

US Army Corps of Engineers

New Orleans District

Phase I Environmental Site Assessment

HTRW Phase I Environmental Site Assessment

**Chalmette Loop Levees and
Bayou Bienvenue and
Bayou Dupre Control Structures**

St. Bernard Parish

USACE Contract No. W9128F-04-D-0001

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1.0 SUMMARY

URS Group Inc. (URS) has completed a Phase I Environmental Site Assessment (ESA) on approximately 46,000 linear feet of Chalmette levee from the Bayou Bienvenue Control Structure to Louisiana Highway 46 and Bayou Road (old LA Hwy. 46), designated by the Corps of Engineers as B/L Station 370+00 to B/L Sta. 1116+71, St. Bernard Parish. This ESA was performed in accordance with the Scope of Work (SOW) provided by the Corps of Engineers (*Appendix A*) and was conducted in general accordance with the American Society for Testing and Materials (ASTM) E 1527-05 guidance document titled "Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process."

The following tasks were performed as part of the ESA:

- Reviewed current aerials of the segment included with SOW. *Refer to Appendix A, SOW with aerials.*
- Reviewed findings from EDR Corridor Study and database search. *Refer to Appendix B, EDR Corridor Study and Associated Map.*
- Reviewed historical aerials dated 1965, 1978, 1989 and 1998 from the EDR Aerial Photograph search. *Refer to Appendix D.*
- Reviewed historical topographic maps of the segment. *Refer to Appendix E, Historical Topographic Maps.*
- Performed field observations. URS representatives investigated the levee and surrounding area for "recognized environmental conditions" (REC). *Refer to Appendix F, Site Visit Photographs.*
- Interviewed the Director of the Lake Borgne Levee District to determine the history of the area and if he knew of any environmental concerns in the area of the levee.

Based on the site reconnaissance, corridor study and database report, and review of historical maps and aerial photographs, no recognized environmental conditions were identified in the area of the levee alignment.

Note: The conclusions presented in this report are preliminary in nature and are not to be used as a sole basis for final action(s), or as the sole basis for major capital decisions. Background data and information furnished to URS were used in the preparation of this report. URS has not independently verified or otherwise examined it nor is responsible for the accuracy of this information. The findings, although valid as of the present date, are subject to future changes in conditions of the site, adjacent properties, applicable regulations, requirements, or other findings which may invalidate them wholly or in part.

2.0 INTRODUCTION

2.1 Purpose

As stated in the introduction to the SOW (*Appendix A*), due to damage from Hurricane Katrina, the Corps of Engineers is rehabilitating and improving the flood protection system of southeast Louisiana. As part of this work, the levee from Bayou Bienvenue Floodgate to Louisiana Highway 46 (B/L Station 370+00 to B/L Station 1116+71) will be enlarged with compacted fill. The Corps of Engineers has tasked URS to perform a Phase I ESA to investigate the potential presence of hazardous, toxic or radioactive waste (HTRW) in the vicinity of the proposed construction and future levee enlargement. The focus of the Phase I ESA is to review existing and historical information regarding the site and to document the information to determine the potential presence of HTRW, in order to avoid any areas of concern.

2.2 Detailed Scope-of-Services

Refer to *Appendix A* for the Corps of Engineers provided SOW.

The areas of investigation, which encompass possible levee growth and various alternative project alignments, as specified by the Corps were as follows:

- LPV 144.01 and LPV 144.02, 2000 foot radius from the center of the Bayou Bienvenue and Bayou Dupre Control Structures;
- LPV 145, Chalmette Loop reach from Bayou Bienvenue to Bayou Dupre;
- LPV 146, Chalmette Loop levee reach from Bayou Dupre to Highway 46; 1500 feet to the west/southwest from the shoreline of the Mississippi River-Gulf Outlet to approximately 29° 53' 15" N, 89° 45' 35" W (point at which levee turns south from MR-GO, after which 1,000 feet on either side of levee centerline); and
- LPV 147, inclusive of an area adequate to cover both alternative alignments Figures 3 and 4 of the Scope of Work. The length of the Highway 46 segment and adjoining area to be 1 mile.

2.3 Significant Assumptions

None at this time.

2.4 Limitations and Exceptions

This report has been prepared for the specific levee segment described herein. This study has been conducted using the standard level of care and diligence normally practiced by recognized

firms now performing services of a similar nature under similar circumstances unless specifically stated otherwise. URS intends for this report, including illustrations and appendices, to be used in its entirety.

2.5 Special Terms and Conditions

This report has been developed for the sole use of the Corps of Engineers. Environmental or contaminant assessment efforts other than those described herein are beyond the scope of work on this project. URS intends for this report, including illustrations and appendices, to be used in its entirety. URS reserves the right to revise its conclusions based on a review of information that may be obtained after the date of this report. This report contains opinions based on our professional judgement of client and affiliates-supplied information. This report is not a warranty of site conditions. URS cannot guarantee the accuracy or completeness of information obtained from others for use in this study.

NOTE: No sampling or testing was performed as part of this Phase I Assessment.

3.0 SITE DESCRIPTION

3.1 Location

LPV 145-147 segment commences at, and includes, the floodgate for Bayou Bienvenue (BL 370+00), south to the Bayou Dupre floodgate (BL 703+98), then continues to the point where the earthen levee turns 90° south (BL 1008+00) and ends where LA Highway 46 and Bayou Road (old Hwy. 46) cross the existing levee in Verret, Louisiana (BL 1120+00). *Reference Appendix A, SOW aerials.*

Approximate coordinates and lengths of the subject levee are as follows:

Station	Longitude (West)	Latitude (North)	Approx. length of subject levee segment	
			feet	miles
370+00	89° 54' 53"	29° 59' 52"	33,832	6.4
703+98	89° 51' 12"	29° 56' 04"		
703+98	89° 51' 12"	29° 56' 04"	29,658	5.6
1008+00	89° 45' 34"	29° 53' 15"		
1008+00	89° 45' 34"	29° 53' 15"	11,512	2.2
1120+00	89° 46' 31"	29° 51' 33"		

3.2 Site and Vicinity General Characteristics

The Bayou Bienvenue and Bayou Dupre floodgates are steel sector gates in a concrete floodgate structure. The gate structures are tied into the earthen levee with T-wall tie-ins. The T-wall tie-ins are fortified with rip-rap and concrete encase rip-rap. The earthen levees, within which the floodgates are sited area located primarily along the western shoreline of the Mississippi River Gulf Outlet (MRGO) until the levee turns 90° south to Louisiana Highway 46. The levees are surrounded by the bermed area to the shoreline of the Mississippi River Gulf Outlet (MRGO) on the east. The area is predominately a scrub-shrub habitat with limestone rip-rap protecting the bank at the waterline of the MRGO. On the western side is a bermed area with access/borrow canal that parallels the levee. Beyond the canal is the spoil disposal area from the original excavation of the MRGO. The spoil area is mostly an upland scrub-shrub habitat that does not contain any permanent structures.

3.3 Current Uses of the Property

The subject property is used for flood protection. The flood protection consists mostly of an earthen levee with two steel sector floodgates located in the waterways of Bayou Bienvenue and Bayou Dupre. The aerials included with the SOW of Appendix A show the location of the flood protection.

3.4 Description of Structures, Roads, Other Improvements on the Site

A description of the levee and surrounding area is contained in *Section 3.2, Site Vicinity and General Characteristics*, as well as *Section 6.0*.

Reference Appendix F, Site Visit Photographs.

3.5 Current Uses of the Adjoining Properties

Current uses of adjacent properties are contained in *Section 3.2, Site Vicinity and General Characteristics*.

4.0 USER PROVIDED INFORMATION

The owner of the levee and floodgates is the Lake Borgne Levee District. A representative of the Lake Borgne Levee District was interviewed and knowledge obtained included in *Section 7.0, Interviews*.

4.1 Title Records

None supplied to URS.

4.2 Information Reported by User Regarding Environmental Liens or Specialized Knowledge of Experience

The owner of the levee is the Lake Borgne Levee District. A representative of the Lake Borgne Levee District was interviewed and knowledge obtained included in *Section 7.0, Interviews*.

4.3 Specialized Knowledge

The owner of the levee is the Lake Borgne Levee District. A representative of the Lake Borgne Levee District was interviewed and knowledge obtained included in *Section 7.0, Interviews*.

4.4 Commonly Known or Reasonably Ascertainable Information

The owner of the levee is the Lake Borgne Levee District. A representative of the Lake Borgne Levee District was interviewed and knowledge obtained included in *Section 7.0, Interviews*.

4.5 Valuation Reduction for Environmental Issues

Not applicable.

4.6 Owner, Property Manager, and Occupant Information

The owner of the levee is the Lake Borgne Levee District. A representative of the Lake Borgne Levee District was interviewed and knowledge obtained included in *Section 7.0, Interviews*.

4.7 Reason for Performing Phase I

Refer to Section 2.1, Purpose.

5.0 RECORDS REVIEW**5.1 Standard Environmental Record Sources, Federal and State**

A search of available environmental records was conducted by Environmental Data Resources, Inc. (EDR). The search was in accordance with the requirements of ASTM Standard Practice for Environmental Site Assessments, E 1527-05, including those associated with governmental databases, search distances, and data currency. The complete standard environmental record sources review, dated August 16, 2007 is included as *Appendix B, EDR Corridor Study and Associated Map*.

Through the database review, URS has identified and located sites based on information submitted to government environmental agencies. In some cases, the location information can be misleading or worse, incorrect. To confirm findings and note others not listed, URS conducted a walkover of approximately 1,000 feet on either side of the centerline of the levee. By doing so, URS was able to identify and locate sites of environmental concern that are suspected to use significant quantities of hazardous substances, waste, or petroleum products.

In order to ensure sufficient aerial coverage by the Corridor Study, URS expanded the search distance to 1 mile on either side of the centerline of the existing levee alignment. Only three sites were reported by EDR and each has been given a designated map identification number. The locations are shown on the map in *Appendix B*. The following databases were searched and are summarized below.

NPL and Proposed NPL: National Priorities List (Superfund) and Proposed NPL. The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

A review of the NPL and proposed NPL list, as provided by EDR, dated April 20, 2007, has revealed that there are no NPL or proposed NPL sites within the search area.

DELISTED NPL: National Priority List Deletions. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

A review of the Delisted NPL list, as provided by EDR, dated April 20, 2007, has revealed that there are no delisted NPL sites within the search area.

NPL RECOVERY: Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received

notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

A review of the NPL Recovery list, as provided by EDR, dated October 15, 1991, has revealed that there are no NPL sites within the search area.

CERCLIS: The Comprehensive Environmental Response, Compensation, and Liability Information System contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

A review of the CERCLIS list, as provided by EDR, dated February 27, 2007 has revealed that there are no CERCLIS sites within the search area.

CERCLIS-NFRAP: CERCLIS sites designated "No Further Remedial Action Planned" (NFRAP). Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERCLIS-NFRAP list, as provided by EDR, March 21, 2007, has revealed that there is no CERCLIS-NFRAP site within the search area.

CORRACTS: The Corrective Action Report identifies hazardous waste handlers with RCRA corrective action activity.

A review of the CORRACTS list, as provided by EDR, dated March 14, 2007, has revealed that there are no CORRACTS sites within the search area.

RCRA: The Resource Conservation and Recovery Act Information is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS). The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs)

generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month. Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste pr month. Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month. Transporters are individuals or entities that move hazardous waste from the generator off-site to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-LQG list, dated June 13, 2006, as provided by EDR, has revealed that there are no RCRA-LQG sites within the search area.

A review of the RCRA-SQG list, dated June 13, 2006, as provided by EDR, has revealed that there are no RCRA-SQG sites within the search area.

ERNS: The Emergency Response Notification System records and stores information on reported releases of oil and hazardous substances.

A review of the ERNS list, as provided by EDR, dated December 31, 2006, has revealed that there was one (1) ERNS sites within the search area.

Site	Address	Map ID #
1901 Florrissant Hwy 46	1901 Florrissant Hwy 46	1

This address could not be physically located, however an estimate of the approximate position places it nearly 1 mile from the centerline of the current levee alignment.

HMIRS: The Hazardous Materials Information Reporting System contains hazardous material spill incidents reported to DOT.

A review of the HMIRS list, as provided by EDR, dated July 5, 2007, has revealed that the site has no recorded data of hazardous material spill incidents.

US ENG CONTROLS: The Engineering Controls Sites List is a listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

A review of the US ENG CONTROLS list, as provided by EDR, dated April 20, 2007, has revealed that there are no US ENG CONTROLS sites within the search area.

US INST CONTROL: The Sites with Institutional Controls is a listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants

remaining on site. Deed restrictions are generally required as part of the institutional controls.

A review of the US INST CONTROLS list, as provided by EDR, dated April 20, 2007, has revealed that there are no US INST CONTROLS sites within the search area.

DOD: Department of Defense Sites. This data set consists of federally owned or administrative lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

A review of the DOD list, as provided by EDR, dated December 31, 2005, has revealed that there are no DOD sites within the search area.

FUDS: Formerly Used Defense Sites. The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

A review of the FUDS list, as provided by EDR, dated December 31, 2005, has revealed that there are no FUDS sites within the search area.

US BROWNFIELDS: A Listing of Brownfields Sites. Included in the listing are brownfields properties addresses by Cooperative Agreement Recipients and brownfields properties addressed by Targeted Brownfields Assessments. Targeted Brownfields Assessments – EPA’s Targeted Brownfields Assessments (TBA) program is designed to help states, tribes, and municipalities – especially those without EPA Brownfields Assessment Demonstration pilots – minimize the uncertainties of contamination often associated with brownfields. Under the TBA program, EPA provides funding and/or technical assistance for environmental assessments at brownfields sites throughout the country. Targeted Brownfields Assessments supplement and work with other efforts under EPA’s Brownfields Initiative to promote cleanup and redevelopment of brownfields. Cooperative Agreement Recipients-States, political subdivisions, territories, and Indian tribes become Brownfields Cleanup Revolving Loan Fund (BCRLF) cooperative agreement recipients when they enter into BCRLF cooperative agreements with the U.S. EPA. EPA selects BCRLF cooperative agreement recipients based on a proposal and application process. BCRLF cooperative agreement recipients must use EPA funds provided through BCRLF cooperative agreement for specified brownfields-related cleanup activities.

A review of the US BROWNFIELDS list, as provided by EDR, dated June 4, 2007, has revealed that there are no US BROWNFIELDS sites within the search area.

CONSENT: Superfund (CERCLA) Consent Decrees are major legal settlements that establish responsibility and standards for clean-up at NPL (Superfund) sites. Released

periodically by United States District Courts after settlement by parties to litigation matters.

A review of the CONSENT list, as provided by EDR, dated August 23, 2006, has revealed that there are no CONSENT sites within the search area.

ROD: Records of Decision documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the clean-up.

A review of the ROD list, as provided by EDR, dated March 27, 2007, has revealed that there are no ROD sites within the search area.

UMTRA: Uranium Mill Tailings Sites. Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

A review of the UMTRA list, as provided by EDR, dated December 31, 2005, has revealed that there are no UMTRA sites within the search area.

ODI: Open Dump Inventory. An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

A review of the ODI list, as provided by EDR, dated June 30, 1985, has revealed that there are no ODI sites within the search area.

TRIS: The Toxic Chemical Release Inventory System identifies facilities which release toxic chemicals to the air, water, and land in reportable quantities under SARA Title III, Section 313.

A review of the TRIS list, as provided by EDR, dated December 31, 2005, has revealed that there were no recorded releases of toxic chemicals to the air, water, or land in reportable quantities.

TSCA: The Toxic Substance Control Act identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

A review of the TSCA list, as provided by EDR, dated December 31, 2002, has revealed that there are no TSCA sites within the search area.

FTTS: FIFRA / TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act) / TSCA (Toxic Substances Control Act) FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

A review of the FTTS list, dated April 13, 2007, as provided by EDR, has revealed that there are no FTTS sites within the search area.

FTTS INSP: FIFRA / TSCA Tracking System – FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A review of the FTTS INSP list, dated April 14, 2007, as provided by EDR, has revealed that there are no FTTS INSP sites within the search area.

SSTS: Section 7 Tracking Systems. Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

A review of the SSTS, dated December 31, 2005, as provided by EDR, has revealed that there are no SSTS sites within the search area.

ICIS: Integrated Compliance Information System supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

A review of the ICIS list, as provided by EDR, dated February 21, 2007, has revealed that there are no ICIS sites within the search area.

PADS: The PCB Activity Database System identifies generators, transporters, commercial stores, and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

A review of the PADS list, as provided by EDR, dated October 17, 2006, has revealed that there are no PADS sites within the search area.

MLTS: The Material Licensing Tracking System is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

A review of the MLTS list, as provided by EDR, dated April 5, 2007, has revealed that the site has no recorded data of radioactive materials.

MINES: The Mines Master Index File contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

A review of the MINES list, as provided by EDR, dated February 6, 2007, has revealed that there are no mine sites within the search area.

FINDS: The Facility Index System / Facility Registry System contain both facility information and “pointers” to other sources that contain more detail. EDR includes the following FINDS databases in this report:

- PCS (Permit Compliance System),
- AIRS (Aerometric Information Retrieval System),
- DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for environmental statutes),
- FURS (Federal Underground Injection Control),
- C-DOCKET (Criminal Docket System used to track criminal enforcement actions for environmental statutes),
- FFIS (Federal Facilities Information System),
- STATE (State Environmental Laws and Statutes), and
- PADS (PCB Activity Data System).

A review of the FINDS list, dated April 12, 2007, as provided by EDR, has revealed that there is one (1) FINDS site within the search area.

Site	Address	Map ID #
Sebastien Roy Jr. High School	4301 Bayou Road	2

The facility is over ½ mile from the centerline of the existing levee alignment.

RAATS: RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

A review of the RAATS list, as provided by EDR, dated April 17, 1995, has revealed that the site has no recorded data of enforcement actions.

BRS: The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal facilities (TSDFs).

A review of the BRS list as provided by EDR, dated December 31, 2003, has revealed that there are no BRS sites within the search area.

SHWS: Potential and Confirmed Sites List. Confirmed status denotes that assessments have been performed and a determination made that (1) hazardous waste(s) or substance(s) are present at the site and (2) these sites are under the jurisdiction of the LDEQ/RSD. Potential status is an indicator that sites are either waiting to be assessed or the assessment is in progress.

A review of the SHWS list, dated April 12, 2007, as provided by EDR, has revealed that there are no SHWS sites.

SWF/LF: Landfill List. Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

A review of the SWF/LF list, dated April 9, 2007, as provided by EDR, has revealed that there are no SWF/LF sites within the search area.

DEBRIS: LDEQ Approved Debris Sites. A listing of LDEQ Approved Debris Sites where hurricane debris is dumped.

A review of the DEBRIS sites, dated February 7, 2007, as provided by EDR, has revealed that there are no DEBRIS sites within the search area.

SWRCY: Recycling Directory. A list of recycling facilities.

A review of the SWRCY list, as provided by EDR, dated April 10, 2007, has revealed that there are no SWRCY sites within the search area.

LUST: Leaking Underground Storage Tanks Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

A review of the LUST list, as provided by EDR, dated April 12, 2007, has revealed that there are no LUST site within the search area.

HIST LUST: Underground Storage Tank Case History Incidents. This listing includes detailed information for Leaking Underground Storage Tanks reported through November 1999. It is no longer updated. Current LUST incidents, without detail, can be found in the Leaking Underground Storage Tank Database.

A review of the HIST LUST list, dated November 1, 1999, as provided by EDR, has revealed that there are no HIST LUST sites within the search area.

UST: Louisiana Underground Storage Tank Database. Registered Underground Storage Tanks are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

A review of the UST list, dated April 3, 2007, as provided by EDR, has revealed that there is one (1) UST site within the search area.

Site	Address	Map ID #
Acosta Casamere	4361 Bayou Road	2

This address could not be physically located, however its position in the same numerical sequence of other similar addresses on Old Bayou Rd would put the location approximately 1 mile from the centerline of the existing levee alignment.

LIENS: Environmental Liens.

A review of the LIENS list, as provided by EDR, dated July 15, 2007, has revealed that there are no LIENS sites within the search area.

SPILLS: Emergency Response Section Incidents. Spills and/or releases, to land, reported to the Emergency Response Section.

A review of the SPILLS list, as provided by EDR, dated January 23, 2007 has revealed that there is no SPILLS site within the search area.

AUL: Listing of Institutional and/or engineering controls. A notice of contamination (nature and level of contaminants) and restriction of property to non-residential use are placed in the conveyance records for the property.

A review of the AUL, dated May 15, 2007, as provided by EDR, has revealed that there are no AUL sites within the search area.

VCP: Voluntary Remediation Program Sites. Sites that have entered the Department of Environmental Quality's Voluntary Remediation Program.

A review of the VCP list, as provided by EDR, dated August 15, 2007, has revealed that there are no VCP sites within the search area.

DRYCLEANERS: Drycleaner Facility Listing.

A review of the DRYCLEANERS list, dated January 22, 2007, as provided by EDR, has revealed that there is no DRYCLEANERS site within the search area.

5.2 Additional Environmental Record Sources

The Louisiana Department of Natural Resources, Office of Conservation, SONRIS Database was searched on-line for Oil & Gas Well locations within one (1) mile of the centerline of the LPV 144, LPV145, LPV 146 and LPV 147. The database was queried for by Section, Township and Range for St. Bernard Parish by the following:

Township 13 South Range 14 East
Township 13 South Range 13 East
Township 12 South Range 13 East

The results of the search produced one producing gas well (Serial No. 233201, 29° 56' 57.88"N, 89° 52' 18.42"W) in Section 20, T13S, R13E that would be within one mile of the project centerline. The location is on the west side of the MRGO spoil bank and parallel access canal, beyond the widest footprint (2,000 feet) that would be of interest for any expansion or relocation of the levee.

5.3 Physical Setting Source(s)

Geology

The levees of the subject area are mapped as Aquents (AD) which describe dredged soils forming in hydraulically deposited fill material excavated from nearby marshes during construction and maintenance of waterways. This map unit may not accurately describe the soils that compose the levees since levee construction materials may have been trucked in from other locations.

The levee cuts across several existing soil types as it runs from the confluence of Bayou Bienvenue with the Mississippi River Gulf Outlet south then at a point turning 90° and proceeding away from the MRGO to the floodgate at Old Bayou Road.

The soils at the southern end of the levee at Verret are mapped as Sharkey clay (Sk), and Commerce silty clay loam (Co). The Sharkey soils consist of poorly drained, mineral soils that

are very slowly permeable and firm. These soils form in the clayey alluvium in intermediate and low positions in the back swamps of the Mississippi River flood plain.

The surrounding soil unit near the Old Bayou Road is a Commerce silty clay loam (Co). A Commerce silty clay loam is an mineral soil that is somewhat poorly drained, moderately slowly permeable and firm.

U.S. Department of Agriculture, Soil Conservation Service. 1989. Soil Survey of St. Bernard Parish, Louisiana. 96 pgs. plus map sheets.

Flood Zone

Per the EDR report from the Federal Emergency Management agency (FEMA), the target property is located within the boundary of the 100-year flood plain, and is listed in the national wetland inventory.

Reference Appendix B, EDR Corridor Study.

5.4 Historical Use Information on the Property and Adjoining Properties

5.4.1 Sanborn Maps

A search for insurance maps of the subject area was conducted by EDR. (*Appendix C, Sanborn Map Report*). Sanborn fire insurance maps often contain information relating to individual structures, location of certain petroleum and chemical storage tanks, and the storage of other potentially toxic substances. No Sanborn Maps were found for the subject levee.

Reference Appendix C, Sanborn Map Report

5.4.2 Historic Aerial Photos

URS reviewed aerial photos for 1965, 1978, 1983 and 1998 of the subject levee from the USGS provided by EDR. Copies are included in *Appendix D*. Due to the length of the subject levee, numerous aerials were copied in order to cover the subject area. Each aerial photo has a date stamped on it and a unique identification number. The entire length of subject levee can be viewed if the individual aerials are placed in the order listed on the first page of *Appendix D*. Please note, many aerials overlap a great deal.

1965 Aerials (5 photos) - Levees are not visible in these aërials. The Mississippi River Gulf Outlet is present with the expansion spoil bank on the western shoreline. Bayou Bienvenue and Bayou Dupre appear as natural waterways. Floodgates at each confluence with the MRGO have not been constructed. The pipeline canal for the Southern Gas pipelines on LPV 145 is present. By superimposing the location of the existing levees on these aërials, no areas of environmental

interest appear. Most of the area away from the spoil bank is wetlands. Highway 46, Old Bayou Road, is present with some development in the small community of Verret.

1978 Aerial (4 photos) - The federal levee system is present along the shore of the MRGO with the continuous leg through the wetlands to Old Bayou Road. The floodgates at Bayou Bienvenue and Bayou Dupre are present. The new Highway 46 has not been constructed. No other changes were visible. No areas of environmental interest appear visible. Significant erosion is noticeable along the eastern shoreline of the MRGO.

1983 Aerial (4 photos) - The physical features have changed very little from the 1978 aerial photograph. The new four-lane for LA 46 has been constructed north of the community of Verret. No areas of environmental concern appear in the photographs.

1998 Aerial (4 photos) - No significant changes appear in the 1998 photos when compared to the 1983. Vegetation on the spoil banks appears to have become more established. There are more structures (camps) along Bayou Dupre. No areas of environmental concern appear in the photographs.

5.4.3 Historic Topographic Maps

URS reviewed available historic topographic maps of the site and surrounding areas provided by EDR to identify historical land uses that may have involved hazardous substances and petroleum products. URS reviewed historic topographic maps from the year 1951. The following are descriptions and interpretations from the historic topographic map review.

Date	Description
1951 (5 maps)	Levee not shown on map. Area where levee is currently was not developed.
1967 (4 maps)	Mississippi River Gulf Outlet (MRGO) is present. The adjoining area to the west is the spoil bank from the excavation of the MRGO. No levees are present along the MRGO or southwest to Bayou Road (Hwy 46). The new Highway 46 is not present. The pipeline canal for the three Southern Gas Pipelines is present.
1972 (5 maps)	Same development as in 1967. No development south of RR tracks. Levee is shown as under construction. Floodgates are under construction at Bayou Bienvenue and Bayou Dupre on the MRGO.
1979 (5 maps)	Same as 1972 along levee. More developments along Bayou Road.
1983 (1 maps)	Same as 1979 along levee. More developments along Bayou Road.
1994 (5 maps)	Levee no longer under construction. More developments between Bayou Road and railroad tracks. The new Highway 46 is present north of Bayou Road.

Date	Description
1998 (4 maps)	Same as 1994 in levee area. More camps are present along Bayou Dupre.

Reference Appendix E, Historical Topographic Maps

6.0 SITE RECONNAISSANCE

On August 6, 2007, Jim LeBlanc and Ted Soileau of URS conducted a reconnaissance of the site. The stretch of levee was accessed by vehicle and assessed by foot with photographs taken (*Appendix F*). Particular attention was given to the sites listed in the EDR report. Items of interest are described below.

6.1 Hazardous Substances in Connection with Identified Uses (including storage, handling, disposal)

URS observed no hazardous substances and identified no storage, handling or disposal of hazardous substances on the day of the site reconnaissance.

6.2 Hazardous Substances Containers and Unidentified Substance Containers (including storage, handling, disposal)

URS observed no indications of containers that would have been used for the storage, handling or disposal of hazardous substances during the site reconnaissance.

6.3 Storage Tanks (including contents and assessment of leakage or potential for leakage)

No indications of aboveground or underground storage tanks were observed during the site reconnaissance.

6.4 Indication of PCBs (including how contained and assessment of leakage or potential for leakage)

During the site visit, the subject levee showed no evident signs of PCBs.

6.5 Indications of Solid Waste Disposal

URS observed no indication of solid waste disposal on the day of the site reconnaissance. Debris and numerous abandoned vessels that were carried by the Hurricane Katrina storm surge were visible on the spoil bank and in the surrounding marshes.

6.6 Physical Setting Analysis, if Migrating Hazardous Substances are an Issue

URS observed no indications of migrating hazardous substances from any surrounding areas on the day of the site reconnaissance.

6.7 Other Conditions of Concern

Per interview with the Lake Bourgne Levee District and site reconnaissance, there are seven pipelines that intersect the levee right-of-way. All of the pipelines cross through the levee with the levee surface armored with concrete pavers from the toe across the crown to the opposite toe of the levee. Photographs of a typical levee crossing can be seen in Appendix F. There are no visible signs of leaking or any other potential environmental issues.

LPV 145

Utility Description	Levee Station	Owner
24" Hydrogen Pipeline	399+15	Air Products
24" Petroleum Pipeline	424+00	Unknown
24" Gas Pipeline	447+97	Collins Pipeline Co.
24" Gas Pipeline	590+49	Southern Natural Gas
24" Gas Pipeline	590+79	Southern Natural Gas
24" Gas Pipeline	600+70	Southern Natural Gas

LPV 146

Utility Description	Levee Station	Owner
Crude Oil Pipeline	1044+00	Moem Pipeline LLC

The pipeline on LPV 146 runs along the south shore of New Canal.

7.0 INTERVIEWS

URS interviewed Mr. Bob Turner, Lake Borgne Levee District, on August 7, 2007 at his St. Bernard Avenue office. The purpose of the interview was to determine if he knew of any possible environmental concerns on or near the levee that could affect future excavation and construction in the area. He does not know of any spills or leaks in the area that would be of an environmental concern. He stated that everything along the levee alignment is wetlands and undeveloped. He stated that there is a large amount of hunting that is performed in the area; however, none in the levee right-of-way. He noted that there are approximately 7 pipelines that cross the right-of-way, either on top of or through the actual levee. He did state that there could be more that are not marked that he is unaware of.

8.0 FINDINGS AND CONCLUSIONS

Based upon URS site observations, records review, research and interviews, URS has summarized findings and conclusions in the paragraphs below related to recognized environmental conditions (REC) in the area of the existing levee segment from the Bayou Bienvenue Floodgate (B/L 130+00) to Highway 46 (B/L 1116+72) at Verret, Louisiana. The area is almost completely surrounded by wetlands with minimal development at both ends of the project area. Based on historical aerial photographs, these hurricane protection system features were constructed post 1960.

Historic aerials and topographic maps were studied to confirm the history of the subject area and to determine uses of the subject property. (Sanborn maps were not available for this area.) In particular, maps were examined for notations of USTs and ASTs. Databases were searched (with the aid of EDR) to determine reported incidents of environmental concern near the levee area.

The database search revealed three reported sites. None of the sites are in close proximity to the proposed foot print of the levee reconstruction to pose an environmental concern and are not considered a REC.

The site reconnaissance revealed seven pipelines which intersect the levee right-of-way. These pipelines currently have no visible environmental concerns; however, if any of these were to experience a problem, numerous issues could occur from a safety and environmental standpoint.

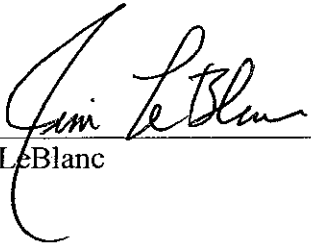
Based on the site reconnaissance, database report and review of historical maps and aerial photographs, no recognized environmental conditions were identified in the area of the levee alignment.

Note: The conclusions presented in this report are preliminary in nature and are not to be used as a sole basis for final action(s), or as the sole basis for major capital decisions. Background data and information furnished to URS were used in the preparation of this report. URS has not independently verified or otherwise examined it nor is responsible for the accuracy of this information. The findings, although valid as of the present date, are subject to future changes in conditions of the site, adjacent properties, applicable regulations, requirements, or other findings which may invalidate them wholly or in part.

SECTION NINE

Signatures of Environmental Professionals

9.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS



Jim LeBlanc

**10.0 QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS
PARTICIPATING IN PHASE I ENVIRONMENTAL SITE ASSESSMENT**

Refer to *Appendix H, Resumes*, for a resume of site assessment personnel.