



DEPARTMENT OF THE ARMY
U.S. ARMY ENGINEER DIVISION, GREAT LAKES AND OHIO RIVER
CORPS OF ENGINEERS
550 MAIN STREET
CINCINNATI, OH 45202-3222

CELRD-PD-O

23 May 13

MEMORANDUM FOR Commander, U.S. Army Corps of Engineer, Huntington District, Attn: Mark Kessinger (CELRH-PM-PP-P), 502 Eighth Street, Huntington, WV 25701

SUBJECT: Section 729 Nimishillen Creek Watershed Final Watershed Assessment

1. The attached Review Plan (RP) for Section 729 Nimishillen Creek Watershed was presented to the Great Lakes and Ohio River Division for approval in accordance with EC 1165-2-214 "Civil Works Review" dated 15 December 2010.
2. The Watershed Assessment Management Plan (WAMP) for the section 729 Nimishillen Creek FWA outlines components of a feasibility-type study which will result in a Watershed Management Plan outlining appropriate strategies and alternatives that will help to address two categories of problems: flooding and water quality. The RP defines the scope and level of peer review for the activities to be performed for the subject project.
3. The USACE LRD Review Management Organization (RMO) has reviewed the attached RP and concurs that it describes the scope of review for work phases and addresses all appropriate levels of review consistent with the requirements described in EC 1165-2-214.
4. I concur with the recommendations of the RMO and approve the enclosed RP for the Review Plan for Section 729 Nimishillen Creek Watershed Review Plan.
5. The District is requested to post the RP to its website. Prior to posting, the names of all individuals identified in the RP and the dollar values of all project costs should be removed.
6. If you have any questions please contact [REDACTED] (513) 684-6050.

Margaret W. Burcham
MARGARET W. BURCHAM
Brigadier General, USA
Commanding

Encls

1. Memo: CELRH-PM-PD-R, dated 21 Dec 2012
2. Review Plan



REPLY TO
ATTENTION OF

CELRH-PM-PD-R

DEPARTMENT OF THE ARMY
HUNTINGTON DISTRICT, CORPS OF ENGINEERS
502 EIGHTH STREET
HUNTINGTON, WEST VIRGINIA 25701-2070


1 May 2013

MEMORANDUM FOR Commander, U.S. Army Corps of Engineers, Great Lakes and Ohio River Division (ATTN: Robert Iseli, CELRD-PDS-O), 550 Main Street Cincinnati, Ohio 45202-3222

SUBJECT: Review Plan for Section 729 Nimishillen Creek Final Watershed Assessment

1. The Section 729 Muskingum River Basin Initial Watershed Assessment (IWA) was completed and approved by LRD on 19 June 2012. The IWA indicated Federal interest exists for conducting a Final Watershed Assessment and developing a Watershed Plan for the Nimishillen Creek Watershed, located in the northern part of the Muskingum Basin. This Watershed Plan will propose ways to help alleviate water resource problems in a holistic manner.
2. Pursuant to EC 1165-2-214, the Huntington District has prepared a Review Plan for the study that outlines the various levels of review required and the manner in which they will be completed.
3. The subject Review Plan is enclosed for your review and approval. The Review Plan was provided to Mr. Robert Iseli electronically on 8 April 2013, and this serves as the formal submittal.
4. The District is seeking a waiver for a Type I Independent External Peer Review for the assessment study.
5. Any questions regarding this submittal should be directed to [REDACTED], the Project Manager at 304-399-5083, or [REDACTED], the Study Manager at 304-399-5347.

Encl


 STEVEN T. MCGUGAN
 Colonel, Corps of Engineers
 Commanding

OTHER WORK PRODUCTS REVIEW PLAN

**Nimishillen Creek Final Watershed Assessment
Ohio
Section 729 Watershed Analysis
Huntington District**

MSC Approval Date: Pending

Last Revision Date: None



**US Army Corps
of Engineers®**

OTHER WORK PRODUCTS REVIEW PLAN

**Nimishillen Creek Final Watershed Assessment
Ohio
Section 729 Watershed Analysis**

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1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the Nimishillen Creek Final Watershed Assessment (FWA), Ohio Section 729 Analysis.

b. References

- (1) Engineering Circular (EC) 1165-2-214, Civil Works Review, 15 Dec 2012
- (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) EC 1105-2-411, Watershed Plans, 15 Jan 2010
- (6) Watershed Assessment Management Plan, May 2011
- (7) ISO Process; Document ID: 4833, Great Lakes and Ohio River Division, Preparation and Approval of Civil Works Review Plans, 22 Sep 2011

c. **Requirements.** This review plan was developed in accordance with EC 1165-2-214, 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 1165-2-214) 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. The RMO for decision documents is typically either a Planning Center of Expertise (PCX) or the Risk Management Center (RMC), depending on the primary purpose of the decision document. The RMO for Other Work Products is designated to be the MSC (EC 1165-2-214 Paragraph 9.c.2). The RMO for the peer review effort described in this Review Plan is the Great Lakes and Ohio River Division (LRD).

Feasibility level cost estimates are not included in this watershed assessment therefore the RMO will not need to coordinate with the Cost Engineering Mandatory Center of Expertise (MCX).

3. STUDY INFORMATION

a. **Decision Document.** The Nimishillen Creek FWA is not a decision document and will not result in recommendation for authorization of a project for construction. The FWA is a Section 729 watershed analysis and falls in the category of Other Work Products. The Nimishillen Creek FWA is being conducted under the authority of Section 729 of the Water Resources Development Act (WRDA) of 1986(33 U.S.C. 2267a), as amended by Section 202 of WRDA of 2000 and Section 2010 of WRDA of 2007. This authorization allows the US Army Corps of Engineers (USACE) along with the non-Federal sponsor to assess the water resources needs of entire river basins and watersheds of the United States, in consultation with appropriate Federal, tribal, state and local agencies and stakeholders.

In contrast to traditional USACE planning, in which the desired output of the study would be to identify a USACE project, the goal of the Nimishillen Creek FWA is to complete a Watershed Management Plan (WMP) which may or may not identify specific USACE projects. The study is likely to conclude with a series of recommendations implementable by a variety of resource agencies – both Federal and non-Federal – as funding becomes available. This report will be a planning and technical study which will not contain recommendations for authorization or funding for construction, but may recommend further study.

Due to the scope of the study, NEPA documents will not be required. The study and its products will be considered as a categorical exclusion from NEPA according to ER 200-2-2 (9.c). Additionally there will not be any real estate acquisition required.

As previously stated, the overarching goal and purpose of the FWA will be to provide a water resource management strategy for the Nimishillen Creek Watershed. It will promote sustainable water resources management while taking into consideration flood risk management, environmental protection, economic development and social well-being. The FWA will focus on the investigation and recommendation for solutions to two identified water resources problems: flooding and water quality.

- b. Study/Project Description.** The Watershed Assessment Management Plan (WAMP) for the Section 729 Nimishillen Creek FWA will act as a traditional Corps Project Management Plan (PMP). The Section 729 Nimishillen Creek FWA will result in a WMP outlining appropriate strategies and alternatives that will help to address two categories of problems that were identified in the Muskingum, Ohio Initial Watershed Plan (IWA): flooding and water quality. Increased urban development along Nimishillen Creek, specifically the placement of impervious surfaces in the floodplain, has negatively impacted the watershed and is seen to have contributed to increased flooding in the watershed. The flooding, believed to result from increased floodplain encroachment, is of particular concern along the East Branch of Nimishillen Creek, between Louisville and Canton. Water quality issues are believed to stem from runoff (i.e. the stream passing through heavily urbanized areas and agricultural lands) as well as from failing septic systems. Impairments to water quality in the watershed include ammonia, dissolved oxygen, flow alterations, habitat alterations, nitrates, nutrients, and organic enrichment (sewage) biological indicators, PCBs in fish tissue, pathogens, sedimentation, siltation, sulfates, temperature and acidity.

Although the assessment area will encompass the entire Nimishillen Creek watershed, the approach used to develop integrated water resource management strategies may vary from sub-watershed to sub-watershed depending on the complexity of issues.

As previously stated, the study findings may recommend areas for further study but is not intended to recommend, or serve as the basis for authorizing a site specific project. If a watershed study identifies potential projects for Corps implementation, a separate and more detailed feasibility study may be initiated with the watershed study serving as the technical component of the reconnaissance study.

The Nimishillen Creek FWA will be carried out with cost-sharing from the Muskingum Watershed Conservancy District (MWCD) which has agreed to partner with the U.S. Army Corps of Engineers, Huntington District as the non Federal sponsor. The MWCD has issued a letter of

intent to cost-share for the effort. They are contributing 25% of the cost of the study in a combination of cash and in-kind services.

- c. **Factors Affecting the Scope and Level of Review.** The Nimishillen Creek FWA Sec 729 Analysis is anticipated to be challenging and beneficial, but it will not be novel, controversial or precedent-setting. The watershed assessment focuses on a major tributary to the Muskingum River, which in turn is a tributary to the Ohio River, a nationally significant waterway. The Muskingum River was identified as a priority river system for assessment by the Ohio River Basin Comprehensive Reconnaissance Report. The study will provide strategic guidance to flood damage reduction and water quality restoration from a systems-wide perspective. The plan will recommend alternatives and measures to address the two main water resource needs identified through stakeholder outreach which, as previously stated, include flooding and water quality.
- d. **In-Kind Contributions.** The non-Federal cost share partner, the MWCD, will contribute in-kind services as part of their cost share. This is reflected in the current cost estimate for the study. The MWCD will be contributing \$34,732 in in-kind services as part of their \$70,000 cost share. The Huntington District will provide oversight and quality control on any in-kind services, and they will be subject to a level of review commensurate with technical Federal contributions to the study.

4. DISTRICT QUALITY CONTROL (DQC)

All documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the WAMP. The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home MSC.

- a. **Documentation of DQC.** DQC is documented in a Quality Control Plan (QCP), which summarizes the reviewed product, review process, and major issues and their resolution. This QCP, signed by the Project Delivery Team (PDT) and DQC team, will be provided to the ATR team. The DQC process is outlined as an Appendix in the WAMP. Each member of the PDT will ensure a quality product in their functional area through internal design checks, seamless reviews, and interaction with the ATR.
- b. **Products to Undergo DQC.** The products developed during the FWA - including a watershed planning document, the WAMP, products and analyses provided by non-Federal sponsors as in-kind services, as well as all read-ahead material - will undergo DQC. These products shall be subject to comprehensive PDT Review as well.

5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. 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 and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside the home MSC.

a. **Products to Undergo ATR.** The Nimishillen Creek FWA will be subject to ATR. Due to the scope of the project, NEPA documentation is not required, as outlined in ER 200-2-2 (9.c.).

b. **Required ATR Team Expertise.**

| ATR Team | |
|------------------------------|--|
| ATR Team Members/Disciplines | Expertise Required |
| ATR Lead | The ATR lead should be have experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead for this study should also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc). |
| Planning Formulation | The Planning reviewer should be a senior water resources planner with experience in flooding and water quality issues. There will be extensive alternative analyses within the plan that would need to be reviewed along with determinations of likely interested parties for project implementation. |
| Environmental | The Environmental reviewer should be well versed on ecosystems. Although the watershed plan will not include any National Environmental Policy Act (NEPA) evaluations, the concepts and principles behind NEPA will be used to determine the appropriateness of recommended actions. Due to the possibility of future Corps projects being identified, this reviewer should also be familiar with actions requiring review in accordance with environmental policies, procedures, laws and regulations that apply to Corps projects. |
| Hydrology & Hydraulics | The interaction between water management and its impact on streams is of paramount importance in this investigation. Familiarity with standard hydrologic and hydraulic modeling and its application may be required. |

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. The four key parts of a quality review comment will normally include:

- (1) The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and

- (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. 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 1110-1-12 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.

At the conclusion of each ATR effort, the ATR Team Lead will prepare an ATR 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.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed, based on work reviewed to date, for the draft report, and final report. A sample Statement of Technical Review is included in Attachment 2. Team members and expertise are shown in Attachment 1.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

IEPR may be required for decision documents under certain circumstances. 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 outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-214, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

- Type I IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans,

methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-214.

- Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), is managed outside the 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 will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare. Type II IEPR is not required for this study.
- a. **Decision on IEPR.** This study does not meet any mandatory trigger for Type I IEPR: there is no threat to human life (pertaining to the study itself), there will be no construction; the total project cost is under the \$45 million ceiling, the study is not controversial and its project recommendations are intended to preserve and enhance ecological health and resilience. EC 1165-2-214 states that “Meeting the specific conditions identified for possible exclusions is not, in or of itself, sufficient grounds for recommending exclusion. A deliberate, risk-informed recommendation whether to undertake IEPR shall be made and documented by the project delivery team (PDT).” The PDT has performed a risk assessment for this study, and for the reasons stated below IEPR is not applicable for this watershed study and the Huntington District is seeking an exclusion from Type I IEPR as per HQUSACE guidance.

A review plan for any new follow on feasibility study(ies) would be developed and submitted to LRD and the FRM-PCX for determination regarding Type I and Type II IEPR.

- (1) There is no design with this study, and the study does not directly lead to construction.
- (2) The study will examine priority risk areas for flooding. There may be current risks to life safety from flooding conditions in the watershed and these will be identified in the study. If a project is proposed from the watershed assessment it will likely be conceptual in nature and residual risk and/or project non-performance will be considered. However, more detailed feasibility analyses would be required on project specific recommendations since this study will not authorize a site specific project.

Should this FWA result in a Corps feasibility study, this review plan will be expanded and updated to include a risk informed decision based on the recommended plan. The review plan will be revised and resubmitted to LRD for determination regarding Type I and Type II IEPR.

- (3) There is no formal cost estimate as would be developed for a study concluding with a recommendation for project authorization. There will not be recommendations for USACE project implementation.
- (4) The watershed plan does not require NEPA documentation.
- (5) The watershed plan does not impact a dam or appurtenant structure whose performance involves potential life safety risks. It will not involve changes in management to any flood control structure. The Watershed Management Plan may identify flows necessary to support ecological health. Study products may lead to future feasibility or implementation documents that impact structures whose performance involves potential life safety risks. A determination on necessary review requirements for those studies will be made when this review plan is resubmitted during the feasibility phase.
- (6) This watershed plan has a study cost of \$280,000 and no investment of public monies is required beyond the study cost.
- (7) This watershed plan will not directly lead to project implementation and therefore does not support a USACE budget request for a specific project.
- (8) This watershed plan does not involve ground disturbances.
- (9) The watershed plan does not affect any special features.
- (10) The watershed plan does not involve activities that trigger regulatory permitting.
- (11) The watershed plan does not involve activities that could potentially generate hazardous wastes and/or disposal of hazardous materials.
- (12) The watershed plan does not reference the use of, or reliance on, manufacturers' engineers and specifications.
- (13) The watershed plan does not involve utility systems and therefore does not rely on local authorities for inspection/certification.
- (14) There is not expected to be any controversy surrounding Federal actions associated with this work product.

- b. Products to Undergo Type I IEPR.** Not-Applicable in this phase. Will be reevaluated during the feasibility phase.
- c. Required Type I IEPR Panel Expertise.** Not-Applicable in this phase. Will be reevaluated during the feasibility phase.
- d. Documentation of Type I IEPR.** Not-Applicable in this phase. Will be reevaluated during the feasibility phase.

7. POLICY AND LEGAL COMPLIANCE REVIEW

The FWA will be reviewed throughout the study process for compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H of 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.

8. COST ENGINEERING MANDATORY CENTER OF EXPERTISE (MCX) REVIEW AND CERTIFICATION

Cost Engineering is not anticipated for the FWA. Any costs developed or used in the report will be parametric or venture level. No detailed estimates for project specific authorization will be developed, therefore there will be no coordination with the MCX and a certified estimate will not be required for this study.

9. MODEL CERTIFICATION AND APPROVAL

EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. 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).

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).

- a. Planning Models.** No planning models are to be used in the performance of this study. Study findings are based on literature review, best professional judgment, and expert consultation.
- b. Engineering Models.** No engineering models are currently anticipated to be used in the performance of this study. Study findings are based on literature review, best professional judgment and expert consultation.

10. REVIEW SCHEDULES AND COSTS

- a. ATR Schedule and Cost.** ATR will be completed prior to submission of documentation to the MSC. ATR costs for the watershed management study are not yet determined but have been

budgeted at \$10,000. These costs are cost-shared with the study's non-federal sponsor. ATR will be completed on the following documentation:

| <u>ATR</u> | <u>Status</u> | <u>Date</u> |
|------------|---------------|----------------|
| FWA | Not Started | September 2013 |

- b. **Type I IEPR Schedule and Cost.** Not-Applicable.
- c. **Model Certification/Approval Schedule and Cost.** Not-Applicable.

11. PUBLIC PARTICIPATION

In addition to individualized meetings with other government entities, a public meeting will be held once a draft of the FWA is available. The purpose of the public meeting is to give the public an opportunity to comment on the draft report. Additionally, a publically accessible project website will also be created, and will be the location for key pieces of information that need to be distributed regarding the FWA. This will also be the eventual location that will house the completed Watershed Plan. The website will also be formatted to allow for public submittal of comments throughout the study process.

12. REVIEW PLAN APPROVAL AND UPDATES

The Great Lakes and Ohio River 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 decision document. Like the PMP, 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 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, should be posted on the Home District's webpage. The latest Review Plan should also be provided to the RMO and home MSC.

A project specific Review Plan will be developed for any feasibility studies that are recommended as a result of this FWA. At that time a revised risk informed decision on IEPR will be made regarding the recommended plan. In accordance with EC 1165-2-214, the District Chief of Engineering will make this decision. It will be documented in the new Review Plan.

13. REVIEW PLAN POINTS OF CONTACT

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

██████████, Study Manager, Huntington District
304.399.5347 ██████████

██████████, Chief, Planning and Policy Division, Great Lakes and Ohio River Division
513.684.3488, ██████████

ATTACHMENT 1: TEAM ROSTERS

| Project Delivery Team | | | | |
|------------------------------|-------------|----------------------|------------------|--------------|
| Name | Role | Office Symbol | Telephone | Email |
| | | | | |

| Agency Technical Review Team | | | | |
|-------------------------------------|-------------|---------------|------------------|--------------|
| Name | Role | Office | Telephone | Email |
| | | | | |

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Final Watershed Assessment for the Nimishillen Creek Watershed Section 729 Analysis, Ohio. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-214. 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 DrCheckssm.

SIGNATURE

Name
ATR Team Leader
Office Symbol/Company

Date

SIGNATURE

Name
Project Manager
Office Symbol

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:

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

SIGNATURE

Name
Chief, Engineering Division
Office Symbol

Date

SIGNATURE

Name
Chief, Planning Division
Office Symbol

Date

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 | MSC | Major Subordinate Command |
| ASA(CW) | Assistant Secretary of the Army for Civil Works | NED | National Economic Development |
| ATR | Agency Technical Review | NER | National Ecosystem Restoration |
| CSDR | Coastal Storm Damage Reduction | NEPA | National Environmental Policy Act |
| DPR | Detailed Project Report | O&M | Operation and maintenance |
| DQC | District Quality Control/Quality Assurance | OMB | Office of Management and Budget |
| DX | Directory of Expertise | OMRR&R | Operation, Maintenance, Repair, Replacement and Rehabilitation |
| EA | Environmental Assessment | OEO | Outside Eligible Organization |
| EC | Engineering Circular | OSE | Other Social Effects |
| EIS | Environmental Impact Statement | PCX | Planning Center of Expertise |
| EO | Executive Order | PDT | Project Delivery Team |
| ER | Ecosystem Restoration | PAC | Post Authorization Change |
| FDR | Flood Damage Reduction | PMP | Project Management Plan |
| FEMA | Federal Emergency Management Agency | PL | Public Law |
| FRM | Flood Risk Management | QMP | Quality Management Plan |
| FSM | Feasibility Scoping Meeting | QA | Quality Assurance |
| GRR | General Reevaluation Report | QC | Quality Control |
| Home District/MSD | The District or MSC responsible for the preparation of the decision document | 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 |
| IHA | Indicators of Hydrologic Alteration | RTS | Regional Technical Specialist |
| ITR | Independent Technical Review | SAR | Safety Assurance Review |
| IWRM | Integrated Water Resource Management | USACE | U.S. Army Corps of Engineers |
| LRR | Limited Reevaluation Report | WRDA | Water Resources Development Act |