

# **REVIEW PLAN**

**Boise River, Idaho  
Interim Feasibility Report**

**Walla Walla District**

**MSC Approval Date: 23 June 2011**

**Last Revision Date: *29 April 2011***



**US Army Corps  
of Engineers®**

**REVIEW PLAN**

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Interim Feasibility Report***

**TABLE OF CONTENTS**

1. PURPOSE AND REQUIREMENTS ..... 3

2. REVIEW MANAGEMENT ORGANIZATION (RMO) COORDINATION ..... 3

3. STUDY INFORMATION ..... 4

4. DISTRICT QUALITY CONTROL (DQC) ..... 6

5. AGENCY TECHNICAL REVIEW (ATR) ..... 6

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR) ..... 9

7. POLICY AND LEGAL COMPLIANCE REVIEW ..... 10

8. COST ENGINEERING DIRECTORY OF EXPERTISE (DX) REVIEW AND CERTIFICATION ..... 10

9. MODEL CERTIFICATION AND APPROVAL ..... 10

10. REVIEW SCHEDULES AND COSTS ..... 12

11. PUBLIC PARTICIPATION ..... 12

12. REVIEW PLAN APPROVAL AND UPDATES ..... 12

13. REVIEW PLAN POINTS OF CONTACT ..... 13

ATTACHMENT 1: TEAM ROSTERS ..... 13

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECISION DOCUMENTS ..... 14

ATTACHMENT 3: REVIEW PLAN REVISIONS ..... 15

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS ..... 16

## 1. PURPOSE AND REQUIREMENTS

- a. **Purpose.** This review plan defines the scope and level of peer review for the Boise River, Idaho General Investigation (GI) feasibility study. The feasibility study will be conducted in two phases consistent with the current Feasibility Cost Sharing Agreement (FCSA) with the Project Sponsor. This review plan addresses review activities to occur in the first, or interim, feasibility phase. The product to be reviewed is a draft Interim Feasibility Report and supporting analyses. This review plan will be revised upon completion of the interim feasibility phase and identification of a Sponsor interested in partnering to complete the feasibility study.

This review plan (RP) is a component of the Lower Boise River Interim Feasibility Study Project Management Plan (PMP), amended October 2010. It will be referenced as an appendix to any future updates to the PMP.

### 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) Boise River Basin Interim Feasibility Study PMP (revised October 2010)
- (6) Feasibility Cost Sharing Agreement (FCSA) for Lower Boise River Interim Feasibility Study (29 May 2009)
- (7) Walla Walla District Quality Management Plan, 22 May 2009 (NWWOM 5-1-10)

- 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), 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 1165-2-209) 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 peer review effort described in this Review Plan is the home MSC – Northwestern Division (NWD) since the review is for a draft Interim Feasibility Report and not a formal or traditional feasibility decision document. 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.

PCXs that are anticipated to be involved in review of feasibility study decision documents in a future phase include FRM-PCX, WMR-PCX, and ECO-PCX .

### **3. STUDY INFORMATION**

#### **a. Decision Document.**

The Boise River, Idaho is a feasibility study being conducted in two phases. This review plan identifies review activities for the first phase, referred to as an interim feasibility study. The interim feasibility phase will not complete a decision document and have no direct Federal implementation action. The interim feasibility phase will culminate with the completion of an Interim Feasibility Report which will describe or contain

- 1) Water resource problems, issues and opportunities
- 2) Existing conditions
- 2) Future without Project
- 3) Current flood risk
- 4) Engineering design and cost estimates for three possible surface water storage sites, and
- 5) PMP to complete the feasibility study

This review plan identifies the review process for the draft Interim Feasibility Report and supporting analyses. The approval level for the Interim Feasibility Report will be the home MSC – NWD.

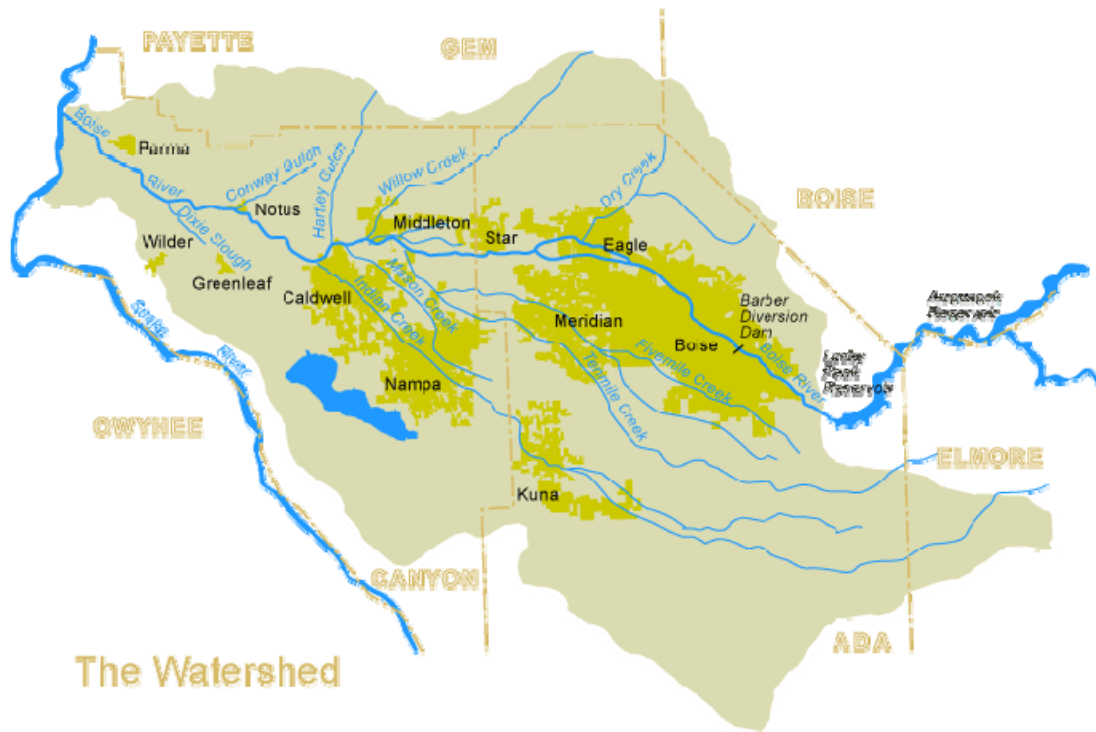
The non-Federal partner is the Idaho Water Resource Board (IWRB), with technical assistance provided by staff at the Idaho Department of Water Resources.

The second phase of the feasibility study will result in preparation of a feasibility report and environmental impact statement in accordance with ER 1105-2-100. The approval level of these decision documents (if policy compliant) will be the HQUSACE. At this time, a sponsor and scope of work has not been identified to complete the feasibility study. This review plan will be revised upon completion of the interim feasibility phase which will more clearly define the scope of feasibility activities.

#### **b. Study/Project Description.**

The Boise River is located entirely in Idaho, and is a tributary to the Snake River (Figure 1). The lower Boise River basin is located primarily within Ada and Canyon counties, but includes small portions of Boise, Elmore, Gem, and Payette counties, as well. Cities within the study area include Boise, Garden City, Meridian, Eagle, Star, Nampa, Middleton, Caldwell, Notus, and Parma.

The Boise River GI is being conducted under the authority of Section 414, Water Resources Development Act (WRDA) of 1999, authorizing a feasibility study for flood control on the Boise River; and Section 4038, WRDA 2007, modifying the 1999 authority to include ecosystem restoration and water supply as project purposes.



**Figure 1. Study Area - Boise River, Idaho GI**

The Boise River watershed contains the largest population center in the Walla Walla District. The Corps' Lucky Peak Project is located on the river upstream of Boise, Idaho, along with the Bureau of Reclamation's Boise Project (Anderson Ranch and Arrowrock dams). The Corps and Reclamation operate the three Federal dams as a system to manage flood risk and provide irrigation. Both the Boise River reservoir system and a discontinuous levee system provide a level of flood reduction well below the 1-percent flood, only providing flood protection for up to a 3-percent chance event (approximately a 35-year recurrence interval). The Boise River floodplain contains significant development within the 1-percent floodplain and development continues. As a result, the lower Boise River is in the high flood risk category as the potential for and the consequences of a flood are both high.

Both the Corps and IWRB have investigated water resource issues in the lower Boise River in previous studies. The Corps most recently completed a Reconnaissance Study for the lower Boise River in 1995 and 2001 that identified water resources problems and needs in the areas of flood control, water supply and quality, ecosystem restoration, and recreational safety.

In May 2009, the Corps and the IWRB entered into an agreement to initiate the first, or interim, phase of a two-phased feasibility study. The scope of the interim feasibility phase includes

- 1) Documenting existing conditions, including flood risk;
- 3) Describing the Future without Project;
- 4) Providing technical information about surface water storage as one potential measure that could reduce flood risk and provide future water supply; and
- 5) Developing a PMP to complete the feasibility study.

The interim feasibility study is estimated to cost \$1.74 million dollars. The cost of the full feasibility study and design and implementation phase is yet to be determined

The second phase of the feasibility study will evaluate additional measures and combine them into alternatives to meet multiple planning objectives. Other measures, in addition to water storage, will be considered to address flood risk concerns, including bypass channels, levees, and nonstructural options. Measures to provide future water supply, improve water quality, restore or improve riparian and aquatic ecosystems, and provide additional recreational opportunities will also be examined. The full range of measures and alternatives that will be examined in the second phase have not been determined.

During this second feasibility phase, extensive environmental and technical analyses to address social, natural resource, cultural, and other effects will be conducted. The second phase will be crafted to meet the requirements of the National Environmental Policy Act, Endangered Species Act, and other environmental laws and regulations. It is during this phase that a feasibility report and appropriate NEPA document will be prepared. A new agreement with future sponsors will be required to complete the feasibility study.

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

The Interim Feasibility Report will not be a decision document. No Federal implementation actions will be proposed. The scope will identify baseline conditions and collect information about one potential measure to meet planning objectives.

**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: spatial information and analysis using a Geographic Information System. In-kind support will also be provided for public involvement activities. All in-kind work products will undergo review by the PDT for a determination of adequacy; products will ultimately undergo DQC.

**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 will be in accordance with the Walla Walla District Quality Management Plan – NWWOM 5-1-10 (22 May 2009) and the home MSC.

**Documentation of DQC.** Compliance with DQC requirements will be documented through use of the appropriate checklist(s) contained in the Addendums to Appendix D of the Walla Walla District Quality Management Plan – NWWOM 5-1-10 (22 May 2009).

**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.** ATR will be performed throughout the study in accordance with the District and MSC Quality Management Plans. Certification of the ATR will be provided prior to the District Commander signing the final report. Products to undergo ATR are the draft Interim Feasibility Report and supporting analyses including
- One-dimensional river channel hydraulic model output for the lower Boise River reach from Diversion Dam (New York Canal) downstream to the head of Eagle Island.
  - Economic analyses including updates to flood damages prevented curves.
  - Preliminary plan formulation including 'Future without Project' description.
  - Engineering design (15 percent) and cost estimates for three surface water storage facilities.

**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). The ATR Lead must be from outside the NWD.
Planning	The planning reviewer should be a senior water resources planner with experience in plan formulation for flood risk reduction and water supply projects.
Economics	The economics reviewer should be senior level professional with experience conducting flood damage assessments and application of HEC-FDA planning model.
Hydrology/Hydraulics	This reviewer should be a senior level hydrologist or hydraulic engineer proficient with river and reservoir hydraulics and associated one dimensional models, and hydrologic statistics. The reviewer will have a thorough knowledge of computer modeling techniques that will be used such as HEC-RAS.
Geotechnical Engineering	The geotechnical reviewer will be a senior level civil engineer familiar with embankment stability and seepage analyses, planning analysis, and a number of other closely associated technical subjects.
Structural Engineering	
Cost Engineering	The cost engineering expert will be a Cost DX Pre-Certified Professional with experience preparing costs estimates for dam construction using MCACES/Mii.

**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 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) 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, and MSC), 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.** This review plan identifies the necessary levels of review for the interim feasibility phase of this study. There is not sufficient information in this phase to evaluate the criteria used to determine the need for and type of IEPR. The full scope of the feasibility study is currently unknown. No decision document will be prepared in this interim feasibility phase.

Based on this information and information in the preceding paragraphs, an IEPR is not applicable to the interim feasibility phase products. An assessment of IEPR requirements will occur again when the next phase to complete the feasibility study occurs. The review plan will be revised accordingly when the full feasibility scope is known.

- b. Products to Undergo Type I IEPR.** Not applicable to interim feasibility phase.
- c. Required Type I IEPR Panel Expertise.** Not applicable to interim feasibility phase.
- d. Documentation of Type I IEPR.** Not applicable to interim feasibility phase.

The IEPR panel will be selected and managed by an Outside Eligible Organization (OEO) per EC 1165-2-209, 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.

## **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 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. Since the Walla Walla Cost Engineer is included on the Boise River GI PDT team, a Cost DX Pre-certified located outside Walla Walla District office will participate on the ATR team.

## **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.** The following planning models are anticipated to be used in the development of the Interim Feasibility Report.

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
HEC-FDA 1.2.4 (Flood Damage Analysis)	The Hydrologic Engineering Center’s Flood Damage Reduction Analysis (HEC-FDA) program provides the capability for integrated hydrologic engineering and economic analysis for formulating and evaluating flood risk management plans using risk-based analysis methods. The program will be used to update flood damages prevented curves.	Certified

- b. **Engineering Models.** The following engineering models are anticipated to be used in the development of the Interim Feasibility Report.

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Approval Status
Example: HEC-RAS 4.0 (River Analysis System)	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 to produce water surface profiles for the 10-, 2-, 1-, 0.2- percent chance flood, and floodway for steady flow conditions.	HH&C CoP Preferred Model
MCACES	This is a cost estimating model that was developed by Building Systems Design Inc. The Corps began using the model in 1989. This software will be used to estimate construction costs for three surface water storage sites based on 15 percent engineering design.	Certified

## 10. REVIEW SCHEDULES AND COSTS

**ATR Schedule and Cost.** . An ATR of the draft Interim Feasibility Report and its supporting analyses will occur prior to its release for public review. The ATR is estimated to cost \$47,000 to include review by the external ATR team and resolution of ATR comments by the PDT. Current schedule for conducting the ATR is

Agency Technical Review	August 1 - 19, 2012
Address ATR / Sponsor Comments	August 22 - September 9, 2012
Back Check and Closeout	September 12 – 30, 2012

- a. **Type I IEPR Schedule and Cost.** Not applicable to interim feasibility phase products.
- b. **Model Certification/Approval Schedule and Cost.** Not applicable. All models are certified or approved for use.

## 11. PUBLIC PARTICIPATION

State and Federal resource agencies will be invited to participate in the study covered by this review plan as partner agencies or as technical members of the PDT, as appropriate. Agencies with regulatory review responsibilities will be contacted for coordination as required by applicable laws and procedures. The ATR team will be provided copies of public and agency comments. Public information meetings will be conducted on two separate occasions during the interim feasibility phase of this GI study. The first set of meetings will occur early in the study to inform the public about study initiation, scope and schedule, and provide an opportunity to provide input on preliminary surface water storage screening analysis results. A second set of public meetings will occur upon completion of a draft Interim Feasibility Report to provide public review and comment opportunity prior to finalization of the document.

A mailing list will be developed of Federal, State and local agencies and governments, Tribes, non-governmental organizations (NGOs), and other interested stakeholders. Contacts on the mailing list will be notified through U.S. Postal Service or electronic mail about study status and availability of draft and final documents. Fact sheets and documents will be posted on the study web page located at: <http://www.nww.usace.army.mil/Boise/BRIFS/default.asp>.

## 12. REVIEW PLAN APPROVAL AND UPDATES

The NWD Commander is responsible for approving this review plan. The Commander's approval reflects vertical team input (involving district, MSC, and RMO members) as to the appropriate scope and level of review for the 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:

- Ellen Berggren, Project Manager, Walla Walla District, Boise Outreach Office, 208-345-2065
- Valerie Ringold, DST Planner, Northwestern Division, 503-808-3984

### ATTACHMENT 1: TEAM ROSTERS

#### Boise River Interim Feasibility Study Phase PDT Team

First	Last	Discipline	Phone	Email
Ellen	Berggren	Project Manager	208-345-2065	<a href="mailto:Ellen.M.Berggren@usace.army.mil">Ellen.M.Berggren@usace.army.mil</a>
Cindy	Boen	Plan Formulation	509-527-7246	<a href="mailto:Cindy.A.Boen@usace.army.mil">Cindy.A.Boen@usace.army.mil</a>
Brandon	Hobbs	Hydrology	208- 345-2969	<a href="mailto:Brandon.W.Hobbs@usace.army.mil">Brandon.W.Hobbs@usace.army.mil</a>
Nathan	Pierson	Geotech	208-342-1215	<a href="mailto:Nathan.R.Pierson@usace.army.mil">Nathan.R.Pierson@usace.army.mil</a>
Jarrold	Milligan	Structural	509-527-7616	<a href="mailto:Jarrod.H.Milligan@usace.army.mil">Jarrod.H.Milligan@usace.army.mil</a>
Carl	Bender	Cost Estimating	509-527-7542	<a href="mailto:Carl.C.Bender@usace.army.mil">Carl.C.Bender@usace.army.mil</a>
Sandy	Shelin	Environmental Coordinator	509-527-77265	<a href="mailto:Sandy.L.Shelin@usace.army.mil">Sandy.L.Shelin@usace.army.mil</a>
Jon	Renholds	Hydraulics	509-527-7263	<a href="mailto:Jon.F.Renholds@usace.army.mil">Jon.F.Renholds@usace.army.mil</a>
Craig	Newcomb	Economics	509-527-7296	<a href="mailto:Craig.A.Newcomb@usace.army.mil">Craig.A.Newcomb@usace.army.mil</a>
Theresa	Hampson	Office of Counsel	509-527-7264	<a href="mailto:Theresa.L.Hampson@usace.army.mil">Theresa.L.Hampson@usace.army.mil</a>

#### MSC Team

First	Last	Discipline	Phone	Email
Valerie	Ringold	DST Planner		<a href="mailto:Valerie.A.Ringold@usace.army.mil">Valerie.A.Ringold@usace.army.mil</a>

#### ATR Team

First	Last	Discipline	Years Experience	Phone	Email
TBD		ATR Manager/Plan Formulation			<a href="mailto:@usace.army.mil">@usace.army.mil</a>
TBD		Hydraulics/ Hydrology			<a href="mailto:@usace.army.mil">@usace.army.mil</a>
TBD		Economics			<a href="mailto:@usace.army.mil">@usace.army.mil</a>
Pat	Miramontes	Cost engineering <sup>1</sup>			<a href="mailto:@usace.army.mil">@usace.army.mil</a>
TBD		Civil/Geotechnical engineering			<a href="mailto:@usace.army.mil">@usace.army.mil</a>

<sup>1</sup> Proposed - PDT includes Cost Engineer located in from Walla Walla District. Requesting cost engineering expert located outside of Walla Walla District.

**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 Interim Feasibility Report and supporting analyses for Boise River , Idaho. 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<sup>sm</sup>.

*SIGNATURE*

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Name  
ATR Team Leader  
Office Symbol/Company

\_\_\_\_\_  
Date

*SIGNATURE*

---

Ellen M. Berggren  
Project Manager  
CENWW-PM-PD

\_\_\_\_\_  
Date

*SIGNATURE*

---

Name  
Architect Engineer Project Manager<sup>1</sup>  
Company, location

\_\_\_\_\_  
Date

*SIGNATURE*

---

Name  
Review Management Office Representative  
Office Symbol

\_\_\_\_\_  
Date

**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*

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Name  
Chief, Engineering Division  
Office Symbol

\_\_\_\_\_  
Date

*SIGNATURE*

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Name  
Chief, Planning Division  
Office Symbol

\_\_\_\_\_  
Date

<sup>1</sup> Only needed if some portion of the ATR was contracted

**ATTACHMENT 3: REVIEW PLAN REVISIONS**

<b>Revision Date</b>	<b>Description of Change</b>	<b>Page / Paragraph Number</b>

**ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS**

<u>Term</u>	<u>Definition</u>	<u>Term</u>	<u>Definition</u>
AFB	Alternative Formulation Briefing	NEPA	National Environmental Policy Act
ASA(CW)	Assistant Secretary of the Army for Civil Works	NGO	Non-governmental Organization
ATR	Agency Technical Review	NWD	Northwestern Division
CSDR	Coastal Storm Damage Reduction	NWW	Walla Walla District
DPR	Detailed Project Report	O&M	Operation and maintenance
DQC	District Quality Control/Quality Assurance	OMB	Office and Management and Budget
DX	Directory of Expertise	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
EA	Environmental Assessment	OEO	Outside Eligible Organization
EC	Engineer Circular	OSE	Other Social Effects
ECO	Ecosystem Restoration	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
FCSA	Feasibility Cost Share Agreement		
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
GI	General Investigation	RED	Regional Economic Development
GRR	General Reevaluation Report	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
IDWR	Idaho Water Resource Board	SAR	Safety Assurance Review
ITR	Independent Technical Review	SET	Scientific and Engineering Technology
LRR	Limited Reevaluation Report	USACE	U.S. Army Corps of Engineers
MSC	Major Subordinate Command	WRDA	Water Resources Development Act
NED	National Economic Development	WMR	Water Management and Reallocation
NER	National Ecosystem Restoration		