



DEPARTMENT OF THE ARMY  
CORPS OF ENGINEERS, NORTHWESTERN DIVISION  
PO BOX 2870  
PORTLAND OR 97208-2870

CENWD-RBT

13 DEC 2012

MEMORANDUM FOR Commander, Kansas City District (CENWK-PM-CJ/Kent Myers)

SUBJECT: Review Plan (RP) Approval for Blue River Channel - Mitigation, Kansas City District, Northwestern Division

1. References:

a. Memorandum, CENWK-ED, 30 November 2012, subject: Blue River Channel – Mitigation Review Plan (P2#106641), Kansas City, Missouri, Kansas City District (Encl).

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

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

3. The RP has been coordinated with the Business Technical Division, Northwestern Division, U.S. Army Corps of Engineers, which is the lead office and point of contact to execute this plan. The RP includes District Quality Control only.

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  
601 E. 12<sup>TH</sup> STREET  
KANSAS CITY, MISSOURI 64106-2896

REPLY TO  
ATTENTION OF:

CENWK-ED

30 November 2012.

MEMORANDUM FOR Commander, Northwestern Division, USACE, ATTN: Mr. Stephen Bredthauer

SUBJECT: Blue River Channel - Mitigation Review Plan (P2# 106641), Kansas City, Missouri, Kansas City District

1. Enclosed for Major Subordinate Command (MSC) approval is the Blue River Channel Flood Protection Project review plan for execution of mitigation and ancillary work. This review plan was prepared in accordance with EC 1165-2-209, Civil Works Review Policy.
2. The review plan to address mitigation and ancillary work was prepared and staffed though Kansas City District in July 2011 with full concurrence. The plan was not submitted to NWD at that time due to the decision that the reviews would be conducted at the District level. Policies have been revised since then and NWK is submitting the plan to NWD for Division approval. An updated review plan will be submitted in 2013 when the scope has been developed for the final (anticipated) construction contract to address all outstanding issues for the project in 2014.
3. The Blue River Channel Flood Protection Project is currently in the final implementation phase. As required by EC 1165-2-209, request review and approval of the Review Plan.
4. The point of contact for this memorandum is the project manager, Kent Myers, at (816) 389-3399 or kent.n.myers@usace.army.mil

Encl

  
DAVID L. MATHEWS, P.E.  
Chief, Engineering Division

CLASSIFICATION: UNCLASSIFIED

**CENWK STAFF SUMMARY SHEET**

ACTION:	<input type="checkbox"/> FOR INFORMATION	<input type="checkbox"/> FOR GUIDANCE	CONTROL NUM:
	<input type="checkbox"/> FOR APPROVAL	<input type="checkbox"/> OTHER	SUSPENSE DATE
	<input checked="" type="checkbox"/> FOR SIGNATURE		<u>25JUL 2011</u>

OFFICE SYMBOL: CENWK-PM-CJ DATE: 22 JULY 2011

SUBJECT: Approval of the attached FY11 / FY12 BLUE RIVER CHANNEL MITIGATION PROJECT REVIEW PLAN

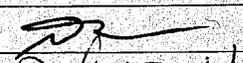
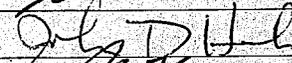
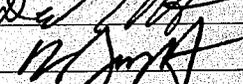
PURPOSE: To gain required signatures on the Project Review Plan

**BACKGROUND/DISCUSSION:**

- a. Attached: FY11 / FY12 BLUE RIVER CHANNEL MITIGATION PROJECT REVIEW PLAN for tree planting in the Blue River Channel fill sites plus 15 acres of discretionary tree planting in the Channel Area
- b. The risk informed decision is to perform District Quality Control (DQC) reviews only and not elevate to an Agency Technical Review per the justification within the Review Plan.

RECOMMENDATION: Approval of the attached Review Plan

**COORDINATION**

OFC SYMBOL	ACTION	CONCUR	NONCONCUR	SIGNATURE	DATE	PHONE
PM-CJ/Bishop		✓			7/22/11	3719
PM-C/Holm		✓			7/22/11	3111
PM-P/Combs		✓			7/22/11	3111
QCPM/Mathews		✓			7/22/11	3696
Chief/ED/Goodnight		✓			07.26.11	

INITIALS/DATE	INITIALS/DATE
	EXECUTIVE ASSISTANT
	DEPUTY FOR PM
	DEPUTY COMMANDER
	COMMANDER

ACTION OFFICER (Name, Grade, Phone, Signature)  
Return to Whitney Wolf PM-CJ x3315



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

## **REVIEW PLAN**

**BLUE RIVER CHANNEL MITIGATION PROJECT**

**RISK INFORMED DECISION DOCUMENTATION**

**JULY 2011**

**REVIEW PLAN**  
**BLUE RIVER CHANNEL MITIGATION PROJECT**  
**RISK INFORMED DECISION DOCUMENTATION**

**TABLE OF CONTENTS**

1. PURPOSE AND REQUIREMENTS .....	2
a. Purpose.....	2
b. References.....	2
c. Requirements.....	2
2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION.....	2
3. PROJECT INFORMATION .....	2
a. Decision Document.....	2
b. Project Description.....	2
c. Factors affecting the Scope and Level of Review.....	3
d. In-Kind Contributions.....	6
4. DISTRICT QUALITY CONTROL (DQC) .....	6
a. Documentation of DQC.....	6
5. AGENCY TECHNICAL REVIEW (ATR).....	7
a. Products to Undergo ATR.....	7
b. Required ATR Team Expertise.....	7
c. Documentation of ATR.....	7
d. Architect-Engineer (A-E) or Consulting Contacts.....	7
e. Sponsor In-Kind Work.....	7
6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR).....	7
a. Type I Independent External Peer Review (IEPR).....	7
b. Type II IEPR – Safety Assurance Review.....	7
7. POLICY AND LEGAL COMPLIANCE REVIEW .....	7
8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION .....	7
9. MODEL CERTIFICATION AND APPROVAL.....	8
a. Planning Models.....	8
b. Engineering Models.....	8
10. REVIEW SCHEDULE AND COSTS.....	8
11. PUBLIC PARTICIPATION .....	8
12. REVIEW PLAN APPROVAL AND UPDATES .....	8
13. REVIEW PLAN POINTS OF CONTACT.....	9

## 1. PURPOSE AND REQUIREMENTS

### a. Purpose.

This Project Review Plan (PRP) defines the scope and level of peer review for the Pre-Construction Engineering and Design phase of the Blue River Channel Mitigation Project (the Project). It is possible multiple smaller mitigation projects within the overall mitigation project will be covered by this Review Plan.

### b. References.

- 1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
- 2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
- 3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- 4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
- 5) Project Management Plan's for each separate project within the program
- 6) Project Quality Management Plan for each separate project within the program

### c. Requirements.

This review plan 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). The EC 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. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-209) and planning model certification/approval (per EC 1105-2-412).

## 2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan.

## 3. PROJECT INFORMATION

### a. Decision Document.

The Mitigation Project is not a Decision Document.

### b. Project Description.

The PDT will develop detailed plans for FY 11 & FY 12 habitat mitigation construction that identify locations, specify types of trees, plants and grass and their configuration for the creation of wildlife habitat to compensate for the lost habitat in the BRC as recommended mandated by

the 1980 FWS letter and map. The habitat mitigation construction plans will compliment the City of Kansas City's Master Plans for the Blue River Channel, emphasizing habitat creation tree & grass planting in and around trails, parks, and other green spaces when possible. The PDT will review the 1980 FWS letter and map and determine the actual requirement for mitigated acreage, knowing that some of the areas noted in the FWS letter were never disturbed (TBD). The PDT will determine the viability of previously established mitigation efforts and will create an accounting of those efforts in order to reach a minimum ENDSTATE of: established native grasses in the final existing channel right of way (approx. 240 acres possible), and established trees on the permanent fill areas disturbed by the project, plus 15 acres of trees to be planted were possible in the as-built permanent right of way as defined by the project construction boundaries.

Managed Native Grass areas planted during previous completed projects will extend from the upper bank Right of Ways down into the conveyance channel to the first bench in the standard channel cross section. These areas will have a mowing restriction from 1 April to 15 July. Areas on the lower bench down to the water's edge can be maintained as often as necessary and anytime during the year. The PDT deliverables will include: solicitation ready set of plan/s, Specifications, DA, contract front end, an assembly of the mitigation effort GIS layers for inclusion into KCMOs master plan, and an Operations and Maintenance Manual Components for the mitigation construction.

- c. **Factors affecting the Scope and Level of Review.** The following is our documentation of our RMO risk informed decision to NOT conduct an ATR level or more rigorous review for the Blue River Channel Mitigation Project. The RMO determines this project will undergo District Quality Control.

### **Risk Informed Decisions on Appropriate Reviews.** From paragraph 15 of EC 1165-2.209

a. Appropriate Reviews. All work products must undergo DQC. Beyond DQC, however, there is some level of judgment involved in determining whether ATR and/or IEPR levels of review are appropriate for any work product. Therefore, the RP for all work products shall include documentation of risk-informed decisions on those levels of review. Additional details on the various levels of review are provided below.

#### **ATR DECISION QUESTIONS:**

b. ATR. All decision and implementation documents are required to undergo ATR, regardless of the originating organization (Planning, Engineering, Construction, or Operations).

**BLUE RIVER CHANNEL MITIGATION:** This is not a decision document.

In deciding whether to undertake ATR for other work products, answering a series of questions will aid the PDT to help identify work products as decision or implementation documents, even if they are not identified as such. Also, this process

provides a basis for making a recommendation whether undertaking ATR is appropriate for projects that are not either a decision or implementation document. A "yes" answer does not necessarily indicate ATR is required, rather it indicates an area where reasoned thought and judgment should be applied and documented in the recommendation. The following questions, and any appropriate additional questions, shall be explicitly considered:

(1) Does it include any design (structural, mechanical, hydraulic, etc)?

BLUE RIVER CHANNEL MITIGATION: Minimal grading design to support known designated native trees and grasses.

(2) Does it evaluate alternatives?

BLUE RIVER CHANNEL MITIGATION: No

(3) Does it include a recommendation?

BLUE RIVER CHANNEL MITIGATION: No

(4) Does it have a formal cost estimate?

BLUE RIVER CHANNEL MITIGATION: Yes for the purposes of contracting as with all USACE contracts.

(5) Does it have or will it require a NEPA document?

BLUE RIVER CHANNEL MITIGATION: Yes. The project is very straight forward and will not be going out on Public Notice.

(6) Does it impact a structure or feature of a structure whose performance involves potential life safety risks?

BLUE RIVER CHANNEL MITIGATION: No. This is planting of grass and trees in areas not in the flood control channel.

(7) What are the consequences of non-performance?

BLUE RIVER CHANNEL MITIGATION: There would be fewer trees near the Blue River Channel and USACE would not have complied with its own 1981 Finding of Facts letter.

(8) Does it support a significant investment of public monies?

BLUE RIVER CHANNEL MITIGATION: No, at less than .08% of the total project cost of 250,559,000 the \$2M Mitigation is relatively insignificant.

(9) Does it support a budget request?

BLUE RIVER CHANNEL MITIGATION: Yes, as do all USACE projects.

(10) Does it change the operation of the project?

BLUE RIVER CHANNEL MITIGATION: No. The Blue River Channel is a Flood Control Project and the trees planting will not impact hydrology.

(11) Does it involve ground disturbances?

BLUE RIVER CHANNEL MITIGATION: To the extent of planting of trees: import of top soil, minor fill or minor grading to promote proper tree drainage.

(12) Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided?

BLUE RIVER CHANNEL MITIGATION: Yes. In the Byrams Ford area. There are two markers that are well known and will be marked for any operations in that area. All project work will be coordinated with KCMO, SHIPO, and the MONET fund per the Anti-Dispute Resolution prior to execution.

(13) Does it involve activities that trigger regulatory permitting such as Section 404 or storm water/NPDES related actions?

BLUE RIVER CHANNEL MITIGATION: Yes as do most USACE projects that touch soil or areas that water falls upon or drains away from.

(14) Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos?

BLUE RIVER CHANNEL MITIGATION: No. We have and will continue to test any areas suspect to contamination concerns and they will not be a part of this project.

(15) Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc?

BLUE RIVER CHANNEL MITIGATION: No.

(16) Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, storm water, electrical, etc?

BLUE RIVER CHANNEL MITIGATION: No.

(17) Is there or is there expected to be any controversy surrounding the Federal action associated with the work product?

## BLUE RIVER CHANNEL MITIGATION: No.

### d. In-Kind Contributions.

There will be no "In-Kind" Contributions in the Blue River Channel Mitigation project.

## 4. DISTRICT QUALITY CONTROL (DQC)

The Blue River Channel Mitigation project will undergo DQC. All design products (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). DQC will be conducted by the Kansas City District for all in-house prepared products. It is the responsibility of each product development team member, their supervisors, and the project manager to ensure that every product receives an internal quality control review in accordance with MSC and district Quality Management Plans. It is the responsibility of the supervisor or Section Chief for each team member to ensure that a qualified District reviewer is selected and conducts a review of their product prior to delivery to the project manager, or prior to completion.

### a. Documentation of DQC.

The PDT will document District DQC actions IAW District BOPs. See NWK BOP 7.3.01 "Product Development Process, In-House" for an explanation of how in-house products should be developed. ER 1110-1-12 contains additional information on peer review, ITR, and quality checks.

1. The in-house design products will be peer reviewed by in-house resources.
2. A review shall be performed by the ITR once the design calculations, drawings and specifications have been reviewed and completed by in-house resources.
3. Written Review comments by the ITR will be submitted via Dr Checks to the design team after the review.
4. The PDT will address comments with a written response (via Dr. Checks) and incorporate changes to the plans and specifications accordingly.
5. After changes are made, the ITR will do a final check to make sure their comments have been addressed. Resolution must occur for each comment; if agreement can not be reached between the designer and the ITR member making the comment, the issue will be elevated to the level required to make a final decision.

These steps shall be followed for 35%, 65% and 95% design. An interdisciplinary review will also be completed during the time of the 65% design submittal and the 95% design submittal. Two Plan-in-hands will be conducted; one prior to real estate acquisition and one after. During the 95% plans and specifications preparation phase, a plan-in-hand meeting will be conducted. Once real estate has been acquired another Plan-in-Hand meeting will be held to identify any changes to the project site that occurred since the plans had been completed. During the plan-in-

hand, the resident office overseeing the project and the PDT will visit the site reviewing the plans and observing the actual site conditions. All QCP activities are scheduled in P2.

## 5. AGENCY TECHNICAL REVIEW (ATR)

The District determines the Blue River Channel Mitigation Project does not require an ATR.

- a. Products to Undergo ATR. N/A
- b. Required ATR Team Expertise. N/A
- c. Documentation of ATR. N/A
- d. Architect-Engineer (A-E) or Consulting Contacts.

The Blue River Channel Mitigation will not use A-E or Consulting contacts.

- e. Sponsor In-Kind Work.

There will be no technical products provided from the sponsor as in-kind contributions.

## 6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

The District determines the Blue River Channel Mitigation Project does not require an IEPR. This project does not meet the criteria listed in paragraph 11, Type I IEPR, EC 1165-2-209 or paragraph 12, Type III IEPR Safety Assurance Review (SAR).

- a. Type I Independent External Peer Review (IEPR). N/A-This project is not anticipated to require Type I IEPR because it is in the implementation phase and not the study phase.
- b. Type III IEPR – Safety Assurance Review. N/A - This project is not anticipated to require Type III IEPR because it does not pose a significant threat to public health, safety, or welfare.

## 6. POLICY AND LEGAL COMPLIANCE REVIEW

All documents will be reviewed throughout the design 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 design recommendations, supporting analyses, and coordination comply with law and policy, and warrant approval for construction. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods.

## 7. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION

The District determines the Blue River Channel Mitigation Project does not require an ATR. Therefore, this project's Cost Estimates does not require coordination with the Cost Engineering DX, located in the Walla Walla District.

## 8. MODEL CERTIFICATION AND APPROVAL

N/A.

### a. Planning Models.

N/A.

### b. Engineering Models.

N/A.

## 10. REVIEW SCHEDULE AND COSTS

The projects schedule and budget includes tasks and milestones and funding for District Quality Control.

## 11. PUBLIC PARTICIPATION

Review of the project review plan will be available on the Kansas City District website, link as follow: [http://www.nwk.usace.army.mil/projects/BRC Mitigation](http://www.nwk.usace.army.mil/projects/BRC%20Mitigation) and at the request of interested parties. The review plan will be available through all public and agency scoping and other processes for the project. Inquiries regarding the review plan and the project should be directed to the Review Plan points of contact listed in this document.

## 12. REVIEW PLAN APPROVAL AND UPDATES

The Northwest Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE members) as to the appropriate scope and level of review for the design document. Like the PMP, the Review Plan is a living document and may change as the project progresses. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, will be posted on the Home District's webpage. The latest Review Plan will also be provided to the RMO and home MSC.

## 12. REVIEW PLAN POINTS OF CONTACT

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

Kansas City District: Whitney Wolf, Project Manager (816) 389-3315  
Northwest Division:  
PRM-PCX:

### REVIEW PLAN APPROVAL FLOW

STEP	COMPLETED
a. PDT and stakeholder review,	Thursday, 14 July 11
b. PM-C,	See Attached Email Approval
c. PM-P,	22 Jul 11
d. District Quality Assurance Program Manager.	22 Jul 11
e. Chief, ED for district approval.	26 Jul 11
f. RP is sent to the RMO (NWD is the RMO for implementation documents for approval.	30 Nov 12
g. The PDT will respond to any RMO comments. RMO comments that require significant changes (as determined by the PDT) require RP re-approval by the ED Chief.	