



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, NORTHWESTERN DIVISION  
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CENWD-RBT

14 DEC 2012

MEMORANDUM FOR Commander, Kansas City District (CENWK-PM-C, Steven Fischer)

SUBJECT: Review Plan (RP) Approval for Missouri River Recovery Program Master Review Plan

1. References:

a. Memorandum, CENWK-PM-CJ, 30 November 2012, subject: Missouri River Recovery Program Master Review Plan (Encl).

b. EC 1165-2-209 Change 1, Civil Works Review Policy, 31 January 2012.

2. Reference 1.a. above has been prepared in accordance with reference 1.b. above.

3. The RP review has been coordinated within the Business Technical Division and the Planning, Environmental Resources, Fish Policy and Support Division, Northwestern Division, U.S. Army Corps of Engineers. The Review Plan includes both District Quality Control (DQC) and Agency Technical Review (ATR) for work products. NWD will serve as the Review Management Office (RMO) for ATR.

4. I hereby approve this RP, which is subject to change as circumstances require, consistent with the study development process and the Project Management Business Process. Subsequent revisions to this Review Plan or its execution will require written approval from this office.

5. For further information, please contact Mr. Steve Bredthauer at (503) 808-4053.

Encl

ANTHONY C. FUNKHOUSER, P.E.  
COL, EN  
Commanding



**DEPARTMENT OF THE ARMY**  
CORPS OF ENGINEERS, KANSAS CITY DISTRICT  
700 FEDERAL BUILDING  
601 E. 12<sup>TH</sup> STREET  
KANSAS CITY, MISSOURI 64106-2896

REPLY TO  
ATTENTION OF:  
CENWK-PM-C

30 November 2012

MEMORANDUM FOR COMMANDER, NORTHWESTERN DIVISION, USACE, ATTN:  
MR. STEVEN BREDTHAUER

SUBJECT: Missouri River Recovery Program Master Review Plan

1. The master review plan for the Missouri River Recovery Program is attached for Northwestern Division's review and approval. The review plan was prepared in accordance with EC 1165-2-209.
2. The Missouri River Recovery Program is currently in the implementation phase.
3. The point of contact for projects in the Kansas City District is the NWK implementation program manager, Zach White, at (816) 389-3482 or [zachary.l.white@usace.army.mil](mailto:zachary.l.white@usace.army.mil). The point of contact for projects in the Omaha District is the NWO implementation program manager, Mark Harberg at (402) 995-2554 or [mark.harberg@usace.army.mil](mailto:mark.harberg@usace.army.mil).

A handwritten signature in cursive script that reads "Steve Fischer".

STEVEN A. FISCHER  
MRRP Senior Program Manager

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**MASTER REVIEW PLAN  
FOR  
MISSOURI RIVER RECOVERY PROGRAM PROJECTS  
ON THE  
MISSOURI RIVER  
MONTANA, NORTH DAKOTA, SOUTH DAKOTA, NEBRASKA, IOWA, KANSAS, AND MISSOURI  
KANSAS CITY AND OMAHA DISTRICTS  
NORTHWESTERN DIVISION**

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30 November 2012

**Northwestern Division Approval Date: TBD  
Last Revision Date: Original**



**US Army Corps  
of Engineers ®  
Kansas City District**



**US Army Corps  
of Engineers ®  
Omaha District**

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## 1.0 Purpose, Applicability, and Requirements.

**1.1 Purpose.** The purpose of this Master Review Plan (RP) is to define the scope and level of review for Missouri River Recovery Program (MRRP) implementation documents and work products for projects completed under two authorities: the Missouri River Bank Stabilization and Navigation Project (BSNP) Fish and Wildlife Mitigation Project (WRDA 1986, 1999) and the U.S. Fish and Wildlife Service 2003 Amendment to the 2000 Biological Opinion (BiOP) on the Operation of the Missouri River Main Stem Reservoir System, Operation and Maintenance of the Missouri River Bank Stabilization and Navigation Project and Operation of the Kansas River Reservoir System. Both the Kansas City District (NWK) and Omaha District (NWO) execute MRRP projects and both districts report to the Northwestern Division (NWD) in Portland, Oregon.

**1.2 General Review Process.** The review process initiates with the project delivery team (PDT) at the district level. The PDT considers the project risks and selects an appropriate level of review based on the project risks in accordance with EC 1165-2-209. The risks are assessed to develop a risk informed review plan strategy.

**1.2.1** When the district has considered the project risks and determined the appropriate level of review according to the requirements of this Master RP, the PDT then prepares an MRRP Review Plan Supplement (Supplement) for submission to NWD to document the decision. This Supplement varies by the type of product, but would generally include documentation of the level of review and anticipated review cost, review team member names and disciplines for all levels of review, expertise required, and review schedule. An example of the MRRP Review Plan Supplement is included in Appendix 1. NWD then uses the Supplement to verify compliance with this Master RP and applicable regulations, as well as to document that the risk-informed decision process was sufficient to determine the appropriate level of review.

**1.2.2** Generally, an MRRP project or product is similar to past efforts and it is clear what level of review is appropriate. However, if there is doubt at the district or NWD level, additional coordination with the Risk Management Center (RMC) may be required in cases where there is debate on project risks, required review levels, review team composition and/or areas of responsibility. NWD manages RMC coordination.

**1.2.3** When Agency Technical Review (ATR) is required, NWD, as the Review Management Organization (RMO), will be required to certify the review. This certification will be included in the project files to document that the required reviews were conducted and satisfy review requirements in accordance with EC 1165-2-209.

**1.2.4** Review Plan information is a component of the Quality Management Plan (QMP) within the Project and Program Management Plans (PMP and PgMP, respectively). Once approved, this Master RP will be referenced in future project files and also placed on both Districts' websites for public comment for a minimum of 30 days. Further details on each of these steps are listed below.

**1.3 Applicability.** This review plan applies to MRRP projects or products that meet all of the requirements below:

- The project or product does not involve a significant threat to human life/safety assurance;
- The total project or product cost is less than \$45 million;

- There is no request by the Governor of an affected state for a peer review by independent experts;
- The project or product does not require an Environmental Impact Statement (EIS);
- The project or product is not likely to involve significant public dispute as to the size, nature, or effects of the project;
- The project or product is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project;
- The information in the anticipated design is not 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 design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule; and
- There are no other circumstances where the Chief of Engineers or Director of Civil Works determines that an independent external peer review is warranted.

**1.3.1** If a MRRP implementation project or product does not meet all of the above requirements, this review plan does not apply and a project-specific review plan will be prepared by the home district and approved at the appropriate level in accordance with EC 1165-2-209.

**1.3.2** This Master RP is applicable for projects requiring a level of review of District Quality Control (DQC) or Agency Technical Review (ATR) only. This Master RP is not applicable for projects requiring Type I or Type II IEPR.

**1.3.3** The final decision on applicability of this Master RP for a particular project or product is determined by Northwestern Division. If NWD determines that this Master RP is applicable for a particular project or work product, additional coordination with the RMC or USACE Headquarters is not required.

**1.4 Requirements.** This Master RP was developed in accordance with EC 1165-2-209, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R).

#### **1.5 References.**

- a) Engineering Circular (EC) 1165-2-209, *Water Resources Policies and Procedures: Civil Works Review Policy*, 31 January 2012
- b) Engineer Regulation (ER) 1110-1-12, *Quality Management*, March 2011
- c) Engineer Regulation (ER) 1105-2-100, *Planning Guidance Notebook*, 20 NOV 07
- d) Missouri River Recovery Program Management Plan, May 2010
- e) 08501 NWO Engineering Division Quality Control Process for In-house Projects & Products, 21 September 2012
- f) NWK Business Quality Procedure 7301, Product Development In-House
- g) NWK Business Quality Procedure 7302, Product Development Contract

## **2.0 Review Management Organization (RMO) Coordination**

**2.1** The RMO is responsible for managing the overall review effort described in this review plan. The respective districts shall serve as the DQC RMOs for projects or products in their areas and covered by this Master RP; NWD shall serve as the RMO for ATR. NWK, NWO, and NWD coordinated extensively to ensure the review plan meets the requirement of EC 1165-2-209 and applicable regulations.

## **3.0 Review Fundamentals**

**3.1** The USACE review process is based on a few simple but fundamental principles:

- Peer review is key to improving the quality of work in planning, design and construction;
- Reviews shall be scalable, deliberate, life cycle and concurrent with normal business processes;
- A review performed outside the home district shall be completed on all decision and implementation documents. For other products, a risk informed decision as described in EC 1165-2-209 will be made whether to perform such a review.

**3.2** EC 1165-2-209 outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. Each level of review is discussed in further detail below.

## **4.0 District Quality Control (DQC)**

**4.1** DQC is the district-internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the project Quality Management Plan (QMP) of the PMP or PgMP. The DQC is the district-internal quality control process performed by the supervisors, senior staff, peers and the PDT within the home district and is managed by the home District. DQC consists of:

- Quality checks and reviews. These are routine checks and reviews carried out during the development process by peers not responsible for the original work. These are performed by staff such as supervisors, team leaders or other senior personnel designated to perform internal peer reviews.
- PDT reviews. These are reviews by the PDT responsible for the original work to ensure consistency and coordination across all relevant disciplines.

**4.2** The RMO for DQC is the home district. All work products and reports, evaluations, and assessments will undergo DQC.

4.3 Projects or products that only require DQC will not require a separate review plan. The risk-informed decision to not conduct higher level reviews, as well as the DQC process approved for the work product or project will be documented for the project records and concurred with by NWD. See EC 1165-2-209, Appendix C for detailed process description.

## 5.0 Agency Technical Review (ATR)

5.1 ATR is a technical review by a qualified person or team not affiliated with the development of a project or product for the purpose of confirming the proper application of established criteria, regulations, laws, codes, principles and professional procedures. ATR is conducted by a qualified team from outside the MRRP districts. The ATR team members are not involved with the day-to-day production of the project or product. ATR teams are comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead is from outside NWD. In limited cases, when appropriate and independent expertise cannot be secured from Centers of Expertise or laboratories or when proper expertise cannot be secured otherwise, NWD may approve exceptions.

5.2 The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analysis and results in a reasonably clear manner for the public and decision makers.

5.3 A risk informed decision process will determine whether ATR is required for each project or product in accordance with EC 1165-2-209. The process and methods used to document the risk informed decision will be appropriate for the risk and complexity of the project. See Appendix 3 for guidance on the risk-informed decision process which MRRP projects or products will use to determine whether or not to conduct ATR.

5.4 **ATR Team Selection.** The expertise represented on the ATR team will reflect similar disciplines as those on the PDT. The PDT makes the initial assessment of the disciplines needed for ATR based on the PMP and the factors affecting the scope and level of review. The district will document the reviewers in the Supplement sent to NWD. The RMO, in cooperation with the PDT and vertical team, will determine the final composition of the ATR team.

5.5 **Required ATR Team Expertise.** The ATR teams for implementation documents or work products may consist of one to five (or more) members including the ATR team leader. The actual number will depend on the scope of the project, capability and experience of review members, and other factors. The following table describes the typical ATR team disciplines and experience requirements by each of the ATR team members for a typical MRRP project.

**Table 1: ATR Member Descriptions**

ATR Team Members/Disciplines	Expertise Required
ATR Lead	This role can be assigned to any ATR team member, but will be a senior professional with at least 5 years of professional experience in his field and experience conducting an ATR. An ATR Team member may serve multiple roles if warranted by the scope and the level of effort. The ATR Team Leader will follow the requirements as outlined in EC 1165-2-209. 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 (such as planning, economics, environmental resources, etc). The ATR Lead must be employed outside NWD.
Ecosystem Restoration Planning	Team member should be a senior ecosystem restoration planner with at least 5 years professional experience in the NEPA process and permitting under Section 401 and 404 of the Clean Water Act. Team member should also have experience in large river ecology and familiarity with the habitat requirements and life history of the listed species for which the project is meant to benefit. Team member should have a biological or ecological BS and/or Masters degree.
Cultural Resources	Team member should be a senior professional with at least 5 years of professional experience in cultural resources, regulations, and laws, including tribal considerations. Team member will be familiar with the State Historical Preservation Office and the coordination required for the project's location.
Hydraulic Engineering	The hydraulics/river engineering reviewer should be a senior hydraulic engineer with at least 5 years of professional experience in large river systems, channel morphology, and dredging. A certified professional engineer is recommended.
Geotechnical Engineering	Team member will have extensive experience in slope stability, risk assessments, soil analysis, soil mechanics, dikes, and levees. A certified professional engineer is recommended.
Civil Engineering	Team member should be a senior civil engineer with at least 5 years of professional experience in engineering and familiar with design and construction methods in the project area, preferably with experience on similar projects. A certified professional engineer is recommended.
Real Estate	Team member should be a senior real estate professional with at least 5 years of experience in federal civil works real estate laws, policies and guidance. May require experience resolving easement issues, including railroad, utility, or private easements.
Additional disciplines may be required as appropriate	

**5.6 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. Refer to EC 1165-2-209 for details of satisfactory ATR comments.

**5.7 ATR Report.** At the conclusion of each ATR effort, the ATR team will prepare a review report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

**5.8 ATR Certification.** As the RMO, NWD certifies completion of ATR. ATR is certified after all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. ATR certification (if required) will be completed before completion of the final product or award of a construction contract. A sample ATR certification is included in Appendix 2.

## **6.0 Independent External Peer Review (IEPR)**

**6.1** IEPR is the most independent level of review and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team of experts outside USACE is warranted.

**6.2** There are two types of IEPR: Type I (for decision documents) and Type II (for implementation documents).

**6.2.1** Type I IEPR. With few exceptions, the MRRP is in the implementation phase and therefore does not require Type I IEPR. If a decision document is produced for MRRP, it will require a separate Review Plan that addresses review requirements for decision documents. This Master RP is not intended to serve as a review plan for any projects which require Type I IEPR.

**6.2.2** Type II IEPR. Also called Safety Assurance Review (SAR), Type II IEPR is managed outside USACE and is conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels conduct reviews of the design and construction activities prior to initiation of physical construction and periodically thereafter on a regular schedule until construction activities are completed. The reviews consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare. A Type II IEPR would generally be required for:

- Any project addressing hurricane and storm risk management and flood risk management or;

- Any other project where Federal action is justified by life safety or;
- The failure of the project would pose a significant threat to human life.

This applies to both new projects and to the major repair, rehabilitation, replacement, or modification of existing facilities (based on identified risks and threats).

**6.2.3 Other Factors to consider for Type II IEPR (SAR) review of a project, or components of a project are:**

- The project involves the use of innovative materials or techniques where the engineering is based on novel methods, presents complex challenges for interpretations, contains precedent-setting methods or models, or presents conclusions that are likely to change prevailing practices
- The project design requires redundancy, resiliency, and robustness.
- The project has unique construction sequencing or a reduced or overlapping design and construction schedule; for example, significant project features accomplished using the Design-Build or Early Contractor Involvement (ECI) delivery systems.

**6.2.4 Decision on IEPR.** Based on the information and analysis provided, the projects covered under this Master RP do not meet the mandatory Type I or Type II IEPR triggers and do not warrant IEPR based on a risk-informed analysis. If a project were to meet one or more of the IEPR triggers described above, a separate review plan would be required. This Master RP is not intended to serve as a review plan for any projects which require IEPR.

## **7.0 Policy and Legal Compliance Review.**

**7.1** All documents will be reviewed throughout the process for their compliance with law and policy. 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 NWD 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.

**7.2** This Master RP is not intended to describe requirements and processes to conduct policy and legal compliance review, or legal sufficiency reviews.

## **8.0 Master Review Plan and Review Plan Supplement Approval**

**8.1** NWD will review this Master Review Plan and route via NWD staffing sheet. If the plan is complete and appropriate for the risk and complexity of the project/products, NWD will recommend approval by the Division Commander. The NWD approval memorandum is then sent to the MRRP Senior PgM. The NWD approval memorandum shall be documented with the review plan, and the approval date should be noted on the RP cover sheet.

8.2 When approved, the Master RP will be posted on the Kansas City District's website at this link: <http://www.nwk.usace.army.mil> and the Omaha District's website at this link: <http://www.nwo.usace.army.mil>.

8.3 The District will prepare a MRRP Review Plan Supplement for submission to NWD to document the risk-based decision process has been used in compliance with EC 1165-2-209. NWD will verify that the Supplement is in compliance with this Master RP and applicable regulations. The Review Plan Supplement will require approval by the NWD Commander.

## 9.0 Program Information

**9.1 General.** Projects implemented under the Missouri River Recovery Program (MRRP) are 100% federally funded and therefore have no cost-share sponsor. The MRRP consists of two primary authorities: the Missouri River Bank Stabilization and Navigation Project (BSNP) Fish and Wildlife Mitigation Project (WRDA 1986, 1999) and the U.S. Fish and Wildlife Service 2003 Amendment to the 2000 Biological Opinion (BiOP) on the Operation of the Missouri River Main Stem Reservoir System, Operation and Maintenance of the Missouri River Bank Stabilization and Navigation Project and Operation of the Kansas River Reservoir System. The 1986 WRDA authorized acquisition and habitat development of 29,900 acres of non-public land and habitat development on 18,200 acres of existing public lands in the Missouri River floodplain to mitigate the habitat loss caused by construction of the BSNP. The 1999 WRDA authorized additional acquisition and development of habitat to bring the total acreage authorized to 166,750 acres. The BiOP includes a "reasonable and prudent alternative" (RPA) that must be implemented in order to avoid jeopardy to the interior least tern, piping plover, and pallid sturgeon that would otherwise be caused by the continued operation and maintenance of the Missouri River Main Stem and Kansas Reservoir systems and the BSNP. This RPA includes an adaptive management and monitoring program, reservoir release modifications, shallow water habitat construction, emergent sandbar habitat construction, and pallid sturgeon propagation.

**9.2 Site Description.** The Missouri River drainage basin area is approximately 530,000 square miles, occupying approximately one sixth of the continental United States. Originating at Three Forks, Montana, where the Gallatin, Jefferson, and Madison rivers merge, the Missouri flows over 2,500 river miles north, east, and southeast to its confluence with the Mississippi River just above St. Louis, Missouri. The Missouri River Mainstem Reservoir System is comprised of six dam and reservoir projects operated by the U.S. Army Corps of Engineers (Corps). To formalize the management and operations of the system, nearly 40 years ago the Corps developed a detailed management plan, the Missouri River Main Stem Reservoir System Master Water Control Manual ("Master Manual"). Within the Master Manual, the Corps identifies the Congressionally authorized interests and sets forth a management plan to best meet the needs for the reservoir system. The Master Manual describes the water control plan and the objectives for the integrated regulation of the system by providing guidance for the regulation of the Fort Peck, Garrison, Oahe, Big Bend, Fort Randall, and Gavins Point projects. Missouri River Bank Stabilization and Navigation Project and Operation of the Kansas River Reservoir System

## 10.0 Review Requirements for MRRP Products

**10.1 Decision Documents.** With rare exceptions, the MRRP is in the implementation phase and does not produce decision documents. However, when a decision document is produced, a separate review plan will be developed to ensure the risk-informed decision is adequately documented.

**10.2 Implementation Documents.** Implementation documents may include Project Implementation Reports (PIR), environmental assessments (EA), plans, specifications, design analysis reports (DAR), and Operations and Maintenance (O&M) manuals used to gain public comments and construct projects. These documents are either developed by a USACE PDT or by a contracted architect/engineering firm. Construction is accomplished either through hired labor (USACE personnel) or through construction contracts. MRRP projects may include one or several implementation documents. Each type of MRRP implementation document is listed in Table 2, along with the levels of review it receives.

**10.3 Other Work Products.** Other work products include studies, Integrated Science Program (ISP) products, Program Integration products, and Adaptive Management Products. Each type of other work product is listed in Table 2, along with the level of review it receives.

**Table 2: MRRP Document/Product Review Levels**

MRRP Document or Product	DQC	ATR
<b>Implementation Documents</b>		
PIR	Yes	Yes
NEPA Compliance Environmental Assessment	Yes	Yes
Plans	Yes	Yes
Specifications	Yes	Yes
Design Analysis Report	Yes	Yes
O&M Manual	Yes	No
<b>Other Work Products</b>		
Independent Science Program Products	Yes	Varies. Review requirements are developed to meet requirements of the scientific community, states, or other Federal agencies. See Section 5 of the ISP PMP for documentation of the ISP review process.
Program Integration Products	Yes	No
Adaptive Management Products	Yes	Varies. Review requirements are developed to meet requirements of the scientific community, states, or other Federal Agencies.

## 11.0 Model Certification and Approval

**11.1 Engineering Models.** On projects with hydraulic designs, hydraulic modeling software may be used to determine how the design will perform. Modeling software that could be used for the models is listed below. Their required inputs, limitations, and constraints are well known and proper procedures will be followed to implement the models. Details of the inputs/outputs and model implementation procedures will be documented in the design analysis report (DAR). Table 3 includes certified hydraulic modeling software that is typically used on MRRP projects. Any MRRP Products which require modeling software not listed below it will be included in the Review Plan Supplement.

**Table 3: Engineering Models**

Model Name and Version	Brief Description of the Model and How It Will Be Applied	Approval Status
HEC-RAS (Hydrologic Engineering Center-River Analysis System) <a href="http://www.hec.usace.army.mil/software/hec-ras/">http://www.hec.usace.army.mil/software/hec-ras/</a>	HEC-RAS is designed to perform one-dimensional hydraulic calculations for a full network of natural and constructed channels.  HEC-RAS will be used to model the flow characteristics of the Missouri River, the existing chute, and the proposed chute extension.	HH&C CoP Preferred Model
Adaptive Hydraulics Model (ADH)	ADH is a 2D numerical model and was developed by the USACE Engineer Research & Development Center (ERDC) The model is capable of evaluating water movement through groundwater, overland flow and two dimensional shallow water flows.	HH&C CoP Preferred Model

## 12.0 Review Schedules and Costs

**12.1 DQC Schedule and Cost.** DQC is accomplished prior to ATR. Depending on the scope and level of DQC effort required, the entire DQC process takes between 1-6 months and costs between \$10,000-\$60,000.

**12.2 ATR Schedule and Cost.** Upon determination that a project or product requires ATR, the PDT will develop an ATR schedule and cost estimate to include in the Supplement (see Appendix 1 for an example Supplement).

## 13.0 Public Participation

**13.1** Public comments are welcome on the Master Review Plan and Review Plan Supplements. These will be posted on the home district's website. NWK's website is: <http://www.nwk.usace.army.mil> and NWO's website is: <http://www.nwo.usace.army.mil>.

**13.2** The Review Plan Supplements will be posted for public comment for at least 30 days. The Districts will consider public comments in the decision of the type of review to be carried out and the disciplines involved in the review. Significant and relevant public comments will also be provided to reviewers prior to conduct of their review. Also, due to changes in the project, the review plan may require updates. Updates are posted to the same website and the Public will have a similar opportunity to comment on review plan updates. Public comments on the review plan may be made by writing or emailing the following contacts:

Kansas City District, Corps of Engineers  
C/o Zach White, CENWK-PM-CJ  
612 E. 12<sup>th</sup> St.  
Kansas City, KS 64106  
Email: [zachary.l.white@usace.army.mil](mailto:zachary.l.white@usace.army.mil)

Omaha District, Corps of Engineers  
c/o Mark Harberg, CENWO-PM-AA  
1616 Capitol Ave.  
Email: [mark.harberg@usace.army.mil](mailto:mark.harberg@usace.army.mil)

## 14.0 Review Plan Points of Contact

Points of contact to which inquiries or comments about this Master RP and Supplements may be addressed are listed below:

### DQC

Kansas City District.....	Mr. Zach White	(816) 389-3019
Omaha District.....	Mr. Mark Harberg	(402) 995-2554

### ATR (Review Management Office)

Northwestern Division.....Mr. Stephen Bredthauer (503) 808-4053

*Appendices follow.*

# Appendix 1: Example Review Plan Supplement

CENWK-PM-CJ

30 November 2012

MEMORANDUM FOR RECORD

SUBJECT: Jameson Island Unit Shallow Water Habitat Restoration Review Plan Packet

**1. Purpose.** To document review details of the Jameson Island MRRP Project in accordance with the Missouri River Recovery Program (MRRP) Master Review Plan, approved 15 December 2012.

**2. Project Information.**

**Name:** Jameson Island (Big Muddy Refuge Sites)

**Location:** Saline County, MO

**P2 Number:** 320353

**Current Total Project Cost:** The estimated total project cost is \$4 million.

**3. Project Description.**

The Jameson Island Unit of the Big Muddy Refuge consists of 1,871 acres of land with 5 miles of river frontage and is owned by the US Fish and Wildlife Service. A side-channel chute was excavated in 2007 and is almost fully developed. This project will include the extension of the existing side-channel chute approximately 6,000 linear-feet to the southwest where another outlet to the Missouri River will be constructed. The existing chute outlet will be closed with rip-rap and water will be diverted into the chute extension. The area between the diversion and the existing chute outlet will serve as a backwater habitat.

The Kansas City District has constructed several flow-through chutes on the Missouri River as part of the MRRP, and has designed and constructed several grade control structures, diversion structures, and chute closure structures as part of the MRRP and the BSNP. The methods and materials used to design and construct this project are not innovative. There are no impacts or modifications to structures which involve potential life safety risks. The project does not involve the production of decision documents, and does not meet the mandatory IEPR triggers and does not warrant IEPR based on risk informed analysis. The Kansas City District considered the risks and determined that an ATR is the appropriate level of review for the Jameson Island Mitigation Site project.

**4. Risk Informed Decision.** The Kansas City District has determined that an **Agency Technical Review (ATR)** is required for this project.

## 5. Agency Technical Review Details

### a. Schedule.

Review Milestone	Review Products	Date Planned
65% ATR review	Draft PIR	Complete
95% ATR review	PIR, Plans and Specifications, Design Documentation Report	January 2013
ATR Certification	PIR, Plans and Specifications, Design Document Report	January 2013

### b. Costs.

Review Milestone	#reviewers/total hours	Approximate cost/hr	Totals
65% ATR review	7/84	\$110	\$9,240
95% ATR review	7/84	\$110	\$9,240
ATR Certification	7/56	\$110	\$6,160
ATR Expenses (travel etc)	\$0		\$0
<b>Total ATR costs</b>			<b>\$24,640</b>

### c. Project Delivery Team (PDT) Roster.

PDT Roster				
Name	Discipline	District	email	Phone
Zachary White	Project Manager	NWK	Zachary.L.White@usace.army.mil	816.389.3019
David Hoover	Planning/ Biologist	NWK	David.R.Hoover@usace.army.mil	816.389.3947
Tim Meade	Cultural Resources	NWK	Timothy.M.Meade@usace.army.mil	816.389.3138
Todd Gemeinhardt	Water Quality	NWK	Todd.R.Gemeinhardt@usace.army.mil	816.389.2268
Andy Marske	Civil Design	NWK	Andrew.N.Marske@usace.army.mil	816.389.3371
Patrick Schaub	Geotechnical Design	NWK	Patrick.C.Schaub@usace.army.mil	816.389.3256
Kyle Haake	Cost Estimating	NWK	Kyle.W.Haake@usace.army.mil	816.389.2220
Tracy Brown	GIS	NWK	Tracy.L.Brown@usace.army.mil	816.389.3655
Michael Gossenauer	River Engineering	NWK	Michael.B.Gossenauer@usace.army.mil	816.389.3162

d. ATR Team Roster\*.

Agency Technical Review (ATR) Team				
Name	Discipline/Role	District/ Agency	email	Phone
Charlie Hanneken	ATR Lead, NEPA, Biological, Environmental	MVP	Charles.D.Hanneken@usace.army.mil	314.331.8450
Michelle Kniep	Planning	MVP	Michelle.R.Kniep@usace.army.mil	314.331.8404
Kevin Slattery	Water Quality	MVS	Kevin.P.Slattery@usace.army.mil	314.865.6311
Jim Barnes	Archeology, Cultural	MVS	James.E.Barnes@usace.army.mil	314.331.8830
Mike Rodgers	Hydraulics/ Hydrology	MVS	Michael.T.Rodgers@usace.army.mil	314.331.8215
Mark Roenfeldt	Geotech	MVS	Mark.A.Roenfeldt@usace.army.mil	314.331.8440
Jim Mills	Civil	MVS	James.A.Mills@usace.army.mil	314.331.8301

\*See Table 1 of the MRRP Master Review Plan for the required discipline expertise.

e. Review Plan Points of Contact.

Contact	Role	Title	Office/District/Division	Phone
Zachary White	Project Manager	Project Manager	CENWK-PM-CJ	816-389-3019
Stephen Bredthauer	RMO - Point of contact	Technical Review Program Manager	NWD	503-808-4053

**6. Security Policy.** Before posting to the websites for public review of this Review Plan Supplement, it may be necessary to remove names and contact information for Corps employees to comply with security policies.

This Review Plan has been prepared in accordance with the Missouri River Recovery Program (MRRP) Master Review Plan, approved 15 December 2012.

Zachary L. White, PE  
Project Manager

# Appendix 2: Sample Statement of Technical Review for ATR

## COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the <type of product> for <project name and location>. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-209. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer's needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrChecks<sup>sm</sup>.

SIGNATURE

Name

ATR Team Leader

Office Symbol/Company

Date

SIGNATURE

Name

Project Manager (home district)

Office Symbol

Date

SIGNATURE

Name

Architect Engineer Project Manager<sup>1</sup>

Company, location

Date

SIGNATURE

Name

Review Management Office Representative

Office Symbol

Date

## CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: Describe the major technical concerns and their resolution.

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

SIGNATURE

Name

Chief, Engineering Division (home district)

Office Symbol

Date

SIGNATURE

Name

Chief, Planning Division (home district)<sup>2</sup>

Office Symbol

Date

<sup>1</sup> Only needed if some portion of the ATR was contracted to an AE.

<sup>2</sup> Only needed for decision documents.

## Appendix 3: Guidance on the Risk Informed ATR Decision Process

Source: EC 1165-2-209, Paragraph 15. The process and methods used to develop and document the risk-informed decisions must be appropriate for the risk and complexity of the project. The following questions and additional appropriate questions will be considered:

1. Does it include any design (structural, mechanical, hydraulic, etc)?
2. Does it evaluate alternatives?
3. Does it include a recommendation?
4. Does it have a formal cost estimate?
5. Does it have or will it require a NEPA document?
6. Does it impact a structure or feature of a structure whose performance involves potential life safety risks?
7. What are the consequences of non-performance?
8. Does it support a significant investment of public monies?
9. Does it support a budget request?
10. Does it change the operation of the project?
11. Does it involve ground disturbances?
12. Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided?
13. Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions?
14. Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos?
15. Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc?
16. Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc?
17. Is there, or is there expected to be, any controversy surrounding the Federal action associated with the work product?

A "yes" answer to questions above does not necessarily indicate ATR is required, but it does indicate an area where reasoned thought and judgment should be applied and documented in the recommendation.

**Decision on ATR:** The home district considers the risks and recommends to NWD whether or not ATR is required considering the project risks and complexity. NWD makes the final determination whether ATR is required. If ATR is required, ATR will be performed on the products in accordance with the district's QMP and the MRRP Master Review Plan.

## Appendix 4: Acronyms and Abbreviations

Term	Definition
ATR	Agency Technical Review
BiOP	Biological Opinion
DQC	District Quality Control
EA	Environmental Assessment
EC	Engineer Circular
EIS	Environmental Impact Statement
FEIS	Final Environmental Impact Statement
FSEIS	Final Supplemental Environmental Impact Statement
HQUSACE	Headquarters, U.S. Army Corps of Engineers
IEPR	Independent External Peer Review
MRRIC	Missouri River Recovery Implementation Committee
MRRP	Missouri River Recovery Program
MSC	Major Subordinate Command
NEPA	National Environmental Policy Act
NWD	Northwestern Division
NWK	Kansas City District
NWO	Omaha District
O&M	Operation and maintenance
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
PEIS	Programmatic Environmental Impact Statement
PDT	Project Delivery Team
PgMP	Program Management Plan
PIR	Project Implementation Report
PL	Public Law
PMP	Project Management Plan
QA	Quality Assurance
QC	Quality Control
QMP	Quality Management Plan
RMC	Risk Management Center
RP	Review Plan
SAR	Safety Assurance Review (Type II IEPR)
USACE	U.S. Army Corps of Engineers
WRDA	Water Resources Development Act