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

CENWD-RBT

14 DEC 2012

MEMORANDUM FOR Commander, Portland District (CENWP-PM-FP/Jeff Ament)

SUBJECT: Review Plan (RP) Approval for Dexter Fish Facility Upgrade, Lowell, Oregon, NWP District, Northwestern Division

1. References:

a. Memorandum, CENWP-DE, subject: Dexter Fish Facility Upgrade, Lowell, Oregon, NWP District, Northwestern Division, Plan Review submittal, for Implementation 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 (ATR). NWD will be the Review Management Organization (RMO) for the ATR.

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

ANTHONY 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

REPLY TO
ATTENTION OF

CENWP-DE

MEMORANDUM FOR Commander, Northwestern Division (CENWD-DE)
(Stephen Bredthauer, Quality Manager, Business Technical, CENWD/RBT)

SUBJECT: Dexter Fish Facility Upgrade, Lowell, Oregon, NWP District, Northwestern Division, Plan Review submittal, for Implementation Document

1. Enclosed for Major Subordinate Command (MSC) Commander approval is the Fish Facility Upgrade Review Plan for Dexter Dam. This Review Plan has been prepared according to EC 1165-2-209, Civil Works Review Policy.

2. The District point of contact (POC) for questions or requests for additional information may be referred to Jeff Ament, Project Manager, at (503) 808-4713 or email at Jeffrey.M.Ament@usace,army.mil. A secondary POC is Technical Lead Kristy Fortuny, at (503) 808- 4940 or email at Kristina.R.Fortuny@usace.army.mil.

FOR THE COMMANDER:

LANCE A. HELWIG, P.E.
Chief, Engineering & Construction Division

Encl

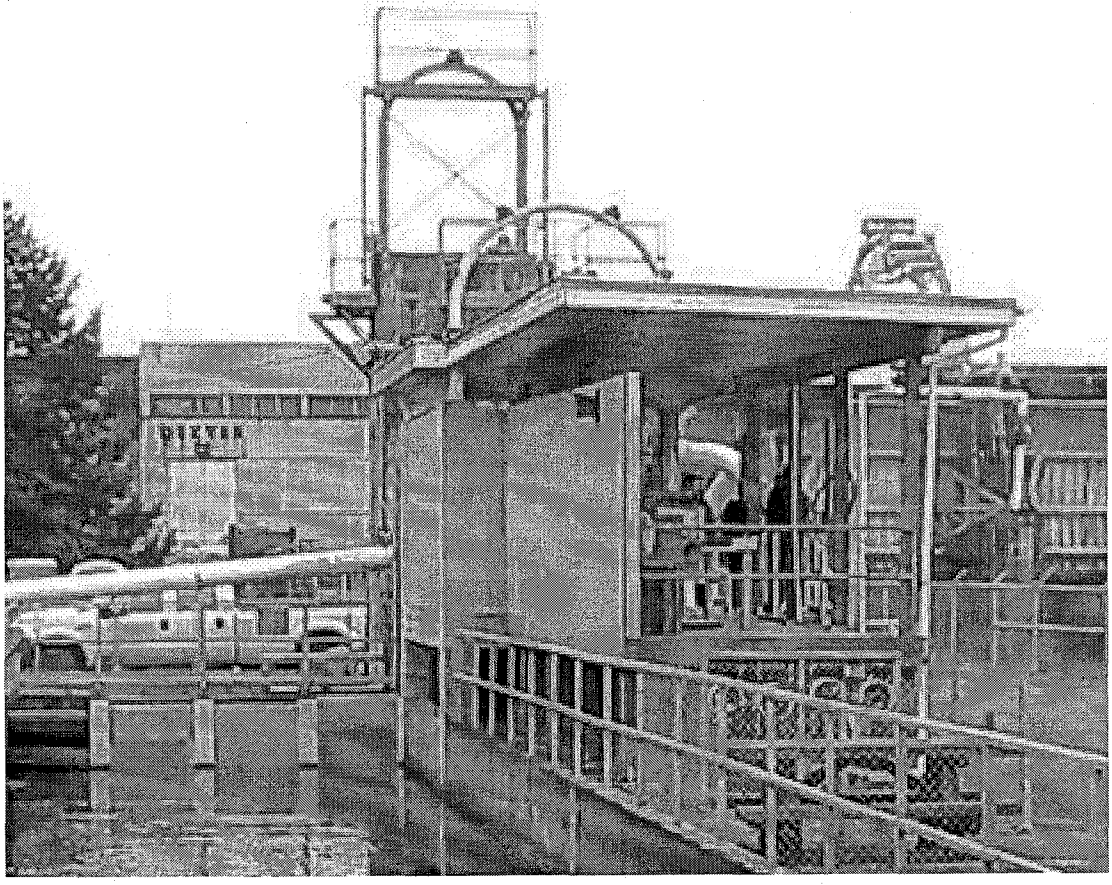
CF:
CENWD-RBT (Bredthauer)

Project Name: Dexter Fish Facility Upgrade
Project Location: Dexter Dam, Lowell, OR
Project P2 Number: 354336
Project Manager or POC Name: Jeff Ament
NWD Original Approval Date: XX
NWD Revision X Approval Date: XX

REVIEW PLAN

Dexter Fish Facility Upgrade, Lowell, Oregon
Revision for Design Documentation Report and Plans and Specifications

Portland District



23 October 2012

US Army Corps
of Engineers ®

REVIEW PLAN SPECIFICS

Dexter Fish Facility Upgrade, Lowell, Oregon
Revision for Design Documentation Report and P&S

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Dexter Fish Facility Upgrade, Lowell, Oregon, Engineering Documentation 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 Mar 2010
(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) Dexter PMP

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), 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).

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. The RMO for the District Quality Control effort described in this Review Plan is the Engineering and Construction Division, Portland District. Northwestern Division (NWD) is the RMO for the Agency Technical Review.

The RMO will coordinate with the Cost Engineering Directory of Expertise (DX) to ensure the appropriate expertise is included on the review teams to assess the adequacy of cost estimates, construction schedules and contingencies.

3. PROJECT INFORMATION

a. Authority.

Construction of Dexter Dam and the existing fish facility is authorized by House Document (HD) 544 and the 1938 Flood Control Act. Upgrading the existing fish facility will be completed under this authority.

b. Project Description.

The Willamette River Basin is located in northwestern Oregon, and is approximately 150 miles long and 75 miles wide. It covers 12 percent of the state, contains extensive, rich agricultural land and forests, and is home to approximately 70 percent of the state's residents. The Willamette River, as it flows north to the Columbia, is an important tributary, and produces one of six lower Columbia River

salmon stocks that contribute to the overall run of Columbia River Chinook salmon. This run has enormous historical, economic, and cultural significance. The Willamette basin itself is composed of 11 sub-basins.

The existing Dexter fish facility was designed to collect adult fish into a pre-sort holding pool. While in this pool, adult fish often jump at the water spilling into the holding pond from the adjacent raceways and fish are frequently observed hitting their heads on the holding pond walls and metal plates covering the raceways. From the pre-sort pond, fish are crowded into a fish lock, where they are lifted up and dewatered into one of two anesthetic tanks. Fish are manually removed from the anesthetic tanks and handled repeatedly on the sorting table prior to being slid in a pipe to a holding raceway or into a truck for transport (either for fishery recycling, outplanting, or to Willamette Hatchery for holding prior to spawning).

Currently, the facility is being used to collect spring Chinook for the Willamette Hatchery, and is the collection point for hatchery summer steelhead that are released into the Middle Fork Willamette River for the USACE's hatchery mitigation program. The facility also handles a limited number of unmarked spring Chinook and winter steelhead (both ESA-listed, although winter steelhead are not native to the MF Willamette River). The facility was not designed to handle ESA-fish.

The upgrade at Dexter Dam will provide safe collection, handling, sorting, and transfer of wild spring Chinook, hatchery summer steelhead and wild winter steelhead (if present) from below Dexter Dam to upstream areas or to Willamette Hatchery. The project design will accommodate collection of lamprey as well, if feasible. The upgraded facility will serve as a collection site for hatchery fish associated with Willamette Hatchery (located upstream of Dexter/Lookout Point dams, near Oakridge, OR), and will serve as "trap-and-haul" for release of adult fish into habitat upstream of Lookout Point Dam. The new facility should also ensure safety for Corps and ODFW employees.

An Engineering Documentation Report was prepared, and reviewed (under a previous version of this review plan). The report analyzed 5 major alternatives for adult fish facility layout, and selected Alternative 5 as the most beneficial. This facility is an in ground facility that minimizes facility water demands, which allows for additional attraction flow at the ladder entrance, while also being the most cost effective.

c. Factors Affecting the Scope and Level of Review.

This project was undertaken with the objective of fulfilling the goals of the 2008 Biological Opinion issued by NOAA Fisheries (see RPAs 4.6 and 6.12). The RPA requires that the new facility be operational by March 2015. One critical assumption is that funding will be available at levels that do not constrain technical progress on critical project activities. Funding for operation of the new facility will be provided from the Fish and Wildlife Program and it is assumed that adequate funding will be provided through the ENS business line to accommodate O&M. The in-water work period for construction work is from 15 July through 31 August each year. The fish facility shutdown period for construction work is from 1 November through 30 April each year. Lamprey passage improvement criteria will be incorporated into any design alternatives, including rounding corners, smooth surfaces, and grating opening size of ¾ inch. Other factors include the following:

- It is likely that the hatchery population will be used to supplement naturally produced fish upstream of Lookout Point dam.

- The facility needs to allow for continued operation of the Willamette Hatchery Spring Chinook program and comply with HGMP management practices (may include collecting fish throughout the run).
- Allow for the potential volitional upstream passage, should it be determined feasible at a later date (per RPA requirement).
- Collection of adult spring Chinook for Willamette Hatchery broodstock
- Collect, recycle (i.e., downstream to sport fishery), and remove hatchery summer steelhead
- Sorting of hatchery and wild fish, sorting among species (as determined)
- Consider the potential for long-term holding of adult fish that will be released into areas upstream of the dam
- Consider the potential for facilities that hold adults prior to release into upstream habitat (if determined to decrease pre-spawning mortality)
- A transport/release truck(s) to release fish upstream

Further, in 2009, ODFW discovered a leak in the main water line (underground) that delivers water to the existing fish facility. The leak was temporarily repaired, under the assumption that the facility would be replaced within the next few years. The PDT should ensure that the water supply to the new facility is reliable, and coordinate as necessary with the FW program manager on existing operational and maintenance issues associated with the facility.

d. In-Kind Contributions.
All costs for this project will be 100% Federal.

4. DISTRICT QUALITY CONTROL (DQC)

All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC. DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). 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 MSC.

DQC will be managed by the home district in accordance with the MSC and district Quality Management Plans. All draft products and deliverables will be reviewed within the district. 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.

a. Documentation of DQC. Products and deliverables will be reviewed as they are developed to ensure they meet project and customer objectives, comply with regulatory and engineering guidance, and meet customer expectations of quality. Informal reviews, consisting of project delivery team (PDT) presentations and discussions, shall be documented with meeting minutes. Formal reviews, consisting of review comments, review conferences, and backchecking, will be documented using Dr. Checks. Formal reviews will include a comprehensive evaluation of: correct application of methods, validity of assumptions, adequacy of basic data, correctness of calculations (error free), completeness of documentation, compliance with guidance and standards, and BCOE considerations. Formal product reviews will occur at the times shown in the schedule shown below:

EVENT	Start Review
EDR	
60% EDR	21 Nov 2011-Completed
90% EDR (ATR)	30 Jan 2012 - Completed
DDR	
30% DDR	6 Aug 2012
60% DDR	28 Nov 2012
90% DDR (ATR)	4 Mar 2013
P&S	
30% P&S	TBD
60% P&S	TBD
90% P&S	TBD
BCOE	TBD

General Calendar Year Schedule for Dexter Fish Facility Upgrade:

14 March 2012 – EDR Complete
May 2013 - Complete DDR
May 2014 - Complete P&S
March 2016 – Construction Complete
April 2016 – Facility Operational

5. AGENCY TECHNICAL REVIEW (ATR)

ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.). The objective of ATR is to ensure consistency with established criteria, guidance, procedures, and policy. The ATR will assess whether the analyses presented are technically correct and comply with published USACE guidance, and that the document explains the analyses and results in a reasonably clear manner for the public and decision makers. ATR is managed within USACE by the designated RMO and is conducted by a qualified team from outside 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. The ATR team lead will be from outside the home MSC.

a. Products to Undergo ATR.

The Engineering Documentation Report (EDR), Design Documentation Report (DDR), and Plans and Specifications (P&S) will undergo ATR. At this point in time the EDR is complete and the DDR is under development.

b. Required ATR Team Expertise.

The current ATR plan is to include at least 3 reviewers (Attachment 1). This number is based on the following disciplines required to develop the 60% and 90% Alternatives Reports:

ATR Team Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with experience in Civil Works construction projects and conducting ATRs. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process.
Hydraulics	The Hydraulics reviewer should be a senior engineer with either 20 years experience, or professional registration and 5 years experience, in hydraulic designrelated to fish passage.
Structural	The Structural reviewer should be a senior engineer with either 20 years experience, or professional registration and 5 years experience, in structural design and dam safety, including construction of new and/or modification of existing fish facilities..
Mechanical	The Mechanical reviewer should be a senior engineer with either 20 years experience, or professional registration and 5 years experience, in mechanical aspects of fish facilities.
Electrical	The reviewer should be a senior electrical engineer with experience in the electrical aspects of fish transportation facilities.
Cost/Const ruction	The Cost PCX Staff or Cost PCX Pre-Certified Professional should have experience with preparing cost estimates for the construction of new, or modification of existing, fish facilities.
Geotech/ Civil	The Civil/Geotechnical reviewer should have familiarity with civil design, geotechnical analyses, and material properties, with either 20 years experience, or professional registration and 5 years experience in civil design.. Specifically, the civil design will focus on alignment (horizontal and vertical), utility interface, and roadway repair; the geotechnical analyses includes drilled shafts (both on-land and in-water), spread footings, retaining walls, and excavations; the materials expertise requires familiarity with various concrete mixes and responses with other more traditional pipe materials.
Fish Biologist	The Fish Biologist reviewer should be a senior biologist with experience in aquatic ecosystem restoration, fish biology, and fish passage at hydroelectric projects.
Architect	The architectural reviewer should be a senior architect with either 20 years experience, or professional registration and 5 years experience, in architectural aspects of fish facilities.

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 be 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)

IEPR may be required for decision documents under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-209, 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 IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-209.

- 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.

a. **Decision on IEPR.** The estimated cost for this project is under $25M and the project is not unique, controversial, or precedent setting, so no IEPR is required.

7. POLICY AND LEGAL COMPLIANCE REVIEW

All decision 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. 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.

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

All decision documents shall be coordinated with the Cost Engineering DX, located in the Walla Walla District. The DX will assist in determining the expertise needed on the ATR team and Type I IEPR team (if required) and in the development of the review charge(s). The DX will also provide the Cost Engineering DX certification. The RMO is responsible for coordination with the Cost Engineering DX.

9. MODEL CERTIFICATION AND 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 (if required).

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

a. Planning Models. No planning models will be used.

10. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost.

Task	Date	Estimated Cost
EDR		
90% EDR	30 Jan 2012	$32,560
DDR		
90% DDR	4 Mar 2013	$35,000
P&S		
60% P&S	TBD	TBD
BCOE	TBD	TBD

11. PUBLIC PARTICIPATION. No public review is planned or required.

12. REVIEW PLAN APPROVAL AND UPDATES

The Portland District 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.

13. REVIEW PLAN POINTS OF CONTACT

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

- Jeff Ament, Portland District, 503-808-4713
- Steve Bredthauer, Northwestern Division, 503-808-4053

ATTACHMENT 1: TEAM ROSTERS

PROJECT DELIVERY TEAM ROSTER

NAME	DISCIPLINE
Jeff Ament	Project Manager
Kristy Fortuny	Technical Lead/Structural Engineer
Mike Crump	Structural Engineer
Kevin Hace	Structural Engineer
Dennis Petross	Structural Engineer
Derek McCurdy	Civil Engineer
Stephen Eagar	Civil Engineer (Geotech)
Jay Dallas	Mechanical Engineer
Joe Brackin	Electrical Engineer
Liza Roy	Hydraulic Design
Jeff A. Sedey	Construction/Cost Engineer
Dave Leonhardt	Biologist
Dave Griffith	Biologist
Gretchen Smith	Compliance
Dave Bardy	Operations
Anil Naidu	Operations
Greg Taylor	Operations

AGENCY TECHNICAL REVIEW TEAM ROSTER

NAME	DISCIPLINE
William Brad Ninnis	ATR Lead
Philip Auth	Mechanical Engineer
Curtin Been	Civil Engineer
Carl Bender	Cost/Construction
Bruce Collison	Structures
Stuart Gregory	Electrical Engineer
Steve Juhnke	Fisheries Biologist
Sean Mulligan	Hydraulics
Michael Schaffer	Geotechnical Engineer
Russell Thornton	Architect

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 Engineering Documentation Report (EDR) for Dexter Fish Facility Upgrade, 90% package.

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 DrChecks[sm].

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: *Describe the major technical concerns and their resolution.*

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

SIGNATURE _____ Date _____

William Brad Ninnis
ATR Team Leader
CESPK-ED-DS

SIGNATURE _____ Date _____

Christine M. Budai, P.G., C.E.G., P.M.P.
Project Manager
CENWP-PM-FP

SIGNATURE _____ Date _____

Lance A. Helwig, P.E.
Chief, Engineering and Construction Division
CENWP-EC

ATTACHMENT 3: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Design Documentation Report (DDR) for Dexter Fish Facility Upgrade, 90% package.

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 DrChecks^{sm}.

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows: *Describe the major technical concerns and their resolution.*

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

SIGNATURE _____ _____

William Brad Ninnis — Date
ATR Team Leader
CESPK-ED-DS

SIGNATURE _____ _____

Jeff Ament, P.E. — Date
Project Manager
CENWP-PM-F

SIGNATURE _____ _____

Lance A. Helwig, P.E. — Date
Chief, Engineering and Construction Division
CENWP-EC

ATTACHMENT 4: REVIEW PLAN REVISIONS

Revision Date	Description of Change	Page / Paragraph Number
10-23-12	Updated to include DDR and P&S Reviews	Throughout

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

NOTE: This attachment is optional. If included, it should define the acronyms used in the Review Plan. Acronyms used in this template or that might typically be used in a review plan (to be modified as necessary for specific review plans) are provided in the table below. DELETE THIS TEXT BOX BEFORE FINALIZING THE REVIEW PLAN.

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
Home District/MSC	The District or MSC responsible for the preparation of the decision document	RMC	Risk Management Center
HQUSACE	Headquarters, U.S. Army Corps of Engineers	RMO	Review Management Organization
IEPR	Independent External Peer Review	RTS	Regional Technical Specialist
ITR	Independent Technical Review	SAR	Safety Assurance Review
LRR	Limited Reevaluation Report	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act