# **REVIEW PLAN**

March 2020

Project Name: Tar-Pamlico Basin Flood Risk Management Study, NC

**P2 Number**: 487786

**<u>Decision Document Type</u>**: Feasibility Report

Project Type: Flood Risk Management

**District**: Pittsburgh District

**District Contact:** Chief, Plan Formulation and Economics Section,

Major Subordinate Command (MSC): Great Lakes and Ohio River Division

MSC Contact: District Support Program Manager,

Review Management Organization (RMO): FRM-PCX

RMO Contact: Deputy Director,

## **Key Review Plan Dates**

Date of RMO Endorsement of Review Plan: Pending

**Date of MSC Approval of Review Plan: Pending** 

**Date of IEPR Exclusion Approval**: N/A

Has the Review Plan changed since PCX Endorsement? No

<u>Date of Last Review Plan Revision</u>: N/A

<u>Date of Review Plan Web Posting</u>: N/A

<u>Date of Congressional Notifications</u>: N/A

#### Milestone Schedule

	<u>Scheduled</u>	<u>Actual</u>	<u>Complete</u>
<b>Alternatives Milestone:</b>	8-Jul-2020		No
<b>Tentatively Selected Plan:</b>	13-Oct-2021		No
<b>Agency Decision Milestone:</b>	25-Apr-2022		No
Final Report Transmittal:	3-Jan-2023		No
Chief's Report:	7-Apr-2023		No

# **Project Fact Sheet**

March 2020

**Project Name**: Tar-Pamlico Basin Flood Risk Management Study

Location: NC

**Authority**: House Committee on Transportation and Infrastructure Resolution adopted April 11, 2000; House Committee on Transportation and Infrastructure Resolution adopted May 21, 2003.

**Sponsor**: State of North Carolina, Department of Environmental Quality

Type of Study: Feasibility

**SMART Planning Status**: This study is 3x3x3 compliant.

**Project Area**: The Tar River Basin begins in the Piedmont of North Carolina and extends 215 miles southeast through the Coastal Plan and flows to the Pamlico Sound estuary. The basin covers about 6,100 square miles. The basin encompasses all or part of 18 counties. Major population centers in the study area include the cities of Louisburg, Rocky Mount, Greenville, Tarboro, and Princeville, NC.

**Problem Statement**: The Tar-Pamlico Basin has a history of flooding during severe storm and hurricane events. The basin was severely impacted by Hurricanes Fran (1996), Floyd (1999), Matthew (2016), and Florence (2018) causing widespread flooding and damage to residential and commercial buildings.

**Federal Interest**: The communities of the Tar-Pamlico Basin have been very active in pursuing flood damage reduction measures to reduce future flooding. Due to recurring damages sustained during hurricane events, most recently Hurricane Florence, the State of North Carolina has requested USACE to pursue a feasibility study to reduce future flood damages in the basin. The project was included in the 2019 Additional Supplemental Appropriations for Disaster Relief. The FCSA was signed 8 April 2020.

**Risk Identification:** The major study risk is identification of implementable alternatives across multiple focal areas, as well as basin-wide alternatives that reduce localized flooding or reduce overall flood risk in the basin. An ongoing FRM project at Princeville, NC required a BCR waiver in order to move to implementation. Large structural alternatives are unlikely to be economically justified. The study area location outside of the Pittsburgh District also has potential risks related to communication and engagement with the local sponsor and general public that will need to be closely coordinated with the Wilmington District.

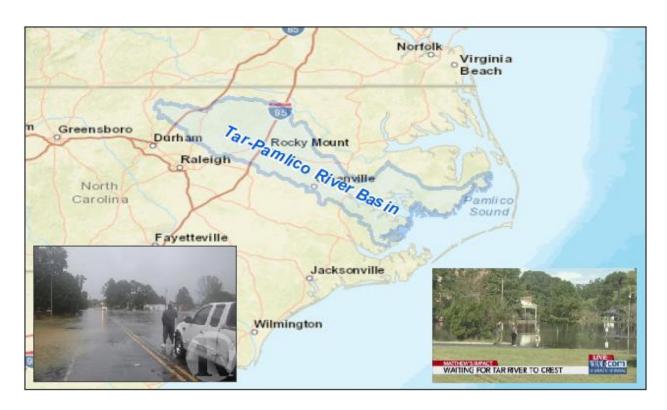


Fig. 1. Location of the Tar-Pamlico River Basin, NC.

#### 1. FACTORS AFFECTING THE LEVELS OF REVIEW

#### Scope of Review.

#### o Will the study likely be challenging?

From a technical standpoint, the PDT does not anticipate challenges outside the normal activities required for a flood risk management project. However, the study will be challenging as a result of the large area being considered. To assist in this challenge, the PDT will develop a plan formulation strategy to identify focal areas within the basin to target analysis and consider alternatives in a manner consistent with completing the study within three years and under \$3 million. Geographic screening of the basin for areas most at risk of flooding will need to be accomplished prior to application and screening of potential management measures.

# Provide a preliminary assessment of where the project risks are likely to occur and assess the magnitude of those risks.

The study area is approximately 6,100 sq miles with six population centers of greater than 1000 at risk from flooding. These communities are concentrated geographically in the center and downstream portions of the Tar River sub-watershed. Upland areas of the watershed are more rural and have not experienced the same levels of riverine flooding. Identification, grouping and selection of alternatives that address both local and regional flooding will require a substantial level of effort. The area under consideration requires a well-developed plan formulation strategy in order to ensure appropriate management measures are identified and incorporated into viable alternative plans.

The study area location outside of the geographic area of responsibility for Pittsburgh District also has potential risks related to communication and engagement with the local sponsor, stakeholders, resource agencies and general public. Working in an area outside of the District's area of responsibility also causes risks associated with limited knowledge of the local environmental and socioeconomic conditions that could affect modeling and analyses. The team has taken several steps to reduce the likelihood that this risk results in significant study impacts. The PDT leverages regional expertise, including hydrologic and hydraulic modelers and geotechnical engineers from the Huntington District, which includes a portion of North Carolina. This study is being conducted in coordination with two additional studies in adjacent basin and will leverage the local expertise and regional contacts housed in the Wilmington District – the home district for this study.

# o <u>Is the project likely to be justified by life safety or is the study or project likely to involve</u> significant life safety issues?

The primary flood events within the Tar-Pam Basin have been due to large rainfall events from hurricanes, which are generally forecasted well in advance. Thus,

residents generally have ample time to evacuate prior to flood events. Historic floods throughout the basin have generally been characterized by large areas of inundation with relatively low inundation depths that can persist for extended periods of time, particularly in the lower region of the basin. The population in the basin is approximately 360,000 and concentrated in the communities of Greenville, Tarboro, Princeville and Rocky Mount. Although major flood events have resulted in flood-related deaths within North Carolina, the study team is unaware of any deaths that have occurred in the Tar River basin. The basin is largely rural with easy access to the transportation corridors of I-95 and I-85 as evacuation routes via a network of highways (e.g., 64, 1, 301, 401) that traverse throughout the basin. The highway network is well developed given the proximity of the basin to the metropolitan areas of Raleigh and Durham.

A previous flood risk management study conducted by the state of North Carolina determined that additional levees within the basin were not feasible measures to alleviate flood risk within the basin. Although this study identified upstream detention basins as potentially viable measures, other measures (e.g., non-structural measures) were deemed to be more economically justified. Therefore, we do not believe the study will recommend implementation of measures or alternatives that have significant life safety concerns. If it becomes likely that a measure with significant life safety concerns will be recommended, the need for additional levels of review will be revisited at that point.

For these reasons, any projects identified through this feasibility study are unlikely to have a significant life safety component either for justification or post implementation.

 Has the Governor of an affected state requested a peer review by independent experts?

The Governor of North Carolina has not requested a peer review by independent experts.

• Will it likely involve significant public dispute as to the project's size, nature, or effects?

The PDT does not anticipate significant public dispute regarding the nature and recommendation of this study. It is unlikely this study will require an Environmental Impact Statement.

 Is the project/study likely to involve significant public dispute as to the economic or environmental cost or benefit of the project?

There is unlikely to be significant public dispute regarding the economic and/or environmental impacts of the project. The project is expected to have minimal environmental impact and is expected to protect important drivers of the local economy.

o Is the information in the decision document or anticipated project design likely to be based on novel methods, involve innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices?

This study is not based on using novel methods, does not present complex challenges for interpretation, does not contain precedent-setting methods or models, and does not present conclusions that alter the originally authorized study.

 Does the project design require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design/construction schedule?

This will not require any unique redundancy, resiliency, robustness, or construction actions outside those normally necessary for flood risk management projects.

o Is the estimated total cost of the project greater than \$200 million?

The estimated project cost will be less than \$200M based on the identified scope of the study.

Will an Environmental Impact Statement be prepared as part of the study?

We do not anticipate the need for an Environmental Impact Statement. The PDT expects NEPA compliance to be completed through an Environmental Assessment (EA) and Finding of No Significant Impact (FONSI).

 Is the project expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources?

No unique tribal, cultural, or historic resources are expected to be impacted as a result of the recommended Federal action.

o <u>Is the project expected to have substantial adverse impacts on fish and wildlife species and their habitat prior to the implementation of mitigation measures?</u>

This project is not expected to have any adverse impacts on fish or wildlife species or their habitat whether or not they are listed as endangered or threatened under the Endangered Species Act of 1973.

#### 2. REVIEW EXECUTION PLAN

This section describes each level of review to be conducted. Based upon the factors discussed in Section 1, this study will undergo the following types of reviews:

<u>District Quality Control</u>. All decision documents (including data, analyses, environmental compliance documents, etc.) undergo DQC. This internal review process covers basic science and engineering work products. It fulfils the project quality requirements of the Project Management Plan.

Agency Technical Review. ATR is performed by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. These teams will be comprised of certified USACE personnel. The ATR team lead will be from outside the home MSC. If significant life safety issues are involved in a study or project a safety assurance review should be conducted during ATR.

<u>Cost Engineering Review</u>. All decision documents shall be coordinated with the Cost Engineering Mandatory of Expertise (MCX). The MCX will assist in determining the expertise needed on the ATR team. The MCX will provide the Cost Engineering certification. The RMO is responsible for coordinating with the MCX for the reviews. These reviews typically occur as part of ATR.

<u>Policy and Legal Review.</u> All decision documents will be reviewed for compliance with law and policy. ER 1105-2-100, Appendix H provides guidance on policy and legal compliance reviews. These reviews culminate in determinations that report recommendations 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. These reviews are not further detailed in this section of the Review Plan.

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** 

Product(s) to undergo Review	Review Level	Start Date	End Date	Cost	Complete
Draft Feasibility Report and EA	District Quality Control	11/29/21	12/12/21	\$25,500	No
Draft Feasibility Report and EA	Agency Technical Review	12/13/21	01/27/22	\$55,000	No
Draft Feasibility Report and EA	Policy and Legal Review	12/13/21	02/15/22	n/a	No
Final Feasibility Report and EA	District Quality Control	09/03/22	10/02/22	\$10,000	No
Final Feasibility Report and EA	Agency Technical Review	10/03/22	11/17/22	\$55,000	No
Final Feasibility Report and EA	Legal Sufficiency Review	11/18/22	12/17/22	n/a	No
Final Feasibility Report and EA	Policy and Legal Review	01/05/23	02/05/23	n/a	No

Note: Review timeframes include the time for review and PDT response.

## 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>	Expertise Required
DQC Lead	A senior professional with experience preparing Civil Works decision documents and conducting DQC. The lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc.).
Plan Formulation	A senior water resources planner with experience in flood risk management planning. Experience integrating uncertainties in analyses (H&H, geotechnical, cost engineering, and economics) into plan comparison and selection is required.
Economics	A senior economist with thorough knowledge of the various economic analyses utilized in feasibility study (life safety, transportation, flood damage). Has capability and experience to estimate and communicate likely variance in the outcomes of models, analyses, and designs.
Environmental & Cultural Resources	A senior environmental specialist with experience in Cultural Resources, the National Environmental Policy Act and all applicable laws and Executive Orders.
Hydraulic Engineering	A senior engineer with experience in the field of hydraulics and hydrology. They should have a thorough understanding of the application of structural and non-structural flood risk management solutions, and computer modeling techniques. Has capability and experience to estimate and communicate likely variance in the outcomes of models, analyses, and designs. Is familiar with climate preparedness and resiliency policy and requirements for feasibility reports.
Structural Engineering	A senior engineer withknowledge of stability analyses and design of structural flood risk reduction and protection solutions.
Geotechnical Engineering	A senior geotechnical engineer with a thorough knowledge and experience in geotechnical considerations related to flood risk management projects (e.g., slope stability). Has capability and experience to estimate and communicate likely variance in the outcomes of models, analyses, and designs.

Cost Engineering	A senior engineer and expert in the field of cost engineering. They must have a thorough knowledge of and experience in costing structural and non-structural flood risk management solutions. Has capability and experience to estimate and communicate likely variance in the outcomes
Civil Design/ Engineering	of models, analyses, and designs.  A senior engineer and expert in the field of civil engineering. They must have a thorough knowledge of and experience with civil design products (e.g., site selection, project development, real estate, and relocations) related to flood
	risk reduction and protection solutions.
Real Estate	A senior real estate specialist with experience preparing Real Estate Plans and in acquisition of LERRD's. The realty specialist(s) should have experience in residential and utility/facility relocation (Public Law 91-646).

**Documentation of DQC**. Quality Control should be performed continuously throughout the study. 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.

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 effort. 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. The ATR team will be assigned once the review plan has been approved by the MSC and endorsed by the RMO.

**Table 3: Required ATR Team Expertise** 

ATR Team Disciplines	Expertise Required
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.
Plan Formulation	The plan formulation lead will have experience preparing and reviewing Civil Works decision documents, developing

	plan formulation strategies and integrating technical analyses into the SMART planning framework.
Economics	The economist will be a senior economist and have a thorough knowledge of the various economic analyses utilized in a flood risk management feasibility study (life safety, transportation, flood damage). Has capability and experience to estimate and communicate likely variance in the outcomes of models, analyses, and designs. Is familiar with HEC-FDA. Based on the initial array of alternatives familiarity with LifeSim may be needed should certain alternatives move forward for consideration. The PDT will communicate that need with the ATR lead prior to the TSP milestone to ensure the identified reviewer has that capacity.
Environmental & Cultural Resources	A senior environmental specialist with experience in Cultural Resources, the National Environmental Policy Act and all applicable laws and Executive Orders.
Hydraulic Engineering	A senior engineer with expertise in the field of hydraulics and hydrology. They should have a thorough understanding of the application of structural and non-structural flood risk management solutions, and computer modeling techniques. Has capability and experience to estimate and communicate likely variance in the outcomes of models, analyses, and designs.
Structural Engineering	A senior engineer and expert in the field of structural engineering. They must have a thorough knowledge of stability analyses and design of structural flood risk reduction and protection solutions.
Civil Design/Engineering	A senior engineer and expert in the field of civil engineering. They must have a thorough knowledge of and experience with civil design products (e.g., site selection, project development, real estate, and relocations) related to flood risk reduction and protection solutions.
Geotechnical Engineering	A senior geotechnical engineer with a thorough knowledge and experience in geotechnical considerations related to flood risk management projects (e.g., slope stability). Has capability and experience to estimate and communicate likely variance in the outcomes of models, analyses, and designs.
Cost Engineering	Cost MCX staff or Cost MCX Pre-Certified Professional as assigned by the Walla Walla Cost Engineering Mandatory Center of Expertise with experience in preparing cost estimates. Has capability and experience to estimate and communicate likely variance in the outcomes of models, analyses, and designs.

Real Estate	A senior real estate specialist with preparation of Real Estate Plans and experience in acquisition of LERRD's. The realty specialist(s) should have experience in residential	
	and utility/facility relocation (Public Law 91-646).	
Climate Preparedness	A member of the Climate Preparedness and Resiliency	
and Resilience CoP	Community of Practice (CoP) with experience in climate	
Reviewer	change impacts to inland flood risk management projects.	
Flood Risk Analysis	Subject matter expert in multi-discipline flood risk analysis	
Reviewer	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. 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) 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 (see EC 1165-2-217, pages 31-32, for example ATR Completion/Certification Sheet).

#### 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.** A Type I IEPR will not be performed for the Tar-Pamlico Basin Flood Risk Management Study. The IEPR exclusion request highlights the following:

- The project is not controversial. This project is not anticipated to have negative economic, environmental, or social effects to the nation. For these reasons the project should not be considered controversial.
- It is not expected to have adverse impacts on any fish or wildlife species or their habitat whether or not they are listed as endangered or threatened under the Endangered Species Act of 1973.
- This study is not based on novel methods, does not present complex challenges for interpretation, does not contain precedent-setting methods or models, and does not

present conclusions that alter the originally authorized study. The challenge associated with this study will be identifying the highest risk areas where a justifiable federal action exists, not in the application of complex solutions.

The PDT does not believe the level of life safety risk warrants independent external peer review at this time. All communities within the study area are part of State-wide risk assessments conducted by the State of North Carolina's Emergency Management Office, as well as in the on-going South Atlantic Coastal Comprehensive Study being conducted by USACE. These initial studies attempted to identify and mitigate potential life safety concerns

Impacts from Hurricanes Matthew and Florence on the southeast Atlantic coastline were documented to include record flooding within the study area. Hurricane Matthew rainfall depths recorded in the Tar River basin ranged from 4.4 to 13.2 inches with a basin wide average of 8.3 inches. Hurricane Florence produced about 6 inches of rain in the study area. During Hurricane Matthew, 2,413 structures in the study area were flooded for a total of \$112 million in damages. Neither during Matthew or Florence do we have indications of fatalities directly attributable to flooding.

The basin is largely rural with access to the transportation corridors of I-95 and I-85 as evacuation routes. Since, the primary flood events under consideration are caused by hurricanes there is generally adequate warning time to evacuate high risk communities. The study will focus primarily on riverine flooding caused by storm events. The state had a robust emergency warning and response and recovery operation that further limits potential impacts to life safety.

The nature of the flooding along with existing state level emergency management systems make justification of projects identified based solely on life safety considerations highly unlikely.

- The estimated total cost of the project will be less than \$200M based on the identified scope of the study.
- There has been no request to conduct a Type I IEPR by the Governor of North Carolina.
- The management measures under consideration prior the Alternatives Milestone are relatively routine and within the core competencies of the agency. The risk of loss of life related to initially identified management measures is low, as such the outcomes of this study would not significantly benefit from an independent external peer review.

# (i) 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.** For the reasons discussed in Scope of Review and in the Decision on Type I IEPR, this document does not involve significant life safety concerns that warrant a Type II IEPR, as confirmed by the LRP Chief of Engineering and Construction. Therefore, a Type II IEPR would not be considered at this time. Dependent on the TSP, this decision may be revisited during Preconstruction Engineering and Design and update to the Review Plan moving into the design and implementation phase.

#### 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:

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Certification / Approval
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
HEC-LifeSim 1.01	The program is designed to simulate the entire warning and evacuation process for estimating potential life loss estimates resulting from catastrophic floods. It will be used to estimate life loss at different flow rates and incorporating surge flow.	Certified for use in life loss estimation.

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:

Model Name and Version	Brief Model Description and How It Will Be Used in the Study	Approval Status
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
HEC-HMS	This software is designed to simulate the complete hydrologic processes of a dendritic watershed system. It will be used to develop inflow frequency and inflow hydrographs for HEC-RAS if 2-D an unsteady state calculations are needed. It could also be used to develop better estimates of various storm events (e.g., 50- and 100-year storms).	HH&C CoP Preferred Model

#### e. POLICY AND LEGAL REVIEW

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

## (ii) 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.

- 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.

# **ATTACHMENT 1: TEAM ROSTERS**

PROJECT DELIVERY TEAM			
Name	Office	Position	Phone Number
	•		

DISTRICT QUALITY CONTROL TEAM			
Name	Office	Position	Phone Number
			_

AGENCY TECHNICAL REVIEW TEAM			
Name	Office	Position	Phone Number
			<u> </u>

*Note:* Multiple areas of expertise will be represented by individual reviewers to the extent possible. Despite the decreased number of reviewers on the ATR team, all 11 areas of expertise will be represented.

VERTICAL TEAM				
Name	Office	Position	Phone Number	

POLICY REVIEW TEAM					
Name	Office	Position	Phone Number		