

Draft Environmental Assessment

Charles B. Murphy Elementary School Relocation

Hancock County, Mississippi

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FEMA

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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 Effect
BMP	Best Management Practice
CAA	Clean Air Act
CBMES	Charles B. Murphy Elementary School
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CO	carbon monoxide
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dB	decibel
DNL	Day-Night Average Sound Level
EA	Environmental Assessment
EO	Executive Order
EPA	U.S. Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FPPA	Farmland Protection Policy Act
MDAH	Mississippi Department of Archives and History
MDEQ	Mississippi Department of Environmental Quality
MDMR	Mississippi Department of Marine Resources
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
NOAA	National Oceanic and Atmospheric Administration
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
O ₃	ozone
OSHA	Occupational Safety and Health Administration
Pb	lead



ACRONYMS AND ABBREVIATIONS

PM _{2.5}	particulate matter less than 2.5 microns
PM ₁₀	particulate matter less than 10 microns
SHPO	State Historic Preservation Office
SO ₂	sulfur dioxide
STP	shovel test pit
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
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 Hancock County School District (District) 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. 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

On August 29, 2005, Hurricane Katrina's storm surge severely damaged the District's Charles B. Murphy Elementary School (CBMES) in Pearlinton, Mississippi (Appendix A, Figure 1). CBMES was comprised of five buildings with ancillary facilities that included a package biological treatment process plant. The school provided public education to 125 students, from kindergarten through fifth grade. CBMES was located in floodplain designated zone A9 and was within the surge inundation zone for Hurricane Katrina, receiving up to 8 feet of water in some places (FEMA, 1987).

Post-Katrina, many Hancock County residents relocated north of the surge inundation zone, thus creating an increased demand for additional public education facilities in northern Hancock County, Mississippi. Students remaining in the Pearlinton area currently utilize temporary facilities located on the Hancock County Middle School campus and will be transferred to Gulfview Elementary School, located approximately 15 miles east of the former Charles B. Murphy campus, once the Gulfview school is rebuilt. The need for this project is to establish a permanent educational facility to meet the increased demand for public education north of the surge inundation zone that was established post-Katrina.

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: the No Action Alternative, and the Proposed Action Alternative, which is the relocation and rebuilding of CBMES on higher ground in northern Hancock County, in Kiln, Mississippi.

3.1 Alternative 1: No Action

Under the No Action Alternative, Charles B. Murphy Elementary School would not be rebuilt. The District would not have sufficient permanent education facilities to meet the increased student population that has relocated to northern Hancock County post-Katrina. Faculty and



students of CBMES would continue to utilize temporary facilities on the Hancock County Middle School Campus until Gulfview Elementary School is rebuilt.

Three of the five buildings located at the former school site were heavily damaged and have been demolished. The remaining two buildings would be leased to a third party. No FEMA funding would be utilized to repair the remaining two buildings.

3.2 Alternative 2: Relocate and Rebuild Charles B. Murphy Elementary School (Proposed Action)

Under the Proposed Action Alternative, the District proposes to construct a new Charles B. Murphy Elementary School on a 40-acre parcel located north of Highway 43 in Kiln, Mississippi. (Appendix A, Figure 2). The proposed project site is approximately 33 miles northeast of the existing CBMES and is owned by the Hancock County School District. The District intends to construct a new 84,000-square-foot, one-story building in the center of the proposed property. Primary access to the new school would be from the south on Highway 43. A secondary access road, approximately 3,000 feet long, will be constructed to the northeast, connecting the school to Leetown Road. Approximately 29.6 acres of vegetation would be cleared to construct the school. The school would connect to existing utilities along Highway 43 and a wastewater treatment package plant would be constructed on site.

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; temporary 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.
Surface Water	Temporary impacts to offsite, downstream surface waters 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.



Affected Environment	Impacts	Mitigation
Groundwater	No impacts to groundwater are anticipated.	None
Floodplains	No impacts to the floodplain are anticipated.	None
Waters of the U.S. including Wetlands	Approximately 0.004 acre of a drainage ditch (waters of the U.S.) would be impacted for construction of the secondary access road.	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.
Hazardous Materials	No impacts to hazardous materials or wastes are anticipated.	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.
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.	None

Affected Environment	Impacts	Mitigation
Air Quality	Temporary impacts to air quality would occur during the construction period.	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	Temporary impacts to noise levels 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 29.6 acres of wooded wildlife habitat would be cleared of vegetation, graded, and converted to school use.	None
Cultural Resources	No impacts to archeological or cultural resources are anticipated.	None

4.1 Geology and Soils

The proposed project site is located approximately 100 feet above mean sea level (amsl) and consists of Atmore silt loam and Poarch fine sandy loam. The Atmore series soils are characterized by deep, poorly drained, moderately to slowly permeable soils that formed in loamy marine sediments. These soils are located on Coastal Plain depressions and inter-stream divides. Slopes range from 0 to 5 percent (USDA, 1997). The Poarch series soils are characterized by 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, 1997).

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...”. According to the U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), the proposed project site does not contain soils classified as prime or unique farmland (USDA/NRCS, 1997).

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; temporary impacts to soils would occur during the construction period. Appropriate BMPs would be used, such as installing silt fences and revegetating bare soils immediately upon completion of construction, to stabilize soils.



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 topography slopes away from the proposed project site in all directions. Elevation of the proposed project site ranges from 100 feet amsl in the center to 90 feet amsl at the edges. Crane Pond is located to the west of the proposed project site and Lee Lake is located to the north. Crane Pond Branch flows northeast connecting Crane Pond to Lee Lake.

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 impacts to offsite surface waters (Crane Pond, Lee Lake, and Crane Pond Branch) could occur during the construction period due to soil erosion. The applicant would be required to submit a SWPPP and NPDES permit application prior to construction. To reduce impacts to surface water, the applicant would implement appropriate BMPs, such as installing silt fences and revegetating bare soils.

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 2855254 0060 C).

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

Proposed Action Alternative – As indicated on the FIRM, the proposed project site is located in Zone C, outside of the 100-year floodplain and the Advisory Base Flood Elevation (ABFE). Under the Proposed Action Alternative, no impacts to the floodplain are anticipated.

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 Clean Water Act (CWA). Additionally, EO 11990 (Protection of Wetlands) requires federal agencies to avoid, to the extent possible, adverse impact of wetlands.

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).

A review of the National Wetlands Inventory (NWI) Map for the project area shows no wetland areas located on the proposed project site (USFWS, 2007a). However, during a site visit conducted by Nationwide Infrastructure Support Technical Assistance Consultants (NISTAC)



biologists on April 5, 2007, potential wetland areas were observed on the proposed project site. Therefore, on April 16 and 17, 2007, a wetland delineation was conducted by NISTAC wetland biologists.

Using guidance manuals and procedures set forth by the USACE, three nontidal wetlands were delineated within the property boundary (see Figure 3). The methods and procedures used for this wetland delineation are in accordance with the 1987 *Corps of Engineers Wetlands Delineation Manual*. The Corps manual requires the presence of all three parameters (greater than 50% dominance of hydrophytic vegetation, evidence of hydric soils, and presence of hydrologic indicators) for an area to be considered a wetland.

In the southwest corner of the proposed project site there is a small, isolated 0.203-acre nontidal emergent wetland (Wet-1) and a larger 1.128-acre nontidal, forested and emergent wetland (Wet-2), which connects to a road ditch which leads to the Crane Pond Branch. Within the project limit of the 70-foot corridor to the northeast, there is a linear drainage ditch (DD-1) which is considered waters of the U.S. The drainage ditch has a direct connection to Crane Pond Branch, which connects to Hickory Creek.

Plants within the wetland and drainage ditch areas include loblolly pine (*Pinus taeda*), southern magnolia (*Magnolia grandiflora*), southern catalpa (*Catalpa bignonioides*), swamp tupelo (*Nyssa biflora*), red maple (*Acer rubrum*), wax myrtle (*Morella cerifera*), Chinese privet (*Ligustrum sinense*), Chinese tallow (*Sapium sebiferum*), southern dewberry (*Rubus trivialis*), pine barren goldenrod (*Solidago fistulosa*), Pennsylvania smartweed (*Polygonum pensylvanicum*), spikerush (*Eleocharis* sp.), common rush (*Juncus effusus*), grassleaf rush (*Juncus marginatus*), southern cutgrass (*Leersia hexandra*), green flatsedge (*Cyperus virens*), tall flatsedge (*Cyperus eragrostis*), Beyrich threeawn (*Aristida beyrichiana*), and greenbrier (*Smilax* spp.).

On May 18, 2007, a letter requesting project review was sent to the Mississippi Department of Marine Resources (MDMR), Bureau of Wetlands Permitting regarding the proposed project and potential impacts on the coastal zone and wetlands (see Appendix B). A letter requesting project review was not sent to the USACE, Mobile District, because the District has a moratorium on conducting jurisdictional wetland determinations and would not be able to review the proposed project (Zedryk, pers. comm.).

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

Proposed Action Alternative – Under the Proposed Action Alternative, no impacts to vegetated, nontidal wetlands would occur, as the area to be cleared for construction is outside of the wetlands (Wet-1 and Wet-2) delineated on the proposed project site. The drainage ditch (DD-1) is crossed by an old farm road which will be converted into a secondary access road for the school. Approximately 0.004 acre of the drainage ditch (waters of the U.S.) would be impacted for construction of the secondary access road. The impact to the drainage ditch will require a permit through the USACE and MDMR; however, because the impact does not meet the minimum acreage of 0.50 acre, no mitigation will be required. Temporary impacts to offsite, downstream surface waters, including Crane Pond Branch, may occur during the construction period from erosion of soils. To reduce impacts to surface water, the applicant would implement appropriate BMPs, such as installing silt fences and revegetating bare soils.



In a letter dated May 31, 2007, MDMR stated that it had no objections to the proposed project as long as there are no direct or indirect impacts to coastal wetlands (see Appendix B). Wetlands and waters of the U.S. on and adjacent to the proposed project site are nontidal; therefore, no impacts to coastal wetlands would occur.

4.3 Transportation

The proposed project site is located north of Highway 43. Highway 43 is a two-lane divided roadway that runs primarily north and south from Bay St. Louis to Picayune. At the intersection of Highway 43 and Leestown Road, Highway 43 has a 90-degree bend west and then runs parallel to the southern property limits of the proposed project site. There are no residential communities adjacent to the proposed project site. The commercial properties near the proposed project site have individual parking lots with access from Highway 43.

No Action Alternative- Under the No Action Alternative, there would be no changes to transportation.

Proposed Action Alternative – Under the Proposed Action Alternative, no significant adverse impacts to transportation, site access, or traffic levels are anticipated. Traffic devices including lights and/or stop signs may have to be installed at the intersection of the access road and Highway 43. Speed limits in the area may have to be decreased during selected hours, especially when students are arriving at and departing from the School.

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.

4.4 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. Socioeconomic and demographic data for the project area were analyzed to determine if a disproportionate number of minority or low-income persons have the potential to be adversely affected by the proposed project.

No Action Alternative – Under the No Action Alternative, there would be no disproportionately high and adverse effects on minority or low-income populations. All populations could potentially be adversely affected by the reduced efficiency and capacity of the public school system in northern Hancock County, due to the permanent relocation of many residents to the area.

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 in northern Hancock County that would utilize the CBMES.



4.5 Air Quality

The Clean Air Act (CAA) requires that states adopt ambient air quality standards. The standards have been established 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, temporary impacts to air quality would occur during the construction period. 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, PM_{2.5} and 10, 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.

4.6 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 sensitive receptors are located within 1 mile of the proposed project site.

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

Proposed Action Alternative – Under the Proposed Action Alternative, temporary 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 project site would meet all local, state, and federal noise regulations.

4.7 Biological Resources

The proposed project site is a 40-acre parcel of undeveloped wooded land and is comprised mostly of recently planted loblolly pine in rows. The project site also includes a 70-foot wide, 300-foot long corridor that extends northeast from the 40-acre area. Plants identified on the project site include loblolly pine, red maple, southern dewberry, wax myrtle, Chinese privet, Japanese honeysuckle (*Lonicera japonica*), pine barren flatsedge (*Cyperus retrorsus*), pine barren goldenrod, ebony spleenwort (*Asplenium platyneuron*), and greenbrier. Adjacent to the project limit in the southwestern corner of the site, there are two wetland areas. Along the 70-foot wide corridor, there is a drain that extends to the east and the west. The proposed project site supports wildlife common to undeveloped areas in Mississippi, including songbirds, reptiles, amphibians, small mammals, and white-tailed deer (*Odocoileus virginianus*).

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

Common Name	Scientific Name	Status
Louisiana black bear	<i>Ursus americanus luteolus</i>	T
West Indian manatee	<i>Trichechus manatus</i>	E (P)
Bald eagle	<i>Haliaeetus leucocephalus</i>	T
Brown pelican	<i>Pelecanus occidentalis</i>	E
Piping plover	<i>Charadrius melodus</i>	T (CH)
Gopher tortoise	<i>Gopherus polyphemus</i>	T
Green turtle	<i>Chelonia mydas</i>	T (P)
Kemp's Ridley	<i>Lepidochelys kempii</i>	E (P)
Loggerhead turtle	<i>Caretta caretta</i>	T (P)
Gulf sturgeon	<i>Acipenser oxyrhynchus desotoi</i>	T (CH)
Inflated heelsplitter	<i>Potamilus inflatus</i>	T (P)
Louisiana quillwort	<i>Isoetes louisianensis</i>	E (P)
(P) = potential to occur; * = listed with critical habitat		

A site visit conducted by NISTAC biologists on April 16 and 17, 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. On May 18, 2007, a letter requesting project review was sent to USFWS; no response has been received to date.

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

Proposed Action Alternative – Under the Proposed Action Alternative, approximately 29.6 acres of wooded wildlife habitat would be cleared of vegetation, graded, and converted to school use.



4.8 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 will 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).

On April 5, 2007, a FEMA Archeologist and Architectural Historian, both qualified in their respective disciplines under Secretary of the Interior's Professional Qualifications 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 archeological resources, the APE consists of the 29.6 acres of the project site to be cleared for construction of the school; for above-ground historic properties, the APE is extended out to a 0.5-mile radius around the proposed project site. This APE was previously established through FEMA coordination with the Mississippi State Historic Preservation Office (SHPO).

According to the U.S. Geological Survey (USGS) 7.5-minute topographic map (USGS, 1986), the northern section of the APE sits on a high crest (about 100 feet amsl), with elevations declining in all directions. The southwestern portion of the APE has a small natural drainage area which runs south along the lower half of the western boundary. The area is heavily wooded with the majority of the vegetation comprised of planted pine trees and thick groves of native trees in the drainage area. The ground was covered by a thick layer of pine needles and thick vegetative debris. Tree farming throughout the APE has disturbed the top layers of soils, as a series of low ridges have been formed to plant the trees. These ridges are spaced approximately 3 to 4 meters apart.

In an effort to locate signs of past human occupation, the FEMA archeologist conducted a pedestrian survey of the entire APE. Several cut-lines crisscrossed the APE, which allowed for the inspection of exposed ground surfaces. No signs of past human occupation were visible from surface observations, with the exception of scattered clam shells, which might suggest the presence of past human subsistence.

A review of archeological site files was undertaken at the Historic Preservation Division of the Mississippi Department of Archives and History (MDAH) in Jackson, Mississippi. This review revealed that no previously recorded archeological sites were present within the proposed project site. Furthermore, there was only a single recorded archeological site within a 2-mile radius of the proposed project site. This lack of recorded archeological sites is not surprising considering the dearth of previous archeological investigations in the area. In fact, only two prior cultural resources surveys have been conducted within a 2-mile radius of the site. Both surveys were small and did not result in the discovery of any cultural resources (Alvey 2005; Reams 2004).

Two large drainages, Hickory and Catahoula Creeks, are nearby, with Hickory being approximately 0.5 mile south and Catahoula being approximately 2 miles west. Given the



proximity to these drainages and the location of the project site on a high terrace, the APE could be considered a high probability area for archeological sites.

A Phase I cultural resources survey of the proposed project site was conducted by NISTAC and FEMA archeologists between June 11 and 16, 2007. This work consisted of a pedestrian survey and the excavation of shovel test pits (STPs) within the project's APE. The pedestrian survey revealed that the entire site was covered by a series of low ridges straddled by shallow trenches. Pine trees were planted in the recent past at regular intervals on top of the ridges. Poarch fine sandy loam soils covered most of the proposed project site (USDA/SCS 1987). A total of 169 STPs were excavated within the site, including 31 STPs along the proposed 3000-foot long secondary access road. A single marine bivalve shell fragment was recovered from eight of the STPs. All of these shells were recovered from STPs located near modern dirt roads. In the recent past, marine shells were often utilized to pave and/or repair pot holes in such roads along the Gulf Coast. The marine shells recovered during the Phase I archeological survey are therefore most likely modern. No other cultural resources of any kind were recovered during the survey.

A draft report for the Phase I cultural resources survey is currently being prepared for submission to the Historic Preservation Division of the MDAH for review. This report documents the Phase I survey findings and recommends no further work for the proposed project site (Lockard and Banguilan, 2007).

No Action Alternative – Under the No Action Alternative, no impacts to archeological or cultural resources would occur.

Proposed Action Alternative – Under the Proposed Action Alternative, no impacts to archeological or cultural resources are anticipated. In letters dated May 29, 2007, to the MDAH and Tribal Historic Preservation Officer (THPO) for the Mississippi Band of Choctaw Indians, FEMA stated that no impacts to historic resources are anticipated; however, due to the geographical location of the APE and the fact that the ground appears to be undisturbed except for the uppermost levels, FEMA determined that the construction of the proposed facility may potentially affect National Register eligible archeological resources, if any are present, and recommended a Phase I cultural resources survey be conducted for the proposed project (see Appendix B). In a letter dated June 28, 2007, MDAH stated that it did not concur with FEMA's recommendation that a Phase I survey be performed and that the project could proceed without further review (see Appendix B). In correspondence dated May 31, 2007, the THPO concurred with FEMA's recommendation for a Phase I survey (see Appendix B).

A Phase I cultural resources survey has been conducted and no further work is recommended. Responses from MDAH and THPO on the draft Phase I report have not been received to date.

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.

Hancock County and the entire Mississippi Gulf coast are undergoing recovery efforts after Hurricane Katrina caused extensive damages. The recovery efforts in Hancock County include demolition, reconstruction, and new construction. These projects and the proposed project may have a cumulative temporary impact on air quality in Hancock County by increasing criteria pollutants during 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 CBMES relocation and rebuilding project in Kiln, 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 Hancock County School District 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. If required for NEPA documentation, agencies (marked with *) were asked to submit a formal response. 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*
- Mississippi Department of Agriculture and Commerce
- Mississippi Department of Archives and History*
- Mississippi Department of Environmental Quality, Office of Pollution Control, Environmental Permits Division*
- Mississippi Department of Marine Resources, Bureau of Wetlands Permitting
- 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. These would include SWPPP and NPDES permits.



8.0 CONCLUSIONS

No impacts to geology, groundwater, floodplains, public health and safety, hazardous materials, socioeconomic resources, environmental justice, and cultural resources are anticipated with the Proposed Action Alternative. During the construction period, temporary impacts to soils, downstream surface waters, transportation, air quality, and noise are anticipated. All short-term impacts require conditions to minimize and mitigate impacts to the proposed project site and surrounding areas. At the proposed project site, impacts to 0.004 acre of waters of the U.S. will require a permit from USACE and MDMR; no mitigation will be required. Impacts to biological resources include conversion of approximately 29.6 acres of wooded wildlife habitat to CBMES use.



9.0 REFERENCES

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Appendix A

Figures

Appendix B

Agency Coordination