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CEPOD-PDC (1105)

27 January 2021

MEMORANDUM FOR Commander, Honolulu Engineer District (CEPOH-PP-C/Milton Yoshimoto), Building 230, Fort Shafter, HI 96858-5440

SUBJECT: Review Plan Approval for the Commonwealth of the Northern Mariana Islands Post-Disaster Watershed Assessment, Commonwealth of the Northern Mariana Islands

1. References:

- a. Engineering Circular 1165-2-217, Review Policy for Civil Works, 20 Feb 18.
- b. HQUSACE, CECW-CE Memorandum, (Interim Guidance on Streamlining Independent External Peer Review (IEPR) for Improved Civil Works Product Delivery), 5 Apr 19.
- c. Planning Bulletin 2019-01, Watershed Studies, 17 Jan 19.
- d. Review Plan for the Commonwealth of the Northern Mariana Islands Post-Disaster Watershed Assessment, Commonwealth of the Northern Mariana Islands, Honolulu District, U.S. Army Corps of Engineers, Dec 20. (Encl)

2. IAW references 1.a., 1.b., and 1.c., this memorandum constitutes approval of the Review Plan for the Commonwealth of the Northern Mariana Islands Post-Disaster Watershed Assessment, Commonwealth of the Northern Mariana Islands, Honolulu District, U.S. Army Corps of Engineers, which does not include a Type I Independent External Peer Review.

3. The approved Review Plan is subject to change as circumstances require, consistent with project development under the Project Management Business Process. Subsequent significant revisions to this Review Plan or its execution require my written approval.

4. POC is Mr. Russell Iwamura, Pacific Ocean Division Team Leader for Planning and Policy, at 808-835-4625 or at [Russell.K.Iwamura@usace.army.mil](mailto:Russell.K.Iwamura@usace.army.mil).

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KIRK E. GIBBS  
Colonel, EN  
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# REVIEW PLAN

For

The Commonwealth of the Northern Mariana Islands  
Post-Disaster Watershed Assessment



**U.S. Army Corps of Engineers  
Honolulu District**

**MSC Approval Date: 27 January 2021**



**US Army Corps  
of Engineers**®



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## 1. Review Plan Overview

**Project Name:** Post-Disaster Watershed Assessment for the Commonwealth of the Northern Mariana Islands

**P2 Number:** 487231

**Document Type:** Watershed Assessment (WA)

**Project Type:** Flood Risk Management, Coastal Storm Damage Reduction, and Ecosystem Restoration.

**District:** Honolulu District (POH)

**District Contact:** Project Manager, (808) 835-4034

**Supporting District:** Sacramento District (SPK)

**Supporting District Contact:** Planner, (916) 557-7485

**Major Subordinate Command (MSC):** Pacific Ocean Division (POD)

**MSC Contact:** Planning and Policy Chief, (808) 835-4625

**Review Management Organization (RMO):** Flood Risk Management Planning Center of Expertise (FRM-PCX)

**RMO Contact:** Deputy Director, (415) 503-6852

### **Key Review Plan Dates**

**Date of RMO Endorsement of Review Plan:** 14 October 2020

**Date of MSC Approval of Review Plan:** 27 January 2021

**Has the Review Plan changed since PCX Endorsement?** N/A

**Date of Last Review Plan Revision:** N/A

**Date of Review Plan Web Posting:** 01 February 2021

**Date of Congressional Notifications:** Pending



**Milestone Schedule**

	<b><u>Scheduled</u></b>	<b><u>Actual</u></b>	<b><u>Complete</u></b>
<b><u>Funds Received:</u></b>	Jan 2020	Jan 2020	Yes
<b><u>Shared Vision Milestone:</u></b>	Jan 2021	26 Jan 2020	Yes
<b><u>Recommendations Milestone:</u></b>	Oct 2021	(enter date)	No
<b><u>Report Milestone:</u></b>	Jul 2022	(enter date)	No



## 2. Project Fact Sheet

(December 2020)

**Project Name:** Post-Disaster Watershed Assessment for the Commonwealth of the Northern Mariana Islands (CNMI)

**Location:** CNMI

**Authority:** Section 729 of the Water Resources Development Act of 1986, as amended (33 U.S.C. 2267a)

**Sponsor:** N/A

**Type of Study:** Watershed Assessment (WA)

**SMART Planning Status:** SMART Planning principles are integral to watershed planning. The PDT will incorporate critical thinking, risk-informed decision making and early and frequent vertical team engagement throughout the study process. \$1,500,000 in Federal funding has been allocated for this WA from the FY19 Supplemental Appropriations for Disaster Relief Act. The WA will be conducted within a 30-month timeframe. Therefore, the WA is compliant with the 3x3x3 study requirements and a waiver to these requirements is not anticipated.

**Project Area:** The study area for the WA includes the three largest and most populated islands in CNMI in order to most efficiently address the territory-wide need for community resilience. These islands are Saipan, Tinian, and Rota, as shown below in Figure 1. Each island has a unique set of watershed problems and opportunities that will be studied independently. Saipan, for example, is the capital and has a significantly larger population and more development, compared to Tinian and Rota. A series of tailored recommendations will be developed for each of the three islands within the context of the overarching WA.

**Problem Statement:** Problems identified throughout CNMI include the following:

- **Frequent rainfall events and damages:** Frequent intense rainfall events trigger flooding along watercourses and in low lying areas, causing life safety risks and economic damages, including effects to critical infrastructure. (Saipan and Rota)
- **Coastal Erosion:** Storms and high wave events contribute to coastal erosion, endangering critical infrastructure. (Saipan, Tinian, and Rota)
- **Water Quality and Water Supply:** Flooding impacts water quality and water supply, leading to contaminated drinking water. Over pumping and high saline concentrations contribute to limited to no potable water resources. (Saipan, Tinian, and Rota)



- **Wildfires:** Wildfires exacerbated by drought and invasive species threaten the ecology. (Saipan, Tinian, and Rota)
- **Commercial Harbor Operations and Infrastructure:** Commercial harbor issues threaten the local economy. (Saipan, Tinian, and Rota)

**Federal Interest:** Super Typhoon Yutu, which struck the CNMI in October 2018, was the strongest typhoon ever recorded to impact the Mariana Islands, and the second-strongest tropical cyclone to strike the United States or its territories. The storm caused catastrophic damage to public infrastructure and utilities, private properties, and the environment in the CNMI. There is Federal interest in reducing the life safety risk and property damages in the CNMI by increasing community resilience through focus on the social, economic and environmental aspects that contribute to it. This WA would provide recommendations to increase community resilience that could be implemented by various Federal, Territorial, local and non-governmental organizations.

**Risk Identification:** Based on the PDT review of existing documentation and verified through stakeholder coordination, there is an existing and ongoing risk to life safety, critical infrastructure and property damage from large storm events and this risk will most likely increase in the future due to climate change. Additionally, wildfires exacerbated by drought and invasive species have degraded the habitat.

The COVID19 pandemic has had a devastating effect on the economy of the CNMI since it is largely based on tourism which has effectively stopped. As a result, the CNMI government has been shut down for long periods of time and has furloughed many employees. This has made coordination with the local stakeholders more problematic since many are now working only part time or not at all. Due to the pandemic travel restrictions, most of the PDT has been unable to visit the study site.

Additionally, the study team is located thousands of miles away and many time zones behind CNMI limiting coordination to a small window of time during the day. This presents a challenge in ensuring regular communication with partners and stakeholders takes place. Stakeholder coordination may continue to be affected by the pandemic in the future.

Future funding for implementation of the watershed study recommendations is uncertain. A large part of the local government's funding is based on tourism which has been decimated by the COVID19 pandemic. It is very unlikely that the local government would have the resources to implement many of the recommendations. Most likely, funding to implement recommendations would come from grants from various Federal agencies and non-governmental organizations.

### **3. Purpose and Requirements**

#### **a. Purpose**

This Review Plan defines the scope and level of review for the Commonwealth of the Northern Mariana Islands Post-Disaster Watershed Assessment (CNMI, WA).

#### **b. Applicability**

This Review Plan was developed in accordance with the following regulation and guidance listed below:

- (1) PB 2019-01, Watershed Studies, 17 January 2019.
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 March 2010.
- (3) ER 1110-1-12, Quality Management, 30 September 2006.
- (4) EC 1165-2-217, Review Policy for Civil Works, 20 February 2018.
- (5) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 November 2007.
- (6) SACW Memorandum for Commanding General, USACE, “Policy Guidance on Implementation of Additional Supplemental Appropriations for Disaster Relief Act, 2019, (Public Law 116-20),” 24 April 2020.

#### **c. Requirements**

This Review Plan was developed in accordance with EC 1165-2-217, with the review requirements therein modified in accordance with Section 729 of WRDA 86 implementation guidance and PB 2019-01 to fit the unique nature of watershed assessments. These review requirements establish an appropriate, accountable, comprehensive review strategy by providing a seamless process for review of planning documents. Four general levels of review are outlined below: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Policy Review, and Legal Compliance Review.

### **4. Review Management Organization (RMO) Coordination**

The RMO is responsible for managing the overall peer review effort described in this Review Plan. For this WA, POD has transferred the RMO role to the Flood Risk Management Planning Center of Expertise (FRM-PCX). FRM-PCX will coordinate and endorse the Review Plan and manage the ATR.





## **5. Project Information**

### **a. Final Document**

The study will result in a comprehensive and long-range Post-Disaster WA which will undergo reviews as described in this plan. Since the WA will not directly result in a project(s) for implementation there is no requirement for documentation of impacts under NEPA or other environmental laws. There will not be a plan selected for implementation; therefore, the level of review is limited to the evaluation of existing and future-without project conditions, and an array of recommendations or potential solutions that address the issues within the geographical area of the study. Recommendations and solutions will be conceptual in nature, requiring additional analyses and design before implementation. The WA will be prepared in accordance with PB 2019-01. The approval level of the final document is the MSC per current guidance.

### **b. Project Description**

The intent of this WA is to provide recommendations both within and outside of U.S. Army Corps of Engineers (USACE) authorities that will help to rehabilitate and improve the resiliency of damaged infrastructure and natural resources to reduce risks to human life and property from future natural disasters in the CNMI. The assessment will review available information related to past storm damages that have had a major impact on the CNMI; perform technical assessments of the drivers for socio-economic impacts through engagement with the public and other Federal, state and local agencies. The recommendations from the watershed assessment will provide a strategic roadmap to inform future investment decisions by multiple agencies, including but not limited to: potential projects and studies associated with flood risk management, coastal storm damage reduction, and ecosystem restoration under various USACE authorities, as well as environmental infrastructure, and actions to be implemented by others outside of available USACE authorities.

### **c. Study Area**

The study area for the WA includes the three largest and most populated islands in CNMI in order to most efficiently address the territory-wide need for community resilience. These islands are Saipan, Tinian, and Rota, as shown below in Figure 1. Each island has a unique set of watershed problems and opportunities that will be studied independently. Saipan, for example, is the capital and has a significantly larger population and more development, compared to Tinian and Rota. A series of tailored recommendations will be developed for each of the three islands within the context of the overarching WA.

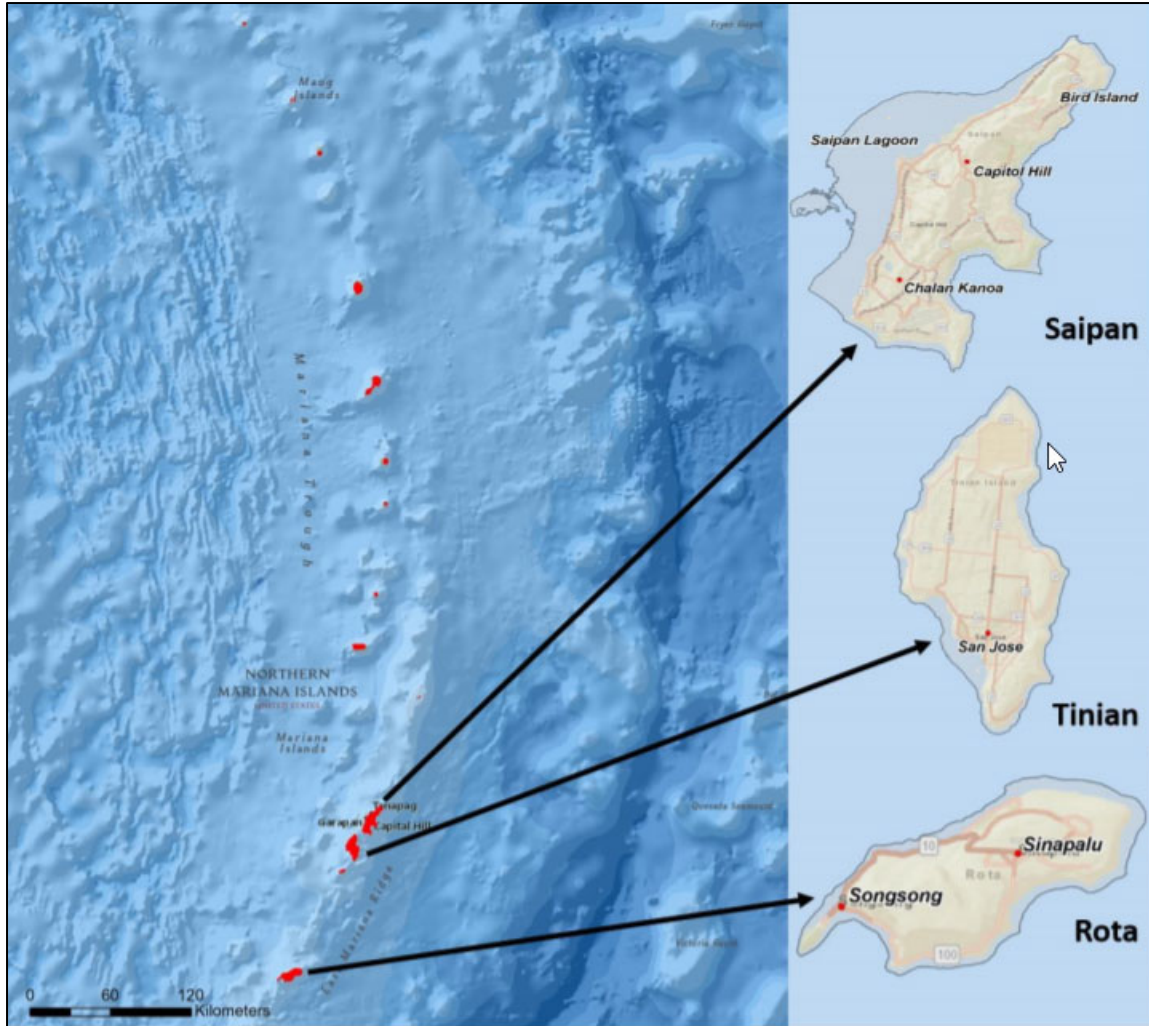


Figure 1. Study Area

#### d. Factors Affecting the Scope and Level of Review

**Scope of Review.** The conceptual nature of solutions or recommendation resulting from the WA will not cause significant threat to human life/safety or create significant public dispute as to the size, nature, or effects of a project. The WA will not select a plan for implementation, and additional analysis would be required prior to implementation of any recommendation. Because this authority does not include construction of any alternatives, NEPA documentation and IEPR is not required, and public dispute is not anticipated. DQC and ATR will be focused on verifying that the existing and future without project conditions were fully captured and evaluating the screening level conceptual alternative formulation.

Since there will be no project selected for implementation, participation by general engineering, cost engineering, and real estate PDT members will be minimal and on an as-needed basis. The conceptual nature of the watershed management

recommendations is the main determinant for the scope of review of the WA and the level of expertise required from the reviewers.

Risk-informed decision making is integral to this study and levels of review. A Risk Register on the IWR-Assistance for Planning Teams (APT) will be used to document the uncertainties and risk analysis identified. Vertical team integration and early engagement is also part of the risk informed planning process. To the extent possible, the study will follow the conceptual risk management framework on the iterative SMART Planning steps detailed in Planning Manual Part II: Risk-Informed Planning (2017-R-03).

- Will the study likely be challenging? Study challenges include watershed planning and forecasting of future conditions in the face of climate change. Hydrologic and environmental changes due to short- and long-term climate conditions present challenges to forecasting future conditions in the watershed.
- Provide preliminary assessment of where the project risks are likely to occur and assess the magnitude of those risks. The WA may or may not involve novel methods, techniques or models in the data collection, data interpretation and analysis of existing problems in the watershed. This analysis will not be used to determine specific conclusions resulting in an investment decision, activity or undertaking. Follow-on projects based on this WA will include further, more detailed, analysis of alternatives and economic or environmental effects.
- Is this project likely to be justified by life safety or is the study or project likely to involve significant life safety issues? Currently, there is risk to life safety and infrastructure from large storm events throughout the study area.
- Has the Governor of an affected state requested a peer review by independent experts? No.
- Will the study likely involve significant public dispute as to the project's size, nature, or effects? No.
- Will the study likely involve significant public dispute as to the economic or environmental cost or benefit of the project? No.
- 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? N/A, no decision document will be produced as part of this WA.
- Does the project design require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design/construction schedule? N/A, this project will not recommend a project for implementation.



- Is the estimated total cost of the project greater than \$200 million? N/A, this project will not recommend a project for implantation.

- Will an Environmental Impact Statement be prepared as part of the study? No, an Environmental Impact Statement will not be prepared because this WA will not recommend a plan for implementation.

- Is the project expected to have more than negligible adverse impacts on scarce or unique tribal, cultural, or historic resources? Adverse impacts are not anticipated on tribal, cultural, or historic resources; fish and wildlife species or their habitat; or on endangered or threatened species or their habitat, as this WA will not recommend a plan for implementation.

#### **e. In-Kind Contributions**

No in-kind contributions are expected since the WA is fully Federally funded. Products and analyses provided by non-USACE partners and stakeholders, including biological surveys, mapping, and past studies, would be referenced in the development of the WA.

### **6. District Quality Control (DQC)**

All report documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). Honolulu District (POH) shall manage DQC and will appoint a DQC Lead to manage the local review (see EC 1165-2-217, section 8.a.1).

#### **a. Documentation of DQC**

Quality Control should be performed continuously throughout the study. A specific certification of DQC completion is required at the draft and final report stages. Documentation of DQC should follow the District Quality Manual and the MSC Quality Management Plan. If possible, DQC of the draft and final WA should be conducted using DrChecks. An example DQC Certification statement is provided in EC 1165-2-217, on page 19 (see Figure F).

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. Required DQC Expertise**

The following expertise is anticipated for the Watershed Assessment. The DQC team will be reflective of the major disciplines involved in the assessment. Some disciplines in this list may be added or removed including general engineering, cost engineering, and real estate which are not currently anticipated to be necessary.

Table 1. Required DQC Team Expertise

<b><i>DQC Team Members/Disciplines</i></b>	<b><i>Expertise Required</i></b>
DQC Lead	The DQC lead will be a qualified senior staff member (e.g. Supervisor, lead planner, or Project Manager) who has no production role in a large study.
Planning	The reviewer will be a water resources planner with experience in ecosystem restoration and flood risk management.
Environmental Resources	The reviewer shall be familiar with the habitat types found in the Pacific Islands Territories and understand the factors that influence the ecology in the area.
Hydrology and Hydraulic Engineering	The reviewer will be familiar with the hydrology and coastal engineering in the Pacific Island Territories.
Economics	The reviewer will have knowledge of economic factors that influence/affect development in the Pacific Island Territories, including Other Social Effects (OSE) analyses that look at health and safety, economic vitality, and increased risk to vulnerable populations. This reviewer will have knowledge in the application and outputs of HEC-LifeSim Version 2.0 life safety modeling.
Office of Counsel (OC)	An OC reviewer will conduct a legal sufficiency review.

NOTE: Real Estate and Engineering (including Cost) reviewers are not required, as products specific to those disciplines are not anticipated.

**7. Agency Technical Review (ATR)**

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)). A site visit is not anticipated for the completion of the ATR.



**a. Required ATR Team Expertise**

The appropriate RMO, in cooperation with the PDT, vertical team, and other appropriate centers of expertise, will determine the final make-up of the ATR team. The following table provides the types of disciplines anticipated to be included on the ATR team and descriptions of the expertise required.

Due to an updated understanding of the scope and conceptual nature of the WA, the ATR team will only include the following key disciplines:

Table 2. Required ATR Team Expertise

<b>ATR Team Members/Disciplines</b>	<b><i>Expertise Required</i></b>
ATR Lead	The ATR lead will be a senior professional preferably with experience in WRDA 1986 Section 729 watershed assessments and conducting ATR. The lead will also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, the ATR lead will also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc.). The ATR Lead shall reside outside of POD.
Planning	The reviewer will be a water resources planner with experience in ecosystem restoration and flood risk management and have experience in WRDA 1986 Section 729 watershed assessments.
Environmental Resources	The reviewer shall be familiar with the habitat types found in the Pacific Islands Territories and understand the factors that influence the ecology in the area. The environmental resources reviewer should understand WRDA 1986 Section 729 requirements and the unique differences to the traditional feasibility report.
Hydrology and Hydraulic Engineering	The reviewer will have knowledge of hydrologic and hydraulic processes and coastal engineering within the Pacific Islands.
Economics	The reviewer will have knowledge of economic factors that influence/affect development in the Pacific Island Territories, including Other Social Effects (OSE) analyses that look at health and safety, economic vitality, and increased risk to vulnerable populations. This reviewer will



	have knowledge in the application and outputs of HEC-LifeSim Version 2.0 life safety modeling.
Climate Change	The person will be an approved ATR reviewer by the Climate Preparedness and Resiliency Community of Practice (CoP) with experience in inland and coastal hydrology.

NOTE: Real Estate and Engineering (including Cost) reviewers are not required, as products specific to those disciplines are not anticipated.

**b. 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 (VT) 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 were resolved or elevated. ATR may be certified when all concerns are resolved or referred to the VT and the ATR documentation is complete.

**8. Independent External Peer Review (IEPR)**

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. Per EC 1165-2-217, the requirements to perform IEPR are typically associated with decision documents. Since watershed plans are not decision documents, they are not subject to this level of review.

**9. Policy and Legal Compliance Review**

Policy and legal compliance reviews for draft and final planning documents are performed throughout the study process to ensure law and policy compliance. These reviews are delegated to the MSC (see Director’s Policy Memorandum 2018-05, paragraph 9).

**a. 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.

#### **b. 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.

### **10. Cost Engineering Mandatory Center of Expertise (MCX) Review and Certification**

Per EC 1165-2-217, paragraph 9.3.1.3 only decision documents must have costs reviewed by the Cost Engineering MCX, located in Walla Walla District. Watershed Assessments are not decision documents, therefore cost engineering review(s) and certification are not required.

### **11. Model Certification and Approval**

In conducting watershed plans, and overall watershed planning, it is recognized that many agencies and stakeholders have developed numerous models and data. Use of existing models and data in watershed planning, whether it is from the USACE, other federal agencies or local entities is encouraged through collaborative processes. The quality and validity of these models and data must be evaluated and the agency technical review documented by the appropriate agencies.





**a. Planning Models**

The following planning models are anticipated for use in the development of the WA.

Table 3. Planning Models

<b>Model Name and Version</b>	<b>Brief Model Description and How It Will Be Used in the Study</b>	<b>Certification / Approval</b>
Institute for Water Resources (IWR) Planning Suite 2.0.9	Supports the formulation, evaluation and comparison of conceptual alternatives involving non-monetary costs and benefits, including community resiliency. The Multi-criteria decision analysis (MCDA) module may be used to assist in revealing and communicating the trade-offs between economic, environmental and social effects. The Watershed wizard module may be used to develop a transparent framework for formulating multiple solutions and scales across multiple locations.	Certified
HEC-LifeSim Version 2.0	Supports the formulation, evaluation and comparison of conceptual alternatives by estimating life loss and economic damages determined by the hazard (e.g. storm surge). Results from the simulation can inform recommendations to reduce risks to human life and property from future natural disasters.	Pending

**b. Engineering Models**

No engineering models are anticipated for use in the development of the WA. Engineering work for this WA will be limited to qualitative review based on existing data to potentially include some additional data accumulation and synthesis.

**12. Review Schedules and Costs**

The Project Manager will work with the ATR Lead to ensure that adequate funding is available and is commensurate with the level of review disciplines outlined in Section 5.b. and 6.a., above. Any funding shortages will be negotiated on a case-by-case basis and in advance of a negative charge occurring. The ATR Lead shall provide organization codes for each team member and a responsible financial point of contact (CEFMS responsible employee) for creation of labor codes. Reviewers shall monitor individual labor code balances and alert the ATR Lead to any possible funding shortages.



The project schedule and anticipated dates for DQC, ATR, Policy and Legal Compliance Review and non-Federal Partner review are shown in the table below. Targeted DQC and ATR are included to review the modeling assumptions and methodology for using existing data (storm surge and FEMA inundation mapping) and a simplified structural inventory to create LifeSim modeling for the study area. Schedule dates are contingent on funding and resource availability.

Table 4. Products for Review and Anticipated Schedule

Review Product	Review Level	Start Date	End Date	Cost	Complete
<i>LifeSim modeling approach and assumptions</i>	<i>DQC</i>	<i>Oct 2020</i>	<i>Jan 2021</i>	<i>\$5000</i>	<i>Yes</i>
<i>LifeSim modeling approach and assumptions</i>	<i>Targeted ATR</i>	<i>Jan 2021</i>	<i>Feb 2021</i>	<i>\$5,000</i>	<i>No</i>
<i>Recommendations Milestone Documentation and LifeSim application</i>	<i>District Quality Control</i>	<i>Aug 2021</i>	<i>Oct 2021</i>	<i>\$25,000</i>	<i>No</i>
<i>LifeSim application</i>	<i>Targeted ATR</i>	<i>Sep 2021</i>	<i>Oct 2021</i>	<i>\$5,000</i>	<i>No</i>
<i>Draft Watershed Assessment</i>	<i>District Quality Control</i>	<i>Jan 2022</i>	<i>Feb 2022</i>	<i>\$24,000</i>	<i>No</i>
<i>Draft Watershed Assessment</i>	<i>Agency Technical Review</i>	<i>Mar 2022</i>	<i>May 2022</i>	<i>\$38,000</i>	<i>No</i>
<i>Draft Watershed Assessment</i>	<i>Concurrent Public, Legal, Policy, and Partner Review</i>	<i>Mar 2022</i>	<i>Apr 2022</i>	<i>N/A</i>	<i>No</i>
<i>Final Watershed Assessment</i>	<i>Policy and Legal Review</i>	<i>Jun 2022</i>	<i>Jul 2022</i>	<i>N/A</i>	<i>No</i>

<sup>1</sup>DQC of LifeSim application and appropriate documentation to be completed prior to initiating the targeted ATR.

<sup>2</sup>ATR review of the Draft WA to include backcheck on the Final WA.

### 13. Review Plan Approval and Updates

The MSC Commander is responsible for approving this Review Plan. The Commander’s approval reflects vertical team input as to the appropriate scope and level of review for the watershed assessment. Like the PMP, the Review Plan is a living document and may change as the study progresses. POH is responsible for keeping the Review Plan up to date. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders’ approval memorandum, should be posted on POH’s webpage. The latest Review Plan should also be provided to the RMO and home MSC.

