

Draft Environmental Assessment

**Bay-Waveland School District
Central Administration Office and
Annex Building Project**

Hancock County, Mississippi

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FEMA

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ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effect
BMP	Best Management Practice
CAA	Clean Air 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
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
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
MDAH	Mississippi Department of Archives and History
MDEQ	Mississippi Department of Environmental Quality
MDMR	Mississippi Department of Marine Resources
MDOT	Mississippi Department of Transportation
MOA	Memorandum of Agreement
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NGVD29	National Geodetic Vertical Datum of 1929
NHPA	National Historic Preservation Act
NISTAC	Nationwide Infrastructure Support Technical Assistance Consultants
NO ₂	nitrogen dioxide
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O ₃	ozone
OBSLHD	Old Bay St. Louis Historic District
Pb	lead
PM _{2.5/10}	particulate matter less than 2.5 microns/10 microns



ACRONYMS AND ABBREVIATIONS

SHPO	State Historic Preservation Office
SO ₂	sulfur dioxide
SSES	Second Street Elementary School
STP	Shovel test pit
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
WOUS	Waters of the United States

1.0 INTRODUCTION

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

Prior to Katrina, the Bay-Waveland School District (BWSD) maintained a central administration facility at 260 Carroll Avenue in Bay St. Louis, Mississippi. Located adjacent to the District's Second Street Elementary School (SSES), the facility consisted of a Main Administration Building and the Central Administration Maintenance Building. High winds, heavy rains, and flooding from the hurricane caused extensive damage throughout the BWSD facility. The Main Administration Building, a 3,710-square-foot, one-story building, is not usable but is still standing. The Central Administration Maintenance Building, a 2,573-square-foot, one-story building was demolished immediately post-Hurricane Katrina due to public health and safety concerns. The project consists of constructing a new Central Administration Office Building and a new Annex Building on the BWSD property on the north side of Ulman Avenue in Bay St. Louis.

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, the Federal Emergency Management Agency (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 at 44 CFR Part 10.

The proposed project also includes the abandonment and removal of five temporary trailers, located in the shared SSES and District Administration Facility's parking lot. The temporary trailers were installed post-Katrina for temporary classroom and administrative office space. District operations currently residing in the temporary facility would be relocated to the proposed Central Administration Office and Annex Buildings. FEMA has previously determined that the installation and removal of emergency trailers are Statutorily Excluded from the environmental review process, in accordance with 44 CFR Part 10.8(c)(1). Therefore, potential environmental impacts from abandonment and removal of the temporary administration facility are not evaluated in this EA.

BWSD has previously requested FEMA funding to relocate the SSES, along with students from other damaged schools within BWSD, to a new consolidated facility (Bay Waveland Upper Elementary School) located adjacent to the existing Bay Waveland Middle School at 600 Pine Street. This project was evaluated by FEMA in a separate EA in February 2009, which resulted in a Finding of No Significant Impact (FONSI).

2.0 PURPOSE AND NEED

Following Katrina, the majority of the Main Administration and Central Administration Maintenance Buildings' functions and operations were relocated to temporary trailers, located in the shared SSES and District Administration Facility's parking lot, on the south side of Ulman Avenue. The temporary trailers are of insufficient size to house the former buildings' functions and operations and are not designed to serve as long-term replacements for the damaged buildings.



Although the existing Main Administration Building could be restored to pre-disaster condition, BWSD is in need of a larger facility to meet their current needs for additional office space. Prior to Katrina, several of the District's administrators used office space at several BWSD schools. A larger facility would allow BWSD to consolidate operations at a centralized location, improving service and the efficiency of administrative operations to the entire school district. In addition, a new maintenance building is required to restore maintenance operations to pre-disaster levels. Consequently, there is a need to provide BWSD with suitable replacement buildings that would restore operations to pre-disaster levels, while meeting the District's current needs for additional office space to consolidate staff and operations.

3.0 ALTERNATIVES

This section describes the alternatives that were considered to address the purpose and need stated in Section 2. Two alternatives are evaluated in this EA: the No Action Alternative and the Proposed Action Alternative. An alternative to repair the Main Administration Building and reconstruct the Central Administration Maintenance Building was also considered and dismissed.

3.1 Alternative 1: No Action

Under the No Action Alternative, no replacement facilities would be constructed and BWSD would continue to use the temporary facilities on the south side of Ulman Avenue to house its administrative functions. These temporary facilities are of insufficient size for BWSD's operations and are not designed for long-term use.

3.2 Alternative 2: Construct New Administration Building (Proposed Action)

Under the Proposed Action Alternative, BWSD would construct a new Central Administration Office Building and a new Annex Building on approximately 1.8 acres of the 3.6-acre BWSD property at 213 Ulman Avenue in Bay St. Louis. The project site is located immediately north of SSES and adjacent to the BWSD's Ingram Building (see Figures 1 and 2).

The Central Administration Office Building will be a 10,000- to 11,000-square-foot one-story steel structure with metal stud infill. The Central Administration Office Building will have brick veneer/stucco on the exterior and will exhibit features in character with the surrounding neighborhood. The proposed Annex Building would be located just to the west of the proposed Central Administration Office Building and would house both the Maintenance and Information Technology Departments (Figure 3). The Annex Building will be a 2,000- to 3,000-square-foot pre-engineered structure with metal stud and masonry infill. An access drive from Ulman Avenue will be constructed between the Ingram Building and the new Central Administration Office Building, with a 56-space parking area constructed behind and around the two proposed buildings.

The project site is an open lot in a residential setting that housed temporary classroom trailer units after Katrina but is currently vacant. The terrain is relatively flat, with a slight slope to the north/northwest; vegetation on the site primarily consists of grasses and other herbaceous plants, with trees and shrubs along the margins. The new buildings and access road would be located in Zone X (shaded), outside the 100-year floodplain, but the parking area would be partially within the 100-year floodplain (Zone AE).

The existing Main Administration Building would be mothballed and maintained by BWSD, in accordance with the Memorandum of Agreement (MOA), executed on September 14, 2011, among FEMA, the Advisory Council on Historic Preservation (ACHP), the Mississippi Department of Archives and History (MDAH), the Mississippi Emergency Management Agency (MEMA), and BWSD. This MOA addresses the disposition of the BWSD's SSES, Ingram Building, and Main Administration Building, and the construction of a new Central Administration Building and Annex. BWSD is currently soliciting potential re-use proposals for the Second Street Elementary School, Ingram Building, and the Main Administration Building.

3.3 Alternatives Considered and Dismissed

The BWSD also considered an alternative that would options to restore the Main Administration Building to pre-disaster condition and reconstruct a Central Administration Maintenance Building within their original respective footprints. However, the BWSD determined that the existing Main Administration Building does not meet current building code and standards and would need extensive rehabilitation work to restore the building to pre-disaster condition. In addition, this alternative would not accommodate the need for additional office space to consolidate District staff and operations. Therefore, this alternative does not meet the purpose and need and was dismissed from further consideration.

4.0 AFFECTED ENVIRONMENT AND IMPACTS

The following table summarizes the potential impacts of the Proposed Action Alternative and mitigation measures to offset those impacts. Following the summary table, any resource areas for which potential impacts were identified, as well as high priority resources including floodplains, wetlands and waters of the U.S., environmental justice, biological resources, and cultural resources, will be discussed in greater detail.

Affected Environment	Impacts	Mitigation
Geology and Soils	No impacts to geology would occur. Minor temporary impacts to soils may occur during construction. No permanent impacts to soils are anticipated.	Appropriate Best Management Practices (BMPs), such as installing silt fences and temporary soil stabilization during construction as well as vegetating bare soils, would minimize soil erosion.
Surface Water	Minor temporary impacts to surface water may occur during construction due to stormwater runoff. There will be no permanent impacts to surface waters as a result of this project.	The applicant will prepare a Stormwater Pollution Prevention Plan (SWPPP) and obtain a National Pollutant Discharge Elimination System (NPDES) permit for the project. Appropriate BMPs, such as installing silt fences and temporary soil stabilization during construction as well as vegetating bare soils, would minimize runoff.
Groundwater	No impacts to groundwater are anticipated.	None.
Floodplains	Construction of the facility parking lot would require the placement of fill material, removing approximately 0.5 acre from the 100-year floodplain.	To minimize impacts to the floodplain, the proposed Central Administration Office and Annex Buildings would be constructed on the southern portion of the site, outside the 100-year floodplain.
Waters of the U.S., Including Wetlands	There will be no direct impacts to waters of the U.S., including wetlands, because none exist on the project site. Minor temporary impacts to adjacent wetlands and waterways may occur from sediment transport during construction.	The applicant will prepare a SWPPP and obtain a NPDES permit for the project. Appropriate BMPs, such as installing silt fences, temporary soil stabilization during construction, and vegetating bare soils, would minimize runoff to off-site wetlands and waterways.
Transportation	There would be a minor temporary increase in the volume of construction traffic on roads in the immediate vicinity of the 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	There will be no temporary or permanent affects to Public Health and Safety as a result of this project.	All construction activities would be performed using qualified personnel and in accordance with the standards specified in Occupational Safety and Health Administration regulations. Appropriate signage and barriers would be in place prior to construction activities to alert pedestrians and motorists.

Affected Environment	Impacts	Mitigation
Hazardous Materials	No hazardous materials or hazardous waste are expected to be encountered or generated as a result of this project.	Any hazardous materials discovered, generated, or used during construction would be disposed and handled in accordance with applicable local, state, and Federal regulations.
Socioeconomic Resources	No impacts to socioeconomic resources 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 consolidated, more efficient operation of BWSO administrative facilities.	None.
Air Quality	Temporary impacts to air quality could potentially occur during the construction period.	Construction contractors would be required to water down construction areas when necessary to minimize dust; fuel-burning equipment running times would be kept to a minimum and engines would be properly maintained.
Noise	Temporary noise impacts would occur at the project site during the construction period.	Construction would occur during normal business hours and equipment would meet all local, state, and Federal noise regulations.
Biological Resources	Approximately 1.8 acres of land that is primarily vegetated with grasses and other herbaceous plants will be cleared for the proposed construction. The project site does not contain habitat for any federally listed species and no impacts to listed species are anticipated.	None.
Cultural Resources	No impacts to cultural resources are anticipated.	To ensure that adverse effects to historic properties are avoided, any earthmoving activities in the northeast portion of the survey area in and around site 22 Ha726 should be monitored by a qualified archaeologist. If unexpected discoveries are made during the course of project execution, FEMA will proceed in accordance with the statewide Programmatic Agreement executed on December 21, 2010.

4.1 Geology and Soils

The project site lies within the East Gulf Coastal Plain. This broad physiographic designation extends from the Gulf of Mexico to northern Tennessee and from eastern Louisiana to western Florida and is comprised of coastal marine deposits (USGS, 2007). The project site is located within the Coastal Flatwoods ecological region of the East Gulf Coastal Plain, an area approximately 10 to 15 miles wide that parallels the Gulf Coast. Coastal Flatwoods are characterized by level terraces and clays, sands, and gravels. Saltwater marshes lie along the southern boundary of the Coastal Flatwoods. Elevations within the project site range from 15 to 20 feet National Geodetic Vertical Datum of 1929 (NGVD29); elevations are highest at the center of the project site and slope towards an unnamed drainage feature to the northwest (USGS, 1993).

The soils at the project site primarily consist of Eustis loamy fine sand, with a small area of Poarch fine sandy loam on the west end (USDA/NRCS, 2011c). The Eustis series is found on coastal plains (2-5 percent slopes) and the parent material consists of sandy and loamy marine deposits (USDA/NRCS, 2011b). The natural drainage class for the Eustis series is somewhat excessively drained with little or no runoff and a slight erosion hazard. The Poarch series is found in upland areas (0-12 percent slopes) and the parent material consists of loamy marine deposits. The natural drainage class for the Poarch series is well-drained with moderate permeability in the upper subsoil and moderately slow permeability in the lower subsoil. The runoff is rapid, resulting in a high potential for erosion. The two soil series are most commonly found in woodland settings but are also found in both pasture and urban areas. Although both soils are acidic throughout, there is only slight limitation for both agricultural and construction uses.

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...” Soils that are located within city limits are not considered prime or unique farmland (USDA/NRCS, 2011c); therefore, because the project site is within the city limits of Bay St. Louis, the FPPA does not apply and a farmland conversion impact rating form is not required.

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

Proposed Action Alternative – Under the Proposed Action Alternative, no impacts to geology would occur because construction activities would not be deep enough to affect geological resources. A Nationwide Infrastructure Support Technical Assistant Consultants (NISTAC) Environmental Specialist conducted a site investigation on August 3, 2011, and found that on-site soils have been previously disturbed. Clearing and grading activities would disturb soils at the project site; however, because the site is almost level, disturbance would be minimal. Implementation of appropriate BMPs will be required at the construction site, including the installation of silt fences and the revegetation of soils to minimize soil erosion.

On September 2, 2011, a letter requesting project review was sent to NRCS (Appendix C). A response letter from NRCS, dated October 11, 2011, stated that areas within city limits do not require an FPPA determination.

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 surface water resources.

According to the U.S. Geological Survey (USGS) Bay St. Louis Quadrangle (1993), the elevation of the project site ranges from 15 to 20 feet NGVD29, with the lowest elevations on the western/northwestern portions of the property. Although the project site contains no surface water resources, the northwestern corner of the project site is approximately 160 feet south of an unnamed drainage feature. Stormwater runoff from the site would flow towards this unnamed drainage feature via surface flow across the project site or via vegetated roadside drainage ditches along Ulman Avenue. The unnamed drainage feature flows north to a large, unnamed wetland/stream complex before ultimately discharging into St. Louis Bay approximately 0.30 river-miles to the north of the project site.

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

Proposed Action Alternative – Under the Proposed Action Alternative, temporary, minor impacts to off-site surface waters, including the unnamed drainage feature and wetland/stream complex north of the project site and St. Louis Bay, could occur during construction of the new facility due to soil erosion during ground disturbing activities. Prior to construction, the applicant will prepare a SWPPP and obtain an NPDES permit from MDEQ. The SWPPP will include BMPs to minimize erosion of soil from the construction area and reduce off-site sediment transport (see Appendix C). The mothballing and maintenance of the existing Main Administration Building would not impact surface water resources.

On September 2, 2011, letters requesting project review were sent to the U.S. Environmental Protection Agency (EPA) Water Protection District, MDEQ's Office of Pollution Control, and the Mississippi Soil and Water Conservation Commission (MSWCC) (Appendix C). No responses from EPA or MSWCC have been received to date. The response from MDEQ, dated September 28, 2011, did not address water resources.

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. Consistent with EO 11988, Flood Insurance Rate Maps (FIRMs) were examined during the preparation of this EA. The southern portion of the project site is located in Zone X, outside of the 100-year floodplain; the northern portion of the site is located in Zone AE (Elevation 18), within the 100-year floodplain (FEMA, 2009; FIRM Map Number 28045C0354D).

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

Proposed Action Alternative – Under the Proposed Action Alternative, impacts to the floodplain would occur. The parking lot of the proposed facility would be constructed within the 100-year floodplain. The proposed Central Administration Office and Annex Buildings would be



constructed on the southern portion of the site, outside the 100-year floodplain. Construction of parking lot would require the placement of fill material, which would remove approximately 0.5 acre from the floodplain. The loss of 0.5 acre of floodplain is considered a minimal adverse effect. Flooding in the Bay St. Louis area is predominantly driven by inadequate drainage as a result of flat topography, as well as tidal storm surge. The removal of 0.5 acre of floodplain and the creation of additional 1.3 acre of impervious surfaces from construction of buildings, parking areas, and an access road would not likely result in an appreciable increase in flood velocities or elevations upstream or downstream of the project site. Indirect impacts include supporting the ongoing occupancy on the floodplain that occurs within the Bay St. Louis area. Although the project does not encourage additional development in the floodplain, the project will result in providing civic support to existing populations living in the floodplain. The mothballing and maintenance of the existing Main Administration Building would not impact the floodplain. In accordance with EO 11988, FEMA's Eight-Step Planning Process for Floodplains was completed to identify, minimize, and mitigate floodplain impacts (see Appendix D).

4.2.3 Waters of the U.S. Including Wetlands

The U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and fill material into WOUS, including wetlands, pursuant to Section 404 of the CWA. EO 11990 (Protection of Wetlands) requires Federal agencies to avoid, to the extent possible, adverse impacts to wetlands.

According to the National Wetlands Inventory (NWI) maps, no wetlands are located within the project site (USFWS, 2010b). A site visit conducted by a NISTAC Environmental Specialist on August 3, 2011, confirmed that no wetlands are located within the 1.8-acre 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, the project site is located within the Mississippi Coastal Zone (NOAA, 2004).

No Action Alternative – Under the No Action Alternative, no construction would occur and there would be no impacts to WOUS, including wetlands, or the Mississippi Coastal Zone.

Proposed Action Alternative – Under the Proposed Action Alternative, no impacts to waters of the U.S., including wetlands, are anticipated because none exist on the project site. Temporary, minor impacts to off-site surface waters, including the drainage feature and stream/wetland complex north of the project site, and St. Louis Bay, could occur during construction of the new facility due to soil erosion during ground disturbing activities. Because the proposed project construction site collectively comprises more than 1.0 acre, the applicant will be required to prepare a SWPPP. The SWPPP will include BMPs to minimize erosion of soil from the construction area and reduce off-site sediment transport (see Appendix C). Implementation of appropriate BMPs will be required at the construction site, including the installation of silt fences and the revegetation of soils to minimize soil erosion. The applicant would also be required to apply to the Mississippi Department of Environmental Quality (MDEQ) for a NPDES permit for construction activities.

The proposed project will replace damaged facilities already located within the Mississippi Coastal Zone and is not anticipated to encourage population growth or additional development within the Mississippi Coastal Zone.

On September 2, 2011, letters requesting project review were sent to MDMR's Bureau of Wetlands Permitting and to the USACE Mobile District. The MDMR responded in a letter dated September 16, 2011, that if coastal wetland impacts are anticipated, an application should be submitted to MDMR for review (see Appendix C). No response has been received from the USACE to date.

4.3 Transportation

The project site is located on Ulman Avenue, west of 2nd Street. Ulman Avenue is unclassified, but 2nd Street is classified by the Mississippi Department of Transportation (MDOT) as a collector road. In urban areas, collector roads are characterized as the link between the arterial system and points of origin and destination (MDOT, 2001).

No Action Alternative – Under the No Action Alternative, no changes to transportation would occur.

Proposed Action Alternative – Under the Proposed Action Alternative, short-term impacts to transportation and site access are anticipated during the construction of the proposed project. There would be a minor temporary increase in the volume of construction traffic on roads in the immediate vicinity of the project site, which 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 activities, and appropriate signage would be posted on affected roadways.

Post-construction, traffic volumes in the vicinity of the project site would return to normal levels, because the proposed buildings will replace facilities already located on Ulman Avenue. On September 2, 2011, a letter requesting project review was sent to MDOT (Appendix C); no response has been received to date.

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 reviewed to determine if the proposed project would have a disproportionate impact on minority or low-income persons.

The project site is located in the City of Bay St. Louis, Hancock County, Mississippi. The City of Bay St. Louis has a poverty level lower than both Hancock County and the State of Mississippi (USCB, 2010). Bay St. Louis has a minority population that is slightly higher than Hancock County and much lower than the State of Mississippi. Detailed demographic information is provided in the table below:

	State of Mississippi	Hancock County	City of Bay St. Louis
Total population (2000)	2,967,297	43,929	9,260
Annual median household income	\$36,764	\$42,740	\$39,650
% Persons below poverty level	21.8%	18.7%	14.9%
% Minority population	39.9%	11.6%	17.3%
% Hispanic (may be of any race)	2.7%	3.3%	3.6%
% of population over 65	12.8%	15.2%	16.3%

No Action Alternative – Under the No Action Alternative, there would be no disproportionately high or adverse effect on minority or low-income populations. All populations would be adversely affected by the lack of permanent administrative facilities for the Bay-Waveland School District.

Proposed Action Alternative – The Proposed Action Alternative would not have a disproportionately high or adverse effect on minority or low-income populations. The proposed project would replace the BWSD’s damaged administrative buildings with new buildings located across the street from their pre-storm locations. All populations would benefit equally from the Proposed Action due to the consolidated, more efficient operation of BWSD administrative facilities.

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 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 ecosystem 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 MDEQ, the entire State of Mississippi is classified as being in attainment, meaning that criteria air pollutants do not exceed the NAAQS (MDEQ, 2009a).

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

Proposed Action Alternative – Under the Proposed Action Alternative, short-term minor impacts to air quality could occur during the construction period. Typical construction activities include the grading, grubbing, and the addition of fill material to the project site. To reduce temporary impacts to air quality, 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. To reduce the emission of criteria pollutants, fuel-burning equipment running times would be kept to a minimum and engines would be properly maintained. No long-term impacts to air quality are anticipated.

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 including residences, schools, or hospitals (EPA, 1974).

The project site is located immediately adjacent to residential homes and BWSO Buildings, none of which is currently used as a school building.

No Action Alternative – Under the No Action Alternative, no construction would occur and there would be no changes in noise levels.

Proposed Action Alternative – Under the Proposed Action Alternative, short-term increases in noise levels are anticipated during the construction period. To reduce noise level impacts to adjacent residences, construction activities would take place during normal business hours. Equipment and machinery used at the project site would meet all local, State, and Federal noise regulations. No long-term increases in noise levels are anticipated as a result of the proposed project.

4.7 Biological Resources

The proposed project would be constructed on an approximately 1.8 acres of a 3.6-acre parcel that is currently vacant, but was used after Hurricane Katrina to house temporary classroom trailer units which have since been removed. The majority of the site is vegetated in grasses and other herbaceous plants, with scattered shrubs and trees along the margin of the site.

The USFWS lists the following federally endangered and threatened species which may occur in Hancock County (USFWS, 2011):

Common Name	Scientific Name	Status
Louisiana black bear	<i>Ursus a. luteolus</i>	T
West Indian manatee	<i>Trichechus manatus</i>	E
Piping Plover	<i>Charadrius melodus</i>	T
Gopher tortoise	<i>Gopherus polyphemus</i>	T
Green sea turtle	<i>Chelonia mydas</i>	T
Hawksbill sea turtle	<i>Eretmochelys imbricata</i>	E
Kemp's ridley sea turtle	<i>Lepidochelys kempii</i>	E

Common Name	Scientific Name	Status
Leatherback sea turtle	<i>Dermochelys coriacea</i>	E
Loggerhead turtle	<i>Caretta caretta</i>	T
Ringed map turtle	<i>Graptemys oculifera</i>	T
Gulf sturgeon	<i>Acipenser oxyrhynchus desotoi</i>	T
Inflated heelsplitter	<i>Potamilus inflatus</i>	T
Louisiana quillwort	<i>Isoetes louisianensis</i>	E
T = threatened, E = endangered		

A NISTAC Environmental Specialist conducted a site visit on August 3, 2011, and determined that the project site does not contain suitable habitat for any federally listed species; therefore, it is unlikely that any threatened or endangered species are present.

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

Proposed Action Alternative – Under the Proposed Action Alternative approximately 1.8 acres of land, primarily vegetated with grasses and other herbaceous plants, would be cleared for the proposed grading of the site. These areas do not contain habitat for any federally listed species and no impacts to threatened or endangered species are anticipated. On September 2, 2011, a letter requesting project review was sent to the USFWS. In a response letter dated October 11, 2011, the USFWS stated that the proposed project will have “no effect” on federally listed species or their habitats (Appendix C).

4.8 Cultural Resources

The National Historic Preservation Act (NHPA) of 1966, (PL 89-665; 16 USC 470 *et seq.*) as amended, outlines Federal policy to protect historic properties and promote historic preservation in cooperation with States, Tribal Governments, local governments, and other consulting parties. The NHPA established the National Register of Historic Places (NRHP) and designated the State Historic Preservation Office (SHPO) as the entity responsible for administering State-level programs. The NHPA also created the Advisory Council on Historic Preservation (ACHP), the Federal agency responsible for overseeing the Section 106 process and providing commentary on Federal activities, programs, and policies that affect historic properties.

Section 106 of the NHPA and its implementing regulations (36 CFR 800) outline the procedures for Federal agencies to follow to take into account the effect of their actions on historic properties. The Section 106 process applies to any Federal undertaking that has the potential to affect historic properties, defined in the NHPA as those properties (archaeological sites, standing structures, or other historic resources) that are listed in or eligible for listing in the NRHP. Although buildings and archaeological sites are most readily recognizable as historic properties, a diverse range of resources are listed in the NRHP, including roads, landscapes, and vehicles. Under Section 106, Federal agencies are responsible for identifying historic properties within the Area of Potential Effects (APE) for an undertaking, assessing the effects of the undertaking on those historic properties, if present, and considering ways to avoid, minimize, and mitigate any adverse effects. Because Section 106 of the NHPA is a process by which the Federal government



assesses the effects of its undertakings on historic properties, it is the primary regulatory framework that is used in the NEPA process to determine impacts on cultural resources.

Previous Section 106 Coordination. Section 106 has been resolved for the abandonment of SSES and the Ingram Building, through the negotiation of an MOA. Executed on September 14, 2011, this agreement document was signed by representatives of FEMA, ACHP, MDAH, MEMA, and BWSO. This MOA addresses the disposition of the SSES and the Ingram Building and the construction of a new Central Administration Building and Annex. Since the existing Main Administration Building is located on the SSES property, Section 106 was resolved per the stipulations in the MOA referenced above and the Main Administration Building will be mothballed and maintained by BWSO.

In an e-mail dated August 15, 2011, BWSO Project Manager Mr. Barlow provided project information to Mr. Kenneth P'Pool of the MDAH in response to his request for information related to the proposed undertaking. This correspondence included a narrative describing the proposed buildings, site plan, anticipated improvements, and a boundary survey completed by the architecture firm of Eley Guild Hardy Architects, hired on behalf of the BWSO. BWSO subsequently revised their design and Ms. Elrhei Thibodeaux, FEMA Historic Preservation Specialist, submitted the revised plans, which included a site plan, conceptual building elevations, and a floor plan, via e-mail to Mr. P'Pool on September 20, 2011. In an e-mail dated September 28, 2011, Mr. P'Pool noted that MDAH had concerns regarding the proximity of the new Central Administration Building and Annex to the NRHP-eligible Ingram Building and the potential negative impact on its marketability and reuse. Mr. P'Pool also indicated the preliminary opinion of MDAH that the new Central Administration Building would not result in an adverse effect on the NRHP-listed Old Bay St. Louis Historic District (OBSLHD).

Area of Potential Effects. At the request of FEMA, NISTAC conducted a Phase I Cultural Resources Survey of the entire 3.6-acre BWSO parcel adjacent to the Ingram Building at 213 Ulman Avenue, Bay St. Louis, Mississippi. Mr. Justin Bedard, a NISTAC Archaeologist, and Mr. Oscar Beisert, a NISTAC Architectural Historian, both qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) in the disciplines of archaeology and architectural history, respectively, conducted an assessment of the project's potential to affect historic properties within the APE. During the week of August 15-19, 2011, Mr. Bedard and Mr. Beisert visited the project site and conducted research

For above-ground resources, the APE consists of the entire 3.6-acre parcel and the parcel on the south side of Ulman Avenue where extant temporary facilities will be removed. The above-ground APE also includes the surrounding 8-city-block area adjacent to or within the viewshed of the undertaking.

For archaeological resources, the APE is limited to the 3.6-acre BWSO property on the north side of Ulman Avenue, which includes the project site. Although the entire parcel will not be subject to ground disturbing activities, this archaeological APE was established to account for the full range of potential ground disturbance that might occur within the parcel. The 0.9-acre parcel currently occupied by the temporary administration facility portable trailers was not included within the archaeological APE, as the abandonment and removal of these trailers will not have an impact on any potential subsurface archaeological deposits or features.

Above-ground Resources. Because Bay St. Louis is a widely recognized and well-established historic district recently documented in the Old Bay St. Louis Historic District Determination of Eligibility Report (OBSLHD DOE) prepared by FEMA in 2010, and in consideration of the information collected during FEMA’s Section 106 activities associated with the SSES, efforts to identify additional above-ground historic properties in the APE were limited to fieldwork and desktop research. The OBSLHD DOE was the primary source of information on historic properties in the above-ground APE. Information obtained from MDAH by FEMA during previous studies conducted in Bay St. Louis was also used, including information on SSES and the Ingram Building.

Fifteen above-ground historic properties were identified in the APE for this undertaking. This includes the OBSLHD, which consists of 681 contributing historic properties. Fourteen of the above-ground historic properties within the APE contribute to the larger OBSLHD, which has a period of significance that extends from 1850 to 1960. Two of the fourteen above-ground historic properties – the Ingram Building and the SSES – are designated Mississippi Landmarks and are individually eligible for listing in the NRHP.

Archaeological Resources. Nine archaeological sites have been identified within one mile of the project site, indicating a moderate potential for encountering archaeological resources within the APE. None of these sites is located within the archaeological APE for the proposed undertaking.

A Phase I Archaeological Survey of the project site was conducted to locate previously unidentified archaeological resources within the APE. Work consisted of a pedestrian survey, photographic documentation, and the excavation of shovel test pits (STPs) spaced at 20-meter intervals across the 3.6-acre parcel. Twenty-four STPs were placed within the archaeological APE.

No cultural features were identified as a result of the archaeological survey. A layer of architectural debris representing the likely buried remains of a demolished structure was identified in the northeast corner of the parcel. This debris layer represents re-deposited architectural material in a secondary deposit; therefore it does not retain sufficient archaeological integrity to warrant further investigation. Prehistoric artifacts were recovered from a very small area of intact soils that was designated site 22Ha726. This site is likely related to nearby Middle Woodland occupations associated with the Ramsey Mound site (22HA528). Due to the small size of site 22Ha726, as well as the evidence of significant subsurface disturbance in adjacent portions of the parcel, no further work is recommended.

No Action Alternative – Under the No Action Alternative, no construction would occur; therefore, there would be no effect on identified cultural resources.

Proposed Action Alternative – Under the Proposed Action Alternative, no impacts to archaeological or above-ground historic properties are anticipated. Based on the cultural resources survey findings, as discussed above, FEMA has determined that no archaeological historic properties will be affected by the proposed project. However, to ensure that adverse effects to historic properties are avoided, an archaeological monitor will be required during construction. If unexpected discoveries are made during the course of project execution, FEMA will proceed in accordance with the statewide Programmatic Agreement executed on December 21, 2010.

Based on the cultural resources survey findings, the OBSLHD consists of numerous non-contributing and/or physically disparate resources within its boundaries. The project site is within a less cohesive section of the historic district, and the proposed Central Administration and Annex Buildings will be one-story and clad in brick veneer and stucco to be consistent with the surrounding neighborhood fabric. Although the project will be immediately adjacent to two individually eligible properties – the SSES and the Ingram Building – it will not further diminish their NRHP integrity of setting and feeling. Accordingly, FEMA has determined that the undertaking will have no adverse effect on above-ground historic properties.

In letters to MDAH and the Mississippi Band of Choctaw Indians (Tribal Historic Preservation Officer [THPO]), dated December 5, 2011, FEMA requested concurrence with the findings and determinations as presented above. An agency response letter from the MDAH dated January 4, 2012, provided concurrence with FEMA’s determination that the project will have no adverse effect to the Old Bay St. Louis Historic District or its architectural resources, including the Ingram Building. In addition, MDAH provided concurrence to FEMA’s determination that site 22Ha726 is not eligible for listing on the NHRP, however it is possible that the site is associated with site 22 Ha679 and NRHP-listed 22Ha528. As such, any earthmoving activities in the northeast portion of the survey area in and around site 22 Ha726 should be monitored by a qualified archaeologist. With this condition, MDAH concurs with FEMA’s determination that the project would have no adverse effect on archaeological resources (Appendix C). No response from the THPO has 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 project site.

Bay St. Louis and the entire Mississippi Gulf coast are undergoing recovery efforts after Hurricane Katrina caused extensive damages. The recovery efforts in Bay St. Louis include demolition and construction. These projects and the proposed project may have a cumulative temporary impact on air quality in Bay St. Louis by increasing criteria pollutants during demolition and 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 proposed project in Bay St. Louis, 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 Bay-Waveland School District will notify the public of the availability of the draft EA through publication of a public notice in a local newspaper. FEMA will conduct an expedited 15-day 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. These letters and responses received to date are included in Appendix C.

- U.S. Army Corps of Engineers, Mobile District, Planning Division
- U.S. Department of Agriculture, Natural Resources Conservation Service
- U.S. Environmental Protection Agency, Region 4, Water Protection Division
- U.S. Fish and Wildlife Service, Jackson Field Office
- Mississippi Department of Agriculture and Commerce
- Mississippi Department of Archives and History (SHPO)
- Mississippi Band of Choctaw Indians (THPO)
- 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 project site.

8.0 CONCLUSIONS

No impacts to geology, groundwater, socioeconomic resources, and architectural or archeological resources are anticipated under the Proposed Action Alternative. To ensure that adverse effects to historic properties are avoided, any earthmoving activities in the northeast portion of the survey area in and around site 22 Ha726 should be monitored by a qualified archaeologist. If unexpected discoveries are made during the course of project execution, FEMA will proceed in accordance with the statewide Programmatic Agreement executed on December 21, 2010.

During the construction period, short-term impacts to soils, surface water, transportation, air quality, and noise are anticipated. All short-term impacts will be mitigated using BMPs, such as silt fences and proper equipment maintenance.

Minor, long-term impacts to biological resources and the 100-year floodplain would occur. Approximately 1.8 acres of land that is primarily vegetated with grasses and other herbaceous plants will be cleared for the proposed grading of the site; however these areas do not contain

habitat for any federally listed species. The proposed project would construct the facility on a site where a portion of the site is located within the 100-year floodplain. To minimize impacts to the floodplain, the proposed Central Administration Office and Annex Buildings would be constructed on the southern portion of the site, outside the 100-year floodplain. Construction of facility parking would require the placement of fill material, converting approximately 0.5-acres of 100-year floodplain to areas outside the floodplain.

9.0 REFERENCES

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Appendix A
Figures

Appendix B
Site Photographs

Appendix C
Agency Coordination

Appendix D
Eight-Step Planning Process for Floodplains and Wetlands