



DEPARTMENT OF THE ARMY
U.S. ARMY CORPS OF ENGINEERS, SOUTH ATLANTIC DIVISION
60 FORSYTH STREET SW, ROOM 10M15
ATLANTA, GEORGIA 30303-8801

CESAD-RBT

7 July 2019

MEMORANDUM FOR Commander, Jacksonville District, 701 San Marco Boulevard,
Jacksonville, Florida 32207

SUBJECT: Approval of the Review Plan for the Shore Protection Project, Palm Beach County,
Mid-Town Segment

1. References:

a. Memorandum, CESAJ-EN-Q, subject as above.

b. Engineering Circular (EC) 1165-2-217, Water Resources Policies and Authorities
Review Policy for Civil Works, 20 February 2018.

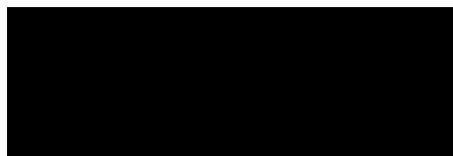
2. The Review Plan (RP) for the Shore Protection Project Palm Beach Count, Mid-Town
Segment and reference 1.a. noted above have been reviewed by South Atlantic Division (SAD).
The RP is hereby approved in accordance with reference 1.b.

3. SAD concurs with the District's RP recommendation that outlines the requirements for District
Quality Control (DQC), Agency Technical Review (ATR), and Biddability, Constructability,
Operability, Environmental and Sustainability (BCOES) Review. The Safety Assurance Review/
Type II Independent External Peer Review is not required. Documents to be reviewed include
the pre-final Plans and Specifications and the Design Documentation Report (DDR).

4. The South Atlantic Division Office shall be the Review Management Organization for this
project.

5. The District should take steps to post the approved RP to its website and provide a link to
CESAD-RBT. Before posting to the website, the names of Corps/Army employees should be
removed. Subsequent significant changes to this RP, such as scope or level of review changes,
should they become necessary, will require new written approval from this office.

6. The SAD point of contact is [REDACTED].



Brigadier General, USA
Commanding



DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS, JACKSONVILLE DISTRICT
701 SAN MARCO BOULEVARD
JACKSONVILLE, FLORIDA 32207-8915

CESAJ-EN-Q

MEMORANDUM FOR Commander, South Atlantic Division (CESAD-RBT), 60 Forsyth Street SW, Room 10M15, Atlanta, GA 30303

SUBJECT: Approval of Review Plan for the Shore Protection Project Mid-Town Palm Beach County

1. References.

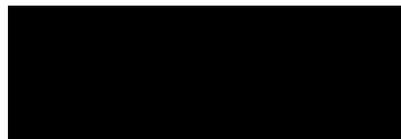
- a. Engineering Circular (EC) 1165-2-217, Review Policy for Civil Works, 20 Feb 18.
- b. Bipartisan Budget Act of 2018, Public Law 115-123, 9 Feb 2018.

2. I hereby request approval of the enclosed Review Plan for the Shore Protection Project Mid-Town Palm Beach County and concurrence with the conclusion that a Type II Independent External Peer Review (IEPR) of the subject project is not required. The recommendation not to perform a Type II IEPR is based on the EC 1165-2-217 Risk Informed Decision Process as presented in the Review Plan. The Review Plan complies with applicable policy, provides for Agency Technical Review, and has been coordinated with the CESAD. It is my understanding that non-substantive changes to this Review Plan, should they become necessary, are authorized by CESAD.

3. The district will post the CESAD approved Review Plan to its website and provide a link to the CESAD for its use. Names of Corps/Army employees will be withheld from the posted version, in accordance with guidance.

4. If you have any questions regarding the information in this memo, please feel free to contact me or contact [REDACTED].

Encl



COL, EN
Commanding

PROJECT REVIEW PLAN

For

Preconstruction, Engineering and Design Phase Implementation Documents

For

Shore Protection Project (SPP), Mid-Town Segment Beach Renourishment 2019 Palm Beach County, Florida

Project P2 number: 475687

Jacksonville District

June 2019



**US Army Corps
of Engineers** ®

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, JACKSONVILLE DISTRICT. IT DOES NOT REPRESENT AND SHOULD NOT BE CONSTRUED TO REPRESENT ANY AGENCY DETERMINATION OR POLICY.

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ATTACHMENT B - Partial List of Acronyms and Abbreviations

ATTACHMENT C - ATR Report Outline and Completion of Agency Technical Review Form

1. PURPOSE AND REQUIREMENTS

a. Purpose

This Review Plan defines the scope of review activities for the Shore Protection Project (SPP) Mid-Town Segment Beach Restoration in Palm Beach County, Florida. As discussed below, the review activities consist of a District Quality Control (DQC) effort, an Agency Technical Review (ATR), and a Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review. Also, as discussed below, an Independent External Peer Review (IEPR) is not recommended. The Mid-Town segment of the Palm Beach SPP is currently in the Pre-Construction, Engineering and Design (PED) phase. The implementation documents to be reviewed are Plans and Specifications (P&S) and a Design Documentation Report (DDR). Upon approval, this Review Plan will be included into the Project Management Plan (PMP) for this project as an appendix to the Quality Management Plan (QMP).

b. References

- (1). ER 1110-2-1150, Engineering and Design for Civil Works Projects, 31 August 1999
- (2). ER 1110-1-12, Engineering and Design Quality Management, 31 March 2011
- (3). EC 1165-2-217, Review Policy for Civil Works, 20 February 2018
- (4). ER 415-1-11, Biddability, Constructability, Operability, Environmental, and Sustainability (BCOES) Review, 1 January 2013
- (5). 02611-SAJ Quality Control of In-House Products: Civil Works PED, 4 December 2017
- (6). Project Management Plan for the Mid-Town Segment for Palm Beach County SPP.

c. Requirements

This Review Plan was developed in accordance with EC 1165-2-217, 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 provides the procedures for ensuring the quality and credibility of U.S. Army Corps of Engineers (USACE) decision, implementation, and operations and maintenance documents and other work products. The EC outlines five levels of review: DQC, ATR, IEPR, BCOES, and Policy and Legal Review.

d. Review Plan Approval and Updates

The South Atlantic Division (SAD) Commander is responsible for approving this Review Plan. The Commander's approval reflects vertical team input as to the appropriate scope and level of review. Like the PMP, the Review Plan is a living document and may change as the project progresses. The Jacksonville District (SAJ) is responsible for keeping the Review Plan up to date. Minor changes to the Review Plan since the last SAD Commander approval will be

documented in Attachment A. 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. The latest version of the Review Plan, along with the Commander's approval memorandum, will be posted on the SAJ's webpage. The latest Review Plan will be provided to SAD.

e. Review Management Organization

SAD is designated as the Review Management Organization (RMO). The RMO, in cooperation of the vertical team, will approve the ATR team members. SAJ will assist SAD with management of the ATR and development of the charge to reviewers.

2. PROJECT INFORMATION

a. Project Location

The project is located on Palm Beach Island along Florida's Atlantic Coast in Palm Beach County, Florida. Palm Beach Island is about 15.7 miles long and bounded to the north by Lake Worth Inlet and to the south by South Lake Worth Inlet. Lake Worth Lagoon and the Intracoastal Waterway (IWW) separate Palm Beach Island from the mainland. The town of Palm Beach occupies the northern most limit of the island about 10.5 miles. The remaining occupied parts are the City of Lake Worth, and the towns of South Palm Beach, Lantana, and Manalapan. Access to the island is via Flagler Memorial Bridge, Royal Park Bridge, and Southern Boulevard Bridge

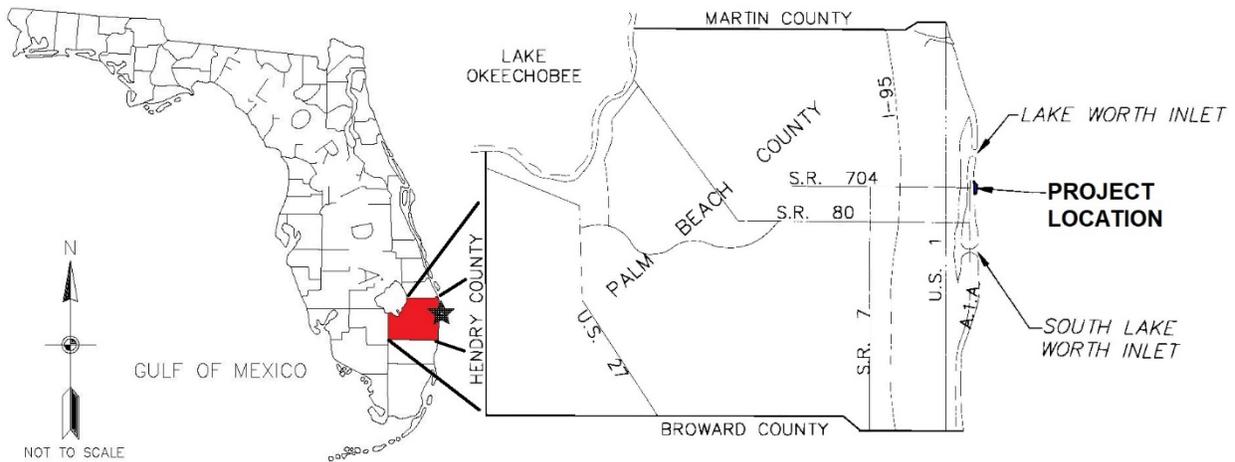


Figure 2-1: Project Location

3. Project Authorization

The shore protection project for Palm Beach County from Lake Worth Inlet to South Lake Worth Inlet, Florida was authorized by Section 101 of the 3 July 1958 River and Harbor Act.

The project was authorized in accordance with the report of the Chief of Engineers, Department of the Army.

The Chief's report and project description are contained in House Document 342/85/2 dated on December 11, 1957.

The recommended plan for protection of Palm Beach Island will restore and stabilize the shoreline, protect adjacent property, and reduce shoaling of the federally maintained navigation channel. Benefits from prevention of direct damages, elimination of maintenance of existing seawalls, increased earning power of property, recreational benefits to the general public, and Federal benefits from reduction of channel shoaling justify the recommended protective measures. About 8.4 percent of the shore is publicly owned and public benefits will result from protection of certain other sections of shore.

Chief's Report authorizes Federal participation for 10 years after initial construction. To date, the project has not been constructed by the USACE. The authorized berm is +10 feet MLW (7.65 feet NAVD88) to a general width of 150 feet from mean high water.

a. Project Description

The proposed project is to federally establish approximately 2.6 miles of shoreline within the Town of Palm Beach, Florida. The placement area is known locally as Mid-Town Beach. The project will be split between base and two options. The base bid is a split between placement areas separated by the Breakers Hotel. The northern base is to place beach quality material between Wells Road (R-91) to northern property line of the Breakers Hotel (R-94). The southern base is for placement between the southern property of the breakers hotel (R-95) to Banyan Road (R-102). Option A is northern placement area of the project from Wells Road (R-91) northward 0.4 miles. Lastly, Option B is to place beach quality material in front of the breakers hotel. Please note, the placement area has a mixed assortment of existing shoreline protection measures such as groins, t-heads and revetments to place fill on or around. The primary sand source is located 6 miles north of the placement area and 1 mile offshore of Singer Island in 50 foot water.

b. Public Participation

The SAJ's Corporate Communications Office continually keeps the public informed on SAJ projects and activities. There are no controversial concerns, planned activities, public participation meetings, or workshops that could generate issues needing provision to review teams. The project Review Plan will be posted on the SAJ's webpage. Any comments or questions regarding the Review Plan will be addressed by SAJ.

c. In-Kind-Contributions by Project Sponsor

There are no in-kind sponsor contributions related to the P&S and DDR that will affect this Review Plan or related reviews.

d. Civil Works Cost Engineering Mandatory Center of Expertise Review and Certification

The cost related documents associated with this contract do not require external peer review or certification. Therefore, no additional review requirements will be executed by the Cost Engineering Mandatory Center of Expertise (MCX) for the implementation documents addressed by this Review Plan.

4. DISTRICT QUALITY CONTROL

a. Requirements

All implementation documents (including supporting data, analyses, environmental compliance documents, etc.) shall undergo a DQC. A DQC is an internal review process of basic science and engineering work products focused on fulfilling the project quality requirements defined in the PMP. DQC will be performed on P&S and DDR in accordance with SAJ's Engineering Division Quality Management System (EN QMS). The EN QMS 02611 defines DQC as the sum of two reviews, Discipline Quality Check and Review (DQCR) and Product Quality Control Review (PQCR).

b. Documentation

DQCRs occur during the design development process and are carried out as a routine management practice by each discipline. Checklists are utilized by each discipline to facilitate the review and to document the DQCR review comments. Certification of the DQCR is signed by the Branch Chief certifying that all design analyses and products have been completed in accordance with the EN QMS process prior to release from the Branch.

The PQCR shall ensure consistency and effective coordination across all disciplines and shall assure the overall coherence and integrity of the products. Review comments and responses for this review will be documented in DrCheckssm. The PQCR shall be QC certified by the Engineering Technical Lead (ETL), all applicable Section and Branch Chiefs, and the Division Chief. This PQCR certification signifies that all DQCR Certifications are complete, as well as the PQCR.

5. AGENCY TECHNICAL REVIEW

a. Risk Informed Decision on Appropriate Level of Review

PED phase implementation documents for the project are being prepared. An ATR of the pre-final P&S and DDR documents for the design of the initial construction of the project will be undertaken.

b. Agency Technical Review Scope

ATR is undertaken to "ensure the quality and credibility of the government's scientific information" in accordance with EC 1165-2-217 and ER 1110-1-12.

A site visit will not be scheduled for the ATR Team. If necessary, additional data and photos of the project site required by the ATR team will be gathered by PDT members during plan-in-hand site visits. This information will be disseminated to the ATR Team by the PDT.

ATR will be conducted by individuals and organizations that are external to the SAJ. The ATR Team Leader will be a USACE employee outside the South Atlantic Division. The required disciplines and experience are described below.

ATR comments will be documented in the DrCheckssm model review documentation database. DrCheckssm is a module in the ProjNetsm suite of tools developed and operated at ERDC-CERL (www.projnet.org). At the conclusion of ATR, the ATR Team Leader will prepare an ATR Review Report that summarizes the review. An outline for an ATR Review Report is in Attachment C. The report will include at a minimum the Charge to Reviewers, ATR Certification Form from EC 1165-2-217, and the DrCheckssm printout of the comment resolution.

c. ATR Disciplines

As stipulated in ER 1110-1-12, ATR members will be sought from the following sources: regional technical specialists (RTS); subject matter experts (SME) certified in CERCAP; senior level experts from other districts; Center of Expertise staff; experts from other USACE commands; contractors; academic or other technical experts; or a combination of the above. The ATR Team will be comprised of the following disciplines; knowledge, skills and abilities; and experience levels.

ATR Team Leader - The ATR Team Leader shall be from outside SAD and should have a minimum of 10 years of experience with shore protection projects. The ATR Team Leader may be a co-duty with one of the other review disciplines.

Coastal Engineering - The team member should have minimum of 10 years of experience in littoral processes, beach renourishment, and the handling and beach placement of dredged material in the environs found along the southeastern coast of the United States.

Construction Management - The team member shall have 5 years of construction management experience with beach nourishment.

NEPA Compliance - The NEPA compliance reviewer shall be a senior environmental resources specialist with 5 years of experience in NEPA compliance activities associated with navigation and marine ecology projects. For reference, NEPA and other environmental documents will be submitted to the ATR team with the DDR and Plans and Specifications to aid in performing ATR.

6. BIDDABILITY, CONSTRUCTABILITY, OPERABILITY, ENVIRONMENTAL, AND SUSTAINABILITY REVIEW

The value of a BCOES review is based on minimizing problems during the construction phase through effective checks performed by knowledgeable, experienced personnel prior to advertising for a contract. BCOES review requirements must be emphasized throughout the planning and design processes for all programs and projects, including during planning and design. This will help to ensure that the government's contract requirements are clear, executable, and readily understandable by private sector bidders or proposers. It will also help ensure that the construction may be done efficiently and in an environmentally sound manner, and that the construction activities and projects are sufficiently sustainable. Effective BCOES reviews of design and contract documents will reduce risks of cost and time growth, P&S unnecessary changes and claims, as well as support safe, efficient, sustainable operations and maintenance by the facility users and maintenance organization after construction is complete. A BCOES Review will be conducted for this project. Requirements and further details are stipulated in ER 1110-1-12, ER 415-1-11, and SAJ EN QMS 02611.

7. INDEPENDENT EXTERNAL PEER REVIEW

a. General.

EC 1165-2-217 provides implementation guidance for both Sections 2034 and 2035 of the Water Resources Development Act (WRDA) of 2007 (Public Law (P.L.) 110-114). The EC addresses review procedures for both the Planning and the Design and Construction Phases (also referred to in USACE guidance as the Feasibility and the Pre-construction, Engineering and Design Phases). The EC defines Section 2035 Safety Assurance Review (SAR), Type II Independent External Peer Review (IEPR). The EC also requires Type II IEPR be conducted outside USACE.

b. Type I Independent External Peer Review Determination.

A Type I IEPR is primarily associated with decision documents. A Type I IEPR is not applicable to the implementation documents covered by this Review Plan.

c. Type II Independent External Peer Review Determination.

This project does not trigger WRDA 2007 Section 2035 factors for Safety Assurance Review (termed Type II IEPR in EC 1165-2-217). Therefore, a review under Section 2035 is not required. The factors in determining whether a review of design and construction activities of a project are necessary as stated under Section 2035, along with this Review Plan's applicability statements, follow:

- (1). The failure of the project would pose a significant threat to human life.
Failure of the project would not pose a threat to human life. The project consists of the placement of sand along eroded beaches.

- (2). The project involves the use of innovative materials or techniques.
This project will utilize methods and techniques used by the USACE on other similar works.
- (3). The project design lacks redundancy.
The concept of redundancy does not apply to this project.
- (4). The project has unique construction sequencing or a reduced or overlapping design construction schedule.
The project does not have or pose unique sequencing or a reduced or overlapping design. The construction methods and procedures have been used successfully by the USACE on other similar works. This project is a non-complex, beach nourishment project.

Based on the discussion above, the District Chief of Engineering, as the Engineer-In-Responsible-Charge, does not recommend a Type II IEPR Safety Assurance Review of the P&S and DDR.

8. POLICY AND LEGAL COMPLIANCE

The SAJ Office of Counsel reviews all contract actions for legal sufficiency in accordance with Engineer Federal Acquisition Regulation Supplement 1.602-2 Responsibilities. The subject implementation documents and supporting environmental documents will be reviewed for legal sufficiency prior to advertisement.

9. MODEL CERTIFICATION AND APPROVAL

The project uses Bentley MicroStation’s Inroads Package to determine the placement volumes and borrow area capacity. Bentley MicroStation is a CAD software platform for two and three dimensional design and drafting, developed and sold by Bentley Systems and used in the architectural and engineering industries. This approved for use by USACE.

10. PROJECT DELIVERY TEAM DISCIPLINES

Table 1: PDT Disciplines

PDT Disciplines
Civil/Coastal Engineering
Construction Management
Coastal Geology
NEPA Reviewer

11. BUDGET AND SCHEDULE

a. Project Milestones.

Table 2: Project Schedule Milestones

Task	Date
DQCR Complete	April, 29, 2019
PQCR Complete	June 17, 2019
ATR Review	June 18, 2019 to July 2, 2019
ATR Certification	June 9, 2019 – July 23, 2019
BCOES Review	June 28, 2019 – July 12, 2019
BCOES Certification	July 19, 2019 – July 26, 2019

b. ATR Cost.

Funds will be budgeted to execute ATR and schedule as outlined above. It is envisioned that each reviewer will be afforded 24 hours review plus 8 hours for coordination. The estimated cost range is \$25,000 - \$30,000.

12. REVIEW PLAN POINTS OF CONTACT

Table 3: Review Plan Milestones

Title	Organization	Phone
Review Manager	CESAJ-EN-Q	
Quality Manager	CESAD-RBT	

ATTACHMENT A: APPROVED REVIEW PLAN REVISIONS

Table 4: Review Plan Revisions

Revision Date	Description of Change	Page / Paragraph Number

ATTACHMENT B: PARTIAL LIST OF ACRONYMS AND ABBREVIATIONS

Acronyms	Defined
AFB	Alternatives Formulation Briefing
ATR	Agency Technical Review
BCOES	Biddability, Constructability, Operability, Environmental, and Sustainability Review
BOEM	Bureau of Ocean Energy Management
CAP	Continuing Authorities Program
CERCAP	Corps of Engineers Reviewer Certification and Access Program
CY	Cubic Yards
DDR	Design Documentation Report
DQC	District Quality Control
DQCR	Discipline Quality Control Review
EC	Engineering Circular
EA	Environmental Assessment
EN QMS	Engineering Division Quality Management System
ER	Engineering Regulation
ERDC-CERL	Engineer Research and Development Center – Construction Engineering Research Laboratory
ESA	Endangered Species Act
ETL	Engineering Technical Lead
FDEP	Florida Department of Environmental Protection
FONSI	Findings of No Significant Impacts
FSCA	Feasibility and Cost Sharing Agreement
FY	Fiscal Year
GRR	General Reevaluation Report
IEPR	Independent External Peer Review
LPP	Locally Preferred Plan
MCX	Mandatory Center of Expertise
MLLW	Mean Low Low Water
MSC	Major Subordinate Command
NAS	National Academy of Sciences
NED	National Economic Development
NEPA	National Environmental Policy Act
ODMDS	Ocean Dredged Material Disposal Site
OMB	Office of Management and Budget
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
P&S	Plans and Specifications
PED	Preconstruction Engineering and Design

Acronyms	Defined
PDT	Project Delivery Team
PM	Project Manager
PMP	Project Management Plan
PPA	Project Partnering Agreement
PQCR	Product Quality Control Review
QA	Quality Assurance
QCP	Quality Control Plan
QMP	Quality Management Plan
QMS	Quality Management System
RMC	Risk Management Center
RMO	Review Management Organization
RP	Review Plan
RTS	Regional Technical Specialist
SAJ	South Atlantic Jacksonville District Office
SAD	South Atlantic Division Office
SAR	Safety Assurance Review (also referred as Type II IEPR)
SME	Subject Matter Expert
USACE	U.S. Army Corps of Engineers
WRDA	Water Resources and Development Act

Table 5: Abbreviations

ATTACHMENT C:

ATR REPORT OUTLINE AND COMPLETION OF AGENCY TECHNICAL REVIEW

**Shore Protection Project Mid-Town Segment Beach Renourishment 2019
Implementation Documents
Palm Beach County, Florida**

ATR REPORT OUTLINE (Unneeded items, such as ATR Team Member Disciplines that are not identified as needed in the Review Plan, shall be deleted from the ATR Report.)

- 1. Introduction:**
- 2. ATR Team Members:**
 - ATR Team Leader
 - Coastal Engineering
 - Construction Management
 - NEPA Reviewer
- 3. ATR Objective:**
- 4. Documents Reviewed:**
- 5. Findings and Conclusions:**
- 6. Unresolved Issues:**

COMPLETION OF AGENCY TECHNICAL REVIEW

The Agency Technical Review (ATR) has been completed for the Preconstruction, Engineering and Design Phase Implementation Documents for the Shore Protection Project, Mid-Town Segment Beach Renourishment 2019 Palm Beach County Florida, including the design documents, plans and specifications and DDR. The ATR was conducted as defined in the project's Review Plan to comply with the requirements of EC 1165-2-217 and ER 1110-1-12. 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 DrCheckssm.

NAME
ATR Team Leader

Date

NAME
Project Manager

Date

Review Management Office Representative
CESAD-RBT

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.

Chief, Engineering Division

Date

SAJ-EN