

DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, NORTHWESTERN DIVISION PO BOX 2870 PORTLAND OR 97208-2870

CENWD-RBT

1 3 DEC 2012

MEMORANDUM FOR Commander, Portland District (CENWP-PM-F/Eric Bluhm)

SUBJECT: Review Plan (RP) Approval for Mouth of the Columbia River, South Jetty Dune Stabilization, Portland District

1. References:

a. Memorandum, CENWP-DE, subject: MCR Jetties, South Jetty Dune Stabilization, Fort Stevens State Park, Oregon, NWP District, Northwestern Division, Plan Review submittal, for Decision Document (Encl).

b. EC 1165-2-209 Change 1, Civil Works Review Policy, 31 January 2012.

2. Reference 1.a. above has been prepared in accordance with reference 1.b. above.

3. The RP has been coordinated with the Business Technical Division, Northwestern Division, U.S. Army Corps of Engineers. The Review Plan includes District Quality Control and Agency Technical Review. NWD will serve as the Review Management Organization (RMO) for the Agency Technical Review; the NWD POC will be Brad Bird, (503) 808-3857.

4. I hereby approve this RP, which is subject to change as circumstances require, consistent with the study development process and the Project Management Business Process. Subsequent revisions to this RP or its execution will require written approval from this office.

5. For further information, please contact Mr. Steve Bredthauer at (503) 808-4053.

Encl

ANTHÓNY C. FUNKHOUSER, P.E. COL, EN Commanding

CF: CENWD-PDS





DEPARTMENT OF THE ARMY PORTLAND DISTRICT, CORPS OF ENGINEERS 333 SW FIRST AVENUE PORTLAND, OREGON 97204

CENWP-DE

MEMORANDUM FOR Commander, Northwestern Division (CENWD-DE) (David Combs, Chief, Planning and Environmental; Resources and Support Division, CENWD-PDD)

SUBJECT: MCR Jetties: South Jetty Dune Stabilization, Fort Stevens State Park, Oregon, NWP District, Northwestern Division, Plan Review submittal, for Decision Document

1. Enclosed for Major Subordinate Command (MSC) Commander approval is the MCR Jetties Dune Stabilization Review Plan for Fort Stevens State Park. This Review Plan has been prepared according to EC 1165-2-209, Civil Works Review Policy.

 The District point of contact (POC) for questions or requests for additional information may be referred to Eric Bluhm, Project Manager, at (503) 808-4759 or email at Eric.V.Bluhm@usace.army.mil. A secondary POC is Technical Lead Rod Moritz, at (503) 808-4864 or email at Hans.R.Moritz@usace.army.mil.

FOR THE COMMANDER:

Kevin J. Brice, P.E., PMP Deputy District Engineer for Project Management

Encl

CF: CENWD-PDD (Combs)

PROJECT REVIEW PLAN

ATR Review Plan for Implementation Documents and Other Work Products Northwestern Division (NWD)

Project Name: Mouth of the Columbia River, South Jetty Dune Stabilization Project Location: Fort Stevens State Park, OR Project P2 Number: 123160 Project Manager or POC: Eric Bluhm NWD Original Approval Date: XX NWD Revision X Approval Date: XX

PROJECT REVIEW PLAN

ATR Review Plan for

Implementation Documents and Other Work Products Northwestern Division (NWD)

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B-1.	ACRONYMS AND ABBREVIATIONS

1. PURPOSE AND REQUIREMENTS.

a. Purpose. This ATR Review Plan (RP) Template and attachments describe requirements for the project identified on the cover sheet of this document. This RP describes Agency Technical Review (**ATR**) associated with <u>implementation documents</u>, or other work products. The RP Template and the completed RP Specifics attachment together describe the risks considered and the review plan proposed for this project or product.

b. General Process. The PDT considers the project risks and selects an appropriate RP Template based on the risks per EC 209. The risk consideration process is determined by Districts as appropriate to develop a risk informed review plan strategy.

1) When the District has considered the project risks and determined the applicability of this template, the PM/PDT prepares the "RP Specific" information in Attachment 1 and submits with the RP Template to NWD for approval. The RP Specifics provide the essential elements of the RP such as the scope, project cost, the review team and capabilities, review schedules and budgets and points of contacts.

2) The RP Specifics are coordinated with the appropriate levels of management in the District and the NWD. Potentially the RP may also need to be coordinated with the Risk Management Center (RMC) and others such as the relevant Planning Center of Expertise (PCX) if required. This may be necessary in cases where there is debate on the project risks, required review levels, the review team composition and areas of responsibility.

3) The approved RP Specifics and RP Template information together shall describe the project scope, review plan, schedule and budget in sufficient detail to allow review and approval for the RP. The RP information is a component of the Quality Management Plan within the Project Management Plan. Once approved, the RP is documented in the project PMP/QMP and project files and also placed on the District Website for a minimum of 30 days.

c. Applicability. Applicability of the review plan template is determined by NWD. If any of the criteria listed below are met, this RP template is not appropriate. This review plan template is applicable, ONLY, for projects that;

- Are agreed to require ATR review based on risk-informed decision process.
- Are agreed to NOT require Independent External Peer Review (IEPR) or Safety Assurance Review (SAR) based on a risk-informed decision process.
- Do NOT require an Environmental Impact Statement (EIS) for the project.
- And, the project for this review plan is NOT producing decision documents.

d. References

Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010 Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006 ER 1105-2-100, Planning Guidance Notebook, Appendix F, Continuing Authorities Program, Amendment #2, 31 Jan 2007

ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007

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2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION

The RMO for **ATR** is Northwestern Division (NWD) unless determined otherwise. The USACE Risk Management Center (RMC) shall serve as the RMO for Dam Safety Modification projects and Levee Safety Modification projects. NWD will coordinate and approve the review plan. The home District will post the approved review plan on its public website.

3. REVIEW FUNDAMENTALS

- a. The USACE review process is based on a few simple but fundamental principles:
 - Peer review is key to improving the quality of work in planning, design and construction;
 - Reviews shall be scalable, deliberate, life cycle and concurrent with normal business processes;
 - A review performed outside the home district shall be completed on all decision and implementation documents. For other products, a risk informed decision as described in EC 209 will be made whether to perform such a review.

b. The EC 209 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.

4. DISTRICT QUALITY CONTROL (DQC)

The RMO for DQC is the home District. In accordance with EC 209 all work products and reports, evaluations, and assessments shall undergo necessary and appropriate District Quality Control (DQC).

DQC is the internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the project Quality Management Plan (QMP) of the Project Management Plan (PMP).

The DQC is the internal quality control process performed by the supervisors, senior staff, peers and the PDT within the home District and is managed by the home District. DQC consists of;

- a. Quality Checks and reviews. These are routine checks and reviews carried out during the development process by peers not responsible for the original work. These are performed by staff such as supervisors, team leaders or other senior designated to perform internal peer reviews.
- b. PDT reviews. These are reviews by the production team responsible for the original work to ensure consistency and coordination across all project disciplines.

DQC will be performed on the products in accordance with the QMP within the PMP.

5. AGENCY TECHNICAL REVIEW (ATR)

A risk informed process was completed for this project in accordance with EC 209. See paragraph 7, RISK INFORMED DECISIONS.

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 will be conducted by a qualified team from outside the home District that is not involved with 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. The ATR team lead will be from outside the home MSC. In limited cases, when appropriate and independent expertise can be secured from Centers or Laboratories or when proper expertise cannot be secured otherwise, NWD may approve exceptions.

6. **REVIEW DOCUMENTATION**

- a) 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:
 - 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) Where appropriate, provide a suggested action needed to resolve the comment or 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 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 1110-2-12 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.

ATR shall 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).

7. RISK INFORMED DECISIONS

- a. **ATR:** (Source: EC 209, paragraph 15). The process and methods used to develop and document the risk-informed decisions are at the discretion of the District but must be appropriate for the risk and complexity of the project. The following questions and additional appropriate questions were considered;
 - 1. Does it include any design (structural, mechanical, hydraulic, etc)?
 - 2. Does it evaluate alternatives?
 - 3. Does it include a recommendation?
 - 4. Does it have a formal cost estimate?
 - 5. Does it have or will it require a NEPA document?
 - 6. Does it impact a structure or feature of a structure whose performance involves potential life safety risks?
 - 7. What are the consequences of non-performance?
 - 8. Does it support a significant investment of public monies?
 - 9. Does it support a budget request?
 - 10. Does it change the operation of the project?
 - 11. Does it involve ground disturbances?
 - 12. Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided?
 - 13. Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions?
 - 14. Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos?
 - 15. Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc?
 - 16. Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc?
 - 17. Is there or is there expected to be any controversy surrounding the Federal action associated with the work product?

*Note: A "yes" answer to questions above does not necessarily indicate ATR is required, rather it indicates an area where reasoned thought and judgment should be applied and documented in the recommendation.

Decision on ATR: The District considered the risks and determined that **ATR is required** considering the project risks. ATR will be performed on the products in accordance with the District QMP and this RP. **See Attachment 1** for RP Specifics.

- b. **INDEPENDENT EXTERNAL PEER REVIEW (IEPR).** The District considered risks and risk triggers for Type I IEPR and Type II IEPR, also referred as a Safety Assurance Review (SAR) as described in EC 1165-2-209.
 - 1. **Type I IEPR** is required for decision documents under most circumstances. This project does not involve the production of decision documents.

Decision on Type I IEPR: The District considered these risks and determined that **Type I IEPR is not** required.

- II. Type II IEPR (SAR). 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.
 - Any project addressing hurricane and storm risk management and flood risk management or;
 - any other project where Federal action is justified by life safety or;
 - the failure of the project would pose a significant threat to human life.
 - This applies to new projects and to the major repair, rehabilitation, replacement, or modification of existing facilities (based on identified risks and threats).

Other Factors to consider for Type II IEPR (SAR) review of a project, or components of a project;

- The project involves the use of innovative materials or techniques where the engineering is based on novel methods, presents complex challenges for interpretations, contains precedent-setting methods or models, or presents conclusions that are likely to change prevailing practices
- The project design requires redundancy, resiliency, and robustness.
- The project has unique construction sequencing or a reduced or overlapping design and construction schedule; for example, significant project features accomplished using the Design-Build or Early Contractor Involvement (ECI) delivery systems.

Decision on Type II IEPR: Based on the information and analysis provided in the preceding paragraphs of this review plan, the project covered under this plan is excluded from IEPR because it does not meet the mandatory IEPR triggers and does not warrant IEPR based on a risk-informed analysis. The District considered these risks and determined that **Type II IEPR (SAR) is not required** considering the risks triggers.

8. POLICY AND LEGAL COMPLIANCE REVIEW

All documents will be reviewed throughout the 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 by the home MSC 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.

This review plan template is not intended to describe requirements and processes to conduct policy and legal compliance review, or legal sufficiency reviews.

9. TEMPLATE APPROVAL

NWD is responsible for maintaining the current version of this <u>Review Plan template</u> and ensuring the information accurately describes the criteria and considerations necessary to arrive at a risk informed decision. The review plan template is a living document and is subject to change.

The home District is responsible to complete the Review Plan Template Cover page, adjust the Table of Contents and the complete <u>Review Plan specifics</u> in **Attachment 1**. Significant changes to the review plan specifics (such as changes to the scope and/or level of review) should be re-approved by NWD. The completed Template information and the Attachment 1 will be submitted to the NWD for coordination and approval.

END OF TEMPLATE INFORMATION

ATTACHMENT 1 Review Plan Specifics

The information in this attachment is prepared by the District PM/PDT for the project specific information required for this review plan. The DQC is managed by the District and is described in the PMP/QMP. This document should be attached or included in the PMP/QMP to document the ATR.

A-1. PROJECT INFORMATION

a. Study/Project Description.

The area along the South Jetty root has experienced profound changes since the time of jetty construction (1885-1913). Before construction, the nearshore area immediately south of the jetty was dominated by a broad ebb tidal shoal with relatively shallow water depths. Construction of the South Jetty resulted in dissipation of this shoal, causing a rapid trend of increasing water depth through time. As the water depth along the south side of the jetty increased, wave action along the jetty and adjacent shore area increased. The higher energy wave environment impacting this area motivated rapid deterioration of the entire South Jetty and culminated with a notable jetty breaching event in the late 1920s that also breached Clatsop Spit. During the 1930s, extensive efforts were undertaken to rebuild the South Jetty and to re-establish the coastal dune morphology along the Clatsop Spit and south side of the South Jetty. Starting in the late 1970s, erosion re-initiated in this area, and again, became chronic, eventually carving a large erosional escarpment into the face of the foredune (**Figure 1**). Continued erosional processes have created a concave shore alignment that extends approximately <u>1100</u> feet south of the South Jetty (**Figure 2**). This area continues to be impacted by an increasingly harsh wave and storm surge environment; driven in part by localized wave reflection induced by the south jetty and a deficient of littoral sediment withinthe nearshore area (-20 to -50 ft NAVD) south of the south jetty.



Figure 1: Erosion at the Dune Face South of the South Jetty, induced by wave and surge action during winter storm.

MCR Jetties: South Jetty dune stabilization, 27 November 2012



Figure 2: Concave Shoreline Embayment of Project Area Immediately South of the South Jetty, Cross-sections are shown in figure .

Currently, the foredune, south of the South Jetty, is in a condition of advanced deterioration. The initial foredune (1970's) had a crest elevation or <u>30</u> and <u>40</u> ft NAVD, and 50-100 ft crest width. The foredune is now a relatively narrow feature on an otherwise flat, low-elevation area adjacent to a tidal marsh. The high-crested foredune prevents storm-induced overtopping and protects the narrow strip of low-lying land that is separating the ocean from the jetty lagoon called Trestle Bay (**Figure 3**). Between 2003 and 2007, the concave shoreline area receded approximately 40 feet; thus, further reducing the protective ability of the foredune. Presenty, the foredune crest has been reduced to less than 25 ft NAVD, along much of the project's 1,100 ft reach.

Without foredune augmentation, the foredune at the root of the South Jetty is expected to continue to erode and recede, resulting in a possible breach through the spit along the South Jetty Root and into Trestle Bay. The 2012 MCR Jetty Rehabilitation Study had estimateed this breach could occur in 8-16 years. If this sand spit breach occurs, a secondary flow way would develop, from the Columbia River estuary to the ocean, re-directing hydraulic flow from the existing inlet, threatening inlet stability, and disrupting navigation at the MCR.

The purpose of the South Jetty foredune augmentation is to implement a critical stabilization measure that strengthens the jetty root and reduces the risk of foredune breaching, thus extending the jetty's functional purpose maintaining deep-draft navigation at the Mouth of the Columbia River (MCR).

The South Jetty Dune Augmentation Project will focus on stabilizing the critical area at the eroded face of the foredune within the concave area extending approximately 1100 feet south of the South Jetty. The project location provides a unique opportunity to implement a design-with-nature approach utilizing a cobble/gravel berm that will be naturally backed by an erosional escarpment (the existing high-crested foredune, **Figure 4**), it will be bounded to the north by the South Jetty, and it will be tapered at the south end to minimize flanking of the berm structure or other adverse impacts on the shoreline to the south. Construction is scheduled to begin in early August 2013 and finish in October 2013. The contractor will provide a schedule at the time of award identifying the activities to take place. The contractor will work daytime shift and be encouraged to complete construction early.



Figure 3: Vulnerability of Present Dune and Backshore Separating the Pacific Ocean from Trestle Bay.



Figure 4. Time varying reduction of the foredune 1,200 ft south of the south jetty root at Clatsop Spit (profile East Jetty). The foredune has lost 13 ft of elevation and 100 ft of width during 2001 to 2010. The STD DEV in elevation change along this shore profile is 3-4 ft. Also shown are a range in water surface elevation for cumulative components of water level. Cross-shore change analysis provide by DOGAMI.

b. Current Total Project Cost.

The South Jetty Dune Augmentation Project will help prevent potential breaching of the spit on the south side of the jetty, and, it will help prevent exposure and degradation of the South Jetty root. In this way, the project supports continued functionality of the South Jetty and the larger MCR navigational system. It is considered a maintenance activity.

The MCR South Jetty was constructed in two phases during 1885-1913 and is part of the MCR navigation project originally authorized by the River and Harbor Act of 1884. The initial 4.5 mile long section of the South Jetty begins at Hammond, Oregon and was constructed during 1885-1896. A 2.1mile long extension of the South Jetty was initiated in 1905 and completed in 1913.

Congress authorized the South Jetty construction and improvements with the following legislation:

- Senate Executive Document 13, 47th Congress, 2nd Session (5 July 1884) authorizing the Corps to construct the South Jetty (first 4.5 miles) for the purpose of attaining a 30-foot channel across the bar at MCR.
- House Document 94, 56th Congress, 1st Session (3 March 1905) authorizing the Corps to extend the South Jetty (to 6.62 miles) and to construct a North Jetty for the purpose of attaining a 40-foot channel (0.5 miles wide) across the bar at MCR.

The MCR federal navigation project was originally authorized before formulation of local sponsor cost sharing agreements. Therefore, all navigation maintenance and improvement costs at MCR are borne by the Federal Government. The authority for maintenance of the MCR jetties comes from its original authority for construction of the project and also from Corps' policies for the operations, maintenance, and management of Corps' projects (Chapter 11 of EP 1165-2-1).

Thus, the authority for the South Jetty Dune Augmentation Project comes from the authorization documents for the MCR navigation project and the authority to operate and maintain the jetty structures. Additionally, this maintenance project is solely a federal responsibility to be accomplished at federal cost.

Per the FY 13 President's Budget, \$5.5M in O&M funding is allocated toward the Detailed Design Report, P&S, and construction of this project.

ATR Team Members/Disciplines	Expertise Required
ATR Lead: Thomas Smith (POH)	The ATR lead is a senior professional with extensive experience in
	preparing Civil Works decision documents and conducting ATR.
	The lead has necessary skills and experience to lead a virtual team
	through the ATR process. The ATR lead also serves as a reviewer
	as a Coastal Engineer, with extensive Pacific Northwest navigation
	experience. As a coastal engineering reviewer, he is an expert in
	the field and has a thorough understanding of coastal engineering
	theory, structures and Corps engineering regulations. For this
	report, review of the efficacy and cost of coastal structural
	alternatives considered are tantamount. Existing conditions,
	budget constraints, structural, non-structural, and environmental
	impacts will all be considered in the coastal analysis.
Kurt Friederich (NWW)	Cost Engineer – conducted estimates for MCR Major Rehab
	Report justifying extensive reconstruction on all three jetties. The
	cost engineering reviewer is an expert in the field, is part of the
	national center of expertise, and has thorough understanding of
	jetty projects and a lengthy background with MCACES.

c. Required ATR Team Expertise. ATR team and required expertise;

14 D (AUA4G)	
Ken Brunner (NWS)	Environmental Compliance – extensive Pacific Northwest
	experience. The Environmental reviewer is responsible for
	assessing environmental impacts, coordinating ecosystem
	restoration studies and ensuring the proper NEPA and cultural
· · · · · ·	resource compliance activities were completed. This may include
	verifying any NER calculations and completion of the Fish and
	Wildlife Service Coordination Act requirements. In addition to
	extensive experience with NEPA compliance documents, the
	Environmental reviewer also has experience in wetland
	delineation and mitigation planning.
Dave Michalsen (NWS)	Coastal Engineer – extensive Pacific Northwest navigation
	experience. The coastal engineering reviewer is an expert in the
	field and has a thorough understanding of coastal engineering
	theory, structures and Corps engineering regulations. For this
	report, review of the efficacy and cost of coastal structural
	alternatives considered are tantamount. Existing conditions,
	budget constraints, structural, non-structural, and environmental
	impacts will all be considered in the coastal analysis.
Peter Krembs (NWS)	Civil Engineer – extensive experience with coastal structures. The
	reviewer will ensure that project structures are designed to Corps
	standards; that the quantities estimated and assumptions are
	reasonable; and assure the proper range of alternatives are
	analyzed.

A-2. REVIEW SCHEDULES AND COSTS

a. ATR Schedule

Review Milestone	Review Products	Date Planned
90% ATR review	DDR/P&S	11 March 2013 – 22 March 2013
90% backcheck	DDR/P&S	25 March 2013 – 29 March 2013
ATR Certification	DDR/P&S	01 April 2013

b. ATR COSTS - Labor/Expenses

Review Milestone	#reviewers/total hours	Approximate cost/hr	Totals
90% ATR review	5/145 hours	\$120	\$17,400
90% backcheck	5/4 hours	\$120	\$480
ATR Certification	5/1 hour	\$120	\$120
ATR Expenses (travel etc)	5	\$1,200 (all travel.)	\$ 6,000
Total ATR costs			\$24,000

c. Engineering Models. The following engineering models are anticipated to be used in the development of the implementation documents or other work products: No engineering models will be used for design.

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
XX	XXXX	Certified
XX	XXXX	Certification pending

A-3. REVIEW PLAN POINTS OF CONTACT

The Review Management Organization for ATR will be NWD unless noted otherwise.

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

Contact	Role	Title	Office/District/Division	Phone
Eric Bluhm	Project Manager	Project	Portland District, US Army	503-808-4759
		Manager	Corps of Engineers	
Jeremy Weber	Planning Manager	District Support	Northwestern Division, US	503-808-3858
		Planner	Army Corps of Engineers	

A-4. PROJECT DELIVERY TEAM (PDT) ROSTER. Before posting to websites for public disclosure of the RP, it may be necessary to remove names and contact information for Corps employees to comply with security policies.

PDT Roster				
Name	Discipline/Role	District/Agency	email	Phone
Eric Bluhm	Project Manager	Portland/USACE	eric.v.bluhm@usace.army.mil	503-808-4759
David Baker	Realty Specialist	Portland/USACE	david.baker@usace.army.mil	503-808-4669
Mark Brodesser	Civil Engineer	Portland/USACE	mark.w.brodesser@usace.army.mil	503-808-4914
Barbara Cisneros	Env. Res. Spec.	Portland/USACE	barbara.g.cisneros@usace.army.mil	503-808-4784
Nik Fernandez	Proj. Controller	Portland/USACE	nikolais.d.fernandez@usace.army.mil	503-808-4716
Robert Fuchs	Contract Spec.	Portland/USACE	robert.k.fuchs@usace.army.mil	503-808-4624
Richard Gunsolus	Geologist	Portland/USACE	Richard.a.gunsolus@usace.army.mil	503-808-4854
Michelle Helms	Pub. Affairs	Portland/USACE	michelle.r.helms@usace.army.mil	503-808-4517
Melody Isakson	Program Analyst	Portland/USACE	melody.a.isakson@usace.army.mil	503-808-4690
Jacob Macdonald	Cartographer	Portland/USACE	jacob.b.macdonald@usace.army.mil	503-808-4844
Rod Moritz	Coastal Engr.	Portland/USACE	hans.r.moritz@usace.army.mil	503-808-4864
Phillip Ohnstad	Cost/Cnst. Mgr.	Portland/USACE	phillip.c.ohnstad@usace.army.mil	503-808-4424
Michelle Rhodes	TL/Civil Engr.	Portland/USACE	Michelle.m.rhodes@usace.army.mil	503-808-4853

A-5. ATR TEAM ROSTER. Before posting to websites for public disclosure of the RP, it may be necessary to remove names and contact information for Corps employees to comply with security policies.

Agency Technical Review (ATR) Team				
Name Discipline/Role District/		email	Phone	
		Agency		
Thomas Smith	Lead/Coastal Engr.	CEPOH	thomas.d.smith@usace.army.mil	808-835-4141
Kurt Friederich	Cost Engineer	CENWW	kurt.o.friederich@usace.army.mil	509-524-7512
Ken Brunner	Env. Compliance	CENWS	Kenneth.r.brunner@usace.army.mil	206-764-3479
Dave Michalsen	Coast Engineer	CENWS	dave.r.michalsen@usace.army.mil	206-764-3705
Peter Krembs	Civil Engineer	CENWS	peter.n.krembs@usace.army.mil	206-400-7408

A-6. REVIEW PLAN SPECIFICS - APPROVAL

The information provided in the Review Plan Template and the Review Plan Specifics in **Attachment 1** are hereby submitted for approval.

NWD will review this plan and route by NWD staffing sheet. If the plan is complete and appropriate for the risk and complexity of the project/products, the NWD will recommend approval by the appropriate Senior Executive Service (SES) in NWD. The NWD approval memorandum will be sent to the District PM responsible for the plan. The NWD approval memorandum shall be documented with the review plan, and the approval date should be noted on the cover sheet of this document.

Approved revisions should be recorded in the A-7 block below.

A-7 REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number	Date Approved
Original			
Revision 1	Added ATR team members	pp. 10 & 12	11/27/12

ATTACHMENT 2

B-1. ACRONYMS AND ABBREVIATIONS

Acronyms	<u>Defined</u>
ATR	Agency Technical Review
САР	Continuing Authorities Program
DCW	Director of Civil Works
DQC	District Quality Control
EC	Engineering Circular
ECI	Early Contractor Involvement
EIS	Environmental Impact Statement
ER	Engineering Regulation
FAQ's	Frequently Asked Questions
HQUSACE	Headquarters, U.S. Army Corps of Engineers
IEPR	Independent External Peer Review
NWD	Northwestern Division
MSC	Major Subordinate Command
РСХ	Planning Center of Expertise
PDT	Project Delivery Team
PMP	Project Management Plan
QA	Quality Assurance
QMP	Quality Management Plan
QMS	Quality Management System
RIT	Regional Integration Team
RMC	Risk Management Center
RMO	Review Management Organization
RP	Review Plan
SES	Senior Executive Service
SAR	Safety Assurance Review (also referred as Type I IEPR)