REVIEW PLAN

WILLAPA BAY, WASHINGTON – SHOALWATER BAY SHORELINE EROSION

POST-AUTHORIZATION: CONSTRUCTION PLANS AND SPECIFICATIONS THROUGH CONSTRUCTION

15 March 2010

US Army Corps
of Engineers®
Seattle District

REVIEW PLAN

Willapa Bay, Washington – Shoalwater Bay Shoreline Erosion
Post-Authorization: Construction Plans and Specifications Through Construction

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1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan (RP) defines the scope and level of review for the Willapa Bay, Washington – Shoalwater Bay Shoreline Erosion project, construction plans and specifications through construction

b. References

(1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Dec 2009
(2) Engineering Regulation (ER) 1105-2-100, Planning Guidance Notebook
(3) EC 1105-2-407, Planning Models Improvement Program: Model Certification, 31 May 2005
(4) ER 1110-2-12, Quality Management, 30 Sep 2006
(5) Shoalwater Bay Shoreline Erosion, Washington – Final Post-Authorization Decision Document and Final Environmental Assessment, July 2009 (approved by ASA(CW), 29 December 2009)

c. Requirements. This RP was developed in accordance with EC 1165-2-209, which establishes the procedures for ensuring the quality and credibility of U.S. Army Corps of Engineers (USACE) decision documents through independent review. The EC outlines three levels of review: District Quality Control (DQC) assurance review, Agency Technical Review (ATR), and Independent External Peer Review (IEPR). In addition to these three levels of review, decision documents are subject to policy and legal compliance review and, if applicable, model certification/approval. These various elements shall be documented in a RP as part of the Project Management Plan (PMP).

2. STUDY INFORMATION

a. Project Authority. The study is being conducted in accordance with Section 545 of the Water Resources Development Act (WRDA) of 2000, as amended by Section 5153 of WRDA 2007. Section 545 of WRDA 2000 authorizes both a study and a project for coastal erosion protection for the tribal reservation of the Shoalwater Bay Indian Tribe. The authorization provides that the project be constructed and maintained at Federal expense, subject to project approval by the Secretary of the Army.

b. Project Description. The Shoalwater Bay Indian Reservation is located on the north shore of Willapa Bay in Pacific County, 28 miles north of the mouth of the Columbia River. The flood and coastal storm damage reduction project will protect the Shoalwater Reservation from coastal erosion and storm events that coincide with high tides. The Reservation has a high risk of flooding resulting from erosion of the barrier dune that previously protected the area. Severe winter storms in 1999, 2006, and 2007 flooded tribal lands and facilities.

c. Factors Affecting the Scope and Level of Review. A risk informed decision was made that ATR is necessary for all major deliverables for this project, in accordance with criteria presented in EC 1165-2-209, Section 15. Since the products associated with this project are implementation documents Type I IEPR does not apply. The project does not meet the requirements of risk or scope for Type II IEPR.

d. In-Kind Contributions. There are no in-kind contributions. Real estate necessary for project construction will be provided by the Shoalwater Bay Indian Tribe and certified available by the Corps prior to advertising construction.

e. Project Delivery Team (PDT). The PDT is presented in Attachment 2. The project manager is the main point of contact at the Seattle District for more information about this project and the RP.

3. DISTRICT QUALITY CONTROL

a. General. DQC for decision documents covered by EC 1165-2-209 is managed by the home district. All draft products and deliverables will be reviewed within the district as they are developed by the PDT to ensure they meet project and customer objectives, comply with regulatory and engineering guidance, and meet customer expectations of quality. Work products will be forwarded to the appropriate Branch Chiefs of disciplines directly involved with the development of the document. The Branch Chiefs will determine the most appropriate person to carry out the review of the document.

b. Products for Review. All work products and reports, evaluations, and assessments shall undergo necessary and appropriate DQC, including National Environmental Policy Act (NEPA) documents, other environmental compliance products, and any in-kind services provided by the local sponsor. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices, and the recommendations before approval by the District Commander.

c. Documentation of DQC. DrChecks[sm] review software will be used to document all DQC comments, responses, and associated resolutions accomplished throughout the review process. Relevant DQC records will be reviewed during each ATR event and the ATR team will provide comments as to the adequacy of the DQC effort for the associated product.

4. AGENCY TECHNICAL REVIEW

a. General. ATR for decision documents covered by EC 1165-2-209 is managed by the appropriate Planning Center of Expertise (PCX). The ATR shall ensure that the product is consistent 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 the results in a reasonably clear manner for the public and decision makers. Products will be reviewed against published guidance, including ER's, EC's, manuals, engineering technical letters, and bulletins.

b. Products for Review.

(1) The design package for review shall include all plans and specifications, design analysis report, constructability analysis report, and construction cost estimate.

b. Required ATR Team Expertise. The current ATR plan is to include at least 4 reviewers (Attachment 2). This number is based on the following disciplines required to develop the plans and specifications

- Environmental
- Hydraulic Engineer
- Plans and Specifications

c. Documentation of ATR. DrChecks[sm] 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 ATR team leader will

prepare a Review Report which includes a summary of each unresolved issue; each unresolved issue will be raised to the vertical team for resolution.

ATR may be certified when all ATR concerns are either resolved or referred to USACE Headquarters (HQUSACE) for resolution and the ATR documentation is complete. Certification of ATR should be completed, based on review of construction plans and specifications.

5. INDEPENDENT EXTERNAL PEER REVIEW

a. General. Type I IEPR is conducted for decision documents if there is a vertical team decision (involving the district, MSC, PCX, and HQUSACE members) that the covered subject matter meets certain criteria (described in EC 1165-2-209) where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside the USACE is warranted. IEPR is conducted by nationally recognized technical experts outside of the Corps of Engineers. IEPR is coordinated by the appropriate PCX and managed by an Outside Eligible Organization (OEO) external to the USACE. The scope of the review will address all underlying planning, engineering, including safety assurance, economics, and environmental analyses performed, not just one aspect of the project.

Type I IEPR is typically conducted on study phase decision documents. Type I IEPR is 100% federal cost and limited to $500,000. Type II IEPR, also known as Safety Assurance Review, is typically conducted on implementation documents related to design and construction activities, especially those where potential hazards that pose significant threat to human life exist. The cost for Type II IEPR will be cost shared in accordance with the project purpose and phase.

b. Decision on IEPR. Type I IEPR does not apply because this review plan is for an implementation document. NWD has made the determination that Type II IEPR is not required because the project does not include storm or flood risk management features, does not involve innovative techniques or materials, does not have special construction requirements, and does not require special redundancy, resilience, or robustness. This decision is documented in email dated 4 and 5 January 2010 from CENWD-RBT.

c. Products for Review. Not applicable.

d. Required IEPR Panel Expertise. Not applicable.

e. Documentation of IEPR. Not applicable.

6. MODEL CERTIFICATION AND APPROVAL

a. General. The use of certified or approved models for all planning activities is required by EC 1105-2-407. This policy is applicable to all planning models currently in use, models under development and new models. The appropriate PCX will be responsible for model certification/approval. Both the planning models (including the certification/approval status of each model) and engineering models used in the development of the decision document are described below:

b. Planning Models. No planning models were used in this phase.

c. Engineering Models. The following engineering models are anticipated to be used:

- CMS-WAVE
- CMS-FLOW
- SBEACH

All models are standard models that have been previously certified and approved.

7. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost.

The ATR schedule and cost estimate is presented in Table 1.

Table 1. ATR Schedule

Task	Date	Estimated Cost
ATR of plans and specifications	1 April 2010 – 30 April 2010	$20,000
Total:		$20,000

b. IEPR Schedule and Cost. Not applicable.

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

8. PUBLIC PARTICIPATION

The public will be invited to comment directly to the PDT through the posting of the final approved Review Plan and PMP on the Corps website.

9. PCX COORDINATION

Review plans for decision documents and supporting analyses outlined in EC 1165-2-209 are coordinated with the appropriate PCX based on the primary purpose of the basic decision document to be reviewed. The ATR lead for this study is Alaska District. Alaska District has familiarity with this project, having conducted ATR's on both the draft and final decision documents. They are thus best positioned to perform ATR on construction plans and specifications.

10. MSC APPROVAL

Northwestern Division is the MSC that oversees the Seattle District, and is responsible for approving the RP. A MSC approval letter is required for each review plan and must be signed by the MSC Commander. The commander's approval should reflect vertical team input (involving district, MSC, PCX, and HQUSACE members) as to the appropriate scope and level of review for the decision document. Like the PMP, the RP is a living document and may change as the study progresses. Changes to the RP should be approved by following the process used for initially approving the plan. In all cases the MSC will review the decision on the level of review and any changes made in updates to the project.

11. REVIEW PLAN POINTS OF CONTACT

Questions and/or comments on this RP can be directed to the following points of contact:

- Seattle District Civil Works Branch, 1-855-828-7015, NWSCivilWorks@usace.army.mil.

ATTACHMENT 1: GLOSSARY

Agency Technical Review (ATR):
ATR is an in-depth review, managed within USACE, and conducted by a qualified team outside of the home district that is not involved in the day-to-day production of the project/product. The purpose of this review is to ensure the proper application of clearly established criteria, regulations, laws, codes, principles and professional practices. The ATR team reviews the various work products and assure that all the parts fit together in a coherent whole. ATR teams will be comprised of senior USACE personnel (Regional Technical Specialists, etc.), and may be supplemented by outside experts as appropriate. To assure independence, the leader of the ATR team shall be from outside the home Major Subordinate Command (MSC).

District Quality Control (DQC):
DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the PMP. It is managed in the home district and may be conducted by staff in the home district as long as they are not doing the work involved in the study, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the report to assure the overall integrity of the report, technical appendices and the recommendations before approval by the District Commander.

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. Any work product, report, evaluation, or assessment that undergoes DQC and ATR may also be required to undergo IEPR. IEPR is coordinated by the appropriate Planning Center of Expertise (PCX) and managed by an Outside Eligible Organization (OEO) external to the USACE. The OEO will select panel members using the National Academies of Science (NAS) policy for selecting reviewers. The scope of review will be scalable to the work product being reviewed and will address all underlying planning and engineering, including safety assurance, economics, and environmental analyses performed, not just one aspect of the project. Type I IEPR is generally for decision documents whereas Type II IEPR is generally for implementation documents.

(i) Type I IEPR is mandatory if any of the following are true: 1) Significant threat to human life; 2) Total estimated project cost is > $45M; 3) A request is made for independent peer review by a State Governor of an affected state; 4) 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. If a decision document does not automatically trigger a Type I IEPR, a risk-informed recommendation will be developed. Type I IEPR is discretionary where a request is made by the head of a Federal or state agency charged with reviewing the project study if he/she determines that the project is likely to have significant adverse impacts.

(ii) Type II IEPR – Safety Assurance Review (SAR). All design and construction activities addressing hurricane and storm risk management; flood risk management; and other projects where existing and potential hazards pose a significant threat to human life are required to undergo SAR. External panels will review the design and construction activities prior to initiation of physical construction and periodically thereafter until construction activities are completed on a regular schedule sufficient to inform the Chief of Engineers on the adequacy,

appropriateness, and acceptability of the design and construction activities for the purpose of assuring public health, safety, and welfare.

Model Certification/Approval:
EC 1105-2-407 requires certification (for Corps models) or approval (for non-Corps models) of planning models used for all planning activities. The EC defines planning models 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.

Outside Eligible Organization:
An organization that:

(1) is described in section 501(c)(3), and exempt from Federal tax under section 501(a), of the Internal Revenue Code of 1986;
(2) is independent;
(3) is free from conflicts of interest;
(4) does not carry out or advocate for or against Federal water resources projects; and
(5) has experience in establishing and administering peer review panels.

Peer Review:
Peer Review is the process of subjecting research, assumptions, analyses, and conclusions to the scrutiny of others who are experts in the same field. Peer review requires a community of experts in a given (and often narrowly defined) field, who are qualified and able to perform impartial review.

Policy and Legal Compliance Review:
Decision documents will be reviewed throughout the study process for their compliance with law and policy. 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. Guidance for policy and legal compliance reviews is addressed further in Appendix H, ER 1105-2-100, Planning Guidance Notebook. DQC and ATR will address compliance with pertinent USACE policies. IEPR teams are not expected to be knowledgeable of Army and administration polices, nor are they expected to address such concerns. The home district Office of Counsel is responsible for the legal review of each decision document and signing a certification of legal sufficiency.

ATTACHMENT 2: TEAM ROSTERS

PROJECT DELIVERY TEAM ROSTER

DQC TEAM ROSTER

AGENCY TECHNICAL REVIEW TEAM ROSTER