

**REVIEW PLAN**

**Gooding Flood Control Project, Little Wood River, Gooding, Idaho  
Reconstruction Feasibility Report**

**Walla Walla District**

**MSC Approval Date:** Pending  
**Last Revision Date:** None



**US Army Corps  
of Engineers®**

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## 1. PURPOSE AND REQUIREMENTS

a. **Purpose.** This Review Plan defines the scope and level of peer review for the Gooding Flood Control Project, Little Wood River Reconstruction Feasibility Report.

### b. References

- (1) Engineering Circular (EC) 1165-2-209, Civil Works Review Policy, 31 Jan 2010
- (2) EC 1105-2-412, Assuring Quality of Planning Models, 31 Mar 2010
- (3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
- (4) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007
- (5) Little Wood River Project Management Plan
- (6) Walla Walla District Quality Management Plan)

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 Flood Risk Management 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. Although this project is authorized for ecosystem restoration it is not anticipated that the RMO will need to coordinate with the Ecosystem PCX due to the limited number of ecosystem features of the project. As described in the Type I IEPR exemption justification this project has little (if any) life safety issues so it is not anticipated the RMC will have a role in the review.

## 3. STUDY INFORMATION

a. **Decision Document.** The purpose of the Gooding Flood Control Project, Little Wood River, Gooding, Idaho Reconstruction Feasibility Report is to determine that rehabilitation of the Gooding Canal is not required as a result of improper operation and maintenance of the project by the non-Federal interest. Also, that rehabilitation and ecosystem restoration of the channel is feasible, and in the Federal Interest. The document integrates plan formulation with documentation of environmental effects and serves as the Environmental Assessment (EA) to satisfy the requirements of the National Environmental Policy Act (NEPA) of 1969, as amended. Per Section 3057 of WRDA 2007, the

decision document is not required to include economic justification. However, the alternatives considered are analyzed and described in sufficient detail to demonstrate why the recommended plan is the most cost effective solution for rehabilitating the Gooding Canal. Implementation Guidance requires the feasibility report to be submitted to HQUSACE through the NWD RIT for review and approval in accordance with Appendix H of ER 1105-2-100.

- b. Study/Project Description.** The study area is located along approximately one mile of the Little Wood River in a basalt canal (Gooding Canal) located in the center of Gooding, Idaho, which is approximately 98 miles east-southeast of Boise (see Figure 1 below). Section 3057 of WRDA 2007 directs the Secretary to rehabilitate the originally authorized project under the emergency conservation work program established under the Act of March 31, 1933 (16 U.S.C. 585 et seq.). Construction of the Gooding Canal was completed by the Civilian Conservation Corps (CCC) in 1941. The basalt wall of the Gooding Canal is in severe disrepair and poses a flood risk to the City Gooding (the non-Federal sponsor). The Corps has attempted to repair the wall under a number of authorities in the past, but has been unsuccessful due to the City's inability to cost-share.



Figure 1. Location of Gooding, ID

Features of the project will include slight realignment of the canal to improve conveyance, reconstruction of the canal wall using best management practices (BMPs) to mitigate social, cultural, and environmental concerns, the replacement of six bridge crossings, and potential restoration features that will not increase flood risk or require additional real estate. As previously mentioned, it is anticipated that ecosystem restoration features will be quite limited due to planning constraints. The authorized amount of this project to plan, design, and construct is \$9,000,000.

The current authorized purposes of the project include flood control and ecosystem restoration. The authorization also includes provisions that feasibility costs in excess of \$100,000 be shared 50 percent Federal and 50 percent non-Federal through an executed Feasibility Cost-Sharing Agreement (FCSA); and existing information from previous studies be used to the maximum extent possible during preparation of the feasibility study. Upon report approval, the design and construction phase will be conducted under the provisions of a Project Partnership Agreement (PPA) and will be cost-shared in the same percentage as the construction of the original project. As in the original project, the costs of lands, easements, rights-of-way, relocations, and disposal area (LERRDs); and operation, maintenance, repair, and rehabilitation (OMR&R) shall be a non-Federal responsibility. The NWD RIT will coordinate the necessary HQ level review and submit the PPA to the ASA(CW) for approval.

**Factors Affecting the Scope and Level of Review.** It is the policy of USACE that decision documents should undergo Type I IEPR unless ALL of the following criteria are met. It is not anticipated that Type I IEPR will be required for this project. The following is a list of the criteria that require IEPR and justifications of how this project meets each criterion. This table is to be used in making a risk informed decision on the use of Type I IEPR for the Gooding Flood Control Project, Little Wood River Reconstruction project.

Criteria	Justification
1. Federal action is not justified by life safety or failure of the project would not pose a significant threat to human life;	The Little Wood River Channel Rehabilitation project purpose is to rehabilitate an existing channel that is deteriorating due to age and design. The wall provides protection from the risks of damages caused by flooding and erosion. The threat to human life would be the same with or without the project
2. Life safety consequences and risk of non-performance of a project are not greater than under existing conditions;	The with-project conditions will provide reduced risk to the non-performance of the project. The purpose of this project is not to provide additional flood risk, however the risk of wall failure and the resulting damages caused by erosion and flooding will be lessened
3. There is no request by the Governor of an affected state for a peer review by independent experts;	A request for IEPR has not been requested at this time, and it is anticipated that a request will not happen
4. The project does not require an EIS;	An EA will be prepared for this project
5. The project/study is not likely to involve significant public dispute as to the size, nature, or effects of the project;	This project is essentially rehabilitating a channel that previously exist, and as such significant public dispute is not anticipated

Criteria	Justification
6. The project/study is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project;	This project is essentially rehabilitating a channel that previously exists, and as such significant public dispute is not anticipated. Economics and environmental cost/benefits play a minor role in this study
7. The information in the decision document or anticipated project design is not likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices;	The proposed measures to rehabilitate the existing channel wall are typical methods, techniques, and materials for designing and implementing a channel in an urban setting. No precedent-setting methods or models are anticipated
8. The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule;	The design and construction of this project will be straightforward. Unique construction sequencing is not anticipated and the risks to the schedule are low
9. There are no other circumstances where the Chief of Engineers or Director of Civil Works determines Type I IEPR is warranted.	Non anticipated at his time

It is understood that if Type I IEPR will not be performed and that the following conditions may need to be met.

- Risks of non-performance and residual flooding must be fully disclosed in the decision document and in a public forum prior to final approval of the decision document;
- The non-Federal sponsor must explicitly acknowledge the risks and responsibilities in writing in a letter or other document (such as the Floodplain Management Plan) submitted to the Corps of Engineers along with the final decision document.

The decision on whether the above criteria are met (and a Type I IEPR exclusion is appropriate) is the responsibility of the MSC Commander

#### **TYPE II IEPR**

It is expected that Type II IEPR will not be necessary during the design and implementation phase of this project. The following is a list of the criteria that require Type II IEPR (described in Paragraph 2 of Appendix E of EC 1165-2-209), and justifications of how this project meets each criterion. This table is to be used in making a risk informed decision on the use of Type II IEPR for the Little Wood River Channel Rehabilitation project.

Criteria	Justification
1. The Federal action is justified by life safety or failure of the project would pose a significant threat to human life	The Little Wood River Channel Rehabilitation project purpose is to rehabilitate an existing channel that is deteriorating due to age and design. The wall provides protection from the risks of damages caused by flooding and erosion. The threat to human life is very low for this project. The threat to human life would be the same with or without the project
2. 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 proposed measures to rehabilitate the existing channel wall are typical methods, techniques, and materials for designing and implementing a channel in an urban setting. No precedent-setting methods or models are anticipated
3. The project design requires redundancy, resiliency, and/or robustness; and the project has unique construction sequencing or a reduced or overlapping design construction schedule	The design and construction of this project will be straightforward. Unique construction sequencing is not anticipated and the risks to the schedule are low

- c. The decision on whether the above criteria are met (and a Type II IEPR exclusion is appropriate) is the responsibility of the MSC Commander
- d. The following are additional factors that will influence the scope and level of review for the Little Wood River, Gooding Channel Rehabilitation project:
  - The total project cost is authorized at \$9 million;
  - The project does not require an Environmental Impact Statement (EIS),
  - The project/study is not likely to involve significant public dispute as to the size, nature, or effects of the project;
  - The project/study is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project;
  - The information in the decision document or anticipated project design is not likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices;
  - The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule.
  - Other agencies will be involved as necessary, however their participation is expected to be limited due to the nature of this being a rehabilitation project that will have little impact to fish and wildlife or other agency mission areas. The other agencies will be involved in ecosystem restoration scoping to determine how to best provide opportunities for increased quality and quantity of habitat.

For the following reason IEPR may be necessary during implementation however, it is not anticipated during the study phase;

- The project may involve a threat to human life/safety assurance , however it is not determined to be significant;

**e. 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: real estate record searches and assistance with public involvement as described in the PMP.

#### **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.** DQC comments will be compiled in a Microsoft Word table or Excel spreadsheet format, and should follow the Corps' four part comment structure which includes: statement of concern, basis for concern, significance of concern, and a recommended action. The final DQC review package will be provided to the ATR Team.

#### **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 for the Feasibility Scoping Meeting (FSM) documentation, Alternative Formulation Briefing (AFB) documentation, Draft Report (including NEPA/environmental compliance documentation and technical appendixes), and Final Report (including NEPA/environmental compliance documentation and technical appendixes). The applicable Real Estate Plan (REP) and Cost Schedule Risk Analysis (CSRA) and cost summary sheet are included as well.

**b. Required ATR Team Expertise.** The Agency Technical Review Team (ATRT) will be comprised of individuals that have not been involved in the development of the decision document and will be chosen based on expertise, experience, and/or skills. The members will roughly mirror the composition of the PDT and, wherever possible, reside outside of the Northwestern Division region. It is anticipated that the team will consist of approximately seven reviewers. The ATRT Lead will be outside the home MSC as required by EC1105-2-410 (or new EC1165-2-209). The ATRT members will be identified at the time the review is conducted and will be presented in Attachment 1.

ATR Team Members/Disciplines	Expertise Required
ATR Manager/Plan Formulation	Plan formulation for flood risk reduction and ecosystem restoration projects, familiarity with the "Planning Guidance Notebook" (ER-1105-2-100) and the Water Resources Council's Principals and Guidelines.
Environmental Resources	Integration of environmental evaluation and compliance requirements pursuant to the "Procedures for Implementing NEPA" (ER 200-2-2), national environmental statutes, applicable executive orders, and other Federal planning requirements, into the planning of Civil Works projects. Also includes Sec 7 ESA and Sec 106 of NHPA
Hydrology and Hydraulics	Hydrologist or hydraulic engineer proficient with river and stream hydraulics, and associated models, risk and uncertainty analysis, and a number of other closely associated technical subjects as these relate to flood risk and ecosystem restoration features.
Civil Design	Civil engineer with experience in designing river canal features, ecosystem restoration features and is familiar with river morphology, planning analysis, and a number of other closely associated technical subjects.
Economics	Analysis of demographics, land use, recreation analysis, the P&G accounts, as well as national ecosystem restoration (NER) associated with flood risk reduction and ecosystem restoration.
Cost Engineering <sup>1</sup>	Cost estimating specialist competent in cost estimating for both construction and ecosystem restoration using MCACES/MII; working knowledge of construction and environmental restoration; capable of making professional determinations based on experience.
Real Estate/Lands	Real estate specialist familiar with real estate valuation, gross appraisal, utility relocations, takings and partial takings as needed for implementation of Civil Works projects.

<sup>1</sup>Coordination with the USACE Cost Engineering Directory of Expertise (DX) located in the Walla Walla District will be conducted as required by CECW-EC memo dated 10 Sep 2007 and CECW-CP memo dated 19 Sep 2007.

**c. Documentation of ATR.** DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. Comments should be limited to those that are required to ensure adequacy of the product. The four key parts of a quality review comment will normally include:

- (1) The review concern – identify the product’s information deficiency or incorrect application of policy, guidance, or procedures;
- (2) The basis for the concern – cite the appropriate law, policy, guidance, or procedure that has not be properly followed;
- (3) The significance of the concern – indicate the importance of the concern with regard to its potential impact on the plan selection, recommended plan components, efficiency (cost),

- effectiveness (function/outputs), implementation responsibilities, safety, Federal interest, or public acceptability; and
- (4) The probable specific action needed to resolve the concern – identify the action(s) that the reporting officers must take to resolve the concern.

In some situations, especially addressing incomplete or unclear information, comments may seek clarification in order to then assess whether further specific concerns may exist.

The ATR documentation in DrChecks will include the text of each ATR concern, the PDT response, a brief summary of the pertinent points in any discussion, including any vertical team coordination (the vertical team includes the district, RMO, MSC, and HQUSACE), and the agreed upon resolution. If an ATR concern cannot be satisfactorily resolved between the ATR team and the PDT, it will be elevated to the vertical team for further resolution in accordance with the policy issue resolution process described in either ER 1110-1-12 or ER 1105-2-100, Appendix H, as appropriate. Unresolved concerns can be closed in DrChecks with a notation that the concern has been elevated to the vertical team for resolution.

At the conclusion of each ATR effort, the ATR team will prepare a Review Report summarizing the review. Review Reports will be considered an integral part of the ATR documentation and shall:

- Identify the document(s) reviewed and the purpose of the review;
- Disclose the names of the reviewers, their organizational affiliations, and include a short paragraph on both the credentials and relevant experiences of each reviewer;
- Include the charge to the reviewers;
- Describe the nature of their review and their findings and conclusions;
- Identify and summarize each unresolved issue (if any); and
- Include a verbatim copy of each reviewer's comments (either with or without specific attributions), or represent the views of the group as a whole, including any disparate and dissenting views.

ATR may be certified when all ATR concerns are either resolved or referred to the vertical team for resolution and the ATR documentation is complete. The ATR Lead will prepare a Statement of Technical Review certifying that the issues raised by the ATR team have been resolved (or elevated to the vertical team). A Statement of Technical Review should be completed, based on work reviewed to date, for the AFB, draft report, and final report. A sample Statement of Technical Review is included in Attachment 2.

## **6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)**

IEPR may be required for decision documents under certain circumstances. IEPR is the most independent level of review, and is applied in cases that meet certain criteria where the risk and magnitude of the proposed project are such that a critical examination by a qualified team outside of USACE is warranted. A risk-informed decision, as described in EC 1165-2-209, is made as to whether IEPR is appropriate. IEPR panels will consist of independent, recognized experts from outside of the USACE in the appropriate disciplines, representing a balance of areas of expertise suitable for the review being conducted. There are two types of IEPR:

- Type I IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study. For decision documents where a Type II IEPR (Safety Assurance Review) is anticipated during project implementation, safety assurance shall also be addressed during the Type I IEPR per EC 1165-2-209.
  - Type II IEPR. Type II IEPR, or Safety Assurance Review (SAR), are managed outside the USACE and are conducted on design and construction activities for hurricane, storm, and flood risk management projects or other projects where existing and potential hazards pose a significant threat to human life. Type II IEPR panels will conduct reviews of the design and construction activities prior to initiation of physical construction and, until construction activities are completed, periodically thereafter on a regular schedule. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.
- a. **Decision on IEPR.** According to EC 1165-2-209 Paragraph 11, 1-3 the only aspect of this study that may trigger the requirement of Type I IEPR is the risk to life, however this is a rehabilitation project of an existing project and it is not expected that the threat to human life is significant. Therefore, request for exemption from IEPR is requested. The level of effort of this project is comparable to a Section 205 project under the Continuing Authorities Program (CAP). The RP for a project under that authority states decision documents should undergo Type I IEPR unless ALL of the following criteria are met. Although this project is not a CAP Section 205 project it is very similar in size and scope. It is not anticipated that Type I IEPR will be necessary because the project does meet all of the following criteria.
- Federal action is not justified by life safety or failure of the project would not pose a significant threat to human life;
  - Life safety consequences and risk of non-performance of a project are not greater than under existing conditions;
  - There is no request by the Governor of an affected state for a peer review by independent experts;
  - The project does not require an EIS;
  - The project/study is not likely to involve significant public dispute as to the size, nature, or effects of the project;
  - The project/study is not likely to involve significant public dispute as to the economic or environmental cost or benefit of the project;
  - The information in the decision document or anticipated project design is not likely to be based on novel methods, involve the use of innovative materials or techniques, present complex challenges for interpretation, contain precedent-setting methods or models, or present conclusions that are likely to change prevailing practices;
  - The project design is not anticipated to require redundancy, resiliency, and/or robustness, unique construction sequencing, or a reduced or overlapping design construction schedule; and

- There are no other circumstances where the Chief of Engineers or Director of Civil Works determines Type I IEPR is warranted.

The decision on whether the above criteria are met (and a Type I IEPR exclusion is appropriate) is the responsibility of the MSC Commander. Additional factors the MSC Commander might consider include in deciding if an exclusion is appropriate include, but are not limited to: Hydrograph / period of flooding, warning time, depth of flooding, velocity of flooding, nature of area protected, and population protected.

Type II IEPR will not be required during implementation of this project as it does not address flood risk reduction management measures. This project is only replacing the current level of flood risk and it is not the project purpose or objective to change that flood risk level. The same level of risk to public health, safety and welfare will be the same with the proposed project as it was with the project that this one is rehabilitating.

If IEPR is applicable, it is currently estimated to cost \$150,000, which has not been budgeted for nor funded. IEPR is a project cost, while the IEPR panel review cost is currently 100% federally funded, the current economic climate may prohibit efficient execution of the PMP schedule if IEPR is indeed required. In-house costs associated with obtaining the IEPR panel contract as well as responding to IEPR comments will be cost shared expenses and has also not been negotiated into the FCSA ready for execution. It is not anticipated that the public, including scientific or professional societies, will be asked to nominate potential external peer reviewers.

**b. Products to Undergo Type I IEPR.** Not-Applicable

**c. Required Type I IEPR Panel Expertise.** Not-Applicable

**d. Documentation of Type I IEPR.** Not-Applicable.

## **7. POLICY AND LEGAL COMPLIANCE REVIEW**

All decision documents will be reviewed throughout the study process for their compliance with law and policy. Guidance for policy and legal compliance reviews is addressed in Appendix H, ER 1105-2-100. These reviews culminate in determinations that the recommendations in the reports and the supporting analyses and coordination comply with law and policy, and warrant approval or further recommendation to higher authority by the home MSC Commander. DQC and ATR augment and complement the policy review processes by addressing compliance with pertinent published Army policies, particularly policies on analytical methods and the presentation of findings in decision documents.

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

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

## **9. MODEL CERTIFICATION AND APPROVAL**

EC 1105-2-412 mandates the use of certified or approved models for all planning activities to ensure the models are technically and theoretically sound, compliant with USACE policy, computationally accurate, and based on reasonable assumptions. Planning models, for the purposes of the EC, are defined as any models and analytical tools that planners use to define water resources management problems and opportunities, to formulate potential alternatives to address the problems and take advantage of the opportunities, to evaluate potential effects of alternatives and to support decision making. The use of a certified/approved planning model does not constitute technical review of the planning product. The selection and application of the model and the input and output data is still the responsibility of the users and is subject to DQC, ATR, and IEPR (if required).

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

**a. Planning Models.** 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 V.1.0.11.0	This is an economic planning model certified by the Corps, which assists with the formulation and comparison of alternative plans. It assists with plan formulation by combining solutions to planning problems and calculating the additive effects of each combination. It will compare the cost effectiveness and incremental cost of each plan, identifying the plans that are the best financial investments and displaying the effects of each on a range of decision variables.	Certified
HEC-FDA (Flood Damage Analysis)	The Hydrologic Engineering Center’s Flood Damage Reduction Analysis (HEC-FDA) program may be used to provide the capability for integrated hydrologic engineering and economic analysis for formulating and evaluating flood risk management plans using risk-based analysis methods, if necessary. The program will be used to evaluate and compare the future without- and with-project plans along the Gooding Canal.	Certified

**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 (River	The Hydrologic Engineering Center’s River Analysis System	HH&C CoP

Analysis System)	(HEC-RAS) program provides the capability to perform one-dimensional steady flow river hydraulics calculations. The program will be used for steady flow analysis to evaluate the future without- and with-project conditions along the Little Wood River, Gooding Channel.	Preferred Model
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## 10. REVIEW SCHEDULES AND COSTS

- a. **ATR Schedule and Cost.** Milestones for products to undergo ATR are to be determined by the PDT. Delay in the FCSA execution due to HQ review has led to project schedule delay. Currently, it is uncertain when remaining funding to complete the decision document may be utilized. Dates will be revised when funding is known. For scheduling and budgeting purposes it the ATR is estimated to cost \$15,000. This cost includes the time necessary for the review of the report and for model approval (if applicable) and the milestone products. Coordination with the RMO is requested to complete the requirements of ATR.
- b. **Type I IEPR Schedule and Cost.** Not-Applicable
- c. **Model Certification/Approval Schedule and Cost.** All the models anticipated to be used are already certified or approved for use.

## 11. PUBLIC PARTICIPATION

The public will be invited to comment directly to the PDT through public meetings and public review periods programmed into the feasibility schedule. A public meeting was held in September of 2010 where the Public provided input on the problems, opportunities, and objectives of the project.

State and Federal resource agencies may 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. ATR and IEPR (as applicable) reviewers will be provided with all public comments.

Upon completion of the review period, comments will be consolidated in a matrix and addressed, if needed. A summary of the comments and resolutions will be included in the document

## 12. 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.

## 13. REVIEW PLAN POINTS OF CONTACT

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

- Mark Mendenhall, Project Manager, 208.345.2064
- Gene Sturm, FRM-PCX Regional Manager, 402.995.2691
- Eric Thaut, FRM-PCX Program Manager, 415.503.6852

**ATTACHMENT 1: TEAM ROSTERS**

**PROJECT DELIVERY TEAM**

**AGENCY TECHNICAL REVIEW TEAM**

<b>Name</b>	<b>Discipline</b>	<b>Phone</b>	<b>Email</b>
TBD	ATR Manager/Plan		
TBD	Environmental Resources		
TBD	Hydrology and Hydraulics		
TBD	Civil Design		
TBD	Economics		
TBD	Cost		
TBD	Real Estate		

**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 Feasibility Report for Gooding Flood Control Project, Little Wood River, Gooding, 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 \_\_\_\_\_  
Name  
ATR Team Leader  
Office Symbol/Company

\_\_\_\_\_  
Date

SIGNATURE \_\_\_\_\_  
Mark Mendenhall  
Project Manager  
CENWW-PM-PD

\_\_\_\_\_  
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 \_\_\_\_\_  
X  
Chief, Engineering Division  
CENWW-EC-D

\_\_\_\_\_  
Date

SIGNATURE \_\_\_\_\_  
Rebecca Kalamasz  
Chief, Planning Division

\_\_\_\_\_  
Date

CENWW-PM-PD

<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**

<b>Term</b>	<b>Definition</b>	<b>Term</b>	<b>Definition</b>
AFB	Alternative Formulation Briefing	NED	National Economic Development
ASA(CW)	Assistant Secretary of the Army for Civil Works	NER	National Ecosystem Restoration
ATR	Agency Technical Review	NEPA	National Environmental Policy Act
CSDR	Coastal Storm Damage Reduction	O&M	Operation and maintenance
DPR	Detailed Project Report	OMB	Office and Management and Budget
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DX	Directory of Expertise	OEO	Outside Eligible Organization
EA	Environmental Assessment	OSE	Other Social Effects
EC	Engineer Circular	PCX	Planning Center of Expertise
EIS	Environmental Impact Statement	PDT	Project Delivery Team
EO	Executive Order	PAC	Post Authorization Change
ER	Ecosystem Restoration	PMP	Project Management Plan
FDR	Flood Damage Reduction	PL	Public Law
FEMA	Federal Emergency Management Agency	QMP	Quality Management Plan
FRM	Flood Risk Management	QA	Quality Assurance
FSM	Feasibility Scoping Meeting	QC	Quality Control
GRR	General Reevaluation Report	RED	Regional Economic Development
Home District/MSD	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