



**DEPARTMENT OF THE ARMY**  
MISSISSIPPI VALLEY DIVISION, CORPS OF ENGINEERS  
P.O. BOX 80  
VICKSBURG, MISSISSIPPI 39181-0080

REPLY TO  
ATTENTION OF:

CEMVD-PD-N

21 July 08

MEMORANDUM FOR Commander, New Orleans District

SUBJECT: Peer Review Plan (PRP), St. Charles Parish Urban Flood Control Feasibility Study

1. References:

- a. EC 1105-2-408, Peer Review of Decision documents, 31 May 2005.
- b. Memorandum, CECW-CP, 30 March 2007, subject: Peer Review Process.
- c. Memorandum, March 2007, subject: Supplemental information for the "Peer Review Process."
- d. Email, CESPCK-PD-W, 2 February 2008, subject: St. Charles Peer Review Plan (encl).

2. I hereby approve subject PRP and concur in the recommendation that External Peer Review (EPR) of this project is not required since the implementation cost will not exceed the \$45 million threshold for EPR requirement as per WRDA 2007, Section 2034. Based upon EC 1105-2-408, 31 May 2005, decision documents will not undergo EPR if the subject matter is not controversial and is not precedent setting. The proposed PRP has been coordinated with the National Planning Center of Expertise for Flood Risk Management (PCX-CFRM). The PRP complies with all applicable policies and provides an adequate independent technical review of the plan formulation, engineering and environmental analyses, and other aspects of the plan development. Non-substantive changes to this PRP do not require further approval.

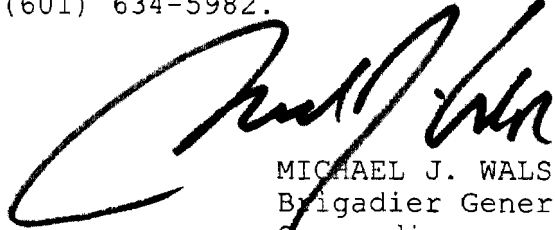
3. The District should take steps to post the PRP to its web site and to provide a link to the PCX-CFRM for their use. Before posting to the web site, the names of Corps/Army employees should be removed in accordance with reference 1.b. above.

CEMVD-PD-N

SUBJECT: Peer Review Plan (PRP), St. Charles Parish Urban Flood Control Feasibility Study

4. The MVD point of contact is Ms. [REDACTED], CEMVD-PD-N, at (601) 634-5982.

Encl



MICHAEL J. WALSH  
Brigadier General, USA  
Commanding

CF:

CESPD-PSD-P (PCX-CFRM, Frentzen)

CEMVN-PM-W (Sims)

CECW-CP



**US Army Corps  
of Engineers®**  
New Orleans District

---

## **Peer Review Plan**

# **St. Charles Parish Urban Flood Control Feasibility Study**

**St. Charles Parish, Louisiana**

**Revised April 2008**

# Table of Contents

Peer Review Plan	1
Project Description	1
Decision Document	1
General Site Description	1
Project Scope	1
Problems and Opportunities	2
Project Delivery Team	2
Peer Review	3
Independent Technical Review	3
Planning Center of Expertise	3
Independent Technical Review Team	3
DrChecks	4
Planning Models	4
Milestones an Schedule	4
External Peer Review	4
Public Involvement	4
Appendix A	6

- 1) **Peer Review Plan.** This Peer Review Plan was developed to insure that high quality products are produced within the New Orleans District. This plan establishes the policies, procedures, and organizational responsibilities for providing quality control of planning products for this project.

The peer review plan (PRP) for the St. Charles Parish feasibility study provides a technical review mechanism insuring that quality products are developed during the course of the study by the New Orleans District (MVN). The technical review of the feasibility study will consist of an Independent Technical Review. An additional level of policy review for the St Charles Parish study will be performed at the Headquarters of the United States Army Corps of Engineers (HQUSACE) and will insure that all applicable statutes have been applied with respect to cost sharing, project purpose, and budget criteria.

The review process will insure that a cost-effective solution is developed, while technical review will assure accountability for the technical quality of the product. Each technical review objective in the PRP will be satisfied through a seamless review process performed outside MVN (Independent Technical Review), MVD (quality assurance of technical products), and HQUSACE (policy review). The peer review plan is based upon applicable guidance from higher authority including the Engineering Circular 1105-2-408 titled: Peer Review of Decision Documents dated May 31, 2005, Report of the Task Force on Technical Review, dated December 1994, and CELMV-ET memorandum of 23 September 1995, subject: Lower Mississippi Valley Division, Directorate of Engineering and Technical Services, Quality Control and Quality Assurance Guidance.

## 2) **Project Description**

- a) **Decision Document.** The St. Charles Parish Urban Flood Control (UFC) feasibility study addresses flooding and interior drainage issues associated with St. Charles Parish. The study will develop alternative plans for addressing flood risk management in the study area. These plans will be screened and evaluated, with the most beneficial being recommended for implementation as a Federal project. The feasibility phase of this project is cost shared 50/50 with the project sponsors, St Charles Parish Government and the Ponchartrain Levee District.
- b) **General Site Description.** The study area includes all of St. Charles Parish, which is located in southeast Louisiana on the southwest shore of Lake Pontchartrain, about 25 miles west of New Orleans. The parish encompasses about 286 square miles on the east and west banks of the Mississippi River.
- c) **Project Scope.** . The purpose of the study is to investigate the drainage related problems in St. Charles Parish. The investigation will concentrate on finding improvements to manage the risk associated with flooding damages resulting

from rainfall and other related water resources problems. Possible alternatives will include drainage canal improvements, removal of canal obstructions, enlarging the earthen channels, increasing existing pump station capacities, and new pump stations.

- d) **Problems and Opportunities.** The East bank portion of the parish is protected from river flooding by the Mississippi River Levee. This area is also protected from lake storm surges by the Lake Pontchartrain & Vicinity Hurricane Protection project. While these levees do provide protection, they also impound water. In addition the interior drainage system is insufficient to prevent flooding from heavy rainfall events. Major floods caused by heavy rainfall occurred in St. Charles during 1978, 1980, 1982, and 1995. The damages resulting from these rainfall events total \$30,200,000.

Supplemental funds in the Department of Defense Appropriations Act of 2006 provided \$1,200,000 to advance the completion of the study. The study has been temporarily postponed due to the impacts of Hurricane Katrina with both local sponsors, the Lake Borgne Levee District and the St. Charles Parish Government, being financially impacted by the storm. After a short hiatus, the project has begun to move forward once again.

- e) **Project Delivery Team.** The project delivery team (PDT) is comprised of those individuals directly involved in the development of the decision document. Their disciplines are listed below.

DISCIPLINE
Economics – team member will have extensive experience in related flood damage reduction projects, and have a thorough understanding of HEC-FDA
Environmental – team members will have extensive experience in NEPA policies, cultural resources, recreational resources and HTRW
Project Management – team member will be familiar with watershed level projects, current flood damage reduction planning and policy guidance and have experience in plan formulation. This discipline will also play the role of planner.
Hydraulic Engineering – the team member will be an expert in the field of urban hydrology & hydraulics, have a through understanding of the dynamics of open channel flow systems and enclosed systems, and have an understanding of computer modeling techniques that will be used for this project.
Civil Engineering / cost – team member will be familiar with cost estimating for similar projects using MCACES.
Geotechnical Engineering – team member will have extensive experience in levee & floodwall design, post-construction evaluation, and rehabilitation.
Civil Engineering – team member will have experience in utility relocations, positive closure requirements and internal drainage for levee construction, projects engineering, operations, and application of non-structural flood damage reduction, specifically flood proofing.
Mechanical Engineering – team member shall be familiar with levee pump station and

closure structure design.

Real Estate – team member will have extensive experience in acquisition and leasing, including right of way issues, and appraisals.

- 3) **Peer Review.** Based upon cost, technical expertise, and current and projected workload, the on-going technical review process for St Charles Parish feasibility study will be conducted by the New Orleans District in coordination with the FRM – PCX and MSC. The local sponsor will also be involved in the review process by participating in Project Delivery Team (PDT) meetings. In terms of technical expertise, the New Orleans District has a vast amount of experience and capability in order to produce a quality product for study given the similarity to numerous other related projects constructed throughout the New Orleans District.

For the St. Charles UFC Study, peer review will consist of Independent Technical Review only. Peer Review Teams (PRT) will be responsible for verifying; 1) assumptions, 2) methods, procedures, and material used in analyses based on the level of analyses, 3) alternative evaluated is reasonable, 4) appropriateness of data used, and level of data obtained, 5) reasonableness of results, and 6) products meet sponsor needs and are consistent with law and existing policy.

- a) **Independent Technical Review (ITR).** ITR will consist of a single level study review performed outside the New Orleans District by the Planning Center of Expertise of another District.
- i) *Planning Center of Expertise (PCX).* The St. Charles Parish feasibility study primarily falls under the PCX business program “Flood Risk Management.” ITR for studies grouped in this program are performed under the supervision of the FRM-PCX Manager, South Pacific Division (415)503-6852. The technical point of contact can be reached at (916) 557-7440. The ITR will be performed by another Corps district in coordination with the PCX and MVD.
- ii) *Independent Technical Review Team (ITRT).* ITRT will be comprised of the same disciplines as the PDT, and will have experience in the type of analyses in which they are responsible for reviewing. Each ITRT member will be senior or equal in experience to the analyst or production person. Consistent with recent Corps guidance, the ITR team member for cost engineering will be coordinated with the Cost Engineering Directory of Expertise at the Walla Walla District. The number of reviewers participating in the ITR should include members with expertise in the following disciplines:

DISCIPLINE
Economics
Environmental
Cultural Resources

Recreational Resources
Project Management
Hydraulic Engineering
Civil Engineering - cost
Geotechnical Engineering
Civil Engineering
Mechanical Engineering
Civil Engineering - Projects
Civil Engineering - Operations
Real Estate – Acquisition and Leasing
Real Estate - Appraisal

- iii) *DrChecks*. ITR of this decision document will be conducted using the online DrChecks system ([www.projnet.org](http://www.projnet.org)). Use of DrChecks will document all ITR comments, responses, and associated resolution accomplished throughout the study delivery process.
- iv) *Planning Models*. The Study will be using HEC-HMS and HEC-RAS models to determine with and without conditions. These, along with any other models being used are not currently certified and will be reviewed by the PCX for certification.
- v) *Milestones and Schedule*.

Milestone	Date
ITR Initiation	4th Qtr FY09
AFB	4th Qtr FY09
Public Meeting	4th Qtr FY09
Draft Report	4th Qtr FY10
Draft Submittal	4th Qtr FY10
NEPA Public Review	4th Qtr FY10
ITR Certification	1st Qtr FY11
Final Submittal	1st Qtr FY11
CWRB	2nd Qtr FY11
MSC Commanders Public Notice	2nd Qtr FY11

- a. **External Peer Review (EPR)**. This feasibility study does not meet the EPR criteria of EC 1105-2-408. The cost of this project is not expected to exceed \$45 million and therefore its magnitude is determined as low. The study will not contain precedent-setting methods or models, present conclusions that are likely to change prevailing practices, disseminate influential scientific information, or contain a potential for failure or controversy. Because of the anticipated cost and low magnitude there is a consensus at the District that EPR will not be necessary.



- b. Public Involvement.** The public will have several opportunities to comment on the feasibility study through a public involvement plan implemented through a notice of study initiation, public meetings, and workshops. This will give the Corps the opportunity to exchange information with the public and insure that individuals with an inherent interest in the study are identified and contacted allowing them to voice their views and concerns relative to the study process. Significant and relevant public comments will be provided to the ITR team prior to ITR submittal along with any changes in the study resulting from these comments

Public meetings and workshops will be conducted to gather and provide feedback from the public, formulate a consensus, and generally keep interested parties informed. One such public meeting will be scheduled subsequent to the public release of the draft feasibility report and environmental assessment to present the study conclusions. This NEPA public scoping process will allow the public to comment on any environmental issues that may arise as a result of the study's recommended plan. Throughout the study other public meetings and workshops will be held as necessary.