# ATR REVIEW PLAN

## USING THE NWD ATR REVIEW PLAN TEMPLATE

**Project Name:** Mill Creek Wetland 5K Reach
**Project Location:** Auburn, WA
**Project P2 Number:** 142691
**Project Manager or POC Name:** Gordon Thomson
**NWD Original Approval Date:** 05 December 2012
**NWD Revision X Approval Date:** XX

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**General Document Information**

The first two pages of this document are the Cover sheet and the Table of Contents and are not numbered.

**Review Plan Template.** Information provided in **PAGES 3-8** is Review Plan Template information for ATR for Implementation Documents and Other Work Products. Do not alter. The controlled (approved) version of this template will be maintained on the NWD SharePoint site. Districts must use the most current version from the NWD SharePoint site and avoid shared versions outside of the NWD SharePoint. See the footer information in the template for document location.

**Attachment 1** provides the review plan Review Plan Specifics that supplement the RP Template. These specifics are prepared by the District team and as coordinated with the NWD.

**Attachment 2** provides acronyms and abbreviations for the document and may be altered as necessary.

Review Plan approval memorandums shall be documented with the RP and the dates recorded on the cover sheet.

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US Army Corps of Engineers ®

# DQC/ATR REVIEW PLAN

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## ATR Review Plan for
## Mill Creek Wetland 5K Reach

### 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 implementation documents, 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. Refer to the criteria provided below. 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

## 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:

(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) 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)?-Yes
2. Does it evaluate alternatives?-Yes
3. Does it include a recommendation?-Yes
4. Does it have a formal cost estimate?-Yes
5. Does it have or will it require a NEPA document?-Yes
6. Does it impact a structure or feature of a structure whose performance involves potential life safety risks?-No
7. What are the consequences of non-performance?
8. Does it support a significant investment of public monies?-Yes
9. Does it support a budget request?-Yes
10. Does it change the operation of the project?-No
11. Does it involve ground disturbances?-Yes
12. Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided?-No
13. Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions?-Yes
14. Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos? -No
15. Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc?-No
16. Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc?-No

17. Is there or is there expected to be any controversy surrounding the Federal action associated with the work product?-No

*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.

I. **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** for the products or project

## 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 Review Plan template 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 Review Plan specifics 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.

## 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.

**Reiterate Decision on Type II IEPR (SAR):** This document has stated this project does not involve the production of decision documents and therefore does not reiterate a decision to exclude Type I IEPR. The project covered under this plan is excluded from Type II IEPR (SAR) because it does not meet the Type II IEPR triggers and other factors necessary to consider as described in EC 1165-2-209. The District considered these risks and determined that **Type II IEPR (SAR) is not required** for the products or project.

It was determined that the approval of the parent project, the Green/Duwamish project, precluded the need for a Type 1 IEPR. Based on a risk assessment of the project, a Type II IEPR is not needed for any products associated with this project. Below is justification for why IEPR is not recommended:

Type II IEPR is not required for this review because there is no significant threat to human life, construction is less than $45 million, the Governor has not requested it, the project is not controversial, and the project is not a flood risk reduction or coastal storm damage project.

## A-1. PROJECT INFORMATION

a. **Study/Project Description.** This project is a separable element of the Duwamish/Green Ecosystem Restoration Project (ERP), authorized by Section 101(b)(26) of the Water Resources Development Act of 2000, Public Law 106-541, which lists the project as "DUWAMISH/GREEN, WASHINGTON. Mill Creek historically served as vital habitat for migrating salmon and provided ideal conditions for rearing and storm refuge. Due to agricultural and industrial activity, the Mill Creek region has lost this critical habitat. In many areas of Mill Creek the stream is straight, shallow, and does not offer quality riparian vegetation and in-channel structure. Thus, these areas are not able to function effectively as a rearing habitat and storm refuge channel for Endangered Species Act listed Chinook Salmon and Bull Trout. Restoration actions to improve rearing habitat and storm refuge at each of these sites would include: riparian enhancements, channel relocation and reconstruction, and woody debris additions. The overall restoration would extend from just upstream of the confluence with the Green River, to just downstream of Peasley Canyon, on the west side of SR 167.

Primary objectives:

- To re-establish the primary function of this segment of Mill Creek to serve for passage for anadromous salmonids (particularly the ESA-listed species of Chinook salmon, bull trout, and steelhead trout, to the extent present or known to exist in this system), but also for Coho salmon known to be present
- To establish accessible in and off-channel refugia for the fry and juveniles of these fish species, for rearing, cover, flood supply, and flood refuge, including those resident fish species possibly present (i.e., cutthroat trout).
- To eliminate invasive plants and noxious weeds (particularly reed canarygrass), with focus on doing so within the stream corridor and created off-channel refugia, and revegetation with native species

Secondary Objectives:

- To create an end state condition that can be effectively managed and maintained by the local sponsor as a functional ecological preserve (environmental park), and as an educational opportunity for residents of the City of Auburn
- To improve flood flows conveyance, including at roadway crossings, while managing those changes for compliance with the regional floodplain and floodway mapping and program regulations
- To maintain a level of stream corridor flood storage commensurate with the need to protect upstream, downstream, and adjacent properties from any potential increases in flood limits or flood flows, all consistent sponsor's flood management and storm water management plans
- To maintain design functionality of existing affected drainage control structures in the design reach
- To protect, incorporate or enhance existing wetlands mitigation sites in the project area
- To prevent adverse affects to adjacent properties, existing utilities and land uses

b. **Current Total Project Cost.** $6 million

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

| ATR Team Members/Disciplines | Expertise Required |
|---|---|
| ATR Lead | The ATR lead should be a senior professional with experience in ecosystem restoration and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. |
| Biologist | The environmental reviewer should be a senior biologist with experience in aquatic ecosystem restoration, fish biology, and fish passage. |
| Hydraulic Engineer | The hydraulics/hydrology reviewer should be a senior hydraulic engineer with experience in channel morphology and ecosystem restoration. |
| Civil Engineer | The civil reviewer should be a senior civil engineer with experience in roads and utilities construction. |
| Structural Engineer | The structural reviewer should be a senior structural engineer with experience in prefabricated box culverts. |
| Geotechnical Engineer | The geotechnical reviewer should be a senior geotechnical engineer with experience in road beds and channel restoration. |

## A-2. REVIEW SCHEDULES AND COSTS

### a. ATR Schedule.

| Review Milestone | Review Products | Date Planned |
|---|---|---|
| **95% ATR review** | 95% P&S; Design Analysis Report; Constructability Analysis Report | 16-31 November, 2012 |
| **95% backcheck** | 95% P&S; Design Analysis Report; Constructability Analysis Report | 1 – 15 December, 2012 |

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| Review Milestone | Review Products | Date Planned |
|---|---|---|
| ATR Certification | 95% P&S; Design Analysis Report; Constructability Analysis Report | 2 January. 2013 |

**b. ATR COSTS - Labor/Expenses.**

| Review Milestone | #reviewers/total hours | Approximate cost/hr | Totals |
|---|---|---|---|
| 95% ATR review | 6/120 | $100 | $12,000 |
| 95% backcheck | 6/48 | $100 | $4,800 |
| Total ATR costs | | | $16,800 |

**c. Engineering Models.** The following engineering models are anticipated to be used in the development of the implementation documents or other work products:

| Model Name and Version | Brief Description of the Model and How It Will Be Applied in the Study | Approval Status |
|---|---|---|
| HEC-RAS 4.0 | The Hydrologic Engineering Center's River Analysis System (HEC-RAS) program provides the capability to perform one-dimensional steady and unsteady flow river hydraulics calculations. This program was used for stream channel analysis | Certified |
| HY-8 | HY-8 is a computerized implementation of FHWA culvert hydraulic approaches and protocols. This model was used for culvert sizing analysis | Certified |

### 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 |
|---|---|---|---|---|
| Gordon Thomson | Project Manager | Senior Project Manager | Seattle District, US Army Corps of Engineers | 206-316-3966 |
| Stephen Bredthauer | RMO - Point of contact | Technical Review Program Manager | Northwestern Division, US Army Corps of Engineers | 503-808-4053 |

**A-4. ATR TEAM ROSTER** (complete when team members are identified). 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/Agency** | **email** | **Phone** |
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**A-5. 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-6 REVIEW PLAN REVISIONS**

| Revision Date | Description of Change | Page / Paragraph Number | Date Approved |
|---|---|---|---|
| Original | | | |
| Revision 1 | | | |
| | | | |

# ATR Review Plan for
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### ATTACHMENT 2

### B-1. ACRONYMS AND ABBREVIATIONS

| Acronyms | Defined |
|---|---|
| ATR | Agency Technical Review |
| CAP | 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 |
| PCX | 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) |