

Scope of Work

SCOPE OF SERVICES ARCHITECT-ENGINEER SERVICES FOR

HTRW Phase I Environmental Site Assessment Chalmette Loop Levees and Bayou Bienvenue and Bayou Dupre Control Structures

INTRODUCTION

Due to severe damages from Hurricane Katrina, the Corps of Engineers is rehabilitating and improving the flood protection system of southeast Louisiana. As part of this work, the levees, floodwalls and floodgates depicted in Figures 1-4 will be brought to the "100-year level of protection." The project area is a portion of the "Chalmette Loop" of the Lake Pontchartrain and Vicinity Hurricane Protection Project in St. Bernard Parish, Louisiana.

The Contractor shall furnish all services, materials, supplies, labor, and travel, as required, in connection with performing a Phase I Environmental Site Assessment (ESA) as defined by ASTM E 1527-05, and in accordance with guidelines set forth in the US Army Corps of Engineers (USACE) Regulation ER 1165-2-132 (Water Resources policies and Authorities for Hazardous, Toxic, and Radioactive Waste Guidance for Civil Works Projects, 26 June 1992). The ASTM guideline is consistent with the requirements for conducting "All Appropriate Inquiry" (AAI) specified in the recently published EPA rule "Standards for Conducting All Appropriate Inquiries". This new rule was published in the Federal Register on 1 November 2005 and became effective on 1 November 2006. Information provided by this Phase 1 ESA shall highlight all locations with Recognized Environmental Conditions (REC)s in project areas that may require a follow-up Phase 2 ESA.

To allow for adjustments for the incorporation of final design improvements for this flood protection system, this Phase I Environmental Site Assessment will consider the widest possible footprint for those reaches and structures denoted by their respective contract numbers in Figure 1 (LPV 144.01, 144.02, 145, 146, 147). Table 1 provides project boundary information for each contract. For LPV 147, the subject property will be defined to include more than one alternative alignment or design; these alternative alignments are shown in Figures 3 and 4.

Table 1. Project specifications by contract

Contract	Project study area boundaries
LPV 144.01 and LPV 144.02	2000 foot radius from center of the Bayou Bienvenue and Bayou Dupre Control Structures
LPV 145	Chalmette Loop levee reach from Bayou Bienvenue to Bayou Dupre;

	1500 feet to the west/southwest from shoreline of Mississippi River-Gulf Outlet
LPV 146	Chalmette Loop levee reach from Bayou Dupre to Highway 46; 1500 feet to the west/southwest from shoreline of Mississippi River-Gulf Outlet to approximately 29° 53' 15" N, 89° 45' 35" (point at which levee turns south from MR-GO), after which 1000 feet on either side of levee centerline
LPV 147	To include area adequate to cover both alternative alignments in Figures 3 and 4. Exact length of highway segment and surrounding land will be determined prior to NTP. For cost proposal purposes, length of highway segment should be assumed not to exceed 1 mile.

TASKS

The Contractor shall conduct the following Tasks in the execution of the Phase I ESA.

Task 1: Environmental Database Search

The Contractor shall review past environmental databases, as stipulated within the ASTM standards. At a minimum, the Contractor shall search the following databases, as appropriate for the property, to help determine if hazardous sites or serious local environmental problems may exist on or immediately adjacent (see radius specifications) to the property:

- * The National Priorities List (1 mile radius);
- * Delisted National Priorities Lists (½ mile radius);
- * The Comprehensive Environmental Response, Compensation, and Liability Information System (½ mile radius);
- * The Comprehensive Environmental Response, Compensation, and Liability Information System No Further Remedial Action Planned Database (½ mile radius);
- * The Solid Waste Landfills/Facilities Database (½ mile radius);
- * The Emergency Response Notification System and Hazardous Materials Incident Reporting System (¼ mile radius);
- * The Resource Conservation and Recovery Information System (½ mile radius for treatment, storage or disposal (TSD) facilities and ¼ mile radius for generators);
- * Any state listing of registered and leaking underground storage tanks (¼ and ½ mile radii, respectively);

- * The Louisiana Inactive and Abandoned Sites List (1 mile radius); and,
- * Louisiana Department of Natural Resources Oil and Gas Wells Database (1 mile radius).

In addition, the Contractor shall conduct a review of the site history, background information and preliminary data available from the State of Louisiana and/or other sources, including an environmental regulatory database search report prior to conducting site inspections. The contractor shall also verify property boundaries and past ownerships. No title search will be required. The review shall be conducted to help establish the type of activities that were previously conducted on the property. Standard historical sources that are reasonably ascertainable, such as fire insurance maps, USGS topographic maps, historical aerial photographs, city directories, and building department records shall be reviewed.

Task 2: Site Inspection/Interviews

The contractor shall conduct interviews with individuals having past experience and knowledge of the site, prior to conducting a detailed site inspection. Interviews with the State LDEQ regarding Large Quantity Generators (LQG) and Small Quantity Generators (SQG) located in the general vicinity of the project location are recommended. The inspection shall include the review of available historical aerial photographs of the site and surrounding properties. The site inspection shall not be limited to the property under consideration, but the adjacent properties shall also be inspected based on legal access. Site plans and topographic maps, where available, shall also be reviewed. The site inspection shall include an inventory of former chemical usage and waste generated on the site (if available); information on aboveground and underground storage tanks; available Superfund Amendments and Reauthorization Act (SARA) Title III reporting information; environmental permitting information and permits from local, state, or federal agencies; engineering reports and surveys relevant to environmental issues; records of claims, litigation, spills, noncompliance, complaints, etc., related to environmental practices; environmental monitoring data, including groundwater and soil testing, local geology and hydrogeology in the vicinity of the site; and data on electrical equipment containing polychlorinated biphenyl (PCB) fluids. Interviews shall be conducted with knowledgeable persons regarding site history. This may include, but is not limited to current and past owners of the property.

Task 3: Draft Report Preparation

A draft report shall be prepared documenting the results of the research, interviews, on-site inspections, and other findings. The report shall provide an overall assessment of past activities and recognized environmental conditions, if any. The identification of any REC should include its GPS coordinates. The Horizontal Survey Data shall be referenced to North American Datum 1983 (NAD 83), National Spatial Reference System (NSRS), Louisiana State Plane Coordinate, South Zone 1702, and U.S. Survey Feet. All Vertical Survey Data shall be referenced to North American Vertical Datum (NAVD) 1988, U.S. Survey Feet. All benchmarks shall be verified either by GPS or conventional levels from an adjacent mark. All GPS derived

elevations shall be established referenced to NAVD 88 following the guidelines in "NOAA Technical Memorandum NOS NGS-58" published in November 1987 (http://www.ngs.noaa.gov/PUBS_LIB/NGS-58.pdf), and DRAFT Guidelines for Establishing GPS-derived Orthometric Heights (Standards: 2 cm and 5 cm) (http://www.ngs.noaa.gov/PUBS_LIB/DRAFTGuidelinesforEstablishingGPSderivedOrthometricHeights.pdf). The current epoch is NAVD88 (2004.65).

If additional investigations are warranted, the report shall describe, in general, the activities recommended. The draft report (2 hard copies and two CD copies) shall be provided to the Corps of Engineers for review no later than 30 days after NTP.

Task 4: Review Comments on Draft Phase I ESA Report

The Corps of Engineers shall be given the opportunity to review the draft Phase I ESA Report to ensure compliance with the Scope of Work and to ensure all tasks and activities are addressed in the report. The Corps shall provide the contractor a list of all comments requesting clarification and resolution in the final report no later than 7 days after submittal of the draft report.

The report of findings shall follow the scope and format described in ASTM E 1527-05 (which is in full compliance with the Nov 2006 EPA rule "Standards for Conducting All Appropriate Inquiries"), and shall include documentation of the qualifications of the personnel conducting the assessment and their findings, opinions, and conclusions.

Task 5: Final Report /Distribution and Formal Presentation

Upon receipt of all comments, the Contractor shall make all necessary changes to the report. The Contractor shall provide 2 original copies of the final report with two copies of the report on compact disc (CD) no later than 7 days after the receipt of comments from the Corps of Engineers.

DELIVERABLES

All deliverables shall be addressed to:
Laura Lee Wilkinson
Environmental Coordinator, Hurricane Protection Office
U.S. Army Corps of Engineers, New Orleans District
7400 Leake Avenue
New Orleans, Louisiana 70118

Neither party may adjust or otherwise change the deliverables schedule without prior written coordination and agreement by both parties.

CONTRACTOR QUALITY CONTROL

The Contractor shall ensure that all services and products provided to fulfill this Task Order, including work performed by subcontractors, are at or above the levels of quality required by the base contract under which this Task Order is written. The Environmental Professional (EP) that signs the ESA is to be ASTM trained in the ASTM E 1527-05 standard.