d. Does the RP detail how the district/MVD will disseminate the final Type II IEPR Review Report, USACE response, and all other materials related to the Type II IEPR on the internet?	d. Yes ☐ No ☐
8. Has the approval memorandum been prepared and does it accompany the RP?	Yes ☐ No ☐