# REVIEW PLAN

**Skokomish River Basin, Mason County, Washington**
**Integrated Feasibility Report & Environmental Impact Statement**

**Seattle District**

**PCX Approval Date: September 8, 2011**
**MSC Approval Date: October 14, 2011**
**Last Revision Date: January 8, 2013**

US Army Corps
of Engineers ®

**REVIEW PLAN**

**Skokomish River Basin, Washington**
**Mason County, Washington**
**Ecosystem Restoration General Investigation Study**
**Integrated Feasibility Report/Environmental Impact Statement**

**TABLE OF CONTENTS**

## 1. PURPOSE AND REQUIREMENTS

**a. Purpose.** This Review Plan defines the scope and level of peer review for the for the Skokomish River Basin, Mason County, Washington, General Investigation - Integrated Feasibility Report (FR)/Environmental Impact Study (EIS).

**b. References**

(1) Engineering Circular (EC) 1165-2-214, Civil Works Review Policy, 15 Dec 2012
(2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2011
(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) Project Management Plan (PMP) for Feasibility Phase Study of Skokomish River Basin, Mason County, Washington

**c. Requirements.** This review plan was developed in accordance with EC 1165-2-214, which establishes an accountable, comprehensive, life-cycle review strategy for Civil Works products by providing a seamless process for review of all Civil Works projects from initial planning through design, construction, and operation, maintenance, repair, replacement and rehabilitation (OMRR&R). The EC outlines four general levels of review: District Quality Control/Quality Assurance (DQC), Agency Technical Review (ATR), Independent External Peer Review (IEPR), and Policy and Legal Compliance Review. In addition to these levels of review, decision documents are subject to cost engineering review and certification (per EC 1165-2-214) 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 peer review effort described in this Review Plan is the Ecosystem Restoration PCX (ECO-PCX).

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. STUDY INFORMATION

**a. Decision Document.** The integrated FR/EIS for Skokomish River Basin, Mason County, Washington is being undertaken to determine and evaluate alternatives related to ecosystem restoration within the Skokomish River Basin. The integrated FR/EIS will require approval from Major Subordinate Command (MSC), USACE Headquarters (HQUSACE), Chief of Engineers as well as Congressional authorization. The EIS will satisfy all requirements under the National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA).

**b. Study/Project Description.** The Skokomish River Basin is located in the southwestern portion of Puget Sound in northwestern Washington, primarily in Mason County and the Skokomish Indian

Reservation. The study intends to investigate ecosystem restoration actions that will restore habitat for three bird species and four salmonid species listed under the Endangered Species Act (ESA). The Skokomish Indian Tribe and Mason County are the non-Federal project sponsors.

Based on the estimate developed during the reconnaissance phase, the estimated implementation cost of the project is approximately $25,000,000.

**c. Factors Affecting the Scope and Level of Review.**

*Project Challenges, Risks, & Controversies*

The General Investigation (GI) is a designated priority project in the Skokomish River Basin and is strongly supported by the Washington Congressional Delegation, Washington State, local governments, Federal and State resource agencies, the Skokomish Watershed Action Team, the Hood Canal Coordinating Council, non-governmental organizations, businesses, and private landowners.

The integrated FR/EIS is likely to be challenged by the difficulty in determining current and future watershed conditions. Artificial riverine conditions were created by the construction of two non-Federal dams in the North Fork Skokomish River in the late 1920s. It is thought that the development of these structures has impeded flows in the mainstem Skokomish River and caused considerable amounts of sand and gravel to accumulate over time, which has resulted in increased flooding and an overall degradation of riverine habitat for salmonids. As a result of a lawsuit filed by the Skokomish Indian Tribe, the Federal Energy Regulatory Commission (FERC) has required new flow regimes to be established within the North Fork Skokomish below the dams to try to mitigate for the reduced flows and habitat conditions resulting from the operation of the dams. Until these new flow conditions are realized, it will be difficult to determine current or future watershed conditions. However, the owner of the dams on the North Fork, Tacoma Public Utilities (TPU), is a cooperating agency during the development and discussion of this study and will share flow regime information and habitat conditions resulting from the changes mandated by FERC.

Public and agency dispute is likely to arise due to the size, nature, and effects of potential restoration measures including riverine gravel removal. The following impacts may be expected if riverine gravel or sand removal is analyzed as a potential alternative:

- Economic impacts: operation and lifetime maintenance costs of gravel removal are paid in full by the sponsor
- Environmental impacts: potential substantial adverse impacts on fish and wildlife species or their habitat, prior to implementation of mitigation
- Social impacts: potential negligible adverse impacts on the scarce or unique tribal resources in the Skokomish River Basin
- Policy impacts: removal of river sediment for ecosystem restoration (as opposed to flood risk management).

*Interagency Interest*

Significant interagency interest is expected from, but not limited to the agencies listed below.

- National Aeronautical and Atmospheric Administration (NOAA) National Marine Fisheries Service NMFS)

- U.S. Fish and Wildlife Service
- U.S. Forest Service
- U. S. Bureau of Reclamation
- Washington State Department of Ecology
- Washington State Department of Transportation.

*Other Factors Affecting the Scope & Level of Review*

This project/study does not involve a significant threat to human life. Also, information in the decision document will not likely be based on novel methods, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices. The document is not expected to contain influential scientific information or be a highly influential scientific assessment.

**d. In-Kind Contributions.** Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC, ATR, and IEPR. The in-kind products and analyses to be provided by the non-Federal sponsor include:

(1) Project management
(2) Participation in scoping activities, including public meetings
(3) GIS support
(4) Product reviews
(5) Riparian/Wetlands surveys
(6) LWD & pool volume surveys
(7) Fisheries surveys
(8) Water Quality Analysis
(9) Cultural resources overview
(10) Real estate/title reports
(11) Land classification and ownership

## 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.

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

**b. Products to Undergo DQC.** All work products and reports, evaluations, and assessments shall undergo necessary and appropriate DQC, including NEPA documents, other environmental compliance products, and any in-kind services provided by the local sponsor. Additionally, the PDT is responsible for the quality and completeness of the document at each iteration of review.

**c. Required DQC Expertise.** DQC Reviewers shall include: Planning, Environmental, H&H, Economics, Cultural Resources, and HTRW. Reviewers shall be senior-level subject matter experts from Seattle District with experience in General Investigation studies for ecosystem restoration.

**5. BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, AND ENVIRONMENT (BCOE)**

In addition and concurrent to the DQC, all decision documents (including supporting data, analyses, environmental compliance documents, etc.) will be reviewed for biddability, constructability, operability, and environmental review. BCOE is an internal review of the engineering work products focused on the development of a project that can be successfully awarded for construction, constructed as designed, operated by the Sponsor as constructed , and has considered and resolved as many environmental impacts as practicable. The home district shall manage BCOE. Documentation of BCOE activities is required and should be in accordance with the Quality Manual of the District and the home MSC. BCOE reviews will occur at every design milestone to ensure that issues related to developing construction solicitations, managing construction, monitoring, operating, and maintaining the completed project are addressed as early in the design process as possible.

**a. Documentation of DQC.** DrChecks™ review software will be used to document all BCOE comments, responses, and associated resolutions accomplished throughout the review process. Relevant BCOE records will be provided to the ATR team during each ATR event and the ATR team will provide comments as to the adequacy of the BCOE effort for the associated product.

**b. Products to Undergo BCOE.** All work products and reports, evaluations, and assessments shall undergo necessary and appropriate BCOE, including NEPA documents, other environmental compliance products, and any in-kind services provided by the local sponsor. Additionally, the PDT is responsible the PDT is responsible for the quality and completeness of each iteration review document.

**c. Required DQC Expertise.** DQC Reviewers shall include cost engineers, construction planners and managers, operations experts, and environmental specialists. Reviewers shall be recognized subject matter experts from Seattle District with construction contract solicitation ion development and ecosystem restoration construction experience.

**6. 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.** Products requiring ATR include but are not limited to: Feasibility Scoping Meeting (FSM) documentation (completed October 2011); draft FR/EIS including appendices and environmental compliance documentation; final FR/EIS (optional; as determined by the Vertical

Team); and other interim key technical products such as necessary including hydrology, surveys, investigations, and environmental inventories.

**b. Required ATR Team Expertise.**

| ATR Team Members/Disciplines | Expertise Required |
|---|---|
| ATR Lead | The ATR lead should be a senior professional with extensive experience in preparing Civil Works decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. The ATR lead may also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc). ATR lead will be from outside the MSC. |
| Planning | The planning reviewer should be a senior water resources planner with experience in Ecosystem Restoration studies, General Investigation requirements (feasibility), feasibility reports, experience with Planning ERs and ECs, etc. |
| Economics | The economics reviewer should be a senior water resources economist with experience in economic analyses, Ecosystem Restoration studies, feasibility reports, Planning ERs and ECs, etc. The economics reviewer should also have experience with the HEC-FDA model for FRM and the IWR-Planning Suite model for cost effectiveness and incremental cost analysis (CE/ICA). |
| Environmental Resources | The environmental resources reviewer should be familiar with Northwest biology, specifically knowledge of salmonid species (spawning, rearing, freshwater migration), wetlands, riparian habitats, knowledge of riverine systems, etc. Experienced with NEPA, specifically EIS documentation. |
| Cultural Resources | The cultural resources reviewer should be knowledgeable of Northwest tribal cultures and archaeology and have Corps experience regarding cultural resources on public and tribal lands. |
| Hydrology & Hydraulics | The hydrology and hydraulics reviewer should have strong knowledge of river restoration. Knowledge of 1-D and 2-D hydraulic models, 1-D sediment transport models, river control structures, and large woody debris structures. |

**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.

The feasibility phase will include two ATR reviews. The ATR schedule and cost estimate is outlined in Section 11.a.

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.

## 7. 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 1165-2-214, 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 1165-2-214.

- 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 feasibility phase of the Skokomish River GI warrants a Type I IEPR, as the project has significant interagency interest, may be controversial, may have significant economic, environmental, and social effects, and requires an EIS. The primary focus of the IEPR will be to assess the adequacy and acceptability of the following:

- Economic and environmental assumptions and projections;
- Project evaluation data;
- Economic analyses;
- Environmental analyses;
- Formulation of alternative plans;
- Methods for integrating risk and uncertainty;
- Models used in the evaluation of hydraulic conditions, channel geomorphology, and flooding;
- Models used in the evaluation of economic or environmental impacts of proposed project;
- Biological opinions of the project study

**b. Products to Undergo Type I IEPR.** The draft FR/EIS submittal package will undergo IEPR during the public review, and prior to final approval. The IEPR will use appropriate analytical methods for each technical area. Additional review of key interim products will be determined as the study progresses, such as FSM or AFB documents.

**c. Required Type I IEPR Panel Expertise.** The IEPR panel will contain at least 5 reviewers. Reviewers will be selected by an Outside Eligible Organization and candidates may be nominated by the Corps. The likely disciplines and expertise required for IEPR are presented below. Each discipline will

review products related to their area of expertise and focus their review on the previously listed items. Additional technical areas requiring IEPR may be identified during the study/review process.

| IEPR Panel Members/Disciplines | Expertise Required |
|---|---|
| Planning | The planning reviewer should be an expert planner with experience in Ecosystem Restoration studies, General Investigation requirements (feasibility), alternatives formulation, feasibility reports, experience with Planning ERs and ECs, etc. |
| Economics | The Economics Panel Member should be an expert in the field of economics. Should be familiar with USACE economic analyses, Ecosystem Restoration studies, and feasibility reports. The economics panel member should also have experience with the HEC-FDA model for FRM and the IWR-Planning Suite model for cost effectiveness and incremental cost analysis (CE/ICA). |
| Environmental | The environmental panel member should be an expert in Northwest biology. Specifically, the panel member should have extensive knowledge of the following: salmonid biology (spawning, rearing, freshwater migration), wetlands, riparian habitats, riverine systems, restoration, and NEPA compliance. Experienced with NEPA specifically EIS documentation. |
| Hydraulic Engineering | The hydraulic engineering reviewer should have extensive knowledge of the hydraulic evaluation of river restoration actions. Knowledge of 1-D and 2-D hydraulic models, 1-D sediment transport models, river control structures, and large woody debris structures. |
| Civil Engineering | The civil engineering panel member should have extensive experience in river restoration. Examples of relevant experience include design and construction of levees, large woody debris structures, channel construction, fish passable weirs |
| Geomorphology | The geomorphology panel member should be an expert in riverine sediment transport. |

**d. Documentation of Type I IEPR.** The IEPR panel will be selected and managed by an Outside Eligible Organization (OEO) per EC 1165-2-214, Appendix D. Panel comments will be compiled by the OEO and should address the adequacy and acceptability of the economic, engineering and environmental methods, models, and analyses used. IEPR comments should generally include the same four key parts as described for ATR comments in Section 4.d above. The OEO will prepare a final Review Report that will accompany the publication of the final decision document and shall:

- 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; 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.

The final Review Report will be submitted by the OEO no later than 60 days following the close of the public comment period for the draft decision document. USACE shall consider all recommendations contained in the Review Report and prepare a written response for all recommendations adopted or not adopted. The final decision document will summarize the Review Report and USACE response. The Review Report and USACE response will be made available to the public, including through electronic means on the internet.

## 8. 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.

## 9. 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.

## 10. 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.** The following planning models are anticipated to be used in the development of the decision document:

| Model Name and Version | Brief Description of the Model and How It Will Be Applied in the Study | Certification / Approval Status |
|---|---|---|
| IWR Planning Suite | Software designed to assist with the formulation and comparison of alternative plans for ecosystem restoration. Performs Cost Effectiveness/ Incremental Cost Analysis (CE/ICA). | Certified |
| ERDC Model: Skokomish River Ecosystem Restoration Project – Environmental Benefits Analysis | The ERDC model will provide NER benefits by evaluating the following variables: management measure descriptions and their intended ecological effect; affected environment and/or processes; spatial extent; maintenance; and measure dependency. The model will generate units that will be entered into IWR-Planning Suite for the CE/ICA. | None; approval for one-time use will be sought. Model documentation and a separate Model Review Plan have been submitted to the Eco-PCX. |

**b. Engineering Models.** The following engineering models are anticipated to be used in the development of the decision document:

| Model Name and Version | Brief Description of the Model and How It Will Be Applied in the Study | Approval Status |
|---|---|---|
| HEC-RAS | 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. The program will be used for steady flow analysis and sediment transport to evaluate the future without- and with-project conditions along the Skokomish River and its tributaries. | HH&C CoP Preferred Model |
| Bureau of Reclamation 2-D Model: SRH-2D Version 2 | The BoR 2-D model will be used for existing conditions. The model will also evaluate how individual floods would be routed through the lower river and floodplain in relation to potential management alternatives developed in later stages of the study. | Approved for use based on an email from Christopher N. Dunn of Hydraulic Engineering Center (HEC), dated 10 December, 2009. |
| MCASES | USACE required cost estimating software | Certified |

**11. REVIEW SCHEDULES AND COSTS**

**a. ATR Schedule and Cost.** The ATR schedule and cost estimate is presented below.

| Task | Date | Estimated Cost |
|---|---|---|
| ATR of FSM Documents | September 2011 | $25,000 |
| ATR of draft FR/EIS (Prior to Agency Decision Milestone) | August 2013 | $45,000 |
| ATR of final FR/EIS (OPTIONAL; Prior to Final Report Milestone) | December 2014 | $15,000 |
| | | |
| Total: | | $85,000 |

**b. Type I IEPR Schedule and Cost.** The IEPR schedule and cost estimate is presented below.

| Task | Date | Estimated Cost |
|---|---|---|
| PCX Coordination of IEPR | February 2013 | $15,000 |
| Type I IEPR of draft FR/EIS (Prior to Agency Decision Milestone) | August 2013 | $175,000* |
| | | |
| Total: | | $190,000 |

*Estimated contract for 6 reviewers

**c. Model Certification/Approval Schedule and Cost.** Model approval will be coordinated with the ECO-PCX. Model documentation will be provided to the ATR team during the FSM review. The ECO-PCX will be charged with reviewing and commenting on the technical and system quality of the model and will also review the application of the model. After all review comments pertaining to the model have been addressed, the ECO-PCX will recommend model approval. The model approval schedule and cost estimate is presented below.

| Model | Date | Estimated Cost |
|---|---|---|
| Environmental Outputs Model | 2nd Qtr 2013 | $150,000 |
| | | |
| Total: | | $150,000 |

## 12. PUBLIC PARTICIPATION

The public will be invited to comment directly to the PDT through informal and formal public scoping meetings and public review comment periods programmed into the feasibility schedule. This includes a public review of the draft FR/EIS (public review occurs concurrently with ATR, IEPR, and HQ policy reviews). Public input will be available to the ATR and IEPR teams to ensure public comments have been considered in development of the draft and final FR/EIS.

This RP and the accompanying PMP will be posted to the District web site for public review once it is approved by the MSC.

## 13. REVIEW PLAN APPROVAL AND UPDATES

The Northwestern Division Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input (involving district, MSC, RMO, and HQUSACE

members) as to the appropriate scope and level of review for the decision document. Like the PMP, the Review Plan is a living document and may change as the study progresses. The home district is responsible for keeping the Review Plan up to date. Minor changes to the review plan since the last MSC Commander approval are documented in Attachment 3. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, should be posted on the Home District's webpage. The latest Review Plan should also be provided to the RMO and home MSC.

**14. REVIEW PLAN POINTS OF CONTACT**

**ATTACHMENT 1: TEAM ROSTERS**

## ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS

### COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the *<type of product>* for *<project name and location>*. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-214. 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™.

*SIGNATURE* _____ Date _____
*Name*
ATR Team Leader
*Office Symbol/Company*

*SIGNATURE* _____ Date _____
*Name*
Project Manager
*Office Symbol*

*SIGNATURE* _____ Date _____
*Name*
Architect Engineer Project Manager[1]
*Company, location*

*SIGNATURE* _____ Date _____
*Name*
Review Management Office Representative
*Office Symbol*

### 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 _____
*Name*
Chief, Engineering Division
*Office Symbol*

*SIGNATURE* _____ Date _____
*Name*
Chief, Planning Division
*Office Symbol*

[1] Only needed if some portion of the ATR was contracted

**ATTACHMENT 3: REVIEW PLAN REVISIONS**

| Revision Date | Description of Change | Page / Paragraph Number |
|---|---|---|
| 28 September 2011 | Updated ATR & IEPR Schedule | Page 11 |
| 14 October 2011 | Updated RP to reflect change of project purpose. The GI is a single-purpose study (ecosystem restoration) that may identify ancillary flood risk management benefits of proposed alternatives. | Throughout Document |
| 8 January 2013 | Updated RP to reflect SMART Planning Milestones & Schedule | Throughout Document |
| | | |
| | | |

**ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS**

| Term | Definition | Term | Definition |
|---|---|---|---|
| AFB | Alternative Formulation Briefing | NED | National Economic Development |
| ASA(CW) | Assistant Secretary of the Army for Civil Works | NER | National Ecosystem Restoration |
| ATR | Agency Technical Review | NEPA | National Environmental Policy Act |
| CSDR | Coastal Storm Damage Reduction | O&M | Operation and maintenance |
| DPR | Detailed Project Report | OMB | Office and Management and Budget |
| DQC | District Quality Control/Quality Assurance | OMRR&R | Operation, Maintenance, Repair, Replacement and Rehabilitation |
| DX | Directory of Expertise | OEO | Outside Eligible Organization |
| EA | Environmental Assessment | OSE | Other Social Effects |
| EC | Engineer Circular | PCX | Planning Center of Expertise |
| EIS | Environmental Impact Statement | PDT | Project Delivery Team |
| EO | Executive Order | PAC | Post Authorization Change |
| ER | Ecosystem Restoration | PMP | Project Management Plan |
| 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 |