



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
US ARMY CORPS OF ENGINEERS
SOUTH ATLANTIC DIVISION
60 FORSYTH STREET SW, ROOM 10M15
ATLANTA, GA 30303-8801

CESAD-RBT

20 December 2011

MEMORANDUM FOR COMMANDER, CHARLESTON DISTRICT (CESAC-PM-P/
LISA A. METHENEY)

SUBJECT: Approval of the Review Plan for Project Letter Report and Plans and Specifications for Lake Marion Regional Water System, South Carolina

1. References:

a. Memorandum, CESAC-PM-P, 7 November 2011, Subject: Approval of the Review Plan for Project Letter Report and Plans and Specifications for Lake Marion Regional Water System, South Carolina (Enclosure).

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

2. The Review Plan for the for Project Letter Report and Plans and Specifications for Lake Marion Regional Water System, South Carolina dated November 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 that neither an Agency Technical Review (ATR), nor an Independent External Peer Review (IEPR) Types I or II are required for this Environmental Infrastructure, WRDA 1992 Section 219 Project effort. The primary basis for the concurrence is;

a. The 30 June Letter Report is a scoping document and not a decision document and that neither an IEPR nor ATR will appreciably improve the quality nor reduce the risk associated with the scoping of this work effort.

b. The scope of work added by the 30 June Letter Report is a wastewater treatment component consisting of a wastewater treatment facility with associated wastewater collection lines. This type of work more closely resembles the work typically performed by the Corps of Engineers under its Interagency International Support (IIS) Program or Military Support Program. Neither of these programs is subject to the IEPR or ATR review requirements of EC 1165-2-209.

c. As agreed upon in the existing 14 January 2002 Amendment One to the Design Agreement between the Department of the Army and the Lake Marion Regional Water Agency;

(1) The design of this project effort is by the South Carolina Public Service Authority (a state agency of the State of South Carolina) for the Lake Marion Regional Water Agency (the Non-Federal Sponsor), and is gratuitously proved by the Non-Federal Sponsor for the Federal Government's use.

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(2) The Government and the Non-Federal Sponsor believe that use of the design provided by the South Carolina Public Service Authority is in the mutual best interest of both parties in expediting completion of the design and reducing overall design costs.

(3) The design submitted by the Non-Federal Sponsor shall be reviewed by the Government under the Bidability, Constructability, and Operability criteria and if the design is determined to be adequate, the design will be incorporated into a standard Government design package meeting all appropriate regulations.

d. The Design Agreement between the Department of the Army and the Lake Marion Regional Water Agency and Amendment One to the Design Agreement predate issuance of EC 1165-2-209. The Lake Marion Regional Water Agency, South Carolina Public Service Authority and their design agents have their own Quality Control and Quality Assurance review processes. The BCO Review will be executed to determine the adequacy of the design. Neither an IEPR nor ATR will appreciably improve the quality nor reduce the risk associated with the acceptance of this design for use by the Federal Government. However, executing either an IEPR or an ATR will lengthen the schedule and increase design costs.

e. The failure of this project will not pose a significant threat to human life. Therefore, a Type II IEPR is not be required by EC 1165-2-209.

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.

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

FOR THE COMMANDER:

Encl


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



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY
CHARLESTON DISTRICT, CORPS OF ENGINEERS
69A HAGOOD AVENUE
CHARLESTON, SOUTH CAROLINA 29403-5107

NOV 7 2011

CESAC-PM-P

MEMORANDUM FOR Commander, South Atlantic Division (CESAD-RBT)

SUBJECT: Approval of Review Plan for Project Letter Report and Plans and Specifications for Lake Marion Regional Water System, South Carolina

1. References.
 - a. EC 1165-2-209, Civil Works Review Policy, 31 January 2010
 - b. WRDA 2007, H. R. 1495 Public Law 110-114, 8 November 2007
2. I hereby request approval of the enclosed Review Plan and concurrence with the conclusion that neither an Agency Technical Review (ATR), nor an Independent External Peer Review (IEPR) Types I or II, nor a Model Certification/Approval are required as based on the Risk Informed Decision Process contained therein. Approval of the Review Plan is for Construction Phase Implementation Documents. The Plan complies with applicable policy and includes District Quality Control (DQC) procedures.
3. The District will post the CESAD approved Review Plan on its website and will provide a link to the CESAD for its use. Names of Corps/Army employees will not be posted in accordance with guidance.

FOR THE COMMANDER:

Encl

LISA A. METHENEY
Asst. Chief,
Programs & Project Management Division

**Review Plan
Project Letter Report and Plans and
Specifications for
Lake Marion Regional Water System:
South Carolina**



US Army Corps of Engineers, Charleston District

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

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Revision History:

Original November 2011

REVIEW PLAN
Project Letter Report and Plans and Specifications for
Lake Marion Regional Water System: South Carolina

1. Purpose and Requirements.

This document provides a review plan for the Lake Marion Regional Water System Project Letter Report 30 June 2011 Revision and Plans and Specifications that support the construction of the scope of work in this Project Letter Report. Engineer Circular (EC) 1165-2-209 dated 31 January 2010, "Civil Works Review Policy," 1) establishes a 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 (OMRRR); and 2) establishes the appropriate level of independence of reviews as well as detailed requirements, including documentation and dissemination.

All appropriate levels of review (District Quality Control , Agency Technical Review, Independent External Peer Review and Policy and Legal Review) addressed by EC 1165-2-209 will be included in the Review Plan. A risk-informed decision will be provided in the Review Plan for any level of review that will not be undertaken.

- (a) **District Quality Control (DQC).** DQC is the review of basic science and engineering work products focused on fulfilling the project quality requirements defined in the Project Management Plan (PMP). It is managed in the home district and may be conducted by staff in the home district as long as they are not doing the work involved in the effort, including contracted work that is being reviewed. Basic quality control tools include a Quality Management Plan providing for seamless review, quality checks and reviews, supervisory reviews, Project Delivery Team (PDT) reviews, etc. Additionally, the PDT is responsible for a complete reading of the documents to assure the overall integrity of the documents, including plans, specifications, etc. and recommendations before approval by the District Commander. The District quality management plan addresses the conduct and documentation of this fundamental level of review.
- (b) **Agency Technical Review (ATR).** ATR is an in-depth review, managed by the USACE Review Management Organization (RMO) and conducted by a qualified team outside of the home district that is not involved in the day-to-day production of the project/product.
- (c) **Independent External Peer Review (IEPR).** 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 USACE is warranted.

- 1) Type I IEPR. Type I IEPR reviews are managed outside the USACE and are conducted on project studies. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. Type I IEPR will cover the entire decision document or action and will address all underlying engineering, economics, and environmental work, not just one aspect of the study.
- 2) 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. The reviews shall consider the adequacy, appropriateness, and acceptability of the design and construction activities in assuring public health safety and welfare.

(d) **Policy and Legal Compliance Review.** Documents will be reviewed throughout the process for their compliance with law and policy. These reviews culminate in determinations that the design and specifications and the supporting analyses and coordination comply with law and policy, and warrant approval. Guidance for policy and legal compliance reviews is addressed further in Appendix H, ER 1105-2-100, Planning Guidance Notebook. When policy and/or legal concerns arise during DQC or ATR that are not readily and mutually resolved by the PDT and the reviewers, the District will seek issue resolution support from the MSC and HQUSACE in accordance with the procedures outlined in Appendix H, ER 1105-2-100. IEPR teams are not expected to be knowledgeable of Army and administration policies, nor are they expected to address such concerns. The home district Office of Counsel is responsible for the legal review of each decision document and signing a certification of legal sufficiency. Policy and legal compliance review is required for this project.

(e) **Review Management Organization (RMO).** The USACE organization managing a particular review effort is designated the RMO for that effort. Different levels of review and reviews associated with different phases of a single project can have different RMOs.

2. **Project Information and Background.** The Lake Marion Regional Water Agency (LMRWA) serves as the non-Federal Sponsor for construction of the Lake Marion Regional Water System Project located in Calhoun, Clarendon, Dorchester, Orangeburg and Sumter counties, South Carolina.

In the mid 1990's, a consortium of county officials and industry leaders came together and developed a plan to provide clean potable water to the central portion of South Carolina, near the I-26/I-95 corridor area. Subsequently, a steering committee was established and LMRWA was formed. The agency is a fully constituted public body, which was issued a certificate of incorporation as a public body corporate and politic under the Joint Municipal Water Systems Act by the Secretary of State (South Carolina) on 16 April 1998. By the aforementioned Act, the LMRWA was comprised of a named representative from the towns of Elloree, Holly Hill, Manning, Santee, St. George and Summerton, and each of the following five counties: Calhoun, Clarendon, Dorchester, Orangeburg and Sumter counties. With respect to the formal admission of Berkeley County to the LMRWA, the South Carolina Secretary of State issued an Amended Certificate of Incorporation for the Lake Marion Regional Water Agency, dated September 6, 2006, by which the Secretary certified the membership of Berkeley County. By that same Amended Certificate of Incorporation, the Secretary certified the membership of the City of Sumter, the Town of Harleyville, and the Town of Turbeville. These counties and municipalities are primarily contained within South Carolina's sixth Congressional District, represented by James E. Clyburn.

General Site Description. The Lake Marion Regional Water System is located in Calhoun, Clarendon, Dorchester, Orangeburg and Sumter Counties of South Carolina. When completed, it will consist of water and wastewater components, including over 70 miles of water lines and over 20 miles of wastewater lines, elevated water storage tanks, and water and wastewater treatment facilities.

Project Scope. The Corps of Engineers became involved with this project late in the process. When the Corps received an initial appropriation in FY 01, Santee Cooper (South Carolina Public Service Utility), serving as the agency's technical advisor, was already well underway with design contracts with two private engineering consultants. Since the Corps' authority was to provide planning, engineering, design, and construction assistance, the Corps executed a Design Agreement, and then executed an amendment to the Design Agreement, which would allow the Corps to accept donated goods and services (i.e., the design) for the project.

Corps' responsibilities include: preparation of environmental documents, real estate certification, design review of plans and specifications, value engineering studies and construction contract procurement, administration and oversight.

The 30 June Revision to the Lake Marion Regional Water System Project Letter Report is to increase the scope of Corps involvement in the project, as authorized by Congress in P. L. 108-137, the Energy and Water Development Appropriations Act for Fiscal Year 2004. This revision adds a wastewater treatment component consisting of a wastewater treatment facility located in Orangeburg County with the associated wastewater collection lines. These added features are identified as the Goodbys Creek Wastewater Treatment Facility, the Goodbys Creek Wastewater Collection System, the Highway 176 to I-95 Intersection Extension and the Town of Elloree Wastewater Extension.

The design for these added features (as has been done on all project features) is being provided by the Non-Federal Sponsor and reviewed by the Corps under an existing Design Agreement. This Design Agreement indicates that the design will be reviewed by the Corps under Bidability, Constructability, and Operability criteria and if determined adequate may be incorporated into a standard Government design package meeting all statutory requirements as well as requirements of the Federal Acquisition Regulation and other appropriate regulations, which states that the Lake Marion Regional Water System will be constructed with project plans and specifications provided by the Non-Federal Sponsor.

Since the 30 June Revision of the Lake Marion Regional Water System Project Letter Report is a scoping document and not a decision document, the Charleston District PDT has determined it is a "other work product" under EC 1165-2-209. Also, since the plans and specifications are being provided by the sponsor, the plans and specifications have also been determined to be "other work products" under EC 1165-2-209.

3. Project Delivery Team (PDT). The PDT is comprised of those individuals directly involved in the project.

4. District Quality Control .

District Quality Control will be performed on both the Project Letter Report and Plans and Specifications for this effort. The home District is responsible for managing the District Quality Control (DQC). DQC reviews will be conducted by district personnel who did not perform the original work on the Project Letter Report and who were not involved in providing technical direction to the Plan and Specification developers. All DQC activities will be conducted in accordance with ER 1110-1-12 Engineering & Design Quality Management and EC 1165-2-209 as well as the district quality manual to ensure proper DQC implementation.

5. Agency Technical Review (ATR) Risk Informed Decision.

a. EC 1165-2-209 directs the Project Delivery Team (PDT) to make a risk informed decision regarding ATR for "other work Products." The evaluation of EC 1165-2-209 Paragraph 15.b questions and resulting answers that are shown below was part of the PDT's risk informed decision process.

(1) Does it include any design (structural, mechanical, hydraulic, etc)?

No. The design is being provided by the Sponsor and reviewed by the Corps under an existing Design Agreement which states that the Lake Marion Regional Water System will be constructed with project plans and specifications provided by the Non-Federal Sponsor.

(2) Does it evaluate alternatives?

No. Evaluation of alternatives is provided by the Non-Federal Sponsor under an existing Design Agreement. In addition, NEPA documents include an evaluation of alternatives.

(3) Does it include a recommendation?

No. Recommendations are provided by the Non-Federal Sponsor under an existing Design Agreement. In addition, NEPA documents include recommendations.

(4) Does it have a formal cost estimate?

Yes. Independent Government Estimates are provided for the construction contracts.

(5) Does it have or will it require a NEPA document?

Yes. NEPA documents include the original joint Corps-EPA Environmental Assessment for the water system which was completed in February 2004, and the joint USDA-Corps Environmental Assessment for the wastewater system which was completed in June 2011.

(6) Does it impact a structure or feature of a structure whose performance involves potential life safety risks?

No. There is no life safety risk associated with infrastructure project performance.

(7) What are the consequences of non-performance?

Failure or improper operation of the water and wastewater treatment project may impact the availability of these services.

(8) Does it support a significant investment of public monies?

Yes. Congress has authorized and appropriated federal funds for this project.

(9) Does it support a budget request?

No. The project implements appropriated funds.

(10) Does it change the operation of the project?

No. It is the original construction of these infrastructure project features.

(11) Does it involve ground disturbances?

Yes. Construction will involve ground disturbances.

(12) Does it affect any special features, such as cultural resources, historic properties, survey markers, etc, that should be protected or avoided?

No. All project areas have clearances from the proper authorities.

(13) Does it involve activities that trigger regulatory permitting such as Section 404 or stormwater/NPDES related actions?

Yes. Construction activities will require stormwater and ground disturbance permits. No specific Section 404 analysis will be required but some construction will occur under Nationwide Permit 12.

(14) Does it involve activities that could potentially generate hazardous wastes and/or disposal of materials such as lead based paints or asbestos?

No.

(15) Does it reference use of or reliance on manufacturers' engineers and specifications for items such as prefabricated buildings, playground equipment, etc?

Yes. Such items may include pre-fabricated and modular wastewater system components which are used routinely throughout the industry.

(16) Does it reference reliance on local authorities for inspection/certification of utility systems like wastewater, stormwater, electrical, etc?

Yes.

(17) Is there or was there expected to be any controversy surrounding the Federal action associated with the work product?

No.

The PDT has assessed the Project Letter Report and the Plans and Specifications development effort, evaluated the questions and answers above and has determined that an ATR is not warranted on either product.

6. Independent External Peer Review (IEPR) Risk Informed Decision.

EC 1165-2-209 directs the Project Delivery Team (PDT) to make a risk informed decision regarding IEPR.

a. General. EC 1165-2-209 identifies two types of IEPRs. A Type I IEPR is associated with decision documents. Type I IEPR panels assess the adequacy and acceptability of the economic and environmental assumptions and projections, project evaluation data, economic analysis, environmental analyses, engineering analyses, formulation of alternative plans, methods for integrating risk and uncertainty, models used in the evaluation of environmental impacts of proposed projects, and biological opinions of the project study. A Type II IEPR is 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.

b. Type I Independent External Peer Review (IEPR) Determination. A Type I IEPR is associated with decision documents. The 30 June 2011 Lake Marion Regional Water System Project Letter Report is a scoping document and not a decision document and so limited in scope or impact that it would not significantly benefit from an independent peer review. Therefore a Type I IEPR is not warranted for this product.

c. Type II Independent External Peer Review (IEPR) Determination. In addition to the questions and answers shown in paragraph 5 above, the following additional factors were used in the risk informed decision concerning a need for a Type II IEPR.

(1) Does the failure of the project pose a significant threat to human life?

This project does not pose a significant threat to human life.

(2) Does the project involve the use of innovative materials or techniques?

This project will utilize methods and procedures used by the Corps of Engineers and the private sector on other similar works.

(3) Does the project design lack redundancy?

Redundancy is provided as a needed part of this infrastructure design/project (e.g., wastewater pumping stations have 2 pumps, one main and one backup).

(4) Does the project have unique construction sequencing or a reduced or overlapping design construction schedule?

This project's construction does not have unique sequencing or a reduced or overlapping design.

The PDT has assessed the Project Letter Report and the Plans and Specifications development effort, evaluated the questions and answers above and has determined that a Type II IEPR is not warranted on either product.

7. **Model Certification/Approval.** EC 1105-2-412 requires certification (for Corps models) or approval (for non-Corps models) of planning models used for all planning activities. No planning models are used on this project; therefore, model certification/approval is not required for this project.

8. **Approvals.**

The South Atlantic Division Commander is responsible for approving this Review Plan. Like the PMP, the Review Plan is a living document and may change as the project progresses. The home district is responsible for keeping the Review Plan up to date. Significant changes to the Review Plan (such as changes to the scope and/or level of review) should be re-approved by the MSC Commander following the process used for initially approving the plan. The latest version of the Review Plan, along with the Commanders' approval memorandum, will be posted on the Home District's webpage.

9. **Review Plan Point of Contact.**

Questions and/or comments on this review plan can be directed to the following point of contact at the home district or MSC:

Home District
Civil Works Project Manager
(843) 329-8160 office