DEPARTMENT OF THE ARMY
SOUTH ATLANTIC DIVISION, CORPS OF ENGINEERS
ROOM 10M15, 60 FORSYTH ST., S.W.
ATLANTA GA 30303-8801

REPLY TO
ATTENTION OF

CESAD-PDS-P

22April 2011

MEMORANDUM FOR Commander, Mobile District (CESAM-PD/Mr. Dean Trawick and Ms. Elaine Baxter)

SUBJECT: Programmatic Review Plan – Flat Creek, Aquatic Ecosystem Restoration Study, Section 206 of the Water Resources Development Act of 1996, as Amended, Hall County, Georgia

1. Reference memorandum, CESAM-PD, 19 April 2011, subject as above.

2. The South Atlantic Division has reviewed the revised Review Plan and it is re-approved. We specifically concur with the agency Technical Review Team Lead being from within the South Atlantic Division.

3. The point of contact for this matter is Ms. Kenitra Myles at (404) 562-5229.

FOR THE COMMANDER:

WILBERT V. PAYNE
Chief, Planning and Policy
Community of Practice

DEPARTMENT OF THE ARMY
MOBILE DISTRICT, CORPS OF ENGINEERS
P.O. BOX 2288
MOBILE, ALABAMA 36628-0001

REPLY TO
ATTENTION OF

CESAM-PD-FP (1105)

19 April 2011

MEMORANDUM FOR CDR, SOUTH ATLANTIC DIVISION ATTN: CESAD-PDS (MR. WILBERT PAYNES)

SUBJECT: Programmatic Review Plan – Flat Creek, Aquatic Ecosystem Restoration Study, Section 206 of the Water Resources Development Act of 1996, as Amended, Hall County, Georgia

1. A copy of the subject letter report is enclosed for review and approval.

2. The initial Review Plan (RP) was approved by SAD on 19 January 2011. SAM and SAD Council indicated that SAM must seek an exception to policy, as directed by EC 1165-2-209, for the Agency Technical Review Team Lead to be located within SAD. The enclosed RP has been modified to reflect this exception and can be found in Section 5b, pages 6 and 7.

3. If you have any questions, please call Dean Trawick, Project Manager at (251) 690-3254 or Kerry Gates, Plan Formulator at (251) 694-3809.

FOR THE COMMANDER:

Encl

CURTIS M. FLAKES
Chief, Planning and Environmental
Division

Continuing Authorities Program
Section 206, Water Resources Development Act of 1996, as Amended
Aquatic Ecosystem Restoration Projects

DECISION DOCUMENT REVIEW PLAN

USING THE NATIONAL PROGRAMMATIC REVIEW PLAN MODEL

Flat Creek, Hall County Georgia

Mobile District

South Atlantic Division (SAD) Approval Date: 19 Jan 2011
Last Revision Date: 19 Apr 2011

US Army Corps
of Engineers ®

NATIONAL PROGRAMMATIC REVIEW PLAN
USING THE NATIONAL PROGRAMMATIC REVIEW PLAN MODEL

Section 206, Water Resources Development Act of 1996, as amended
Aquatic Ecosystem Restoration Decision Documents

TABLE OF CONTENTS

1. PURPOSE AND REQUIREMENTS

a. Purpose. This Review Plan defines the scope and level of peer review for the Flat Creek, Hall County, Georgia Aquatic Ecosystem Restoration project Feasibility Report and Environmental Assessment (decision document) developed under Section 206, Water Resources Development Act of 1996, as amended.

The Continuing Authorities Program (CAP) consists of a group of ten legislative authorities by which the Chief of Engineers is authorized to plan, design, and construct certain types of water resource and environmental restoration projects of limited size, scope, cost and complexity without additional, project-specific Congressional authorization. Section 206 of the Water Resources Development Act of 1996, Public Law 104-303, is a CAP authority for aquatic ecosystem restoration projects with the objective of restoring degraded ecosystem structure, function, and dynamic processes to a less degraded, more natural condition considering the ecosystem's natural integrity, productivity, stability and biological diversity. This authority is primarily used for manipulation of the hydrology in and along bodies of water, including wetlands and riparian areas. This authority also allows for dam removal. The Federal share of costs for any one Section 206 project may not exceed $5,000,000.

b. Applicability. This review plan is based on the model National Programmatic Review Plan for Section 206 project decision documents, which is applicable to projects that do not require Independent External Peer Review (IEPR), as defined in EC 1165-2-209 Civil Works Review Policy. A Section 206 project does not require IEPR if ALL of the following specific criteria are met:

- The project does not involve a significant threat to human life/safety assurance;
- The total project cost is less than $45 million;
- There is no request by the Governor of an affected state for a peer review by independent experts;
- The project does not require an Environmental Impact Statement (EIS),
- The project is not likely to have significant economic, environmental, and/or social effects to the Nation;
- The project/study is not likely to have significant interagency interest;
- The project/study is not likely highly controversial;
- The decision document is not likely to contain influential scientific information or be a highly influential scientific;
- The information in the decision document or proposed 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; and
- The project has not been deemed by the USACE Director of Civil Works or Chief of Engineers to be controversial nature.

If any of the above criteria are not met, the model National Programmatic Review Plan is not applicable and a study specific review plan must be prepared by the home district, coordinated with the National Ecosystem Planning Center of Expertise (ECO-PCX) and approved by the home Major Subordinate Command (SAD) in accordance with EC 1165-2-209.

Applicability of the model National Programmatic Review Plan for a specific project is determined by the home MSC. If the SAD determines that the model plan is applicable for a specific study, the MSC Commander may approve the plan (including exclusion from IEPR) without additional coordination with the ECO-PCX or Headquarters, USACE. The initial decision as to the applicability of the model plan should be made no later than the Federal Interest Determination milestone (as defined in Appendix F of ER 1105-2-100, F-10.e.1) during the feasibility phase of the project. In addition, the home district and SAD should assess at the Alternatives Formulation Briefing (AFB) whether the initial decision on the use of the model plan is still valid or if a project specific review plan should be developed based on new information. If a project specific review plan is required, it must be approved prior to execution of the Feasibility Cost Sharing Agreement (FCSA) for the study.

This review plan does not cover implementation products. A review plan for the design and implementation phase of the project will be developed prior to approval of the final decision document in accordance with EC 1165-2-209.

c. 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, 2010
(3) Engineering Regulation (ER) 1110-1-12, Quality Management, 30 Sep 2006
(4) ER 1105-2-100, Planning Guidance Notebook, Appendix F, Continuing Authorities Program, Amendment #2, 31 Jan 2007
(5) ER 1105-2-100, Planning Guidance Notebook, Appendix H, Policy Compliance Review and Approval of Decision Documents, Amendment #1, 20 Nov 2007

d. Requirements. This programmatic review plan was developed in accordance with EC 1165-2-209, which 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).

(1) District Quality Control/Quality Assurance (DQC). All decision documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo DQC as provided in EC 1165-2-209, paragraph 8.

(2) Agency Technical Review (ATR). ATR is mandatory for all decision documents (including supporting data, analyses, environmental compliance documents, etc.) as provided in EC 1165-2-209, paragraph 9.

For review of decision documents under the model National Programmatic Review Plan for Section 206 projects, the leader of the ATR team shall be from outside the home district, but may be from within the home SAD.

(3) Independent External Peer Review (IEPR). IEPR may be required for decision documents under certain circumstances, as provided in EC 1165-2-209, paragraph 10. There are two types of IEPR: Type I is generally for decision documents and Type II is generally for implementation products.

(a) Type I IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project studies, as provided in EC 1165-2-209, paragraph 11.

For review of decision documents under the model National Programmatic Review Plan for Section 206 projects, Type I IEPR is not required.

(b) 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, as provided in EC 1165-2-209, paragraph 12. 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.

For review of decision documents under the model National Programmatic Review Plan for Section 206 projects, Type II IEPR is not required.

(4) Policy and Legal Compliance Review. All decision documents will be reviewed throughout the study process for their compliance with law and policy, as provided in EC 1165-2-209, paragraph 14.

(5) Cost Engineering Review and Certification.

For decision documents prepared under the model National Programmatic Review Plan, Regional cost personnel that are pre-certified by the DX will conduct the cost estimate ATR. If pre-certified cost personnel are not in place, the cost estimate will be sent to the Walla Walla (DX) for ATR. The DX will provide the cost engineering certification.

(6) Model Certification/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. EC 1105-2-407 requires certification (for Corps models) or approval (for non-Corps models) of planning models used for all planning activities. The EC defines planning models 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 EC does not cover engineering models used in planning. Engineering software is being address under the Engineering and Construction (E&C) Science and Engineering Technology (SET) initiative. Until an appropriate process that documents the quality of commonly used engineering software is developed through the SET initiative, engineering activities in support of planning studies shall proceed as in the past. 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.

For review of decision documents under the model National Programmatic Review Plan for Section 206 projects, use of existing certified or approved planning models is encouraged. Where uncertified or unapproved model are used, approval of the model for use will be accomplished through the ATR process. The ATR team will apply the principles of EC 1105-2-412 during the ATR to ensure the model is theoretically and computationally sound, consistent with USACE policies, and adequately documented. If specific uncertified models are identified for repetitive use within a specific district or region, the appropriate PCX, SAD(s), and home District(s) will identify a unified approach to seek certification of these models.

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 Section 206 decision documents is the home SAD. The SAD will coordinate and approve the review plan and manage the ATR. The Mobile District will post the approved review plan on its public website. A copy of the approved review plan (and any updates) will be provided to the National Ecosystem Planning Center of Expertise (ECO-PCX) to keep the PCX apprised of requirements and review schedules.

3. STUDY INFORMATION

a. Decision Document. The Flat Creek, Hall County, Georgia decision document will be prepared in accordance with ER 1105-2-100, Appendix F. The approval level of decision documents (if policy compliant) is the home SAD. An Environmental Assessment (EA) will be prepared along with the decision document.

b. Study/Project Description. With cooperation with Hall County, Georgia, the Flat Creek Watershed has been identified as an Aquatic Ecosystem Restoration Study. The study is consistent with the objectives of the U.S. Army Corps of Engineers aquatic ecosystem restoration program under the Section 206 Authority. Additionally, it is likely that an improvement of the Flat Creek Watershed by the Corps will complement the restoration plans envisioned by the non-Federal sponsor. The Preliminary Restoration Plan (PRP) was approved in 2002.

The study area consists of the Flat Creek Watershed, located in the Chattahoochee River Basin in the upper Piedmont physiographic province (Figure 1). Flat Creek is an eastern tributary to Lake Lanier, the largest lake (38,500 acres) located entirely within the State of Georgia. The Flat Creek Watershed encompasses 7,337 acres (698 acres of which are inundated by Lake Lanier) and contains a total of 31 stream miles (6 miles of mainstem and approximately 25 miles of tributaries). Flat Creek is located entirely within Hall County. Approximately 38 percent of the watershed is located in the City of Gainesville, and less than 1 percent is located in the City of Oakwood. The total incorporated area of the watershed is approximately 2,617 acres, of which approximately 2,553 are located in Gainesville and 64 are located in Oakwood. For the purposes of existing conditions analysis, the watershed has been divided into three subwatersheds: Upper Flat Creek (headwaters), Lower Flat Creek, and the Flat Creek Embayment (includes Lake Lanier backwaters). The three subwatersheds have roughly equal areas and notable land use differences. Federal interest in this watershed was established in the Preliminary Restoration Plan (PRP) dated December 2002 as approved by South Atlantic Division. A partial draft feasibility report was prepared by the City of Gainesville and submitted in September 2008 which shall be used heavily to complete this contract

effort. There are a wide variety of potential point and nonpoint source pollution sources, as well as high stormwater pulses, which could have an impact on the biological communities, physical stream stability, and water quality in the Flat Creek Watershed.

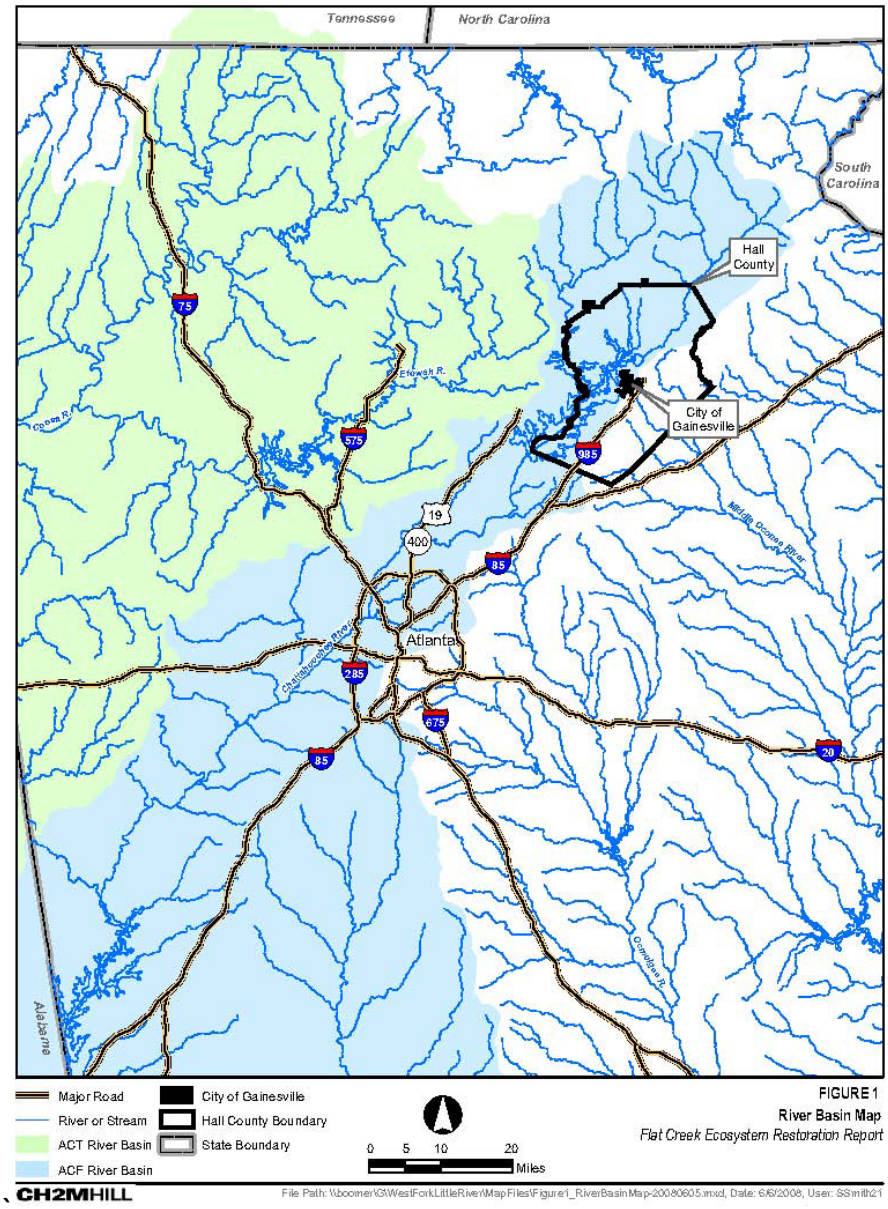

FIGURE 1

c. **Factors Affecting the Scope and Level of Review.** The parts of the study that will be challenging are the environmental and real estate. Some of the alternatives being proposed are located in wetland areas. The concern is the amount and quality of wetlands lost during the construction of the ecosystem restoration sites. All wetlands affected during construction will be returned to their natural state or better than their natural state at the completion of construction. Real estate may

also be challenging due to steep banks and acquiring land interest on property for access and staging equipment.

The project is not likely to have significant economic, environmental, or social effects to the Nation or involve a significant threat to human life/safety. The project is an ecosystem restoration project consisting of wet detention, dry detention, underground storage, retrofitting existing lakes and wet detention, and stream restoration. The project will reduce flashy high peak flows, reduce channel embeddedness, stabilize banks, and reconnect floodplains. The project is not likely to have significant interagency interest, be highly controversial, contain influential scientific information or be a highly influential scientific assessment. The information in the decision document or proposed project design will not likely 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.

d. In-Kind Contributions. Products and analyses provided by non-Federal sponsors as in-kind services are subject to DQC and ATR, similar to any products developed by USACE. No in-kind contributions anticipated. The non-federal sponsor shall participate with cash reimbursement for 35% of the Feasibility Study cost.

4. DISTRICT QUALITY CONTROL (DQC)

All documents to be produced will undergo District Quality Control. The DQC review team will be responsible for performing a technical review of the Draft Feasibility Report including the Environmental Assessment, engineering, economics, real estate, cost and environmental appendices. The DQC review will be completed prior to submitting documents for ATR. Duties of the DQC team include the following:

1) Reviewing report contents for compliance with established principles and procedures, using clearly justified and valid assumptions.
2) Reviewing methods and procedures used to determine appropriateness, correctness and reasonableness of results.
3) Providing the review team leader with documentation of comments, issues, and decisions arising out of the DQC review. Comments, and resolutions, will be documented in a Microsoft Word document or by using DrChecks.
4) Capturing public input at scoping and public meetings. Public comments are solicited and accepted by various means: United States Postal Service, email, website, fax, or at the public and scoping meetings.

5. AGENCY TECHNICAL REVIEW (ATR)

a. Products to Undergo ATR. ATR will be performed throughout the study in accordance with the District and SAD Quality Management Plans. The ATR shall be documented and discussed at the AFB milestone. Certification of the ATR will be provided prior to the District Commander signing the final report. Products to undergo ATR include at a minimum the AFB submittal materials, the draft decision and NEPA documents, and the final decision and NEPA documents.

b. Required ATR Team Expertise. The ATR team will consist of the individuals that represent the significant disciplines involved in the accomplishment of the work. The RMO, in cooperation with the Project Delivery Team (PDT) and vertical team, will determine the final make-up of the ATR

team. The RMO will coordinate with the Cost Engineering Directory PCX in Walla Walla District to provide the cost engineering review and resulting certification.

ATR will be managed within the Corps and conducted by a qualified team. HQUSACE guidance requires that the ATR Team Lead reside outside of the SAD that is producing the document, unless an exception is acquired. For this study, the ATR Team Lead will reside within the SAD, but outside of Mobile District, for the following reasons:

- ATR Team Lead is independent from the District that is preparing the decision document;
- SAD has the resident expertise within its jurisdiction to lead and perform the review;
- Efficiencies are gained by an ATR Team Lead being located with the SAD, such as timeliness of the review and subsequent ATR certification; and
- Study is low risk, does not involve a significant threat to human life, or possess safety concerns.

ATR Team Members/Disciplines	Expertise Required
ATR Lead	The ATR lead should be a senior professional with experience in preparing Section 206 decision documents and conducting ATR. The lead should also have the necessary skills and experience to lead a virtual team through the ATR process. Typically, the ATR lead will also serve as a reviewer for a specific discipline (such as planning, economics, environmental resources, etc).
Planning	The Planning reviewer should be a senior water resources planner with experience in general planning policy and guidance. The team member should also be familiar with the Ecosystem Response Model plan formulation tool used as Plan Formulation tool to evaluate alternatives.
Economics	Team member(s) should have extensive knowledge of the economic software IWR Planning Suite Decision Support Software and knowledge of CE/ICA.
Environmental Resources	Team member(s) should have extensive knowledge of the integration of environmental evaluation and compliance requirements, pursuant to national environmental statutes (NEPA), applicable executive orders and other Federal planning requirements, into the planning of Civil Works comprehensive plans and implementation projects.
Hydrology & Hydraulics	Team member(s) should have a thorough understanding of computer modeling techniques used for this project (WCS, SIAM, and HEC-RAS).
Cost Engineering	Team member(s) should be familiar with the most recent version of MCACES II software and total project cost summary. The Cost Reviewer is required to coordinate with the Walla Walla Cost Dx staff for further cost engineering review and resulting certification.
Real Estate	Team member(s) should have planning/appraisal/acquisition experience regarding ecosystem restoration type projects. Including, but not limited to, knowledge of estates to be acquired,

	induced flooding, zoning/buffer ordinances, and non-Federal Sponsor acquisition responsibilities.

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, SAD, 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 1110-2-12 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 SAD 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 prior to the District

Commander signing the final report. A sample Statement of Technical Review is included in Attachment 2.

6. INDEPENDENT EXTERNAL PEER REVIEW (IEPR)

a. Decision on IEPR. Based on the information and analysis provided in paragraph 3(c) of this review plan, the project covered under this plan is excluded from IEPR because it does not meet the mandatory IEPR triggers and does not warrant IEPR based on a risk-informed analysis. At this time all of the criteria outlined in paragraph 1(b) would be met.

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. MODEL CERTIFICATION AND APPROVAL

a. Planning Models. The following planning models are anticipated to be used in the development of the decision document: Ecosystem Response Model (ERM) and Institute of Water Resources (IWR) Planning Suite Support Software. For this study the ERM will be used as a plan formulation tool. IWR Planning Suite will be used to evaluate the cost effectiveness and incremental cost of each potential restoration alternative, based on an estimated cost and projected benefits.

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
Ecosystem Response Model	The ERM uses physical habitat and biological monitoring data, collected using GADNR guidance (GADNR, 2005; 2007), as an indicator of the overall stream ecosystem integrity. The ERM outputs a combined stream health score and Habitat Units, based on biological monitoring data, and a projected future combined stream health score and Habitat Units based on predicted future biological monitoring scores. This allows comparison of outputs under various conditions and provides an indicator of the extent of stream improvement that would result from implementation of restoration alternatives. The ERM was approved for use as a Plan Formulation tool by the ECO-PCX and endorsed by SAD for the North Georgia Piedmont Region projects.	Approved
IWR Planning Suite Support Software	IWR Planning Suite Decision Support Software developed by the Institute of Water Resources combines solutions to planning problems and calculates the additive effects of each combination or "plan." IWR Planning Suite assists with plan comparison by conducting cost effectiveness and incremental cost analyses.	Certified

b. Engineering Models. The following engineering models are anticipated to be used in the development of the decision document: Watershed Characterization System (WCS), Sedimentation Impact Analysis Method (SIAM), Hydrologic Engineering Center – River Analysis System (HEC-RAS), and Micro-Computer Aided Cost Estimating System (MCACES) II. WCS, SIAM and HEC-RAS will be used to evaluate flow, velocity, sediment delivery, and sediment budget for existing conditions and for future conditions with and without restoration. MCACES II will be the cost estimating software used to prepare a detailed labor, equipment and material cost estimate.

Model Name and Version	Brief Description of the Model and How It Will Be Applied in the Study	Certification / Approval Status
Sedimentation Impact Analysis Method	Sediment Impact Analysis Methods (SIAM) provides a framework for combining morphological, hydrologic, and hydraulic information. The results develop a quantitative picture of sediment movement through a watershed more detailed than a qualitative geomorphic evaluation and less intensive than a numeric mobile boundary model.	Approved
Hydrologic Engineering Center – 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.	Approved
Micro-Computer Aided Cost Estimating System II	The Micro-Computer Aided Cost Estimating System II (MCACES) is used to prepare a detailed labor, equipment and material cost estimate.	Approved

8. REVIEW SCHEDULES AND COSTS

a. ATR Schedule and Cost. The cost of ATR is estimated to be approximately $25,000. The documents to be reviewed and scheduled dates for review are as follows:

Milestone	Review	Schedule Dates
AFB Materials	ATR	November 2010
AFB	AFB by SAD	February 2011
Draft Report and Draft EA	ATR	February 2011
Final Report and Final EA	ATR	March 2011

b. Type I IEPR Schedule and Cost. Not applicable.

c. Model Certification/Approval Schedule and Cost. Model Certification/Approval. EC 1105-2-407 requires certification (for Corps models) or approval (for non-Corps models) of planning models used for all planning activities. The EC defines planning models 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 EC does not cover engineering models used in planning. Engineering software is being address under the Engineering and Construction (E&C) Science and Engineering Technology (SET) initiative. Until an appropriate process that documents the quality of commonly used engineering software is developed through the SET initiative, engineering activities in support of planning studies shall proceed as in the past. 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.

9. PUBLIC PARTICIPATION

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. The ATR team will be provided copies of public and agency comments.

The RP will be made accessible to the public through the Mobile District website link http://www.sam.usace.army.mil/. Public review of the review plan can begin as soon as it is reviewed and approved by the SAD Commander and posted by the Mobile District. Comments made by the public will be available to the review team. Public and interagency review for the EA will be conducted in accordance with NEPA, as outlined in ER 1105-2-100.

The RP will be available throughout all public and agency scoping and other processes for this project. Public input from the NEPA workshops and the public meetings will be available to the ATR members to ensure that public comments have been considered in the development of reviews and final reports. Public comments will be solicited and accepted by multiple means: United States Postal Service, email, website, fax or at the public and scoping meetings.

10. REVIEW PLAN APPROVAL AND UPDATES

The home SAD Commander is responsible for approving this review plan and ensuring that use of the Model Programmatic Review Plan is appropriate for the specific project covered by the plan. The review plan is a living document and may change as the study progresses. The Mobile district is responsible for keeping the review plan up to date. After approved by the SAD, minor changes to the review plan will be documented in Attachment 3 of this RP. Significant changes to the review plan (such as changes to the scope and/or level of review) should be re-approved by the SAD Commander following the process used for initially approving the plan. Significant changes may result in the SAD Commander determining that use of the Model Programmatic Review Plan is no longer appropriate. In these cases, a project specific review plan will be prepared and approved in accordance with EC 1165-2-209. The latest version of the review plan, along with the Commanders' approval memorandum, will be posted on the home district's webpage.

11. REVIEW PLAN POINTS OF CONTACT

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

Project Manager, 251-690-3254
Plan Formulator, 251-694-3809
South Atlantic Division Point of Contact, 404-562-5229

ATTACHMENT 1: TEAM ROSTERS

Table 1 – Project Delivery Team Members

Discipline	Office/Agency
Program Manager	CESAM-PM-CP
Project Manager	CESAM-PM-C
Plan Formulator	CESAM-PD-FP
Environmental	CESAM-PD-EI
Economics	CESAM-PD-FE
Economics	CESAM-PD-FE
Cultural Resources	CESAS-PD-EM
Real Estate	CESAM-RE-P
Hydraulics/Modeling	CESAM-EN-HH
Geotechnical	CESAM-EN-GG
Cost	CESAM-EN-E

Table 2 – Agency Technical Review Team Members

Discipline	Name	Office/Agency
ATR Lead	TBD	TBD
Hydraulics & Hydrology	TBD	TBD
Environmental	TBD	TBD
NEPA	TBD	TBD
Cultural Resources	TBD	TBD
Economics	TBD	TBD
Plan Formulation	TBD	TBD
Cost Engineering	TBD	TBD
Real Estate	TBD	TBD

ATTACHMENT 2: SAMPLE STATEMENT OF TECHNICAL REVIEW FOR DECSION DOCUMENTS

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the CAP 206 Aquatic Ecosystem Restoration Report for Flat Creek, Hall County, Georgia. 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[sm].

Name ATR Team Leader Office Symbol/Company	Date
Dean Trawick Project Manager CESAM-PM	Date
Name Review Management Office Representative Office Symbol	Date

CERTIFICATION OF AGENCY TECHNICAL REVIEW

Significant concerns and the explanation of the resolution are as follows:

As noted above, all concerns resulting from the ATR of the project have been fully resolved.

Douglas C. Otto Chief, Engineering Division CESAM-EN	Date
Curtis M. Flakes Chief, Planning Division CESAM-PD	Date

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

ATTACHMENT 3: REVIEW PLAN MINOR REVISIONS

Revision Date	Description of Change	Page / Paragraph Number
19 Apr 2011	Approval Date and Latest Revision Date Updated	Cover Page
19 Apr 2011	"Required ATR Team Expertise": language pertaining to keeping the ATR lead within the MSC has been modified and explained.	Section 5b, Pages 6-7

ATTACHMENT 4: ACRONYMS AND ABBREVIATIONS

Term	Definition	Term	Definition
AFB	Alternative Formulation Briefing	ITR	Independent Technical Review
ACF	Apalachicola-Chattahoochee-Flint	MCACES	Micro-Computer Aided Cost Estimating System
ATR	Agency Technical Review	MSC	Major Subordinate Command
CAP	Continuing Authorities Program	NER	National Ecosystem Restoration
CE/ICA	Cost Effective/Incremental Cost Analysis	NEPA	National Environmental Policy Act
DQC	District Quality Control/Quality Assurance	OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
DX	Directory of Expertise	PCX	Planning Center of Expertise
EA	Environmental Assessment	PDT	Project Delivery Team
EC	Engineer Circular	PMP	Project Management Plan
ECO-PCX	Ecosystem Restoration Planning Center of Expertise	PL	Public Law
ER	Ecosystem Restoration	RMO	Review Management Organization
ERM	Ecosystem Response Model	RP	Review Plan
GADNR	Georgia Department of Natural Resources	SAR	Safety Assurance Review
HEC-RAS	Hydrologic Engineering Center - River Analysis System	SIAM	Sedimentation Impact Analysis Method
HQUSACE	Headquarters, U.S. Army Corps of Engineers	USACE	U.S. Army Corps of Engineers
IEPR	Independent External Peer Review	WCS	Watershed Characterization System
IWR	Institute of Water Resources	WRDA	Water Resources Development Act