QUALITY CONTROL (QC) AND INDEPENDENT TECHNICAL REVIEW (ITR) PLAN

1.0 PURPOSE

This Review Plan presents the process that assures quality products for the Upper Susquehanna River Basin Cooperstown, Section 567 Feasibility Study. This Quality Control Plan (QCP) and Internal Team Review (ITR) Plan define the responsibilities and roles of each member on the study and technical review team.

The product to be reviewed by the technical review team is the integrated Feasibility Report. Under the provisions of new U.S. Army Corps of Engineers (USACE) policy, as detailed in EC1105-2-408 dated May 31, 2005, the ITR 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.

2.0 APPLICABILITY

This document provides the Quality Control Plan 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.

3.0 REFERENCES

EC 1105-2-408 “Peer Review of Decision Documents” (May 31, 2005)
EC 1105-2-407 “Planning Models Improvement Program: Model Certification” (May 31, 2005)
EC 1105-2-409 “Planning in a Collaborative Environment” (May 31, 2005)
ER 1105-2-100 “Planning Guidance Notebook & Appendices”

4.0 GENERAL PROJECT DESCRIPTION

The project is authorized under Section 567 of WRDA 1996, as amended, and is an on-going regional effort by Federal, State, and local agencies to solve a wide-range of water resources problems throughout the Upper Susquehanna River Watershed (USRW). The project is located in the USRW, Pennsylvania and New York. The Upper Susquehanna River Basin-Cooperstown area suffers from poor water quality from excessive sedimentation and nutrients, degraded aquatic habitat, and a lack of functional riparian areas. The purpose of the feasibility study is to develop a strategy for using wetland restoration, soil and water conservation practices, and non-structural measures to reduce flood damage, improve water quality, and create wildlife habitat, present the evaluation of potential solutions that will enhance water resources of the region, and identify ecosystem restoration plans for implementation.

5.0 REVIEW REQUIREMENTS

Initial Quality Control (QC) review will be handled within the Section or Branch performing the work or by the staff in the corresponding Sponsor Department when it involves In-Kind

Services. Additional QC will be performed by the Project Delivery Team (PDT) during the course of completing the integrated 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 EC 1105-2-408, item 2 c (2), Models used in the preparation of decision documents covered by this Circular will be reviewed in accordance with EC 1105-2-407, Planning Models Improvement Program: Model Certification, are not subject to the requirements of this [1105-2-408] Circular. The uses and applications of models in individual studies that lead to the preparation of decision documents covered by this Circular will be reviewed in accordance with the requirements of this Circular.

Pursuant to EC 1105-2-408, the integrated Feasibility Report will need an ITR team assigned by the Planning Center of Expertise (PCX) for Environmental Restoration (National Ecosystem Planning) Projects. Dr. Dave Vigh (CEMVD-RB-T) will be assign this team. It is recommended that the ITR be handled entirely within USACE, as the scope and level of technical complexity do not warrant an External Peer Review (EPR), based upon the initial Risk Screening Process conducted by the PDT noted in Section 9. The study is will not be challenging, controversial or precedent setting, nor does it have highly significant national importance. As a result, the ITR will focus on:

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

6.0 REVIEW PROCESS

It is anticipated that the ITR Team Review Process will begin after the ITR Team has been assigned, and will cover the draft report that has already been submitted to HQUSACE. Since this draft report was submitted to HQUSACE in December 2005 as a project that was grandfathered and not required to undergo ITR, and since recent guidance, dated March 30, 2007, removes that status, the ITR will only cover the draft and final report submissions.

7.0 REVIEW COST

The cost of the ITR is to be determined in conjunction with the PCX. It is assumed that documents to be reviewed will be transmitted electronically. Comments will be made and addressed in Dr. Checks or other electronic format. It is also assumed that the external ITR team will be working virtually.

8.0 REVIEW SCHEDULE

Note that since the commencement of this study preceded the requirement for PCX involvement and development of this Review Plan, the review schedule below does not match the major review process milestones discussed above.

TASK	START DATE	FINISH DATE
Develop ITR Plan & post to Web Site, PCX	20-March-07	30-May-07
Identify Regional ITR resources & Recommend ITR Plan to PCX	TBD	
PCX Approves or Assigns ITR Team	TBD	
Review of Models	N/A	

9.0 PROJECT RISK

The PDT members were asked to assess the risk associated with this project based upon five factors and rate the project quantitatively among five levels of project risk of failure ranging from low to high (risk score class). The PDT scored each Project Risk Item in the Review Plan Score Guide (Table 9.1) and calculated an overall Average Project Risk Assessment Score. The exact value of the scores were not as important as compared to what risk score class (low, medium or high) the Average Project Risk Assessment Score was classified. Based upon the PDT analysis, the project is moderate (medium) in risk because it did not receive an overall high risk score.

The PDT considered previous District project experience when making this analysis. No attempt was made to tie this to a national scale of rating. The Project Schedule and Cost were assessed as a low degree of risk if they both remained flexible and a high degree of risk if the Project schedule and cost was fixed. Staff Technical Experience was assessed as a low degree of risk if the staff had a high level of ecosystem restoration experience and a high degree of risk if the staff had a low level of ecosystem restoration experience. The results of the evaluation are tabulated as follows:

Table 9.1 Review Plan Score Guide

Project Risk Item	**Risk Assessment Score (Low Degree to High Degree)**					**Score**
	Low		Medium		High	
Project Complexity	1	2	3	4	5	3
Customer Expectations	1	2	3	4	5	2
Product Schedule/Cost	1	2	3	4	5	2
Staff Technical Experience	1	2	3	4	5	4
Failure Impact and Consequences	1	2	3	4	5	2
Average Project Risk Assessment Score						**2.6 (Medium Risk)**

10.0 REVIEW PLAN

The components of the Review Plan (external ITR only not Peer Review) were developed pursuant to the requirements of EC1105-2-408.

10.1 Team Information

The decision documents that will be the ultimate focus of the peer review process are the integrated Feasibility Report for the Upper Susquehanna Cooperstown Project General Investigation Feasibility Study. The purpose of the decision document will be to begin the approval process leading to the authorization to begin Plans and Specifications. The PDT is listed as follows. This list provides the name and points of contact of NAB team members that are available to answer specific technical questions as part of the Review Process. The list also provides the names and organization of participating outside entities.

District PDT Members:

Steve Garbarino, CENAB-PP
Project Manager

Jo Ann Grundy, CENAB-PL
Biologist

Ben Soleimani, CENAB-EN
Hydraulic Engineer

Pete Emens, CENAB-RE
Real Estate

Luan Ngo, CENAB-EN
Cost Estimator

Jim Ludlam, CENAB-EN
Civil Engineer

Independent Technical Review Team:

***TBD by MVD and NAB.

10.2 Scientific Information

Based upon the self-evaluation by the PDT, the USACE report does not contain highly influential scientific information. The environmental restoration measures that were identified in the study have been evaluated using standard hydrologic, hydraulic, geotechnical and economic processes.

The restoration of aquatic (wetland and riparian) resources will not require innovative steps to achieve quality habitat in the watershed and the efforts accomplished to date did not result in a highly influential scientific assessment.

10.3 Timing
The feasibility report has already been drafted and sent to HQUSACE for review. The ITR process is envisioned to begin in FY 2007 with a review assessment of the feasibility report. Commencement of the review is contingent on resolution of policy issues between NAB and HQUSACE.

10.4 External Peer Review Process
No External Peer Review process is envisioned at this time. This assessment is supported by the evaluation of the PDT in March 2007 and tabulated as shown in Section 9 of the Review Plan.

10.5 Public Comment
Public involvement occurred throughout the Feasibility Study. Since the feasibility report has been drafted there will be no further public meetings during the feasibility phase of this project. A public comment period for NEPA would be required, however.

10.6 ITR Reviewers
***TBD by MVD and NAB.

10.7 External Peer Review Selection
Because an External Peer Review is not anticipated for this study, there is no EPR selection.