

REVIEW PLAN

Salmon Creek Section 205 Feasibility Report

Alaska District

MSC Approval Date: 6 June 2014

Last Revision Date: 28 July 2014



**US Army Corps
of Engineers®**

REVIEW PLAN

Salmon Creek Section 205 Feasibility Study

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS.....	1
2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION	1
3. STUDY INFORMATION	2
4. DISTRICT QUALITY CONTROL (DQC)	3
5. AGENCY TECHNICAL REVIEW (ATR).....	5
6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)	8
7. POLICY AND LEGAL COMPLIANCE REVIEW	10
8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION.....	10
9. MODEL CERTIFICATION AND APPROVAL.....	10
10. REVIEW SCHEDULES AND COSTS	12
11. PUBLIC PARTICIPATION	12
12. REVIEW PLAN APPROVAL AND UPDATES.....	12
13. REVIEW PLAN POINTS OF CONTACT.....	13
ATTACHMENT 1: TEAM ROSTERS.....	14
ATTACHMENT 2: SAMPLE STATEMENT OF DISTRICT QUALITY CONTROL FOR DECISION DOCUMENTS	16
ATTACHMENT 3: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS	17
ATTACHMENT 4: REVIEW PLAN REVISIONS.....	18
ATTACHMENT 5: ACRONYMS AND ABBREVIATIONS	19

1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Salmon Creek Continuing Authorities Program (CAP) Section 205 Feasibility Study at Seward, Alaska.

b. References.

- (1) Engineer Circular (EC) 1165-2-214, Civil Works Review, 15 Dec 2012.
- (2) Engineer Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006.
- (3) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007.
- (4) Pacific Ocean Division (POD) Quality Management Plan, Oct 2013.
- (5) Director of Civil Works' Policy Memorandum #1, Subject: Continuing Authority Program Planning Process Improvements, 19 Jan 2011.
- (6) ER 1105-2-100, Planning Guidance Notebook, Appendix F, Continuing Authorities Program, Amendment #2, 31 Jan 2007.
- (7) Salmon Creek Flood Risk Management Project Management Plan, 1 Apr 2014.
- (8) Alaska District (POA) Quality Management Plan, CEPOA-QMP-001, Jan 2010.

c. Requirements. This review plan was developed in accordance with EC 1165-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-214).

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO is responsible for managing the overall peer review effort described in this Review Plan. The RMO for decision documents is typically a Planning Center of Expertise (PCX), POD, or the Risk Management Center (RMC), depending on the primary purpose of the decision document. The RMO for the peer review effort

described in this Review Plan is POD. Upon approval by the RMO, POA will post the approved review plan on its public website. A copy of the approved review plan (and any updates) will be provided to the Flood Risk Management (FRM)-PCX to keep the PCX apprised of requirements and review schedules.

The RMO will coordinate with the Civil Works Cost Engineering and ATR Mandatory Center of Expertise (MCX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies.

3. STUDY INFORMATION

a. Study Authority. This study is being conducted under authority granted under Section 205 of the Flood Control Act of 1948 (PL 80-858), as amended for flood control.

b. Decision Document. The Salmon Creek Section 205 Flood Risk Management project decision document will be prepared in accordance with ER 1105-2-100, Appendix F, Amendment #2, 31 Jan 2007. The approval level of the decision document (if policy compliant) is POD. An Environmental Assessment (EA) will be prepared with the decision document being an integrated feasibility report/EA.

c. Study/Project Description. Seward is a city located approximately 72 miles south of Anchorage. The city is situated on a number of alluvial fans that contain glacially-fed streams. Remnants of Pacific typhoons inundate the area, creating high flow events in the local streams. These high flows transport a large amount of sediment and can cause these streams to reroute through relic channels. This causes flooding and sediment deposition in the surrounding area. Seward Bear Creek Flood Service Area (SBCFSA), a subdivision of the Kenai Peninsula Borough conducts flood fighting activities during these events, generally through sediment removal and construction of push-up berms consisting of river run material. This project seeks to replace these berms with a more permanent solution. Programmatic level project costs identified in the Preliminary CAP Fact sheet were \$1.5 million based upon constructing a permanent revetment in place of the temporary structure. No policy waivers are anticipated at this time.

d. Factors Affecting the Scope and Level of Review. Assumptions about risk factors include:

- The project is not likely to pose a significant threat to human life/safety.
- The estimated project cost is less than \$45 million.
- There are no significant environmental issues identified at this time.
- The information in the decision document will likely not:

- Be based on novel methods.
 - Involve the use of innovative materials or techniques.
 - Present complex challenges for implementation.
 - Contain precedent-setting methods or models.
 - Present conclusions that are likely to change prevailing practices.
- The project report is not likely to contain influential scientific information or be a highly influential scientific assessment.
 - There is no request by the Governor of the State of Alaska for a peer review by independent experts.
 - There is unlikely to be significant public dispute over the project's size, nature, or effects.
 - Currently the project is projected to cost less than \$2 million. Should costs exceed \$2 million, a Value Engineering Study will be required in the design and implementation phase.

e. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. The anticipated non-Federal sponsor's in-kind services for this study are discussed in the study PMP.

4. DISTRICT QUALITY CONTROL (DQC)

All decision 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). POA shall manage DQC. Documentation of DQC activities is required and should be in accordance with CEPOA-CW-6.1-2-WI-01 and the POD Quality Management Plan. For this study, DQC will be conducted within DrCheckssm.

a. Documentation of DQC. DrCheckssm review software will be used to document all DQC comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product.

b. Products to Undergo DQC. All decision documents, including cost estimates are to be prepared in accordance with the POA Quality Management Plan and will undergo DQC.

c. Required DQC Expertise. The following expertise is required for DQC.

DQC Team Members/Disciplines	Expertise Required
DQC Lead	The DQC lead should be a professional with experience in preparing Civil Works decision documents. The lead should also have the necessary skills and experience to lead a team through the DQC process. The DQC lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc).
Planning	The Planning reviewer should be a water resources planner with experience in the U.S. Army Corps of Engineers (USACE) planning process and be knowledgeable of current USACE policies and guidance. He/she should be familiar with flood risk management measures.
Economics	The Economics reviewer should be have experience conducting economic evaluations of flood risk management benefits and be familiar with the associated policies thereof.
Environmental Resources	The Environmental Resources reviewer should have experience in the evaluation of flood risk management measures and their associated environmental effects. He/she should also have experience in the National Environmental Policy Act (NEPA) process. The Environmental Resources reviewer will also act as the Cultural/Historical Resources reviewer. The Environmental Resources reviewer may choose to delegate the Cultural/Historical Resources review to a professional with equal or greater experience in Section 106 National Historic Preservation Act (NHPA) consultation and other relevant laws, guidance, and policies as they relate to Cultural/Historical Resources.
Hydraulic Engineering	The Hydraulic Engineering reviewer should have experience in the design of flood risk management measures, the analyses required to conduct said design, and the relevant policies governing these activities. A registered professional engineer is recommended.
Geotechnical	The Geotechnical reviewer should have experience in geotechnical analyses as they pertain to the design of flood risk management measures. A registered professional engineer is recommended.

Real Estate	The Real estate reviewer should have experience in the application of real estate law and Federal policies and guidance in the application thereof.
Cost Engineering	The Cost Engineering reviewer should be familiar with cost engineering of flood risk management measures using the Microcomputer Aided Cost Engineering System (MCACES) model and preparation of MII Cost estimates. The reviewer should be a certified cost technician, consultant, or engineer.

The DQC team members are listed in Attachment 1.

5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside POA that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of USACE personnel and may be supplemented by outside experts as appropriate. The ATR team lead will be from outside POD.

a. Products to Undergo ATR. ATR will be performed throughout the study in accordance with POA and POD Quality Management Plans. The ATR shall be documented and discussed at the Alternative Formulation (AFB) milestone. Certification of the ATR will be provided prior to the District Commander signing the final report. Products to undergo ATR include the draft Feasibility Report and Environmental Assessment for the Salmon Creek Section 205 study.

b. Required ATR Team Expertise.

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a professional with experience in preparing Civil Works decision documents. The lead should have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc). The ATR Lead must be from outside of POD.
Planning	The Planning reviewer should be a water resources planner with demonstrable experience in planning

	related to flood risk management studies.
Economics	The Economics reviewer should have experience in conducting economic analyses as it relates to flood risk management studies.
Environmental Resources	The Environmental Resources reviewer should have experience in preparation of NEPA documents related to flood risk management studies. The Environmental Resources reviewer will also serve as the Historical/Cultural Resources reviewer. The Environmental Resources reviewer may choose to delegate the Cultural/Historical Resources review to a professional with equal or greater experience in Section 106 (NHPA) consultation and other relevant laws, guidance, and policies as they relate to Cultural/Historical Resources.
Hydraulic Engineering	The Hydraulic Engineering reviewer should have experience in the design of flood risk management measures.
Geotechnical Engineering	The Geotechnical Engineering reviewer should have experience in conducting geotechnical analyses as they pertain to the design of flood risk management measures.
Cost Engineering	The cost engineering reviewer will be Cost MCX Staff or a Cost MCX Pre-Certified Professional with experience in preparing cost estimates for flood risk management studies.
Real Estate	The real estate reviewer should be a real estate professional with experience in developing real estate plans for civil work projects.

Once identified, the members of the ATR team and a brief description of their credentials will be listed in Attachment 1.

c. Documentation of ATR. DrCheckssm review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

- (1) The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not been properly followed;

(3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost), effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and

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

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

The ATR documentation in DrCheckssm will include the text of each ATR concern, the Project Delivery Team (PDT) response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes POA, POD, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrCheckssm with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical

Review should be completed, based on work reviewed to date, for the AFB, draft report, and final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

IEPR may be required for decision documents under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-214, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

- **Type I IEPR.** Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-214.

- **Type II IEPR.** Type II IEPR, or Safety Assurance Reviews (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

a. Decision on IEPR. Type I and Type II IEPR will not be required for this Section 205 decision document (Feasibility Phase) based on the following factors and criteria stated in EC 1165-2-214 and reiterated in the Director of Civil Works' Policy Memorandum #1.

- Preliminary indications are that the Project does not require an EIS.
- The life safety consequences and risks for this project will be no greater than those expected conditions experienced under the "Without Project Conditions". The historical records show there are no life safety issues related to the features currently

providing protection along Salmon Creek. The alternatives under consideration will not increase the life safety consequences of those features and project failure is not expected to pose a significant threat to human life safety. The POA Chief of Engineering's concurrence on this issue is provided as an attachment.

- The project is not controversial. To the contrary, it has broad support.
- Preliminary indications are that the project has no more than negligible adverse impacts on scarce or unique cultural or historic resources.
- Preliminary indications are that the project has no significant adverse impacts on fish and wildlife species and their habitat.
- Preliminary indications are that the project has no more than a negligible adverse impact on species listed as endangered or threatened under the Endangered Species Act of 1973 (16 U.S.C. 1531 et seq.) or the critical habitat of such species designated under such Act.
- Preliminary indications are that the project has no significant local, State or Federal interagency interest related to potential adverse impacts on the environment, cultural or other resources.
- The project is for an activity for which there is ample experience within USACE and industry.
- The Federal action is not justified by life safety.
- The project does not involve the use of innovative materials or techniques where the engineering is based on novel methods, does not present complex challenges for interpretations, does not contain precedent-setting methods or models, or does not present conclusions that are likely to change prevailing practices.
- The project design does not require redundancy, resiliency, and/or robustness.
- The project does not have unique construction sequencing, or a reduced or overlapping design construction schedule.
- The risk associated with this project is the construction cost. Fluctuations in the construction cost index are factored into the determination of the project cost contingency. Other factors such as potential weather delays are also included.
- This study will contain no influential scientific information and will be conducted using standard and routine analyses typically associated with flood risk management projects.

- There has been no request by the Governor for a peer review by independent experts.

- The total projects costs do not exceed \$45 million dollars.

b. Products to Undergo Type I IEPR. N/A.

c. Required Type I IEPR Panel Expertise. N/A.

d. Documentation of Type I IEPR. N/A.

7. POLICY AND LEGAL COMPLIANCE REVIEW

All decision documents will be reviewed by POD throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the POD Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents. For this study, policy and legal compliance review will be conducted concurrently with ATR.

8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION

All decision documents shall be coordinated with the Cost Engineering MCX, located in the Walla Walla District. The MCX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The MCX will also provide the Cost Engineering MCX certification. The RMO is responsible for coordination with the Cost Engineering MCX. In accordance with the Director of Civil Works' Policy Memorandum #1, the MCX has the authority to delegate certification responsibility at its discretion.

9. MODEL CERTIFICATION AND APPROVAL

a. **Planning Models.** The approval of planning models under EC 1105-2-412 is not required for CAP projects. The POD Commander is responsible for assuring models for all planning activities are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The selection and application of the model and the input and output data are still the responsibility of the users and are

subject to DQC, ATR, and IEPR (if required).

For this decision document, the PDT plans to use the USACE Hydrologic Engineering Center's Flood Damage Analysis (HEC-FDA) model. HEC-FDA is certified by USACE as an acceptable model. A detailed description of this model is provided in the table below.

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
HEC-FDA 1.2.4 (Flood Damage Analysis)	The HEC-FDA program provides the capability for integrated hydrologic engineering and economic analysis for formulating and evaluating flood risk management plans using risk-based analysis methods. The program will be used to evaluate and compare the future without- and with-project plans along Salmon Creek near Seward, Alaska to aid in the selection of a recommended plan to manage flood risk.	Certified

b. Engineering Models. EC 1105-2-412 does not cover engineering models used in planning. The responsible use of well-known and proven USACE developed and commercial engineering software will continue and the professional practice of documenting the application of the software and modeling results will be followed. As part of the USACE Scientific and Engineering Technology (SET) Initiative, many engineering models have been identified as preferred or acceptable for use on USACE studies and these models should be used whenever appropriate. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

The following engineering models are anticipated to be used in the development of the decision document:

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
HEC-RAS 4.0 (River Analysis System)	The Hydrologic Engineering Center's River Analysis System (HEC-RAS) program provides the capability to perform one-dimensional steady and unsteady flow river hydraulics calculations. The program will be used for steady flow analysis to evaluate the future without- and with-project conditions along Salmon Creek and its tributaries.	HH&C CoP Preferred Model
Microcomputer Aided Cost Engineering System	The MCACES MII construction cost estimating software is a tool used by cost engineers to develop and prepare all USACE Civil Works cost estimates. Using the features in this system, cost estimates are	Cost Engineering MCX Required

(MCACES) 2 nd Generation (MII)	prepared uniformly allowing cost engineers throughout USACE to function as one virtual cost engineering team.	Model
--	---	-------

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. The ATR for the Salmon Creek Section 205 study will be accomplished in accordance with the cost and schedule in the Project Management Plan. As of the approval date of this Review Plan, the ATR is scheduled for the preliminary draft milestone in October of 2014 and may be subject to change. The estimated cost of the ATR is \$6,000.

b. Type I IEPR Schedule and Cost. N/A.

c. Model Certification/Approval Schedule and Cost. For CAP decision documents prepared under the POD Model Review Plan, use of existing certified or approved planning models is encouraged. Where uncertified or unapproved models are used, review of the model for use will be accomplished through the ATR process. The ATR team should ensure the model is theoretically and computationally sound, consistent with USACE policies, and adequately documented. However, model approval is not required for CAP studies per Director of Civil Works' Memorandum #1.

11. PUBLIC PARTICIPATION

State and Federal resource agencies may be invited to participate in the study covered by this review plan as partner agencies or as technical members of the PDT, as appropriate. Agencies with regulatory review responsibilities will be contacted for coordination as required by applicable laws and procedures. The ATR team will be provided copies of public and agency comments. This Review Plan and all decision documents will be posted on the Alaska District's website for public review.

12. REVIEW PLAN APPROVAL AND UPDATES

The POD Commander is responsible for approving this Review Plan and ensuring that use of the POD CAP Model Review Plan is appropriate for the specific project covered by the plan. The Commander's approval reflects vertical team input (involving POA and POD members) as to the appropriate scope and level of review for the decision document. Like the PMP, the Review Plan is a living document and may change as the study progresses. POA is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last POD Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the POD 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 POA's webpage. The latest Review Plan should also be provided to POD.

13. REVIEW PLAN POINTS OF CONTACT

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

Alaska District POC:

Mr. Bruce Sexauer
Chief of Civil Works Planning
U.S. Army Corps of Engineers, Alaska District
Bldg. 2204
JBER, AK 99506
Telephone: (907) 753-5619

Pacific Ocean Division POC:

Mr. Russell Iwamura
Senior Economist, Civil Works Integration Division
U.S. Army Corps of Engineers, Pacific Ocean Division
Building 525
Fort Shafter, HI 96858-5440
Telephone: (808) 835-4625

ATTACHMENT 1: TEAM ROSTERS

Project Delivery Team. The Project Delivery Team is comprised of the following individuals:

Discipline	Team Member
Project Manager	David Martinson
Planning	Jason Norris
Economics	Emily Morrison
Environmental Resources	Tatton Suter
Real Estate	John Smith
Hydraulic Engineering	Lance Overstreet
Geotechnical Engineering	Coleman Chalup
Value Engineering	Don Tybus
Survey	Tom Sloan
Office of Counsel	Phil Santerre
Cost Engineering	Karl Harvey

District Quality Control Team

Discipline	Team Member Office Symbol
Planning	CEPOA-PM-C-PL
Economics	CEPOA-PM-C-PL
Environmental Resources	CEPOA-EN-CW-ER
Hydraulics & Hydrology	CEPOA-EN-CW-HH
Cost Engineering	CEPOA-EN-CE
Chief, Civil Works Branch	CEPOA-PM

Agency Technical Review Team

An ATR Team will be constructed based on the expertise and qualifications provided in paragraph 5.b. of this Review Plan. Team members that are currently identified will be listed in the table below. Their qualifications will be appended below. Team members not currently identified will be added during the feasibility phase.

Discipline	Team Member Location
ATR Lead/Planning	CENAE
Economics	CESAW
Environmental Resources	CENAO
Hydraulic Engineering	CENWS
Geotechnical Engineering	CENAE
Real Estate	CEPOD
Cost Engineering	CENWW

ATR Lead/Planning Reviewer.

The ATR Lead/Planning reviewer is a lead plan formulator and project manager with the New England District, North Atlantic Division. He holds a B.S. and M.S. in Geology from the State University of New York at Buffalo. Prior to joining the New England District in 2010, he was a planner at the Buffalo, New York District and supported research at the ERDC Cold Regions Research and Engineering Lab. While at the Buffalo District, he gained experience by serving on Agency Technical Review teams and Value Engineering teams for multiple Districts. He has successfully led numerous virtual teams and is proficient with managing reviews in DrCheckssm. He has more than 9 years of experience leading investigations under the Corps Civil work programs including watershed, navigation, ecosystem restoration, coastal storm damage reduction and flood risk management studies. He has also led the ATR effort for a previous POA feasibility study (Golovin Section 103). He is a 2013 graduate of the Planning Associates Program.

Division Points of Contact

Name	Title	Telephone
Tim Young	POD CAP Manager	808-835-4627
Linda Hihara-Endo	POD Civil Works Planning Team Leader	808-835-4621

ATTACHMENT 2: SAMPLE STATEMENT OF DISTRICT QUALITY CONTROL FOR DECISION DOCUMENTS

Project Purpose
Type of Report
Location, Alaska

COMPLETION OF DISTRICT QUALITY CONTROL REVIEW

The District has completed the (*Type of Report*) for (*Project Purpose*) at (*Location*), Alaska. Notice is hereby given that District Quality Control review has been conducted that is appropriate to the level of risk and complexity inherent in the project. During the District Quality Control review, compliance with established policy, principles and procedures, utilizing justified and valid assumptions, was verified. This included review of assumptions; methods, procedures, and material used in analyses; alternatives evaluated; the appropriateness of data used and level of data obtained; and reasonableness of the results, including adherence to Civil Works policy and guidance.

_____ Bruce Sexauer, Chief, Planning	_____ Date
_____ Lorraine Cordova, Chief, Economics	_____ Date
_____ Chris Floyd, Chief, Environmental Resources	_____ Date
_____ Ken Eisses, Chief, Hydraulics & Hydrology	_____ Date
_____ Karl Harvey, Chief, Cost Engineering	_____ Date
_____ Jason Norris, Lead Planner (Technical Lead)	_____ Date

CERTIFICATION OF DISTRICT QUALITY CONTROL REVIEW

As noted above, all concerns resulting from independent technical review of the project have been considered. The report and all associated documents required for this phase of the study by the National Environmental Policy Act have been fully reviewed.

Chief, Civil Works Branch

Date

ATTACHMENT 3: SAMPLE STATEMENT OF AGENCY TECHNICAL REVIEW FOR DECISION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Section 205 for Salmon Creek at Seward, Alaska. The ATR was conducted as defined in the project’s Review Plan to comply with the requirements of EC 1165-2-214. During the ATR, compliance with established policy principles and procedures, utilizing justified and valid assumptions, was verified. This included review of: assumptions, methods, procedures, and material used in analyses, alternatives evaluated, the appropriateness of data used and level obtained, and reasonableness of the results, including whether the product meets the customer’s needs consistent with law and existing US Army Corps of Engineers policy. The ATR also assessed the District Quality Control (DQC) documentation and made the determination that the DQC activities employed appear to be appropriate and effective. All comments resulting from the ATR have been resolved and the comments have been closed in DrCheckssm.

SIGNATURE

Byron Rupp
ATR Team Leader
CENAE-EP-PS

Date

SIGNATURE

David Martinson
Project Manager
CEPOA-PM-C

Date

SIGNATURE

Russell Iwamura
Review Management Office Representative
CEPOD-PDC

Date

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: [Describe the major technical concerns and their resolution.](#)

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

SIGNATURE

David Frenier
Chief, Engineering Division
CEPOA-EN

Date

SIGNATURE

Gregory Smith
Acting Chief, Planning Division
CEPOA-PM-M-AF

Date

¹ Only needed if some portion of the ATR was contracted

ATTACHMENT 4: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 5: ACRONYMS AND ABBREVIATIONS

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