



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-RBT

10 May 2011

MEMORANDUM FOR COMMANDER, MOBILE DISTRICT (CESAM-EN/  
DOUGLAS C. OTTO)

SUBJECT: Approval of the Review Plan for Atlanta Environmental Infrastructure Swaybranch Stormwater Detention Pond Project, City of Roswell, Fulton County, Georgia, WRDA 1992 Section 219 Project

1. References:

a. Memorandum, CESAM-EN, 1 April 2011, Subject: Review Plan – Section 219 Water Resources Development Act of 1992, As Amended, Atlanta Environmental Infrastructure Swaybranch Stormwater Detention Pond Project, City of Roswell, Fulton County, Georgia (Enclosure).

b. EC 1165-2-209, Civil Works Review Policy, 31 January 2010.

c. WRDA 2007 H. R. 1495 Public Law 110-114, 8 November 2007.

2. The Review Plan for the for Design and Implementation Phase (Implementation Documents) for Atlanta Environmental Infrastructure Swaybranch Stormwater Detention Pond Project, City of Roswell, Fulton County, Georgia dated April 2011 submitted by reference 1.a has been reviewed by this office and is approved in accordance with reference 1.b above. A copy of the approved Review Plan is enclosed.

3. We concur with the conclusion of the District Chief of Engineering that Type II Independent External Peer Review (Type II IEPR) is not required for this Environmental Infrastructure Project. This project does not have the factors stipulated in Section 2035 Safety Assurance Review, WRDA 2007 H. R. 1495 Public Law 110-114 that need addressing to assure public health, safety, and welfare. The primary basis for the concurrence that a Type II IEPR is not required is the determination that the failure of this project would not pose a significant threat to human life.

4. The district should take steps to post the Review Plan to its web site and provide a link to CESAD-RBT. Before posting to the web site, the names of Corps/Army employees should be removed.

CESAD-RBT

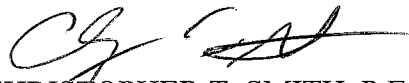
10 May 2011

SUBJECT: Approval of the Review Plan for Atlanta Environmental Infrastructure Swaybranch Stormwater Detention Pond Project, City of Roswell, Fulton County, Georgia, WRDA 1992 Section 219 Project

5. The preparation and approval of the environmental documentation for this project was formally deferred to the project design phase. The Mobile District is to ensure that CESAD-PDS-P is kept informed on the status of the environmental process and copied on any coordination correspondence and public mail outs.

6. The SAD point of contact is Mr. James Truelove, CESAD-RBT, 404-562-5121.

Encl



CHRISTOPHER T. SMITH, P.E.  
Chief, Business Technical Division



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

REPLY TO  
ATTENTION OF

CESAM-EN (1105)

1 April 2011


MEMORANDUM FOR CDR, SOUTH ATLANTIC DIVISION ATTN: CESAD-RBT  
(MR. CHRISTOPHER SMITH)

SUBJECT: Review Plan – Section 219 Water Resources Development Act of 1992, As Amended, Atlanta Environmental Infrastructure Swaybranch Stormwater Detention Pond Project, City of Roswell, Fulton County, Georgia

1. A copy of the subject Review Plan is enclosed for review and approval.
2. The Review Plan describes the technical review process to address the proposed plan of removing the existing wet pond and dry detention pond embankments and constructing a single embankment for Swaybranch Stormwater Detention Pond project located in Fulton County, Georgia. The City of Roswell, Georgia is the non-Federal Sponsor.
3. If you have any questions, please call Mr. Dean Trawick, Project Manager at (251) 690-3254 or Ms. Harriette Holland, Plan Formulator at (251) 690-3322.

FOR THE COMMANDER:

Encl

  
DOUGLAS C. OTTO, JR., P.E.  
Chief, Engineering Division

# REVIEW PLAN

Section 219 Water Resources Development Act (WRDA) of 1992  
**ATLANTA ENVIRONMENTAL INFRASTRUCTURE**  
SWAYBRANCH STORMWATER DETENTION POND PROJECT  
**P2 # 134461**  
**CITY OF ROSWELL, FULTON COUNTY, GEORGIA**  
**Mobile District**

**APRIL 2011**

THE INFORMATION CONTAINED IN THIS REVIEW PLAN IS DISTRIBUTED SOLELY FOR THE PURPOSE OF PREDISSEMINATION PEER REVIEW UNDER APPLICABLE INFORMATION QUALITY GUIDELINES. IT HAS NOT BEEN FORMALLY DISSEMINATED BY THE U.S. ARMY CORPS OF ENGINEERS, MOBILE DISTRICT. IT DOES NOT REPRESENT AND SHOULD NOT BE CONSTRUED TO REPRESENT ANY AGENCY DETERMINATION OR POLICY.



**US Army Corps  
of Engineers®  
Mobile District**

# REVIEW PLAN

## ATLANTA ENVIRONMENTAL INFRASTRUCTURE SWAYBRANCH STORMWATER DETENTION PROJECT CITY OF ROSWELL, FULTON COUNTY, GEORGIA

### TABLE OF CONTENTS

<b><u>ITEM</u></b>	<b><u>PAGE NUMBER</u></b>
1. PURPOSE.....	1
2. DESCRIPTION OF PROJECT .....	1
3. DESCRIPTION OF WORK FOR REVIEW.....	1
4. BACKGROUND .....	3
5. PROJECT DELIVERY TEAM .....	3
6. LEVELS OF REVIEW .....	3
7. DISTRICT QUALITY CONTROL (DQC).....	3
8. AGENCY TECHNICAL REVIEW.....	5
Disciplines Required For Review .....	5
9. INDEPENDENT EXTERNAL PEER REVIEW .....	6
10. REVIEW MANAGEMENT ORGANIZATION.....	6
11. POLICY AND LEGAL COMPLIANCE .....	6
12. REVIEW SCHEDULE AND COSTS .....	7
13. PUBLIC PARTICIPATION .....	7
14. MAJOR SUBORDINATE COMMAND (MSC) APPROVAL .....	7

**REVIEW PLAN**

**ATLANTA ENVIRONMENTAL INFRASTRUCTURE  
SWAYBRANCH STORMWATER DETENTION PROJECT  
CITY OF ROSWELL, FULTON COUNTY, GEORGIA**

**TABLE OF CONTENTS (CONTINUED)**

**LIST OF FIGURES**

<b><u>FIGURE NO.</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>PAGE NUMBER</u></b>
1	Counties Represented by Atlanta Regional Commission (ARC) and a portion of the Metro Water District.....	2
2 & 3	Photographs of Eroding Concrete Spillway for Wet Pond.....	4

**LIST OF ATTACHMENTS**

ATTACHMENT 1	Team Roster
ATTACHMENT 2	Acronyms and Abbreviations
ATTACHMENT 3	A-E Contractor Statement of Technical Review

## **REVIEW PLAN**

### **ATLANTA ENVIRONMENTAL INFRASTRUCTURE SWAYBRANCH STORMWATER DETENTION PROJECT CITY OF ROSWELL, FULTON COUNTY, GEORGIA**

#### **1. PURPOSE**

The purpose of this Review Plan (RP) is to describe the technical review process for Swaybranch Stormwater Detention Pond Project located in Fulton County in the City of Roswell, Georgia. Like the Project Management Plan (PMP), the RP is a living document and may change as the project progresses.

U.S. Army Corps of Engineers (Corps) guidance for studies and projects conducted under Section 219 of the Water Resources Development Act (WRDA) of 1992, as amended, and for carrying out the technical review process as contained in Engineer Circular (EC) 1165-2-209, Civil Works Review Policy, dated 31 Jan 2010. The independent review process outlined in EC 1165-2-209 provides the procedures for ensuring the quality and credibility of the Corps implementation documents through an independent review process. It complies with Section 515 of Public Law (P.L.) 106-554 (referred to as the "Information Quality Act"); and the Final Information Quality Bulletin for Peer Review by the Office of Management and Budget (referred to as the "OMB Peer Review Bulletin"). It also provides guidance for the implementation of Section 2034 of WRDA 2007 (P.L. 110-114). It presents a framework for establishing the appropriate level and independence of review and detailed requirements for review documentation and dissemination.

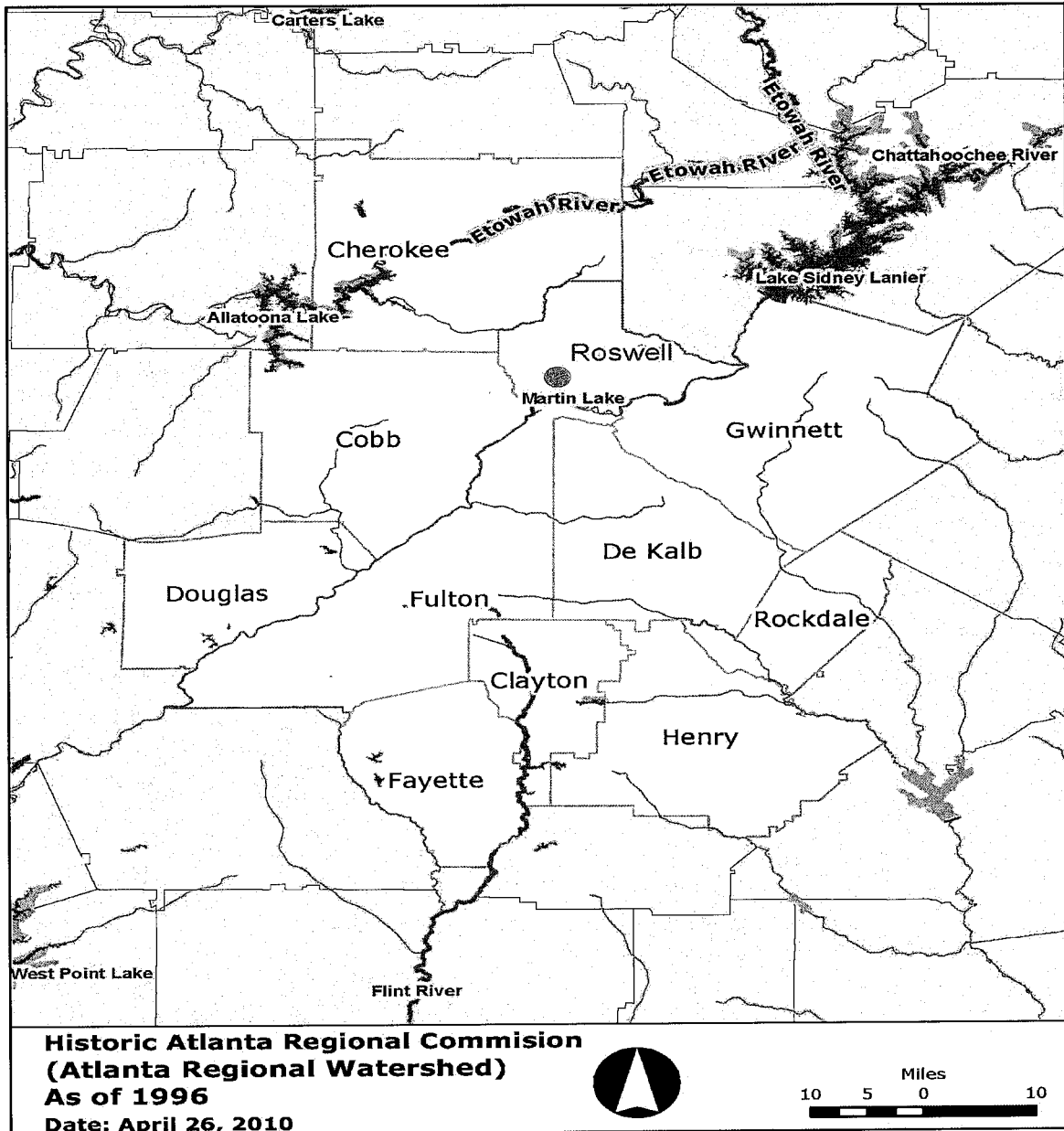
#### **2. DESCRIPTION OF PROJECT**

The City of Roswell is part of the 10-county Atlanta Regional Commission (ARC), **Figure 1**. This project falls within the Regional Atlanta Watershed and directly affects Big Creek. This project encompasses a Single Dry Detention Pond with Integrated Wetland System. The top of embankment for both the existing projects is at elevation 1041 feet. The proposed plan consists of removing the existing wet pond and dry detention pond embankments and constructing a single embankment of 10 feet with two feet of freeboard resulting in an embankment no more than 1043 feet elevation. The project would have a storage volume between 5 - 10-acre feet. The watershed of the area would be about 31.9 acres.

#### **3. DESCRIPTION OF WORK FOR REVIEW**

This project consists of design and construction of the Swaybranch Stormwater Detention Pond Project. In accordance with Section 219 of WRDA 1992 guidance, the design will be conducted by an A-E firm as selected by the Corps, Mobile District and the City of Atlanta, Georgia, the non-Federal Sponsor. The NEPA documents, state water quality certification, environmental/cultural coordination, and environmental assessment are being conducted in parallel by the Mobile District. A Design Documentation Report (DDR) and an O&M manual

shall be prepared by the Mobile District. The RP covers the project life cycle, specifying the level of review to be conducted on project documents. The project documents subject to DQC review are: DDR (and supporting reports, i.e. geotechnical report, hydraulic and hydrologic report, wetland survey, environmental site assessment, etc.); technical plans and specifications; NEPA/environmental/cultural compliance documentation; and operation and maintenance manual. In accordance with EC 1165-2-209, the following work products are subject to Agency Technical Review (ATR) as assigned by the MSC: DDR; technical plans and specifications; and NEPA/environmental/cultural compliance documentation.



**Figure 1. Counties Represented by Atlanta Regional Commission (ARC) and a portion of the Metro Water District**

## **4. BACKGROUND**

With cooperation between the Corps and the City of Roswell (City); the City has identified and prioritized potential watershed improvement projects including stream restoration measures and retrofitting of aged storm water infrastructure, known as best management practices (BMPs). The City is planning to combine a failing dual detention pond on property it recently acquired. Based on recent investigations, a number of structural defects were found with both the existing wet pond spillway embankment and the detention pond embankment as shown in Figures 2 and 3. Additionally, the City plans to install a new water line just downstream of these eroding structures and desire to replace the ponds with a single detention pond prior to making the water line connection. The new water line would then be connected to the City's drinking water intake located on Big Creek downstream of its confluence with Swaybranch.

## **5. PROJECT DELIVERY TEAM**

The Project Delivery Team (PDT) is comprised of those individuals involved directly in the development of the decision document. The individual contact information and disciplines of the District PDT are included in Appendix A of this document.

## **6. LEVELS OF REVIEW**

This RP describes the levels of review and the anticipated review process for the various documents to be produced. This RP is a component of the PMP. The levels of review are included in this RP: District Quality Control (DQC) and Agency Technical Review (ATR). Type II IEPR is not required in this paragraph as discussed in the risk informed process in Section 9 below. DrChecks review software will be used to document all comments, responses, and associated resolutions accomplished throughout the review process. Comments have been limited to those that are required to ensure adequacy of the product.

## **7. DISTRICT QUALITY CONTROL**

All documents to be produced will undergo District Quality Control/Quality Assurance (DQC/QA). DQC/QA is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the PMP. Major Subordinate Command (MSC) and District quality management plans address the conduct and documentation of this fundamental level of review. DQC will be managed by the Corps, Mobile District in accordance with ER 1110-1-12, Engineering & Design Quality Management, EC 1165-2-209 and the District Quality Management Plan. The DQC will utilize DrChecks software to facilitate and document the review. The DQC will include quality checks and reviews, supervisory reviews, PDT reviews, and Biddability, Constructability, Operability and Environmental Review (BCOE) reviews required by ER 1110-1-12. The A-E prepared implementation documents, (Technical Plans and Specifications, DDR, and supporting environmental and technical reports) for this project is classified as Products Prepared by Others. The A-E will perform a Technical Review (TR) and Quality Control (QC); and Mobile District will perform Quality Assurance (QA) per ER 1110-1-12. The A-E Contractor will provide a signed Statement of Technical Review (Attachment 3). Additionally, the PDT is responsible to assure the overall integrity of the documents produced. The DQC review will be completed prior to submitting documents for ATR.



**Figure 2: Looking upstream along Swaybranch showing concrete rubble from eroding concrete spillway for the wet pond. The eroding embankment on the downstream side of the detention pond. The storm sewer in the foreground is being damaged by the eroding detention pond embankment.**



**Figure 3: Shows the under cutting of the wet pond concrete spillway and the loss of about 25 feet of the spillway embankment putting the project in eminent danger of failure and is creating a safety hazard for the community children playing in the area.**

## 8. AGENCY TECHNICAL REVIEW (ATR)

All documents produced as part of this effort will undergo ATR 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 Corps guidance, that design plans and specifications and supporting analysis are clear, constructible, environmental sustainable, operable and maintainable.

The ATR team will consist of the individuals that represent the significant disciplines involved in the accomplishment of the work. ATR will be managed within the Corps and conducted by senior Corps personnel outside of the Mobile District that are not involved in the day-to-day production of the project. DrChecks review software will be used to document all ATR comments, responses and associated resolutions accomplished throughout the review process. The documents to be reviewed are the DDR, and technical plans and specifications. The PDT/A-E will evaluate comments in DrChecks and revise materials as necessary. The ATR leader will be from outside the MSC, and must complete a statement of technical review for all final products and final documents. By signing the ATR certification, the district leadership certifies policy compliance of the document and also that the DQC activities were sufficient and documented.

**Disciplines Required for Review.** At a minimum, the following disciplines should be represented on the ATR team:

Discipline	Required Expertise
Hydrology & Hydraulics	Team member(s) should have a thorough understanding of computer modeling techniques used for this project (HEC-HMS, PondPack, HEC_RAS, etc)
Civil Engineer	Team member should be familiar with requirements for horizontal construction. The team member should have a thorough understanding of site drainage and grading considerations, earthwork quantities, demolition plans, etc.
Geotechnical Engineer	Team member should have experience to include geotechnical evaluation of flood risk management structures. Experience needs to encompass static and dynamic slope stability evaluation and other pertinent features; and settlement evaluations.
Biologist	Team member(s) should have knowledge of environmental evaluation and compliance requirements. Familiarity with Storm Water Detention and urban stream ecology is also beneficial.
ATR Leader	Team member should have minimum expertise such as having led prior ATRs, etc. The ATR lead may also have been a senior ATR reviewer on a similar type project within the past 5 years. ATR Team Leader can also serve as one of the review disciplines in addition to team leader duties.

## **9. INDEPENDENT EXTERNAL PEER REVIEW**

Independent External Peer Review (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 the Corps is warranted. The decision documents for this project are limited to environmental coordination to support project implementation. Based on criteria contained in Paragraph 11.d.1 and in Appendix D of EC 1165-2-209 a Type I IEPR is not recommended. A risk informed recommendation not to conduct a TYPE I IEPR was based upon the likelihood of no significant threat to human life; a total project cost of less than \$45M; no requests by political or jurisdictional entities and no influential scientific information, assessments, or use or novel methods are anticipated. No public disputes or any other circumstances are anticipated which might require TYPE I IEPR.

In addition the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review. The project purpose is not hurricane and storm risk management or flood risk management, and the project does not have potential hazards that pose a significant threat to human life. Innovative materials or novel engineering methods will not be used. Redundancy, resiliency, or robustness is not required for design. Also, the project has no unique construction sequencing, or a reduced or overlapping design construction schedule.

## **10. REVIEW MANAGEMENT ORGANIZATION**

It is the responsibility of the Review Management Organization (RMO) to assign the ATR team and to ensure that lead is outside the home Major Subordinate Command (MSC); to manage the ATR and develop and prepare a “charge” to the ATR team. The RMO for this project is the South Atlantic Division (SAD) as the MSC for this region. Mobile District will assist SAD with management of the ATR and development of the “charge”.

## **11. POLICY AND LEGAL COMPLIANCE**

The National Environmental Policy Act (NEPA) compliance is required for the construction of this project. This will include consideration of no adverse impacts to the environment. NEPA documentation will be prepared and coordinated by Mobile District in parallel with the preparation of construction plans and specifications. The Corps will ensure compliance as part of the design review and project coordination process and no construction will occur prior to the completion of the NEPA process, BCOE certification, state water quality certification, and the satisfaction of other applicable local permit requirements. All contract documents and supporting environmental documents shall be reviewed by the Mobile District Office of Counsel prior to final contract award. Draft NEPA and environmental documents shall be submitted to the ATR team with the DDR and Technical Plans and Specifications to aid in ATR review.

## 12. REVIEW SCHEDULE AND COSTS

The cost for DQC and ATR is estimated to be approximately \$10,000.00 and \$20,000.00 respectively. The documents to be reviewed and scheduled dates for review are as follows:

<b>Milestone</b>	<b>Review</b>	<b>Schedule Dates</b>
Design Draft Update 35%	DQC	4 Mar 2011A
Interim Design Report 65%	DQC	13 Apr 2011
Design Final Report	DQC	27 May 2011
Final Design	ATR	15 Jun 2011

\* A – Actual Dates

## 13. PUBLIC PARTICIPATION

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 RP can begin as soon as it is approved by the Division 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 Environmental Assessment (EA) will be conducted in accordance with NEPA, as outlined in ER 1105-2-100.

All North Georgia projects are briefed to North Georgia Water Resource Agencies (NGWRA), a partnership of local, state, and federal agencies, as part of a collaborative approach to deliver sustainable water resource projects.

## 14. MAJOR SUBORDINATE COMMAND (MSC) APPROVAL

The MSC is responsible for approving the RP as prepared by the Mobile District. Approval is provided by the MSC Commander. The Commander's approval should reflect team input as to the appropriate scope and level of review for the decision document. Like the PMP, the RP is a living document and may change as the project progresses. Changes in the RP should be approved by following the process used for initially approving the RP. In all cases the MSC will review decisions on the level of review and any changes made in updates to the project.

## ATTACHMENT 1 – TEAM ROSTER

### Product Delivery Team Members

Discipline (POC)	Name	Office/Agency
Project Manager		CESAM-PM-CP
Hydraulic Engineer		CESAM-EN-H
Geotechnical Engineer		CESAM-EN-GG
Project Architect/Engineer (PAE)		CESAM-EN-GE
Cost Estimator		CESAM-EN-E
Environmental Team		CESAM-PD-EI
Environmental Team		CESAM-PD-EI
Environmental Engineer		CESAM-PD-EI
Plan Formulator		CESAM-PD-FP
Cultural Resources		CESAS-PD
Real Estate Planner		CESAM-RE-P
Contractor, Project Manager		CH2M HILL
Construction Division		CESAS-CD-ROA
Sponsor		City of Roswell, GA
Sponsor		City of Roswell, GA

## ATTACHMENT 2 - ACRONYMS AND ABBREVIATIONS

Term	Definition
ARC	Atlanta Regional Commission
ATR	Agency Technical Review
BCOE	Biddability, Constructability, Operability and Environmental Review
BMPs	Best Management Practices
CORPS	U.S. Army Corps of Engineers
DQC	District Quality Control
DQC/QA	District Quality Control/Quality Assurance
EA	Environmental Assessment
EC	Engineer Circular
EIS	Environmental Impact Statement
ER	Engineer Regulation
HQUSACE	Headquarters, U.S. Army Corps of Engineers
IEPR	Independent External Peer Review
ITR	Independent Technical Review
MCACES	Micro-Computer Aided Cost Estimating System
MSC	Major Subordinate Command
NEPA	National Environmental Policy Act
NGWRA	North Georgia Water Resource Agencies
OMB	Office and Management and Budget
PDT	Project Delivery Team
PMP	Project Management Plan
QA	Quality Assurance
QC	Quality Control
RMO	Review Management Organization
RP	Review Plan
SAR	Safety Assurance Review
TR	Technical Review
WIP	Watershed Improvement Plan
WRDA	Water Resources Development Act

### ATTACHMENT 3

#### A-E CONTRACTOR STATEMENT OF TECHNICAL REVIEW

The A-E Contractor ( \_\_\_\_\_ ) has completed the **Swaybranch Stormwater Detention Pond Project, City of Roswell, Fulton County, Georgia**. Notice is hereby given that a Technical Review (TR), that is appropriate to the level of risk and complexity inherent in the project, has been conducted as defined in the Quality Control Plan. During the TR, 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 result, including whether the product meets the sponsor's needs consistent with law and existing Corps policy. All comments resulting from the TR have been resolved.

\_\_\_\_\_  
NAME  
Technical Review Team Leader, [A-E Contractor]

\_\_\_\_\_  
Date

\_\_\_\_\_  
NAME  
Project Manager, [A-E Contractor]

\_\_\_\_\_  
Date

#### CERTIFICATION OF A-E CONTRACTOR TECHNICAL REVIEW

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

*(Describe the major technical concerns, possible impact, and resolution)*

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

\_\_\_\_\_  
NAME  
[A-E Contractor]

\_\_\_\_\_  
Date