

Table 1 provides the schedules and costs for reviews. The specific expertise required for the teams are identified in later subsections covering each review. These subsections also identify requirements, special reporting provisions, and sources of more information.

**Table 1: Levels of Review**

<b>Product(s) to undergo Review</b>	<b>Review Level</b>	<b>Start Date</b>	<b>End Date</b>	<b>Cost</b>	<b>Complete</b>
Report Summary prior to AMM	District Quality Control	12/21/18	01/11/19	\$0	Not Done
Existing Conditions and Focused Array	District Quality Control	07/29/19	08/02/19	\$10,000	No
Report Summary Prior to TSP	District Quality Control	10/15/19	11/01/19	\$5,000	No
Draft Feasibility Report and EA	District Quality Control	11/15/19	12/31/19	\$33,000	No
Draft Feasibility Report and EA	Agency Technical Review	01/10/20	03/07/20	\$50,000	No
Draft Feasibility Report and EA	Type I IEPR	01/10/20	03/07/20	\$100,000	No
Draft Feasibility Report and EA	Policy and Legal Review	01/10/20	03/10/20	n/a	No
Report Summary - ADM	District Quality Control	04/15/20	04/30/20	\$5,000	No
Final Feasibility Report and EA*	District Quality Control	10/01/20	12/31/20	\$29,000	No
Final Feasibility Report and EA *	Agency Technical Review	01/01/21	03/01/21	\$30,000	No
Final Feasibility Report and EA	Policy and Legal Review	03/12/21	04/10/21	n/a	No

*\*DQC and ATR of appendices will be done as they are completed and DQC of the final report will be done after all technical appendices have been reviewed.*



#### a. DISTRICT QUALITY CONTROL

The home district shall manage DQC and will appoint a DQC Lead to manage the local review (see EC 1165-2-217, section 8.a.1). The DQC Lead should prepare a DQC Plan and provide it to the RMO and MSC prior to starting DQC reviews. Table 2 identifies the required expertise for the DQC team.

**Table 2: Required DQC Expertise**

<b>DQC Team Disciplines</b>	<b>Expertise Required</b>
DQC Lead	A senior professional with extensive experience preparing Civil Works decision documents and conducting DQC. The lead may also serve as a reviewer for a specific discipline (such as engineering, planning, economics, environmental resources, etc.).
Planning	A Water Resources Planner with 5 years of experience in urban Flood Risk Management Projects.
Economics	An economist with experience in Flood Risk Management Projects and the models used in the study (see Table 5).
Environmental Resources	Environmental Specialist with experience in FRM projects and habitat models to assess channel work, wetlands, bottomland hardwoods, and mitigation for impacts to these.
Cultural Resources	Cultural Resource Specialist with experience in historic properties, Native American sites, and programmatic agreements.
Hydrology/Hydraulic Engineering	Senior Engineer with experience in Flood Risk Management Projects including structural and non-structural alternatives and the models listed in Table 5.
Civil Design	Senior Engineer with experience in Flood Risk Management Projects to include detention/retention and channel modifications.
Geotechnical	Senior Engineer with experience in Flood Risk Management Projects to include detention/retention and channel modification.
Cost Engineering	The Cost Engineering panel member should have 15 years demonstrated experience or combined equivalent of education and experience assessing flood risk management features – channels, levees and detention/retention.
Construction/Operations	A Senior Construction Engineer with expertise managing construction of Flood Risk Management features such as berms, control structures, and channel modifications.
Real Estate	Senior Real Estate Specialist with experience in Flood Risk Management policy, urban land acquisition and appraisal, and LERRDS.

**Quality Control and DQC.** Quality Control should be performed continuously throughout the study. DQC reviewers will be embedded throughout document development by scheduled involvement at key decision points. DQC of Report Summaries, Draft Reports and Final Reports will be done in DrChecks and a specific certification of DQC completion is required. Documentation of DQC should follow the District Quality Manual and the MSC Quality Management Plan. An example DQC Certification statement is provided in EC 1165-2-217, on page 19 (see Figure F).



1. Documentation of Planning Quality Control Checks will be completed in accordance with the RPEDS SOP for DQC. Initial and continuous reviews are identified as "Quality Checks." Other Divisions will document Quality Control Checks according to their standard practices. Quality Control Checks will be performed by senior level staff, such as supervisors and team leaders, but not individuals who have produced the original work or who managed or reviewed documents produced by outside contractors. Quality Checks evaluate assumptions, loadings, design parameters, constraints, equations, model inputs, quantities, and references used to complete the design and/or analysis. Thorough annotation, conclusions should be provided in an accompanying narrative to allow the reviewer/checker to assure their validity.
2. The conclusions resulting from Quality Checks should be annotated and provided in an accompanying narrative to allow the reviewer/checker to assure their validity.
3. Quality Control Checks will include but is not limited to the following team members: Plan Formulation, Environmental, Economics, Project Management, Counsel, Engineering and Real Estate Divisions.
4. The DQC process should integrate the Quality Management Plan, Quality Checks, and a detailed peer review/checking of all documents, computations, and graphics, etc. that are contained in a project report, including NEPA and other environmental compliance products and in-kind services provided by local sponsors.
5. The following DQC reviews are required for RPEDS produced decision documents to be submitted for culmination in a Chief's or Directors Report:
  - a. Existing Conditions DQC. This review will include plan formulation and environmental DQC team members, at a minimum. The purpose of this DQC is to review historic, existing, and future without project conditions, and problems, opportunities, goals and objectives. If the study purpose is navigation, then the team should include economics. The review will cover scoping and preliminary analysis. The plan formulation reviewer will compare the risks and consequences identified in the RP, PMP, and risk register to ensure that risks and consequences are being considered, and if they need to be, revised appropriately and are being addressed. A Quality Control check can be included for OC, engineering and economics if beneficial. This will generally be conducted 45 days following the Alternatives Milestone.
  - b. Focused Array DQC. This review will include plan formulation, economics and environmental. The review will consider measures, screening criteria, and the initial and focused array of alternatives. It will also review model selections and incorporation of risk and uncertainty details among other actions identified. The reviewers will compare the risks and consequences identified in the RP, PMP, and risk register. This will generally be conducted 45 days following the Alternatives Milestone.

- c. Draft Report/TSP DQC. Will include reviews by the PDT and OC, as well as the entire DQC team as identified in the Review Plan. The review will cover all plan formulation issues being presented in the draft report, including risk informed approaches as documented in the respective checklist. It will be conducted and stored in the DQC folders on the RPEDS SharePoint, and the MFR produced will be in the form of a Review Report, complete with documentation and resolution of DQC comments for use by an ATR Team, as applicable, and a DQC certification form accompanied by the complete set of checklists. The plan formulation reviewer will compare the risks and consequences identified in the RP, PMP, and risk register to ensure that risks and consequences are being considered, and if they need to be, revised appropriately and are being addressed. If a TSP risk assessment is identified in the RP and PMP, or if a risk buy-down plan is identified in the planning process, the plan formulation reviewer will assure it was conducted and addressed and documented correctly in the report. This will generally be conducted 30 days following the TSP milestone.
- d. Final Report DQC. Similar to the Draft Report DQC, the review will include the full gamut of considerations ranging from PDT and OC review to formal DrChecks comments made by the entire DQC Team. A Review Report will be prepared as the MFR for use by subsequent ATR and IEPR reviews, in conjunction with a completed set of checklists. This will generally be conducted 30 days prior to submission to MVD.

Documentation of completed DQC should be provided to the MSC, RMO and ATR Team leader prior to initiating an ATR. The ATR team will examine DQC records and comment in the ATR report on the adequacy of the DQC. Missing or inadequate DQC documentation can result in delays to the start of other reviews (see EC 1165-2-217, section 9).

## b. AGENCY TECHNICAL REVIEW

The ATR will assess whether the analyses are technically correct and comply with guidance, and that documents explain the analyses and results in a clear manner. An RMO manages ATR. The review is conducted by an ATR Team whose members are certified to perform reviews. Lists of certified reviewers are maintained by the various technical Communities of Practice (see EC 1165-2-217, section 9(h)(1)). Table 3 identifies the disciplines and required expertise for this ATR Team.

**Table 3: Required ATR Team Expertise**

<b>ATR Team Disciplines</b>	<b>Expertise Required</b>
ATR Lead	A senior professional with extensive experience preparing Civil Works decision documents and conducting ATR. The lead should have the skills to manage a virtual team through an ATR. The lead may serve as a reviewer for a specific discipline (such as planning).
Planning	An ATR Certified Planner with experience in suburban FRM projects.
Economics	A senior economist with experience in Flood Risk Management Projects, life safety models, structural and non-structural measures.
Environmental Resources	Senior Environmental Specialist with experience in FRM projects. This includes experience in urban flooding, habitat models to assess



	channel work, wetlands, bottomland hardwoods and appropriate mitigation measures.
Cultural Resources	Senior Cultural Resource Specialist with experience in historic properties, Native American sites, and programmatic agreements.
Hydrology and Hydraulic Engineering	Senior Engineer with experience in Flood Risk Management Projects including structural and non-structural alternatives and the models listed in Table 6.
Civil Design	Senior Engineer with experience in Flood Risk Management Projects to include detention/retention and channel modifications.
Geotechnical	Senior Engineer with experience in Flood Risk Management Projects included detention/retention and channel modification.
Cost Engineering	The Cost Engineering panel member should have demonstrated experience in flood risk management features including detention/retention, channels, levees, etc... Understanding and experience in USACE processes, contracting acquisition procedures, estimating software (MCACES) and cost regulations (such as ER1110-1-1300, ER1110-2-1302, ETL1110-2-573) is required.
Real Estate	Senior Real Estate Specialist with experience in Flood Risk Management to include policy considerations, urban land acquisition and appraisal, and LERRDS.
Climate Preparedness and Resiliency CoP Reviewer	A member of the Climate Preparedness and Resiliency Community of Practice (CoP) certified to perform ATR for Flood Risk Management projects.
Risk and Uncertainty	For decision documents involving hydrologic, hydraulic, and/or coastal related risk management measures, include a subject matter expert in multi-discipline flood risk analysis to ensure consistent and appropriate identification, analysis, and written communication of risk and uncertainty.

**Documentation of ATR.** DrChecks will be used to document all ATR comments, responses and resolutions. Comments should be limited to those needed to ensure product adequacy. All members of the ATR team should use the four part comment structure (see EC 1165-2-217, section 9(k)(1)). If a concern cannot be resolved by the ATR team and PDT, it will be elevated to the vertical team for resolution using the EC 1165-2-217 issue resolution process. Concerns can be closed in DrChecks by noting the concern has been elevated for resolution. The ATR Lead will prepare a Statement of Technical Review (see EC 1165-2-217, Section 9), for the draft and final reports, certifying that review issues have been resolved or elevated. ATR may be certified when all concerns are resolved or referred to the vertical team and the ATR documentation is complete.

### c. INDEPENDENT EXTERNAL PEER REVIEW

#### (i) Type I IEPR.

Type I IEPR is managed outside of the USACE and conducted on 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.

**Decision on Type I IEPR.** The project will undergo Type I IEPR. Although there are no expected environmental or public issues, the project is intended to reduce risks to life safety.

**Products to Undergo Type I IEPR.** The full draft report will undergo IEPR.

**Required Type I IEPR Panel Expertise.** Panels will consist of independent, recognized experts from outside of the USACE in disciplines representing a balance of areas of expertise suitable for the review being conducted. Table 4 lists the required panel expertise.

**Table 4: Required Type I IEPR Panel Expertise**

IEPR Panel Member Disciplines	Expertise Required
Economics	The economics reviewer should be experienced in economic evaluation of flood risk management projects. Familiarity with HEC-FDA, HEC-FIA and LifeSim or equivalent models is required. Panel member will have a Master's degree or higher education from a university with an accredited program in the discipline of economics and/or specific work experience of 20 + years in the discipline. Panel members will be familiar with the USACE Civil Works process, policies and procedures.
Environmental	Senior Environmental Specialist with experience in urban FRM projects. Panel member will have a master's degree or higher education in biology or a related field and work experience of 20 + years in the discipline. Panel member will have knowledge and experience with National Environmental Policy Act (NEPA) processes and mitigation analysis.
Engineering	Senior H&H Engineer with experience in FRM projects. The panel member shall hold a professional license in civil engineering with a focus on water resources with a MS degree or higher in civil engineering and/or a minimum of 20 years of hydraulic modeling and design experience and experience with multi-million dollar, flood risk management projects.

**Documentation of Type I IEPR.** The Outside Eligible Organization (OEO) will submit a final Review Report no later than 60 days after the end of the draft report public comment period. USACE shall consider all recommendations in the Review Report and prepare a written response for all



recommendations. The final decision document will summarize the Review Report and USACE response and will be posted on the internet.

**Recommended Best Planning Practice:** Begin coordination with the RMO very early in the study to allow adequate time for scoping and contracting for the Type I IEPR.

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**(ii) Type II IEPR.**

The second kind of IEPR is Type II IEPR. These Safety Assurance Reviews are managed outside of the USACE and are conducted on design and construction for hurricane, storm and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. A Type II IEPR Panel will be convened to review the design and construction activities before construction begins, and until construction activities are completed, and periodically thereafter on a regular schedule.

**Decision on Type II IEPR.** Type II IEPR is anticipated, however a final decision will be made at a later date.

**Products to Undergo Type II IEPR.** TBD

**d. MODEL CERTIFICATION OR 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 are any models and analytical tools used 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 a planning product. The selection and application of the model and the input and output data is the responsibility of the users and is subject to DQC, ATR, and IEPR.

**Table 5: Planning Models.** The following models may be used to develop the decision document:

<b>Model Name and Version</b>	<b>Brief Model Description and How It Will Be Used in the Study</b>	<b>Certification / Approval</b>
HEC-FDA 1.4.2	The program integrates hydrologic engineering and economic analysis to formulate and evaluate plans using risk-based analysis methods. It will be used to evaluate/compare plans to aid in selecting a recommended plan.	Certified
HGM-Hydrogeomorphic Method*	To determine impacts of detention sites, borrow pits or other clearing in potential wetlands and calculate mitigation.	Pending Certification for MRL SEIS



HSI Barred Owl*	This model can be used to assess changes to mixed woodland boreal forest, mixed transitional forest, and deciduous forests.	Approved
HSI Black-capped Chickadee*	This model can be used to assess changes to general forest habitats – deciduous and evergreen.	Approved
HSI Bigmouth Buffalo*	This model can be used to assess changes to larger rivers, overflow ponds, lowland lakes and oxbows, marshes, bayous and sloughs. It is useful for assessing habitat in natural turbid systems.	Approved
HSI Bluegill*	This model can be used to assess habitat changes in lentic environments and low velocity streams. It is useful for assessing habitats with low to moderate turbidity.	Approved
HSI Bullfrog*	This model is designed to examine habitat in slow-moving water and along the shoreline.	Approved
HSI Fox Squirrel*	This model would be used to assess habitat changes in mature oak-hickory forests with cavity trees.	Approved
HSI Mink*	This model is sensitive to the differences in habitat quality between channelized stream segments and natural stream segments	Approved
HSI Pileated Woodpecker*	This model would capture changes to both coniferous and deciduous forests with mature, dense, productive stands.	Approved
HSI Slough Darter*	The model is designed to examine habitat changes in the channel including: %pools, gradient, substrate and velocity. The anticipated alternatives could have impacts on all of these. The model also examines water quality parameters which would not likely change as a result of the project.	Approved
HSI Wood Duck*	The wood duck model would be used to assess changes to creeks, rivers, floodplain lakes, swamps, and beaver ponds.	Approved
IWR-Planning Suite II	The IWR-Plan was developed by the Institute of Water Resources as accounting software to compare habitat benefits Among alternatives. This model will be used to determine best buy alternatives and incremental cost analysis of alternatives.	Certified
LifeSim 1.0.1	The program integrates hydrologic engineering, economic analysis, and social behavior to compute the potential for loss of life in the study area. Quantifying loss of life can help inform various alternatives about life safety through a risk-based analysis. If certified, it would be used to assess the impacts of features which are intended to reduce life safety risks.	Enterprise Life Safety Model

\*These models are likely, but have not been confirmed with the ECO-PCX to ensure appropriateness. This will be done after a focused array of alternatives is developed and proposed actions identified.

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. The professional practice of documenting the application of the software and modeling results will be followed. The USACE Scientific and Engineering Technology Initiative has identified many engineering models as preferred or acceptable for use in studies. These models should be used when 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.

**Table 6: Engineering Models.** These models may be used to develop the decision document:

<b>Model Name and Version</b>	<b>Brief Model Description and How It Will Be Used in the Study</b>	<b>Approval Status</b>
HEC-RAS 5.0 (River Analysis System)	The software performs 1-D steady and unsteady flow river hydraulics calculations and has capability for 2-D (and combined 1-D/2-D) unsteady flow calculations. It will be used for steady flow analysis to evaluate the future without-project and future with-project conditions.	HH&C CoP Preferred Model

**Recommended Best Planning Practice:** Hold an early coordination call (prior to the Alternatives Milestone) with the appropriate Planning Center(s) of Expertise to discuss model applications and any review needs for approval or certification of the planning models to be employed.

#### e. POLICY AND LEGAL REVIEW

Policy and legal compliance reviews for draft and final planning decision documents are delegated to the MSC (see Director's Policy Memorandum 2018-05, paragraph 9).

##### (i) Policy Review.

The policy review team is identified through the collaboration of the MSC Chief of Planning and Policy and the HQUSACE Chief of the Office of Water Project Review. The team is identified in Attachment 1 of this Review Plan. The makeup of the Policy Review team will be drawn from Headquarters (HQUSACE), the MSC, the Planning Centers of Expertise, and other review resources as needed.

- The Policy Review Team will be invited to participate in key meetings during the development of decision documents as well as SMART Planning Milestone meetings. These engagements may include In-Progress Reviews, Issue Resolution Conferences or other vertical team meetings plus the milestone events.
- The input from the Policy Review team should be documented in a Memorandum for the Record (MFR) produced for each engagement with the team. The MFR should be distributed to all meeting participants.
- In addition, teams may choose to capture some of the policy review input in a risk register if appropriate. These items should be highlighted at future meetings until the



issues are resolved. Any key decisions on how to address risk or other considerations should be documented in an MFR.

**(ii) Legal Review.**

Representatives from the Office of Counsel will be assigned to participate in reviews. Members may participate from the District, MSC and HQUSACE. The MSC Chief of Planning and Policy will coordinate membership and participation with the office chiefs.

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- In some cases legal review input may be captured in the MFR for the particular meeting or milestone. In other cases, a separate legal memorandum may be used to document the input from the Office of Counsel.
- Each participating Office of Counsel will determine how to document legal review input.

**3. OPTIONAL – FUTURE REVIEWS**

To be determined after a Recommended Plan is selected.

### ATTACHMENT 1: TEAM ROSTERS

PROJECT DELIVERY TEAM			
Name	Office	Position	Phone Number
Marsha Raus	CEMVM-PM-P	Senior Project Manager	901-544-3455
Milton Beverly	CEMVM-PM-P	Project Manager	901-544-3790
Don Davenport	CEMVM-EC-H	H&H Engineer	901-544-3393
Jon Korneliussen	CEMVM-EC-D	Design Engineering	901-544-3479
Bobby Learned	CEMVN-PDE-FRR	Economics	901-544-0742
Evan Stewart	CEMVP-PD-E	Economics	314-331-8042
Andrea Carpenter	CEMVN-PDC-UDC	Environmental	901-544-0817
Pamela Lieb	CEMVN-PDC-UDC	Archaeologist	901-544-0710
Cherie Price	CEMVN-PDP-W	Lead Plan Formulator	504-862-2737
Jared Everitt	CEMVN-PD-PWS	Plan Formulator	601-631-7104
Bailey Hunt	CEMVM-RE	Real Estate	901-544-4275
Jeromy Carpenter	CEMVM-EC-D	Cost Engineer	901-544-0810
Tracy Huffman	Non-Federal Sponsor	Project Manager	
Audrey Lewis	Non-Federal Sponsor	Engineer	
Andy Swims	Non-Federal Sponsor	Engineer	

DISTRICT QUALITY CONTROL TEAM			
Name	Office	Position	Phone Number
Nikko Aleman	CEMVM-EC-G	DQC Lead	901-544-0830
Jennifer Redden	CEMVM-EC-H	H&H	901-544-0662
TBD	CEMVM-RE	RE Specialist	
Josh Giannini	CEMVM-EC-D	Design	901-544-3049
TBD	CEMVM-EC-D	Cost	
TBD	CEMVM-EC-G	Geotech	
TBD	CEMVM-EC-C	Construction	
Mark Smith	CEMVN-PDC-UDC	Environmental	901-544-0670
Andy MacInnes	CEMVN-PD	Plan Form	504-862-1062
Brittanie Corley	CEMVN-PDE-N	Economics	504-862-1415

AGENCY TECHNICAL REVIEW TEAM			
Name	Office	Position	Phone Number
		ATR Lead	
		Planning	
		Economics	
		Environmental Resources	



		Cultural Resources	
		Hydrology and Hydraulic Engineering	
		Civil Design	
		Geotechnical	
		Cost Engineering	
		Real Estate	
		Climate Preparedness and Resilience CoP Reviewer	
		Risk Analysis	

POLICY REVIEW TEAM			
Name	Office	Position	Phone Number
Jeff Strahan	CECW-PC	HQ Advisor	202-761-8643
Sarah Palmer	CEMVD-PD-L	Review Manager	601-634-5910
Crorey Lawton	CEMVD-PD-L	Plan Formulation	601-634-5869
Lee Robinson	CEMVD-PD-L	Economics	601-634-5077
Greg Miller	CEMVD-PD-L	Environmental	504-862-2310
Jennifer Ryan	CEMVD-PD-L	Cultural Resources	601-634-5931
Tommy Brown	CEMVD-RB-W	H&H Engineer	601-634-5946
Melissa Mullen	CEMVD-RB-T	Geotech/Levee Safety	901-544-0716
Jennifer Chambers	CEMVD-RB-T	Structural	601-634-7162
Chanel Mueller	CEMVP-EC-H	Climate Change	651-290-5610
James Briggs	CEMVD-PD-SP	Real Estate	601-634-5860







**DEPARTMENT OF THE ARMY**  
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CESPD-PDP (FRM-PCX)

11 March 2019

MEMORANDUM FOR Mr. Troy Constance, Chief, Regional Planning and Environment Division  
South, Mississippi Valley Division (CEMVD-RPEDS)

SUBJECT: Review Plan for Memphis Metropolitan Stormwater-North DeSoto County,  
Mississippi, Flood Risk Management Feasibility Study

1. The Flood Risk Management Planning Center of Expertise (FRM-PCX) has reviewed the review plan dated 21 February 2019 for the subject project. The review plan, as modified to address FRM-PCX comments, satisfies the peer review policy requirements outlined in Engineering Circular (EC) 1165-2-217 Civil Works Review, dated 20 February 2018, and outlines an appropriate scope and level of review given the information in the plan.
2. The FRM-PCX review was led by Ms. Michelle Kniep, FRM-PCX Regional Manager for the Mississippi Valley Division. All PCX comments have been satisfactorily resolved.
3. The FRM-PCX endorses the review plan for approval by the Mississippi Valley Division Commander. Please include this memorandum when transmitting the review plan for approval. Upon approval of the review plan, please provide a copy of the approved plan, a copy of the Commander's approval memorandum, and the link to where the plan is posted on the District website to Ms. Kniep.
4. Thank you for the opportunity to assist in the preparation of the review plan. Please coordinate the peer review efforts outlined in the plan with Ms. Kniep at 314-331-8404.

Encl

ERIC THAUT  
Deputy Director, Flood Risk Management  
Planning Center of Expertise

Digitally signed by  
THAUT.ERIC.WILLIAM.1231631824  
DN: c=US, o=U.S. Government, ou=DoD,  
ou=PKI, ou=USA,  
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CF:  
CEMVP-PD-F (Kniep)  
CEMVM-PM-P (Raus)  
CEMVN-PD-PWS (Everitt)  
CEMVK-EC-PL (Herr)  
CEIWR-RMC-W (Clarkson)

