

Draft Environmental Assessment

City of Gulfport Small Craft Harbor Redevelopment

Harrison 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
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
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
O ₃	ozone
Pb	lead
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



ACRONYMS AND ABBREVIATIONS

SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Service
VOCs	Volatile Organic Compounds



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 City of Gulfport 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

Located at 400 20th Avenue, in Gulfport, Mississippi, the Gulfport Small Craft Harbor (Harbor) was a cornerstone for recreational and commercial boating for the City of Gulfport (Figure 1 in Appendix A). The Harbor contained boat slips and facilities for boaters, a ferry terminal, fishing piers, beach access, restaurants, and several small businesses. On August 29, 2005, Hurricane Katrina's storm surge severely damaged the Harbor, which now operates at a significantly reduced capacity, unable to provide berthing and storage for commercial and recreational boats, restaurants, and other harbor facilities in operation prior to Katrina. Recreational fishermen currently use the boat launch and fishing piers that have been repaired since the hurricane; the Harbor currently has no other users.

The purpose of the project is to restore and revitalize the downtown area's economy. The need for the project is to replace the Harbor facilities to provide services to boaters and to support local recreation and tourism.

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 redevelopment of the Harbor.

3.1 Alternative 1: No Action

Under the No Action Alternative, the Harbor would not be redeveloped and would no longer provide berthing and storage for commercial and recreational boats. The public would need to continue utilizing facilities in neighboring towns for fully-functional harbor operations and access to the Gulf of Mexico.



3.2 Alternative 2: Redevelop Gulfport Small Craft Harbor (Proposed Action)

The City of Gulfport proposes to utilize FEMA funds, in conjunction with Community Development Block Grant and other public funding sources, to redevelop the 40-acre Harbor area. The redevelopment of the Harbor would help Gulfport meet its goal to revitalize the downtown area's economy by promoting tourism and business redevelopment. The Harbor redevelopment project includes the following FEMA-funded actions (Figure 2 in Appendix A):

- Construction of 3,065 linear feet of new bulkheads that would consist of precast, pre-stressed 16-inch-square concrete piles and 3-foot-long by 10-inch-wide concrete sheet piling located approximately 10 feet away from the existing bulkheads. Sand would be used to backfill between the existing and new bulkheads and would be capped with concrete that would serve as a boardwalk.
- Replacement of the existing piers to provide 318 boat slips and 88,642 square feet of piers. Structural pilings would consist of 14-inch-square precast, pre-stressed concrete. All tie or spring pilings would be 12-inch-diameter timber. Although the proposed project would have the same capacity (318 boat slips) as the existing damaged facility, the layout of the piers would be modified.
- Upgrades to the electrical system supporting the piers and slips including installation of transformers on elevated platforms intermittently spaced throughout the piers. The bottom of the platforms would be elevated to meet the Digital Flood Insurance Rate Map (DFIRM) requirements and local ordinances, and would include burial of all electrical lines.
- Dredging of approximately 34,000 cubic yards of sand and silt located within 50 feet of the existing harbor bulkheads. Dredged material would be placed in an upland dewatering site on the western portion of Jones Park (Figure 2), and then it would be transported by truck and disposed of in the Harrison County Development Commission Upland Disposal Area C-1.
- Relocation of the Harbor Services Facility building, approximately 1,000 feet northeast from the former location, to the eastern side of the harbor/bulkhead. The new 5,061-square-foot building would be constructed on piers and elevated above the Coastal High Hazard Area to a finished floor elevation of 25.5 feet. A new bulkhead would be constructed around the building foundation and filled with approximately 1,750 cubic yards of material.
- Relocation of the fueling dock and bait shop to the south side of the harbor. Construction of the fuel dock will require the installation of four 2,500-gallon double-wall fiberglass underground fuel storage tanks.

Redevelopment of the Harbor also includes actions that would not utilize FEMA funding, but would rely upon the Harbor FEMA-funded redevelopment activities (construction of the new piers, bulkheads, boat slips, and dredging) to attract customers. The Council on Environmental Quality (CEQ) regulations implementing NEPA direct federal agencies to avoid improper segmentation when analyzing environmental impacts, in particular with regard to connected actions, e.g., actions that are interdependent parts of a larger action and that depend on the larger action for justification (40 CFR 1508.25[a]). Therefore, the non-FEMA-funded actions listed

below will be analyzed in this EA as part of the proposed action due to their interdependence on the construction of the FEMA-funded activities listed above.

The non-FEMA-funded actions include:

- Widening of 20th Avenue to include new medians, a new traffic circle, and vehicle parking areas; 0.96 acre of fill will be imported for the expansion and stabilization of 20th Avenue and to restore approximately 50 feet of beach and shoreline on the eastern side of the harbor
- Developing 0.96 acre of shallow water habitat adjacent to the shoreline east of the Fisherman's Village
- Construction of a Fisherman's Village that would include an office, a restaurant, and retail business space
- Construction of a Coast Transit Authority Rest Station that would provide park and ride services for the public
- Improvements in Jones Park that include walking trails and an amphitheater

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 on geology; temporary impacts on soils during the construction period.	Erosion and sediment control Best Management Practices (BMPs) would be used during construction and immediately upon completion of construction, to stabilize soils and prevent sediment from moving off-site.
Surface Water	Temporary impacts on surface waters in the harbor and the Sound could occur during the construction period.	The applicant will be required to submit a Storm Water Pollution Prevention Plan (SWPPP) and National Pollutant Discharge Elimination (NPDES) permit application prior to construction. The applicant would implement appropriate BMPs, including erosion and sediment controls, turbidity curtains during dredging, and non-stormwater controls such as spill prevention and waste management. The applicant would adhere to conditions of existing Mississippi Department of Environmental Quality (MDEQ), Mississippi Department of Marine Resources (MDMR), and U.S. Army Corps of Engineers (USACE) permits.

Affected Environment	Impacts	Mitigation
Groundwater	No impacts on groundwater are anticipated.	None
Floodplains	No impacts on the floodplain are anticipated.	None
Waters of the U.S. including Wetlands	<p>Temporary impacts on surface waters could occur during the construction period due to soil erosion.</p> <p>Impacts to waters of the U.S. from dredging, construction of bulkheads, piers, decks, and platforms, and stabilizing the shoreline along 20th Avenue are covered under USACE and MDMR permits and an MDEQ water quality certification.</p> <p>Widening 20th Avenue and stabilizing the shoreline in that area would impact 0.96 acre of shallow water marine habitat.</p>	<p>Appropriate erosion and sediment control BMPs would be used during construction and immediately upon completion of construction, to stabilize soils and prevent sediment from moving off-site.</p> <p>The applicant will comply with conditions of all permits and certifications.</p> <p>The 0.96-acre of impact would be mitigated by the creation of 0.96 acre of shallow water habitat east of the Harbor.</p>
Transportation	<p>Minor temporary increase in the volume of construction traffic on roads in the immediate vicinity of the proposed project site.</p> <p>Construction of the Coast Transit Authority Rest Station would beneficially affect public transportation services in Gulfport.</p>	<p>Construction vehicles and equipment would be stored on site during project construction and appropriate signage would be posted on affected roadways.</p>
Public Health and Safety	No impacts on public health are anticipated.	<p>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.</p>
Hazardous Materials	No impacts on hazardous materials or wastes are anticipated.	Excavation and dredging activities could expose or otherwise affect subsurface hazardous wastes or



Affected Environment	Impacts	Mitigation
		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 impacts on socioeconomic resources are anticipated.	None
Environmental Justice	No disproportionately high or adverse effect on minority or low-income populations is anticipated.	None
Air Quality	Temporary impacts on 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 and engines would be properly maintained.
Noise	Temporary increases in noise levels are anticipated during the construction period.	Construction activities would take place during normal business hours and equipment and machinery installed at the proposed Harbor site would meet all local, state, and federal noise regulations.
Biological Resources	<p>Disruption of the benthic environment during dredging would cause temporary impacts to species that are unable to swim away, and could also result in temporary adverse impacts on habitat quality due to turbidity during construction.</p> <p>Widening 20th Avenue would remove 5.17 acres of upland beach habitat; this area would not likely be used by piping plovers.</p> <p>Excavation of 0.96 acre of existing shoreline immediately east of the proposed project site to</p>	<p>To reduce impacts to the marine environment, the applicant would implement appropriate BMPs, including erosion and sediment controls, turbidity curtains during dredging and construction activities.</p> <p>The shoreline foraging and roosting habitat along 20th Avenue would be restored within 6 months.</p>

Affected Environment	Impacts	Mitigation
	create compensatory shallow water habitat would result in the temporary loss of shoreline foraging and roosting habitat for the federally threatened piping plover.	
Cultural Resources	No impacts to archeological or cultural resources are anticipated.	None.

4.1 Geology and Soils

The project area is located within the East Gulf Coastal Plain which extends from the Gulf of Mexico to northern Tennessee and from eastern Louisiana to western Florida (USGS, 2003). The East Gulf Coastal Plain slopes gently towards the Gulf of Mexico with slopes ranging from 2 to 5 percent. The East Gulf Coastal Plain is subdivided into distinct ecological divisions; the proposed project is located within the Coastal Flatwoods ecological region, which is an area characterized by level terraces and clays, sands, and gravels approximately 10 to 15 miles wide and parallel to the coast. The proposed project site contains soils consisting of coastal beach soils (NRCS, 2008). The topography at the proposed project site is relatively level with an average elevation of 6 feet above mean seal level (amsl).

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...” However, the FPPA definition of farmland does not include land already in or committed to urban development; therefore, the proposed project site does not contain soils classified as prime or unique farmland and the FPPA does not apply.

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 due to the potential for erosion during construction. Appropriate temporary and permanent erosion and sediment control BMPs would be used during construction and immediately upon completion of construction to stabilize soils and prevent sediment from entering the waters of the Mississippi Sound.

On May 18, 2007, a letter requesting project review was sent to the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS). In a response dated September 20, 2007, the NRCS stated that it may be implementing a sand dune project adjacent to the existing bait shop and if the dune would be leveled for the proposed project, NRCS recommends that a new dune be constructed as mitigation (Appendix B). No impacts to sand dunes are anticipated under the Proposed Action Alternative.

4.2 Water Resources

4.2.1 Surface Water



The proposed project site is located on the northern shore of the Mississippi Sound, which spans the entire Gulf coast of Mississippi and is separated from the Gulf of Mexico by a series of barrier islands. The Mississippi Sound is approximately 10 miles north of the Gulf of Mexico.

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 proposed project site is located within the Mississippi Coastal Zone.

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 entire proposed project site is located within 1,000 feet of the Mississippi Sound, with the highest point of elevation at 10.5 feet amsl. There are no streams or ponds located on or adjacent to the proposed project site.

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 surface waters in the Harbor and Mississippi Sound could occur during the construction period due to dredging and construction of the piers, pilings, and bulkheads that would cause suspension of sediments in the water column, soil erosion and potential sedimentation of the harbor and Mississippi Sound. Other construction-related pollutants could be released into the Mississippi Sound waters due to spills or leaks of fuels and other construction materials and wastes. The applicant would be required to submit a SWPPP and obtain an NPDES permit prior to construction. To reduce impacts to surface water, the applicant would implement appropriate BMPs, including erosion and sediment controls, turbidity curtains during dredging and construction activities that would occur in water and non-storm water controls such as spill prevention and waste management.

On January 2, 2007, the MDMR issued Permit Number DMR-070152 for dredging of the Harbor and construction of bulkheads, piers, decks, and platforms. MDMR stated that the proposed project is consistent with the Mississippi Coastal Program provided the applicant complies with the permit conditions. Work authorized by this permit must be completed on or before January 2, 2010.

On July 11, 2007, the USACE issued a CWA Section 404 and Rivers and Harbors Act Section 10 Permit No. SAM-2006-2241-TMZ for dredging the Harbor, replacing bulkheads and constructing piers, decks, and platforms (second modification issued May 19, 2008). Work authorized by this permit must be completed on or before March 12, 2012. On February 27, 2009, the City of Gulfport requested a modification to Permit Application SAM-2007-1957-JWS to the USACE for work related to a proposed boat launch and filling 2.97 acres of shallow aquatic habitat for the widening of 20th Avenue, along with creation of 2.97 acres of shallow water habitat along the adjacent beach as compensation.

The MDEQ issued a CWA Section 401 Water Quality Certification (number 2008073) for the proposed project on February 21, 2007.



On March 11, 2009, the City of Gulfport requested an additional modification to USACE Permit Application SAM-2007-1957-JWS, MDMR Permit Number DMR-070152, and MDEQ Water Quality Certification 2008073 due to the City of Gulfport's decision to eliminate the boat launch and reduce the size of the 20th Avenue fill area from 2.97 acres to 0.96 acre, and reduce the compensatory shallow water habitat area from 2.97 acres to 0.96 acre. No response has been received to date.

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. Consistent with EO 11988, the FIRM was examined during the preparation of this EA (FEMA, 2002; Community Panel Number 2852530077D) along with the Preliminary Digital FIRM (FEMA, 2007; Map No. 28047C0377G). The proposed project area is located with FEMA flood zone AE base (flood elevation not determined) and VE (Coastal High Hazard Area, a flood zone with velocity hazard [wave action], Base Flood Elevations determined) on the 2002 FIRM and only in zone VE as shown on the 2007 Preliminary Digital FIRM.

FEMA has also developed Advisory Base Flood Elevation (ABFE) maps based on a flood frequency analysis completed by FEMA that update the flood risk data with information on storms that have occurred in the past 25+ years, including (but not limited to) Hurricane Katrina. The ABFE maps show that the proposed project site is located within the ABFE inland limit and the 3-foot wave zone (FEMA, 2006; ABFE Map Number MS-H19).

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 AE and VE, within the 100-year floodplain, and within the ABFE. Under the Proposed Action Alternative, construction within the floodplain would not increase the impacts to the floodplain above the impacts that existed prior to Hurricane Katrina at the proposed project site. FEMA completed the 8 Step Process for Floodplain Management for the Proposed Action (Appendix C). The docks and piers of the Proposed Action are categorized by FEMA as functionally dependent facilities, which by definition would not require elevation to the ABFE. Although the Proposed Action would result in development, modification, and occupancy of the floodplain, it would provide the same function and capacity of the previous facility.

The transformers and electrical system supporting the piers and slip would be constructed on platforms that meet the Digital FIRM requirements and local ordinances, and would include burial of all electrical lines. The relocated Harbor Services Facility building would be constructed on piers and elevated above the Coastal High Hazard Area to a finished floor elevation of 25.5 feet. Fuel tanks would be buried and anchored for protection during tidal storm surges.

4.2.3 Waters of the U.S. including Wetlands

The 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, Executive Order 11990



(Protection of Wetlands) requires federal agencies to avoid, to the extent possible, adverse impact of wetlands.

According to the National Wetlands Inventory Map, the Harbor and the Mississippi Sound are considered estuarine and marine waters of the U.S. (USFWS, 2009). No vegetated wetlands are located on or near the project site.

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

Proposed Action Alternative – Under the Proposed Action Alternative, approximately 34,000 cubic yards of material would be dredged from the harbor. Additionally, 0.96 acre of fill material would be imported to the eastern side of the harbor to stabilize 20th Avenue and restore the shoreline; to mitigate the loss of shallow water marine habitat in the fill area, 0.96 acre of shallow water marine habitat would be created immediately east of the proposed project site.

On May 18, 2007, a letter requesting project review was sent to the MDMR Bureau of Wetlands Permitting regarding the proposed project and potential impacts on the coastal zone and wetlands (see Appendix B). In a letter dated May 31, 2007, MDMR stated that it had no objections to the Proposed Action as long as there are no direct or indirect impacts on coastal wetlands (see Appendix B).

The City of Gulfport coordinated with the USACE Mobile District and obtained a CWA Section 404 and Rivers and Harbors Act Section 10 Permit for dredging the Harbor, replacing bulkheads and constructing piers, decks, and platforms (Number SAM-2006-2241-TMZ, issued on July 11, 2007 with a second modification issued May 19, 2008; expires March 12, 2012).

On February 27, 2009, the City of Gulfport requested a modification to Permit Application SAM-2007-1957-JWS to the USACE for work related to a proposed boat launch and filling 2.97 acres of shallow aquatic habitat for the widening of 20th Avenue, along with creation of 2.97 acres of shallow water habitat along the adjacent beach as compensation.

On March 11, 2009, the City of Gulfport requested another modification to USACE Permit Application SAM-2007-1957-JWS, MDMR Permit Number DMR-070152, and MDEQ Water Quality Certification 2008073 due to the City of Gulfport's decision to eliminate the boat launch and reduce the size of the 20th Avenue fill area from 2.97 acres to 0.96 acre, and reduce the compensatory shallow water habitat area from 2.97 to 0.96 acre. No response has been received to date.

4.3 Transportation

The proposed project site is located south of Beach Drive (Route 90), a four-lane divided roadway that runs east to west immediately north of the Harbor (Figure 2). Access to the Harbor is provided via 20th Avenue, 23rd Avenue, and 25th Avenue from Beach Drive and Jones Park Drive provides vehicular access east to west, along the southern limits of Jones Park. There are no residential communities adjacent to the proposed project site. The commercial properties adjacent to the proposed project site have individual parking lots with access from Beach Drive or secondary alleys.

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 on transportation, site access, or traffic levels 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.

Beneficial impacts on transportation are anticipated with construction of the Coast Transit Authority Rest Station that would provide additional public access to the Harbor and nearby neighborhoods and businesses. These improvements, along with more parking spaces at the Harbor, the expansion of 20th Avenue, and the creation of traffic circles to assist with traffic flow, would increase the availability and ease of using public transportation in the Harbor area.

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 site area were reviewed to determine if a disproportionate number of minority or low-income persons have the potential to be adversely affected by the proposed project (U.S. Census Bureau, 2006).

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 reduced recreational activities and facilities available in the Harbor area.

Proposed Action Alternative – Under the Proposed Action Alternative, there would be no disproportionately high and adverse impacts on minority or low-income populations. Implementation of the Proposed Action Alternative would benefit all populations that utilize the Harbor by providing recreational activities and facilities.

4.5 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 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 on air quality because no construction would occur.

Proposed Action Alternative – Under the Proposed Action Alternative, temporary impacts on air quality would occur during the construction period. To reduce temporary impacts on 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 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.

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 (EPA, 1974).

One sensitive receptor is located about 1 mile from the proposed project site – Saint John Catholic School is located at 2415 17th Street. No other sensitive receptors are located within 1 mile of the proposed project site.

No Action Alternative – Under the No Action Alternative, no impacts on noise levels would occur because there would be no construction.

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 Harbor site would meet all local, state, and federal noise regulations. Temporary noise impacts on resources off-site may occur during piling placement, which is louder than normal construction noise.

4.7 Biological Resources

The proposed project site is located in an urban area which consists of existing structures, parking lots, bulkheads, and jetties. Jones Park to the north consists of an open field with several stands of trees. Ground cover in the area is sparse, and occurs along the edges of the project site. Dune species (*Paspalum sp.*), (*Baccharis sp.*), bitter panicum (*Panicum amarum*), and railroad vine (*Ipomoea pes-caprae*) are adjacent to the site.

The marine environment within and surrounding the proposed project site consists of a shallow water benthic (bottom-dwelling) estuarine ecosystem that is populated by organisms commonly found on muddy, sandy bottoms including: polychaetes, bryozoans, eastern oyster (*Crassostrea virginica*), hooked mussel (*Ischadium recurvum*), mud crab (*Eurypanopeus sp.*), stone crab (*Menippe mercenaria*), blue crab (*Callinectes sapidus*), and other sessile organisms. There are no



known oyster reefs in the vicinity of the Harbor. Due to the developed nature of the area, there are no emergent wetlands or submerged grass beds in the proposed project area.

The U.S. Fish and Wildlife Service (USFWS) lists the following federally endangered (E) and threatened (T) species for Harrison County (USFWS, 2008):

Common Name	Scientific Name	Status
Louisiana black bear	<i>Ursus americanus luteolus</i>	T
Gulf sturgeon	<i>Acipenser oxyrhynchus desotoi</i>	T (CH)
Piping plover	<i>Charadrius melodus</i>	T (CH)
Gopher tortoise	<i>Gopherus polyphemus</i>	T
Green sea turtle	<i>Chelonia mydas</i>	T
Loggerhead sea turtle	<i>Caretta caretta</i>	T
Kemp's Ridley sea turtle	<i>Lepidochelys kempii</i>	E
Mississippi gopher frog	<i>Rana capito sevosa</i>	E
Louisiana quillwort	<i>Isoetes louisianensis</i>	E
Alabama red-bellied turtle	<i>Psuedemys alabamensis</i>	E
Leatherback turtle	<i>Dermochelys comacea</i>	E
West Indian manatee	<i>Trichechus manatus</i>	E
Brown pelican	<i>Pelecanus occidentalis</i>	E
Red-cockaded woodpecker	<i>Picoides borealis</i>	E

(CH) = listed with critical habitat

The Mississippi Sound is listed as critical habitat for the gulf sturgeon; however, critical habitat does not include existing developed sites such as dams, piers, marinas, bridges, boat ramps, exposed oil and gas pipelines, oil rigs, and similar structures or designated public areas.

The sand beaches in the vicinity of the proposed project site are within a designated critical habitat for the piping plover (Brown and Mitchell, 2009) and the beach shoreline provides some foraging, roosting, and sheltering habitat for plovers (BMI, 2008). However, the shoreline is very developed and the interspersed upland beach areas are mostly uniform and level, and therefore unlikely to provide much potential habitat for piping plover (Stucker et al., 2003). The harbor waters also provide foraging habitat for brown pelicans, which feed primarily on fish. Turtle species are not likely to inhabit or feed in the harbor or nest on the adjacent beach due to the developed nature of the area, frequent boat traffic in the harbor, and human presence on the beach. A site visit conducted on September 30, 2008, by FEMA and Nationwide Infrastructure Technical Assistance Consultants (NISTAC) biologists confirmed that the proposed project site does not contain habitat for any other federally listed species. Significant beach erosion was observed along the 20th Avenue shoreline, most likely caused by the storm surge of Hurricanes Katrina and Gustav. On May 18, 2007, a letter requesting project review was sent to USFWS; no response has been received to date.

The Magnuson-Stevens Fishery Conservation and Management Act of 1976 (Magnuson-Stevens Act, 16 U.S.C. 1801 et seq.), as amended, gives the United States exclusive management



authority over fisheries, except for highly migratory species of tuna, within a fishery conservation zone of 5 to 322 kilometers (3 to 200 miles) offshore. The Magnuson-Stevens Act also mandates the identification of Essential Fish Habitat (EFH) for managed species. EFH is defined as the waters or substrate necessary for fish to spawn, breed, feed, or grow to maturity. According to the National Oceanic and Atmospheric Administration's Essential Fish Habitat Mapper, the proposed project site does not contain Habitat of Potential Concern (NOAA, 2009).

No Action Alternative – Under the No Action Alternative, there would be no impacts to biological resources or listed species because no construction would occur.

Proposed Action Alternative – Under the Proposed Action Alternative, disruption of the benthic environment during dredging would result in temporary impacts on species that are unable to swim away, and could also result in temporary adverse impacts on habitat quality due to turbidity during the construction period. To reduce impacts to the marine environment, the applicant would implement appropriate BMPs, including erosion and sediment controls and turbidity curtains during dredging and construction activities.

The proposed 20th Avenue expansion and stabilization would result in a permanent loss of approximately 5.17 acres of level, upland beach area; this area is not likely to be used by piping plovers because it is not adjacent to the shoreline, so no impact to plovers is anticipated (Brown and Mitchell, 2009).

The City of Gulfport is proposing compensatory mitigation for unavoidable impacts of activities to widen 20th Avenue and restore the shoreline in that area that would place approximately 0.96 acre of fill along the shoreline. This mitigation includes the creation of shallow water habitat by excavating 0.96 acre of beach immediately east of the proposed project site (see Figure 2 in Appendix A).

The proposed project would not directly impact the piping plover or brown pelican, although foraging by plover and pelicans would be disrupted during construction. Excavation of 0.96 acre of existing beach area immediately east of the proposed project site would result in the temporary loss of shoreline foraging and roosting habitat for the piping plover. This loss will be temporary and the shoreline foraging and roosting habitat should be restored within 6 months of the completion of the mitigation work (BMI, 2008).

The Proposed Action is not expected to adversely impact any threatened or endangered species.

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).

A FEMA Archaeologist and Architectural Historian, both qualified under the *Secretary of the Interior's Professional Qualification Standards* (36 CFR Part 61) in their respective disciplines, 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 archaeological resources, the APE consists of the proposed project site; 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 consultation with the Mississippi State Historic Preservation Office (SHPO).

On December 12, 2008, FEMA conducted a site visit to determine if any historic buildings/structures or archaeological sites were visible within the APE. The site visit revealed that the area within the APE has changed little since the removal of post-Katrina debris and that the area, with the exception of the Ship Island Excursion facilities, lacks redevelopment and exhibits seriously damaged infrastructure.

The proposed project site is separated from the Harbor Square National Register Historic District by four lanes of Highway 90 and a wide stretch of vacant land to the north of Highway 90 that parallels the southern boundary of the historic district. The eastern boundary of this district is at 23rd Avenue. The southern and eastern edges of this historic district are marred by vacant lots, slabs of buildings that were demolished following damages from Hurricane Katrina, and by damaged buildings that remain in a state of disrepair. These conditions have compromised the integrity of the portion of the historic district immediately to the north of the proposed project area. In addition, the historic viewshed of the district to the Gulf of Mexico has been interrupted by the presence of industrial facilities and several recently constructed three and four-story buildings located adjacent to those facilities.

The entire site is man-made (infill of materials to produce land) and consists of pre-existing ground disturbance (past construction, utilities, and dredging); therefore, intact sub-surface cultural resources are not likely to exist within the APE.

No Action Alternative – Under the No Action Alternative, no impacts on archaeological or cultural resources would occur because there would be no construction.

Proposed Action Alternative – Under the Proposed Action Alternative, no impacts to archeological or cultural resources are anticipated. A consultation letter dated February 27, 2009, was submitted to the Mississippi SHPO and to the Mississippi Band of Choctaw Indians Tribal Historic Preservation Officer (THPO) requesting review and concurrence with FEMA’s determination that the project will have no adverse effect on historic properties. In a letter dated March 5, 2009, SHPO concurred with FEMA’s determination of no adverse effect to historic resources (Appendix B). No response from THPO has been received to date.

5.0 CUMULATIVE IMPACTS

According to 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 in Gulfport by increasing criteria pollutants during construction activities and a cumulative temporary impact on downstream water resources such as the Mississippi Sound due to increased sedimentation which could occur during dredging and construction activities in the Gulfport Harbor. No other cumulative effects are anticipated.

6.0 PUBLIC INVOLVEMENT

FEMA is the lead federal agency for conducting the NEPA compliance process for the Gulfport Small Craft Harbor redevelopment project 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 City of Gulfport 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 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
- Mississippi Department of Agriculture and Commerce
- Mississippi Department of Archives and History
- Mississippi Band of Choctaw Indians Tribal Historic Preservation Officer
- 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, and for ensuring that all existing permits are applicable for all actions and modifications to the project. Gulfport has obtained the following permits:

- MDEQ CWA Section 401 Water Quality Certification issued on February 21, 2007.



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- MDMR Permit No. DMR-070152 for dredging of the Harbor and construction of bulkheads, piers, decks, and platforms; issued January 2, 2007; expires January 2, 2010.
 - USACE CWA Section 404 and Rivers and Harbors Act Section 10 Permit No. SAM-2006-2241-TMZ for dredging the Harbor, replacing bulkheads and constructing piers, decks, and platforms; issued July 11, 2007, with second modification issued May 19, 2008; expires March 12, 2012.

8.0 CONCLUSIONS

No impacts on geology, groundwater, floodplains, wetlands, public health and safety, hazardous materials, socioeconomic resources, environmental justice, and cultural resources are anticipated with the Proposed Action Alternative. During the construction period, short-term impacts on soils, surface water, transportation, air quality, noise, and biological resources are anticipated. All short-term impacts require conditions to minimize and mitigate impacts on the proposed project site and surrounding areas.

9.0 REFERENCES

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Appendix A

Figures

Appendix B

Agency Coordination

Appendix C

8-Step Planning Process for Floodplains and Wetlands