



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

24 MAR 2008

MEMORANDUM FOR Commander, New Orleans District

SUBJECT: Beneficial Use of Dredged Material (BUDMAT) Program,
Louisiana Coastal Area (LCA) Study, Peer Review Plan (PRP)

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."

2. I hereby approve subject PRP and concur in the conclusion that external peer review of this project will be conducted by the LCA Science Board due to the complexity of the effort and because the programmatic authority exceeds the \$45 million threshold as outlined in Section 2034 of the Water Resources Development Act of 2007.

3. The District should take steps to post the PRP to its web site and provide a link to the National Ecosystem Planning Center of Expertise and the HQUSACE Planning Community of Practice. Before posting to the web site, the names of the Corps/Army employees should be removed in accordance with reference 1.c. above.

4. The MVD point of contact is Mr. David Jenkins,
CEMVD-PD-N, (601) 634-5902.

Encl

MICHAEL J. WALSH
Brigadier General, USA
Commanding



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



Louisiana Department
of Natural Resources

LOUISIANA COASTAL AREA (LCA), LOUISIANA

ECOSYSTEM RESTORATION

Beneficial Use of Dredged Material (BUDMAT) Program

Programmatic Feasibility Study

Peer Review

March 2008

1.0 PROJECT DESCRIPTION

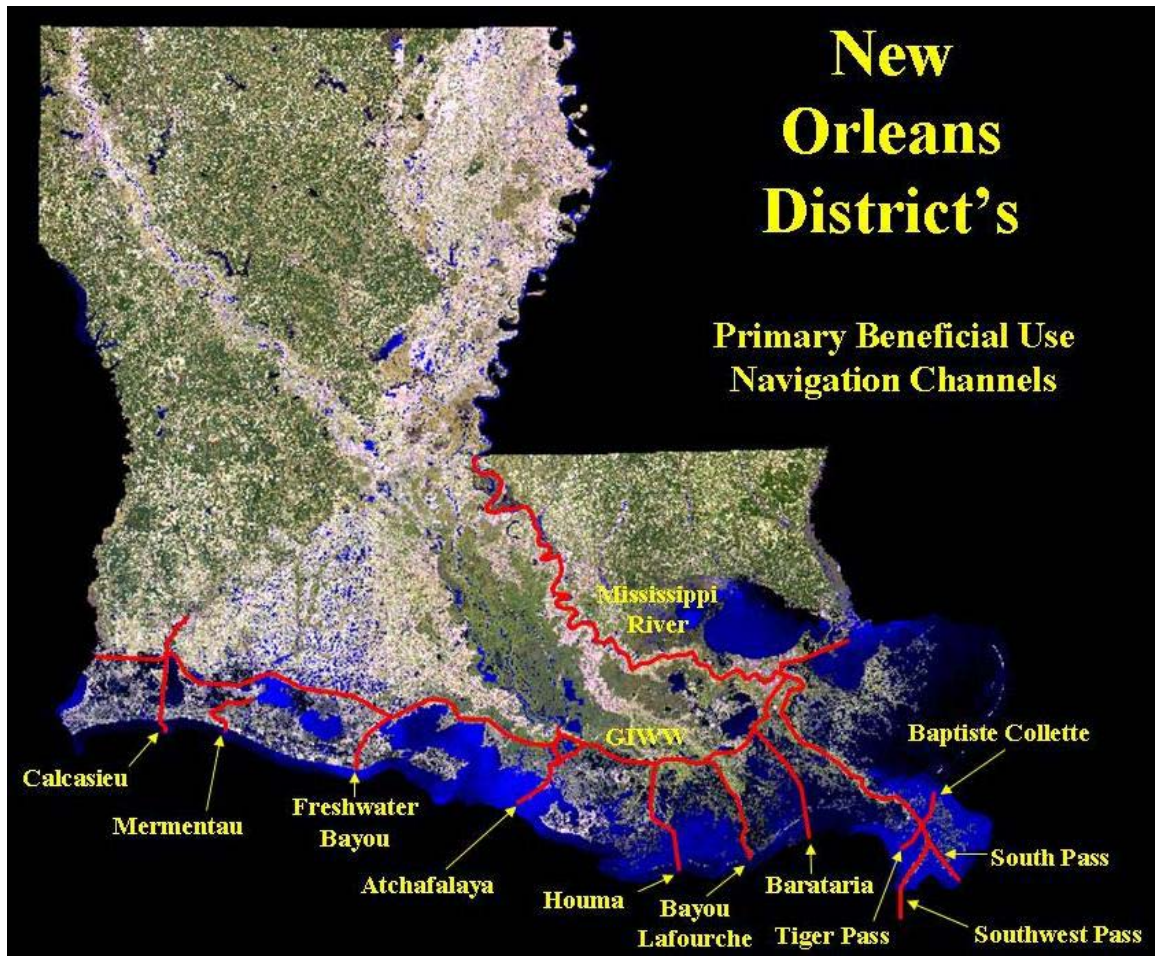
1.1 Decision Document

The Beneficial Use of Dredged Material Program has been identified as a critical near-term restoration project in the November 2004 Louisiana Coastal Area (LCA), Louisiana Ecosystem Restoration Study (LCA Study) and was recommended for programmatic authorization by the Chief of Engineers in January 2005. On November 8, 2007, Title VII of the Water Resource Development Act of 2007 (P.L. 110-114), authorized the Beneficial Use of Dredged Material (BUDMAT) Program at a total cost of \$100 million. The feasibility phase of this project is cost shared 50/50 with the project sponsor, the State of Louisiana, with the Louisiana Department of Natural Resources (LDNR) as its representative.

General Site Description

The study area is Louisiana's coastal area from Mississippi to Texas. Louisiana parishes included in the study area include Ascension, Assumption, Calcasieu, Cameron, Iberia, Jefferson, Lafourche, Livingston, Orleans, Plaquemines, St. Bernard, St. Charles, St. James, St. John the Baptist, St. Martin, St. Mary, St. Tammany, Tangipahoa, Terrebonne, and Vermilion. The following nine navigation channels represent an initial list of areas (used for cost estimating purposes) with the most significant opportunities for additional beneficial use of dredged material in coastal Louisiana under the LCA Program beyond that accomplished in the USACE Operations and Maintenance (O&M) Program, see figure 1:

- Barataria Bay Waterway, LA
- Mississippi River, Outlets, LA – Tiger Pass and Baptiste Collette
- Mississippi River, Baton Rouge to the Gulf of Mexico, LA –Southwest Pass and South Pass
- Atchafalaya River and Bayous Chene, Boeuf, and Black, LA
- Calcasieu River and Pass, LA
- Houma Navigation Canal
- Bayou Lafourche, LA
- Mermentau River, LA
- Freshwater Bayou, LA



1.2 STUDY PURPOSE AND SCOPE

1.2.1 Study Purpose

The LCA BUDMAT Program will optimize the use of dredged material resulting from the maintenance of federally maintained navigational channels to: 1) restore formerly existing coastal wetlands; 2) reduce, halt or reverse the loss of existing coastal wetlands; 3) create coastal wetlands where none existed previously; or 4) provide protection to any of the above wetland situations or other coastal landscape features within the study placement area. The Beneficial Use of Dredged Material Program costs are those costs incurred above and beyond the ordinary costs incurred with USACE O&M dredging and disposal operations in accordance with their established base plan for maintenance dredging activities. The base plan is determined by applying the Federal standard which requires maintenance dredging and disposal activities to be conducted in the most cost effective, environmentally acceptable manner.

1.2.2 Study Scope

This report consists of a Feasibility Report and EIS. The scope of the decision document is to: 1) provide a program guidance/management and decision process for the selection of projects to be implemented under the LCA BUDMAT Program, 2) describe an adaptive management process for the LCA BUDMAT Program, 3) identify beneficial use opportunities, and 4) describe the potential impacts of the LCA BUDMAT Program. As the Study focus is on the implementation of the LCA BUDMAT Program as opposed to specific projects implemented under the LCA BUDMAT Program, the alternatives considered will primarily deal with various ways to select projects for implementation under the LCA BUDMAT program. The environmental, cultural, and socioeconomic analyses will focus on the generic impacts of implementing the LCA BUDMAT Program on the basis of global knowledge and will identify key issues that subsequent, project-specific assessments should consider. Thus, it is expected that subsequent NEPA documents prepared for site-specific projects implemented under the LCA BUDMAT Program will tier off of the Programmatic EIS. No planning models will be utilized for this study as the focus is programmatic in nature (i.e., no specific projects). Therefore, no model certification will be required.

1.3 Problem and Opportunities

The USACE, Mississippi Valley Division, New Orleans District (the District) has the largest annual channel operations and maintenance (O&M) program in the USACE, with an annual average of 70 million cubic yards (mcy) (53.6 million cubic meters) of material dredged. At this time, approximately 14.5 mcy (11.1 million cubic meters) of this material is used beneficially in the surrounding environment with funding from either the O&M program itself or the Continuing Authorities Program (CAP) defined by the WRDA 1992 Section 204 for beneficial use of dredged material. The amount of material generated by O&M operations, the volume of material recovered for beneficial use in existing operations, and the potential total volume of material that can be reused varies considerably from year to year, based on the type of dredging operations being performed and their environmental setting. The LCA Plan's effectiveness is enhanced by this programmatic authorization for expanding the beneficial use of dredged material. The proposed beneficial use program would allow the District to take greater advantage of existing sediment resources made available by maintenance activities to achieve restoration objectives.

1.4 Study Delivery Team

The study delivery team (SDT) is comprised of those individuals directly involved in the development of the decision document. Contact information and disciplines are listed below.

Member	Agency	Role	Phone
Bill Hicks	CEMVN-PM-C	Project Manager	504-862-1945
Bob Bosenberg	CEMVN-PM-C	Senior Project Manager	504-862-2522
Bill Fernandez	CEMVN-PM-C	P2 Luster Contractor	504-862-2240
Gary Rauber	CEMVN-PM-C	PM - Dredging	504-862-2543
Sue Hawes	CEMVN-PM	PM, Environment	504-862-2518
Chris Gilmore	CEMVN-PM-W	PM - CAP	504-862-1961
Beth McCasland	CEMVN-PM-RS	PM - NEPA/EIS	504-862-2021
Richard Gatewood	CEMVN-PM-RP	HTRW	504-862-1344
Richard Radford	CEMVN-PM-RN	Aesthetics	504-862-1927
Allan Hebert	CEMVN-PM-AW	Economics	504-862-1906
Jerica Richardson	CEMVN-PM-RN	Cultural Resources	504-862-2038
Andrew Perez	CEMVN-PM-RN	Recreation	504-862-1442
Julie Morgan	CEMVN-PM-C	PM - LCA Pub Affairs (FTL)	504-862-2587
Daryl Glorioso	CEMVN-OC	Attorney (FTL)	504-862-1941
Linda Mathies	CEMVN-OD-T	PM - O & M Dredging (FTL)	504-862-2318
Ed Creef	CEMVN-OD-T	PM - O & M Dredging	504-862-2521
Pam Deloach	CEMVN-ED-SP	Project Manager (FTL)	504-862-2621
Keith O'Cain	CEMVN-ED-LW	Waterways	504-862-2746
Rick Broussard	CEMVN-ED-LW	Waterways	504-862-2402
Brian Bonanno	CEMVN-ED-FD	Geotech	504-862-2983
John Petitbon	CEMVN-ED-C	Costs	504-862-2732
Del Britsch	CEMVN-ED-FG	Geotech	504-862-1022
Ed Blodgett	CEMVN-ED-HC	Hydraulics	504-862-2481

Donna Bivona	CEMVN-ED-HM	Water Quality	504-862-1812
Steve Servay	CEMVN-ED-HM	Water Quality	504-862-1816
Greg Debose	CEMVN-ED-SR	Relocations	504-862-2452
TBD	CEMVN-ED-HH	Hydrologic	
TBD	CEMVN-ED-SS	Survey Section	
Michelle Marceaux	CEMVN-RE-E	Real Estate (FTL)	504-862-1190
TBD	CEMVN-CT	Contracting (FTL)	
TBD	CEMVN-CD	Construction (FTL)	
Rayford Wilbanks	CEMVD-PD-N	DST	601-634-5847
Gary Ray	CEERD-EL-EEW	ERDC, S&T	601-634-2589
Timothy Welp	CEERD-HN-CD	ERDC, S&T	601-634-2083
Cathy Breaux	USFWS	Agency Liaison	504-862-2689
Angela Trahan	USFWS	Agency Liaison	337-291-3137
John Ettinger	USEPA	Agency Liaison	504-862-1119
Barbara Keeler	USEPA	Agency Liaison	214-665-6698
Clint Padgett	USGS	Agency Liaison	504-862-1074
Cindy Steyer	NRCS	Agency Liaison	225-389-0334
Troy Mallach	NRCS	Agency Liaison	337-291-3060
Brit Paul	NRCS	Agency Liaison	318-473-7816
Rick Hartman	NOAA	Agency Liaison	225-389-0508
Patrick Williams	NOAA	Agency Liaison	225-389-0508
Carol Parsons Richards	LDNR, CRD	Planning	225-342-9430
Chris Williams	LDNR, CED	PM	225-342-7549
Bren Haase	LDNR, CRD	Planning	225-342-1475
Andrew Beall	LDNR, CED	PM	225-342-6690
Dain Gillen	LDNR, CED	Engineering	225-219-0379
George Boddie	LDNR, CED	Engineering	504-280-4067
Maury Chatellier	LDNR, CED	Engineering	225-342-5944
Dona Ours	LDNR, CED	PM	225-342-1477

Syed Khalil	LDNR, CED	Geology	225-342-1641
Jeff Harris	LDNR, CMD	Consistency	225-342-7949
Greg Ducote	LDNR, CMD	Consistency	225-342-5052
James Altman	LDNR, Lands	Land Section	225-342-1934
James Wray	LDNR, Lands	Land Section	225-342-7329
Heather Finley	LDWF	Agency Liaison - Fisheries	225-765-2956
Mike Carloss	LDWF	Agency Liaison - Wildlife	337-373-0032
Ed Mouton	LDWF	Agency Liaison - Wildlife	337-373-0032
Manuel Ruiz	LDWF	Agency Liaison - Fisheries	225-765-2373
Kyle Balkum	LDWF	Agency Liaison	225-765-2819

2.0 QUALITY CONTROL AND REVIEW

This quality plan was developed to insure that high quality products are produced within the Corps of Engineers' New Orleans District (CEMVN). This plan establishes the policies, procedures, and organizational responsibilities for providing quality control of planning products for this project.

The quality control plan (QCP) for the LCA BUDMAT Program Feasibility Study provides a technical review mechanism insuring that quality products are developed during the course of the study by the CEMVN. The technical review of the feasibility study will consist of In House Review and Independent Technical Review. The Mississippi Valley Division is responsible for quality assurance of the LCA BUDMAT Program Feasibility Study and policy review will be performed at the Headquarters of the United States Army Corps of Engineers (HQUSACE) and will insure that all applicable statutes/policies have been applied with respect to cost sharing, project purpose, and budget criteria. All processes, quality control, quality assurance, and policy review, will complement each other producing a seamless review process that identifies and resolves technical and policy issues during the course of the study.

The review process will insure that a cost-effective solution, that meets the sponsor's requirements, is developed. Technical review will assure accountability for the technical quality of the product. Each technical review objective in the QCP will be satisfied through a seamless review process. In House and Independent Technical Review Teams 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. The quality control 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, dated 23 September 1995, subject: Lower Mississippi Valley Division, Directorate of Engineering and Technical Services, Quality Control and Quality Assurance Guidance.

2.1 In House Review (IHR)

IHR will be performed inside the New Orleans District

2.1.1 In House Review Teams

In House Review will be completed by an In House Review Team (IHRT) whose members should be from the same function/discipline (engineering, economics, etc.) as their SDT counterpart. IHRT members will come from inside the CEMVN, but must not have been involved with the preparation of the product/study under review. They will be selected and certified as qualified reviewers by their respective functional Chiefs. Each IHRT member will be senior or equal in experience to the analyst or production person. The makeup of the IHRT may be modified as the study progresses to match the review requirements. The team will be established at the inception of a study and team continuity will be maintained through the life of the study to the maximum extent possible. The tiered IHR approach as described in CEMVD memorandum dated 14 February 2003 is the guiding instrument for IHR team establishment.

2.1.2 Planning, Programs, and Project Management Division In House Review Team Leader

The IHRT leader will coordinate the review process to ensure consistency and completeness of reviewed documents. The IHRT leader will monitor and inform the SDT and IHRT when comments and responses have been completed. Once all comments and responses have been resolved, the IHRT leader and PM will provide all certifications and an electronic or hard copy of IHR comments and responses.

2.2 Independent Technical Review (ITR)

ITR will consist of a review performed outside CEMVN by an ITR team approved by the National Ecosystem Planning Center of Expertise. Since the Beneficial Use of Dredged Material Program is a programmatic authority authorized by Title VII of the Water

Resource Development Act of 2007 (P.L. 110-114), the LCA BUDMAT Program Feasibility Study will not be subject to either an Independent Cost Review (ICR) by the CX, Walla Walla District or a formal Cost Risk Analysis. However, the cost estimate for each project selected under this programmatic authority will be subject to all applicable cost engineering regulations.

2.2.1 Planning Center of Expertise (PCX)

The National Ecosystem PCX will be responsible for the quality of the ITR for the LCA BUDMAT Program Feasibility Study. For this study, the PCX will oversee the ITR conducted by the Corps' Galveston District.

2.2.2 ITR Schedule and Team Members

As with the IHRT, the ITR team (ITRT) is comprised of the same disciplines on the SDT, and have experience in the type of analyses in which they are responsible for reviewing. Each ITRT member is a senior or equal in experience to the analyst or production person. The ITR was initiated in early November of 2007. All comments are scheduled to be resolved using DrChecks by 01 April 08. The reviewers participating in the ITR included members and expertise in the following disciplines:

Name	DISCIPLINE	DIVISION	BRANCH	SECTION
Christy Sorrels	Economist	Planning, Programs, & Project Mgmt Division (PPPMD)	Economic and Social Analysis	Ecosystem Restoration Support
Terrell Roberts	Environmentalist	PPPMD	Planning and Compliance	Ecological Planning & Restoration
Jerry Androy	Cultural Resource Specialist	PPPMD	Planning and Compliance	Natural/Cultural Resource Analysis
Diana Laird	Planning	PPPMD	Planning	
Bob Heinly	Project Manager	PPPMD	Project Mgmt Branch	
Colleen Chamberlain	Civil Engineer	Engineering	Cost Engineering	
Scott Leimer	Geotechnical Engineer	Engineering	Geotechnical	
Baldev Mann	Civil Engineer	Engineering	Hydraulics	Projects Engineering
Carl Brown	Civil Engineer	Operations	Operations Mgmt	
James Collins	Realty Specialist	Real Estate	Acquisition and Leasing Branch	
Sal Arcidiacono	Appraiser	Real Estate	Appraisal and Planning Branch	

2.2.3 DrChecks

ITR of this decision document will be conducted using the online DrChecks system (www.projnet.org). Use of DrChecks will document all ITR comments, responses, and associated resolution accomplished throughout the study delivery process.

2.2.4 Public Involvement

The public will have several opportunities to comment on the feasibility study through a public involvement plan which will be developed and 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.

A mailing list developed during the LCA Study phase will serve as a notice of study initiation. Next, various 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 public meeting will be scheduled subsequent to the public release of the draft LCA BUDMAT Program Feasibility Study report to present the study conclusions. Throughout the study other public meetings and workshops will be held if necessary.

Although exact comments will not be provided to the ITR team, significant and relevant public comments will have been addressed by In House Review prior to ITR submittal. Any major changes in the study resulting from these comments will require subsequent ITR.

2.3 External Peer Review (EPR)

Since the BUDMAT Program is authorized at \$100 million, the vertical team has determined that it does qualify for external peer review. It is recommended that the external peer review be conducted by the LCA Science Board, a group of national recognized experts (NAS Level) in the field of coastal restoration. From the November 2004 LCA Report, Appendix A, the role of the Science Board is to periodically review the Science and Technology Program, as well as the overall LCA program, and to provide reviews and reports that will serve as an independent assessment of the program. The external peer review of the BUDMAT Program should be captured under the Science Board area of responsibility.

Additionally, an assessment of the LCA near-term Plan was conducted by the National Research Council of the National Academies in late 2005 and 2006. The assessment culminated in a study report entitled “Drawing Louisiana’s New Map: Addressing Land Loss in Coastal Louisiana.” While the assessment did not specifically address the LCA BUDMAT Program, several recommendations were made regarding the LCA Plan as a whole. The recommendations included, but were not limited to: (1) establishing realistic expectations of achieving no net loss of coastal wetlands is not feasible, (2) developing a map to depict the proposed end state of the LCA restoration efforts, (3) taking a comprehensive systems approach to coastal restoration in Louisiana, (4) considering large scale sediment delivery systems such as the diversion of the Mississippi River to the west, and (5) addressing knowledge gaps through better defined programs such as the Science & Technology, demonstration projects, and adaptive management programs.

2.4 Technical Review Meetings and Critical Checkpoints

The quality control process recognizes that the appropriate place to perform one-on-one verification for Planning, Programs, Project Management Division and Engineering Division, Economics Branch, Environmental Branch, and Real Estate Division products will vary among the functional areas. However, the verifications will occur before the release of data and/or final products to another office/division, and may include reviewers and SDT members from other functional areas. The one-on-one verifications for division products will occur numerous times throughout the study effort. Each one-on-one verification meeting will be documented and become part of the quality control records used in the quality assurance process by CEMVD.

In addition to the one-on-one verification process, there are also points within the study process where it is appropriate for the technical review team and SDT to perform the verification process as a team. This feature of the quality control process allows the flexibility to optimize the one-on-one verification process within the functional area while maintaining the team concept during the Technical Review Meetings. Each meeting will be documented and become part of the quality control records used in the quality assurance process by CEMVD. These points in the study process would typically occur during: scoping and plan formulation, defining of existing conditions, alternative screening, plan selection, report review, and the preparation of the project management plan.

2.5 Quality Control Records

Quality control records for Planning, Programs, Project Management Division and Engineering Division, Economic Branch, Environmental Branch, and Real Estate

Division products will be maintained in a technical review package prepared by the SDT leader and included in the LCA BUDMAT Feasibility Study. The package will consist of review comments, and a certification checklist. The review comments will summarize the major issues/comments from the in house and independent technical reviews along with the response or resolution to each comment. The Planning, Programs, and Project Management Division technical review checklist will also be included within the report as a means of documenting the In House Review and Independent Technical Review.

The Planning, Programs, and Project Management Division and Engineering Division checklists will assure that the major elements of the quality control plan have been followed. Planning, Programs, and Project Management Division reviewers will sign the checklist, certifying that, for their particular subject area, the document conforms to pertinent regulations, guidance, and sound professional practices.

Prior to the submittal of the draft report to HQUSACE the checklist will be completed by the Planning, Programs, and Project Management Division functional chief, reviewed by the Chief of Planning, Programs, and Project Management Division, and signed by the District Commander as part of the required report documentation. Engineering Division's quality control records, comments and resolutions, will accompany the design document. The design checklists will serve as a tool for the technical review team and will become part of the District's files.