



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
PACIFIC OCEAN DIVISION, U.S. ARMY CORPS OF ENGINEERS
FORT SHAFTER, HAWAII 96858-5440

CEPOD-RBT

24 MAR 2011

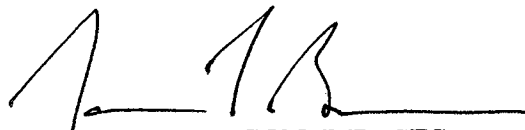
MEMORANDUM FOR COMMANDER ALASKA ENGINEER DISTRICT (CEPOA-PM-C/DONALD FORE), P.O. BOX 898, ELMENDORF AFB, AK 99506-0898

SUBJECT: Review Plan Approval for the Navigation Improvements Haines, Alaska Limited Reevaluation Report

1. The enclosed Review Plan for the Navigation Improvements Haines, Alaska, Limited Reevaluation Report has been prepared in accordance with EC 1165-2-209, Civil Works Review Policy, dated 31 January 2010. The Pacific Ocean Division is the lead office to execute this Review Plan, which does not include Type II Independent External Peer Review.
2. I approve this Review Plan. It is subject to change as circumstances require, consistent with project development under the Project Management Business Process. Subsequent revisions to this Review Plan or its execution will require new written approval from this office.
3. The point of contact for this memorandum is Mr. Russell Iwamura, Senior Economist, Civil Works Integration Division, at 808-438-8859 or email Russell.K.Iwamura@usace.army.mil.

FOR THE COMMANDER:

Encl
as


JAMES L. BERSSON, P.E., SES
Director, Regional Business

REVIEW PLAN

**Navigation Improvements Haines, Alaska
Limited Reevaluation Report**

Alaska District

**MSC Approval Date: 24 March 2011
Last Revision Date: None, Original Review Plan**



**US Army Corps
of Engineers®**

REVIEW PLAN

**Navigation Improvements Haines, Alaska
Limited Reevaluation Report**

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1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the Navigation Improvements Haines, Alaska Limited Reevaluation Report.

b. References

- (1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 May 2005
- (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
- (5) Haines Harbor Feasibility Project Management Plan
- (6) Alaska District Quality Management Plan CEPOA-QMP-001, January 2010

c. **Requirements.** This review plan was developed in accordance with EC 1165-2-209, 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 1165-2-209) and planning model certification/approval (per EC 1105-2-412). This document uses the 12 Oct 2010 Decision Document Review Plan Template published by the Corps Planning Center of Expertise as a base.

- (1) District Quality Control (DQC). All **decision and implementation 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). The home district shall manage DQC. Documentation of DQC activities is required and should be in accordance with the Quality Manual of the District and the home Major Subordinate Command (MSC).
- (2) Agency Technical Review (ATR). ATR is mandatory for all **decision and implementation documents** (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy and to ensure quality and credibility of the government's scientific information. The ATR will assess whether the analyses presented are technically correct and comply with published US Army Corps of Engineers (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 a designated Review Management Organization (RMO) and is conducted by a qualified team from outside the home district that is not involved in the day-to-day production of the project/product. ATR teams will be comprised of senior USACE personnel and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the home MSC.

- (3) Independent External Peer Review (IEPR). IEPR may be required for **decision and implementation 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 1165-2-209, 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 is generally for decision documents and Type II is generally for implementation products.
- (a) 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 an biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all the 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 1165-2-209.
- (b) Type II IEPR. Type II IEPR, or Safety Assurance Review (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.
- (4) Policy and Legal Compliance Review. All **decision and implementation documents** will be reviewed 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. Guidance on the Army's Value Engineering program is provided in ER 11-1-321 Change 1 dated 1 January 2011. Adherence and compliance with this guidance should also be verified during the policy review of the document. 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 Chief of Engineers. 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.
- (5) Cost Engineering Review and Certification. All **decision documents** shall be coordinated with the Cost Engineering Directory of Expertise (DX), located in the Walla Walla District. The DX, or in some circumstances regional cost personnel that are pre-certified by the DX, will conduct the cost ATR. The DX will provide certification of the final total project cost.

Cost engineering for **implementation documents** shall undergo DQC; it is not required that an ATR be conducted.

- (6) Model Certification/Approval. EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR. 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. Use of engineering models is also subject to DQC, ATR, and IEPR.

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 either a Planning Center of Expertise (PCX) or the Risk Management Center (RMC), depending on the primary purpose of the decision document. Since the document addressed in this Review Plan is an implementation document, and since life safety issues are not anticipated for this project, the RMO for the peer review effort described in this Review Plan is the home MSC, Pacific Ocean Division (Russell Iwamura). The home District (Alaska District) will post the approved Review Plan on its public website. The RMO will manage the ATR and provide the District a Review Report documenting the ATR and discussing any comments needing further action by the District. The MSC Commander has approval authority for this Review Plan.

3. STUDY INFORMATION

- a. **Decision or Implementation Document.** This review plan is for the implementation document Limited Reevaluation Report for Navigation Improvements in Haines, Alaska. This report will recommend needed adjustments to recommendations of the original report, Navigation Improvements Interim Feasibility Report and Environmental Assessment Haines, Alaska, March 2004. Modifications to the original design are necessitated by soil conditions discovered in the original project area. It is anticipated that recommended changes will meet the criteria in ER 1105-2-100 paragraph G-13a and will not require authorization by Congress. A new Environmental Assessment will be developed and is anticipated to still be adequate. Approval will be by the MSC.
- b. **Study/Project Description.** This study will produce a Limited Reevaluation Report (LRR) for navigation improvements at Haines, Alaska. Subsurface conditions discovered since the completion of the feasibility report have necessitated the initiation of this LRR. The original study was initially authorized under the Continuing Authorities Program (CAP) for navigation as specified in Section 107, Rivers and Harbors Act of 1960 (PL 86-645), as amended. The study was then converted to a General Investigations (GI) study and is authorized in partial response to the Rivers and Harbors in

Alaska study resolution, adopted by the U.S. House of Representatives, Committee on Public Works, on December 2, 1970. WRDA 2007, Section 1001 authorized the GI study project to be carried out based upon an estimated total cost of \$14,040,000, with an estimated Federal cost of \$11,232,000 and an estimated non-Federal cost of \$2,808,000. Based upon this authorization, the 902 limit is estimated to be \$17.8 million.

The Haines Borough is located in the northern portion of Southeast Alaska, the region of the state commonly referred to as “the panhandle” (see figure 1). City boundaries straddle a peninsula that separates the Chilkat River Valley from Chilkoot Inlet, an embayment near the northern end of Lynn Canal. Haines is approximately 80 air miles northwest of Juneau and has developed as a marine, land and air transportation hub for the northern part of Southeast Alaska. This is due in part to its deep-water harbor as a terminus of the Alaska Marine Highway Ferry System, and its link to both Canada and the interior of Alaska as the southern terminus of the Haines Highway (see figure 1).

The primary areas of opportunity are fish resources and related fishing industries. Additional areas of opportunity include increased capability for subsistence fishing. The Alaska District, Corps of Engineers, has primary responsibility for this study. The report was prepared with assistance from many individuals and agencies, especially the Haines Borough, and the Alaska Department of Transportation and Public Facilities (ADOT&PF). The Haines Borough is the local sponsor for the project.

The existing harbor is inadequate in terms of size and design to accommodate existing demands of resident and transient users. The current harbor configuration is exposed to southeast winds, causing reduced maneuverability and damage to vessels and harbor facilities. Additional moorage is needed to improve or provide services such as oil spill response, water taxi service, and to reduce costs associated with subsistence harvesting.

The original recommended plan identified in the feasibility report provides additional protection to the existing 5.56-acre mooring and maneuvering basin and adds a new adjacent 16.31-acre basin with an additional entrance channel. It would provide protected moorage for a total of 279 permanent stalls and 3,153 linear feet of transient floats for vessels ranging in length from 18.0 feet to 140.1 feet. The RECOMMENDED PLAN, shown in Figure 2, incorporates the following rubblemound breakwaters: a 103-meter long north spur breakwater, a 154-meter long first portion of the main breakwater, a turnaround portion of the main breakwater with a radius of 18.5 meters, a 316-meter long second portion of the main breakwater, a 46.7-meter long stub breakwater attached to the existing breakwater, a 51.2-meter long extension of the existing breakwater to the south, and a 33.3-meter long south spur breakwater. The existing breakwater would be unchanged except for the extension of the head to the south and the creation of a new fish passage channel near its northern angle point.

The Commercial Navigation and Recreational features of the original RECOMMENDED PLAN that contribute to the NED plan have a construction cost of \$18,178,000 (October 2002 price level) excluding navigation aids and betterments, an annual NED investment cost of \$1,218,000, and annual benefits of \$1,496,000. The project’s benefit-to-cost-ratio is 1.2 with annual net benefits of \$278,000.

In response to the subsurface conditions discovered in the project area, changes to the original recommended plan are required. It is anticipated that changes in the design of the breakwater

foundation and a realignment of the breakwater will be needed. Design and cost estimates of a revised recommended plan have not been completed.

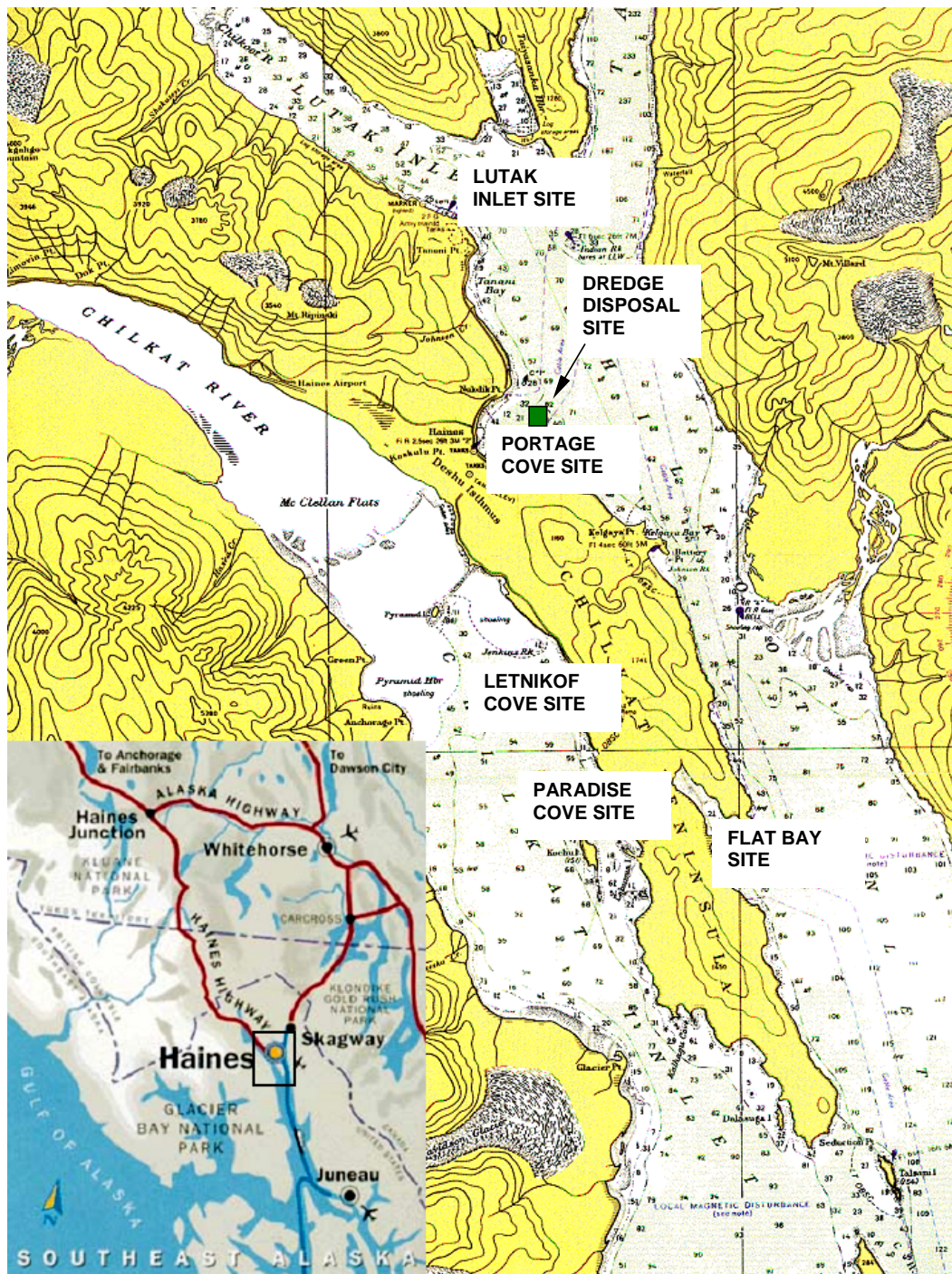


Figure 1: Vicinity and Alternate Sites Map

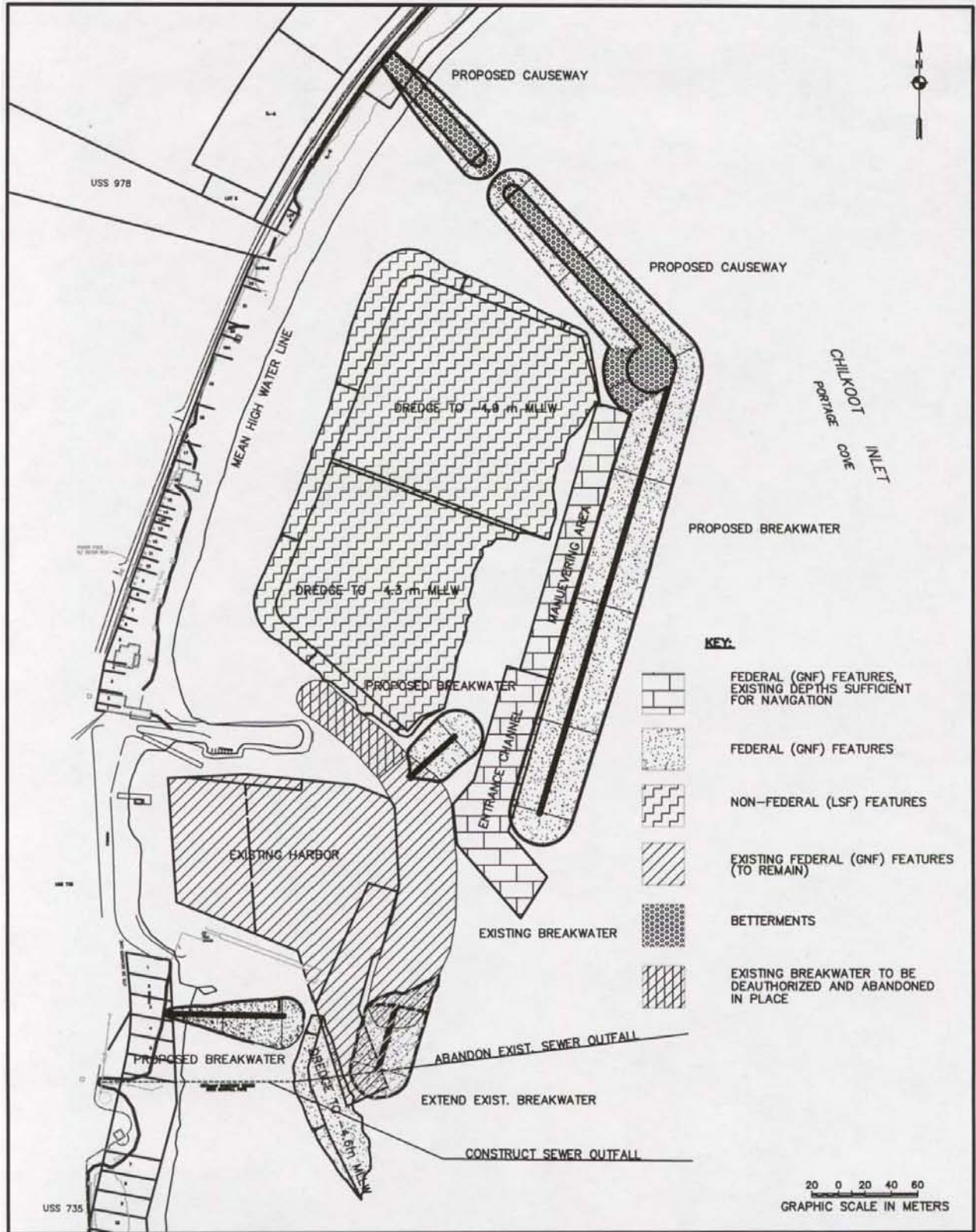


Figure 2: Recommended Plan of original feasibility report

- c. **Factors Affecting the Scope and Level of Review.** The most challenging aspect of this project appears to be the need to design an effective breakwater with consideration of the soft marine clay comprising the project site. Planning to date indicates that a breakwater foundation incorporating prefabricated vertical drains could be constructed in sequenced lifts to allow adequate strength gain of the underlying soils. Shear strength and consolidation parameters are particularly critical for such a design and merit particular scrutiny to minimize the risk of unsatisfactory performance during construction. This foundation construction method is not common, but is not novel. A breakwater founded on a similar subsurface was designed and constructed by the Alaska District in Kake, Alaska with satisfactory performance to date. The proposed breakwater is of conventional design. Dredge materials are expected to include very soft to firm lean clay, cobbles, and boulders. Cobbles and boulders are believed to be mostly near shore, on the surface. Diamicton, a poorly sorted glacial till that is usually very dense, was discovered in test pits near the existing entrance channel. However, diamicton is not expected to be present within the dredge limit.

Due to the challenging nature of prevalent soil conditions at the project site and the foundation design consideration that they warrant, a highly specialized and experienced geotechnical engineer, such as an expert from the ERDC Geotechnical and Structures Laboratory, should be on the ATR team. ERDC has confirmed their availability to provide such an expert for the study team.

Part or all the dredged material is likely to be used for compensatory mitigation. Remaining material may go into a deep water site that was used previously. The marine/estuarine habitat surrounding the project site is complex and poses some uncertainty. Mitigation will be required for losses of near shore habitat and potentially for any in-water dredge disposal activities. An approach to identify significant environmental resources to be impacted and suitable mitigation needs has not been agreed upon. Due to the complex habitat surrounding the project site and need to identify suitable mitigation measures, participation of a person experienced in mitigation or restoration is needed for the ATR team. Through coordination with the Ecosystem Restoration PCX, such a team member has been identified. Coordination with this person shall occur early on in the study, following approval of this review plan.

The project has been coordinated with other agencies including National Marine Fisheries Service, US Fish and Wildlife Service, Alaska Department of Fish and Game, and the Alaska Department of Transportation and Public Facilities. They are supportive of the project.

While not controversial, some members of the public may not fully understand the need to specialize the design and construction of the breakwater foundation due to the soil conditions. They may perceive the construction to be too costly and lengthy.

The project will pose no significant threat to human life/safety. The project area is already in use as a small boat harbor without any significant such concerns. Expansion of harbor facilities will reduce congestion and make the area safer. Failure of the project will not exacerbate dangerous conditions within the harbor area, i.e. waves will not be bigger than without the project.

The project report will not involve influential scientific information or be a highly influential scientific assessment. No unusual or influential data or information will be collected or generated as a result of the study.

It is possible that cost increases related to the needed changes in the project design could cause the benefit-to-cost ratio to become less than one and/or the 902 limit to be exceeded. If the 902 limit, currently estimated to be \$17.8 million, is exceeded and the local sponsor is still supportive of continuing the project, then the implementation document will either require approval by HQUSACE or re-authorization by Congress. If the benefit-to-cost ratio becomes less than one or the project becomes otherwise unaffordable to the local sponsor, then a Technical Report documenting the negative findings and decision not to proceed will be produced in lieu of a Limited Reevaluation Report. The Technical Report will undergo District Quality Control (DQC) and be approved by the Alaska District. However, at this time it is anticipated that recommended changes will meet the criteria in ER 1105-2-100 paragraph G-13a and approval will be by the MSC.

d. In-Kind Contributions. No in-kind products are anticipated.

4. DISTRICT QUALITY CONTROL (DQC)

DQC is the foundation for quality of all products, and there are routine district processes that cover DQC. Section Chiefs are responsible for all work products produced by disciplines in their sections. Reviewers will be individuals who are not involved with the project. DQC is conducted for all reports covered by this document. All team members review the final work product to ensure coordination of disciplines and to provide quality assurance. Branch Chiefs will ensure that DQC is completed.

a. Documentation of DQC. DQC is documented by a district process where Section and Branch Chiefs formally certify products once they are complete. This is conducted after each review.

b. Products to Undergo DQC. Foundation Report, LRR and appendices

c. Required DQC Expertise. Geotechnical Structural, Hydraulics & Hydrology, Environmental Resources, Project Formulation, Cost Engineering

5. AGENCY TECHNICAL REVIEW (ATR)

a. Products to Undergo ATR. Both the draft and final Limited Reevaluation Report for Navigation Improvements in Haines, Alaska and draft and final Environmental Assessment, shall undergo ATR.

b. Required ATR Team Expertise.

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision and implementation documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The Alaska District proposes that Jon Brown, a senior economist with the Buffalo District, serve as the ATR lead and the economics ATR reviewer. Mr. Brown has worked for the Alaska District in the past and is familiar with the unique challenges to constructing Civil Works projects in Alaska. Hence he is an ideal candidate to lead the ATR.
Planning	The Planning reviewer should be a senior water resources planner with experience with small boat harbor projects.

Economics	The Economics reviewer should be familiar with NED benefits related to small boat harbors such as improvements in efficiency for commercial, recreational, and subsistence fishing. Jon Brown of Buffalo District is suggested as the economic reviewer (and ATR lead).
Environmental Resources	The Environmental Resources reviewer should be familiar with marine/estuarine habitat, concerns related to developmental of coastal areas, in-water dredging impacts and appropriate mitigation measures. Due to the complex habitat surrounding the project site and need to identify suitable mitigation measures, a person experienced in mitigation or restoration is needed for the ATR team.
Coastal Engineering	The Coastal Engineering reviewer will be an expert in the field of coastal engineering and have a thorough understanding of coastal dynamics, wave and wind analysis, breakwater design, and small boat harbor design and operation.
Geotechnical/Structural Engineering	The Geotechnical Engineering reviewer should be an expert in analyzing and interpreting soil samples and making structural design recommendations based upon the findings. Due to uncertainty and risks associated with soil properties at the project site, an expert from the ERDC Geotechnical and Structures Lab is recommended for this project.

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

- (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 DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved

concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

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

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

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

a. Decision on IEPR.

Since the Limited Reevaluation Report is an implementation document, conducting a Type I IEPR is not required. Mandatory triggers to conduct Type I IEPR for decision documents as described in Paragraph 11.d.(1) and Appendix D of EC 1165-2-209 include

1. A significant threat to human life;
2. An estimated total cost of the project, including mitigation costs, greater than \$45 million;
3. Where the Governor of an affected State requests a peer review by independent experts;
4. Where the Director of Civil Works or the Chief of Engineers determines that the project study is controversial due to significant public dispute over either the size, nature, or effects of the project or the economic or environmental costs or benefits of the project;
5. Significant public dispute as to size, nature or effects of the project;
6. Significant public dispute as to the economic or environmental cost or benefit of the project;
7. Cases where information is based on novel methods, presents complex challenges for interpretation, contains precedent-setting methods or models, or presents conclusions that are likely to change prevailing practices;
8. Any other circumstance where the Chief of Engineers determines Type I IEPR is warranted.

Based upon the analysis of factors affecting the scope and level of review in Section 3c of this report, none of the triggers are anticipated to be met by the Haines Limited Reevaluation Report. The proposed project is to expand an existing and operating small boat harbor. There are no major controversies, impacts, or threats to human safety. The main concern of soil conditions at the site can be adequately accounted for in the ATR with the recommended personnel involved. Gains from conducting an IEPR will be minimal, if any. It is unclear if the required geotechnical structural expertise is readily available outside of the Corps.

Since this study is not for hurricane and storm risk management, flood risk management, or a project where potential hazards pose a significant threat to human life, a Type II IEPR (SAR) is not required.

b. Products to Undergo Type I IEPR. Not applicable

c. Required Type I IEPR Panel Expertise. Not applicable

d. Documentation of Type I IEPR. Not applicable

7. MODEL CERTIFICATION AND APPROVAL

a. Planning Models. At this time, no planning models have been identified for use in this study.

b. Engineering Models. 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
Slope/W	Slope/W is a USACE approved limit equilibrium software based on the method of slices used to predict factor of safety of slopes (i.e. embankments). This software will be used to compute the stability of the proposed embankment during and following construction.
CSETT	CSETT is USACE approved software used to compute induced stresses and resulting consolidation settlement in underlying clay strata. Stresses are derived from the Boussinesq and Westergaard point load formulae integrated over general-shaped regions. This software will be used to compute the consolidation settlement of the proposed embankment during and following construction.

8. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. The ATR reviews are anticipated to take from 4 – 6 weeks to complete and cost between \$35,000 and \$40,000. At this time, the ATR of the draft report and Environmental Assessment will occur during the spring of 2011 at the earliest. The review of the final report and Environmental Assessment will not be determined until the ATR of the draft documents are completed.

b. Type I IEPR Schedule and Cost. Not applicable

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

9. PUBLIC PARTICIPATION

The public will have two opportunities to comment on the findings of the LRR. A public scoping meeting will be conducted in Haines to share the latest geotechnical findings and proposed revised harbor designs with the community. This will occur after additional geotechnical data collection, breakwater design optimization, and cost estimate development, likely winter – spring 2011.

The second opportunity for public comment will be during the 30-day comment period for the Environmental Assessment for the revised project. This will occur following the ATR and prior to MSC approval, likely spring – summer 2011.

10. REVIEW PLAN APPROVAL AND UPDATES

The Pacific Ocean Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE 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. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC 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 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 the Home District's webpage. The latest Review Plan should also be provided to the RMO and home MSC.

11. REVIEW PLAN POINTS OF CONTACT

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

- Project Formulator, Alaska District 907-753-2622
- Project Manager, Honolulu District 808-438-2249
- Project Manager, Pacific Ocean Division 808-438-6977

ATTACHMENT 1: TEAM ROSTERS

Project Delivery Team

Name	Specialty	Affiliation
George Kalli	Plan Formulation	Alaska District
Guy McConnell	Environmental Resources	Alaska District
Lorraine Cordova	Economics	Alaska District
Alan Jeffries	Hydraulics/Hydrology/Coastal Engineering	Alaska District
Tu Nguyen	Soils and Geology	Alaska District
Al Arruda	Cost Engineering	Alaska District
Michael Utley	Materials	Alaska District
Anne Burman	Office of Counsel	Alaska District
Donald Fore	Project Management	Alaska District
Matthew Wood	Value Engineering Officer	Alaska District

Agency Technical Review Team

Name	Specialty	Affiliation	Years Experience
Jon Brown	ATR Lead	Buffalo District	30
	Jon Brown has 30 years experience and has been the Lead Economist in the Planning Branch of the Buffalo District since 1990. As a regional team member, he assists in the evaluation and formulation of regional studies in LRD and other MSC's. Mr. Brown served as U.S. technical work group leader for the recreational navigation component of International Joint Commission's St. Lawrence River-Lake Ontario Criterion study. Mr. Brown developed the recreational boating and tourism methodology portion for this is a five-year \$20M bi-national plan of study. Other recent work include: developing the methodology and designing contingent valuation mail survey questionnaire for measuring economic impacts of proposed Valdez SBH, AK expansion.		
Phil Berkeley	Planning	Buffalo District	30+
	Philip E. Berkeley is a Biologist in the Planning Branch at the USACE, Buffalo District. He received a B.S. in Biology from Springfield College in Springfield, Massachusetts and M.S. in Biology from the State University of New York (SUNY) at Buffalo. He has over 30 years Federal government experience in Corps of Engineers Planning and Project Evaluation, for navigation, flood risk management and ecosystem restoration.		
Jon Brown	Economics	Buffalo District	30
Chemine Jackels	Environmental Resources	Seattle District	3
	Chemine Jackels has a technical background in both freshwater and marine ecology. She has been at the Corps for almost three years working on Endangered Species Act and Clean Water Act issues, ecosystem restoration, and mitigation and monitoring. She has been the NEPA lead for the Puget Sound Nearshore Ecosystem Restoration Project (PSNERP), wrote the Existing Conditions portion of the Feasibility Report, and serve as a co-lead in the development of an ecosystem output equation. She		

	has been environmental coordinator on a variety of projects under several authorities including PL84-99, Section 1135, Section 206, and several Green-Duwamish Ecosystem Restoration Projects, as well as two general investigation studies: Skagit and PSNRP		
Jessica Podoski	Coastal Engineering	Hawaii District	10
	Jessica Podoski has served as a Coastal Engineer in the Honolulu District (currently) and Portland District for the past 10 years, working on deep draft navigation projects, small boat harbor design and improvement, shore protection projects, regional sediment management studies, and other related projects. Ms. Podoski has served as Technical Lead on several projects that include numerical modeling of wave transformation and circulation, as well as coastal structure design and analysis. Ms. Podoski has contributed to and reviewed several technical appendices for planning studies, and is currently completing a 6-year monitoring study of a concrete armor unit breakwater.		
Ronald Wahl	Geotechnical/Structural Engineering	ERDC	35
	Ron Wahl has been employed as a geotechnical engineer at ERDC since 1975 where he arrived as a member of the US Army. He has experience in several areas of geotechnical engineering including geotechnical earthquake engineering, soil-structure interaction problems, levee and embankment design and analysis and slope stability. Major projects he was involved in include the seismic stability evaluations of Folsom Dam in California and also Alben Barkley Dam in Kentucky. Recently, he was a member of the IPET team which investigated the failures of I-walls during Hurricane Katrina. He was also a member of the Geotechnical Criteria and Application Team to investigate special geotechnical issues in the New Orleans following Katrina.		
James Neubauer	Cost Engineering	Walla Walla District	See below
	Since August 2007 Mr. Neubauer has served as the ATR coordinator and a lead reviewer in the Cost Engineering Directory of Expertise for Civil Works located in Walla Walla District (Cost DX). He has served 29 years as a civil engineer with experience in military and civil works construction, project management and cost engineering. Mr. Neubauer is a licensed professional engineer, a certified cost engineer and a certified project manager – level 1. Since 1992, Mr. Neubauer has served as a senior lead cost engineer for Albuquerque District, Europe District and Walla Walla District in both military and civil works. His current reviews include civil works cost estimates, schedules and risk analyses. Mr. Neubauer assisted the development of the current civil works cost Engineer Regulation ER 1110-2-1302, was a main author of the civil works cost Engineering Technical Letter ETL 1110-2-573, the current Cost and Schedule Risk Analysis Guidance and the Cost ATR Guidance for the US Army Corps of Engineers. Mr. Neubauer has led many cost ATRs and numerous teams in developing or reviewing multi-billion dollar estimates for the Corps and the Department of Energy.		

Vertical Team

Name	Specialty	Affiliation	Years Experience
Donald Fore	Project Management	Alaska District	16
George Kalli	Technical Lead	Alaska District	9
Bruce Sexauer	Chief, Project Formulation	Alaska District	15
Carl Borash	Chief, Civil Works	Alaska District	37
Linda Hihara-Endo	Civil Works Planning Team Leader	Pacific Division	24
Russell Iwamura	Senior Economist	Pacific Division	21

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Limited Reevaluation Report for Haines, Alaska. The ATR was conducted as defined in the project’s Review Plan to comply with the requirements of EC 1165-2-209. 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.

Jon Brown
ATR Team Leader
Buffalo District

Date

Donald Fore
Project Manager
Alaska District

Date

Russell Iwamura
Review Management Office Representative
Pacific Ocean Division

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.

Patricia Opheen
Chief, Engineering Division
Alaska District

Date

Stephen Boardman
Chief, Project Management, Civil
Alaska District

Date

ATTACHMENT 3: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

Term	Definition	Term	Definition
AFB	Alternative Formulation Briefing	NED	National Economic Development
ASA(CW)	Assistant Secretary of the Army for Civil Works	NER	National Ecosystem Restoration
ATR	Agency Technical Review	NEPA	National Environmental Policy Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
DPR	Detailed Project Report	OMB	Office and Management and Budget
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DX	Directory of Expertise	OEO	Outside Eligible Organization
EA	Environmental Assessment	OSE	Other Social Effects
EC	Engineer Circular	PCX	Planning Center of Expertise
EIS	Environmental Impact Statement	PDT	Project Delivery Team
EO	Executive Order	PAC	Post Authorization Change
ER	Ecosystem Restoration	PMP	Project Management Plan
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
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMC	Risk Management Center
IEPR	Independent External Peer Review	RMO	Review Management Organization
ITR	Independent Technical Review	RTS	Regional Technical Specialist
LRR	Limited Reevaluation Report	SAR	Safety Assurance Review
MSC	Major Subordinate Command	USACE	U.S. Army Corps of Engineers
		WRDA	Water Resources Development Act