



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

27 April 2011

MEMORANDUM FOR Commander, Rock Island District

SUBJECT: Review Plan Approval for Mazon River, Whitetie Road,
CAP Section 14, Grundy County, Illinois

1. Reference Memorandum, CEMVR-PD-F, 28 March 2011, subject: Continuing Authorities Program (CAP) Section 14 Mazon River, Whitetie Road, Grundy County, Illinois Review Plan (RP)
2. The enclosed Review Plan (encl) is a combined decision document and implementation document review plan. 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 coordinated between the Business Technical Division and the Upper District Support Team.
3. The Mazon River, Section 14 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 Ms. Elizabeth Ivy, CEMVD-PD-SP, (601) 634-5310.

A handwritten signature in black ink that reads "Charles B. Barton".

CHARLES BARTON

Chief, Upper District Support Team
St. Louis, Rock Island, St. Paul

Encl

Date:	07APR11
Originating District:	MVR
Project/Study Title:	Mazon River, Whitetie Road, Grundy County, IL
P2# and AMSCO#:	324838
District POC:	Monique Savage
MSC Reviewer:	
CAP Authority:	Section 14
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
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? b. Does it include a table of contents? c. Is the purpose of the RP clearly stated? d. Does it reference the Project Management Plan (PMP) of which the RP is a component? 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? f. Does it include a paragraph stating the title, subject, and purpose of the decision document to be reviewed? g. Does it list the names and disciplines of the Project Delivery Team (PDT)?*	a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> e. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> f. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> g. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<i>*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.</i> Comments:	
2. Is the RP detailed enough to assess the necessary level and focus of the reviews?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

3. Does the RP define the appropriate level of review for the project/study?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
a. Does it state that DQC will be managed by the home district in accordance with the MVD and district Quality Management Plans? b. Does it state that ATR will be managed by MVD? c. Does it state whether IEPR will be performed? For Sec 103 and Sec 205, see additional questions in 5. below. Comments:	a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
4. Does the RP explain how ATR will be accomplished?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
a. Does it identify the anticipated number of reviewers? b. Does it provide a succinct description of the primary disciplines or expertise needed for the review (not simply a list of disciplines)? c. Does it indicate that ATR team members will be from outside the home district? d. Does it indicate where the ATR team leader will be from? e. If the reviewers are listed by name, does the RP describe the qualifications and years of relevant experience of the ATR team members?*	a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> e. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<i>*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.</i> Comments:	
5. For Sec 103 and Sec 205 projects, does the RP explain how IEPR will be accomplished?	Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/>
a. Is an exclusion being requested, requiring CG approval? b. Does it provide a defensible rationale for the decision on IEPR? c. If IEPR is required, does it state that IEPR will be managed by an Outside Eligible Organization, external to the Corps of Engineers? 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:	a. Yes <input type="checkbox"/> No <input type="checkbox"/> b. Yes <input type="checkbox"/> No <input type="checkbox"/> c. Yes <input type="checkbox"/> No <input type="checkbox"/> d. Yes <input type="checkbox"/> No <input type="checkbox"/>
6. Does the RP address review of sponsor in-kind contributions?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

7. Does the RP address how the review will be documented?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>a. Does the RP address the requirement to document ATR and IEPR comments using Dr Checks?</p> <p>b. Does the RP explain how the IEPR will be documented in a Review Report?</p> <p>c. Does the RP document how written responses to the IEPR Review Report will be prepared?</p> <p>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?</p> <p>Comments:</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p> <p>c. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p> <p>d. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p>
8. Does the RP address Policy Compliance and Legal Review?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
9. Does the RP present the tasks, timing and sequence (including deferrals), and costs of reviews?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>a. Does it provide a schedule for ATR including review of the Alternative Formulation Briefing (AFB) materials and final report?</p> <p>b. Does it present the timing and sequencing for IEPR?</p> <p>c. Does it include cost estimates for the reviews?</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p> <p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
<p>10. Does the RP indicate the study will address Safety Assurance factors? Factors to be considered include:</p> <ul style="list-style-type: none"> ● 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 <input checked="" type="checkbox"/> No <input type="checkbox"/> n/a <input type="checkbox"/> Comments:
11. Does the RP address opportunities for public participation?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
13. Has the approval memorandum been prepared and does it accompany the RP?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. Does the RP contain documentation of risk-informed decisions on which levels of review are appropriate?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
3. Does the RP present the tasks, timing, and sequence of the reviews (including deferrals)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>a. Does it provide an overall review schedule that shows timing and sequence of all reviews?</p> <p>b. Does the review plan establish a milestone schedule aligned with the critical features of the project design and construction?</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/> In PMP</p>
4. Does the RP address engineering model review requirements?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>a. Does it list the models and data anticipated to be used in developing recommendations?</p> <p>b. Does the RP identify any areas of risk and uncertainty associated with the use of the proposed models?</p> <p>c. Does it indicate the certification/approval status of those models and if review of any model(s) will be needed?</p> <p>d. If needed, does the RP propose the appropriate level of review for the model(s) and how it will be accomplished?</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>c. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>d. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>
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 <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>6. Does the RP address expected in-kind contributions to be provided by the sponsor?</p> <p>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?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p>

7. Does the RP explain how the reviews will be documented?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<p>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?</p> <p>b. Does the RP explain how the Type II IEPR will be documented in a Review Report?</p> <p>c. Does the RP document how written responses to the Type II IEPR Review Report will be prepared?</p> <p>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?</p>	<p>a. Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p> <p>b. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p> <p>c. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p> <p>d. Yes <input type="checkbox"/> No <input type="checkbox"/> n/a <input checked="" type="checkbox"/></p>
8. Has the approval memorandum been prepared and does it accompany the RP?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

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

Mazon River, Whitetie Road, Grundy County, IL
Section 14 Project

Rock Island

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



US Army Corps
of Engineers ®

**Review Plan
Using the MVD Model Review Plan**

**Mazon River, Whitetie Road Grundy County, IL
Section 14 Project**

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REVIEW PLAN
Mazon River, Whitetie Road, Grundy County, IL

1. Purpose and Requirements.

a. Purpose. This Review Plan defines the scope and level of peer review for the Mazon River, Whitetie Road Grundy County, IL, Section 14 Project products. Products included for review, are Project Factsheet, an environmental and cultural assessment, cost estimate, economic analysis, hydraulic and hydrologic analysis, geotechnical analysis, real estate plan, and drawings and specifications.

Section 14 of the Flood Control Act of 1946, as amended, authorizes the US Army Corps of Engineers (USACE) to study, design and construct emergency streambank and shoreline works to protect public services including (but not limited to) streets, bridges, schools, water and sewer lines, National Register sites, and churches from damage or loss by natural erosion. 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) Approved Project Management Plan
- (8) ER 415-1-11, Biddability, Constructability, Operability, and Environmental Review

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 14 Projects 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.

REVIEW PLAN
Mazon River, Whitetie Road, Grundy County, IL

3. Project Information.

a. Decision and Implementation Products. *The Mazon River, Whitetie Road Grundy County, IL Decision and Implementation Products 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 project products.*

b. Study/Project Description. *The non federal sponsor for this project is Gooselake Township. They have requested Army Corps of Engineers assistance in seeking a solution to severe erosion taking place on the embankment of Whitetie Road, 300 feet to 1000 feet east of Gorman Road. Whitetie Road is a major roadway in Grundy County, IL and streambank erosion from Mazon River is causing severe bank slumping in localized areas. If immediate action is not taken the roadway is in danger of failing causing environmental and economical losses as well as potential human safety issues. Measures considered at this time are riprap and bioengineering. The estimated cost for clearing and placing riprap on the south bank of Mazon River is estimated at \$812,500.*

c. Factors Affecting the Scope and level of Review. *The MVD Model Review Plan is applicable to the Mazon River, Whitetie Road, Grundy County Section 14. DQC,ATR and AFB for decision products and DQC, ATR and BCOE for implementation products are sufficient levels of review for this small Section 14 project. Mazon River does not involve a significant threat to human life or safety assurance since this project does not include flood risk management and is not located near residences. At this time there is no request by the Governor of IL for a peer review by independent experts and we do not anticipate him requesting one since a road failure will negatively impact constituents in the area. The project will not likely involve significant public debate based on its size, nature, effects, economics or environmental cost since the area of impact is small, does not impact surrounding buildings or recreational use of the river, and is more cost effective than road failure. The alternatives being formulated use measures that have been used effectively to control streambank erosion in the past. The project design has not been determined yet but based on the measures being evaluated it is not anticipated to require redundancy, resiliency, robustness, unique construction sequencing or a reduced or overlapping design construction schedule. Factors affecting the scope of Mazon River should be minimal based off of PDT meeting discussions and data analysis. Project risks include soil stability and steepness of slope. The team will minimize risks by collecting geotechnical borings to determine soil stability and researching measures conducive to steep slopes.*

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. No in-kind products are anticipated.*

4. District Quality Control (DQC).

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC prior to ATR. The home district shall manage DQC in accordance with MVD and district Quality Management Plan. Any discrepancies between a reviewer and a Product Delivery Team (PDT) member will be resolved face to face. If a concern cannot be satisfactorily resolved between the DQC team and the PDT, it will be elevated to the section supervisor for further resolution.

a. Feasibility Phase. *Technical supervisors will assure that experienced personnel, which have been involved with similar work, check team members' technical work for completeness, accuracy and*

REVIEW PLAN
Mazon River, Whitetie Road, Grundy County, IL

clarity. DQC of the Feasibility portion of the Project will be documented by a completed (signed) memorandum for record of technical review. Products to be reviewed during the feasibility phase include factsheet, an environmental and cultural assessment, cost estimate, economic analysis, hydraulic and hydrologic analysis, geotechnical analysis, real estate plan, and drawings and specifications.

b. Plans and Specifications Phase. DQC consists of at least one technical check; a District Quality Control Review (DQCR); and a Biddability, Constructability, Operability, Environmental (BCOE) Review. Review will be conducted at the 95 percent design level. Review comments and resolutions will be entered into DrChecks, in accordance with ER 1110-1-8159. The review will be documented by a completed (signed) Statement of Technical Review and Certification, to which all review comments and resolutions will be attached. Products to be reviewed during the plans and specifications phase include hydraulic and hydrologic analysis, geotechnical analysis, and drawings and specifications.

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. Products will undergo, at a minimum, two ATRs throughout the life of the Project, Feasibility and Plans and Specifications.

Feasibility ATR will be performed throughout the study in accordance with the District and MSC Quality Management Plans. The Feasibility ATR shall be documented and discussed at the Alternative Formulation Briefing (AFB) milestone. Certification of the Feasibility ATR will be provided prior to the District Commander signing the final report. The Feasibility package includes project factsheet, environmental assessment, economic analysis, design drawings and cost, hydraulic analysis and a real estate plan.

Plans and Specifications will also undergo ATR prior to BCOE review. Plans and Specifications ATR will be conducted at the 95 percent design level and consist of hydraulic and hydrologic analysis, geotechnical analysis, design calculations, drawings, certified DQCR documentation, and cost.

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Mazon River, Whitetie Road, Grundy County, IL

b. Required ATR Team Expertise.

ATR Team Members/Disciplines	<i>Expertise Required</i>
ATR Lead (<i>F, P&S</i>)	<i>The ATR lead should be a senior professional preferably with experience in preparing Section 14, and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, the ATR lead will also serve as a reviewer for a specific discipline. The ATR Lead MUST be from outside MVR.</i>
Planning (<i>F</i>)	<i>The Planning reviewer should be a senior water resources planner with experience in streambank erosion and general planning policy.</i>
Economics (<i>F</i>)	<i>The Economics reviewer should be a senior Economist with experience in evaluating benefit to cost ratios.</i>
Cultural Resources (<i>F</i>)	<i>The Environmental Resources reviewer should be a senior environmental resources planner with experience in National Environmental Policy Act compliance.</i>
Hydraulic Engineering (<i>F, P&S</i>)	<i>The hydraulic engineering reviewer will be an expert in the field of hydraulics and have a thorough understanding of open channel dynamics on a small river and the impacts protection measures have. They should also be knowledgeable in computer modeling techniques HEC-RAS.</i>
Geotechnical Engineering (<i>P&S</i>)	<i>The Geotechnical Engineer should be an expert in the field of Geotechnical and have a thorough understanding of stream hydrology and its impact on bank erosion.</i>
Civil Engineering (<i>F, P&S</i>)	<i>The Civil Engineering reviewer should be an expert in the field and have a thorough understanding of bank stabilization and proposed measures including; riprap and bioengineering.</i>
Cost Engineering (<i>F, P&S</i>)	<i>Cost DX Staff or Cost DX Pre-Certified Professional with experience preparing cost estimates for small scale streambank erosion protection measures.</i>
Real Estate (<i>F</i>)	<i>The Real Estate reviewer should be an expert in Real Estate issues and have experience with ROW maps and necessary</i>

F – Feasibility
P&S – Plans and Specifications

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

REVIEW PLAN
Mazon River, Whitetie Road, Grundy County, IL

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: Models are an abstraction of reality and can never be considered true. The uncertainty associated with determining the water surface elevation is plus or minus one foot and the uncertainty associated with the average channel velocity is approximately plus or minus one and half feet per second.

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	<u>Approval Status</u>
<u>HEC-RAS 4.0</u>	<u>The Hydrologic Engineering Center's River Analysis System (HEC-RAS) program provides the capability to perform one-dimensional steady and unsteady flow river hydraulics calculations. The program will be used for determining average channel velocity and how high the water rises in the Mazon River.</u>	<u>HH&C CoP Preferred Model</u>

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Mazon River, Whitetie Road, Grundy County, IL

9. Review Schedules And Costs.

a. Reviews will be conducted in sequence of necessary milestones. Refer to Mazon River, Whitetie Road, Grundy County, IL approved PMP for milestone schedule.

b. DOC Schedule and Cost.

DOC Estimated Schedule

<u>Product</u>	<u>Kick-off</u>	<u>Reviewer</u> <u>Comments End</u>	<u>PDT</u> <u>Evaluation</u>	<u>Back Check</u>	<u>Complete</u>
<u>Feasibility</u>	<u>7/1/11</u>	<u>7/06/11</u>	<u>7/12/11</u>	<u>7/14/11</u>	<u>7/15/11</u>
<u>P&S</u>	<u>9/26/11</u>	<u>10/09/11</u>	<u>10/16/11</u>	<u>10/23/11</u>	<u>10/26/11</u>

DOC Cost Estimate

<u>Reviewer</u>	<u>DOC Feasibility</u>	<u>P&S DOC</u>	<u>P&S BCOE</u>	<u>Cost</u>
<u>Planner</u>	<u>\$500</u>			<u>\$500</u>
<u>Engineer</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$1,500</u>
<u>Natural</u>	<u>\$500</u>	<u>\$500</u>		<u>\$1,000</u>
<u>Economist</u>	<u>\$500</u>			<u>\$500</u>
<u>Cost Estimate</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$1,500</u>
<u>Real Estate</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$1,500</u>
<u>Geotech</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$1,500</u>
<u>H&H</u>	<u>\$500</u>	<u>\$500</u>	<u>\$500</u>	<u>\$1,500</u>
<u>Construction</u>			<u>\$500</u>	<u>\$500</u>
<u>Construction</u>			<u>\$500</u>	<u>\$500</u>
<u>Contracting</u>			<u>\$500</u>	<u>\$500</u>
<u>Safety Office</u>			<u>\$500</u>	<u>\$500</u>
<u>TOTAL</u>	<u>\$4,000</u>	<u>\$3,000</u>	<u>\$4,500</u>	<u>\$11,500</u>

c. ATR Schedule and Cost.

ATR Estimated Schedule

<u>Event</u>	<u>Kick-off</u>	<u>Reviewer</u> <u>Comments End</u>	<u>PDT</u> <u>Evaluation</u>	<u>Back</u> <u>Check</u>	<u>Complete</u>
<u>ATR Feasibility</u>	<u>07/29/11</u>	<u>08/12/11</u>	<u>08/17/11</u>	<u>08/26/11</u>	<u>08/30/11</u>
<u>AFB Conference</u>	<u>08/31/11</u>	<u>NA</u>	<u>NA</u>	<u>NA</u>	<u>09/14/11</u>
<u>ATR P&S Schedule</u>	<u>12/1/11</u>	<u>12/15/11</u>	<u>12/20/11</u>	<u>12/28/11</u>	<u>12/30/11</u>

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ATR Estimated Cost

<u>Reviewer</u>	<u>ATR</u>	<u>ATR P&S</u>	<u>Cost</u>
<u>ATR Lead (AFB review included)</u>	<u>\$1,500</u>	<u>\$2,000</u>	<u>\$3,500</u>
<u>Planner</u>	<u>\$1,000</u>		<u>\$1,000</u>
<u>Engineer</u>	<u>\$1,000</u>	<u>\$2,000</u>	<u>\$3,000</u>
<u>Natural Resources</u>	<u>\$1,000</u>		<u>\$1,000</u>
<u>Economist</u>	<u>\$1,000</u>		<u>\$1,000</u>
<u>Cost Estimate</u>	<u>\$1,500</u>		<u>\$1,500</u>
<u>Real Estate</u>	<u>\$1,000</u>		<u>\$1,000</u>
<u>Geotech</u>		<u>\$1,500</u>	<u>\$1,500</u>
<u>H&H</u>	<u>\$1,000</u>	<u>\$1,500</u>	<u>\$1,500</u>
<u>TOTAL</u>	<u>\$9,000</u>	<u>\$7,000</u>	<u>\$16,000</u>

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 public will have an opportunity for comment on the development of the report prior to the FONSI being signed via the internet. The environmental assessment will be posted on the district webpage at <http://www.mvr.usace.army.mil/Products/Projects.asp> for a minimum of thirty days.

Significant and relevant public comments will be incorporated into the ATR and/or AFB review. All comments will be included in the final draft package sent to MSC for approval. The final decision package will be made available to public via the internet.

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:

- Tom Heinold, Rock Island District Program Manager, (309)794-5203 - MVR
- Monique Savage, Rock Island District Plan Formulator, (309) 794-5342 - MVR
- Elizabeth Ivy, Rock Island District Support Team Chief, (601) 634-5310 - MVD
- Joe Mose, Mississippi Valley Division CAP Program Manager, (651)290-5567 - MVD

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Attachment 1: Team Rosters

PRODUCT DELIVERY TEAM ROSTER - 2011

<u>Name</u>	<u>Title</u>	<u>Email</u>
<u>Bruce Trotter</u>	<u>Highway Commissioner</u>	<u>gltpw@csky.net</u>
<u>Tom Heinold</u>	<u>Program/Project Manager</u>	<u>Thomas.D.Heinold@usace.army.mil</u>
<u>Monique Savage</u>	<u>Study Manager</u>	<u>Monique.E.Savage@usace.army.mil</u>
<u>Heather Anderson</u>	<u>Senior Project Engineer</u>	<u>Heather.L.Anderson@usace.army.mil</u>
<u>Laura Oman</u>	<u>Project Engineer</u>	<u>Laura.R.Oman@usace.army.mil</u>
<u>George Staley</u>	<u>Hydraulic & Hydrologic Engineer</u>	<u>George.C.Staley@usace.army.mil</u>
<u>Derek Clark</u>	<u>Geotechnical Engineer</u>	<u>Derek.J.Clark@usace.army.mil</u>
<u>Garrett Mattila</u>	<u>Cost Engineer</u>	<u>Garrett.P.Mattila@usace.army.mil</u>
<u>Lonn McGuire</u>	<u>NEPA Compliance Specialist</u>	<u>Lonn.I.McGuire@usace.army.mil</u>
<u>Rick Eberts</u>	<u>Economist</u>	<u>Richard.W.Eberts@usace.army.mil</u>
<u>Brant Vollman</u>	<u>Cultural Resources Specialist</u>	<u>Brant.J.Vollman@usace.army.mil</u>
<u>Jason Appel</u>	<u>Real Estate Specialist</u>	<u>Jason.C.Appel@usace.army.mil</u>
<u>Jennifer Mack</u>	<u>Contracting POC</u>	<u>Jennifer.L.Mack@usace.army.mil</u>
<u>Barb Lester</u>	<u>Construction POC</u>	<u>Barbara.L.Lester@usace.army.mil</u>
<u>Allen Giger</u>	<u>Survey Engineer</u>	<u>Allen.Giger@usace.army.mil</u>
<u>Bob Lazenby</u>	<u>District Counsel</u>	<u>Robert.F.Lazenby@usace.army.mil</u>
<u>LaShell Harper</u>	<u>Lead Technician</u>	<u>LaShell.L.Harper@usace.army.mil</u>
<u>Emily Johnson</u>	<u>Support Technician</u>	<u>Emily.J.Johnson@usace.army.mil</u>
<u>Jeff Sniadach</u>	<u>Regulatory</u>	<u>Jeff.W.Sniadach@usace.army.mil</u>

DISTRICT QUALITY CONTROL ROSTER - 2011

<u>Name</u>	<u>Title</u>	<u>Email</u>
<u>Camie Knollenberg</u>	<u>Plan Formulator Team Leader</u>	<u>Camie.A.Knollenberg@usace.army.mil</u>
<u>Ken Barr</u>	<u>Environmental Section Supervisor</u>	<u>Kenneth.A.Barr@usace.army.mil</u>
<u>Rachel Fellman</u>	<u>Senior Environmental Engineer</u>	<u>Rachel.C.Fellman@usace.army.mil</u>
<u>Tom Gambucci</u>	<u>Senior H&H Engineer</u>	<u>Thomas.R.Gambucci@usace.army.mil</u>
<u>Tom Mack</u>	<u>Geotechnical Branch Chief</u>	<u>Thomas.E.Mack@usace.army.mil</u>
<u>Chuck Van Laarhoven</u>	<u>Senior Cost Estimator</u>	<u>Charles.R.VanLaarhoven@usace.army.mil</u>

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AGENCY TECHNICAL REVIEW TEAM (FEASIBILITY AND DESIGN) ROSTER - 2011

<u>Name</u>	<u>Title</u>	<u>Email</u>
<u>TBD by RMO</u>	<u>Team Leader-Decision;</u>	
<u>TBD by RMO</u>	<u>Team Leader-Implementation</u>	
<u>TBD by RMO</u>	<u>Economist</u>	
<u>TBD by RMO</u>	<u>NEPA Compliance Specialist</u>	
<u>TBD by RMO</u>	<u>Project Engineer</u>	
<u>TBD by RMO</u>	<u>Plan Formulator</u>	
<u>TBD by RMO</u>	<u>Real Estate Specialist</u>	
<u>TBD by RMO</u>	<u>H&H</u>	
<u>TBD by RMO</u>	<u>Geotechnical Engineer</u>	
<u>TBD by Walla Walla</u>	<u>Cost Estimator</u>	

MAJOR SUBORDINATE COMMAND ROSTER - 2011

<u>Name</u>	<u>Discipline</u>	<u>Email</u>
<u>Elizabeth Ivy, MVR</u>	<u>DST Planner</u>	<u>Elizabeth.J.Ivy@usace.army.mil</u>
<u>Renee Turner, MVD</u>	<u>Program Manager</u>	<u>Renee.N.Turner@usace.army.mil</u>
<u>Joe Mose, MVD</u>	<u>CAP Coordinator</u>	<u>Joseph.H.Mose@usace.army.mil</u>

BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL ROSTER - 2011

<u>Name</u>	<u>Discipline</u>	<u>Email</u>
<u>Marv Martens</u>	<u>Senior H&H Engineer</u>	<u>Marvin.R.Martens@usace.army.mil</u>
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<u>Kara Mitvalsky</u>	<u>Senior Environmental Engineer</u>	<u>Kara.N.Mitvalsky@usace.army.mil</u>
<u>Chuck Van Laarhoven</u>	<u>Senior Cost Estimator</u>	<u>Charles.R.VanLaarhoven@usace.army.mil</u>
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Attachment 2: Review Plan Revisions

Revision Date	Description of Change	Page/Paragraph Number