

Draft Environmental Assessment

Live Oaks Treatment Center Relocation Project

Harrison County, Mississippi

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ACRONYMS AND ABBREVIATIONS

ABFE	Advisory Base Flood Elevation
ACHP	Advisory Council on Historic Preservation
amsl	above mean sea level
APE	Area of Potential Effects
AST	Aboveground storage tank
BFE	Base Flood Elevation
BMP	Best Management Practice
CAA	Clean Air Act
CERCLA	The Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	decibel
DFIRM	Digital Flood Insurance Rate Map
DNL	Day-Night Average Sound Level
EA	Environmental Assessment
ENG	Engineering
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act
GCMHC	Gulf Coast Mental Health Center
LOTC	Live Oaks Treatment Center
MDAC	Mississippi Department of Agriculture and Commerce
MDAH	Mississippi Department of Archives and History
MDEQ	Mississippi Department of Environmental Quality
MDMR	Mississippi Department of Marine Resources
MDOT	Mississippi Department of Transportation
MSWCC	Mississippi Soil and Water Conservation Commission
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NISTAC	Nationwide Infrastructure Support Technical Assistance Consultants



ACRONYMS AND ABBREVIATIONS

NOAA	National Oceanic and Atmospheric Administration
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O ₃	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead
PM _{2.5}	particulate matter less than 2.5 microns
PM ₁₀	particulate matter less than 10 microns
REC	Recognized Environmental Condition
ROD	Record of Decision
SHPO	State Historic Preservation Office
SO ₂	sulfur dioxide
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Office
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
VOC	Volatile Organic Compound



1.0 INTRODUCTION

On August 29, 2005, Hurricane Katrina struck the Mississippi Gulf Coast, causing extensive damage. A Presidential Disaster Declaration, FEMA-1604-DR-MS, was subsequently signed for Katrina.

The Gulf Coast Mental Health Center (GCMHC) has submitted an application for Federal Emergency Management Agency (FEMA) funding under FEMA's Public Assistance Program being administered in response to FEMA-1604-DR-MS for the proposed relocation of the Live Oaks Treatment Center (LOTC) formerly located at 15094 County Barn Road within the Gulf Coast Mental Health Center complex in Gulfport, Harrison County, Mississippi. In accordance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act, PL 93-288, as amended, and implementing regulations at 44 Code of Federal Regulations (CFR) Part 206, FEMA is required to review the environmental effects of the proposed action prior to making a funding decision. This Environmental Assessment (EA) has been prepared in accordance with FEMA's National Environmental Policy Act (NEPA) regulations found in 44 CFR Part 10.

2.0 PURPOSE AND NEED

The Gulf Coast Mental Health Center operated the Live Oaks Treatment Center (LOTC) to provide a residential alcohol and drug treatment center for people in the Gulfport area. The LOTC utilized a 4,640-square-foot, one-story pre-engineered metal-framed building located at 15094 County Barn Road within the Gulf Coast Mental Health Center complex in Gulfport (see Figures 1 and 2 in Appendix A). The storm surge and associated high winds from Hurricane Katrina severely damaged the LOTC. Based on the pre-Katrina Flood Insurance Rate Map (FIRM), the LOTC was located in Zone X, outside of the 100-year floodplain; however, the LOTC was within the 100-year floodplain on the preliminary Digital Flood Insurance Rate Map (DFIRM) and was also within the Advisory Base Flood Elevation (ABFE) and surge inundation zone, with some areas receiving up to 5 feet of water. Damages to the facility exceeded the 50% repair/replacement ratio, meeting FEMA's criteria for replacement. In accordance with FEMA's policy for FEMA-1604-DR-MS, the existing facility will be demolished and the site returned to grade and revegetated.

Prior to Katrina, the LOTC contained 18 beds and served approximately 200 clients per year with a 30-day treatment program. The LOTC currently operates at a reduced capacity out of a temporary trailer facility located on the existing LOTC site (see Figure 2 in Appendix A); the trailer contains 12 beds and can serve approximately 125 clients per year. The Gulf Coast Mental Health Center requires a new facility to resume services to support residential alcohol and drug treatment for people in the Gulfport area.

3.0 ALTERNATIVES

This section describes the alternatives that were considered in addressing the purpose and need stated in Section 2 above. Two alternatives were evaluated further: the No Action Alternative, and the Proposed Action Alternative, the relocation of the LOTC.

Alternative 1: No Action



Under the No Action Alternative, the Gulf Coast Mental Health Center would not rebuild a facility for the LOTC. The Gulf Coast Mental Health Center would continue to provide residential alcohol and drug treatment at a reduced capacity from a temporary facility.

Alternative 2: Relocation of the Live Oaks Treatment Center (Proposed Action)

Under the Proposed Action Alternative, the Gulf Coast Mental Health Center (GCMHC) proposes to relocate the Live Oaks Treatment Center to a 0.45-acre parcel (project site) located within the southeastern portion of the existing 5.9-acre GCMHC property (see Figure 2 in Appendix A). Construction of the new, 13,353–square-foot facility will require clearing of the proposed 0.45-acre project site which is currently wooded. The 0.45-acre proposed project site is bordered to the north by a small wooded area that extends to an unnamed tributary to Bernard Bayou which borders the 5.9-acre GCMHC property on the northeast, to the west by the GCMHC Crisis Stabilization Unit complex, to the south by County Barn Road, and to the east by developed land. The 0.45-acre proposed project site was located outside the 100-year floodplain (Flood Zone X) based on the pre-Katrina FIRM, but is within the 100-year floodplain and 15-foot Base Flood Elevation (BFE) of the DFIRM. The proposed project site is also within the 18-foot ABFE. The new DFIRMs will ultimately be used to determine building elevation requirements instead of the ABFE. For the time being, FEMA is allowing applicants to use the lesser of the two elevations. Therefore, the new facility will be elevated to a minimum of 15 feet above mean sea level (amsl) to meet DFIRM requirements. The new facility will be a one-story building containing 40 beds and will serve approximately 360 clients per year (see Figure 3 in Appendix A). The existing parking areas are sufficient to serve the new facility. Access to the proposed project site will be via the existing access road into the Gulf Coast Mental Health Center from County Barn Road. The new facility will utilize municipal water, electricity, sewerage and telephone utilities, with tie-ins from existing lines running parallel with County Barn Road.

4.0 AFFECTED ENVIRONMENT AND IMPACTS

The following table summarizes the potential impacts of the Proposed Action Alternative and conditions or mitigation measures to offset those impacts. Following the summary table, any areas where potential impacts were identified will be discussed in greater detail.

Affected Environment	Impacts	Mitigation
Geology and Soils	No impacts to geology; short-term impacts to soils during the construction period.	Appropriate Best Management Practices (BMPs), such as installing silt fences and revegetating bare soils immediately upon completion of construction to stabilize soils. No Farmland Conversion Impact Rating Form AD-1006 would be required because the project site is within city limits.



Affected Environment	Impacts	Mitigation
Surface Water	Temporary impacts to an unnamed tributary to Bernard Bayou are possible during construction activities.	A Stormwater Pollution Prevention Plan (SWPPP) and a National Pollutant Discharge Elimination System (NPDES) permit must be obtained prior to construction; appropriate BMPs, such as installing silt fences and revegetating bare soils, would minimize runoff.
Floodplains	The project site is located within the 100-year floodplain according to the preliminary DFIRM	The building would be elevated 15 feet to meet the DFIRM elevation requirement. The Eight-Step Planning Process for Floodplains has been completed to identify, minimize, and mitigate floodplain impacts.
Waters of the U.S. including Wetlands	No impacts to Waters of the United States including wetlands are anticipated.	None
Transportation	Minor temporary increase in the volume of construction traffic on roads in the immediate vicinity of the proposed project site.	Construction vehicles and equipment would be stored on-site during project construction and appropriate signage would be posted on affected roadways.
Public Health and Safety	No impacts to public health and safety are anticipated.	All construction activities would be performed using qualified personnel and in accordance with the standards specified in Occupational Safety and Health Administration (OSHA) regulations; appropriate signage and barriers should be in place prior to construction activities to alert pedestrians and motorists of project activities.

Affected Environment	Impacts	Mitigation
Hazardous Materials	<p>A Phase I Environmental Site Assessment was conducted by NISTAC in December of 2007. No on-site or off-site Recognized Environmental Conditions (RECs) were identified that have the potential to impact the proposed project site were identified.</p> <p>No impacts to hazardous materials or wastes are anticipated.</p>	<p>The design of any new structures on the proposed project site should include consideration of vapor intrusion by residual VOCs released from the nearby Chemfax facility.</p> <p>Excavation activities could expose or otherwise affect subsurface hazardous wastes or materials; any hazardous materials discovered, generated, or used during construction would be disposed of and handled in accordance with applicable local, state, and federal regulations.</p>
Socioeconomic Resources	No adverse socioeconomic impacts are anticipated.	None
Environmental Justice	No disproportionately high or adverse effect on minority or low-income populations is anticipated. All populations would benefit from the services provided by the LOTC.	None
Air Quality	Short-term impacts to air quality would occur during the construction period. No adverse long-term impacts are anticipated	Construction contractors would be required to water down construction areas when necessary; fuel-burning equipment running times would be kept to a minimum; engines would be properly maintained.
Noise	Short-term impacts to noise would occur at the proposed project site during the construction period.	Construction would take place during normal business hours and equipment would meet all local, state, and federal noise regulations.
Biological Resources	Approximately 0.45 acre of wooded habitat would be cleared.	None
Cultural Resources	No impacts to archeological or cultural resources are anticipated.	None

4.1 Geology and Soils

The proposed project site contains soils consisting of Harleston fine sandy loam and Poarch fine sandy loam. The Harleston series consists of deep, moderately well-drained, moderately permeable soils. They formed in marine or stream deposits consisting of thick beds of sandy loam and are found on terraces and uplands of the Southern Coastal Plain. Slopes range from 0 to 12 percent. The Poarch series consists of deep, well- and moderately well-drained, moderately permeable soils on uplands that formed in unconsolidated sandy and loamy marine sediments. They are saturated in the lower part in late winter and early spring. Slopes range from 0 to 8 percent (USDA/NRCS, 2007).

The Farmland Protection Policy Act (FPPA) states that federal agencies must “minimize the extent to which federal programs contribute to the unnecessary conversion of farmland to nonagricultural uses...” Both Harleston and Poarch soil series are classified as prime farmland soils (USDA/NRCS, 2007a).

No Action Alternative – Under the No Action Alternative, no impacts to geology or soils would occur.

Proposed Action Alternative – Under the Proposed Action Alternative, no impacts to geology would occur; short-term impacts to soils would occur during the construction period.

Approximately 6 feet of fill material would be needed to elevate the new facility to 15 feet amsl, above the DFIRM BFE. Appropriate BMPs would be used, such as installing silt fences and revegetating bare soils immediately upon completion of construction to stabilize soils. The proposed project area is located within the city limits of Gulfport and the FPPA does not apply. A Farmland Conversion Impact Rating Form (AD-1006) would not be required.

On July 17, 2007, agency coordination letters were sent to the U.S. Department of Agriculture, Natural Resource Conservation Service (USDA/NRCS), the Mississippi Soil and Water Conservation Commission (MSWCC), and the Mississippi Department of Agriculture and Commerce (MDAC) requesting a project review for the proposed construction of the LOTC (see Appendix B). To date no responses have been received.

4.2 Water Resources

4.2.1 Surface Water

The Clean Water Act (CWA), as amended in 1977, established the basic framework for regulating discharges of pollutants into the waters of the United States.

The proposed project site slopes downward from west to east with elevations ranging from 15 feet to 4 feet above mean sea level (amsl). The site is located approximately 5 miles north of the Mississippi Sound and approximately 0.1 mile southwest of Bernard Bayou. Surface water on the site drains to the northeast, into an unnamed tributary of Bernard Bayou that runs along the eastern boundary of the 5.9-acre GCMHC property. Bernard Bayou then flows into Big Lake, approximately 5.5 miles southeast of the proposed project site, and eventually drains into the Mississippi Sound. A site visit conducted by Nationwide Infrastructure Support Technical Assistance Consultants (NISTAC) and FEMA biologists on June 7, 2007, verified these findings.



No Action Alternative – Under the No Action Alternative, no adverse impacts to surface water would occur.

Proposed Action Alternative – Under the Proposed Action Alternative, temporary short-term impacts to the unnamed tributary to Bernard Bayou could occur during the construction period due to soil erosion. The applicant would be required to submit SWPPP and NPDES permit applications prior to construction. To reduce impacts to surface water, the applicant would implement appropriate BMPs, such as installing silt fences and revegetating bare soils.

On July 17, 2007, agency coordination letters were sent to the Environmental Protection Agency (EPA), the Mississippi Department of Environmental Quality (MDEQ) and MSWCC requesting a project review of the proposed construction of the new LOTC (see Appendix B). To date, no response has been received.

4.2.2 Floodplains

Executive Order (EO) 11988 (Floodplain Management) requires federal agencies to avoid direct or indirect support of development within the 100-year floodplain whenever there is a practicable alternative.

FEMA uses Flood Insurance Rate Maps (FIRMs) to identify the regulatory 100-year floodplain for the National Flood Insurance Program (NFIP). Consistent with EO 11988, FIRMs were examined during the preparation of this EA (FEMA, 2002; Community Panel Number 285253 0037 D). According to the pre-Katrina FIRM, the 0.45-acre proposed project site is located outside the 100-year floodplain (Flood Zone X), but is within the 18-foot ABFE (FEMA, 2006). However, according to preliminary DFIRM Map No. 28047C0262G, the proposed project site is located within Zone AE 15, within an area with a 15-foot elevation requirement (MDEQ, 2008). Zone AE is within the 100-year floodplain. The new DFIRMs will ultimately be used to determine building elevation requirements instead of the ABFE. For the time being, FEMA is allowing applicants to use the lesser of the two elevations. Therefore, the new facility will be elevated to a minimum of 15 feet amsl to meet DFIRM requirements.

No Action Alternative – Under the No Action Alternative, no impacts to the floodplain would occur.

Proposed Action Alternative – Under the Proposed Action Alternative, Preliminary DFIRMs indicate that the project site is located within the 100-year floodplain. The new facility will be elevated to 15 feet amsl to meet DFIRM requirements. There is no practicable alternative site because GCMHC does not have any other available property for the reconstruction of the LOTC. In addition, the GCMHC operates other existing facilities on the larger, 5.9-acre GCMHC parcel. FEMA's Eight-Step Planning Process for Floodplains has been completed to identify, minimize, and mitigate floodplain impacts (see Appendix C).

4.2.3 Waters of the U.S. including Wetlands

The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged or filled material into waters of the U.S., including wetlands, pursuant to Section 404 of the CWA. Additionally, EO 11990 (Protection of Wetlands) requires federal agencies to avoid, to the extent possible, adverse impact of wetlands.



The proposed project site is located approximately 5 miles north of the Mississippi Sound and approximately 0.1 mile southwest of Bernard Bayou. A review of the National Wetlands Inventory (NWI) Map for the project area indicates that no wetland areas are located on or immediately adjacent to the proposed project site (USFWS, 2007a). A site visit conducted by NISTAC and FEMA biologists on June 7, 2007, confirmed that no wetlands occur on the proposed project site.

Wetland (hydrophytic) vegetation, including bald cypress (*Taxodium distichum*), sensitive fern (*Onoclea sensibilis*), red maple (*Acer rubrum*), laurel oak (*Quercus laurifolia*), Chinese privet (*Ligustrum sinense*) and sweet gum (*Liquidambar styraciflua*), was identified on the proposed project site. However, the 1987 *Corps of Engineers Wetlands Delineation Manual* requires the presence of all three parameters (greater than 50% dominance of hydrophytic vegetation, evidence of hydric soils, and hydrologic indicators) for an area to be considered a wetland (USACE, 1987). Portions of the project site exhibit a dominance of hydrophytic vegetation and the parameters for hydric soils, but no hydrologic indicators were identified. Other areas exhibit a dominance of hydrophytic vegetation and hydrologic indicators, but contain no hydric soils. This site may have historically been a wetland; however, the hydrology has been significantly altered. Therefore, under the guidelines established by USACE, it was determined that no wetlands are present on the proposed project site.

The Coastal Zone Management Act (CZMA) enables coastal states, including Mississippi, to designate state coastal zone boundaries and develop coastal management programs to improve protection of sensitive shoreline resources and guide sustainable use of coastal areas. According to the National Oceanic and Atmospheric Administration (NOAA), the proposed project site is located within the Mississippi Coastal Zone (NOAA, 2007).

No Action Alternative – Under the No Action Alternative, no impacts to waters of the U.S. including wetlands would occur.

Proposed Action Alternative – No waters of the U.S., including wetlands, occur on the proposed project site. Therefore, under the Proposed Action Alternative, no impacts to waters of the U.S., including wetlands, would occur.

On July 17 and 25, 2007, letters requesting project review were sent to the Mississippi Department of Marine Resources (MDMR) and the USACE Mobile District, respectively. In a letter dated July 25, 2007, MDMR stated that they have no objections provided that no direct or indirect impacts to wetlands would occur and no coastal program agency objects to the proposed project (see Appendix B). To date, no response has been received from the USACE Mobile District.

4.3 Transportation

The proposed project site is located on a partially wooded parcel adjacent to and just east of the Gulf Coast Mental Health Center, slightly southeast of the former LOTC facility. Access to the new LOTC facility would be from the existing access road to the Gulf Coast Mental Health Center complex, which connects to County Barn Road.

No Action Alternative – Under the No Action Alternative, no construction would occur and there would be no impacts to transportation.



Proposed Action Alternative – Under the Proposed Action Alternative, no significant adverse impacts to transportation or site access are anticipated. There would be a minor temporary increase in the volume of construction traffic on roads in the immediate vicinity of the proposed project site that could potentially result in a slower traffic flow for the duration of the construction phase. To mitigate potential delays, construction vehicles and equipment would be stored on site during project construction and appropriate signage would be posted on affected roadways. No road closures are anticipated.

On July 17, 2007, an agency coordination letter was sent to the Mississippi Department of Transportation (MDOT) requesting a project review of the proposed construction of the new LOTC (see Appendix B). To date, no response has been received.

4.4 Hazardous Materials

NISTAC conducted a Phase I Environmental Site Assessment (ESA) of the proposed project site (NISTAC, 2008). Aboveground storage tanks (ASTs) were observed on an adjacent property southwest and within a 1-mile radius of the proposed project site. NISTAC personnel were unable to obtain information about the adjacent property or identify the contents of the ASTs because the property was inaccessible. The adjacent property was not identified in any Federal, State or tribal databases included in the report furnished by Environmental Data Resources Inc. (EDR). Furthermore, any spills or contamination related to the ASTs would be the responsibility of the respective property owner. Therefore, it is unlikely that the adjacent property has created or will create a Recognized Environmental Condition (REC) on the subject property.

The EDR search identified Chemfax, Inc. (Chemfax) as a National Priorities List (NPL or Superfund) site located to the south, upgradient, and within a 1-mile radius of the proposed project site. The EPA conducted air sampling in 1990 and detected high levels of benzene. In 1994, a Remedial Investigation (RI) of Chemfax was conducted and impacts to air, soil, sediment, and groundwater were documented. Remediation activities under EPA leadership were conducted in 1999 and contaminants including Base Neutral Acids, Polycyclic Aromatic Hydrocarbons (PAHs), and Volatile Organic Compounds (VOCs) were removed. A Record of Decision (ROD) was completed in 2002 and Engineering (ENG) and Institutional (INST) controls were implemented at the Chemfax site. Some residual contaminants may have migrated to the LOTC proposed project site and may still be present in amounts below the established clean up levels. Chemical releases from the Chemfax facility included VOCs that can migrate through soils into buildings. There is a potential that residual VOC vapors could intrude upon the new LOTC facility proposed for the proposed project site. NISTAC recommends that the potential for VOC vapor migration be considered when designing any new structures on the proposed project site.

The owner of the proposed project site (Gulf Coast Mental Health Center) is unlikely to be responsible for remediation of these contaminants or any hazardous material releases from Chemfax. Therefore, the hazardous material release from the Chemfax site is not considered a REC because the proposed project site owner is eligible for the landowner liability protections of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

4.5 Environmental Justice

EO 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) mandates that federal agencies identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority and low-income populations.

No Action Alternative – Under the No Action Alternative, there would be no disproportionately high and adverse effect on minority or low-income populations; all populations would be adversely affected by the reduced residential alcohol and drug treatment services provided by the LOTC temporary facility.

Proposed Action Alternative – Under the Proposed Action Alternative, there would be no disproportionately high and adverse effects on minority or low-income populations. Implementation of the Proposed Action Alternative would benefit all populations by providing an increased level of residential alcohol and drug treatment services to people in the Gulfport area.

4.6 Air Quality

The Clean Air Act (CAA) requires that states adopt ambient air quality standards. The standards have been established in order to protect the public from potentially harmful amounts of pollutants. Under the CAA, the U.S. Environmental Protection Agency (EPA) establishes primary and secondary air quality standards. Primary air quality standards protect the public health, including the health of “sensitive populations, such as people with asthma, children, and older adults.” Secondary air quality standards protect public welfare by promoting ecosystems health, and preventing decreased visibility and damage to crops and buildings. EPA has set national ambient air quality standards (NAAQS) for the following six criteria pollutants: ozone (O₃), particulate matter (PM_{2.5}, PM₁₀), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), and lead (Pb). According to the Mississippi Department of Environmental Quality (MDEQ), the entire state of Mississippi is classified as in attainment, meaning that criteria air pollutants do not exceed the NAAQS (MDEQ, 2007).

No Action Alternative – Under the No Action Alternative, there would be no short- or long-term impacts to air quality because no construction would occur.

Proposed Action Alternative – Under the Proposed Action Alternative, short-term impacts to air quality would occur during construction. To reduce temporary impacts to air quality, the construction contractors would be required to water down construction areas when necessary. Emissions from fuel-burning internal combustion engines (e.g., heavy equipment and earthmoving machinery) could temporarily increase the levels of some of the criteria pollutants, including CO, NO₂, O₃, PM₁₀, and non-criteria pollutants such as Volatile Organic Compounds (VOCs). To reduce the emission of criteria pollutants, fuel-burning equipment running times would be kept to a minimum and engines would be properly maintained.

On July 17, 2007, a letter requesting project review was sent to MDEQ (see Appendix B); no response has been received to date.



4.7 Noise

Noise is generally defined as unwanted sound. Sound is most commonly measured in decibels (dB) on the A-weighted scale, which is the scale most similar to the range of sounds that the human ear can hear. The Day-Night Average Sound Level (DNL) is an average measure of sound. The DNL descriptor is accepted by federal agencies as a standard for estimating sound impacts and establishing guidelines for compatible land uses. EPA guidelines, and those of many other federal agencies, state that outdoor sound levels in excess of 55 dB DNL are “normally unacceptable” for noise-sensitive land uses such as residences, schools, or hospitals.

No Action Alternative – Under the No Action Alternative, no impacts to noise would occur.

Proposed Action Alternative – Under the Proposed Action Alternative, short-term increases in noise levels are anticipated during the construction period. To reduce noise levels during that period, construction activities would take place during normal business hours. Equipment and machinery installed at the proposed site would meet all local, state, and federal noise regulations.

4.8 Biological Resources

The proposed project site is comprised of approximately 0.45 acre of wooded land. This site consists of an upland area in the northern portion of the property, near Bernard Bayou, and a large lowland area to the south of the property that contains bald cypress (*Taxodium distichum*), sensitive fern (*Onoclea sensibilis*), red maple (*Acer rubrum*), laurel oaks (*Quercus laurifolia*), Chinese privet (*Ligustrum sinense*) and sweet gum (*Liquidambar styraciflua*).

The U.S. Fish and Wildlife Service (USFWS) lists the following federally endangered (E) and threatened (T) animal species for Harrison County (USFWS, 2007b):

Common Name	Scientific Name	Status
Louisiana black bear	<i>Ursus americanus luteolus</i>	T
West Indian manatee	<i>Trichechus manatus</i>	E (P)
Brown pelican	<i>Pelecanus occidentalis</i>	E
Piping plover	<i>Charadrius melodus</i>	T (CH)
Red-cockaded woodpecker	<i>Picoides borealis</i>	E
Eastern indigo snake	<i>Drymarchon corais couperi</i>	T (P)
Gopher tortoise	<i>Gopherus polyphemus</i>	T
Green sea turtle	<i>Chelonia mydas</i>	T (P)
Kemp’s Ridley sea turtle	<i>Lepidochelys kempii</i>	E
Loggerhead sea turtle	<i>Caretta caretta</i>	T
Mississippi gopher frog	<i>Rana capito sevosa</i>	E
Gulf sturgeon	<i>Acipenser oxyrhynchus desotoi</i>	T (CH)

Louisiana quillwort	<i>Isoetes louisianensis</i>	E
Alabama red-bellied turtle	<i>Psuedemys alabamensis</i>	E
(P) = potential to occur; (CH) = listed with critical habitat		

According to the USFWS, the Louisiana quillwort is the only federally listed plant species that potentially occurs in Harrison County. It is a rare aquatic plant that occurs on sand and gravel bars, overflow channels, and areas in or near shallow, blackwater streams in riparian woodland and bayhead forests of pine flatwoods and upland pine forests (CPC, 2007). The site visit conducted on June 7, 2007, confirmed that the proposed project site does not contain habitat for any federally listed flora and fauna species; therefore, it is unlikely that any threatened and endangered species are present.

No Action Alternative – Under the No Action Alternative, there would be no impacts to biological resources.

Proposed Action Alternative – Under the Proposed Action Alternative, the 0.45-acre project site would be cleared of vegetation and wildlife habitat to be converted to Live Oaks Treatment Center use. There is no suitable habitat for any federally listed flora and fauna species at the proposed project site. Therefore, under the Proposed Action Alternative, there would be no impacts to threatened or endangered species.

On July 17, 2007, an agency coordination letter was sent to the USFWS Jackson Field Office requesting a project review of the proposed construction of the new LOTC. To date, no response has been received.

4.9 Cultural Resources

Section 106 of the National Historic Preservation Act (NHPA), as amended, and implemented by 36 CFR Part 800, requires federal agencies to consider the effects of their actions on historic properties and provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on federal projects that would have an effect on historic properties prior to implementation. Historic properties are defined as archeological sites, standing structures, or other historic resources listed in or eligible for listing in the National Register of Historic Places (NRHP).

A FEMA Archaeologist and Architectural Historian, both qualified in their respective disciplines under *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61), conducted an assessment of the project's potential to affect historic properties within the Area of Potential Effects (APE). The APE is the geographic area within which an undertaking may directly or indirectly cause changes in the character or use of historic properties, if such properties exist. For above-ground historic properties, the APE is extended out to a 0.5-mile radius around the proposed project site; for archeological resources, the APE consists of the entire 0.45-acre proposed project site. This APE was previously established through FEMA consultation with the Mississippi State Historic Preservation Office (SHPO).

On May 31, 2007, a FEMA Archaeologist and Architectural Historian visited the APE to determine if any historic buildings/structures or archeological sites listed or eligible for listing in



the NRHP were visibly present within the APE. The proposed project site for the construction of the new LOTC facility is located approximately 4.25 miles north of the central business district and the Harbor Square Historic District of Gulfport, Mississippi, in an area of heavy industry. Most of the existing buildings are warehouses constructed in the middle to late 1900s of steel framing covered by galvanized sheet metal. Other structures in the immediate area consist of two modern brick buildings used by the Gulf Coast Mental Health Center.

The LOTC 0.45-acre parcel is currently a heavily wooded, undeveloped parcel of land with the western portion being a high terrace overlooking an unnamed tributary to the east and Bernard Bayou to the north. Below the terrace, the land slopes sharply into the Bernard Bayou drainage area. The entire parcel was scoured by Hurricane Katrina surge and is currently littered with debris. Inspection of the exposed surfaces of the 0.45-acre proposed project site identified two concentrations of shell, one consisted of a lens of oyster shell along the bank of the tributary and the other a surface scatter and thin lens of clam shell on the terrace. Neither of the shell concentrations contained cultural remains or exhibited the characteristics of a shell midden. The oyster shell lens appears to possibly be representative of historic dumping and the clam shell lens is possibly the remains of an old road bed or parking lot. These shells were used extensively for such purposes before their use became illegal.

A search of site files and maps indicate that numerous archeological surveys have taken place within a 2-mile radius of the APE and only two archeological sites have been identified. The sites, 22-HR-571 and 22-HR-572, were identified in 1979 during an archeological survey by Greenwell (MDAH 79-008) and have been determined to be ineligible for listing in the NRHP. Both sites are small lithic scatters and contained no diagnostic artifacts.

Although the APE has been disturbed by hurricane surge, its location on the terrace of Bernard Bayou and an unnamed tributary place it in a high probability area for archeological resources. FEMA determined that the construction of the proposed facility would potentially have an adverse effect on National Register eligible archeological resources, if any are present. FEMA recommended that a Phase I archeological investigation be conducted for the 0.45-acre proposed project site.

NISTAC conducted a Phase I Cultural Resources Survey of the proposed project site in December of 2007 (Banguilan and Cleary, 2008). The Phase I survey was conducted to determine the presence or absence of cultural resources that might be affected by the proposed construction. The survey involved a reconnaissance or walkover of the proposed project site to visually identify any historic properties or above-ground archeological resources. Shovel test pits were excavated at 30-meter intervals across the entire 0.45-acre proposed project site. In total, 12 STPs were excavated. A moderate quantity of modern bottle glass, metal cans, miscellaneous metal, concrete fragments, and oyster shell were found in STPs excavated on the small levee; however, these were all found in unconsolidated alluvium deposits and appear to have been the result of modern dumping or to have been associated with flood deposits. Only a small sample of these materials was retained; this sample was later determined to be modern. No historic above-ground resources or archeological sites were identified.

No Action Alternative – Under the No Action Alternative, no impacts to historic architectural or archaeological resources would occur because no ground disturbing or construction activities would occur.



Proposed Action Alternative – In letters to the SHPO and THPO for the Mississippi Band of Choctaw Indians dated October 25, 2007 (see Appendix B), FEMA made a determination of no adverse effect to historic structures.

A Phase I Cultural Resources Assessment report was prepared in February of 2008, and submitted to the SHPO and THPO for review. This report documented the Phase I survey findings, concluded that project activities will not impact known cultural resources, and recommended no further work for the proposed project site (Banguilan and Cleary, 2008). SHPO and THPO had no comments on the Phase I report.

During the construction period if archeological artifacts or human remains are inadvertently discovered, the applicant shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize further harm to the finds. Work will not proceed until FEMA Historic Preservation staff complete consultation with the SHPO and the THPO.

5.0 CUMULATIVE IMPACTS

According to the Council on Environmental Quality (CEQ) regulations, cumulative impacts represent the “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time (40 CFR 1508.7).” In accordance with NEPA and to the extent reasonable and practical, this EA considered the combined effect of the Proposed Action Alternative and other actions occurring or proposed in the vicinity of the proposed project site.

Gulfport and the entire Mississippi Gulf coast are undergoing recovery efforts after Hurricane Katrina caused extensive damages. The recovery efforts in Gulfport include demolition, reconstruction, and new construction. These projects and the proposed project may have a cumulative temporary impact on air quality and surface water in Gulfport by increasing criteria pollutants and increasing erosion potential throughout construction activities. No other cumulative effects are anticipated.

6.0 PUBLIC INVOLVEMENT

FEMA is the lead federal agency for conducting the NEPA compliance process for the construction of the Gulf Coast Mental Health Center’s Live Oaks Treatment Center in Gulfport, Mississippi. It is the goal of the lead agency to expedite the preparation and review of NEPA documents and to be responsive to the needs of the community and the purpose and need of the proposed action while meeting the intent of NEPA and complying with all NEPA provisions.

The Gulf Coast Mental Health Center will notify the public of the availability of the draft Environment Assessment through publication of a public notice in a local newspaper. FEMA will conduct an expedited public comment period commencing on the initial date of publication of the public notice.



7.0 AGENCY COORDINATION AND PERMITS

The following agencies and organizations were contacted by letter requesting project review during the preparation of this EA. Responses received to date are included in Appendix B.

- U.S. Department of Agriculture, Natural Resources Conservation Service
- U.S. Environmental Protection Agency, Region 4, Water Management Division
- U.S. Fish and Wildlife Service, Jackson Field Office
- U.S. Army Corps of Engineers, Mobile District
- Mississippi Department of Agriculture and Commerce
- Mississippi Department of Archives and History
- Mississippi Department of Marine Resources, Bureau of Wetlands Permitting
- Mississippi Department of Environmental Quality, Office of Pollution Control
- Tribal Historic Preservation Officer, Mississippi Band of Choctaw Indians
- Mississippi Department of Transportation, Environmental Division
- Mississippi Soil and Water Conservation Commission

In accordance with applicable local, state, and federal regulations, the applicant would be responsible for acquiring any necessary permits prior to commencing construction at the proposed project site.

8.0 CONCLUSIONS

No adverse impacts to geology, groundwater, floodplains, waters of the U.S. including wetlands, public health and safety, hazardous materials, socioeconomic resources, environmental justice, or cultural resources are anticipated with the Proposed Action Alternative. During the construction period, short-term impacts to soils, surface water, transportation, air quality, and noise are anticipated. All short-term impacts will require conditions to minimize and mitigate impacts to the proposed project site and surrounding areas. Long-term, minor impacts to biological resources would occur with the removal of 0.45 acres of wooded vegetation from the proposed project site.

9.0 REFERENCES

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Appendix A

Figures

Appendix B

Agency Coordination

Appendix C

Eight-Step Planning Process for Floodplains