

Draft Environmental Assessment

Alternative Housing Pilot Program Lake Charles Fields 6th Avenue Group Housing Site

Calcasieu Parish, Louisiana
FEMA-DR-1603/1607-DR-LA
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FEMA

**DRAFT
FINDING OF NO SIGNIFICANT IMPACT**

**Alternate Housing Pilot Program, Lake Charles Fields 6th Avenue
Group Housing Site
Calcasieu Parish, Louisiana**

Background

Under the authority of Section 408 of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Federal Emergency Management Agency (FEMA) administers the Individual Assistance Program to provide temporary housing for disaster victims in affected areas whose homes are uninhabitable or destroyed. Although FEMA's traditional temporary housing options are sufficient to address the unmet housing needs of residents in most disasters; the catastrophic dimensions of Hurricanes Katrina and Rita challenged the efficacy of these traditional methods. Recognizing the extensive and complex housing challenges facing victims and communities as a result of Hurricanes Katrina and Rita, and acknowledging the limitations on FEMA's ordinary statutory authority to provide non-temporary housing solutions, Congress appropriated funds to the Department of Homeland Security (DHS) to support alternative housing pilot programs (Emergency Supplemental Appropriations Act, 2006, Public Law 109-234).

The Alternative Housing Pilot Program (AHPP) represents a one-time exception to FEMA's existing authority under the Stafford Act. The Stafford Act legally binds FEMA to a temporary housing mission, by providing an opportunity to explore, implement, and evaluate innovative approaches to housing solutions, and to address ongoing housing challenges created by the 2005 hurricane season in the states of the Gulf Coast region, including the State of Louisiana, especially the southernmost parishes such as Calcasieu Parish. The Louisiana Recovery Authority (LRA) has applied for FEMA funding under the AHPP to provide both temporary and permanent housing solutions for eligible applicant families displaced by Hurricanes Katrina and Rita.

In accordance with 44 Code of Federal Regulations (CFR) for FEMA, Subpart B, Agency Implementing Procedures, Part 10.9, an Environmental Assessment (EA) was prepared pursuant to Section 102 of the National Environmental Policy Act (NEPA) of 1969, as

implemented by the regulations promulgated by the President's Council on Environmental Quality (40 CFR Parts 1500-1508). The purpose of the EA is to analyze the potential environmental impacts of the proposed group housing project, and to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI). In the EA process, FEMA considered two alternatives, the No Action Alternative and the Proposed Action Alternative.

The Proposed Action Alternative consists of the land acquisition and construction of 34 permanent AHPP units on an approximate 5.0-acre parcel of previously developed land located in the eastern portion of Lake Charles, Louisiana bordered on the west by 6th Avenue and on the north by Broad Street (Highway 90). The proposed group housing site would consist of single family dwellings (Louisiana Cottages), with living areas ranging from 888 square feet to 1,112 square feet. The Louisiana Cottages would be built on piers to raise them to the required elevation, as necessary. The project site would be cleared of all vegetation and debris and then grubbed. Although contouring and grading has already been done additional contouring and grading would be done, if necessary. Driveways would be constructed to facilitate access and parking for the AHPP cottages. A fence would partially enclose the project area. The houses would tie into existing water, and sewer infrastructure currently located near each lot site and utilities would then be installed to each individual cottage.

The LRA notified the public of the availability of the draft EA through the publication of a public notice in *The American Press* on February 20, 2009 and March 6, 2009. The draft EA is also available for public viewing at the Carnegie Memorial Library, 411 Pujoe Street, Lake Charles, Louisiana 70605. Written comments on the draft EA can be faxed to FEMA at (504) 762-2527. In addition, the draft EA can be viewed and downloaded during the 15-day public comment period on FEMA's website at <http://www.fema.gov/plan/ehp/envdocuments/ea-region6.shtm>.

Findings

Under the Proposed Action Alternative, as described in the EA, impacts to geology, wetlands, cultural resources, and biological resources, hazardous materials or wastes are not anticipated. Positive impacts to socioeconomics are expected. During the construction period, short-term impacts to soils, water quality, transportation, air quality,

and noise are anticipated. Minor, but insignificant, transportation impacts would occur during occupation of the AHPP cottages and minor, but insignificant floodplain impacts would occur with the construction of the cottages. All short-term minor, and indirect impacts require conditions to minimize and mitigate impacts to the proposed project site and surrounding areas. In addition, consultation with the State Historic Preservation Office (SHPO) will be required to minimize the program's potential to affect cultural resources.

Conditions

The LRA shall comply with all prescribed conditions set forth in the draft EA, including but not limited to the following conditions. Failure to comply with these conditions may jeopardize the receipt of Federal funding.

Any changes to this approved scope of work will require submission to, and evaluation and approval by FEMA prior to initiation of any work, for compliance with NEPA. The applicant is required to obtain and comply with all local, state, and Federal permits and requirements. Non-compliance with the requirements noted above may jeopardize the receipt of Federal funding.

1. In the event that archaeological deposits, including but not limited to any Native American pottery, stone tools, historic artifacts or human remains, are uncovered, project activities will be halted. The contractor would stop all work immediately in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archaeological findings would be secured and access to the sensitive area restricted. The contractor would inform FEMA immediately and FEMA would consult with the SHPO or Tribal Historic Preservation Officer and interested tribes. Work in sensitive areas would not resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with the National Historic Preservation Act. As a result no impacts to cultural resources would be expected.
2. The AHPP cottages would be constructed on piers and should the previously elevated homesites not be at the base flood elevation (BFE), then the cottages would be constructed so that the first floor would be above the BFE. FEMA has gone through the Eight-Step Planning Process to ensure that its actions are consistent

with EO 11988 within Lake Charles and Calcasieu Parish. An initial notice for the building of AHPP units within the State has been previously publicized. A final notice will be publicly circulated during the public comment period for this Proposed Action for 15 days explaining the various FEMA actions and included alternatives and the reasons for siting in the floodplain.

3. To minimize noise impacts to nearby sensitive noise receptors, construction activity would be limited to daylight hours during the work week, between 7:30 am to 5:30 pm on Monday through Friday.

Conclusion

Based upon the information contained in the EA, the potential direct, indirect, and cumulative impacts resulting from implementation of the proposed action, and in accordance with FEMA's regulations in 44 CFR Part 10, a FONSI is concluded. Therefore, an EIS process will not be required, based on the fact that there would be no long-term adverse direct, indirect, or cumulative impacts on the natural environment resulting from FEMA actions, as identified in the EA, taken to establish permanent housing under the AHPP.

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List of Acronyms and Abbreviations

$\mu\text{g}/\text{m}^3$	micrograms per cubic meter of air
AADT	Average Annual Daily Traffic
ABFE	Advisory Base Flood Elevation
ACHP	Advisory Council on Historic Preservation
AHPP	Alternative Housing Pilot Program
amsl	above mean sea level
APE	Area of Potential Effect
ASTM	American Society for Testing and Materials
BEA	Bureau of Economic Analysis
BFE	base flood elevation
bgs	below ground surface
BMP	Best Management Practice
CAA	Clean Air Act
CO	Carbon monoxide
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CUP	Coastal Use Permit
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
CZMP	Coastal Zone Management Program
dB	decibel
dba	A-weighted decibel
DFIRM	Digital Flood Insurance Rate Maps
DHS	Department of Homeland Security
DO	Dissolved oxygen
EA	Environmental Assessment
EDR	Environmental Data Resources, Inc.
EDMS	Electronic Document Management System
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EO	Executive Order
ESA	Endangered Species Act
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Maps
FPPA	Farmland Protection Policy Act
FONSI	Finding of No Significant Impact
FWCA	Fish and Wildlife Coordination Act
GOHSEP	Governor's Office of Homeland Security and Emergency Preparedness
GSRC	Gulf South Research Corporation
HFH	Habitat for Humanity
HUD	U.S. Department of Housing and Urban Development
I	Interstate
LA	Louisiana state highway
LaDOTD	Louisiana Department of Transportation and Development
LDEQ	Louisiana Department of Environmental Quality
LDNR	Louisiana Department of Natural Resources

LDWF	Louisiana Department of Wildlife and Fisheries
LOHSEP	Louisiana Office of Homeland Security and Emergency Preparedness
LOS	Level of Service
Louisiana Cottages	Permanent single-family AHPP units
LRA	Louisiana Recovery Authority
LTCSR	Louisiana Long-term Community Recovery
LUST	Leaking underground storage tanks
mg/m ³	milligrams per cubic meter of air
MBTA	Migratory Bird Treaty Act
MSA	Metropolitan Statistical Area
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NO ₂	Nitrogen dioxide
NO _x	Nitrous oxides
NOAA	National Oceanic and Atmospheric Administration
NOAA Fisheries	NOAA National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetlands Inventory
O ₃	Ozone
P	Primary
PA	Programmatic Agreement
Pb	Lead
PBAF	Project Build A Future
PCPI	Per Capita Personal Income
P.L.	Public Law
PM-2.5	Particulate matter less than 2.5 micrometers
PM-10	Particulate matter less than 10 micrometers
ppm	parts per million
POV	Personally owned vehicle
RCRA	Resource Conservation and Recovery Act
ROI	Region of Influence
RPT	Recovery Planning Tool
S	Secondary
SHPO	State Historic Preservation Officer
SO ₂	Sulfur dioxide
Stafford Act	Robert T. Stafford Disaster Relief and Emergency Assistance Act
State	State of Louisiana
SWPPP	Stormwater Pollution Prevention Plan
THPO	Tribal Historic Preservation Officer
TPI	Total Personal Income
TSCA	Toxic Substances Control Act
US	U.S. highway
U.S.	United States
U.S.C	United States Code
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USEPA	U.S. Environmental Protection Agency

USFWS
VOC
WSRA
WUS

U.S. Fish and Wildlife Service
Volatile Organic Compound
Wild and Scenic Rivers Act
Waters of the U.S.

SECTION 1.0
INTRODUCTION



1.0 Introduction

Recognizing the extensive and complex housing challenges facing victims and communities along the Gulf Coast region, as a result of the 2005 hurricane season, and acknowledging the limitations on Federal Emergency Management Agency's (FEMA) ordinary statutory authority to provide long-term and permanent housing solutions, the United States (U.S.) Congress appropriated funds to Department of Homeland Security (DHS) to support alternative housing pilot programs (Emergency Supplemental Appropriations Act, 2006, Public Law [P.L.] 109-234). The Alternative Housing Pilot Program (AHPP) represents a one-time exception to FEMA's existing authority under the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act). The Stafford Act legally binds FEMA to a temporary housing mission, by providing an opportunity to explore, implement, and evaluate innovative approaches to housing solutions, and to address ongoing housing challenges created by the 2005 hurricane season in the states of the Gulf Coast region, including the State of Louisiana.

The Louisiana Recovery Authority (LRA), in conjunction with the State of Louisiana, has applied for FEMA funding under the AHPP to provide permanent housing solutions for eligible applicant families displaced by Hurricanes Katrina and Rita throughout the State of Louisiana, including within Calcasieu Parish (Appendix A, Figure 1). Two private non profit organizations, Project Build A Future (PBAF) and Habitat for Humanity (HFH), along with the City of Lake Charles are working with the LRA to implement the AHPP in and around the City of Lake Charles. PBAF and HFH both have mission statements which include providing quality, affordable housing within the communities they serve.

In accordance with the National Environmental Policy Act (NEPA), as implemented through 40 Code of Federal Regulations (CFR) 1500 *et. seq.*, 44 CFR 10 *et. seq.*, and DHS's Management Directive 5100.1, FEMA must fully understand and consider the environmental impacts of actions proposed for Federal funding. The purpose of this Environmental Assessment (EA) is to analyze the potential impacts of the proposed AHPP project on the natural and human environment and to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

1.1 Project Location

The proposed site is a privately-owned approximate 5.0-acre plot of previously developed land located within Lake Charles, Calcasieu Parish, Louisiana. The proposed project site is bordered on the west by 6th Avenue, on the north by commercial properties along Broad Street (Highway 90), on the east by 7th Avenue; and on the south by 2nd Street (Appendix A, Figure 2).

SECTION 2.0
PURPOSE AND NEED



2.0 Purpose and Need

The purpose of this action is to provide alternative disaster housing within the State of Louisiana including Calcasieu Parish that provides long-term and permanent housing solutions. The need for this action is to address the housing shortages caused by the catastrophic effects of Hurricanes Katrina and Rita, and to move disaster victims from current temporary solutions (*e.g.*, rental dwellings, manufactured housing, *etc.*) to permanent housing. Currently in Calcasieu Parish (as of January 2009), there are 144 mobile homes, 349 manufactured housing, and 25 park model houses are still occupied by residents displaced by Hurricanes Katrina and Rita.

SECTION 3.0
ALTERNATIVES



3.0 Alternatives

This section describes the two alternatives that the State of Louisiana (State) and FEMA propose to undertake in order to evaluate permanent AHPP housing to Louisiana residents displaced as a result of Hurricanes Katrina and Rita within Calcasieu Parish and surrounding parishes (program area) (Appendix A, Figure 1). The two alternatives evaluated were: the No Action Alternative, and the Proposed Action Alternative, which consists of the land acquisition and construction of the Fields 6th Avenue group housing site. The proposed group housing would consist of single family dwellings (Louisiana Cottages), with living areas ranging from 888 square feet to 1,112 square feet. The alternatives are described in more detail below.

3.1 Alternatives Evaluated

3.1.1 Alternative 1: No Action Alternative

Inclusion of a No Action Alternative in the environmental analysis and documentation is required under NEPA and is defined as maintaining the *status quo*, with no FEMA funding for any alternative action. This alternative evaluates the effects of not providing eligible assistance for a specific action and provides a benchmark against which other alternatives may be evaluated.

Under the No Action Alternative, no AHPP housing would be provided for families displaced from their homes. Rental resources are very limited in the affected area, and people displaced by Hurricanes Katrina and Rita would remain in housing provided by family members or friends, in hotels, in temporary "dormitories" such as homeless shelters or churches, or in facilities damaged by the storm and determined structurally unsafe or unsanitary.

3.1.2 Alternative 2: Proposed Action Alternative

The Proposed Action would include land acquisition and construction of approximately 34 AHPP units on a previously disturbed parcel of land (approximately 5.0 acres) located in the eastern portion of the City of Lake Charles, Louisiana. Appendix A, Figure 3 provides a conceptual layout of the project site. After the purchase of the property, only single-family dwellings (Louisiana Cottages) would be constructed upon the site. The living area for the various Louisiana Cottages at the proposed site would range from 888 square feet to 1,112 square feet. Appendix A, Figure 3 also provides the proposed layout which indicates which particular AHPP cottage designs would be used for the proposed development. Currently, it is anticipated that there will be nine of the 1,112 square feet (living area) Louisiana Cottages, nine of the 936

square foot Louisiana Cottages, eight of the 910 square foot cottages, and eight of the 888 square foot cottages. The Louisiana Cottages would be built on piers to raise them to the required base flood elevation (BFE) elevation of 13 feet above mean sea level (amsl), as necessary. The project site would be cleared of all vegetation and debris and then grubbed. Driveways would be constructed to facilitate access and parking for the AHPP cottages. A fence would partially enclose the project area. The houses would tie into existing water, and sewer infrastructure currently located near each lot site and utilities would then be installed to each individual cottage. Photograph 1 shows a typical Louisiana Cottage.



Photograph 1. Typical Louisiana Cottage

Section 4 summarizes the potential impacts of the Proposed Action Alternative and conditions or mitigation measures to avoid or reduce those impacts. Section 5 describes in detail the resources and analyzes the potential impacts of the No Action and Proposed Action Alternatives. Section 6 outlines the cumulative impacts of the Proposed Action. Section 7 discusses the public involvement, while Section 8 outlines the interagency coordination by FEMA. A list of preparers is found in Section 9, and Section 10 provides the references cited throughout the document.

3.2 Alternatives Considered and Dismissed

During the planning process, FEMA and the State considered two additional sites within Lake Charles for the AHPP residential development. The first alternative proposed site was a 16-acre parcel of land located in south Lake Charles, near the terminus of Clover Street and Sunset Drive and owned by the City of Lake Charles. The second site considered but dismissed was a 47-acre parcel of land located in south Lake Charles, east of 5th Avenue, approximately 0.5 mile north of East McNeese Street. Both sites were eliminated from consideration due to concerns by the public and the Lake Charles City Council regarding the size of the units and number of the AHPP units proposed at each site. In addition, the necessary funding stream to develop the larger plots of land became problematic and would be unable to meet the necessary AHPP funding time constraints.

SECTION 4.0
SUMMARY OF IMPACTS AND MITIGATION



4.0 Summary of Impacts and Mitigation

The following table summarizes the potential impacts of the No Action and Proposed Action Alternatives and conditions or mitigation to offset those impacts. Potential impacts to resources and mitigation measures are discussed in greater detail in Section 5.0.

Summary of Impacts

Affected Environment	No Action Alternative	Proposed Action Alternative
Geology and Soils	No impacts to geology, soils, or prime or unique farmland are anticipated.	No impacts to geology and only short-term impacts to soils are expected during the construction period. A permanent loss of 5 acres of Prime Farmland would occur; however, current zoning is designated as mixed commercial and residential and not zoned for agricultural use. Appropriate Best Management Practices (BMP) would be implemented, such as installing silt fences and revegetating bare soils immediately upon completion of construction.
Water Quality	No impacts to water quality are anticipated.	Temporary and minor impacts from erosion and sedimentation to surface water are possible during construction activities. A Stormwater Pollution Prevention Plan (SWPPP) and a National Pollutant Discharge Elimination System (NPDES) would be required and appropriate BMPs would be implemented to minimize these impacts and minimize runoff. Additionally a Coastal Use Permit (CUP) may be required.
Floodplains	No impacts to floodplains are anticipated.	Construction would occur in the 100 year floodplain; therefore, the potential to impact floodplains would generally be considered a direct, permanent adverse effect; however, as the site has been previously developed with additional fill placed at the site, the Proposed Action would cause minor, but insignificant effects. The AHPP cottages would be constructed on piers and should the previously elevated homesites not be at the BFE, then the cottages would be constructed so that the first floor would be above the BFE.
Wetlands	No impacts to wetlands and waters of the U.S are anticipated.	No impacts to wetlands and Waters of the U.S (WUS) are anticipated.
Air Quality	No impacts to air quality are anticipated.	Temporary and minor impacts to air quality would occur during the construction period. To minimize these impacts all construction equipment would be properly maintained, and dust suppression BMPs would be implemented.
Noise	No impacts to noise are anticipated.	Short-term impacts from increased noise would occur at the proposed project site during construction and have the potential to expose sensitive receptors to noise emissions that are normally unacceptable. To minimize this impact, construction activities would be limited to 7:30 AM to 5:30 PM, Monday through Friday. Construction activities would not occur in the late evenings and early mornings or on weekends and holidays.

Affected Environment	No Action Alternative	Proposed Action Alternative
Biological Resources	No impacts to biological resources are anticipated.	Approximately 5.0 acres of previously disturbed land, with mixed upland vegetation would be cleared for construction of the proposed project. No impacts to Federally listed or state listed species are anticipated.
Cultural Resources	No impacts to cultural resources are anticipated.	No impacts to archaeological or cultural resources are anticipated. In the event of a find during ground disturbance, activities in the area of the find would be suspended and appropriate mitigation measures would be developed in consultation with the State Historic Preservation Officer (SHPO), appropriate Tribes and Tribal Historic Preservation Officers (THPO). In addition, the Section 106 process will be implemented for the proposed undertaking.
Socioeconomics	Displaced residents would continue to utilize FEMA manufactured housing and mobile homes. Potential health effects could continue to affect displaced residents.	No adverse socioeconomic impacts are anticipated. Beneficial impacts from the FEMA AHPP housing development are anticipated.
Traffic and Transportation	No impacts to traffic are anticipated.	Short-term and minor impacts would occur during construction activities due to an increase in traffic volumes. To minimize these impacts, traffic along adjacent roadways would be temporarily rerouted as necessary during construction, and any lane closures would be coordinated with the appropriate local government. Traffic volumes would also permanently increase in the vicinity of the proposed project site from the addition of new residents; however, current zoning for the property would allow 34 homes to be built on the approximate 5.0-acre parcel.
Hazardous Materials and Wastes	No impacts to hazardous materials are anticipated.	No impacts to hazardous materials or wastes are anticipated. Excavation activities could expose or otherwise affect subsurface hazardous wastes or materials; any hazardous materials discovered, generated, or used during construction would be disposed of and handled in accordance with applicable local, state, and Federal regulations.

SECTION 5.0
AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES,
AND MITIGATION MEASURES

5.0 Affected Environment, Environmental Consequences, and Mitigation Measures

The following subsections discuss the regulatory setting and the existing conditions for the following resource areas in Lake Charles, Calcasieu Parish, Louisiana that may be impacted by the Proposed Action Alternative and No Action Alternative considered.

- Geology and Soils
- Water Quality
- Floodplains
- Wetlands
- Air Quality
- Noise
- Biological Resources
- Cultural Resources
- Socioeconomics
- Traffic and Transportation
- Hazardous Materials and Wastes

5.1 Geology and Soils

5.1.1 Affected Environment

Regulatory Setting

The Farmland Protection Policy Act (FPPA) requires Federal agencies to evaluate the effects (direct and indirect) of their activities before taking any action that could result in converting designated prime or unique farmland or farmland of statewide and local importance for nonagricultural purposes. If an action would adversely affect farmland preservation, alternative actions that could avoid or lessen adverse effects must be considered. Determination of the level of impact on prime and unique farmland or farmland of statewide and local importance is done by the lead Federal agency (proponent), which inventories farmlands affected by the proposed action and scores the land as part of an Farmland Conversion Impact Rating (AD 1006 Form), for each alternative. In consultation with the proponent, Natural Resources Conservation Service (NRCS) completes the AD 1006 Form and determines the level of consideration for protection of farmlands that needs to occur under the FPPA (NRCS 2008).

Existing Conditions

Louisiana is not considered seismically active although the State does experience periodic small earthquakes. Such an earthquake occurred in Lake Charles in 1983, and was recorded by locally deployed instruments. A deep seated basement fault which could be controlled by

shallower growth faults found in thick sediments was considered to be primarily responsible for this particular earthquake (Louisiana Geological Survey 2001).

The proposed project area and most of Lake Charles itself is underlain primarily by Pleistocene terrace deposits of relative young geologic age. One of the oldest ancient Louisiana shoreline (Pleistocene age) features is found in northern Calcasieu Parish and is called the Houston Ridge. It extends from the Sabine River floodplain to the confluence of the Houston River and West Fork of the Calcasieu River. The closest portion of the Houston Ridge is approximately 4 miles northwest of the proposed project area (Louisiana Geological Survey 2001a). The proposed project area is relatively flat with elevations ranging from 11 to 13 feet above mean sea level (amsl) (Knapp 2009).

The proposed project site contains soils consisting of Mowata-Vidrine silt loam. With the Mowata-Vidrine silt loam association, the Mowata component makes up 55 percent of the map unit. This component occurs on flats, with slopes of 0 to 1 percent. The natural drainage class is poorly drained, and water movement in the most restrictive layer is very low to moderately low. Available water to a depth of 60 inches below ground surface (bgs) is very high, and shrink-swell potential is high. This soil is not flooded or ponded. A seasonal zone of water saturation is at 12 inches from January through April and December. This soil meets hydric criteria (U.S. Department of Agriculture [USDA] 2008).

The Vidrine component makes up 35 percent of the map unit. This component is found on mounds and flats with slopes of 0 to 1 percent. The natural drainage class is somewhat poorly drained, and water movement in the most restrictive layer is moderately low to moderately high. Available water to a depth of 60 inches bgs is very high, and shrink-swell potential is high. This soil is not flooded or ponded. A seasonal zone of water saturation is at 18 inches from January through April and December. This soil does not meet hydric criteria (USDA 2008).

In Calcasieu Parish, there are 124,467 acres of Mowata-Vidrine silt loam, all of which are considered prime farmland by USDA (NRCS 2008 and USDA 2008).

5.1.2 Environmental Consequences and Mitigation Measures

5.1.2.1 No Action Alternative

This alternative does not include any FEMA action. Therefore, FEMA would not be required to comply with the FPPA. The No Action Alternative does not have the potential to affect geology, soils, or prime or unique farmland.

5.1.2.2 Proposed Action Alternative

Since the Proposed Action Alternative would only involve disturbances to the topsoil layers within a very small surface area there would be no impact to the geology of the area. There is a potential for short-term impacts to soils during construction and installation of underground utilities. Soil loss would occur directly from disturbance or indirectly via wind or water erosion during the construction period. A National Pollutant Discharge Elimination System (NPDES) stormwater construction permit would be obtained by the construction contractor. The implementation of construction BMP would reduce sedimentation and wind erosion. A few examples of appropriate BMPs would be the use of silt fences/straw bales and the wetting of soils during construction. In addition, if fill is stored on site, the contractor would be required to cover it appropriately.

There would be a permanent loss of biological production on approximately 5.0 acres of soils; however, the amount of soils impacted would be insignificant in comparison to the amount of these soils in Calcasieu Parish. There are 124,467 acres of Mowata-Vidrine silt loam in Calcasieu Parish (USDA 2008). In addition, Mowata-Vidrine silt loam is considered prime farmland by USDA. The FPPA directed that Federal agencies must assess the NRCS classification of soils as prime or unique farmland. According to the NRCS, all of the common soils, except urban land, are classified as prime farmland soils. The current zoning of the project area as mixed commercial and residential precludes the use of any of the prime farmland soils in the area for crop production. Therefore, FPPA does not apply and withdrawal of these soils for use as an AHPP development would not require a Farmland Conversion Impact Rating Analysis. On February 11, 2009, a letter requesting project review was sent to NRCS (Appendix B). No response has been received to date.

5.2 Water Quality

5.2.1 Affected Environment

Regulatory Setting

The Clean Water Act (CWA) establishes the basic structure for regulating pollutant discharges to navigable waters of the U.S. It sets forth procedures for effluent limitations, water quality standards and implementation plans, national performance standards, and point source (*e.g.*, municipal wastewater discharges) and nonpoint source programs (*e.g.*, stormwater). The CWA also establishes the NPDES under Section 402 and permits for dredged or fill material under Section 404 (U.S. Environmental Protection Agency [USEPA] 2008).

Section 401 of the CWA specifies that states must certify that any activity subject to a permit issued by a Federal agency, such as a CWA Section 404 permit, meets all state water quality standards. Water quality certification is also necessary when a project qualifies for a General Permit, even if the activity does not need to be reported to the U.S. Army Corps of Engineers (USACE) (USEPA 2008).

The Wild and Scenic Rivers Act (WSRA) preserves selected rivers in a free-flowing condition and protects their local environments. These rivers possess outstanding scenic, recreational, geologic, fish and wildlife, historic, or cultural values.

The Coastal Zone Management Act (CZMA) of 1972 authorizes the Coastal Zone Management Program (CZMP), which is a Federal-state partnership dedicated to comprehensive management of the nation's coastal resources. By making Federal funds available, the law encourages states to preserve, protect and, where possible, restore or enhance valuable natural coastal resources, such as wetlands, floodplains, estuaries, beaches, dunes, barrier islands, and coral reefs, as well as the fish and wildlife using those habitats. Any Federal or state agency whose activities directly affect the coastal zone must, to the maximum extent practicable, be consistent with approved state management programs.

The Louisiana Department of Natural Resources (LDNR) supervises CZMA activities within the Louisiana Coastal Zone, which include the parishes of Calcasieu, Cameron, Vermilion, St. Mary, St. Martin, Assumption, Terrebonne, Lafourche, St. Charles, St. John the Baptist, St. James, Livingston, Tangipahoa, St. Tammany, Orleans, Jefferson, St. Bernard, Plaquemines, St. John the Baptist, St. James, and St. Charles. Of these parishes, seven lie completely within the

coastal zone area, and include Orleans, Jefferson, St. Bernard, Plaquemines, St. John the Baptist, St. James, and St. Charles. FEMA must conduct its activities in a manner consistent with the Federally-approved Louisiana Coastal Resource Program. In addition, Calcasieu Parish has a local coastal management program.

Existing Conditions

The proposed project site is located in Louisiana Department of Environmental Quality (LDEQ) sub-watershed segment known as English Bayou (LA030702) which is listed on the 2006 LDEQ Water Quality Inventory Integrated Report (Section 305[b] and 303[d] Reports) for violating the dissolved oxygen (DO), phosphorus, total dissolved solids, total suspended solids, mercury, turbidity, and nitrogen criteria. English Bayou is supporting designated uses such as primary contact recreation (swimming), as well as secondary contact recreation (boating); however, English Bayou does not support fish and wildlife propagation. Suspected causes of impairment include atmospheric deposition, discharges from municipal storm sewer systems, and flow alterations from water diversions (LDEQ 2006).

Several large waterbodies are located in Lake Charles; the Calcasieu River, Lake Charles, and Prein Lake. Lake Charles from which the city derives its name is approximately 2.0 miles to west of the proposed site, while Prien Lake is approximately 5 miles southwest of the proposed site. The Calcasieu River and English Bayou are located approximately 4.5 miles and 4.0 miles to the northeast of the proposed site, respectively.

Calcasieu Parish is within the Louisiana Coastal Zone and adopted a local Coastal Management Program in 1986. The Parish Division of Planning and Development administers this program.

5.2.2 Environmental Consequences and Mitigation Measures

5.2.2.1 No Action Alternative

This alternative does not include any FEMA actions. Therefore, FEMA would not be required to comply with the CWA, CZMA, or WSRA. The No Action Alternative does not have the potential to affect water quality.

5.2.2.2 Proposed Action Alternative

Under the Proposed Action Alternative, temporary short-term impacts to downstream surface waters would occur during the construction period due to soil erosion. Construction sites greater than 1 acre require a Stormwater Pollution Prevention Plan (SWPPP) as part of the NPDES permit process that identifies BMPs for protection of water quality within ephemeral and perennial streams. To reduce impacts to the downstream surface waters, the State or their contractor would implement appropriate BMPs, such as installing silt fences and revegetating bare soils. The State would be required to obtain an approved SWPPP and NPDES permit prior to the start of construction. In addition, construction BMP would be utilized to minimize any sedimentation.

Project activities under this alternative are not anticipated to impact WSRA. A Coastal Use Permit (CUP) may be required or other authorization from LDNR and Calcasieu Parish local Coastal Management Program may require additional permitting. If a development is occurring in Calcasieu Parish and it is located within the local coastal zone, an application must be submitted to LDNR or the Local Coastal Zone Administrator to determine if a permit is necessary. On February 11, 2009, letters requesting project review was sent to USEPA and LDEQ (Appendix B). No response has been received to date.

5.3 Floodplains

5.3.1 Affected Environment

Regulatory Setting

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. A floodplain is defined as the lowland and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, and including, at a minimum, that area subject to a 1 percent or greater chance of flooding in any given year. The critical action floodplain is defined as the 500-year floodplain (0.2 percent chance floodplain) (USEPA 1979). The 500-year floodplain as defined by 40 CFR 9, is an area including the base floodplain, which is subject to inundation from a flood having a 0.2 percent chance of being equaled or exceeded in any given year.

Flood zones are land areas identified by FEMA that describe the land area in terms of its risk of flooding. A flood insurance rate map (FIRM) is a map created by the National Flood Insurance

program (NFIP) for floodplain management and insurance purposes. Digital versions of these maps are called DFIRMs. A FIRM would generally show a community's Advisory Base Flood Elevation (ABFE), flood zones, and floodplain boundaries. However, maps are constantly being updated due to changes in geography, construction and mitigation activities, and meteorological events (FEMA 2007).

EO 11988 requires that Federal agencies proposing activities in a 100-year floodplain must consider alternatives to avoid adverse effects and incompatible development in the floodplain. In accordance with 44 CFR Part 9, critical actions, such as the development of hazardous waste facilities, hospitals, or utility plants, must be undertaken outside of a 500-year floodplain. If no practicable alternatives exist to siting an action in the floodplain, the action must be designed to minimize potential harm to or within the floodplain. Furthermore, a notice must be publicly circulated explaining the action and the reasons for siting in the floodplain. When evaluating actions in the floodplain, FEMA applies the decision process described in 44 CFR Part 9, referred to as the Eight-Step Planning Process, to ensure that its actions are consistent with EO 11988. By its nature, the NEPA compliance process involves the same basic decision-making process as the Eight-Step Planning Process.

Existing Conditions

Consistent with EO 11988, FIRMs were examined during the preparation of this EA (FEMA 1987, Map Community Number 0040 and FIRM Panel Number 2200400005D). According to the FIRM, the proposed site is located in the 100-year floodplain (Flood Zone AE) and has a BFE of 13 feet amsl (FEMA 1987). FEMA requires that rebuilt communities adhere to the elevation requirements established by the BFE (FEMA 2007). A map is included in Appendix A, Figure 4 which illustrates the flood hazard zones within a 5- and 10-mile radius from the proposed project site in Lake Charles.

5.3.2 Environmental Consequences and Mitigation Measures

5.3.2.1 No Action Alternative

This Alternative does not include any FEMA actions. Therefore, FEMA would not be required to comply with EO 11998. The No Action Alternative does not have the potential to affect floodplains.

5.3.2.2 Proposed Action Alternative

Under the Proposed Action Alternative, the AHPP units would be constructed in a designated 100-year floodplain; therefore, the City of Lake Charles would require that the first floor of a building be elevated to above the BFE. The current BFE of the proposed site is approximately 13 feet amsl. A site elevation survey has been performed by PBAF and HFH to ensure that the AHPP housing would meet or exceed the BFE. According to the site elevation survey, the proposed project site ranges from 11.4 to 12.7 feet (Knapp 2009). The proposed project would elevate the AHPP units, outside the 100-year floodplain, to the BFE through the addition of fill material to applicable homesites, the placement of AHPP units on piers, or combination of both.

The loss of floodplain area in the vicinity of the project would generally be considered a direct, permanent adverse effect; however, as the site has been previously developed with additional fill placed at the site, the Proposed Action would cause minor, but insignificant effects. The site was elevated by the subdivision developer and owner to be approximately at or near the 13 foot BFE. The AHPP cottages would be constructed on piers and should the previously elevated homesites not be at the BFE, then the cottages would be constructed so that the first floor would be above the BFE. Although the project does not encourage additional development within the floodplain, the proposed project would result in providing civic support to populations living in the floodplain which would be an adverse indirect effect.

FEMA has gone through the Eight-Step Planning Process to ensure that its actions are consistent with EO 11988 within Lake Charles and Calcasieu Parish and is included in Appendix C. An initial notice for the building of AHPP units within the State has been previously publicized. A final notice will be publicly circulated during the public comment period for this Proposed Action for 15 days explaining the various FEMA actions and included alternatives and the reasons for siting in the floodplain. The public notice illustrating the Eight-Step Planning Process for this Proposed Action can be found in Appendix C.

5.4 Wetlands

5.4.1 Affected Environment

Regulatory Setting

EO 11990 (Protection of Wetlands) requires Federal agencies to follow avoidance, mitigation, and preservation procedures with public input before proposing new construction in wetlands. The implementation of EO 11990 is described in 44 CFR Part 9. As with EO 11988, the same

Eight-Step Planning Process is used to evaluate the potential effects of an action on wetlands. As discussed in the CWA subsection above, formal legal protection of jurisdictional wetlands is promulgated through Section 404 of the CWA. A permit from the USACE may be required if an action has the potential to affect wetlands.

Existing Conditions

During a reconnaissance site visit by Gulf South Research Corporation (GSRC) in January 29, 2009, no waters of the U.S. (WUS) including wetlands were observed within the project area. The proposed site is a partially developed residential neighborhood in which the land has been cleared, graded, and contoured for housing. The site has no trees, and the grasses appear to be mowed on a regular basis. In addition, the approximate 5.0-acre site is not designated as wetland based on the National Wetland Inventory (NWI) (USFWS 2006).

5.4.2 Environmental Consequences and Mitigation Measures

5.4.2.1 No Action Alternative

Under the No Action Alternative, FEMA would not install AHPP housing on the proposed 5.0-acre parcel. Therefore, no impacts to wetlands or WUS would occur.

5.4.2.2 Proposed Action Alternative

No WUS, including wetlands, occur on the proposed project site. Under the Proposed Action Alternative, no impacts to WUS, including wetlands, would occur. On February 11, 2009, a letter requesting project review was sent to USACE (Appendix B). No response has been received to date.

5.5 Air Quality

5.5.1 Affected Environment

Regulatory Setting

The USEPA established National Ambient Air Quality Standards (NAAQS) for specific pollutants. The NAAQS standards are classified as either "primary" or "secondary" standards. The major pollutants of concern, or criteria pollutants, are carbon monoxide (CO), sulfur dioxide (SO₂), nitrogen dioxide (NO₂), ozone (O₃), particulate matter less than 10 microns (PM-10), particulate matter less than 2.5 microns (PM-2.5), and lead (Pb). NAAQS represent the maximum levels of background pollution that are considered safe, with an adequate margin of safety, to protect the public health and welfare. The NAAQS are included in Table 1.

Table 1. National Ambient Air Quality Standards

POLLUTANT	STANDARD VALUE	STANDARD TYPE
Carbon Monoxide (CO)		
8-hour average	9ppm (10mg/m ³)	P
1-hour average	35ppm (40mg/m ³)	P
Nitrogen Dioxide (NO₂)		
Annual arithmetic mean	0.053ppm (100µg/m ³)	P and S
Ozone (O₃)		
8-hour average*	0.08ppm (157µg/m ³)	P and S
1-hour average*	0.12ppm (235µg/m ³)	P and S
Lead (Pb)		
Quarterly average	1.5µg/m ³	P and S
Particulate<10 micrometers (PM-10)		
Annual arithmetic mean	50µg/m ³	P and S
24-hour average	150µg/m ³	P and S
Particulate<2.5 micrometers (PM-2.5)		
Annual arithmetic mean	15µg/m ³	P and S
24-hour average	65µg/m ³	P and S
Sulfur Dioxide (SO₂)		
Annual average mean	0.03ppm (80µg/m ³)	P
24-hour average	0.14ppm (365µg/m ³)	P
3-hour average	0.50ppm (1300µg/m ³)	S

Legend: P= Primary S= Secondary

Source: USEPA 2008a.

ppm = parts per million mg/m³ = milligrams per cubic meter of air

µg/m³ = micrograms per cubic meter of air

* Parenthetical value is an approximate equivalent concentration

Areas that do not meet these NAAQS standards are called non-attainment areas or maintenance areas; areas that meet both primary and secondary standards are known as attainment areas. The Federal Conformity Final Rule (40 CFR Parts 51 and 93) specifies criteria or requirements for conformity determinations for Federal projects. The Federal Conformity Rule was first promulgated in 1993 by the USEPA, following the passage of Amendments to the Clean Air Act (CAA) in 1990. The rule mandates that a conformity analysis must be performed when a Federal action generates air pollutants in a region that has been designated a non-attainment or maintenance area for one or more NAAQS.

A conformity analysis is the process used to determine whether a Federal action meets the requirements of the general conformity rule. It requires the responsible Federal agency to evaluate the nature of the proposed action and associated air pollutant emissions, calculate emissions as a result of the proposed action, and mitigate emissions if *de minimis* thresholds are exceeded.

Existing Conditions

Calcasieu Parish is currently in attainment for all NAAQS (USEPA 2008a).

5.5.2 Environmental Consequences and Mitigation Measures

5.5.2.1 No Action Alternative

Under the No Action Alternative, traffic volumes and air quality would continue at current levels. No localized or regional effects to air quality are expected.

5.5.2.2 Proposed Action Alternative

Temporary and minor increases in air pollution would occur from the use of construction equipment (combustible emissions) and the disturbance of soils (fugitive dust) during construction of the new AHPP housing and access roads. The following paragraphs describe the air calculation methodologies utilized to estimate air emissions produced by the installation of one housing unit.

Fugitive dust emissions were calculated using the emission factor of 0.19 ton per acre per month (Midwest Research Institute 1996), which is a more current standard than the 1985 PM-10 emission factor of 1.2 tons per acre-month presented in AP-42 Section 13 Miscellaneous Sources 13.2.3.3 (USEPA 2001).

USEPA's NONROAD Model (USEPA 2005) was used, as recommended by USEPA's *Procedures Document for National Emission Inventory, Criteria Air Pollutants, 1985-1999* (USEPA 2001), to calculate emissions from construction equipment. Combustible emission calculations were made for standard construction equipment, such as front-end loaders, backhoes, bulldozers, and cement trucks. Assumptions were made regarding the total number of days each piece of equipment will be used, and the number of hours per day each type of equipment would be used.

Construction workers would temporarily increase the combustible emissions in the airshed during their commute to and from the project area. Emissions from delivery trucks would also contribute to the overall air emission budget. Emissions from delivery trucks, construction worker commuters traveling to the job site were calculated using the USEPA MOBILE6.2 Model (USEPA 2005a, 2005b and 2005c).

The total air quality emissions were calculated for the construction activities to compare to the General Conformity Rule. Summaries of the total emissions for the Proposed Action Alternative are presented in Table 2. Details of the analyses are presented in Appendix D.

Table 2. Total Air Emissions (tons/year) from the Proposed Action Construction verses the *de minimus* Threshold Levels

Pollutant	Total (tons/year)	<i>de minimus</i> Thresholds (tons/year) ⁽¹⁾
CO	15.94	100
Volatile Organic Compounds (VOC)	3.06	100
Nitrous Oxides (NOx)	23.47	100
PM-10	7.57	100
PM-2.5	2.39	100
SO ₂	2.87	100

Source: 40 CFR 51.853 and GSRC model projections.

⁽¹⁾ Note that Calcasieu Parish is in attainment for all NAAQS.

Several sources of air pollutants would contribute to the overall air impacts of the construction project. The air results in Table 2 included emissions from:

1. Combustible engines of construction equipment
2. Construction workers commute to and from work
3. Supply trucks delivering materials to construction site
4. Fugitive dust from job site ground disturbances

As can be seen from the tables above, the proposed construction activities do not exceed Federal *de minimis* thresholds; thus, do not require a Conformity Determination. As there are no violations of air quality standards and no conflicts with the state implementation plans, there would be no significant impacts to air quality from the implementation of the Proposed Action Alternative.

Ongoing Air Emissions

Air emissions from the personally owned vehicles (POV) of the new residents of the AHPP units commuting to work and daily activities were not calculated. The new residents would most likely be from areas inside Calcasieu Parish that were devastated by Hurricane Rita. The air emissions would be transferring from one part of the airshed (Calcasieu Parish) to another.

As there are no violations of air quality standards and no conflicts with the state implementation plans, there would be no significant impacts to air quality from the implementation of the Proposed Action Alternative. Furthermore, during construction activities, proper and routine

maintenance of all vehicles and other construction equipment would be implemented to ensure that emissions are within the design standards of all construction equipment. Dust suppression methods would be implemented to minimize fugitive dust. In particular, wetting solutions would be applied to construction area to minimize the emissions of fugitive dust. By using these environmental design measures, air emissions from the Proposed Action Alternative would be temporary and should not significantly impair air quality in the region. On February 11, 2009, letters requesting project review was sent to USEPA and LDEQ (Appendix B). No response has been received to date.

5.6 Noise

5.6.1 Affected Environment

Noise is generally described as unwanted sound, which can be based either on objective effects (*i.e.*, hearing loss, damage to structures, *etc.*) or subjective judgments (*e.g.*, community annoyance). Sound is usually represented on a logarithmic scale with a unit called the decibel (dB). Sound on the decibel scale is referred to as sound level. The threshold of human hearing is approximately 0 dB and the threshold of discomfort or pain is around 120 dB.

Noise levels occurring at night generally produce a greater annoyance than do the same levels occurring during the day. It is generally agreed that people perceive intrusive noise at night as being 10 A-weighted decibel (dBA). A-weighted decibel is a measure of noise at a given, maximum level or constant state level louder than the same level of intrusive noise during the day, at least in terms of its potential for causing community annoyance. This perception is largely because background environmental sound levels at night in most areas are also about 10 dBA lower than those during the day. Acceptable noise levels have been established by the U.S. Department of Housing and Urban Development (HUD) for construction activities in residential areas:

Acceptable (not exceeding 65 dBA) – The noise exposure may be of some concern but common building construction will make the indoor environment acceptable and the outdoor environment will be reasonably pleasant for recreation and play.

Normally Unacceptable (above 65 but not greater than 75 dBA) – The noise exposure is significantly more severe. Barriers may be necessary between the

site and prominent noise sources to make the outdoor environment acceptable. Special building constructions may be necessary to ensure that people indoors are sufficiently protected from outdoor noise.

Unacceptable (greater than 75 dBA) – The noise exposure at the site is so severe that the construction costs to make the indoor noise environment acceptable may be prohibitive and the outdoor environment would still be unacceptable.

As a general rule of thumb, noise generated by a stationary noise source, or “point source,” will decrease by approximately 6 dBA over hard surfaces and 9 dBA over soft surfaces for each doubling of the distance. For example, if a noise source produces a noise level of 85 dBA at a reference distance of 50 feet over a hard surface, then the noise level would be 79 dBA at a distance of 100 feet from the noise source, 73 dBA at a distance of 200 feet, and so on. To estimate the attenuation of the noise over a given distance the following relationship is utilized:

$$\text{Equation 1: } dBA_2 = dBA_1 - 20 \log (d_2/d_1)$$

Where:

dBA_2 = dBA at distance 2 from source (predicted)
 dBA_1 = dBA at distance 1 from source (measured)
 d_2 = Distance to location 2 from the source
 d_1 = Distance to location 1 from the source

Source: California Department of Transportation 1998

5.6.2 Environmental Consequences and Mitigation Measures

5.6.2.1 No Action Alternative

Under the No Action Alternative, the AHPP units would not be constructed and there would be no noise impacts resulting from construction activities or increased vehicle traffic on local roads.

5.6.2.2 Proposed Action Alternative

The project site is located in an urban area with a number of sensitive noise receptors located within 500 feet of the construction site. The installation of the new AHPP units would require the use of common construction equipment. Table 3 describes noise emission levels for construction equipment which range from 70 dBA to 84 dBA (Federal Highway Administration 2007 [FHWA] 2007).

Table 3. A-Weighted (dBA) Sound Levels of Construction Equipment and Modeled Attenuation at Various Distances¹

Noise Source	50 feet	100 feet	200 feet	500 feet	1000 feet
Backhoe	78	72	68	58	52
Crane	81	75	69	61	55
Dump truck	76	70	64	56	50
Excavator	81	75	69	61	55
Front end loader	79	73	67	59	53
Concrete mixer truck	79	73	67	59	53
Pneumatic tools	81	75	69	61	55
Auger drill rig	84	78	72	64	58
Bull dozer	82	76	70	62	56
Generator	81	75	69	61	55

Source: FHWA 2007 and GSRC

¹The dBA at 50 feet is a measured noise emission (FHWA 2007). The 100 to 1,000 foot results are modeled estimates.

Assuming the worst case scenario of 84 dBA, the noise model projected that noise levels of 84 dBA from the bull dozer would have to travel 450 feet before they would be attenuated to acceptable levels of 65 dBA. To achieve an attenuation of 84 dBA to a normally unacceptable level of 75 dBA, the distance from the noise source to the receptor is 140 feet. Table 4 presents the number of sensitive noise receptors within 140 feet and 450 feet from the boundary of the construction site.

Table 4. Sensitive Noise Receptors in Close Proximity of Construction Site

Noise Receptor	Number of Units	Distance from Construction Site	Noise Exposure
Single Family Homes	25	Within 450 feet	Greater than 65 dBA and less than 75 dBA
Multiple Family Units	0	Within 450 feet	Greater than 65 dBA and less than 75 dBA
Single Family Homes	8	Within 140 feet	Greater than 75 dBA
Multiple Family Units	1	Within 140 feet	Greater than 75 dBA

The construction activities have the potential to expose sensitive receptors to noise emissions that are normally unacceptable. To minimize this impact, construction activities will be limited to daylight hours during the work week when most of the residents are at school or at work. The construction activities from the Proposed Action Alternative would not create significant impacts to sensitive noise receptors adjacent to the project sites if the construction activities are limited to 7:30 AM to 5:30 PM on Monday through Friday. Construction activities would not occur in the

late evenings and early mornings or on weekends and holidays. Noise impacts should be minor if these timing restrictions are implemented when constructing new homes and driveways. A figure illustrating the noise contours around the proposed project area can be found in Appendix A, Figure 5.

5.7 Biological Resources

5.7.1 Affected Environment

Regulatory Setting

The Endangered Species Act (ESA) establishes a Federal program to conserve, protect, and restore threatened and endangered plants and animals and their habitats. Section 7 of the ESA mandates that all Federal agencies must ensure that any action authorized, funded, or implemented is not likely to jeopardize the continued existence of a threatened or endangered species or result in the destruction of critical habitat for these species. To accomplish this, Federal agencies must consult with the U.S. Fish and Wildlife Service (USFWS) or the National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NOAA Fisheries) when taking action that has the potential to affect species listed as endangered or threatened or proposed for threatened or endangered listing.

The Migratory Bird Treaty Act (MBTA) makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird species listed in 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Disturbance that causes nest abandonment and/or loss of reproductive effort (*e.g.*, killing or abandoning eggs or young) may be considered take, and is potentially punishable by fines and/or imprisonment. If an action is determined to cause a potential take of migratory birds, as described above, then a consultation process with the USFWS needs to be initiated to determine measures to minimize or avoid these impacts. This consultation should start as an informal process.

The Bald and Golden Eagle Protection Act of 1940 (16 U.S.C 668; 50 CFR 22), as amended was originally passed in 1940 to protect bald eagles, the Eagle Act was amended in 1962 to protect golden eagles as well, by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C 668(a); 50 CFR 22). "Take" includes pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or

disturb (16 U.S. Code [U.S.C.] 668c; 50 CFR 22.3) (USFWS 2007). If an action is determined to cause a potential impact on bald or golden eagles then a consultation process with the USFWS would be initiated to determine measures to minimize or avoid these impacts. This consultation would start as an informal process.

The Magnuson-Stevens Fishery Conservation and Management Act (as amended), also known as the Sustainable Fisheries Act, requires all Federal agencies to consult with the NOAA Fisheries on activities or proposed activities authorized, funded, or undertaken by that agency that may adversely affect Essential Fish Habitat (EFH). The EFH provisions of the Sustainable Fisheries Act are designed to protect fisheries habitat from being lost due to disturbance and degradation.

Existing Conditions

Federally endangered and threatened animal species listed for Calcasieu Parish are listed in the Table 5 below.

Table 5. Federally Protected Species in Calcasieu Parish

Common name	Scientific Name	Status	Habitat
Bald eagle	<i>Haliaeetus eucocephalus</i>	Partial status: Threatened, Delisted in Louisiana	cypress swamps of coastal Louisiana
Red-cockaded woodpecker	<i>Picooides borealis</i>	Endangered	Mature longleaf pine forests and mixed pine-upland hardwood forests

Source: USFWS 2008, USFWS 2004)

In addition to the Federally listed species noted above, additional species are designated as state listed species also includes the following;

- Paddlefish (*Polydon spathula*), Prohibited (possession of this species is prohibited)
- Ornate box turtle (*Terrapene ornata*), Restricted Harvest (there are restrictions regarding the taking and possession of this species) (Louisiana Department of Wildlife and Fisheries [LDWF] 2007)

The project area has previously been disturbed and is maintained by mowing activities. The property is surrounded by urban and commercial development. A field survey was conducted at the proposed site on January 28, 2009 by GSRC. There were no trees within the project area;

however, there was a partially wooded lot containing several tall hardwood species located between the project area and Broad Street. These “park-like” wooded and mowed areas within the city provide limited amounts of wildlife habitat. Trees located on the periphery of the site included water oak (*Quercus nigra*), hackberry (*Celtis laevigata*), and sycamore (*Platanus occidentalis*). Vegetation on the site was primarily Bermuda grass (*Cynodon dactylon*) mixed with patches of crab grass (*Digitaria* sp.) and tall fescue (*Schedonorus phoenix*). Scattered forbs in the project area included Asiatic hawksbeard (*Youngia japonica*), pigweed (*Amaranthus* sp.), pennywort (*Hydrocotyle umbellata*), Carolina geranium (*Geranium carolinianum*), and Florida betony (*Stachys floridana*). Chinese privet (*Ligustrum sinense*), blackberry (*Rubus* sp.) and bamboo (*Bambusa* sp.) were growing on the eastern edge of the property along a chain-link fence.

Wildlife observed during the field survey included several eastern gray squirrel nests in the hardwood trees north of the project area and several birds on or flying over the site, and along the fence on the eastern boundary. Bird species observed included northern mockingbird (*Mimus polyglottos*), black-throated sparrow (*Amphispiza bilineata*), American crow (*Corvus brachyrhynchos*), pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), blue jay (*Cyanocitta cristata*), and eastern wood-pewee (*Contopus virens*).

5.7.2 Environmental Consequences and Mitigation Measures

5.7.2.1 No Action Alternative

This alternative does not include any FEMA action. Therefore, FEMA would not be required to consult with USFWS, NOAA Fisheries, or LDWF to comply with the ESA, MBTA, Bald and Golden Eagle Protection Act, Fish and Wildlife Coordination Act (FWCA), or the Sustainable Fisheries Act. Compliance with EO 13112 is also not required. The No Action Alternative does not have the potential to affect sensitive biological resources.

5.7.2.2 Proposed Action Alternative

Under the Proposed Action Alternative, approximately 5.0 acres of previously developed land would be cleared of vegetation, graded, and converted to AHPP housing. No mature woody vegetation would be lost as a result of the Proposed Action Alternative. Since the permanent housing site is surrounded, for the most part, by residential and commercial areas, there is only limited use of the site by common urban wildlife species.

A site visit conducted by a GSRC biologist on January 28, 2009, confirmed that the proposed project site does not contain habitat for any Federally or state listed flora and fauna species; therefore, it is unlikely that any threatened and endangered species would be impacted by the proposed project. A letter requesting project review was sent to USFWS and LDWF on February 11, 2009 (Appendix B); to date no response has been received.

5.8 Cultural Resources

5.8.1 Affected Environment

Regulatory Setting

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

The Section 106 process includes identifying significant historic properties and districts that may be affected by an action and mitigating adverse effects on properties listed, or eligible for listing, in the NRHP (36 CFR 60.4). FEMA, Louisiana SHPO, Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP), formerly the Louisiana Office of Homeland Security and Emergency Preparedness (LOHSEP), and the ACHP have executed a Programmatic Agreement (PA) to streamline the Section 106 review process. A copy of the PA for Louisiana is provided on the FEMA website site at <http://www.fema.gov/plan/ehp/hp/programmatic.shtm>.

Existing Conditions

There are no historic districts within the project area however; there are 11 NRHP-registered properties and one historic district (Charpentier Historic District) within Lake Charles, Louisiana. None of the NRHP-listed structures are within 1 mile of the proposed project site; and the closest of which is McNeese State University Auditorium which is approximately 3.4 miles away from the proposed project area (National Park Service 2008).

A preliminary site visit was conducted on January 28, 2009 by a GSRC archeologist, qualified under Secretary of the Interior's Professional Qualification Standards (36 CFR Part 61). The

proposed project undertaking would occur on vacant lots in a previously developed subdivision. The landscape was highly disturbed in the process of the subdivision construction. No historic structures or other cultural resources were observed on the vacant lots or in the immediate vicinity.

The proposed 5.0-acre Area of Potential Effect (APE) is located south of Highway 90 (Broad Street), north of 2nd Street, and east of 6th Avenue (Appendix A, Figure 2). The APE is partially bounded to the south, east, and west by residential communities and to the north by commercial properties along the highway. The APE consists of a previously developed subdivision with existing infrastructure including roads and municipal utility service. The proposed homesites consist of previously disturbed land, which has been filled, cleared, and graded and is predominately re-vegetated with grasses. The proposed project area has no record of having been previously surveyed. A records search for previously reported sites and cultural resources surveys within one-mile of the proposed project area was conducted at the Louisiana Division of Archaeology in Baton Rouge, Louisiana. One archaeological survey conducted by Parsons Engineering (1998) for the Department of the Army was conducted within one-mile of the project area and reported no cultural resources. Additionally, the records search revealed no archeological sites or historic districts reported within one-mile of the project area. Within the City of Lake Charles, there are 11 NRHP-registered properties and one historic district (Charpentier Historic District), however, none of the NRHP-listed structures are within 1 mile of the proposed project site. The closest is McNeese State University Auditorium which is approximately 3.4 miles away from the proposed project area (National Park Service 2008).

The house lots upon which the AHPP cottages would be constructed are located in a previously developed subdivision that has been cleared, graded and has had roads, water, sewer and electric utilities installed. No historic structures or other cultural resources were observed on the properties or in the immediate vicinity. If cultural resources ever were located on the proposed project property they were likely disturbed by the previous development episode. Within the view shed of the project area, defined as line of sight, the commercial buildings are of modern construction age. Older homes within view shed of the property are in excess of 50 years in age and fall within the Craftsman architectural style inspired by the Arts and Crafts Movement of the early to mid 20th century. Houses of this style are very common to the area and have been well documented. These older houses within the viewshed are not eligible for the NRHP.

5.8.2 Environmental Consequences and Mitigation Measures

5.8.2.1 No Action Alternative

This alternative does not include any FEMA undertaking. Therefore, no cultural resources review would be required of FEMA under Section 106 of the NHPA or the PA. Since FEMA does not participate in any activities under the No Action Alternative, it does not need to take into consideration individuals, local governments, or the State's actions on historic structures. Neither would FEMA need to take into consideration impacts to archaeological resources associated with built-environment resources, or coincidentally in proximity to such resources under the No Action Alternative.

5.8.2.2 Proposed Action Alternative

The Proposed Action would include the construction of approximately 34 AHPP dwellings on a developed 5.0-acre plot of land located in Lake Charles, Louisiana. The construction plan for these AHPP cottages could require some ground disturbance including possible contouring and grading, if necessary, and construction of driveways and tie-in of houses into existing water and sewer infrastructure for each individual cottage. Much of this ground disturbance has already occurred during the original development of the subdivision. Even with the possibility of some ground disturbance occurring and based on the records review and site visit of the proposed site and the likelihood of the ground disturbance, FEMA has determined that no historic properties will be impacted and any impact to intact cultural resources would be minimal and not anticipated through the implementation of the Proposed Action Alternative.

In the event that archaeological deposits, including any Native American pottery, stone tools, or human remains, are uncovered, the project would be halted. LRA or their contractor would stop all work immediately in the vicinity of the discovery and take reasonable measures to avoid or minimize harm to the finds. All archaeological findings would be secured and access to the sensitive area restricted. The LRA would inform FEMA immediately and FEMA would consult with the SHPO or THPO and interested tribes. Work in sensitive areas would not resume until consultation is completed and appropriate measures have been taken to ensure that the project is in compliance with the NHPA. On February 19, 2009, a letter requesting project review and a determination of eligibility was sent to SHPO (Appendix B). No response has been received to date.

5.9 Socioeconomics

5.9.1 Affected Environment

Regulatory Setting

EO 12898 (Federal Actions to Address Environmental Justice in Minority and Low-Income Populations) requires Federal lead agencies to ensure rights established under Title VI of the Civil Rights Act of 1964 when analyzing environmental effects. FEMA and most Federal lead agencies determine impacts on low-income and minority communities as part of the NEPA compliance process. Agencies are required to identify and correct programs, policies, and activities that have disproportionately high and adverse human health or environmental effects on minority or low-income populations. EO 12898 also tasks Federal agencies with ensuring that public notifications regarding environmental issues are concise, understandable, and readily accessible.

EO 13045 (Protection of Children from Environmental Health Risks and Safety Risks) requires Federal agencies to identify and assess health risks and safety risks that may disproportionately affect children. As with EO 12898, FEMA and most Federal lead agencies determine impacts on children as part of the NEPA compliance process.

Existing Conditions

The Region of Influence (ROI) for the proposed project is Calcasieu Parish, Louisiana. Calcasieu Parish is one of 64 parishes in Louisiana and it is part of the Lake Charles Metropolitan Statistical Area (MSA). In 2006, the parish had a population of 183,426, and ranked 7th in the State (U.S. Bureau of Economic Analysis [BEA] 2004).

The estimated population of the City of Lake Charles for 2006 was 70,224, which constituted 61 percent of the total population of Calcasieu Parish. This figure is slightly below the 2000 and 1990 populations of 71,757 and 70,580, respectively (U.S. Census Bureau 2004). The predominant race in the city is Caucasian (50.2 percent) followed by 46.8 percent African-American. People claiming to be of some race other than Caucasian, African-American, Native American, Asian, Native Hawaiian, and other Pacific Islander constituted 1.8 percent of the population. Only 1.8 percent of the population of the City of Lake Charles claim to be of Hispanic origin (U.S. Census Bureau 2004). According to the U.S. Census Bureau, the population of Calcasieu Parish consisted of approximately 27.8 percent minorities and 15.6 percent of low-income families in contrast to the U.S population of 26.1 percent minorities and

13.3 percent low income families (U.S. Census Bureau 2000).Of the total population of Calcasieu Parish, 27.4 percent is comprised of children under the age of 18 (U.S. Census Bureau 2000).

The total number of jobs in the study area in 2003 was 102,258, an increase of 16 percent over the 1993 number of jobs of 85,426 (BEA 2004). Management, professional, and related occupations were the largest employment group, followed by the sales and office occupations, and service jobs. The 2000 annual average unemployment rate for Calcasieu Parish was 5.5 percent (U.S. Census Bureau 2000). This is higher than the average annual unemployment rate for the State of Louisiana at 4.3 percent (U.S. Census Bureau 2004).

The total number of housing units in the ROI was 75,995 in 2000 (U.S. Census Bureau 2000). This represents less than 1 percent of the total housing units reported for the State. Of the housing units within Calcasieu Parish, 8,613 (90 percent) are occupied and the remaining 7,382 (10 percent) are vacant. Approximately 54 percent (37,289) of the occupied housing units are owner occupied, while 28 percent (19,402) are renter occupied (U.S. Census Bureau 2000). The number of households within Calcasieu Parish grew from 60,328 in 1990 to an estimated 68,613 in 2000. This represents a 10-year growth rate of 12 percent for the parish (U.S. Census Bureau 2000).

5.9.2 Environmental Consequences and Mitigation Measures

5.9.2.1 No Action Alternative

Although there is no requirement for compliance with EOs 12898 and 13045 when there are no Federal actions, the No Action Alternative would likely result in disproportionate health and safety risks to low-income and minority persons and to children, as these groups will be most likely to be affected by the lack of permanent housing.

Displaced persons currently residing with family members or friends, in hotels, in temporary dormitories, or in structurally unsafe or unsanitary facilities would result in adverse socioeconomic and public safety impacts. The hosts would suffer the economic effects of these living arrangements from expending additional living expenses, such as food and increased utility use. In many cases, displaced residents would be subject to adverse financial impacts due to the relocations by being distant from their places of employment. Further, the hosts and displaced residents could endure emotional stress associated with the disruption of their normal

lives. For persons who attempt to occupy structurally unsafe or unsanitary facilities, public safety associated with building collapse and transmission of disease is a high risk.

5.9.2.2 Proposed Action Alternative

The Proposed Action is not expected to pose disproportionately high and adverse public health or environmental effects on minority or low-income populations. The availability of Federal assistance, including AHPP housing for displaced individuals, is consistent with EO 12898. All forms of FEMA disaster housing assistance are available to any affected household that meets the conditions of eligibility and demographics are not among the eligibility requirements.

Implementation of the Proposed Action Alternative would result in beneficial economic impacts. The availability of AHPP housing would result in a positive impact to displaced individuals regardless of their race or economic status.

Any development such as the Proposed Action Alternative would alter housing values in the surrounding neighborhoods. Whether these impacts are beneficial or negative are unknown at this time.

5.10 Traffic and Transportation

5.10.1 Affected Environment

Louisiana Department of Transportation and Development (LaDOTD) is responsible for the design, construction, and maintenance of the State's highway system, as well as the portion of Federal interstate highways within Louisiana's boundaries. Arterials, connectors, rural roads, and local roads are constructed and maintained by county or city governments. The Lake Charles District of LaDOTD (District 7) consists of a five parish region around Lake Charles and includes Allen, Beauregard, Calcasieu, Cameron, and Jefferson Davis Parishes. As shown below in Table 5, Calcasieu Parish has an extensive network of Federal (Interstates [I]) and US highways [US]) and state highways [LA] throughout the program area.

Existing Conditions

The State provides actual traffic counts along various highways for the year 2004, 2005 and 2006, depending on the parish. Traffic counts are given in units of Average Annual Daily Traffic (AADT). As shown below, in Calcasieu Parish the highest of the traffic counts on Federal highways was on the interstate system of I 10 with counts ranging from 25,677 to 64,770. On

other Federal highways (US 90 and US 171) counts ranged from as low as 2,532 to as high as 26,881. State highway traffic counts ranged from 1,023 to 29,063 AADT (LaDOTD 2008).

Table 6. Federal and State Major Highways with Traffic Counts within the Project Area

Parish	Highways	AADT (2007)
Calcasieu	I 10	25,677 – 64,770
	I 210	19,430 – 34,564
	US 90 (Broad Street)	2,532 – 15,879
	US 171	15,106 – 26,881
	LA 12	2,799-13,469
	LA 14	3,380 – 29,063
	LA 27	5,603 – 22,208
	LA 109	1,023 – 3,989

Source: LaDOT 2008

The proposed project site is located in Lake Charles, Calcasieu Parish Louisiana and is bordered on the west by 6th Avenue and the north by commercial properties along Broad Street (Highway 90), on the east by 7th Street and residential properties, and on the south by 2nd Street. There are two city bus stops, both of which are on 3rd Street, near the proposed ingress and egress to the development. One stop is at the corner of 6th Avenue and 3rd Street approximately 850 feet south of the proposed development. The other bus stop is at the intersection of 8th Avenue and 3rd street, approximately 0.25 mile southeast of the proposed site. In addition, the Lake Charles Regional Airport is approximately 1.75 miles east of the proposed site. Interstate 10 (I-10) and I-210 are a major arteries through Lake Charles and are located approximately 0.7 mile north, and 1.1 mile east, respectively, of the proposed project site. A transportation map is provided (Appendix A, Figure 6).

5.10.2 Environmental Consequences and Mitigation Measures

5.10.2.1 No Action Alternative

Under the No Action Alternative there would be no AHPP units constructed, and displaced residents would continue to utilize temporary housing. There would be no effect on traffic or transportation.

5.10.2.2 Proposed Action Alternative

The Proposed Action Alternative would result in increased traffic volumes associated with site preparation, construction, and installation of the AHPP units. To minimize adverse impacts to traffic resulting from construction equipment, traffic along adjacent roadways will be temporarily

rerouted as necessary during construction, traffic lane closures will be coordinated with the appropriate local government, equipment staging and worker POVs would be sited to hinder the traffic flow as little as possible in the areas where the actions are implemented, and adjacent residential neighborhoods and commercial/industrial areas will be notified in advance of construction activities and any rerouting of local traffic.

Traffic volumes would also increase in the vicinity of the Proposed Action Alternative site from new residents. However, the increase in traffic volumes resulting from the Proposed Action would be negligible relative to total traffic volume capacities local to the project site. Therefore, the level of service (LOS) on the ingress and egress street would not be less than development of the property under the No Action Alternative.

Current zoning for the approximate 5.0-acre parcel is divided between two designated uses. According to a zoning map published by the City of Lake Charles dated March 5, 2008, the northern portion of the property is zoned for business, while the southern portion is zoned for mixed uses (City of Lake Charles 2008).

There is public transportation within 1000 feet of the AHPP group housing site. If the State determines that this level of public transportation is insufficient, the State will consult with the City of Lake Charles to identify measures that may be implemented to ensure that the project does not impact public transportation.

5.11 Hazardous Materials and Wastes

5.11.1 Affected Environment

5.11.1.1 Regulatory Setting

Hazardous materials and wastes are regulated in the U.S. under a variety of Federal and state laws. Federal laws and subsequent regulations governing the assessment, transportation, and disposal of hazardous materials and wastes include the Resource Conservation and Recovery Act (RCRA); the RCRA Hazardous and Solid Waste Amendments; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Solid Waste Act; the Toxic Substances Control Act (TSCA); and the CAA. RCRA is the Federal law that regulates hazardous waste. RCRA regulates hazardous waste from “cradle to grave,” that is, from the time the waste is generated through its management, storage, transport, treatment, and final disposal. USEPA is responsible for implementing this law and has delegated this responsibility

to the State of Louisiana. RCRA also sets forth a framework for the management of non-hazardous wastes. The 1986 amendments to RCRA enable USEPA to address the environmental problems that can result from underground tanks storing petroleum and hazardous substances. RCRA focuses only on active and proposed facilities, and does not address abandoned or historical sites.

TSCA gives USEPA the ability to track the approximately 75,000 industrial chemicals currently produced or imported into the U.S. USEPA repeatedly screens these chemicals, and can require reporting or testing of those that may pose an environmental or human-health hazard. USEPA may ban the manufacture and import of those chemicals that pose an unreasonable risk and control these chemicals as necessary to protect human health and the environment.

5.11.1.2 Existing Conditions

GSRC contracted Environmental Data Resources Inc. (EDR) to search Federal and state databases for any contaminant that could constitute an environmental risk to the project area within a search radius as defined by American Society for Testing and Materials (ASTM) 2006 guidelines (ASTM E1527-05). Upon review by GSRC, the radius report revealed two findings of leaking underground storage tanks (LUST) within the search radius that were unresolved (EDR 2009). The two fuel releases originated from:

Homsi's Deli (formerly Shell #11) located at 2122 Broad Street, Lake Charles, LA 70601. This business is located approximately 0.045 mile northwest of the project area and is relatively lower in elevation (9 feet amsl) than the project area (13 feet amsl).

R&D Gas Station located at 2002 Broad Street, Lake Charles, LA 70601. This business is situated approximately 0.265 miles west of the project area and is relatively lower in elevation (10 feet amsl) than the project area (13 feet amsl).

In an attempt to verify the closure status of these LUST incidents, GSRC searched LDEQ's Electronic Document Management System (EDMS). According to documents posted on EDMS, both of these releases were associated with Hurricane Rita. In both cases, a site assessment and a Risk Evaluation/Corrective Action Program were submitted to LDEQ, but to date a closure document has not been posted for either incident.

In addition, a site visit along with a reconnaissance of the nearby properties by GSRC on January 28, 2009 concluded that these sites although of environmental concern do not constitute a significant risk to the proposed 5.0-acre AHPP group site. On February 11, 2009, a letter requesting project review was sent to USEPA and LDEQ (Appendix B). No response has been received to date.

5.11.2 Environmental Consequences and Mitigation Measures

5.11.2.1 No Action Alternative

Although the No Action Alternative would not actively use hazardous materials or generate hazardous wastes, it may prolong the exposure of individuals to storm generated wastes that evacuees may be exposed to. Residents who find themselves without alternative housing may continue to live in substandard housing contaminated by hazardous materials or wastes, such as petro-chemicals (from ruptured storage tanks), air-borne asbestos (from damaged asbestos-containing materials), or lead-paint chips (from peeling surfaces). Further, temporary dormitories not typically used as shelters could contain lead-based paint or other sources of hazardous materials or wastes.

5.11.2.2 Proposed Action Alternative

A site visit along with a reconnaissance of the nearby properties by GSRC on January 28, 2009 concluded that the LUST sites noted above although of environmental concern do not constitute a significant risk to the proposed 5.0-acre AHPP group housing site.

Any hazardous materials used in the site preparation or installation of the AHPP housing complex would be used and disposed of in accordance with Federal, state, and local regulations. If any hazardous wastes are confirmed or suspected at the site, the State would follow local, state, and Federal regulations for the handling, transport, and disposal of these substances prior to the installation of AHPP units. FEMA and the State would coordinate with State and local agencies, and the USEPA, as appropriate.

SECTION 6.0
CUMULATIVE IMPACTS

6.0 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 AHPP in Louisiana and other actions occurring or proposed in the vicinity of the proposed project sites.

The entire Louisiana Gulf Coast is undergoing recovery efforts after Hurricanes Katrina and Rita caused extensive damages. The recovery efforts in the area include demolition, reconstruction, and new construction both within the private and non profit sector as well as projects by Federal and state agencies. These projects and the proposed AHPP actions may have impacts to the proposed project areas and their surroundings.

Calcasieu Parish

The Parish Recovery Planning Tool (RPT) created by the Louisiana Long-term Community Recovery (LTCR) planning team, allowed LTCR parish teams, federal and state agencies, local parish governments, the general public and displaced Louisianans access to the planning process. The Louisiana Speaks parish planning component indicates that in Calcasieu Parish “Revitalizing Downtown Lake Charles” is the highest priority for residents. The RPT would be a reference for much of the past, present, and reasonably foreseeable future actions associated with Hurricane Rita in Calcasieu Parish (Louisiana Speaks 2006).

Calcasieu Parish has begun numerous recovery projects that have to do with environmental management, housing and community development, economic, workforce development, public health and health care, transportation and infrastructure, human services, public safety, and flood problems and costal restoration (Louisiana Speaks 2006).

In addition, PBAF and the HFH, in conjunction with the City of Lake Charles, are using AHPP funds to purchase and construct 30-60 AHPP housing units throughout the City of Lake Charles.

A Programmatic Environmental Assessment is being performed to analyze any impacts of the AHPP housing to the natural environment.

City of Lake Charles

Lake Charles' Hurricane Rita Recovery Plan has considered several plans and concepts to reinvigorate the downtown business core and the public civic center area in recent decades. The LRA initiated Hurricane Rita Recovery Planning with a team of high-profile architects and planners. Initiatives under this plan include:

- Renovation of Amphitheater; Relocation and modification of streets; Park Improvements; Creation of Plazas; Seawall Amenities; Infrastructure and Utilities; and Street Improvements at the south end of the Civic Center Ground at a cost of \$14.5 million.
- North of Civic Center Grounds \$ 250,000.
- A possible site of Wetlands Center; Infrastructure & Utilities. North of Civic Center Grounds. At a cost of \$250,000.
- \$ 250,000 for new infrastructure and utilities.
- \$ 25 million for seawall construction; dredging lake fill; and boardwalk.
- A recreational area at North Beach and a 6000 square-foot community center building at a cost of \$1.8 million.
- Transportation downtown core and Lakefront addition including streetscape and calming at a cost of \$ 15.4 million (City of Lake Charles 2007).

SECTION 7.0
PUBLIC INVOLVEMENT



7.0 Public Involvement

Public involvement is being performed in compliance with NEPA, FEMA's regulations implementing NEPA at 44 CFR 10.9(c), and EOs 12898, 11988, and 11990. An electronic version of this draft EA will be provided to interested agencies prior to and during the public comment period. Agency coordination and consultation will be deemed complete at the end of the public comment period. All agency and public correspondence is provided in Appendix B. In addition, the LRA, the City of Lake Charles, PBAF, and HFH conducted a public meeting on January 28, 2009 to discuss with the community the AHPP initiative in Lake Charles and potentially address any concerns.

A Public Notice is being published in the *American Press* newspaper and is included in Appendix B. The public comment period will be for 15 days from February 20, 2009 through March 6, 2009. Written comments on the draft EA can be faxed to FEMA at (504) 762-2527. The draft EA can be viewed and downloaded from FEMA's website at <http://www.fema.gov/plan/ehp/envdocuments/ea-region6.shtm>. Comments via email can be sent to EAComments@dhs.gov. The draft EA is also available for public review at the Carnegie Memorial, 411 Pujoe Street, Lake Charles, Louisiana 70605. If no substantive comments are received, the draft EA will become final, a FONSI will be issued, and the initial Public Notice will also serve as the final Public Notice. Substantive comments will be addressed as appropriate in the final EA.

SECTION 8.0
AGENCY COORDINATION



8.0 Agency Coordination

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

Federal

- U. S. Fish and Wildlife Services (USFWS)
- Natural Resources Conservation Service (NRCS)
- U.S. Environmental Protection Agency (USEPA)
- National Oceanic and Atmospheric Administration (NOAA)
- U.S. Army Corps of Engineers (USACE)

State

- Louisiana Department of Wildlife and Fisheries (LDWF)
- Louisiana Department of Environmental Quality (LDEQ)
- Office of Culture, Recreation and Tourism, State Historic Preservation Officer (SHPO)

SECTION 9.0
LIST OF PREPARERS



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SECTION 10.0
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