

INDEPENDENT TECHNICAL REVIEW (ITR) PLAN and EXTERNAL PEER REVIEW (EPR) DOCUMENT WALLA WALLA RIVER BASIN FEASIBILITY STUDY WALLA WALLA DISTRICT

1. PURPOSE

This document presents the process that assures quality products for the Walla Walla River basin Feasibility Study (WWRBFS), General Investigation (GI) Feasibility Study. This Independent Technical Review/External Peer Review Plan (ITR/EPR) defines the responsibilities and roles of each member on the study and technical review team. This is for a Ecosystem Restoration project (single purpose).

The product to be reviewed by the technical review team is the Feasibility Report combined with an Environmental Impact Statement. Under the provisions of new Corps of Engineers policy, as detailed in EC1105-2-408 dated May 31, 2005, the ITR/EPR will be conducted by specialists from organizations outside of the district responsible for the study. ITR will be conducted for all decision documents and will be independent of the technical production of the project. This ITR/EPR Plan is, by reference, a part of the PMP for this Feasibility Study.

2. APPLICABILITY

This document provides the program of technical review for the Feasibility Study. It identifies quality control processes and independent technical review for all work to be conducted under this study authority, including in-house, sponsor and contract work.

3. REFERENCES

- EC1105-2-408 “Peer Review of Decision Documents” dated May 31, 2005
- ER 1105-2-100 “Planning Guidance Notebook & Appendices D, F, G & H”

4. GENERAL

This ecosystem Restoration project is different than many other COE efforts. Usually "restoration", in the context of the COE, is restoring the wetlands, or returning the meander to the stream by setting the levee back. Here we are trying to address the primary limiting factor for environmental benefits in the basin, which is a lack of stream flows (largely due to irrigation withdrawals) in Oregon and Washington. We are looking at one "traditional" measure, that of storage (a dam), but we are also developing other less traditional concepts.

Buying Water Rights

One of the non-traditional measures is buying water rights from willing sellers. The sponsor (or the states, under a trust program) would hold any water right purchased (not the COE). We are having the sponsor undertake all of these activities, as a LERRD.

They in-turn, are sub-contracting with local water trusts in each state who have experience in this field. It is highly unlikely that implementation of this measure alone would lead to obtaining goals for environmental restoration.

Offstream Storage

Building a dam for the benefit of the environment (as a primary purpose) is also a unique approach. This would be done as a water exchange: The irrigators would take water from the dam (which was stored during the winter during higher flows); this would allow water to stay instream during the time when flows are needed for anadromous fish.

Irrigation Efficiency

Irrigation ditches in the area are like those throughout the west: Earth lined and therefore leaky. Some ditches lose 50% or more of their water from their diversion point to where the water is actually applied to the crop. The concept is to put this water in the pipe, and take the water that is “saved” and leave it in the river as instream flow.

However, this will have detrimental effect to the shallow aquifer, as there are those (groundwater users) who have become dependent upon this “waste”. These impacts will have to be quantified and resolved.

Water Exchange

This scenario involves taking water from the Columbia River, pumping it uphill to irrigation users all the way to Milton-Freewater, Oregon (with 2-3 drop off points prior to then). The irrigators then use this water, and in return do not divert that amount of water from live flow in the Walla Walla River.

There will be many landowners affected by this from a real estate perspective, although that is hoped to be mitigated by burying the pipe for most of its length. This measure will also have a high O&M cost. Legal issues surrounding states rights in water law will also have to be resolved.

Shallow Aquifer Recharge

SAR is being pushed by the local community, as they feel it is a way to mimic flows that once occurred in the basin during the winter when high flows were present. In the Milton-Freewater area, the Walla Walla River comes out of the mountains onto an alluvial fan. Many of these small branches have now been converted into irrigation ditches (over the course of 100 years of agriculture development). There is testing currently going on to release water into these ditches to see if it will infiltrate back into the shallow aquifer, at a time and place desired (done by the local watershed council).

It is anticipated that the Preferred Alternative will be some combination of the above options. Implementation costs will likely be in the range of \$200-400k for the final project. Thus it is anticipated that an EPR will take place.

5. REVIEW REQUIREMENTS

Initial review will be handled within the Section or Branch performing the work or by staff when it involves in-kind services. Additional review will be performed by the PDT during the course of completing the Feasibility Study. The detailed checks of computations and methodology should be performed at the District level, and the processes for this level of review are well established.

Pursuant to EC1105-2-408, this Feasibility Report study will also need to have a Corps EPR team assigned by the Planning Center of Expertise (PCX) for Ecosystem Restoration Projects. It is anticipated that this team will be assigned by Dr. David Vigh of CEMVD-RB-T.

Given the significant Ecosystem Restoration component to this study, coordination with the appropriate PCX for Ecosystem Restoration is recommended. It is further recommended that the ITR be handled within the Walla Walla District, as the scope and technical complexity warrant an External Peer Review (EPR).

As a result, the ITR would focus on:

- Review of the planning process and criteria applied.
- Review of the methods of preliminary analysis and design.
- Compliance with client, program and NEPA requirements.
- Completeness of preliminary design and support documents.
- Spot checks for interdisciplinary coordination.

An external peer review is planned for the draft final FR and EA for the following reasons: (a) the innovative idea of addressing instream flow (which is synonymous with habitat for western streams where water is critical), (b) the potential combinations of measures, (c) environmental importance of the project area, with ESA listed species and (d) to ensure the continued public/agency trust of the Corps hydrologic and hydraulic modeling for the without-project condition and expectation of the preferred alternative.

PCX Points-of-Contact:

David Vigh	601/634-5854
Camie Knollenberg	309/794-5487
Susan Smith	601/634-5827

6. REVIEW PROCESS

It is anticipated that the EPR Team Review Process will begin after the EPR Team has received comments from the release of the draft EIA/FR, and will initially cover the Project Management Plan and the models to be used in the analysis. The EPR team would review the final draft of the FR/EIS. The ITR & EPR teams will be determined by NWD and the PCX. ITR will be done by members outside of the Walla Walla District; the ITR leads will be outside of NWD. This has been coordinated with the PDT and NWD. Dr. Checks will be used for the ITR and is required along with a suggestion that it be used for the EPR as well. It is suggested that a review panel be set up for the EPR.

Its is anticipated that the same number of reviewers will be needed as there are team members: Ten (10) Their disciplines will be the same as the PDT members listed above: Project Manager, NEPA lead, Hydrology, Fisheries/Wildlife, Soils/Civil Engineering, Hydraulics, Real Estate, Archeology, Economics, Recreation/Aesthetics.

As alternative plans are formulated, the Review Process will focus on data, assumptions and the engineering, scientific, economic, social & environmental analysis process. Major Review Process milestones will include the preparation for the Alternative Formulation Briefing.

Model certification will be done by PCX. It is anticipated that this should not be a large issue, as the IFIM (Instream Flow, Incremental Methodology) model being used has been in use by the US Fish & Wildlife Service since the mid-1970s, and has been reviewed in many legal cases.

7. REVIEW COST

The cost of the EPR is estimated to be about \$50,000. The cost of the ITR would be \$20,000 or less.

8. REVIEW SCHEDULE

TASK START DATE FINISH DATE

1. Develop EPR Plan, to PCX	11-July 07	to	3-August 07
2. Identify Regional/National EPR resources	6-August 07	to	24-August 07
3. Recommend EPR Plan to PCX	25-September 07		
4. PCX Approves & Assigns EPR Team	30- September 07	to	30-Oct 07
5. Review of Models	October 07		
6. Preparation for AFB	1-Jan-08		31-Jan-08
7. Alternative Formulation Briefing	15-Feb-08		28-Feb-08
8. Release draft EIS/FR to Public	June-08		
9. Provide public comments to EPR team	July-08		
10. EPR team conducts review	1-Aug-08		30-Aug-08

9. PEER REVIEW PLAN

The components of the Peer Review Plan were developed pursuant to the requirements of EC1105-2-408.

A. Basic Information

The decision documents that will be the ultimate focus of the peer review process are the Feasibility Report and the Environmental Assessment for the Walla Walla River Basin Feasibility Study, General Investigation. The purpose of the decision document will be to begin the approval process leading to the authorization to begin Plans & Specifications.

B. Scientific Information

Based upon the self-evaluation by the PDT, it is likely that the Corps report to be disseminated will contain influential scientific information. This project is innovative in that it would be supplying instream flows as a way of providing habitat and also addressing the primary limiting factor in the river.

Legal issues will also be important for this study, as state water law will be a key factor, and there are two states involved (Oregon and Washington).

C. Timing

The EPR Review process is envisioned to begin in the summer of FY08 with an assessment of key models to be used in the evaluation and comparison of alternative plans in this feasibility study. It is currently anticipated that the alternative plans will be evaluated using IWR-Plan Decision Support Software a model developed by IWR. IWR-Plan employs cost effective and incremental cost analysis for decision making. It is anticipated that work would start by May, 2008.

D. Public Comment

Public involvement is anticipated throughout the Feasibility Study. The Sponsor (The Confederated Tribes of the Umatilla Indian Reservation) has already established a relationship with the key stakeholders for this Feasibility Study. It is anticipated that this group will form the nucleus of additional input from the citizens of the region. The public involvement process is expected to occur as follows:

TASK START DATE FINISH DATE

- | | | |
|---|-------------|---------|
| 1. Meet with sponsor and key stakeholders | 10 May 02 | Ongoing |
| 2. Public Coordination with Draft EA | FY08 & FY09 | |

E. Reviewers

It is anticipated that the following reviewers total should be available in the these disciplines:

<u>Discipline</u>	<u>Reviewer</u>
Review Team Leader	TBD
Plan Formulation	TBD
Environmental Compliance	TBD
Cultural Resources	TBD
Geotechnical	TBD
Economic Evaluation	TBD
Cost Engineering	TBD
Real Estate	TBD
Legal	TBD
Civil Design	TBD
Structures	TBD
Hydraulics and Hydrology	TBD
Sponsor – CTUIR	TBD

F. Review Disciplines

The following additional qualifications should be noted for these specific disciplines:

- **Biology and Ecosystem** – The reviewer should have a solid background in the issue of water and instream flows, and understand the factors that influence the reestablishment of native species of plants and animals. They need to have a complete understanding of the life history of salmonids in the Pacific NW, especially anadromous fish. Will also need to know specifics of requirements for the Endangered Species Act.
- **Legal**—Need to understand what the constraints of western water law provide (particularly for Oregon and Washington). Need to understand that while COE will not be responsible for implementing changes to water law, we need to know all of the issues that will be faced and the risks involved.
- **Cost Estimating**: Cost estimates will be coordinated with NWW Cost Estimating Center of Expertise.