# Decision Document and Implementation Phase Review Plan

Public Law 84-99 Rehabilitation Investigation
City of Portsmouth Local Protection Project
Scioto County, Ohio

*Huntington District*

Project Number: 473579
MSC Approval Date:
Last Revision Date: 27 February 2019

US Army Corps
of Engineers ®

# Decision Document and Implementation Phase
# Review Plan
# Public Law 84-99 Rehabilitation Investigation
# City of Portsmouth Local Protection Project
# Scioto County, Ohio

## TABLE OF CONTENTS

## PURPOSE AND REQUIREMENTS

Purpose. This Review Plan (RP) defines the scope and level of peer review for both the Project Information Report (PIR) as the decision document and Plans and Specifications (P&S) for the implementation phase related to the Rehabilitation of the City of Portsmouth Local Protection Project (LPP) located in Scioto County, Ohio, under the authority of Public Law (PL) 84-99.

The PIR was written by the U.S. Army Corps of Engineers (USACE) Huntington District (LRH) under the general direction of the USACE Great Lakes and Ohio River Division (CELRD). LRH is responsible for preparing the PIR and engineering documents in accordance with the applicable references.

Upon completion of the PIR, CELRD will review the PIR and make any necessary comments to LRH. After LRH has made the revisions and incorporated comments into the PIR, CELRD will recommend that the Division Commander approve, or conditionally approve, the PIR to commit Federal funds for Engineering and Design (E&D).

References.

(1) ER 500-1-1 Emergency Employment of Army and Other Resources - Civil Emergency Management Program, 30 September 2001
(2) Engineering Circular (EC) 1165-2-217, Review Policy for Civil Works, 20 February 2018
(3) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2013
(4) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
(5) Major Subordinate Command (MSC) and/or District Quality Management Plan(s)
(6) ER 11-1-321, Army Programs, Value Engineering, 01January 2013

Requirements. This decision document and implementation phase RP was developed in accordance with EC 1165-2-217, 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 1165-2-217) and planning model certification/approval (per EC 1105-2-412).

Factors Affecting the Scope and Level of Review. This RP describes the required review processes and levels of review for rehabilitation of the City of Portsmouth LPP. This RP is a standalone document and accompanies the Project Management Plan (PMP). DQC will be managed from within the District in accordance with the PMP and District Quality Management Plans. ATR will be managed within USACE by the designated RMO and is conducted by a qualified team from outside the home district which is not involved in the day-to-day production of the project/product.

Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. Requirements of the public sponsor(s) are defined in ER 500-1-1,paragraph 5-10 a and b, under Cooperation Agreements (CAs) for Non-Federal FCWs and Federal FCWs, respectively for the applicable category of FCWs. Sample CAs for both Non-Federal and Federal FCWs are provided in Appendix C of EP 500-1-1.

Cost share determination(s) for rehabilitation projects, whether non-Federal or Federal, shall be in accordance with ER 500-1-1, paragraph 5-11, Cost Share Determination. Sub-paragraph 5-11.a defines Cost Share Percentages for cost sharable items, for Non-Federal or Federal projects.

Subparagraph 5-11, b, defines USACE Costs. Subparagraph 5-11.c defines the items that the public sponsor must provide at 100 percent local cost which include (1) any costs associated with normal a-b-c's; (2) accomplishment of normal or deferred or deficient maintenance items; and (3) any betterments to the project. MSCs and districts are not authorized to change or delete a-b-c requirements, without written permission from HQUSACE.

**REVIEW MANAGEMENT ORGANIZATION (RMO)**

The RMO is responsible for managing the overall peer review effort described in this RP. The RMO for this project is the Major Subordinate Command (MSC), CELRD. CELRD's initial responsibility as the RMO is to review the district's draft RP. Once any necessary corrections are made, CELRD processes the RP for Division Commander Approval. Upon approval by the Division Commander, LRH will post the approved RP on its public website.

In accordance with EC 1165-2-217, the RMO will identify and assign an ATR team for both the feasibility phase (decision document) and P&S as part of the implementation phase of the project. The RMO will develop the charge, or scope of review, for the ATR phases of design. The RMO also establishes the cost (scalability) of the ATR effort, in coordination with the ATR lead, the RMO establishes approximate time frames for the ATR review and insures availability of ATR personnel.

Additionally, the RMO will ensure the Walla Walla Cost Engineering Mandatory Center of Expertise (MCX) has reviewed and approved the cost estimate data and information for each rehabilitation project.

## PROJECT INFORMATION

**Project Authorization and Eligibility.** USACE has authority under PL 84-99, Flood Control and Coastal Emergencies (FCCE) (33 U.S.C. 701n) (69 Stat. 186) for emergency management activities. Under PL 84-99, the Chief of Engineers, acting for the Secretary of the Army, is authorized to undertake activities including disaster preparedness, Advance Measures, emergency operations (Flood Response and Post Flood Response), rehabilitation of flood control works threatened or destroyed by flood, protection or repair of federally authorized shore protective works threatened or damaged by coastal storm, and provisions of emergency water due to drought or contaminated source. Under the authority of PL 84-99, an eligible flood control works can be rehabilitated if damaged by a flood event. ER 500-1-1, Para 5-6, Active Status, states "Only those FCW in an Active status at the time of the flood or storm event may receive Rehabilitation Assistance under authority of PL 84-99" Per ER 500-1-1, Para 5-11 Cost Share Determination, the flood control works are eligible for rehabilitation in accordance with the cost allocation defined in sub-paragraphs a through h and associated references of the ER and paragraph 5-11. All systems considered eligible for PL 84-99 rehabilitation assistance have to be in the Rehabilitation and Inspection Program (RIP) prior to the flood event. Acceptable operation and maintenance by the public sponsor are verified by inspections conducted by the Corps on a regular basis.

The Corps has the responsibility to coordinate flood control repair issues with interested Federal, State, and local agencies following natural disaster events where flood control works are damaged.

**Project Descriptions and Damages.** The Portsmouth segment of the Portsmouth/New Boston Local Protection Project is located in Scioto County, Ohio, on the right descending bank of the Ohio River at the mouth of the Scioto River. The Portsmouth segment is located at about Ohio River Mile 355. The Portsmouth segment of the Portsmouth/New Boston LPP levee system was designed and constructed by the U.S. Army Corps of Engineers and then turned over to the City of Portsmouth for ownership, operation, and maintenance on 15 May 1950.

The Portsmouth segment is composed of earthen levee, concrete floodwall, pumping stations, traffic closures, and channel improvement. The earthen levee is constructed of compacted fill, with a top width of 12 feet and side slopes of 1 vertical (V) to 2.5 horizontal (H) on the protected and flood sides of the levee. The top of levee elevation is 549.3 feet. The embankment was built over an existing floodwall segment. This relic floodwall acts as

the toe of the levee for a portion of the embankment. The floodwall consists of flat and sloped base conventional concrete keyed T-walls which reach an elevation of 548.5 feet. The top of the levee and flood wall are approximately 3 feet above the elevation of the January 1937 flood. The Portsmouth segment has two types of traffic closures; stop logs and a trussed system. The stop log closures are composed of either aluminum or steel and timber systems. The trussed closures are steel and timber constructions. In the Portsmouth segment there are 7 pump stations included in the flood protection works for the purpose of pumping surface drainage and sewage from the area behind the levee or flood wall and into the river during flood periods when the outfall sewers that normally provide drainage must be closed.

The Ohio River experienced a flood event which reached the crest in the Huntington District during 19 to 21 February 2018. During the 2018 flood, extensive foundation erosion and sagging of a drain line adjacent to the LPP occurred near Pump Station No. 5. The foundation is pervious and the upstream seepage entrance is close to the levee toe. Uplift pressures at the site are high and it has been identified in previous modeling work that this area of the project has serious underseepage-related stability issues, as well as, related slope stability due to extremely high pore pressure conditions at higher loadings. Recent observations during and post-2018 flood have provided further evidence that the foundation has been weakened and that progression towards failure has occurred.

On 24 February 2018, LRH was alerted to large boil-like activity, about 20-40 feet in diameter, occurring in the ponding area, where large quantities of muck and silt were upwelling. Site monitoring on 24 February 2018 resulted in the inspection of the brick-lined pipe system. Significant amounts of foundation soils were present in the conduit and the area surrounding the outlet. The water coming from the conduit was visibly carrying sediments, and inspection following ponding area tail water recession suggested that at least 25 cubic yards of material had been lost during the event, some of which was deposited at the outlet. Additionally, seepage and piping was occurring from beneath and around the conduit leading to a lesser amount of foundation erosion than that occurring into and through the conduit, however this is a problematic failure mode and could lead to failure alone or in conjunction with conduit erosion. A sample was taken on 15 March 2018, and contained finer sediments deposited on top of the coarser sample. This material is likely foundation material eroded into the pipe.

On 15 May 2018, Huntington District inspected the Portsmouth levee in response to an application for PL 84-99 assistance. The sponsor advised on 11 May that separation was occurring where pump station discharge pipes enter the gatewell adjacent to the Ohio River. Upon investigation, measured separation of up to 1-1/4 inches had occurred where the western-most discharge pipe enters the gatewell. These pipe separations at the levee crest could be related to the large amount of foundation material erosion that has occurred at the project, which is a serious concern and would be indicative of progressive backwards erosion beneath the levee. The ponding area had some evidence of sediment accumulation from the February

2018 event. Most predominate was a sand delta at the base of Manhole 1. Due to the multiple crests of the February and March 2018 events, it is likely that other accumulations of sediment have been flushed from the area. Throughout the event, a minimum of 25 cubic yards of foundation material was observed being moved, and with the additional accumulations that were not observed and flushed out of the system, the foundation is compromised.

## DISTRICT QUALITY CONTROL (DQC)

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) as well as implementation documents, 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 PMP. The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manuals of the District and the MSC.

**Documentation of DQC.** DQC of construction P&S will be documented by signature sheets of senior-level checkers, Subject Matter Experts, and Supervisors. The signature sheets will be provided to the ATR team at the start of their review, and will be included in Attachment 5 of this RP.

**Products to Undergo DQC.** The PIR and construction P&S will undergo DQC consistent with the District/MSC Quality Management plans and EC 1165-2-217.

**Required DQC Expertise.** The required expertise needed to conduct DQC consistent with the District/MSC Quality Management plan and are the disciplines need to produce the PIR and P&S such as but not limited to the following: DQC Lead, Civil Engineer, Geotechnical Engineer, Real Estate, Emergency Management, Construction, Plan Formulation, Environmental, Cultural Resources, and Cost Engineering.

## AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all implementation 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. As previously stated, 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 selected from outside the home MSC.

**Products to Undergo ATR:**

- P&S.

**Required ATR Team Expertise.** The following tables provide descriptions of the various disciplines which are to be included on the ATR Team. The RMO is responsible for determining the final makeup of the ATR.

| Implementation Phase ATR Expertise Required | |
|---|---|
| **Disciplines** | **Description** |
| ATR Lead | The ATR lead will be a senior professional with extensive experience in preparing Civil Works decision documents and implementation documents conducting ATR. The lead should also have the necessary skills and to lead a virtual team through the ATR process. The ATR lead may also a reviewer for a specific discipline (such as planning, geotechnical, environmental resources, etc). |
| Geotechnical Engineering | The Geotechnical Engineer shall have a thorough understanding of soil mechanics. The geotechnical engineer shall demonstrate engineering knowledge regarding hydraulic structures, erosion control and earthwork . |
| Civil Engineering | The civil engineer shall be a senior engineer, an expert in the field, and thorough understanding of the requirements associated with a flood risk management project. The reviewer shall have experiences in the design layout of channel improvement projects The civil engineer shall engineering knowledge regarding hydraulic structures, earthwork, utility relocation, erosion control and general site development features. The civil engineer shall be a licensed Professional Engineer. |
| Cost Engineering | The Cost Engineering reviewer (Decision Document) will be a qualified cost engineer with experience in the construction estimating field of study. reviewer will have extensive knowledge of Civil Works flood risk projects and have an understanding of Public Law 84-99. The cost engineer be assigned by the Walla Walla Cost Engineering MCX. |
| Real Estate | The Real Estate Representative will have experience in plan formulation implementation of Flood Risk Management (FRM) projects and applicable underlying policies. This member will have familiarity with ER 500-1-1 and specifically LERRDs and A-B-Cs requirements of local sponsors. |

**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:

- The review concern - identify the product's information deficiency or incorrect application of policy, guidance, or procedures;

- The basis for the concern - cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
- 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
- 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, commenters 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, 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 EC 1165- 2-217, 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 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.

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 must be

completed. A sample Statement of Technical Review is included in Attachment 6.

**INDEPENDENT EXTERNAL PEER REVIEW (IEPR)**

IEPR is not required for this project. 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 1165-2-217, 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. The recommended repair alternatives for the rehabilitation of the local flood protection project are all standard practice and are being recommended to return the project to the pre-flood event condition. The models, methodology and approach of the rehabilitation PIR does not deviate from the standards of Flood Risk Management, nor do they present any extraordinary challenges. All environmental requirements will be met. The PIR is unlikely to possess significant interagency interest, and does not involve any significant threats to human life or safety assurance issues. The consequences of project non-performance, with and without the project, are similar because it is a rehabilitation project. It is not likely that the project will have significant economic, environmental, or social effects to the nation, such as, but not limited to, more than negligible adverse impacts on scarce or unique cultural, historic, or tribal resources; substantial impacts on fish and wildlife species or their habitat, prior to implementation of mitigation; more than negligible adverse impact on species listed as endangered or threatened, or to the designated critical habitat of such species, under the Endangered Species Act, prior to implementation of mitigation. Rehabilitation of these projects has been authorized under Public Law 84-99. It is not expected that implementation costs will exceed the $45 million threshold for IEPR requirement.

- The repairs indicated in the project information reports do not require redundancy, resiliency, and/ or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule .The repairs do not provide any redundant features because they restore the project to pre-flood condition.

- Based on the information and analysis provided in the preceding paragraphs of this RP, the project covered under this plan is excluded from IEPR because it does not meet the mandatory IEPR triggers and does not warrant IEPR based on the PDT's risk-informed analysis.

Decision on IEPR. Since the scope of the rehabilitation of the Portsmouth LPP is limited in that the project is being returned to the pre-flood condition, and since it does not meet any of the mandatory trigger criteria for Type I IEPR or Type II IEPR, Type I or Type II IEPRs

are not recommended for the project.

Products to Undergo Type IIEPR. Not-Applicable.

Required Type I IEPR Panel Expertise. Not-Applicable.

Documentation of Type I IEPR. Not-Applicable.

## POLICY AND LEGAL COMPLIANCE REVIEW

All decision documents and implementation documents will be reviewed 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.

## COST ENGINEERING MANDATORY CENTER OF EXPERTISE (MCX)

The Cost Engineering MCX, located in Walla Walla District, will not be required to provide a Cost Certification for this project because this is an emergency project subject to ER 500-1-1; ER 1110-2-1302 is not followed.

## 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).

**Planning Models.** Not-Applicable.
**Engineering Models.** Not-Applicable.

## REVIEW SCHEDULES AND COSTS

### DQC & ATR Schedules and Cost.

Decision Document Phase (PIR). No ATR is required for the decision document Phase.

Implementation Phase (P&S). ATR for the implementation phase will include the ATR Lead/Civil Engineer, a Real Estate ATR team member, and a Geotechnical Engineer ATR team member. The ATR review process for this phase includes: 1) initial comments; 2) PDT response per discipline; and 3) back check by each respective reviewer. See the table below for approximate review durations and estimated ATR costs, per person, per project.

| Implementation Phase | | |
|---|---|---|
| Review Item | Approx Review Duration (Days) | Estimated Cost Per Person |
| DQC (each discipline) | 3 | $2,000 |
| ATR Lead/Civil Engineer (initial comments) | 3 | $2,500 |
| Geotechnical Engineer (initial comments) | 3 | $2,500 |
| Cost Engineer (initial comments) | 3 | $2,500 |
| Real Estate (initial comments) | 1 | $1,000 |
| PDT Response (per discipline) | 2 | $2,000 |
| ATR Lead/Civil Engineer Back check | 2 | $2,500 |
| Geotechnical Engineer Back check | 2 | $2,000 |
| Cost Engineer Back check | 2 | $2,000 |

| | | |
|---|---|---|
| Real Estate Back check | 1 | $1,000 |

Documents for each of the above two Phases may be conducted concurrently if documents for projects are available at the same time. In order to meet the ATR review durations, ATR responsibility may become shared (i.e., another member added to help expedite the review/back check process). The review durations and associated costs assume that there are no significant disagreement(s) between the District and ATR team. The review durations and associated costs also assume that no major quality issues exist with the P&Ss. All comments will be included in DrChecks.

b. Type I IEPR Schedule and Cost. Not Applicable.

c. Model Certification/Approval Schedule and Cost. Not applicable.

**PUBLIC PARTICIPATION**

The final PIR and associated NEPA documentation will be made available to the public on the Huntington District website.

**REVIEW PLAN APPROVAL AND UPDATES**

The Great Lakes and Ohio River Division Commander is responsible for approving this RP. The Commander's approval reflects vertical team input (involving district,' MSC, and HQUSACE members) as to the appropriate scope and level of review for the PIR and plans and specifications. Like the PMP, the RP is a living document and may change. The home district is responsible for keeping the RP up to date. Minor changes to the RP since the MSC Commander's initial approval of the RP are documented in Attachment 7. Significant changes to the RP (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. Significant changes to the RP are also documented in Attachment 7. The latest version of the RP, along with the Commanders' approval memorandum, must be posted on the Home District's webpage. The latest RP must also be provided to the MSC.

**REVIEW PLAN POINTS OF CONTACT**

Public questions and/or comments in reference to this RP can be directed to the following point of contact:

Huntington District Lead Planner, Jami Buchanan, PM-PD-F
Jami.L.Buchanan@usace.army.mil

Huntington District Emergency Management Acting Chief, Randy Campbell, EM
Clyde.R.Campbell@usace.army.mil

## VALUE ENGINEERING

Value Engineering is required for Federal projects in excess of $2,000,000.00 total cost pursuant with Memorandum for Record, December 2012, SUBJECT: Updated Legal and Regulatory Requirements for Value Engineering on Corps of Engineers Projects (Para. 2.h.), as follows:

"The current version of the ER provides that OMB Circular A-131*requires* VE studies in all federal projects/programs over $1M in total cost. This provision is no longer supported by the Circular. Instead, the Circular A-131now holds that VE is required for agency project and programs at or above $2M."

Projects with an estimate cost in excess of $2,000,000.00 shall execute a VE study at the beginning of the implementation phase. For projects exceeding $10 million, no wavier from VE requirements shall be granted.

The total project cost may exceed $2,000,000.00; therefore, Value Engineering may be required if this threshold is expected to be exceeded. An accurate cost engineering analysis will be performed in the PIR for the selected repair alternative.

## ATTACHMENT 1: PRODUCT DELIVERY TEAM

| Portsmouth LPP Product Delivery Team | | | |
|---|---|---|---|
| **Role** | **Name** | **Office Symbol** | **Email** |
| Emergency Management | Randy Campbell | EM | Clyde.R.Campbell@usace.army.mil |
| Cultural Resources | Ashley Taylor | PM-PD-R | Ashley.D.Taylor@usace.army.mil |
| HTRW | Jo Huff | EC-CE | Jo.J.Huff@usace.army.mil |
| Real Estate | Robert Bond | RE-P | Robert.E.Bond@usace.army.mil |
| Civil Design | Philip Hatfield | EC-DC | Philip.R.Hatfield@usace.army.mil |
| Civil Design- CADD | John Simpkins | EC-DC | John.W.Simpkins@usace.army.mil |
| Cost Engineering | Thomas Rice | EC-TC | Thomas.P.Rice@usace.army.mil |
| Project Manager | Kevin Nelson | PM-PP | Miles.K.Nelson@usace.army.mil |
| Plan Formulation | Jami Buchanan | PM-PD-F | Jami.L.Buchanan@usace.army.mil |
| NEPA | Megan Wilburn | PM-PD-R | Megan.B.Wilburn@usace.army.mil |
| Dam and Levee Safety | Andy Cremeans | EC-DW-DL | Anthony.I.Cremeans@usace.army.mil |
| Dam and Levee Safety | Kevin Butler | EC-DW-DL | Kevin.A.Butler@usace.army.mil |
| Geotechnical | Elisabeth Chang | EC-GW-G | Elisabeth.M.Change@usace.army.mil |

## ATTACHMENT 2: DISTRICT QUALITY CONTROL TEAM

| District Quality Control Team | | | |
|---|---|---|---|
| **Role** | **Name** | **Office Symbol** | **Email** |
| Emergency Management | Clyde Campbell | EM | Clyde.R.Campbell@usace.army.mil |
| Geotechnical Engineering | Erich Guy | EC-GW-G | Erich.D.Guy@usace.army.mil |
| Environmental & Cultural Resources | Rebecca Rutherford | PM-PD-R | Rebecca.A.Rutherford@usace.army.mil |
| Real Estate | Gary Walker | RE-P | Gary.M.Walker@usace.army.mil |
| Cost Engineering | Andrew Loudermilk | EC-TC | Andrew.T.Loudermilk@usace.army.mil |
| Plan Formulation | JoAnn Combs | PM-PD-F | JoAnn.D.Combs@usace.army.mil |

ATTACHMENT 4: AGENCY TECHNICAL REVIEW (ATR) TEAM - PLANS & SPECIFICATIONS AND REAL ESTATE

| **Implementation Phase ATR Team** | | | |
|---|---|---|---|
| Discipline | Name | Office Symbol | Telephone |
| Agency Technical Review Team Lead & Civil Engineer | TBD | TBD | TBD |
| Geotechnical Engineer | TBD | TBD | TBD |
| Cost Engineer | TBD | TBD | TBD |
| Real Estate | TBD | TBD | TBD |

ATIACHMENT 5: DQC and ATR DOCUMENTATION

| Final Certification Date | Name of Document | Location |
|---|---|---|
| | | |
| | | |
| | | |
| | | |
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## ATTACHMENT 6: COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the (product type & short description of item) for the Portsmouth Local Protection Project. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-217. 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.

*SIGNATURE*
(Name)
ATR Team Leader
(Office Symbol or
Name of AE Firm)

Date

*SIGNATURE*
(Name)
Project Manager (home
district)
(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 and specifically list any agreed-upon deferrals to be completed in the next phase of work)

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[2]
(home district)
(Office Symbol)

Date

Add appropriate additional signatures (Operations, Construction, AE principal for ATR solely conducted by AE, etc) and/or modify to accommodate local organizational structure.

[1]Only needed if some portion of the ATR was contracted
[2]Decision Documents Only.

Attachment 6 Instructions· (Input) -Information m Blue brackets and text 1s required. Once the input is provided, text should be formatted m black and the brackets should be deleted. Delete these instructions in the completed form

ATTACHMENT 7: REVIEW PLAN REVISIONS

| Revision Date | Description of Change | Page *I* Paragraph Number |
|---|---|---|
| | | |
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| | | |

## ATTACHMENT 8: ACRONYM S AND ABBREVIATIONS

| Term | Definition | Term | Definition |
|---|---|---|---|
| ATR | Agency Technical Review | NIMS | National Incident Management System |
| DQC | District Quality Control/Quality | PCX | Planning Center of Expertise |
| DX | Directory of Expertise | PDT | Project Delivery Team |
| EA | Environmental Assessment | PMP | Project Management Plan |
| EC | Engineer Circular | PL | Public Law |
| FRM | Flood Risk Management | QMP | Quality Management Plan |
| Home District/MSC | The District or MSC responsible for the preparation of the decision document and implementation documents | QA | Quality Assurance |
| HQUSACE | Headquarters, U.S. Army Corps of Engineers | QC | Quality Control |
| IEPR | Independent External Peer | RMC | Risk Management Center |
| ICS | Incident Command System | RMO | Review Management Organization |
| MSC | Major Subordinate Command | SAR | Safety Assurance Review |
| NEPA | National Environmental Policy | USACE | U.S. Army Corps of Engineers |