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

1 4 DEC 2012

MEMORANDUM FOR Commander, Kansas City District

SUBJECT: Review Plan (RP) Approval for Wanamaker Wetlands, Topeka, Kansas Section 206 Definite Project Report

1. References:

a. RP for Wanamaker Wetlands, Topeka, Kansas Section 206 Definite Project Report (DPR) (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 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 Review Plan includes District Quality Control and Agency Technical Review and has been coordinated with Business Technical Division as the Review Management Office (RMO). The RMO Point of Contact is Steve Bredthauer, 503-808-4053.

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 RP or its execution will require written approval from this office.

5. For further information, please contact Mr. Jeremy Weber at (503) 808-3858.

Encl

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

CF: CENWD-PDD

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REVIEW PLAN

USING THE NWD MODEL REVIEW PLAN

for

Continuing Authorities Program (CAP)
Section 206 Program under CAP Procedures

Wanamaker Wetlands, Topeka, Kansas
Section 206 Definite Project Report (DPR)

Kansas City District

4 Dec 2012

MSC Approval Date: Pending

Last Revision Date: None

P2 No. 146255

US Army Corps
of Engineers ®

REVIEW PLAN
USING THE NWD MODEL REVIEW PLAN

Wanamaker Wetlands, Topeka, Kansas
Section 206 Project

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Wanamaker Wetlands, Topeka, Kansas, Section 206 project.

Section 206 of the Water Resources Development Act of 1996, Public Law 104-305, authorizes the Secretary of the Army to carry out a program of aquatic ecosystem restoration with the objective of restoring degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition considering the ecosystem's natural integrity, productivity, stability and biological diversity. This authority is primarily used for manipulation of the hydrology in and along bodies of water, including wetlands and riparian areas. This authority also allows for dam removal. It is a Continuing Authorities Program (CAP) which focuses on water resource related projects of relatively smaller scope, cost and complexity. Traditional USACE civil works projects are of wider scope and complexity and are specifically authorized by Congress. 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 Model Review Plan for Section 14, 107, 111, 204, 206, 208, 1135 and authorities directed by guidance to follow CAP procedures, which is applicable to projects that do not require Independent External Peer Review (IEPR), as defined in EC 1165-2-209 Civil Works Review Policy.

c. References

(1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
(2) EC 1105-2-412, Model Certification, 31 May 2005
(3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
(4) ER 1105-2-100, Planning Guidance Notebook, Appendix F, Continuing Authorities Program, Amendment #2, 31 Jan 2007
(5) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
(6) Continuing Authority Program Planning Process Improvements, Director of Civil Works' Policy Memorandum #1, 19 Jan 2011

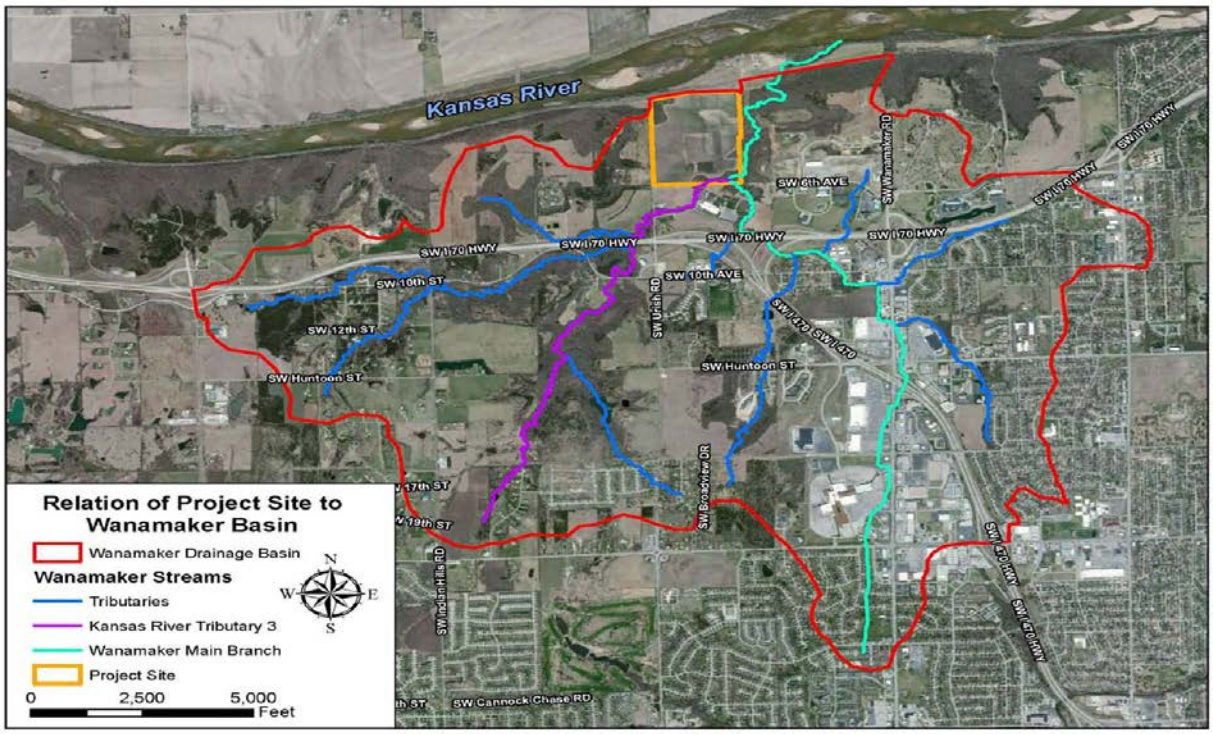
2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

NWD is responsible for managing the overall review effort described in this review plan. NWD will coordinate and approve the review plan and manage the Agency Technical Review (ATR). Kansas City District will post the approved review plan on its public website and provide the appropriate NWD District Support Planner with the link.

3. PROJECT INFORMATION

a. Decision Document. The Wanamaker Wetlands, Topeka, Kansas decision document will be prepared in accordance with ER 1105-2-100, Appendix F. The approval level of the decision document (if policy compliant) is NWD. An Environmental Assessment (EA) will be prepared along with the decision document.

b. Study/Project Description. Located in the northwest part of the City of Topeka (City), the Wanamaker Basin is the first urbanized basin to discharge upstream of the raw water intake for the City's water treatment plant. Of the approximately 7,248 acres in the Wanamaker drainage basin, about 2,710 acres are included in the highly urbanized area bisected by Wanamaker Road. At 11 square miles, the Basin represents less than 0.02% of the 56,720 square mile Kansas River drainage basin above Topeka, yet contributes substantially higher loadings (on an event basis) of certain pollutants to the River. It is proposed under this study to improve habitat and as an added benefit to protect the quality of water in the Wanamaker Basin by constructing a wetland complex. The type of habitat to restore basically includes choices between emergent, scrub-shrub, forested, and open water wetlands. Planting of hardwood and mast producing tree species, and herbaceous plant species including wetland/prairie species may also be considered in plan formulation. Alternative plans shall be geared to address goals and objectives for formulation and will be closely coordinated with the City of Topeka, who is the sponsor and the Kansas Department of Wildlife, Parks, and Tourism (KDWPT) who is a major stakeholder and will be managing the land once the project is complete. Some of the types of measures being considered are inlet diversions, in-stream weirs, creation of shallow marsh habitat, diversion of Wanamaker main branch, restoration of mesic and dry habitat, restoration of riparian corridor habitat and open woodland habitat. Alternatives that will be formulated will likely be a combination of the above listed measures. The estimated range for the total project cost is $2M to $5M. We do not anticipate any policy waiver requests (pursued per paragraph F-10.f.(4) of ER 1105-2-100, Appendix F).



c. **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. Kansas City District shall manage DQC.

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 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 outside of NWD in this case.

a. **Required ATR Team Expertise.** The ATR Team will be composed of approximately seven reviewers and one ATR team lead. NWD, in cooperation with the PDT and vertical team, will determine the final make-up of the ATR team. The ATR team members should preferably have a minimum of 10 years of experience and be familiar with ecosystem restoration studies.

b. **Required ATR Team Expertise.** The ATR Team will be composed of approximately eight reviewers and one ATR team lead. The RMO, in cooperation with the PDT and vertical team, will determine the final make-up of the ATR team. The ATR team members should preferably have a minimum of 10 years of experience and be familiar with ecosystem restoration studies.

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with experience in preparing Section 206 decision documents 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 (such as planning, economics, environmental resources, etc).
Planning	The planning reviewer should be a senior water resources planner with experience in environmental restoration projects under CAP authority as well as experience with CE/ICA.
Economics	The economics reviewer should be a senior economist with experience in environmental restoration projects and IWR Planning Suite to review CE/ICA
Environmental Resources	The environmental resources reviewer should be a senior reviewer with a strong understanding of ecosystem restoration studies and experience in NEPA documentation and environmental permitting. Additionally, the reviewer should have an understanding of HEP/HIS models to complete a review of the environmental benefits used for this study.

Geotechnical Engineering	The geotechnical engineering reviewer will have experience in determining rock gradation, geometry of wetland structures, rock armoring and emergency spillway protection.
Civil Engineer	The civil engineer reviewer will have a thorough understanding of civil, utilities and site aspects of environmental restoration design.
Hydrology and Hydraulic Engineering	The hydraulic engineering reviewer will be an expert in the field of hydraulics and have a thorough understanding of wetland restoration and detention ponds. Will also have an understand of computer modeling techniques, such as HEC-RAS.
Real Estate	The real estate reviewer will have a thorough understanding of easements, right of ways, and land acquisition.
Cost Engineering	Corps of Engineers Cost Estimating Center of Expertise will handle this review. The cost engineer should have experience preparing cost estimates for ecosystem restoration project and using MCACES software.

c. **Charge Document.** The district will prepare the charge document which clearly identifies the review requirements. This document must be completed prior to requesting an ATR team.

d. **Documentation of ATR.** *DrChecks revie*w 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. *If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical* team for further resolution in accordance with the policy issue resolution process described in either ER 1110-2-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

6. POLICY AND LEGAL COMPLIANCE REVIEW

All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC 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. The cost ATR member will coordinate with the Cost DX for execution of cost ATR and cost certification. The cost estimates will be prepared in accordance with and reviewed for compliance with ER 1110-1-1300, Cost Engineering Policy and General Requirements, guidance /

procedures applicable to CAP projects as provided at the Cost DX Web Page http://www.nww.usace.army.mil/Missions/CostEngineering.aspx, and other applicable references. 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.

a. **EC 1105-2-412.** This EC 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 and ATR.

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

• **Model Name and Version**	• **Brief Description of the Model and How It Will Be Applied in the Study**	
IWR Planning Suite	• IWR Planning Suite assists with plan formulation by combining user-defined solutions to planning problems and calculating the effects of each combination, or "plan." The program can assist with plan comparison by conducting cost effectiveness and incremental cost analyses, identifying the plans which are best financial investments and displaying the effects of each on a range of decision variables.	Approved
Wildlife Habitat Appraisal Guide (WHAG)	This model was developed to evaluate wildlife habitat. WHAG numerically rates existing and future habitat quality according to Habitat Suitability index (HSI) values	Pending approval
HEC-RAS - Current Version	1-D hydraulic model used for hydraulic computations and simulations of existing, future without project and with project river flow conditions	Approved
MCACES/MII for Cost Estimating - Current Version	Corps require software system for cost estimating.	Approved

9. REVIEW SCHEDULES AND COSTS

ATR Schedule and Cost.

ATR of draft DPR report June 2013 $10,000

AFB	July 2013
ATR Final Report:	Aug 2013

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. Agencies with regulatory review responsibilities will be contacted for coordination as required by applicable laws and procedures. The ATR team will be provided copies of public and agency comments after compiling the comments following the public meeting. A public meeting will be conducted in 2nd quarter of FY13. The details of this public meeting are still being worked out. The final decision document will be available to the public by placement on the Kansas City District website, made available through stakeholders, and published in other electronic media, libraries etc as appropriate.

11. REVIEW PLAN APPROVAL AND UPDATES

The NWD Commander will be required to approve the review plan, ensuring appropriate use of the approved Model Review Plan. The review plan is a living document and may change as the study progresses. The Kansas City District is responsible for keeping the review plan up to date. Minor changes to the review plan after NWD approval will be documented in attachments and will not require submission to NWD for approval. Significant changes to the review plan (such as changes to the scope and/or level of review) should be submitted for approval by the NWD Commander. Significant changes in scope could result in NWD determining that use of the NWD Model Review Plan is no longer appropriate. In these cases, a project specific review plan may be required in accordance with EC 1165-2-209. The latest version of the review plan, along with the NWD approval memorandum, will be posted on the home district's webpage. Changes will be entered and tracked per "ATTACHMENT 3: REVIEW PLAN REVISIONS" tracking table.

12. REVIEW PLAN POINTS OF CONTACT

Public questions and/or comments on this review plan can be directed to the following points of contact: Jennifer Henggeler, Jennifer.a.henggeler@usace.army.mil, 816-389-3778

- John Grothaus, john.j.grothaus@usace.army.mil, 816-389-3110
- Jeremy Weber, Jeremy.j.weber@usace.army.mil, 503-808-3858

ATTACHMENT 1: TEAM ROSTERS

PDT

Discipline	Name	Office Symbol/Agency	Telephone Number
Project Manager	[redacted]	[redacted]	[redacted]
Project Manager, A-E services	[redacted]	[redacted]	[redacted]
Environmental Resources Specialist	[redacted]	[redacted]	[redacted]
Cultural Resources	[redacted]	[redacted]	[redacted]
Ecologist, A-E services	[redacted]	[redacted]	[redacted]
Project Engineer, A-E services	[redacted]	[redacted]	[redacted]
Civil Engineer	[redacted]	[redacted]	[redacted]
Geotechnical Engineer	[redacted]	[redacted]	[redacted]
Cost Estimator, A-E services	[redacted]	[redacted]	[redacted]
Real Estate	[redacted]	[redacted]	[redacted]
Cost Estimator	[redacted]	[redacted]	[redacted]
Economist	[redacted]	[redacted]	[redacted]

DQC

Discipline	Name	Office Symbol/Agency	Telephone Number
Plan Formulation	[redacted]	[redacted]	[redacted]
Environmental Resources Specialist	[redacted]	[redacted]	[redacted]
Civil Engineer	[redacted]	[redacted]	[redacted]
Hydraulic Engineer	[redacted]	[redacted]	[redacted]
Geotechnical Engineer	[redacted]	[redacted]	[redacted]
Real Estate	[redacted]	[redacted]	[redacted]
Cost Estimator	[redacted]	[redacted]	[redacted]
Economist	[redacted]	[redacted]	[redacted]

ATR

Discipline	Name	Office Symbol/Agency	Telephone Number
ATR Lead	[redacted]	[redacted]	[redacted]
Environmental Resources Specialist	[redacted]	[redacted]	[redacted]
Civil Engineer	[redacted]	[redacted]	[redacted]
Hydraulic Engineer	[redacted]	[redacted]	[redacted]
Geotechnical Engineer	[redacted]	[redacted]	[redacted]
Real Estate	[redacted]	[redacted]	[redacted]
Cost Estimator	[redacted]	[redacted]	[redacted]
Economist	[redacted]	[redacted]	[redacted]

ATTACHMENT 2: STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Wanamaker Wetlands, Topeka, KS Section 206 Definite Project Report (DPR). 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™.

[redacted] Date

ATR Team Leader
CESWT-PE-P

[redacted] Date

Project Manager
CENWK-PM-PF

[redacted] Date

Review Management Office Representative
CENWD-PDD

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.

[redacted] Date

Continuing Authorities Program Manager
CENWK-PM-P

[redacted] Date

Chief, Planning Branch
CENWK-PM-P

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

Term	Definition	Term	Definition
AFB	Alternative Formulation Briefing	NER	National Ecosystem Restoration
ASA(CW)	Assistant Secretary of the Army for Civil Works	NEPA	National Environmental Policy Act
ATR	Agency Technical Review	NHPA	National Historic Preservation Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
CWA	Clean Water Act	OMB	Office and Management and Budget
DPR	Detailed Project Report	OMRR&R	Operation, Maintenance, Repair, Replacement, and Rehabilitation
DQC	District Quality Control/Quality Assurance	OEO	Outside Eligible Organization
DX	Directory of Expertise	OSE	Other Social Effects
EA	Environmental Assessment	PCX	Planning Center of Expertise
EC	Engineer Circular	PDT	Project Delivery Team
EIS	Environmental Impact Statement	PAC	Post Authorization Change
EO	Executive Order	PMP	Project Management Plan
ER	Engineer Regulation	PL	Public Law
FDR	Flood Damage Reduction	POH	U.S. Army Corps of Engineers, Honolulu District
FEMA	Federal Emergency Management Agency	POD	U.S. Army Corps of Engineers, Pacific Ocean Division
FRM	Flood Risk Management	QMP	Quality Management Plan
FSM	Feasibility Scoping Meeting	QA	Quality Assurance
GRR	General Reevaluation Report	QC	Quality Control
HEP	Habitat Equivalency Protocol	RED	Regional Economic Development
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMC	Risk Management Center
IEPR	Independent External Peer Review	RMO	Review Management Organization
ITR	Independent Technical Review	RTS	Regional Technical Specialist
IWR	Institute of Water Resources	SAR	Safety Assurance Review
MSC	Major Subordinate Command	USACE	U.S. Army Corps of Engineers
NED	National Economic Development	WRDA	Water Resources Development Act