

Falstaff Brewery, Grace United Church, McDonough No. 11 School, McDonough No. 30 School, Pumping Station No. 15, and St. Joseph's Catholic Church.

As a result of damages from Hurricane Katrina, VA decided to repair or replace the existing New Orleans VAMC addressed at 1601 Perdido Street. On 17 July 2008, VA notified SHPO that it was initiating consultation pursuant to Section 106 of the NHPA for this undertaking (Appendix C).

As a result of damages from Hurricanes Katrina (DR-1603-LA) and Rita (DR-1607-LA), FEMA received a request from the State OFPC to provide assistance to MCLNO located at 1532 Tulane Avenue. On 17 July 2008, FEMA notified SHPO that it was initiating consultation pursuant to Section 106 of the NHPA for this undertaking (Appendix C).

HUD Environmental Review regulations (24 CFR Part 58) require the recipient of CDBG assistance to assume responsibility for "environmental review, decision making, and action that would otherwise apply to HUD under NEPA and other provisions of law that further the purposes of NEPA." HUD granted the State of Louisiana CDBG Disaster Assistance funds for the purposes of reestablishing the healthcare system and medical training centers damaged by Hurricane Katrina in New Orleans, Louisiana, specifically the VAMC and MCLNO. The State, in turn, will grant a portion of those funds to the City for acquisition of the VAMC site.

As the sub-grantee of CDBG Disaster Assistance funds, the City is designated the "Responsible Entity" for purposes of HUD environmental compliance, including HUD's compliance with Section 106 of the NHPA. The City has been involved in the Section 106 consultation process for the VAMC and MCLNO Section 106 projects from the beginning and has fully and actively participated in every aspect of the historic review process, including consulting party meetings, review of the draft PA, and extensive discussions of appropriate mitigation measures. The City sent a letter of intent to adopt the current historic review process as its own in fulfillment of all legal obligations under HUD regulations on 7 October 2008 (Appendix C). For more information, see 24 CFR Part 58 and 36 CFR Part 800.2(a).

VA, FEMA, and the City initiated consultation with consulting parties on 24 June 2008, in a meeting in New Orleans. In accordance with 36 CFR Part 800, the Federal agencies identified consulting parties in consultation with SHPO, including organizations that had participated in previous meetings with VA, as well as owners of individually listed or eligible properties within the footprints of the alternatives. At the first meeting held 24 June 2008, VA and FEMA outlined their separate undertakings, responded to questions and concerns about the undertakings, and outlined the Section 106 compliance process. VA and FEMA convened a second consultation meeting in New Orleans on 23 July 2008, to discuss the APEs for each of the alternatives and to identify and evaluate the historic properties located within the APEs.

VA and FEMA convened a third consultation meeting on 12 August 2008 to update the consulting parties regarding 1) the inclusion of the Lindy Boggs alternative site for the VAMC, 2) the status of the methodology for review of archaeological properties, 3) discussion of the anticipated adverse effects to historic buildings and structures within the APEs (except for the area associated with the Lindy Boggs site), and 4) consulting party suggestions for treatment

measures to resolve anticipated adverse effects. A fourth meeting was held on 25 September 2008. The primary focus of this meeting was the current status of the draft PA.

In addition to comments and questions presented during the meetings, consulting parties were given the opportunity to provide written comments in the two weeks following each meeting, with the exception of the fourth and final meeting after which consulting parties had five days to comment. Following the posting of the PA on 16 October 2008, consulting parties were given seven days to submit written comments. Requests for input regarding potential effects, notices of identification and evaluation of historic properties, and findings of potential adverse effects were printed in the local daily newspaper, *The Times-Picayune*, the local weekly paper, *Louisiana Weekly*, as well as on the project website.

3.5.3 Historic Buildings

3.5.3.1 Existing Conditions – Historic Buildings

Existing Locations

The Mid-City NRHD, also known as the Upper Canal Historic District, is roughly bounded by Derbigny Street, City Park Avenue, Conti Street, and I-10/Claiborne Avenue and consists of approximately 8,500 acres (figure 3-4). The district contains a collection of buildings, primarily residential, that represent the building types and styles from 1860 to 1943. When nominated in 1993, a survey by Koch and Wilson found that 85 percent of the buildings in the district were contributing elements. Of the 4,489 buildings in the NRHD at the time of nomination, nearly half were a form of shotgun house, a narrow gable-front dwelling which is one-room wide and predominantly located in urban areas. Double shotguns are two adjacent shotguns with a family on each side. A distinctly Southern type of home, shotguns in New Orleans are unique in that most are stylized. At the time of nomination, approximately 83 percent of Mid-City buildings displayed a form of architectural style. These styles include but are not limited to Eastlake, Greek Revival, Queen Anne revival, and bungalow (Craftsman). Other types of buildings in Mid-City include creole cottages, a gable-ended 18th and 19th century style of home 1.5 stories tall, with sidehalls, often described as shotguns with a hallway to the left or right; bungalows, single living units one story high and two rooms wide; and New Orleans raised basements, a bungalow set atop another story. Mid-City was also comprised of commercial buildings representing 12 percent of the total building stock and institutional buildings, many highly stylized, comprising 2 percent of the total number of buildings.

FEMA sent teams of *Secretary of the Interior* qualified architectural historians to survey the Mid-City NRHD in 2007. In August 2008, the Keeper of the National Register altered the boundaries of Mid-City to exclude blocks that had suffered an unacceptable loss of integrity. At the time of the evaluation it had been 14 years since the district was nominated and many of the buildings had been damaged by natural forces. While the total number of buildings in the district dropped from 4,489 to 4,339, 85 percent of buildings in Mid-City still contribute to the NRHD. Shotguns and double shotguns now represent nearly 60 percent of the total building stock. Only 40 percent of the district still possesses architectural style.

The proposed NOMHD is a collection of hospitals, medical schools, and associated support facilities located in downtown New Orleans near the Lower Central Business District. Roughly bounded by Tulane Avenue, South Liberty Street, Gravier Street, LaSalle Street, Perdido Street, and South Claiborne Avenue, the district includes 15 contributing elements and three non-contributing elements. These facilities, built between 1920 and 1950, are eligible for the NRHP as a district under *Criterion A: Health/Medicine* for their “role in providing healthcare to the people of New Orleans and training the state’s medical personnel” (Slattery 2006). On 16 January 2006, FEMA sent a determination of eligibility to the SHPO for the proposed NOMHD to be listed in the NRHP (Appendix C). The SHPO concurred with FEMA’s findings on 23 January 2006 (Appendix C).

The existing New Orleans VAMC, which lies within the boundaries of the proposed NOMHD, was determined to be eligible as a contributing element to the district. The existing VAMC was constructed in 1952 with 11 stories above grade, a basement, and a sub-basement. The facility also included a six-story Managers’ and Nurses’ Quarters, which has since been converted into administrative offices. The Managers’ and Nurses’ Quarters is also a contributing element to the proposed NOMHD. The campus was expanded to include a boiler plant in the 1950s, a nine-story research clinic in 1982, and a multi-story parking structure in the 1990s (VA 2006). In all, the VAMC campus encompasses approximately 10 acres in the area bounded by Freret Street, Gravier Street, Perdido Street, and South Claiborne Avenue. Properties within the existing VAMC campus and their contributing status within the proposed NOMHD are presented in Table 3-1.

Table 3-1. Buildings Comprising the Existing VAMC Campus and their Contributing Status within the Proposed NOMHD

| Building | Address | Contributing Status |
|---------------------------------|---------------------------------|--|
| VA Hospital | 1601 Perdido Street | Contributing element to proposed NOMHD |
| VA Managers and Nurses Quarters | Gravier Street | Contributing element to proposed NOMHD |
| Clinical Addition | Gravier Street at Freret Street | Noncontributing |
| Parking Garage | Perdido Street at Freret Street | Noncontributing |
| Boiler Plant | Freret Street | Noncontributing |

Charity Hospital is one of 23 buildings that comprise the MCLNO campus (illustrated by the buildings outlined in orange, purple, and yellow on figure 1-1). Like the existing VAMC, Charity Hospital is within the proposed NOMHD and is considered the cornerstone of the district. The eligibility statuses of all 23 MCLNO buildings are provided in Table 3-2.

The current Charity Hospital was constructed in 1939 and is one of the premier examples of Art Deco style in the State. It features a limestone exterior with stylized reliefs and lettering, some rounded corners on the first story, a highly decorative entry, and aluminum embellishment. At its tallest point, Charity is 20 stories high. The building was designed by the architectural firm of Weiss, Dreyfous, and Seiferth, a favored company of Governor Huey P. Long. Long also commissioned the firm to design the State Capitol in Baton Rouge, completed in 1929 (Slattery

2005). Although management of Charity has frequently shifted between Tulane and LSU, Charity became a permanent part of LSU in 1997 and was renamed the MCLNO. Frequent renovations have not diminished its historical integrity and the building was determined eligible by FEMA in 2005 under *Criterion C: Architecture*, as well as under *Criterion A: Health/Medicine*.

Table 3-2. Historic and Non-Historic Properties Within the MCLNO Campus

| Building | Address | Contributing Status |
|-----------------------------------|------------------------------|--|
| Charity Hospital | 1532 Tulane Avenue | Determined individually eligible for listing in the NRHP by FEMA in 2005 |
| Dibert Memorial Building | 340 Claiborne Avenue | Contributing element to proposed NOMHD |
| Lapeyre and Miltenberger Building | 1550 Tulane Avenue | Contributing element to proposed NOMHD |
| General Services Building | 1508 Gravier Street | Contributing element to proposed NOMHD |
| Power House | 422 Freret Street | Contributing element to proposed NOMHD |
| Maintenance | 433-435 LaSalle Street | Contributing element to proposed NOMHD |
| Delgado Building | 1545 Tulane Avenue | Contributing element to proposed NOMHD |
| Butterworth Building | 1541 Tulane Avenue | Contributing element to proposed NOMHD |
| Laundry Building | 405 LaSalle Street | Contributing element to proposed NOMHD |
| Warehouse | 1523 Perdido Street | Not contributing to NOMHD |
| East Pavillion | 422 Freret Street | Not contributing to NOMHD |
| West Pavillion | 1532 Tulane Avenue | Not contributing to NOMHD |
| Emergency Generator Building #1 | 1508 Gravier Street | Not contributing to NOMHD |
| New Generator Building | 1550 Tulane Avenue | Not contributing to NOMHD |
| Twin Generator Building | 1532 Tulane Avenue | Not contributing to NOMHD |
| Serving Tunnels | 1532 Tulane Avenue | Not contributing to NOMHD |
| LSU Interim Hospital | 2021 Perdido Street | Not contributing to NOMHD |
| Power Plant | 2015 Gravier Street | Not contributing to NOMHD |
| Laboure Building | 505-509 South Johnson Street | Not contributing to NOMHD |
| Seton Professional Building | 2025 Gravier Street | Not contributing to NOMHD |
| OB/GYN Building | 2100 Perdido Street | Not contributing to NOMHD |
| Pediatric Emergency Center | 2010 Gravier Street | Not contributing to NOMHD |
| Beasley Building | 136 South Roman Street | Not contributing to NOMHD |

In the days following Hurricane Katrina, the buildings in the downtown area flooded, including the basement and sub-basement of both the VA Hospital and Charity Hospital. The facilities

went without electrical power for weeks. Without air conditioning, mildew and mold spread throughout both facilities. At Charity Hospital, the storm damaged the roof and windows, allowing water to leak into the building, and patients and staff were forced to remain without power or sewer functions (Blitch Knevel Architects 2008). Charity Hospital is closed and has not been occupied by patients since it was evacuated following the hurricane. Other historic buildings within the MCLNO campus have continued to operate at a reduced capacity. Since December 2005, the VAMC has operated a primary care clinic on the tenth floor of the parking structure; the ninth and tenth floors formerly housed the VAMC's nursing home facility. A specialty clinic opened in March 2006 on the ninth floor (VA 2006).

Alternative #1 – Proposed Actions – Tulane/Gravier Locations

The proposed VAMC Tulane/Gravier site, as provided by RPC, is bounded to the northeast by Canal Street, the southeast by South Galvez Street, the southwest by Tulane, and the northwest by South Rocheblave Street. The site includes within its boundary the 2200, 2300, and 2400 blocks of Banks Street, Cleveland Avenue, and Palmyra Street, and the 100-300 blocks of South Miro and South Tonti Streets. The site occupancy map shows the proposed VAMC site is comprised of 184 parcels (figure 3-2; USRM 2008a). The proposed LSU AMC site is bounded by Canal Street on the northeast, Tulane Avenue to the southwest, South Galvez Street to the northwest, and I-10/Claiborne Avenue to the southeast (figure 3-3). The proposed VAMC and LSU AMC sites are adjacent to one another, separated only by South Galvez Street.

The proposed VAMC and LSU AMC sites are located in the Tulane/Gravier area northwest of the Central Business District and southwest of the Mid-City neighborhood (figure 3-1). South Broad Street, two blocks northwest of South Rocheblave Street, is the dividing line between the Tulane/Gravier and the Mid-City neighborhoods. Both neighborhoods are almost entirely within the Mid-City NRHD.

Historically, development of the Mid-City area was slow because it was primarily marsh and swamp until drainage systems were installed at the turn of the 20th century. The land slopes downward from Claiborne Avenue and forms a bowl with its lowest point near Broad Street. Higher ground at the back of the Mid-City area was used for cemeteries that are still in existence today. Mid-City is the only NRHD in New Orleans below sea level (Campanella 2002).

The creation of the New Orleans drainage system in 1896 was the principal instigator for development of the Mid-City area. Commercial development grew along the larger arteries of Canal Street, Claiborne Avenue, and Tulane Avenue while smaller streets experienced residential influx. By 1908, blocks within the project area had experienced as much as 73 percent growth (Robinson 1883; Sanborn 1908).

The blocks near Claiborne Avenue developed in the mid-19th century as the City expanded beyond the original grid and faubourgs. The area was primarily inhabited by working-class immigrants and African Americans. Many residents chose to build double shotgun style homes to save money on land, materials, and labor.

In 2008, FEMA and VA in consultation with SHPO approached the Keeper of the National Register to determine whether the NRHD displayed additional areas of significance, needed an extended period of significance, or had experienced a loss of integrity. Using a geographic information system (GIS) database, the Keeper determined that while the area did not display any additional areas of significance and there was no reason to expand the period of significance, 12 blocks on the periphery of the Mid-City NRHD had experienced a loss of integrity so significant as to warrant their removal from the NRHP. The current boundaries of the Mid-City NRHD, the National Park Service recommended boundary changes, and the proposed VAMC and LSU AMC site boundaries are shown in figure 3-4.

The proposed VAMC and LSU AMC Tulane/Gravier sites are mixed use with commercial development along larger corridors and residential use on smaller streets; most structures are original to the site. The MCLNO campus, LSU Medical Center, University Hospital (located across Tulane Avenue from the proposed LSU AMC site) and the elevated I-10 have significantly altered the viewsheds of the sites to the east and south. Flooding caused by Hurricane Katrina also impacted the integrity of many of the buildings.

The Mid-City NRHD is comprised of 4,339 properties, 3,710 of which are contributing elements. VA and FEMA in consultation with SHPO determined that there are 154 structures within the footprint of the proposed VAMC site, 123 of which are contributing elements. These buildings represent 3 percent of the total number of contributing elements in the NRHD. Of the 95 structures within the footprint of the proposed LSU AMC site, 42 of those structures are contributing elements to the Mid-City NRHD. They represent 1 percent of the total number of contributing elements in the district. Structures that are individually listed or eligible for listing in the NRHP are briefly discussed below and detailed information on additional properties is provided in tables D-1 through D-4 in Appendix D.

Individually Listed or Eligible Buildings

VAMC

VA and FEMA have determined that within the proposed VAMC site footprint, Dixie Brewery at 2401 Tulane Avenue and the Pumping Station No. 15 at 2431 Palmyra Street are eligible for inclusion in the NRHP.

The Pan American Life Insurance Building is a six-story office/commercial structure of steel frame, glass, and aluminum with a two-story rear wing. It is located at 2400 Canal Street and occupies an entire city block. Built between 1950 and 1952, the structure is architecturally significant because it is one of the few International Style buildings within Louisiana and one of three buildings in Louisiana designed by the internationally-renowned New York and Chicago firm of Skidmore, Owings and Merrill. It is listed in the NRHP under *Criterion C: Architecture* (LNRHP 2007).

A six-story brick building with white stone trim, round arches, a central mansard dome, and a corner turret, Dixie Brewery is one of the two extant buildings from the city's early 20th century brewery district. The property has been embroiled in litigation and the building currently sits abandoned (Lind 2006). Before Katrina and subsequent looting, the Dixie Brewery possessed some unique elements including the large, solid-copper kettle that beer was brewed in (that Walt Disney emulated for its brewpub at Disney World) and the row of open cypress tanks that beer was fermented in. The building also sported large grain silos on the roof painted to look like Dixie Beer cans (Brand 2007).

Also within the footprint of the proposed VAMC site is the Sewerage Pumping Station No. 15, located at 2431 Palmyra Street. The pumping station is an octagonal brick building connected to a rear rectangular portion, also of brick. The structure is clad in stucco and features a tile roof, evoking a Spanish Colonial Revival style. While the windows and doors have been altered, the rounded arches remain intact. The building is still being used for its original purpose. While it has lost some of its architectural integrity, Pumping Station No. 15 does possess the qualities of significance under *Criterion A: Engineering*. In 1999, Earth Search, Inc. developed a National Register evaluation of the New Orleans drainage system, and found that a number of the pumping stations constructed during the first phase of drainage development were eligible for the NRHP under *Criterion A: Engineering*, with many of those structures also eligible under *Criterion C: Architecture*.

LSU AMC

There are no individually listed properties currently within the footprint of the proposed LSU AMC site. VA and FEMA have determined that three properties within the footprint of the proposed LSU AMC site are eligible for individual inclusion in the NRHP: the Deutsches Haus at 200 South Galvez Street, the former McDonogh No. 11 School building at 2001 Palmyra Street, and the Orleans House at 1800 Canal Street.

The Deutsches Haus is a two-story brick structure with little exterior ornamentation except a row of dentils beneath a white cornice and a classical door overhang. It was built between 1910 and 1912 and was owned by the Cumberland Telephone and Telegraph Company. The Southern Bell Telephone and Telegraph Company bought the property in 1926 and sold it to the Deutsches Haus in January 1928 (Stewart and Woodruff no date). The structure is significant because of the important and unique contributions of Germans and their beneficent societies to the development of New Orleans. This location is the most notable example of the ethnic group's efforts to preserve its cultural identity. The property was determined eligible for individual listing in the NRHP by VA and FEMA under *Criterion A: German Cultural History*.

The 1883 *Robinson Atlas* shows significant residential development along Claiborne Avenue, but little to the northwest toward the proposed VAMC site. According to the 1883 *Robinson Atlas*, there were no brick buildings in the project area. Two blocks southwest of the proposed VAMC site stands one of the only brick buildings in the area, the former McDonogh No. 11 School building at the corner of South Prieur and Palmyra Streets (2001 Palmyra Street). The McDonogh schools were funded at the bequest of John McDonogh, a New Orleans philanthropist, when he died in 1850. The building is within the footprint of the proposed LSU AMC site and was determined eligible for listing in the NRHP by VA and FEMA. The building was most recently the home of the New Orleans Center of Health Careers.

The Orleans House is an asymmetrical, two-story house that features a corner tower, jutting bay, decorative wood work and Queen Anne and Eastlake style influences. It was built in 1899 for Charles Orleans, a cemetery memorial builder (Huber 1974). The house stands as one of the few remaining residential style structures dating to the late 19th century along the section of Canal Street. The Historic District Landmarks Commission lists the structure as a Local Landmark. In 2008, the Louisiana Landmarks Society listed the house as one of the Nine Most Endangered Sites in New Orleans. The property was determined eligible for listing in the NRHP by VA and FEMA under *Criterion C: Architecture*. Currently, the property is operated as a bed-and-breakfast inn.

Area of Potential Effect

The APE for the proposed Tulane/Gravier VAMC and LSU AMC sites was developed by VA and FEMA in consultation with SHPO and the ACHP. The APE for the proposed actions is bounded by Broad Street from the I-10 overpass to St. Louis Street, St. Louis Street from Broad Street to North Robertson Street, North Robertson Street from St. Louis Street to Tulane Avenue, around the New Orleans Medical District, and Perdido Street and I-10 from LaSalle Street to Broad Street as shown in figure 3-5.

The APE contains portions of the existing Mid-City NRHD and the proposed NOMHD. In all, more than 1,200 properties are within the APE but only 264 will be directly affected by the preferred alternatives. The properties individually listed or eligible for listing in the NRHP within the APE are listed in table 3-3. Table 3-4 provides the listed or eligible NRHDs at least partially located within the APE.

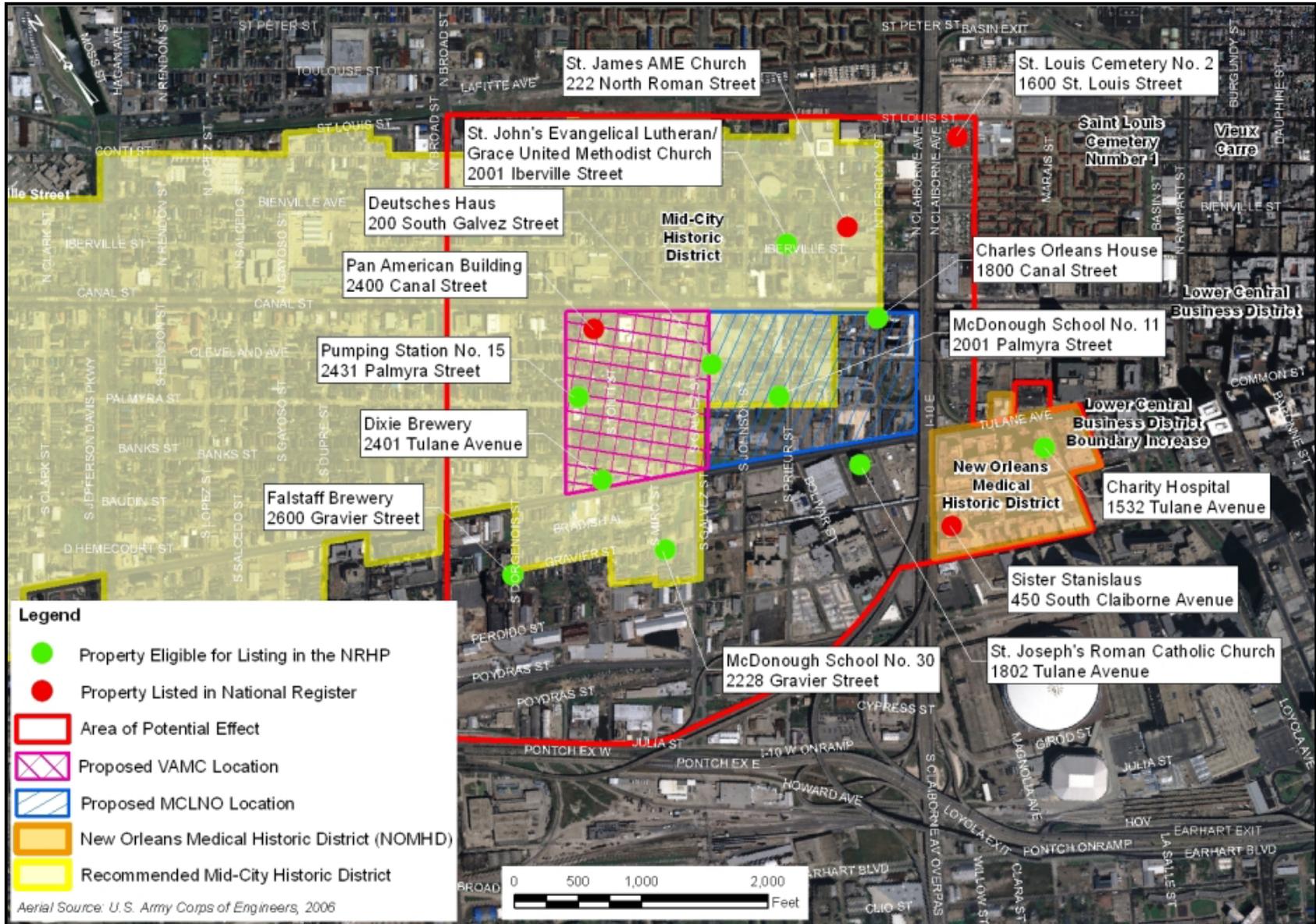


Figure 3-5. APE for VAMC and LSU AMC Tulane/Gravier Proposed Sites (Proposed Actions)

Table 3-3. Properties within the VAMC/LSU AMC APE that are Individually Listed or Have Been Determined to be Eligible for Listing in NRHP

| Building Name | Date in Register or Date Determined Eligible | Address |
|--|--|----------------------------|
| Listed Properties | | |
| Pan American Building | 2007 | 2400 Canal Street |
| St. James AME Church | 1982 | 222 North Roman Street |
| St. Louis Cemetery No. 2 | 1975 | 1600 St. Louis Street |
| Sister Stanislaus Memorial Building | 2003 | 450 South Claiborne Avenue |
| Eligible Properties | | |
| Charity Hospital | 2005 | 1532 Tulane Avenue |
| Falstaff Brewery ^a | NA | 2600 Gravier Street |
| Dixie Brewery ^a | NA | 2401 Tulane Avenue |
| Deutsches Haus ^a | NA | 200 South Galvez Street |
| St. Joseph's Catholic Church ^a | NA | 1802 Tulane Avenue |
| McDonogh School No. 11 ^a | NA | 2001 Palmyra Street |
| McDonogh School No. 30 ^a | NA | 2228 Gravier Street |
| Charles Orleans House ^a | NA | 1800 Canal Street |
| Pumping Station No. 15 ^a | NA | 2431 Palmyra Street |
| St. John's Evangelical Lutheran/Grace United Methodist Church ^a | NA | 2001 Iberville Street |

Notes: ^a FEMA has submitted a letter requesting concurrence for finding of individual eligibility for listing in the NRHP.

Table 3-4. Historic Districts within the VAMC/LSU AMC APE that are Listed or Have Been Determined to be Eligible for Listing in NRHP

| Name | Date on Register | Boundaries |
|---------------------------------------|-------------------|---|
| Listed Districts | | |
| Mid-City NRHD | 1993 | Roughly bounded by Derbigny Street, Conti Street, City Park Avenue, and I-10 |
| Eligible Districts | | |
| New Orleans Medical Historic District | 2006 ^a | Bounded by Tulane Avenue, South Liberty Street, Gravier Street, LaSalle Street, Perdido Street, and South Claiborne Avenue. |

Notes: ^a The year FEMA determined the property eligible.

Historical properties within the APE but not the footprint include: St. James AME Church, St. Louis Cemetery No. 2, and the Sister Stanislaus Memorial Building. These properties are included in the NRHP.

St. Joseph's Roman Catholic Church, located at 1802 Tulane Avenue, is the largest historical church in New Orleans. The building is Romanesque style with several important architectural details. The structure was finished in 1892, almost 30 years after construction started (Christovich et al. 1998). The church is listed by the Historic District Landmarks Commission as a Local Landmark. The property was determined eligible for listing in the NRHP by VA and FEMA under *Criterion C: Architecture*.

Falstaff was one of the three major breweries in New Orleans, including Dixie Brewery and the Jackson Brewery (Inside Northside 2006). The Falstaff Brewery is addressed at 2600 Gravier Street. It is believed the original building was constructed circa 1911 by the National Brewing Company (1908 Sanborn; 1936 Sanborn). In 1936, the St. Louis, Missouri-based Falstaff Brewing Corporation bought the National Brewing Company and its New Orleans plant and began embarking on plans to expand the facility. Most of the buildings on site date to Falstaff's refurbishment and expansion of the brewery (Thomas 2006). It is believed that the iconic vertical Falstaff sign and weather ball were added to the brewery in 1950 (Inside Northside 2006). The brewery sat abandoned from 1978 to 2006 when it was purchased by developers. The brewery has since been converted into 149 mixed-income apartments and retail space. The Falstaff office building at 2601 Gravier Street was demolished as part of the project. The brewery still retains two of its landmark features – the statue of King Gambrinus, the patron of beer, and most notably, the vertical Falstaff sign that rises above the building. The statue of King Gambrinus stands atop the corner entrance of the original structure. The vertical sign, which sits atop the bottling plant, is capped with a weather ball that has not functioned continuously since the brewery closed. The Falstaff is a Historic Districts Landmarks Commission (HDLC) local landmark and was determined eligible under *Criterion A: Industry* by FEMA.

The Saint James AME Church is a Victorian Gothic Revival, stuccoed brick, basilican plan structure located at 222 North Roman Street. It was built in 1848 and remodeled in 1903. It is architecturally significant because it is an unusually opulent and “high style” example of an AME church within the context of Louisiana. The property is individually listed in the NRHP under *Criterion C: Architecture* (LNRHP 1982).

Saint Louis Cemetery No. 2 incorporates three blocks bounded by North Claiborne Avenue, Robertson Street, St. Louis Street, and Iberville Street. It was established in August 1823 and is the second oldest cemetery in New Orleans. The aboveground tombs are made of brick, marble, granite, and combined varieties and are often decorated with sculpture and cast and wrought ironwork. Styles of tombs include neo-Classical, neo-Gothic, and Egyptian Revival. Brick wall vaults, often referred to as “ovens,” are also present in the cemetery. The wall vaults are three and four tiers tall and create an architectural buffer to the surrounding streets and unify the squares. The property is individually listed in the NRHP under *Criterion C: Architecture* (LNRHP 1975).

Sister Stanislaus Memorial Building is a steel frame, masonry structure located at 450 South Claiborne Avenue and was built in 1938 to house the Charity Hospital School of Nursing with funding through the New Deal's Public Works Administration. It is architecturally significant because it is one of Louisiana's finest expressions of the Modernistic taste (Art Deco). Of the roughly 40 examples of Art Deco buildings in Louisiana, this structure ranks highly due to its

scale, complexity, and dynamism of its massing. It was designed by Weiss, Dreyfous and Seiferth, a firm known for many projects during the Huey P. Long administration. A notable exterior alteration is the defacement of one side elevation with the construction of an unsympathetic addition that reads as a separate building. It is excluded from the nominated acreage. The property is individually listed in the NRHP under *Criterion C: Architecture* (LNRHP 2003).

Alternative # 2 – Lindy Boggs Location

The Lindy Boggs alternative is 39.8 acres of contiguous land situated between the borders of the Mid-City NRHD and the Parkview NRHD. The site is bordered by Carrollton Avenue to the west, Jefferson Davis Highway to the east, Bienville Street to the south, and Toulouse Street to the north (figure 3-5). The project area is comprised of the LBMC and a collection of warehouses. A survey of the area in August 2008 confirmed that the structures on the site today are not historic. The LBMC, formerly Mercy Hospital, was determined to not possess the qualities of individual eligibility under any criterion in a letter from VA to SHPO on 9 September 2008.

The 1883 *Robinson Atlas* shows little development past South Galvez Street. After the installation of a pumping station at Broad Avenue in 1899, development of the area progressed. In 1908, some development occurred along North Carrollton Avenue in the vicinity of the proposed Lindy Boggs site. The majority of the development, however, was initiated by the New Orleans Terminal Company, which constructed railroad tracks and a Round House on St. Louis Street between North Cortez and North Scott Streets. At the time, all residential buildings were between Canal and Bienville Streets (Sanborn 1908).

The Sisters of Mercy built Mercy Hospital in phases, beginning in the 1950s and continuing through the 1980s (Environ 2006). The Sisters operated Mercy Hospital until 1990 when it was purchased by Tenet Health Care and merged with Southern Baptist Hospital. Mercy Hospital was later renamed LBMC. Hurricane Katrina severely damaged the facility and Tenet Health Care chose not to reopen the hospital. In 2007, Tenet Health Care sold the LBMC to Victory Real Estate Investments (New Orleans City Business 2007).

Area of Potential Effect

The APE for the Lindy Boggs alternative was defined by VA in consultation with SHPO. The APE is bounded by Orleans Avenue, Bayou St. John, North Rendon Street, Canal Street, North Scott Street, Iberville Street, and North Hennessey Street as illustrated in figure 3-6. The APE also includes the existing VAMC addressed at 1601 Perdido Street because it will potentially be adversely affected by no longer serving as a hospital. Final disposition of the existing VAMC has not been determined at this time. The APE contains portions of the existing or eligible historic districts listed in table 3-5.

The south terminus of Bayou St. John at its closest point is less than 200 feet east of the perimeter of the Lindy Boggs site. The intersection of Bayou St. John and Orleans Avenue is the meeting point for the Mardi Gras Indians on Super Sunday. The Mardi Gras Indians are

composed of two large umbrella groups of African Americans who mask and parade throughout their neighborhoods primarily on two occasions each year, Mardi Gras and Super Sunday, the eve of St. Joseph’s day. The two groups are divided between Uptown and Downtown with each composed of several tribes. The Uptown tradition is defined by costumes based on the plains Indians of the United States. These costumes feature elaborately beaded mural panels (Smith 1994). The Downtown group is distinguished by its members’ elaborate sculptural and three-dimensional costume design. This design tradition bears strong similarities to African and Caribbean antecedents (Smith 1994).

VA, in consultation with the SHPO, has determined that of the 472 properties within the Lindy Boggs APE, 399 contribute to a listed or eligible NRHD. Of the 399 properties, 216 contribute to the Mid-City NRHD and 183 properties contribute to the Parkview NRHD. These properties will not be directly affected by the selection of the Lindy Boggs alternative. Detailed information on these properties, including their architectural and constructions styles, is provided in tables D-5 and D-6 in Appendix D.

Table 3-5. Historic Districts within the Lindy Boggs APE that are Listed or Have Been Determined to be Eligible for Listing in NRHP

| District | Date | Boundaries |
|---------------------------------------|-------------------|---|
| Listed Districts | | |
| Parkview NRHD | 1995 | Bounded roughly by City Park Avenue, Bayou St. John, Orleans Avenue, Rocheblave Street, Lafitte Street, and St. Louis Street. |
| Mid-City NRHD | 1993 | Bounded roughly by Derbigny Street, Conti Street, City Park Avenue, and I-10. |
| Eligible Districts | | |
| New Orleans Medical Historic District | 2006 ^a | Bounded by Tulane Avenue, South Liberty Street, Gravier Street, LaSalle Street, Perdido Street, and South Claiborne Avenue. |

Notes: ^a The year FEMA determined the property eligible.

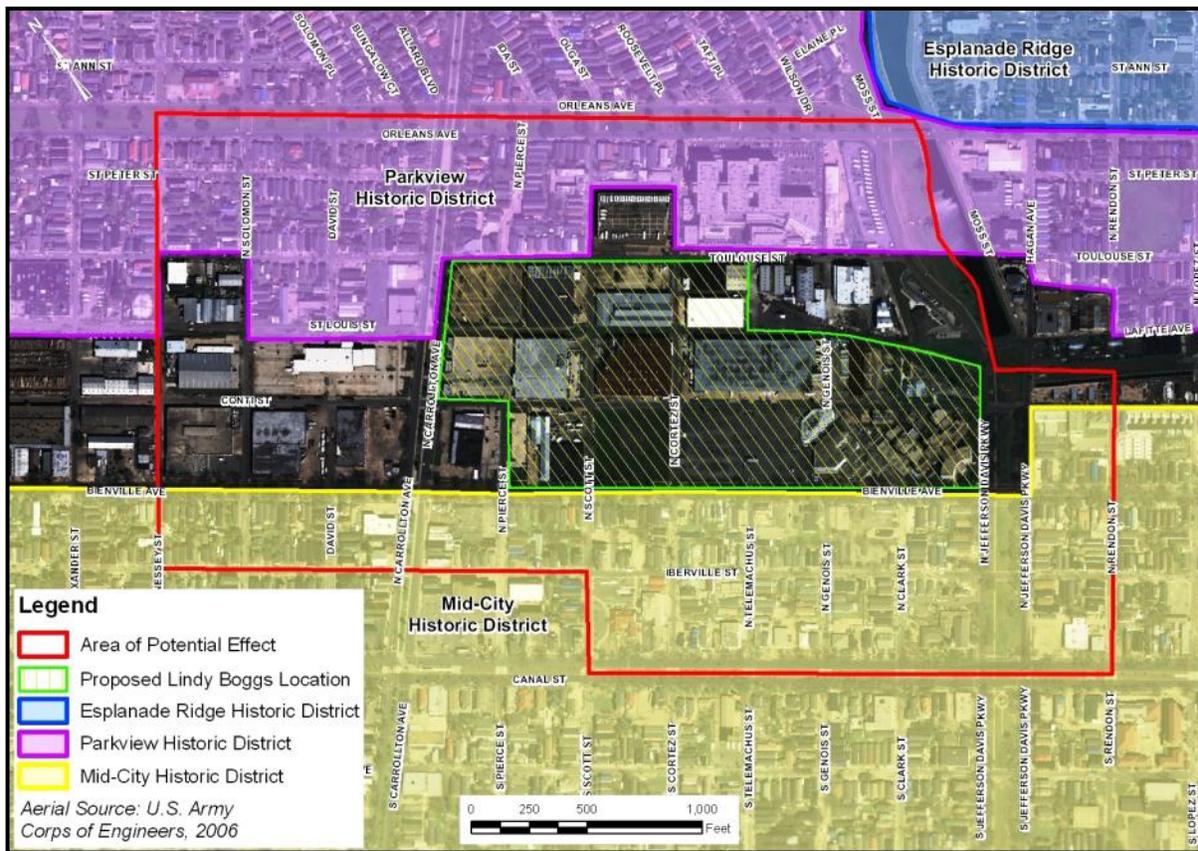


Figure 3-6. APE for the Lindy Boggs Location

Alternative # 3 – Ochsner Location

The Ochsner Site is located in Jefferson Parish approximately 1 mile west of the Jefferson-Orleans Parish line. The site encompasses 28 acres between Jefferson Highway and the Earhart Expressway. It is in an area of mixed residential, commercial, and institutional use, the most notable being the main campus of the Ochsner Medical Center.

Despite the expansion of New Orleans into Jefferson Parish and the numerous railroads that crossed the area, the project site remained on the fringe of expansion until the 20th century. The completion of Airline Highway in 1930 paved the way for the residential development that exploded in Jefferson Parish in the latter half of the 20th century (White 2006). It was quickly followed by roads such as Metairie, Napoleon, and Causeway Boulevard (Bezou 1973). Commercial and industrial development occurred along the major roadways. Single family homes flooded smaller streets. Ochsner Hospital moved to its present location on Jefferson Highway in June of 1954 to serve these new residents. Increased development in the western part of the Parish occurred when I-10 was completed in the 1970s.

In the 1950s, a railroad spur was completed on the Ochsner site to serve four newly constructed warehouses. Demolition and reconstruction of these and other buildings on the project site occurred throughout the remainder of the 20th century. Currently, there are three warehouses on the project site. The structures are made of brick, metal, and concrete and not considered historic as stated by VA in the 17 July 2008 letter to SHPO. The site also houses a collection of historic trains owned by a hobby club in the area. One of these trains, Southern Pacific Locomotive Number 745, is listed in the National Register and believed to be the only remaining 2-8-2 locomotive constructed at the Southern Pacific Railroad's Algiers Shop.

Area of Potential Effect

The APE for this alternative was defined by VA following consultation under Section 106 of NHPA. The boundaries of the APE for the Ochsner site alternative are the railroad tracks to the north, Jules Avenue and Jefferson Highway to the east, River Road to the south, and Deckbar Avenue to the west, as illustrated in figure 3-7.

Southern Pacific Locomotive Number 745 is listed in the National Register and believed to be the only remaining 2-8-2 locomotive constructed at the Southern Pacific Railroad's Algiers Shop. It is housed in a warehouse on the Ochsner site and will be moved prior to any demolition.

The surrounding residences within the APE are primarily frame single-family homes constructed in the mid-20th century. Many have been altered by the addition of vinyl or aluminum siding and windows. The area is not a NRHD and does not possess the necessary qualities of significance as stated by VA in the 17 July 2008 letter to SHPO.

The area adjacent to the Ochsner site does not encompass any NRHDs or any sites that have been determined to be individually eligible. The APE includes the existing VAMC addressed at 1601 Perdido Street because it will potentially be adversely affected by no longer serving as a medical center. Final disposition of the existing VAMC has not been determined at this time.



Figure 3-7. APE for the Ochsner Location

Alternative # 4 – Modification/Repair of MCLNO Facilities

Charity Hospital was a full-service patient care and medical training facility until Hurricane Katrina. The storm flooded the basement of the hospital, damaging the heating, ventilation, and air-conditioning (HVAC), electrical, and mechanical systems. Without air conditioning, mold grew throughout the facility. Although the flooding reached only 1 inch on the ground floor, roof damage and pipe leakage caused water damage to higher floors (Blitch Knevel Architects 2008). Several cracks are visible in the building's exterior and surrounding sidewalks, although many of these may be attributed to the building settling shortly after it was constructed (RMJM Hillier 2008). Following the hurricane, patients and staff remained at Charity for a week without power or sewer functions, which also contributed to the building's condition (Blitch Knevel Architects 2008). Charity has remained closed since August 2005. Other MCLNO buildings also suffered damages as a result of Hurricane Katrina and currently are closed or operate at a reduced capacity.

Area of Potential Effect

The APE for Alternative # 4 consists of the existing footprints of the nine historic buildings that comprise the MCLNO campus (figure 3-8). The other 14 buildings that make up MCLNO are

not historic and therefore not included in the APE. The APE is based on assumptions that repair work will not require pile driving and that no new construction will take place. In the event that new construction is deemed necessary, FEMA will consult with the SHPO on a revised APE. The APE lies within the proposed NOMHD, a district determined to be eligible for inclusion in the NRHP by FEMA in consultation with SHPO.

The John Dibert Memorial Tuberculosis Building is a 4-story building on South Claiborne Avenue. It was built in 1926 and named after the husband of a prominent Charity Hospital patron, Mrs. Eve Butterworth Dibert. The Butterworth building was completed in 1950 in the International style. The Delgado Building is adjacent to the Butterworth Building. It was built in 1927 and used as the Charity Nurses' Home in the 1950s. Also included in the MCLNO campus is the Lapeyre and Miltenberger Convalescent Home, also known as the L&M Building, at 1550 Tulane Avenue. Built in 1933, the L&M Building is another example of Art Deco style. Other buildings related to the function of Charity Hospital include the General Services Building, completed c. 1938, the power house, completed in 1938, the laundry building, completed c. 1938, the Maintenance Building, completed 1950, and an accompanying maintenance shop, completed c. 1930. Each of these buildings is a contributing element to the proposed NOMHD. A warehouse for Charity Hospital at 1523 Perdido Street is not a contributing element to the district (Slattery 2006). The remaining buildings of the MCLNO campus do not meet the criteria for inclusion in the NRHP. For a list of all buildings in the MCLNO campus and their contributing status, see table 3-2.

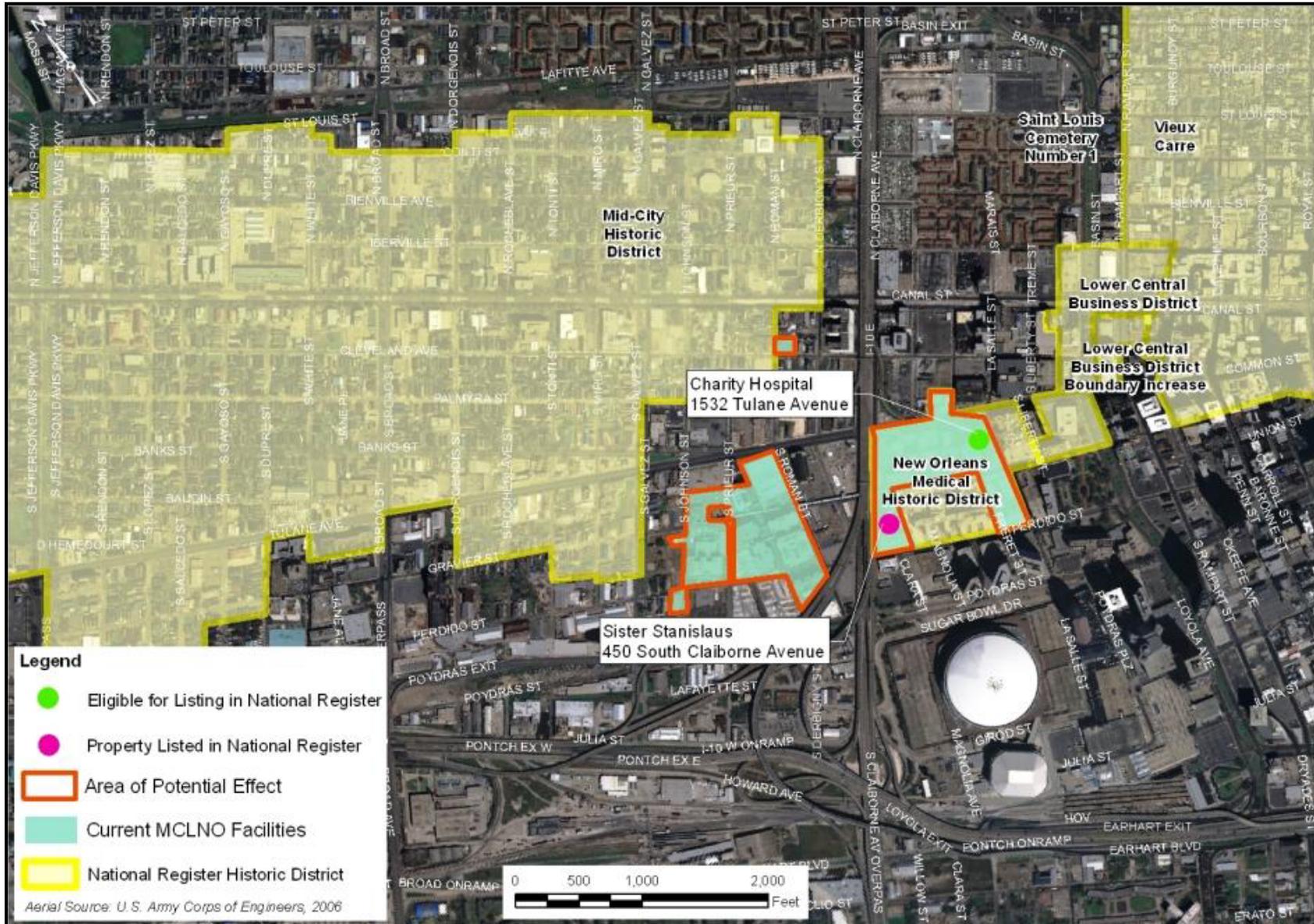


Figure 3-8. APE for Alternative # 4

3.5.3.2 Discussion of Impacts – Historic Buildings

Regulation 36 CFR Part 800.5 requires Federal agencies, in consultation with SHPO and interested tribes, to apply the criteria of adverse effects or impacts to historic properties within the APE. An adverse effect is defined by 36 CFR Part 800.5 as an aspect of “an undertaking that may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property’s location, design, setting, materials, workmanship, feeling, or association.” Adverse impacts may also include reasonably “foreseeable effects caused by the undertaking that may occur at a later time.” The current impacts to the cultural resources described for each alternative relate to site selection.

Impacts of the No Action Alternative

Under the No Action alternative, the existing VAMC and/or MCLNO complex would not be rehabilitated. The conditions of both the existing VAMC and MCLNO have severely deteriorated due to damage sustained during Hurricane Katrina. The existing VAMC, which currently provides some outpatient services, would continue to operate at a reduced capacity.

Two buildings that are part of the VAMC campus are eligible for inclusion in the National Register as contributing elements to the proposed NOMHD. Selection of the No Action alternative would result in the existing VAMC continuing to operate well below its pre-Katrina capabilities. Since one of the criteria under which the two structures have been determined eligible is their status as contributing elements to the proposed NOMHD, such a change in the use could constitute an adverse impact, as noted in 36 CFR Part 800.5(a)(2)(iv), which states: “change of the character of the property’s use...that contribute to its historical significance.” The buildings would also continue to suffer from neglect if not properly vented and secured, which would adversely impact its integrity and contributing status.

Charity Hospital is eligible for inclusion in the National Register under *Criterion A and C* as well as a contributing element to the proposed NOMHD. Selection of the No Action alternative would result in the Charity Hospital continuing to sit idle and no longer operating as a hospital. This may affect the character of the property’s use and contribution to its historical significance. The building would also suffer from neglect if not properly and continually vented and secured, which would adversely impact its integrity and contribution to the proposed NOMHD. These stipulations apply to all historically significant structures in the MCLNO campus. In addition, other buildings within the MCLNO campus that are listed as contributing elements to the proposed NOMHD would suffer similar adverse effects.

Impacts of the Proposed Actions

Measures to avoid, minimize, and mitigate the potential adverse impacts for each alternative can be found in the PA in Appendix B and additionally in Chapter 5, Mitigation.

VAMC

The APE for the Tulane/Gravier VAMC site contains portions of the existing Mid-City NRHD and the proposed NOMHD. It also contains five properties individually listed in the National Register (see table 3-3). In addition, FEMA and VA have determined nine buildings within the APE to be individually eligible for inclusion in the NRHP.

The Proposed Actions include the construction of the VAMC in the 12-block area bounded by Tulane Avenue, Canal Street, South Galvez Street, and South Rocheblave Street. All 12 blocks fall entirely inside the boundaries of the Mid-City NRHD. The 12 blocks represent only 4 percent of the total number of blocks in the Mid-City NRHD. The 156 buildings inside the footprint, with the exception of the Pan-American Life Insurance Building and the Dixie Brewery, will be demolished to clear space for the new medical facilities. Dixie will be assessed for stability and, if found stable, be integrated as well. If it is determined that the brewery's condition prohibits integration, important architectural features will be saved and integrated. The Pan-American Life Insurance Building is the only individually listed building that falls into the footprint for the proposed VAMC and therefore, will not be demolished but integrated into the design of the new VAMC.

The selection of the Proposed Actions to construct the replacement VAMC at the Tulane/Gravier site would result in the existing VAMC no longer operating as a hospital. Since the existing VAMC is a contributing element to the proposed NOMHD, such a change in the use of the building could constitute an adverse indirect impact as discussed under Impacts of the No Action Alternative.

In addition to the above-noted properties that may experience direct adverse impacts, other historic properties fall within the APE but outside the footprint of the Proposed Actions. Consequently, they may meet the definition of adverse indirect impacts set out in 36 CFR Part 800.5(a)(2)(v).

LSU AMC

A single APE was developed for both the proposed VAMC and LSU AMC Tulane/Gravier sites. This APE contains portions of the existing Mid-City NRHD and the proposed NOMHD. The APE also contains five properties individually listed in the NRHP and nine buildings within the APE that are eligible for listing (see table 3-3).

The Proposed Actions include the construction of the LSU AMC in the 15-block area bounded by South Claiborne Avenue, Canal Street, South Galvez Street, and Tulane Avenue. Six of the 15 blocks fall either partially or entirely inside the boundaries of the Mid-City NRHD. The blocks represent 2.2 percent of the total number of blocks in the Mid-City NRHD. The 95 buildings inside the footprint, with the exception of the Orleans House and Deutsches Haus, will be demolished to clear space for LSU AMC. Deutsches Haus and Orleans House will be assessed for integration into the design of the new hospital. Both the Mid-City NRHD and the individual properties that contribute to that district may meet the definition of adverse direct impacts set out in 36 CFR Part 800.5(a)(2)(i).

The selection of the Tulane/Gravier location to construct LSU AMC could result in MCLNO no longer operating as a medical facility. At this time, final disposition of the buildings is undecided. As discussed under Impacts of the No Action Alternative, such a change in the use of the building could constitute an adverse indirect impact, as noted in by 36 CFR 800.5(a)(2)(iv).

As set out in 36 CFR Part 800.5(a)(2)(i), other historic properties fall within the APE but outside the footprint of the Proposed Actions. Consequently, they may meet the definition of adverse indirect impacts set out in 36 CFR Part 800.5(a)(2)(v).

Impacts of Alternatives # 2 through # 4

Alternative # 2 – Lindy Boggs Location

The APE for the Lindy Boggs site was described in Section 3.5.3.1 and illustrated in figure 3-6. The Lindy Boggs APE includes the existing VAMC building at 1601 Perdido Street. The Lindy Boggs APE contains portions of the Parkview NRHD and the Mid-City NRHD, but no properties that are currently listed in National Register.

The construction of the VAMC on this site may cause indirect adverse impacts to historic properties within the APE though the introduction of visual, atmospheric, or audible elements that diminish their integrity (36 CFR Part 800.5(a)(2)(v)). This alternative would not adversely affect historic properties within the APE because buildings that are subject to direct adverse impacts are not historic properties. If this alternative is selected, VA would apply the Criteria of Adverse Effect during design and construction, to determine whether additional effects from direct and indirect impacts are identified in order to ensure that options to avoid or minimize those adverse impacts are considered.

The selection of the Lindy Boggs alternative would result in the existing VAMC hospital no longer operating as a hospital. As discussed under the Impacts of the No Action Alternative, such a change in the use of the building could constitute an adverse effect, as noted in 36 CFR Part 800.5(a)(2)(iv).

Alternative # 3 – Ochsner Location

The APE for the Ochsner alternative is described in Section 3.5.3.1 and is illustrated in figure 3-7. The Ochsner APE does not intersect any existing or proposed NRHDs.

This alternative includes the construction of the VAMC at the site adjacent to Ochsner Medical Center (Main Campus) located at 1514 Jefferson Highway. With the exception of the existing VAMC, which is a contributing element to the proposed NOMHD, no historic properties have been identified within the APE for this alternative; therefore, no direct or indirect impacts have been identified.

The selection of the Ochsner site would result in the existing VAMC no longer operating as a hospital. As discussed under Impacts of the No Action Alternative, such a change in the use of the building could constitute an adverse impact, as noted in 36 CFR §800.5(a)(2)(iv).

A warehouse on the Ochsner site houses a collection of historic trains, one of which, the Southern Pacific Locomotive 745, is listed in the National Register. If this site is selected, the warehouse would no longer be suitable storage. Adverse effects to the locomotive would be avoided by allowing ample time for the owner to find suitable replacement storage.

Alternative # 4 – Modification/Renovation of MCLNO Facilities

The APE for this alternative is the existing footprint of the MCLNO campus, illustrated by the orange, yellow, and purple structures outlined in figure 1-1, which encompasses Charity Hospital and 22 other buildings. This APE is based on assumptions that repair work would not require pile driving and that no new structure construction would take place. Therefore, vibrations with potential adverse impacts would not extend beyond the APE perimeter.

The APE lies within the proposed NOMHD, a district determined to be eligible by FEMA in consultation with SHPO. Charity Hospital was determined by FEMA to be individually eligible for inclusion in the National Register in 2005. The Sister Stanislaus Memorial Building was listed in the National Register in 2003.

A significant impact of selecting to modify/repair Charity would be its continued status as a contributing element to the proposed NOMHD. The potential for adverse impacts to Charity Hospital exists if the site is selected and building repairs are not implemented in accordance with the Secretary of the Interior's *Standards for the Treatment of Historic Properties*. Renovation of the building that does not comply with the Secretary's standards would constitute an adverse effect as noted in 36 CFR Part 800.5(a)(2)(ii). Moreover, if the Secretary's standards are not used in any repair or renovation to Charity Hospital, character-defining features of the building could be damaged, which would be an adverse effect under 36 CFR Part 800.5(a)(2)(iv). Such an adverse impact would, in turn, threaten the eligibility of the proposed NOMHD, of which Charity Hospital is a critical element. This potential also exists for other historic properties within the MCLNO campus.

At this stage of the consultation, the disposition of the former Charity Hospital is undecided; adverse effects determination would be revisited again during design and construction in order to ensure that all direct and indirect impacts are identified, and options to avoid or minimize those adverse impacts are considered. This approach is in keeping with the tiered approach delineated in 36 CFR Part 800.5(a)(3). These stipulations apply to all historically significant structures in the MCLNO campus.

3.5.4 Archaeology

3.5.4.1 Existing Conditions – Archaeology

The proposed alternatives are situated within the deltaic lobes associated with the Mississippi River deltaic plain. During the Holocene Epoch, delta lobes and open gulf dominated this area. For the last 5,000 years, these deltaic processes have acted to reshape and rework the biological and physical environment of this part of southeastern Louisiana. The dynamic nature of the Mississippi River deltaic plain must have forced the prehistoric and historic inhabitants to select specific locations from which they could exploit the rich and varied natural resources of this region. In addition, the dynamic deltaic processes determined how archaeological deposits, which accumulated in association with these communities, either were preserved or destroyed. Therefore, in the deltaic plain, there should be a strong correlation between the distribution of archaeological deposits and specific deltaic landforms. For example, the project area is situated on the “St. Bernard Delta Complex.” As described by Frazier (1967), the landform develops between circa 3400 and 1600 before the present (B.P.). Prehistoric occupation of the St. Bernard Delta Complex could not occur prior to those dates, as the landform was not fully extant.

Prior to historic settlement of the area, the overall project area consisted of inland freshwater swamp deposits, situated on and between the abandoned natural levee of the St. Bernard delta complex distributary for the Mississippi River on the south (i.e., Metairie Ridge; Frazier 1967; Saucier 1994) and Lake Pontchartrain to the north (Saucier 1994). This abandoned natural levee can be associated with a relict drainage of the Mississippi River, which was occupied from 3,400 to 1,600 years ago; it formed the St. Bernard Delta Complex (Frazier 1967; Weinstein and Gagliano 1985).

The geomorphic setting and the associated sedimentology greatly restricts the potential for encountering archaeological deposits within the proposed project areas. From circa 3400 to 1600 B.P., the project area lay on an actively aggrading natural levee of the Mississippi River. As a result, it is highly unlikely that any prehistoric sites dating from that period within the project area will manifest themselves as surface sites. Because of the relatively high rates of sedimentation that characterized the natural levees within this segment of the Mississippi River, it is very likely that the majority of the prehistoric archaeological deposits found within the area will be buried deeply within the natural levee sediments that form the project area (Farrell 1987; Heinrich 1991). Only after the natural levee sediments started to accumulate could archaeological deposits be preserved within the project area. As a result, any prehistoric archaeological deposits within the project area should be less than 3400 years old; however, the project area also has potential for containing both buried and surficial historic deposits.

Cultural Setting

As defined in Louisiana’s *Comprehensive Archaeological Plan* (Smith et al. 1983), Jefferson and Orleans Parishes are 2 of 14 Louisiana parishes that comprise Management Unit V, which is located in the southeast portion of the state (Figure 3-1). The prehistory of Management Unit V extends from circa 10,000 B.C. to A.D. 1700 and it is divided into four general archaeological stages (Smith et al. 1983). These four stages (Paleo-Indian, Archaic, Woodland, and

Mississippian) represent developmental segments characterized by dominant patterns of subsistence, social organization, and technology (Bense 1994; Krieger 1953; Willey and Phillips 1958).

Each stage consists of a sequence of chronologically defined periods subdivided into phases based on similar sets of artifacts and other cultural traits characteristic of a particular geographic region (e.g., Jenkins 1979; Walthall 1980). As a result, eight cultural units are used to characterize the prehistoric cultural sequence associated with Management Unit V. These include: the Paleo-Indian (10,000 – 8000 B.C.), Archaic (8000 – 1000 B.C.), Poverty Point (1700 – 500 B.C.), Tchefuncte (500 B.C. – A.D. 100), Marksville (100 B.C. – A.D. 500), Baytown (A.D. 400 – 700), Coles Creek (A.D. 700 – 1200), and Mississippian/Plaquemine (A.D. 1200 – 1700).

Archaeological Methodology

Until a site has been selected and acquired, it is not possible to determine the existence of unknown archaeological sites within the alternative sites or APEs. As part of the Section 106 consultation process, the Federal agencies developed a PA in consultation with the State, SHPO, ACHP, and Consulting Parties. Once a site is selected, studies that are appropriate to the site will be conducted in accordance with the relevant stipulations in the PA.

Alternatives #1 and #4 – Tulane/Gravier Locations and Charity Hospital Site

Because of their proximity to one another, the existing conditions of the Charity Hospital and Tulane/Gravier project areas are discussed together.

Surveys

A records review at the Louisiana Division of Archaeology identified 46 previously conducted archaeological investigations within 1.6 kilometers (1.0 miles) of the existing Charity Hospital and proposed Tulane/Gravier VAMC and LSU AMC project areas (Table E-1 in Appendix E). Of these, 21 previous surveys consisted of testing and/or data recovery excavations, conducted for research or planning purposes, at sites that are listed or eligible for listing on the National Register of Historic Places (Beavers and Lamb 1993; Castille 1978; Davis and Giardino 1983; Dawdy 1998; Dawdy and Ibanez 1997; Earth Search, Inc. 1997; Gibbens 1978; Hardy et al. 2002; Hudson 1972a, 1972b; Jones et al. 1994; Beavers and Lamb 1983; Matthews 1999; Owsley et al. 1984, 1985; Pearson 1986; Shenkel 1971, 1977; Shenkel and Beavers 1978; Yakubik and Dawdy 1995; Yakubik and Franks 1997). Only one previous investigation consisted of a mitigation of National Register eligible sites as part of the Federal Section 106 process (Castille et al. 1986). In addition, two investigations consisted of cultural resources surveys and inventories conducted as part of the Section 106 process for a fiber optics line (Klinger and Gray 1999) and a streetcar line (Godzinski et al. 2002). Four investigations were trench monitoring efforts conducted on behalf of the U.S. Army Corps of Engineers for floodwall construction or improvement projects (Shenkel 1979; Sternberg and Shenkel 1976; Goodwin et al. 1986; Jones and Franks 1992), while an additional four investigations consisted of monitoring efforts for Federal demolition projects after Hurricane Katrina (Gray 2006; Cramer

2006; Paulson et al. 2008; Godzinski et al. 2008). Additionally, three investigations were conducted as survey efforts before development of parks (Shenkel et al. 1980; Boggess 1990) and the 1984 World's Fair (Beavers and Lamb 1983), and another three investigations were conducted to evaluate archaeological sites identified as accidental discoveries (Lee et al. 1997; Dawdy et al. 1998). Finally, eight investigations consisted of background research documents prepared for planning purposes, which did not involve any archaeological field investigations (Beavers 1995; Enplanar, Inc. 1981; Godzinski et al. 1999; Goodwin et al. 1987; Maygarden and Dawdy 1995; Maygarden et al. 2005; Orton et al. 2005; Yakubik 2004).

In spite of the large number of previous archaeological investigations conducted in the vicinity of the existing Charity Hospital and proposed Tulane/Gravier project areas, no field investigations and only two background research documents (Goodwin et al. 1987; Beavers 1995) directly examined a portion of either the existing VAMC or proposed Tulane/Gravier VAMC project areas. In a planning document prepared for the Louisiana Department of Culture, Recreation, and Tourism, Goodwin et al. (1987) evaluated the French Quarter, Faubourg Marigny, and Faubourg St. Marie neighborhoods of New Orleans using the Louisiana State site files, historic documents, and maps, in order to identify portions of the study areas that have high, moderate, and low potential to contain significant archaeological resources. According to this study, the portion of the Central Business District bounded by South Claiborne Avenue, Tulane Avenue, Loyola Avenue, and Perdido Street possesses an elevated potential for containing intact archaeological resources. This evaluation was based in part on the fact that large portions of this study area are covered by parking garages, which are likely to cause less subsurface disturbance to buried cultural resources than would the construction of other types of buildings (Goodwin et al. 1987). Also, in a desktop study prepared for a private engineering firm, Beavers (1995) examined six proposed alternatives for a streetcar line on Canal Street. This document examined only a very limited corridor just outside the northern edge of the proposed VAMC alternative, and did not identify any potential cultural resources within this portion of the study area.

Sites

A total of 121 archaeological sites have been recorded previously within 1.6 kilometers (1.0 miles) of the existing Charity Hospital and proposed Tulane/Gravier VAMC and LSU AMC project areas (Table E-2 in Appendix E). These sites are concentrated predominately in four locations: in the French Quarter and Marigny, at the former location of the Lafitte Housing Project along Orleans Avenue, at the former location of the BW Cooper Housing Project along Martin Luther King, Jr. Avenue, and within the corridor of the west approach to the Greater New Orleans (i.e. Crescent City Connection) Bridge. No previously recorded sites have been documented within either the Charity Hospital or Tulane/Gravier project areas, due at least in part to a lack of previous cultural resources investigations within these two areas.

All 121 archaeological sites recorded within 1.6 kilometers (1.0 miles) of the Charity Hospital and Tulane/Gravier project areas are described as historic period sites dating to the 18th, 19th, and/or 20th centuries. Only a single site also produced small quantities of prehistoric materials (16OR225). A total of 79 sites (65.3 percent) have been classified as either "historic residential" or "historic residential" with other uses. Other common site types include "historic dump" (n=16, 13.2 percent), "historic commercial" or "historic commercial" with other uses (n=14, 11.6

percent), and “historic scatter” (n=7, 5.8 percent). The remaining site types encompass a wide array of functions, including cemeteries, a firehouse, various governmental buildings, military facilities/fortifications, a market, a park, a convent, schools, churches, plantations, industrial facilities and others (Table E-2 in Appendix E). A total of nine sites (7.4 percent) are listed on the National Register, and an additional 27 sites (22.3 percent) have been assessed as eligible for listing. Five sites (4.1 percent) have been assessed as potentially eligible for listing, while 42 sites (34.7 percent) are not eligible for listing on the NR. Finally, 38 sites (31.4 percent) have not been assessed for National Register eligibility (Table E-2 in Appendix E).

Archaeological Potential – Proposed VAMC and LSU AMC Sites

The soils associated with the proposed Tulane/Gravier sites are Sharkey-Commerce Series soils. These soils most commonly are associated with non-flooded modern and abandoned natural levees (Trahan 1989). This soil series generally develops within poorly drained to very poorly drained, recently-deposited alluvium that is, or once was, subject to deep and seasonal flooding from the Mississippi River. Specifically, the Sharkey clay that underlies the Tulane/Gravier sites consists of a poorly drained soil positioned along the lower slopes of the natural levee of the Mississippi River and its distributaries (Trahan 1989). The presence of this soil unit indicates that the Tulane/Gravier sites are situated on the back end of the Mississippi River levee, a landform that may have been suitable for habitation during both the prehistoric and historic periods. However, this landform may have been subject to seasonal flooding, especially prior to implementation of historic and modern drainage projects.

As previously discussed, a total of 121 archaeological sites have been recorded previously within 1.6 kilometers (1.0 miles) of the existing Charity, and Tulane/Gravier VAMC and LSU AMC alternatives. Of these, only one site (16OR225) contained materials that were dated to the prehistoric period. The near absence of reported prehistoric archaeological sites may be due in part to the lack of cultural resource surveys prior to historic and modern development of the surrounding neighborhoods. The potential for encountering intact prehistoric archaeological sites within the Tulane/Gravier sites is very low, given the high level of disturbance to the project area from both historic and modern building projects. However, there is a high potential for encountering subsurface archaeological features and deposits dating to the late 19th and 20th centuries. Historical research indicated that the Tulane/Gravier project areas were not developed extensively until the latter part of the 19th century. Improvements in drainage made at that time led to rapid settlement of the project area.

Much like today, the proposed VAMC and LSU AMC locations were comprised primarily of residential neighborhoods during the late 19th and early 20th centuries, with a scattering of commercial, educational, and public works facilities throughout the area. Non-residential buildings documented to occur within the proposed Tulane/Gravier VAMC site include Straight University (circa 1877-1950) bounded by Rocheblave Street, Tonti Street, Cleveland Avenue, and Canal Street; McDonough No. 11 School (circa 1883 *Robinson Atlas*) at the northwest corner of South Prieur Street and Palmyra Street; the Delta Moss Factory (1883 *Robinson Atlas*) at the southeast corner of South Galvez Street and Canal Street; H. McManus and Company (1885 Sanborn) on both the east and west sides of South Prieur Street, between Palmyra Street and Cleveland Avenue; First Free Mission Baptist Church (1885 Sanborn) on the north side of

Tulane Avenue, between South Derbigny Street and Claiborne Avenue; Baldwin and Company (1893 Sanborn) on the northeast corner of South Tonti Street and Cleveland Avenue; and the Canal and Claiborne Railroad Company, Tulane Avenue Station (1896 Sanborn) bounded by South Rocheblave Street, Tulane Avenue, South Tonti Street, and Bank Street. The discovery of intact archaeological remains related to any of these establishments could constitute a significant cultural resource. In addition, there is high potential for the remains of house and outbuilding foundations, privies, kitchen middens, and other archaeological features related to the late 19th and 20th century residential community that developed within the Tulane/Gravier project areas, and well-preserved examples of domestic archaeological sites could possess high research potential, and therefore could constitute significant cultural resources.

Archaeological Potential – Charity Hospital Site

Soils associated with the existing Charity Hospital project area are mapped as Urban Land. This mapping unit consists of areas where more than 85 percent of the surface is covered by impervious substances, such as asphalt, concrete, and buildings, as well as artificial fill material (Trahan 1989). Sharkey-Commerce Series soils are mapped to the west of the Charity Hospital project area, while soils of the Harahan-Westwego soil unit are present to the south (Saucier 1994; Trahan 1989). Sharkey-Commerce series soils are associated with natural levees of the Mississippi River and its distributaries, while Harahan-Westwego soils form in level, poorly drained areas associated with former swamps and marshes. The presence of both these soils in the vicinity of the Charity Hospital project area suggest that this project area once was situated at the transition between the lower slope of the Mississippi River natural levee and the adjoining backswamp. This landform may have been suitable for habitation during both the prehistoric and historic periods; however, it would be subject to occasional flooding, particularly prior to implementation of historic and modern drainage projects.

As previously discussed, only one prehistoric archaeological site has been recorded within 1.6 kilometers (1.0 miles) of the Charity Hospital project area. It is possible that many additional prehistoric archaeological sites once were located in the vicinity, but were obscured or destroyed by historic and modern building projects. Archaeological sites dating to the historic period are very common within 1.6 kilometers (1.0 miles) of this project area. Within the French Quarter and Tremé, historic period archaeological sites may date to the 18th through 20th centuries, with the earliest sites (18th century) representing French and Spanish colonial New Orleans. Outside the French Quarter and Tremé, historic period sites tend to date from the mid 19th century and later, representing the expansion of New Orleans as an American city.

No archaeological sites have been recorded within the footprint of the existing Charity Hospital project area. Historic and modern building activities likely would have destroyed any remains of prehistoric archaeological sites that once may have existed at this location. The 1885 Sanborn insurance maps depict a cotton processing facility on the block bounded by Perdido Street, Freret Street, Gravier Street, and Howard Street (La Salle Street), which was converted into the Galloway Coal Company by 1895, and then into the Charity Hospital Power Plant by 1908. Also, the Louisiana Sash, Door, and Blind Manufacturing Company is depicted occupying the block bounded by Gravier Street, Howard Street (La Salle Street), Common Street (Tulane Avenue), and Liberty Street on both the 1885 and 1895 Sanborn maps. J.D. Fletcher Roofing and

Sanitary Flooring is depicted on the 1895 Sanborn as occupying the block bounded by Perdido Street, Clara Street, Gravier Street, and Magnolia Street; this changed to Barrett Manufacturing Company (a roofing manufacturing company) by 1908. Perhaps most significantly, the “St. Marks Baptist Church (Colored)” is depicted on the 1895 Sanborn, within a block of (presumably) residential structures bounded by Gravier Street, South Claiborne Street (Avenue), Tulane Avenue, and Magnolia Street. If intact archaeological remains associated with any of these businesses and institutions were identified, they could constitute significant cultural resources.

Extensive development of the MCLNO complex has occurred from the mid-20th century to the present, beginning with the construction of the current Charity Hospital edifice in 1938. These activities likely have destroyed many earlier features and archaeological deposits that once may have been on this property. However, several undeveloped lots within the MCLNO complex were noted, both on aerial photographs and during limited field reconnaissance, which may have the potential for containing undisturbed archaeological resources. These included a lot in front of Charity Hospital at the corner of Tulane Avenue and Liberty Street, a lot south of the Lapeyre Home for Convalescents and east of the John Dibert Tuberculosis Hospital within the Charity Hospital complex, a lot on the west side of the John Dibert Tuberculosis Hospital fronting Claiborne Avenue, and a lot on the northwest corner of the existing VA Hospital at the southeast corner of Gravier Street and Claiborne Avenue. Within all of these lots, as well as in several smaller lots examined briefly during reconnaissance, fragments of bricks, slate, concrete, coal, and occasional glass and ceramic artifacts were noted during reconnaissance. These materials may represent the remains of earlier structures that formerly occupied the MCLNO area, or these materials may have been brought in from another location as fill material. Currently, it is not known how extensively these parcels were disturbed by the construction of adjacent buildings, the placement of buried utilities, and other factors. In addition, as noted by Goodwin et al. (1987), the construction of parking garages typically results in less subsurface ground disturbance than typically occurs with the construction of other types of buildings. This may result in the preservation of archaeological resources beneath the footprints of existing parking garages that currently exist within the MCLNO complex.

Alternative #2 – Lindy Boggs Location

Surveys

Six previous surveys have been conducted within 1.6 kilometers (1.0 miles) of the proposed Lindy Boggs project area (Table E-3 in Appendix E). Of these, one investigation (16.7 percent) consisted of a cultural resources survey and inventory conducted as part of the Section 106 process for a fiber optics line (Klinger and Gray 1999), while two investigations consisted of monitoring efforts for federal demolition projects after Hurricane Katrina (Gray 2006; Godzinski et al. 2008). Also, one previous survey consisted of a pedestrian survey of a site on U.S. Postal Service property (Earth Search, Inc. 1997). Finally, two investigations consisted of background research documents prepared for planning purposes, which did not involve any archaeological field investigations (Beavers 1995; Enplanar, Inc. 1981).

Sites

A total of 19 archaeological sites have been recorded within 1.6 kilometers (1.0 miles) of the proposed Lindy Boggs project area (Table E-4 in Appendix E). All 19 sites are described as historic period sites dating to the 18th, 19th, and/or 20th centuries. A total of 13 sites (68.4 percent) have been classified as either “historic residential” or “historic residential” with other uses (i.e., industrial, institutional, commercial). The remaining site types include two cemeteries, a school, a cooper shop, a dump, and an artifact scatter (Table E-4 in Appendix E). A total of 10 sites (52.6 percent) have been assessed as eligible for listing in the NRHP, and an additional two sites (10.5 percent) occur as non-contributing elements on National Register listed properties. One site (5.2 percent) has been assessed as potentially eligible for listing in the National Register, three sites (15.8 percent) have been assessed as not eligible for listing, and three sites (15.8 percent) have not been assessed for National Register eligibility (Table E-4 in Appendix E).

Two archaeological sites are situated immediately adjacent to the proposed Lindy Boggs project area. Site 16OR145 (Bayou St. John Post Office) was recorded by A. Lee in 1997, during a survey performed prior to the construction of the U. S. Post Office at 501 N. Jefferson Davis Parkway (Louisiana State site files). The site was described as a dense scatter of artifacts dating from the 19th century, which are probably related to both a house that once occupied the lot, and to more recent land filling activities. However, the site was determined to be severely disturbed, and therefore was assessed as not eligible for listing on the NRHP (Earth Search, Inc. 1997). Site 16OR214 (City Square 473) is located within an empty lot just north of Site 16OR145, between N. Jefferson Davis Parkway and the American Can Company building. This site was recorded by Earth Search, Inc. at an unspecified date (post-Hurricane Katrina), and described as a dump that contained materials dating from the early 20th century. This site, too, was severely disturbed, and therefore was assessed as not eligible for listing in the NRHP.

There are no National Register listed archaeological sites in the Lindy Boggs footprint; therefore, no previously identified archaeological sites will be subject to direct adverse impacts. No National Register listed archaeological sites are in the Lindy Boggs APE; therefore, no previously identified archaeological sites will be subject to indirect adverse impacts.

Archaeological Potential

Similar to the proposed Tulane/Gravier VAMC and LSU AMC sites, soils associated with the proposed Lindy Boggs alternative are classified as part of the Sharkey-Commerce Series, which most commonly are associated with non-flooded modern and abandoned natural levees (Trahan 1989). This soil series generally develops within poorly drained to very poorly drained, recently-deposited alluvium that is, or once was, subject to deep and seasonal flooding from the Mississippi River. Specifically, the Sharkey clay that underlies the Lindy Boggs alternative consists of poorly drained soil along the lower slopes of the natural levee of the Mississippi River and its distributaries (Trahan 1989). This soil unit indicates that the Lindy Boggs alternative is situated on the back end of the former Mississippi River natural levee. This landform would have been suitable for habitation during both the prehistoric and historic periods,

although may have been subject to seasonal flooding prior to implementation of historic and modern drainage projects.

Geomorphical analysis further indicates that the eastern edge of the Lindy Boggs alternative also may include portions of the old natural levee of Bayou St. John. This levee is characterized by Commerce Soils, which typically are found occupying intermediate and high positions along natural levees. Commerce Soils were well-suited for habitation during both the prehistoric and historic periods, even prior to land draining projects (Trahan 1989). Natives had long-recognized that Bayou St. John provided an easily traversed all-water route from the Mississippi River to Lake Pontchartrain (Freiburg 1980). The Chickasaws and the Choctaws were the primary users of the water route, though it was common to several other tribes (Freiburg 1980). For Europeans, Bayou St. John allowed for the shortest portage between the interconnected waterways of Lake Pontchartrain and New Orleans, making the bayou a valuable and strategic means of access to the City.

Although portions of the area encompassing the Lindy Boggs alternative may have been well-suited for settlement, there is little documentation to indicate human occupation of the area prior to the 20th century. The lot encompassing the previously recorded archaeological site 16OR145 served as the former location of a plaster company and small moss factory in 1908; this archaeological site previously was assessed as not eligible for inclusion on the NRHP. The portion of the Lindy Boggs property between St. Louis Street and Conti Street was occupied by rail tracks and facilities associated with the New Orleans Terminal Company Railroad during this period, while the remainder of the property was unoccupied (Sanborn 1908).

Between 1908 and 1957, the configuration of the railroad facilities remained essentially unchanged. In the city blocks south of Conti Street, a scrap yard, an ice company, a steel container company, a seed company, and various other small industrial complexes developed. Similar facilities, such as an industrial supply company, a motorcycle factory, and a warehouse for Sears Roebuck & Company, were developed north of St. Louis Street.

Presently, the footprint of the proposed Lindy Boggs alternative is covered by large buildings and paved parking lots associated with the LBMC and several commercial developments. The block bounded by Bienville Street, North Cortez Street, Conti Street, and North Scott Street, which formerly encompassed the location of the Inland Steel Container Company, is an undeveloped grassy lot (Sanborn 1951). While archaeological remains may be preserved in this undeveloped block, and under several paved parking areas within the proposed alternative, it is unlikely that the remains of the former industrial facilities once located in this area would possess those qualities of significance defined by the NRHP Criteria for Evaluation (36 CFR Part 60.4 [a-d]).

The northeastern corner of the proposed Lindy Boggs alternative encompasses a small grassy lot, which is situated at the corner of North Jefferson Davis Parkway and St. Louis Street. This lot lies approximately 50 meters (164.0 feet) from Bayou St. John. The lot may warrant archaeological investigation due to its proximity to the waterway and to the previously noted archaeological site 16OR145.

Alternative #3 – Ochsner Location

Surveys

Two previous surveys have been conducted within 1.6 kilometers (1.0 miles) of the proposed Ochsner site project area (Table E-5 in Appendix E). One survey, conducted on behalf of the Louisiana Department of Transportation and Development (Rivet 1977), consisted of a records review and brief field reconnaissance of a railroad corridor. The other was a cultural resources survey and inventory of a levee improvement project on the West Bank of the Mississippi River, and was conducted on behalf of the U. S. Army Corps of Engineers (Goodwin et al. 1987). Neither of these previous survey efforts intersected the proposed Ochsner Site project area.

Sites

Four archaeological sites have been recorded within 1.6 kilometers (1.0 miles) of the proposed Ochsner site project area (Table E-6 in Appendix E). These consisted of a prehistoric earthen mound (16JE43), a Civil War-era military camp (16JE31), a 19th to early 20th century plantation complex (16JE156), and a historic railroad embankment (16OR152). One site (Site 16JE156) is listed on the NRHP; in addition, the powder magazine at site 16JE31 is listed on the National Register, although the archaeological component of this site has not been assessed as to its National Register eligibility. Sites 16JE43 and 16OR152 have been assessed as not eligible for listing on the National Register. No archaeological sites have been recorded within the boundaries of the proposed Ochsner site project area.

Archaeological Potential

Similar to the other alternative sites, the soils associated with the proposed Ochsner site project area are Sharkey-Commerce Series soils, which most commonly are associated with non-flooded modern and abandoned natural levees (Trahan 1989). This soil series generally develops within poorly drained to very poorly drained, recently-deposited alluvium that is, or once was, subject to deep and seasonal flooding from the Mississippi River. Specifically, the Sharkey clay that underlies most of the Ochsner site consists of a poorly drained soil positioned along the lower slopes of the natural levee of the Mississippi River and its distributaries (Trahan 1989). The presence of this soil unit indicates that the Ochsner site is situated on the back end of the Mississippi River Levee. This landform would have been suitable for habitation during both the prehistoric and historic periods, although it may have been subject to seasonal flooding, especially prior to implementation of historic and modern drainage projects.

Furthermore, as previously discussed, few archaeological sites have been recorded in the vicinity of this proposed project area. The scarcity of recorded prehistoric sites may be due in part to the lack of archaeological research in the area prior to extensive modern development. Sites of the historic period may occur, but are not likely to pre-date the early part of the 20th century when the project area was adapted from agricultural land to residential and commercial properties (Bezou 1973; Sanborn 1937).

A reconnaissance of the proposed Ochsner site project area was made on 5 June 2008, in order to preliminarily identify portions of the property that could be tested for archaeological resources. At that time, almost the entire project area was covered by paved parking lots, helipads, warehouses, and various other structures. Only two locations on the property were undeveloped. The first location was a large rectangular parcel of land near the rear of the property and directly behind the Sears warehouse. This parcel measured approximately 130 meters by 70 meters (426 feet by 230 feet), and encompassed an area of approximately 2.2 acres (0.9 hectare). A layer of sandy fill intermixed with concrete and brick fragments elevated this lot approximately 0.3 meter (1.0 foot), and remnants of a steel reinforced concrete chain wall were present around the perimeter of the lot. According to Mr. William Ward, Systems Vice President of Facilities and Real Estate for Ochsner Health Systems, another warehouse building occupied this parcel until circa 1995, when the building was demolished due to deteriorated condition (Ward 2008). Mr. Ward also indicated that log pilings remain buried throughout the parcel, which supported the foundations of the former warehouse (Ward 2008).

The second undeveloped parcel on the Ochsner site property was a generally triangular-shaped parcel at the rear of the property, bounded by the Illinois Central Gulf Railroad line (north), a railroad spur that turns off the Illinois Central line and extends to between the Sears and A & P warehouses (southeast), and a paved parking lot (west). This parcel is overgrown with tall weeds and some small trees. The surface of this lot is largely covered with a crushed concrete and asphalt fill, and a large pile of discarded railroad ties and fence boards is present in the northeast corner of this parcel.

The use of crushed concrete, asphalt, and/or brick as fill material in both undeveloped lots would make it difficult, if not impossible to conduct archaeological surveys in these locations without first stripping the parcels of the overlying fill. Furthermore, given the degree of development across the entire Ochsner site project area, it is unlikely that any archaeological remains, if present, would remain intact underneath the overlying fills, pavements, and structures that cover the proposed project area. This level of disturbance, combined with the low density of prehistoric sites recorded in the area and the lack of evidence for historic development until the 20th century, strongly suggest that there is almost no potential for undisturbed archaeological sites to occur within the proposed Ochsner site project area, and no additional work is recommended.

3.5.4.2 Discussion of Impacts – Archaeology

Impacts of the No Action Alternative

Since no construction would occur at any of the sites, there would be no adverse direct or indirect impacts to archaeological resources within or near the project area under the No Action Alternative.

Impacts of the Proposed Actions

Potential archaeological impacts associated with the Proposed Actions are difficult to quantify prior to survey and evaluation. During the next phase of the project, archaeological investigations will be conducted in accordance with the PA and the archaeological methodology

that has been developed and included of the PA will be followed. Any sites found during the investigations will be treated in accordance with the methodology and the stipulations of the PA.

As previously discussed, the proposed Tulane/Gravier sites have a low potential for intact, prehistoric archaeological sites and a high potential for intact historic archaeological sites.

Impacts of Alternatives # 2 through # 4

Alternative #2 – Lindy Boggs Site

Similar to the Proposed Actions, potential archaeological impacts associated with this alternative are difficult to quantify. In general, there is a low potential to find intact prehistoric or historic archaeological remains on the site. However, the northeastern corner of this proposed location is a small grassy lot. This lot lies approximately 50 meters (164.0 feet) from Bayou St. John and may warrant archaeological investigation due to its proximity to the waterway and to the previously noted archaeological Site 16OR145. If this alternative is selected and the proposed design would disturb this part of the site, an archaeological analysis would be conducted as described for the Proposed Actions.

Alternative #3 – Ochsner Site

Similar to the Proposed Actions, potential archaeological impacts associated with this alternative are difficult to qualify. The level of disturbance on the site, combined with the low density of prehistoric sites recorded in the area and the lack of evidence of historic development until the 20th century, strongly suggests that there is almost no potential for undisturbed archaeological sites to occur within the proposed Ochsner Site, and no additional work is recommended.

Alternative #4 – Repair/Renovate Charity Hospital

Similar to the Proposed Actions, potential archaeological impacts associated with this alternative are difficult to qualify. The potential to find intact prehistoric or historic archaeological resources on the existing Charity hospital site is low. However, there are some undeveloped sites associated with the larger MCLNO complex. The level of previous disturbance of these sites is unknown, so these sites may have a potential for intact resources. Therefore, if this alternative is selected and the proposed design would disturb one of these undeveloped sites, an archaeological analysis would be conducted in accordance with the PA as described for the Proposed Actions.

3.6 SOCIOECONOMICS

3.6.1 Population and Housing

3.6.1.1 Existing Conditions – Population and Housing

Existing Locations

The existing VAMC and Charity Hospital are located within Orleans Parish. The most recent official population and housing information on Orleans Parish is from the U.S. Census Bureau (USCB) 2006 American Community Survey. Data for this survey were collected from January through December 2006 and combined to create an annual composite. The USCB has also prepared population estimates as of July 2007. Population trends in Orleans Parish are shown in table 3-6. Total population decreased somewhat between the 2000 Census and July 2005, just prior to Hurricane Katrina. As of July 2006, almost one year following Katrina, the population of Orleans Parish was 46.3 percent of the 2005 level. By July 2007, after two years of recovery, the population of the parish had begun to rebound, increasing to 239,124 persons. However, this is still only 52.7 percent of the 2005 (pre-Katrina) population.

Table 3-6. Population of Orleans Parish and Jefferson Parish – 2000 to 2007

| | 2000 Census | July 2005 | July 2006 | July 2007* |
|------------------|--------------------|------------------|------------------|-------------------|
| Orleans Parish | 484,674 | 453,726 | 210,198 | 239,124 |
| Jefferson Parish | 455,466 | 449,640 | 420,891 | 423,520 |

Note: 2005 and 2006 estimates were revised with the release of the 2007 Census estimates.

*Orleans Parish and Jefferson Parish have officially challenged their July 2007 Census estimates.

Source: GNOCDC, 2008a

Another method of estimating population recovery is to look at the number of residences actively receiving mail. The Greater New Orleans Community Data Center (GNOCDC) has compiled postal data that identify residential addresses actively receiving mail. The existing locations are in the northwestern portion of New Orleans Planning District 1. This district, which includes the French Quarter, experienced minimal flooding as a whole. As of June 2008, Planning District 1 contained 117 percent of its July 2005 active residences. This is indicative of current population distribution in the parish. More than half (52 percent) of the active residences in New Orleans in June 2008 were located in four largely unflooded planning districts, including Planning District 1. By comparison, those planning districts had contained only 39 percent of the City's households in 2000 according to Census findings (GNOCDC 2008a).

Based on the USCB 2007 population estimates, persons self-designated as minority individuals comprise approximately 69 percent of the Orleans Parish population and 4.5 percent of the population is of Hispanic ethnicity (USCB 2008b). In comparison, the 2000 Census reported approximately 73 percent of the parish population as minority and 3 percent as Hispanic ethnicity (USCB 2008c). In both years, the minority populations were composed largely of Black or African American residents.

In 2006, Orleans Parish had a total of 105,661 housing units, 30 percent of which were vacant (USCB 2008a). In 2000, prior to Hurricane Katrina, there were approximately twice as many (215,091) housing units in Orleans Parish as in 2006, and the vacancy rate was 12 percent (USCB 2008c). This dramatic loss of housing units was primarily the result of damage caused by Hurricane Katrina. According to FEMA estimates, a total of 107,379 housing units were flooded in Orleans Parish and another 26,965 units sustained wind damage. In all, 71 percent of housing units in the parish were damaged. Within New Orleans Planning District 1a (the Central Business District portion of Planning District 1), only 30 percent of housing units were damaged, with 35 percent due to flooding and the remaining 65 percent generally due to wind (FEMA 2006e).

In Orleans Parish, 51 percent of the 73,516 occupied housing units reported in 2006 were owner-occupied and 49 percent were occupied by renters. Sixty percent of the total housing units were in single-unit structures, 35 percent were in multi-unit structures, and 5 percent were mobile homes (USCB 2008a). Within Planning District 1, 12 percent of residential addresses, or 628 units, were unoccupied as of March 2008 based on the number of residences actively receiving mail (GNOCDC 2008a). This is much lower than the 30 percent vacancy rate for Orleans Parish as a whole. The average price of a single-family residence in the Claiborne-Tulane area declined 40 percent from \$179,379 in 2005 to \$107,864 in 2006. The average price rose to \$137,579 in 2007, an increase of 28 percent (UNO 2008).

Availability of affordable housing has been an issue in the years following Hurricane Katrina. Fair market rents in the New Orleans Metropolitan Statistical Area (MSA) have increased about 46 percent, with the monthly rent for a two-bedroom apartment, for example, rising from \$676 in 2005 to \$990 in 2008. Workers in key service sector jobs with labor shortages are having difficulty finding an apartment in the New Orleans area that has affordable rent, defined as 30 percent of their gross monthly income. A total of 8,038 families in Orleans Parish were receiving Disaster Housing Assistance Program vouchers as of June 2008. These vouchers are scheduled to expire in March 2009. There are 2,097 public housing units in the parish (GNOCDC 2008a). According to the Louisiana Housing Finance Agency (LHFA), approximately 19,000 additional affordable rental units are needed in Orleans Parish to reach pre-Hurricane Katrina numbers (LHFA 2008). Permits for new multi-family construction increased significantly in Orleans Parish during 2007, where 2,200 units were permitted to replace inventory destroyed by Hurricane Katrina, compared to 355 units permitted in 2006. Financing for this construction activity, driven by the Gulf Opportunity Zone legislation, has made use of tax exempt bonds and low-income housing credits. Permits for new single-family construction also increased significantly in Orleans Parish during 2007. Permits were issued for 1,026 units, which is a 119 percent increase over the 468 units permitted in 2006 (UNO 2008).

As discussed previously, postal data can be used to identify residential addresses actively receiving mail within each Census block, which can be used to estimate current population levels. Also, available demographic data can be evaluated in order to characterize current residential populations. The Census data sets for 2005 through 2007 are available only on the parish level and not for the smaller geographic entities referred to as statistical areas, including (in order of decreasing size) Census tract, block group, and block. Although block level data are available from the 2000 Census, they are no longer representative of conditions in the areas of

concern due to the dramatic changes in population and housing that have occurred in the New Orleans metropolitan area in the wake of Hurricane Katrina, especially within Orleans Parish. In order to provide information that is both representative of current conditions and on a small enough scale to address specific sites, population and housing estimates for 2008 were obtained from the Environmental Systems Research Institute, Inc. (ESRI). Business Analyst demographic database (ESRI 2008) provides information down to the block level. The ESRI demographic and housing profiles are based on recent information obtained from a variety of sources, including residential mail delivery statistics from the U.S. Postal Service, a database of household addresses, and residential construction data (ESRI 2008).

Based on these data, it is estimated that in 2008 there are no residents in the blocks containing the existing VAMC and Charity Hospital. This is not surprising considering that these facilities are located in a part of the Central Business District that is heavily developed with non-residential land uses. Within a one-quarter mile radius of these facilities, the estimated 2008 population is 1,220 residents (ESRI 2008).

Alternative # 1 – Proposed Actions – Tulane/Gravier Locations

The proposed VAMC and LSU AMC Tulane/Gravier sites are located within Orleans Parish. Therefore, the population and housing characteristics of the parish previously described for the existing locations are also applicable to these locations. The proposed VAMC and LSU AMC locations are in the southeastern portion of New Orleans Planning District 4. Large portions of this district experienced flooding associated with Hurricane Katrina. As of June 2008, Planning District 4 had recovered only 72 percent of its July 2005 active residences. This reflects current population distribution in the parish, in which current population is more concentrated in areas of the City that experienced no or limited flooding (GNOCDC 2008a).

Planning District 4 experienced a dramatic loss of housing units as a result of damage caused by Hurricane Katrina. According to FEMA estimates, 77 percent of housing units in the district were damaged. Almost all (96 percent) of the damage was due to flooding, with the remaining 4 percent generally due to wind (FEMA 2006e). Within Planning District 4, 35 percent of residential addresses were unoccupied as of March 2008 based on the number of residences actively receiving mail (compared to the 30 percent vacancy rate for Orleans Parish as a whole). This includes 11,345 addresses, which represents a large number of vacant or abandoned residential addresses (GNOCDC 2008a). A total of 70 new residential construction permits that did not have a corresponding demolition permit have been issued within Planning District 4 since Hurricane Katrina. This represents new residential construction, not the result of tear-downs or reconstruction of storm-damaged homes (GNOCDC 2008a).

As described for the existing sites, population and housing estimates for the proposed VAMC and LSU AMC Tulane/Gravier sites for 2008 were obtained from the ESRI Business Analyst demographic database (ESRI 2008), which provides a demographic profile down to the block level based on recent data from a variety of sources, including a database of household addresses, residential mail delivery statistics from the U.S. Postal Service, and residential construction data. Within the proposed VAMC site, the ESRI 2008 demographic profiles estimate 331 persons residing on the site, including 292 individuals, or 88 percent, identified as

minority. Within the proposed LSU AMC site, the ESRI 2008 demographic profiles estimate 287 persons residing on the site, including 250 individuals, or 87 percent, identified as minority. Within a one-quarter mile radius of the proposed VAMC and LSU AMC sites, the estimated 2008 population is 2,240 and 2,794 residents, respectively.

Site reconnaissance and ground-truthing of the City of New Orleans GIS database in July 2007 identified 63 occupied residential parcels on the proposed VAMC site. About one-third of these parcels contain two-family units and the other two-thirds contain single-family units, for a total of approximately 83 housing units (USRM 2008a). Reconnaissance and ground-truthing activities at the LSU AMC site conducted in May 2008 identified 31 occupied residential parcels (USRM 2008b). Assuming that one-third of those parcels contain two-family units, the LSU AMC site would contain approximately 41 housing units. Both of the sites are located in Census tract 49, which has an average household size of 2.51 persons according to the 2000 Census, the latest year demographic data are available on the tract level (USCB 2008c). Based on the 83 occupied housing units, the estimated population of the proposed VAMC site would be 208 persons. The 41 occupied residential parcels on the proposed LSU AMC site would represent a population of 103 persons. These populations, especially for the LSU AMC site, are considerably smaller than the populations estimated by ESRI. Therefore, the ESRI estimates provide a conservative representation of the populations residing on the two sites. If the Tulane/Gravier sites were selected, further investigation would be needed to better understand the demographic characteristics of the potentially impacted populations. A survey of the affected households could provide information on the current number of residents and their race and ethnicity, income, primary means of transportation, and rent or mortgage payments.

Community Cohesion

Community cohesion can be described as the unifying force of a group due to one or more characteristics that provide commonality. These characteristics may include such commonalities as race, education, income, ethnicity, religion, language, and mutual economic and social benefits. Community cohesion is the force that keeps group members together long enough to establish meaningful interactions, common institutions, and agreed upon ways of behavior. It is a dynamic process, changing as the physical and human environment changes. In New Orleans, community cohesion is found on a block-by-block, neighborhood, and city level.

New Orleans is a unique city with a deep sense of community, a sense of place. Before Hurricane Katrina, “no city in America...had a larger percentage of its population born in the city” (Shearer n.d.). New Orleanians also tend to remain in the city, generation after generation. Often families live within blocks of each other, having grown up and remained not only in the city, but within their neighborhood, and sometimes even in the home the family has owned for generations (Shearer n.d., Miller and Rivera 2008). New Orleans in general, and its neighborhoods and homes specifically, forms part of these residents’ personal self-identity.

This sense of place plays a role in bringing New Orleanians home to repair their destroyed neighborhoods, despite significant economic and physical obstacles. Even though the housing stock in the Tulane/Gravier area experienced 2 feet of flooding or more, over 50 percent of the residents had returned to their homes by July 2006 (NOCSF 2007). There are a number of

cultural and social events, and even types of food, unique to the city that contribute to the place identity and to residents' place attachment (Chamlee-Wright and Storr 2008). The Tulane/Gravier neighborhood is a primarily low-income area, with the majority of the residents African-American (GNOCDC, 2002). Research shows that attachment to a place is often strong in lower-income communities (Fried 2000). Within New Orleans, residents in some of the most heavily damaged areas, including low-income areas like the Lower-Ninth Ward, have some of the strongest bonds to their neighborhoods (Chamlee-Wright and Storr 2008). Participation in public forums for this PEA indicate there is also a strong place attachment for at least some residents within the Tulane/Gravier neighborhood and the Mid-City NRHD.

Community cohesion also finds expression in formal and informal neighborhood groups. There are several formal neighborhood organizations whose boundaries overlap the proposed VAMC and LSU AMC sites within the Tulane/Gravier neighborhood. The Phoenix of New Orleans is a neighborhood recovery organization for the area bounded by Claiborne Avenue and St. Louis, Broad, and Poydras Streets (PNLOA 2008). The Tulane-Canal neighborhood Development Corporation, with the support of St. Joseph's Catholic Church, has been dedicated since 2001 to providing affordable housing within the Bienville Corridor (Providence n.d.). There are also a number of churches in the area which may include some informal community organizations.

Alternative # 2 – Lindy Boggs Location

The Lindy Boggs site is located in Orleans Parish. Therefore, the population and housing characteristics previously described for the existing locations and the proposed Tulane/Gravier locations are also applicable to this location. There are no residential properties and, therefore, no residents within the proposed Lindy Boggs site boundaries. There are no records of households actively receiving mail in the designated city blocks (GNOCDC 2008b). Within a one-quarter mile radius of this site, the estimated 2008 population is 4,097 residents (ESRI 2008). Given that the Lindy Boggs site has been used for non-residential purposes for some time and the surrounding community has been functioning under those circumstances, community cohesion is not considered to be a concern for this site.

Alternative # 3 – Ochsner Location

The alternative VAMC Ochsner site is located in Jefferson Parish. The most recent detailed population and housing information for Jefferson Parish from the USCB is provided by the 2006 American Community Survey. The USCB has also prepared population estimates as of July 2007. Population trends in Jefferson Parish are shown in table 3-6. Total population decreased somewhat between the 2000 Census and July 2005, just prior to Hurricane Katrina. As of July 2006, almost one year following Katrina, the population of Jefferson Parish was 93.6 percent of 2005 levels. By July 2007, after two years of recovery, the population of the parish had rebounded slightly to 423,520, representing 94.2 percent of the 2005 population. The population fluctuation in Jefferson Parish has not been as great as in Orleans Parish.

Based on the USCB 2007 population estimates, approximately 41 percent of the Jefferson Parish population identified themselves as minority individuals and 9 percent of the population is of Hispanic ethnicity (USCB 2008b). In comparison, the 2000 Census reported 34.5 percent of the

parish population as minority and approximately 7 percent as Hispanic ethnicity (USCB 2008c). In both years, the minority populations were composed largely of Black or African American residents.

In 2000, there were 143 persons in the Census block that contains the Ochsner site and another 272 persons in the adjacent blocks between Jefferson Highway and the railroad line to the north (USCB 2008c). However, the Ochsner site itself contains no residential properties or residents (ESRI 2008). Within a one-quarter mile radius of this site, the estimated 2008 population is 1,748 residents (ESRI 2008). Given that the Ochsner site has been used for non-residential purposes for some time and the surrounding community has been functioning under those circumstances, community cohesion is not considered to be a concern for this site.

In 2006, Jefferson Parish had a total of 184,196 housing units, 16 percent of which were vacant. Of the 154,500 occupied units, 67 percent were owner-occupied and 33 percent were occupied by renters. Sixty-nine percent of the total housing units were in single-unit structures, 29 percent were in multi-unit structures, and 3 percent were mobile homes (USCB 2008a). There was a slightly greater number of housing units in the parish in 2000 (187,907) and the vacancy rate was lower (6.2 percent) (USCB 2000c). According to FEMA estimates, a total of 30,737 housing units were flooded in Jefferson Parish as a result of Hurricane Katrina and another 63,076 units sustained wind damage. In all, 53 percent of housing units in the parish were damaged (FEMA 2006e).

Availability of affordable housing has been an issue in the New Orleans area, including Jefferson Parish, in the years following Hurricane Katrina. As mentioned previously, average monthly rents in the New Orleans MSA have risen approximately 46 percent between 2005 and 2008. A total of 3,834 families in Jefferson Parish were receiving Disaster Housing Assistance Program vouchers as of June 2008. These vouchers are scheduled to expire in March 2009. There are 637 public housing units in the parish (GNOCDC 2008a). According to the Louisiana Housing Finance Agency, approximately 5,024 additional affordable rental units are needed in Jefferson Parish to reach pre-Hurricane Katrina numbers (LHFA 2008).

3.6.1.2 Discussion of Impacts – Population and Housing

Impacts of the No Action Alternative

Under the No Action alternative, no construction would occur at the existing VAMC and Charity Hospital sites. As there are no residents occupying these sites, there would be no direct adverse impacts on population levels or housing in this area. However, without implementation of the Proposed Actions, the SLVHCS and MCLNO medical systems would continue to operate at their current reduced capacities. The reestablishment of a complete, quality healthcare system and medical training center for the people of New Orleans and for veterans throughout the Gulf Coast Region would not occur. This could have an indirect adverse impact on population levels in Orleans Parish because some former residents would be reluctant to return and new residents would be less likely to move to New Orleans.

Impacts of the Proposed Actions

Direct Impacts

Under the Proposed Actions, the resident population and housing that exist on the proposed Tulane/Gravier VAMC and LSU AMC locations would be directly impacted. The existing residential, commercial, and other structures on these properties would be removed, and hospitals and other medical-related buildings would be constructed in their place. The majority of the areas within these sites are empty lots, vacant structures, or surface parking lots. Less than half of the areas within these sites are currently utilized for active residential or commercial uses. A total of approximately 618 persons are estimated to reside currently on these two sites in a total of 265 housing units. These totals include approximately 331 residents and 140 housing units on the VAMC site and 287 residents and 125 housing units on the LSU AMC site (ESRI 2008). As a direct result of the proposed projects, these residents of the proposed VAMC and LSU AMC sites would be displaced and required to relocate to housing outside of the project areas. It is reasonable to assume that the residents displaced from these sites would remain in the City. Accordingly, the population of the City would not be significantly affected, though there could be minor changes in the populations of Planning District 4 and other local planning districts.

The displacement of residents would have an adverse effect on housing. However, the level of impact would be reduced through mitigation measures. Mitigation measures are actions taken to avoid, minimize, rectify, reduce or eliminate the adverse impact (FEMA 2008). The Uniform Relocation Assistance and Real Property Acquisition Policies Act, also referred to as the Uniform Relocation Act (URA), establishes standards for the acquisition, rehabilitation, or demolition of real property for Federally funded projects. The URA was passed as Public Law 91-646, and is codified in law at 42 USC Chapter 61. These standards apply to the acquisition of real estate or the displacement of people from homes, businesses, or farms due to the requirements of Federally-funded projects and are administered as amended under 49 CFR Part 24. Among the objectives of the URA program are: to ensure relocation assistance is provided to displaced persons to lessen the emotional and financial impact of displacement; and to ensure that no individual or family is displaced unless decent, safe, and sanitary housing is available within the displaced person's financial means (HUD 2005). In addition to the URA, measures contained in the Louisiana Revised Statutes 19:1 through 19:15 will also be followed. These provisions set forth procedures that address the rights of property owners and are to be followed when property is expropriated (taken). Mitigation measures in compliance with the URA and the Louisiana Expropriation Provisions, which would be implemented to reduce the adverse effects of displacement on the residents affected, are described in detail in Chapter 5, Mitigation of this PEA.

These mitigations measures also apply to businesses and nonprofit organizations, affected by construction of the new VAMC and LSU AMC facilities at the proposed Tulane/Gravier locations. Mitigation measures that reinforce the government commitment to provide housing for those displaced would include provision of replacement housing payments for the increased costs of renting or purchasing a comparable replacement dwelling; provision of "housing of last resort" when comparable decent, safe, and sanitary replacement housing within a displaced

person's financial means cannot be made available; and assisting displaced persons by offering services such as transportation to locate replacement housing, social services or financial referrals, and listings of comparable dwellings.

As described in Section 3.6.1.1, availability of affordable housing has been an issue in New Orleans in the years following Hurricane Katrina. Although availability of rental units in multi-family housing has continued to improve, market pressures have acted to keep rents well above pre-Hurricane Katrina levels. Rents in the Mid-City area as of Fall 2007 had declined about 11 percent from post-Hurricane Katrina highs, but still remain elevated, averaging about \$1,000 for a one-bedroom apartment and about \$1,100 to \$1,500 for a two-bedroom unit. The availability of affordable apartments is expected to improve, however, as units financed through incentives provided under the Road Home Small Rental Program (smaller properties such as duplexes, triplexes, and four-plexes) and Gulf Opportunity Zone (larger properties) come on the market. There are approximately 2,000 of these units currently in development within Orleans Parish that will add to the inventory of affordable housing within the next six to 12 months. When property owners rebuild through the State's Road Home Small Rental Program, they agree to "bought down" affordable rent levels as a condition of the grant. The Louisiana Recovery Authority has awarded funds to owners of 8,740 units in Orleans Parish, 7,540 of which will be affordable rental apartments (UNO 2008).

Under the Proposed Actions, there would be an adverse impact on community cohesion in the Tulane/Gravier neighborhood. There would be a displacement of community residents, some of whom may have a deep sense of place attachment to their homes and their neighborhoods. Additionally, the proposed sites are located in the middle of the Tulane/Gravier neighborhood and their conversion to medical use would effectively divide the northeast and southwest portions of the neighborhood, except for a six-block connecting corridor on the northwest side. Another effect is the disruption of social networks (child care, informal employment, etc.) that have been established among the residents.

Indirect Impacts

Assuming the displaced residents remain in Planning District 4, an indirect impact would result from the increase in demand for housing in the neighborhoods within the district. Thirty-five percent of the residential addresses in Planning District 4 are unoccupied, representing a total of 11,345 addresses (GNOCDC 2008a). Thus, the increased housing demand due to the displaced residents of the VAMC and LSU AMC locations would represent about 2 percent of the number of unoccupied residential addresses in Planning District 4. Although these unoccupied residential addresses include heavily damaged homes, it is likely that the available vacancies would include a sufficient number of housing units, given the small percentage of vacancies required to accommodate the displaced residents. FEMA damage assessments following Hurricane Katrina for Planning District 4, indicated damage throughout the district with 24 percent of the building stock habitable, 72 percent that may or may not be habitable (partial occupancy permitted), and 2 percent of the stock unsafe to enter with occupancy prohibited (NOCSF 2007). New residential housing units are continually being added in the City, and this is expected to continue through the time when residents would be required to relocate. For example, in Orleans Parish, 1,251 new residential housing units, including both single homes and

multi-family units, were authorized from January through May 2008 (GNOCDC 2008a). The availability of these housing units at costs/rents that could be afforded by the displaced residents is addressed in the Direct Impacts discussion.

Housing values in Orleans Parish have been affected by factors such as the extent of flooding in the particular area, the amount of rebuilding occurring there and the rate at which residents are returning, the rebuilding of damaged infrastructure, and reestablishment of community facilities and services. Changes in pricing have been variable from year to year, a trend that is likely to continue as properties are redeveloped and placed back onto the marketplace. The average price of a single-family residence in the Claiborne-Tulane area declined 40 percent from \$179,379 in 2005 to \$107,864 in 2006. The average price rose to \$137,579 in 2007, an increase of 28 percent (UNO 2008). With the new medical center facilities serving as a catalyst for development and growth in the area, construction and operation of the proposed VAMC and LSU AMC facilities would be expected to result in an increase in property values in the surrounding area.

During the demolition/construction period, employment at the project sites would substantially increase. However, construction-related jobs would be temporary and would be unlikely to cause an influx of residents to the immediate area. After the medical centers are completed and become operational, the substantial increase in demand for workers at these facilities could result in some employees moving to residences in the vicinity of their workplace. The resulting increase in population and demand for housing in the area likely would be small relative to the situation under existing conditions. Also, the indirect impacts on housing could be beneficial due to the need for redevelopment, which the employees' presence would promote. On the other hand, there potentially could be an adverse impact on available housing supply if development of medical support services and facilities resulted in the loss of existing housing.

Impacts of Alternatives # 2 through # 4

Alternative # 2 – Lindy Boggs Location

Direct and indirect impacts of this alternative on population and housing due to development of the LSU AMC site at the proposed location would be the similar to the impacts described for the Proposed Actions, although the increased demand for housing would be distributed over a somewhat larger geographic area and this alternative would involve displacement of fewer residents. Approximately 287 residents and 125 housing units on the LSU AMC site would be displaced under this alternative, less than half the numbers that would be affected by the Proposed Actions.

Development of the VAMC facility at the Lindy Boggs location would have no direct effects on population or housing because there are no current residents on the Lindy Boggs site. Indirect effects from construction and operation of the VAMC at the Lindy Boggs location would be similar to those described for the Proposed Actions. Indirect effects from development of both the LSU AMC and VAMC sites could be beneficial in that employee demand for housing in nearby areas could stimulate redevelopment and increase property values, and adverse if development of medical support services and facilities resulted in the loss of existing housing.

Alternative # 3 – Ochsner Location

Direct and indirect impacts of this alternative on population and housing due to development of the LSU AMC site at the proposed location would be the same as described for the Proposed Actions, though of smaller magnitude due to the smaller size of the development for a single medical facility. Approximately 287 residents and 125 housing units on the LSU AMC site would be displaced under this alternative, less than half the numbers that would be affected by the Proposed Actions.

Development of the VAMC facility at the Ochsner location would have no direct effects on population or housing because there are no current residents on the Ochsner site. Indirect effects from construction and operation of the VAMC at the Ochsner location would be similar to those described for the Proposed Actions. Indirect effects from development of both the LSU AMC and VAMC sites could be beneficial due to potential employee demand for housing in nearby areas, which could stimulate redevelopment and increase property values, and adverse if development of medical support services and facilities resulted in the loss of existing housing.

Alternative # 4 – Charity Hospital Location

The direct and indirect impacts of this alternative on population and housing from development of the VAMC site at the Tulane/Gravier, Lindy Boggs, or Ochsner locations would be the same as described previously for those alternatives.

Re-development of the Charity Hospital site for use by the LSU AMC would have no direct effects on population or housing because there are no current residents on the Charity Hospital site. Indirect effects from construction and operation of the VAMC at the Charity Hospital site would be similar to those described for the Proposed Actions.

3.6.2 Community Facilities and Services

3.6.2.1 Existing Conditions – Community Facilities and Services

Existing Locations

The existing VAMC and Charity Hospitals are located in Ward 3 and Planning District 1a of the City of New Orleans in Orleans Parish. All local government functions in the ward are performed by the City of New Orleans. New Orleans Police Department District 8 provides protection services, and New Orleans Fire Department District 8 provides fire suppression services in this area (CNO 2008b). All local government functions in the ward are performed by the City of New Orleans. New Orleans Police Department District 1 provides protection services, and New Orleans Fire Department District 1 provides fire suppression services in this area (CNO 2008b).

New Orleans Public Schools providing educational services to residents in the vicinity of the existing locations include one elementary school, one academy for kindergarten and grades 5 and 6, and four high schools (NOLA 2008). There are 11 hospitals in the New Orleans metropolitan area, located in both Orleans and Jefferson Parishes. There are two hospitals and five clinics

near the existing VAMC and Charity Hospitals (GNOCDC 2008a). As described in Section 1.1, community healthcare facilities and the services they provide continue to be significantly impacted by the damage sustained as a result of hurricane Katrina.

Alternative # 1 – Proposed Actions – Tulane/Gravier Locations

The proposed VAMC and LSU AMC sites are located within Ward 3 and Planning District 4 of the City of New Orleans in Orleans Parish. All local government functions in the ward are performed by the City of New Orleans. New Orleans Police Department District 1 provides protection services, and New Orleans Fire Department District 2 provides fire suppression services (CNO 2008b). New Orleans Public Schools in the vicinity of the Tulane/Gravier and Lindy Boggs locations include three elementary schools, one academy for kindergarten and grades 5 and 6, three academies for kindergarten through grade 8, and four high schools (NOLA 2008). There are 11 hospitals in the New Orleans metropolitan area, located in both Orleans and Jefferson Parishes. There are two hospitals and five clinics near the proposed Tulane/Gravier locations. University Hospital, located across Tulane from the proposed LSU AMC site, is part of the MCLNO system; Tulane University Hospital is located in downtown New Orleans near the existing VAMC and Charity facilities.

Alternative # 2 – Lindy Boggs Location

The alternative VAMC Lindy Boggs site is located primarily in Ward 4 and approximately 6.9 acres in Ward 5, and the site is in Planning District 4 of the City of New Orleans in Orleans Parish. All local government functions in the wards are performed by the City of New Orleans. New Orleans Police Department District 1 provides protection services, and New Orleans Fire Department District 4 provides fire suppression services (CNO 2008b). The public schools and hospitals in the vicinity of the Lindy Boggs location are the same as those described for the Tulane/Gravier locations.

Alternative # 3 – Ochsner Location

The alternative VAMC Ochsner site is located in unincorporated Metairie in Jefferson Parish. Therefore, Jefferson Parish performs all local government functions within the Parish boundaries (Jefferson Parish 2008d). Police protection is provided by the Jefferson Parish Sheriff's Office District 1 (JPSO 2008). The Jefferson Parish Eastbank Consolidated Fire Department provides fire suppression services for the Ochsner location (Jefferson Parish 2008d). The Parish has one school district, the Jefferson Parish Public Schools. Schools in the vicinity of the Ochsner location include three elementary schools, two middle schools, and one high school (JPPS, 2006). There are 11 hospitals in the New Orleans metropolitan area, located in both Orleans and Jefferson Parishes (GNOCDC 2008a). Ochsner Hospital is located across the street from the alternative VAMC Ochsner location.

3.6.2.2 Discussion of Impacts – Community Facilities and Services

Impacts of the No Action Alternative

Under the No Action alternative, there would be no construction of medical facilities either at the existing locations used by the VAMC and MCLNO or at alternative locations. The functions currently performed and the existing community facilities and services utilized at these locations would continue as described for existing conditions. Consequently, there would be no changes that would result in direct or indirect impacts on community facilities and services under the No Action alternative.

Impacts of the Proposed Actions

Direct Impacts

The Proposed Actions for the Tulane/Gravier VAMC and LSU AMC sites would satisfy the need for improved and expanded healthcare facilities in New Orleans, as described in Section 1.1.2. As a result, it would have substantial beneficial direct impacts on medical facilities and the delivery of medical services in the City.

Indirect Impacts

Local police and fire districts would be able to adequately serve the proposed medical facilities at these locations. Local schools would not be indirectly affected because of the lack of planned residential development at these sites, and indirect effects on schools from possible increased local population attracted by the development of these sites would be unlikely to result in exceeding the capacities of local schools. Thus, the Proposed Actions would have a predominantly beneficial indirect impact on community facilities and services.

Impacts of Alternatives # 2 through # 4

For each alternative action, the direct and indirect impacts of this alternative on community facilities and services would be essentially the same as described for the Proposed Actions.

3.6.3 Environmental Justice

Environmental justice must be considered for Federal actions under the NEPA process. EO 12898 (59 FR 7629) directs Federal agencies to identify and address, as appropriate, potential disproportionately high and adverse human health and environmental impacts on minority and low-income populations.

The CEQ provides the following information in *Environmental Justice: Guidance Under the National Environmental Policy Act* (CEQ 1997a):

- Disproportionately High and Adverse Human Health Effects. Adverse health effects are measured in risks and rates that could result in latent cancer fatalities, as well as other

fatal or nonfatal adverse impacts on human health. Adverse health effects may include bodily impairment, infirmity, illness, or death. Disproportionately high and adverse human health effects occur when the risk or rate of exposure to an environmental hazard for a minority or low-income population is significant (as defined by NEPA) and appreciably exceeds the risk or exposure rate for the general population or for another appropriate comparison group (CEQ 1997a).

- Disproportionately High and Adverse Environmental Effects. A disproportionately high environmental impact that is significant (as defined by NEPA) refers to an impact or risk of an impact on the natural or physical environment in a low-income or minority community that appreciably exceeds the environmental impact on the larger community. Such effects may include ecological, cultural, human health, economic, or social impacts. An adverse environmental impact is an impact that is determined to be both harmful and significant (as defined by NEPA). In assessing cultural and aesthetic environmental impacts, impacts that uniquely affect geographically dislocated or dispersed minority or low-income populations or American Indian tribes are considered (CEQ 1997a).

The environmental justice analysis assesses the potential for disproportionately high and adverse human health or environmental effects on minority and low-income populations that could result from selection of sites for construction of the New Orleans VAMC and LSU AMC facilities. In assessing the impacts, the following CEQ (CEQ 1997a) definitions of minority individuals and populations and low-income population were used:

- Minority individuals. Individuals who identify themselves as members of the following population groups: Hispanic or Latino, American Indian or Alaska Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, or two or more races, meaning individuals who identified themselves on a Census form as being a member of two or more races, for example, Hispanic and Asian.
- Minority populations. Minority populations are identified when: 1) the minority population of an affected area exceeds 50 percent or 2) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis.
- Low-income populations. Low-income populations in an affected area are identified with the annual statistical poverty thresholds from the Census Bureau's Current Population Reports, Series P-60, on Income and Poverty.

Environmental justice analysis focuses on residents living within the areas where there could be potentially adverse environmental impacts, which for the purposes of this PEA are those areas within one-quarter mile of each site under consideration, including the existing sites. In addition, the populations currently occupying the proposed new Tulane/Gravier sites are also considered. Other populations that could potentially experience adverse impacts are those communities along potential travel routes to be followed by trucks transporting demolition debris from the sites to landfills or recycling centers for disposal. Those communities could experience adverse health effects from exhaust and dust emitted from the trucks and the debris they carry.

3.6.3.1 Existing Conditions – Environmental Justice

Data collection efforts involving the identification of minority and low-income populations that might be affected by implementation of the Proposed Actions or alternatives are central to the identification and consideration of environmental justice issues. The USCB's 2000 Census provides the most detailed data on race/ethnicity and income. However, dramatic changes in population have occurred in the New Orleans metropolitan area in the wake of Hurricane Katrina, especially within Orleans Parish. The 2006 American Community Survey from the USCB provides post-Hurricane Katrina population information; however, the data are available only down to the parish level and not for the smaller statistical subdivisions needed for an environmental justice analysis. In order to obtain demographic information that represents current conditions on an appropriate spatial scale, population and income estimates for 2008 were obtained from the ESRI Business Analyst demographic database (ESRI 2008). The ESRI demographic and income profiles are based on recent information obtained from a variety of sources, such as change in households estimated from address counts, delivery counts, and new housing construction. Both the 2000 Census data and the ESRI 2008 population and income estimates are presented in the environmental justice discussion in order to better identify minority and/or low-income populations that occur in the areas of interest.

A population is considered to be a minority population if the number of minority individuals in the study area exceeds 50 percent or if the number exceeds the State average by 20 percentage points or more. The ESRI 2008 estimates do not include a breakdown of the population reported as white into Hispanic and non-Hispanic ethnicity (as found in the 2000 Census data). Therefore, the 2008 minority population is assumed to include persons identified as all racial categories with the exception of white, plus all persons identified as Hispanic. A population is considered low-income if the percentage of the population in the study area living below the Federal poverty threshold exceeded the state average by 20 percent or more. The ESRI 2008 estimates do not include data on poverty. Therefore, using the ESRI database, a population is assumed to be low-income if the percentage of households with annual income less than \$15,000 exceeds the State average by 20 percent or more.

Truck travel routes for hauling demolition debris to landfills were examined in order to determine if they pass through environmental justice communities of concern. Debris from the sites in Orleans Parish would be transported along I-10, which is the route the trucks would follow for most of the trip. The potential Tulane/Gravier sites are located adjacent to I-10, with access via two six-lane divided major arterial roadways (Tulane Avenue and Canal Street). The Lindy Boggs site is approximately 1.7 miles from the I-10, via Orleans Avenue. The Ochsner site is located on Jefferson Highway (US 90), which is a six-lane divided major arterial roadway. During demolition, vehicles carrying debris would utilize for the most part the major arterial roadways and not the local streets within residential areas.

An analysis of potential truck routes from the proposed Tulane/Gravier sites to four regional landfills that accept demolition debris was performed by USEPA. Areas within one-quarter mile of the truck routes were examined to determine if any of those areas would be considered environmental justice communities of concern, based on 2000 Census data. The four routes each passed through minority and low-income populations that would be considered communities of

concern (Augurson 2008). After the site selection process is completed for the VAMC and LSU AMC facilities, specific truck travel routes would be identified and addressed through appropriate mitigation measures at that time. Therefore, it is anticipated that no communities of concern would be adversely impacted along the potential truck routes.

Existing Locations

The existing VAMC and Charity Hospital sites were considered together for the environmental justice analysis. That is, the community located within one-quarter mile of the area containing the existing VAMC and MCLNO facilities was considered as the potentially impacted population. According to the 2000 Census, 2,222 persons lived within one-quarter mile of the existing locations. Of this total population, 1,708 or 76.9 percent were minority and 511 households or 58.3 percent of the households were low-income (compared to 19.1 percent of households in the State of Louisiana below the poverty level). The ESRI 2008 demographic profiles estimate 1,220 persons residing in the study area, including 1,020 or 83.6 percent identified as minority and 293 households or 51.0 percent with an annual income of less than \$15,000 (compared to 20.5 percent for the State) (ESRI 2008). Table 3-7 provides the 2000 and 2008 demographic and income profiles for the potentially impacted community surrounding the existing locations, including race, ethnicity, and income. Demographic information is also presented for Orleans Parish and the State of Louisiana.

Based on the 2000 Census information and 2008 demographic estimates, the population located within one-quarter mile of the existing VAMC and MCLNO facilities is greater than 50 percent minority and exceeds the Louisiana average of persons below the poverty level by more than 20 percent. Therefore, based on the CEQ definitions of minority individuals and minority and low-income populations, the population within one-quarter mile of the existing locations constitutes a community of concern for environmental justice purposes.

Alternative # 1 – Proposed Actions – Tulane/Gravier Locations

The proposed Tulane/Gravier locations, including the VAMC and LSU AMC sites, are considered separately for the environmental justice analysis. The on-site residents as well as the surrounding community are addressed for both sites.

Proposed VAMC Site

The population currently occupying the proposed VAMC site was characterized based on the 2000 Census and the 2008 ESRI demographic estimates. According to the 2000 Census, 416 persons lived on the proposed site. Of this total population, 363 or 87.3 percent were minority and 83 households or 45.9 percent were low-income (compared to 19.1 percent of households in the State of Louisiana below the poverty level). The ESRI 2008 demographic profiles estimate 331 persons residing on the site, including 292 or 88.2 percent identified as minority, and 61 households or 43.6 percent with an annual income of less than \$15,000 (compared to 20.5 percent for the State) (ESRI 2008). Table 3-8 provides the 2000 and 2008 demographic and income profiles for the population currently occupying the proposed VAMC site, including race, ethnicity, and income.

According to the 2000 Census, 3,392 persons lived within one-quarter mile of the proposed VAMC site. Of this total population, 3,056 or 90.1 percent were minority and 728 households or 54.5 percent were low-income. The ESRI 2008 demographic profiles estimate 2,240 persons residing in the study area, including 2,105 or 94.0 percent identified as minority, and 457 households or 52.8 percent with an annual income of less than \$15,000 (ESRI 2008). Table 3-8 provides the 2000 and 2008 demographic and income profiles for the potentially impacted community surrounding the proposed VAMC site.

The population currently residing on the proposed VAMC site as well as the population living within one-quarter mile of the site are greater than 50 percent minority and exceed the Louisiana average of persons below the poverty level by more than 20 percent. Therefore, based on the CEQ definitions of minority individuals and minority and low-income populations, the population on the VAMC site and the population within one-quarter mile of the site are identified as communities of concern for environmental justice purposes.

Proposed LSU AMC Site

According to the 2000 Census, 287 persons lived on the proposed LSU AMC site. Of this total population, 245 or 85.4 percent were minority and 62 households or 48.4 percent of the households were low-income (compared to 19.1 percent of households in the State of Louisiana below the poverty level). The ESRI 2008 demographic profiles estimate 287 persons residing on the site, including 250 or 87.2 percent identified as minority, and 53 households or 41.7 percent with an annual income of less than \$15,000 (compared to 20.5 percent for the State) (ESRI 2008). Table 3-8 provides the 2000 and 2008 demographic and income profiles for the population currently occupying the proposed new LSU AMC site, including race, ethnicity, and income.

According to the 2000 Census, 4,796 persons lived within one-quarter mile of the proposed new LSU AMC site. Of this total population, 4,213 or 87.8 percent were minority and 1,067 households or 63.5 percent were low-income. The ESRI 2008 demographic profiles estimate 2,794 persons residing in the study area, including 2,624 or 93.9 percent identified as minority, and 612 households or 60.8 percent with an annual income of less than \$15,000 (ESRI 2008). Table 3-8 provides the 2000 and 2008 demographic and income profiles for the potentially impacted community surrounding the proposed new LSU AMC site.

The population currently residing on the proposed LSU AMC site as well as the population living within one-quarter mile of the site are greater than 50 percent minority and exceed the Louisiana average of persons below the poverty level by more than 20 percent. Therefore, based on the CEQ definitions of minority individuals and minority and low-income populations, the population on the LSU AMC site and the population within one-quarter mile of the site are identified as communities of concern for environmental justice purposes.

Alternative # 2 – Lindy Boggs Location

The community located within one-quarter mile of the alternative VAMC Lindy Boggs site was considered as the potentially impacted population. The site does not contain a residential

population, therefore only the surrounding community is addressed. According to the 2000 Census, 5,281 persons lived within one-quarter mile of the Lindy Boggs site. Of this total population, 3,207 or 60.7 percent were minority and 603 households or 23.8 percent were low-income (compared to 19.1 percent of households in the State of Louisiana below the poverty level). The ESRI 2008 demographic profiles estimate 4,093 persons residing in the study area, including 2,401 or 58.7 percent identified as minority, and 435 households or 22.9 percent with an annual income of less than \$15,000 (compared to 20.5 percent for the State) (ESRI 2008). Table 3-9 provides the 2000 and 2008 demographic and income profiles for the potentially impacted community surrounding the Lindy Boggs site, including race, ethnicity, and income.

The population located within one-quarter mile of the Lindy Boggs site is greater than 50 percent minority. Therefore, based on the CEQ definitions of minority individuals and minority populations, the population within one-quarter mile of the site is identified as a community of concern for environmental justice purposes.

Alternative # 3 – Ochsner Location

The alternative VAMC Ochsner site, located in Jefferson Parish, was addressed in the same manner as the sites in Orleans Parish. That is, the community located within one-quarter mile of the site was considered to be the potentially impacted population, and is characterized based on the 2000 Census and the 2008 ESRI demographic estimates. The site is composed of non-residential parcels; therefore, there is no on-site residential population. According to the 2000 Census, 1,810 persons lived within one-quarter mile of the Ochsner site. Of this total population, 587 or 32.4 percent were minority and 94 households or 12.9 percent of the households were low-income (compared to 19.1 percent of households in the State of Louisiana below the poverty level). The ESRI 2008 demographic profiles estimate 1,748 persons residing in the study area, including 670 or 38.3 percent identified as minority, and 144 households or 19.9 percent with an annual income of less than \$15,000 (compared to 20.5 percent for the State) (ESRI 2008). Table 3-10 provides the 2000 and 2008 demographic and income profiles for the potentially impacted community surrounding the Ochsner site, including race, ethnicity, and income. Demographic information is also presented for Jefferson Parish and the State of Louisiana.

The population located within one-quarter mile of the Ochsner site does not meet the CEQ definition of minority or low-income because the number of minority persons is less than 50 percent of the population and the percentage of low-income persons is less than the State average. Therefore, this population is not identified as a community of concern for environmental justice purposes.

Table 3-7. Demographic Profile of Population and Income in the Community Surrounding the Existing Locations, Orleans Parish, and the State of Louisiana

| | ¼ mile radius of Existing MCLNO / VAMC Sites | | | | Orleans Parish | | | | State of Louisiana | | | |
|---|--|--------------|--------|--------------|----------------|--------------|---------|--------------|--------------------|--------------|-----------|--------------|
| | 2000 | | 2008 | | 2000 | | 2008 | | 2000 | | 2008 | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total Population | 2,222 | 100 percent | 1,220 | 100 percent | 484,674 | 100 percent | 321,466 | 100 percent | 4,468,976 | 100 percent | 4,500,627 | 100 percent |
| Race | | | | | | | | | | | | |
| White | 535 | 24.1 percent | 200 | 16.4 percent | 135,956 | 28.1 percent | 97,304 | 30.3 percent | 2,856,161 | 63.9 percent | 2,791,775 | 62.0 percent |
| Black or African American | 1,439 | 64.8 percent | 908 | 74.4 percent | 325,947 | 67.3 percent | 206,242 | 64.2 percent | 1,451,944 | 32.5 percent | 1,512,095 | 33.6 percent |
| American Indian or Alaska Native | 7 | 0.3 percent | 5 | 0.4 percent | 991 | 0.2 percent | 703 | 0.2 percent | 25,477 | 0.6 percent | 29,914 | 0.7 percent |
| Asian | 188 | 8.5 percent | 76 | 6.2 percent | 10,972 | 2.3 percent | 8,950 | 2.8 percent | 54,758 | 1.2 percent | 70,991 | 1.6 percent |
| Native Hawaiian or Other Pacific Islander | 0 | 0.0 percent | 0 | 0.0 percent | 109 | 0.02 percent | 74 | 0.02 percent | 1,240 | 0.03 percent | 1,530 | 0.03 percent |
| Some Other Race | 21 | 0.9 percent | 14 | 1.1 percent | 4,498 | 0.9 percent | 3,409 | 1.1 percent | 31,131 | 0.7 percent | 36,450 | 0.8 percent |
| Two or More Races | 32 | 1.4 percent | 20 | 1.6 percent | 6,201 | 1.3 percent | 4,784 | 1.5 percent | 48,265 | 1.1 percent | 57,872 | 1.3 percent |
| Ethnicity | | | | | | | | | | | | |
| Hispanic or Latino | 53 | 2.4 percent | 46 | 3.8 percent | 14,826 | 3.1 percent | 13,882 | 4.3 percent | 107,738 | 2.4 percent | 122,882 | 2.7 percent |
| Minority Population | | | | | | | | | | | | |
| Total Minority Population | 1,708 | 76.9 percent | 1,020 | 83.6 percent | 355,803 | 73.4 percent | 224,162 | 69.7 percent | 1,674,585 | 37.5 percent | 1,708,852 | 38.0 percent |
| Income | | | | | | | | | | | | |
| < \$15,000 per year per household | 543 | 62.0 percent | 293 | 51.0 percent | 57608 | 30.6 percent | 29584 | 24.2 percent | 400,016 | 24.1 percent | 345,777 | 20.5 percent |
| Households below poverty level | 511 | 58.3 percent | --- | --- | 48,130 | 25.6 percent | --- | --- | 316,991 | 19.1 percent | --- | --- |

Source: USCB 2008c (2000 Census data) and ESRI 2008 (2008 estimates).

| Table 3-8. Demographic Profile of Population and Income – Proposed Tulane/Gravier Sites | | | | | | | | |
|--|--------------------|--------------|-------------|--------------|-----------------------|--------------|-------------|--------------|
| | Proposed VAMC Site | | | | Proposed LSU AMC Site | | | |
| | 2000 | | 2008 | | 2000 | | 2008 | |
| | Number | Percent | Number | Percent | Number | Percent | Number | |
| Total Population | 416 | 100 percent | 331 | 100 percent | 287 | 100 percent | 287 | 100 percent |
| Race | | | | | | | | |
| White | 61 | 14.7 percent | 39 | 11.8 percent | 48 | 16.6 percent | 37 | 12.8 percent |
| Black or African American | 337 | 81.0 percent | 276 | 83.6 percent | 225 | 77.9 percent | 236 | 81.7 percent |
| American Indian or Alaska Native | 2 | 0.5 percent | 2 | 0.6 percent | 2 | 0.7 percent | 2 | 0.7 percent |
| Asian | 7 | 1.7 percent | 6 | 1.8 percent | 6 | 2.1 percent | 6 | 2.1 percent |
| Native Hawaiian or Other Pacific Islander | 0 | 0.0 percent | 0 | 0.0 percent | 0 | 0.0 percent | 0 | 0.0 percent |
| Some Other Race | 5 | 1.2 percent | 4 | 1.2 percent | 5 | 1.7 percent | 5 | 1.7 percent |
| Two or More Races | 5 | 1.0 percent | 4 | 0.9 percent | 5 | 1.0 percent | 5 | 1.0 percent |
| 4 | 1.0 percent | 3 | 0.9 percent | 3 | 1.0 percent | 3 | 1.0 percent | |
| Ethnicity | | | | | | | | |
| Hispanic or Latino | 19 | 4.6 percent | 17 | 5.1 percent | 14 | 4.9 percent | 17 | 5.9 percent |
| Minority Population | | | | | | | | |
| Total Minority Population | 363 | 87.3 percent | 292 | 88.2 percent | 245 | 85.4 percent | 250 | 87.2 percent |
| Income | | | | | | | | |
| < \$15,000 per year per household | 99 | 54.7 percent | 61 | 43.6 percent | 66 | 51.6 percent | 53 | 41.7 percent |
| Households below poverty level | 83 | 45.9 percent | --- | --- | 62 | 48.4 percent | --- | --- |

Source: USCB 2008c (2000 Census data) and ESRI 2008 (2008 estimates).

Table 3-9. Demographic Profile of Population and Income in the Surrounding Community — Proposed and Alternative Locations in Orleans Parish, Louisiana

| | ¼ mile radius of Proposed VAMC Site | | | | ¼ mile radius of Proposed LSU AMC Site | | | | ¼ mile radius of Lindy Boggs Site | | | |
|---|-------------------------------------|--------------|--------|--------------|--|--------------|--------|--------------|-----------------------------------|--------------|--------|--------------|
| | 2000 | | 2008 | | 2000 | | 2008 | | 2000 | | 2008 | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total Population | 3,392 | 100 percent | 2,240 | 100 percent | 4,796 | 100 percent | 2,794 | 100 percent | 5,281 | 100 percent | 4,093 | 100 percent |
| Race | | | | | | | | | | | | |
| White | 376 | 11.1 percent | 135 | 6.0 percent | 611 | 12.7 percent | 170 | 6.1 percent | 2,338 | 44.3 percent | 1,692 | 41.3 percent |
| Black or African American | 2,815 | 83.0 percent | 2,017 | 90.0 percent | 3,913 | 81.6 percent | 2,529 | 90.5 percent | 2,479 | 46.9 percent | 2,013 | 49.2 percent |
| American Indian or Alaska Native | 9 | 0.3 percent | 5 | 0.2 percent | 8 | 0.2 percent | 4 | 0.1 percent | 24 | 0.5 percent | 16 | 0.4 percent |
| Asian | 108 | 3.2 percent | 35 | 1.6 percent | 197 | 4.1 percent | 56 | 2.0 percent | 52 | 1.0 percent | 49 | 1.2 percent |
| Native Hawaiian or Other Pacific Islander | 1 | 0.03 percent | 0 | 0.0 percent | 1 | 0.02 percent | 0 | 0.0 percent | 4 | 0.1 percent | 2 | 0.05 percent |
| Some Other Race | 54 | 1.6 percent | 33 | 1.5 percent | 33 | 0.7 percent | 17 | 0.6 percent | 245 | 4.6 percent | 196 | 4.8 percent |
| Two or More Races | 28 | 0.8 percent | 16 | 0.7 percent | 32 | 0.7 percent | 15 | 0.5 percent | 140 | 2.7 percent | 124 | 3.0 percent |
| Ethnicity | | | | | | | | | | | | |
| Hispanic or Latino | 128 | 3.8 percent | 87 | 3.9 percent | 92 | 1.9 percent | 57 | 2.0 percent | 625 | 11.8 percent | 579 | 14.1 percent |
| Minority Population | | | | | | | | | | | | |
| Total Minority Population | 3,056 | 90.1 percent | 2,105 | 94.0 percent | 4,213 | 87.8 percent | 2,624 | 93.9 percent | 3,207 | 60.7 percent | 2,401 | 58.7 percent |
| Income | | | | | | | | | | | | |
| < \$15,000 per year per household | 833 | 63.6 percent | 457 | 52.8 percent | 1,174 | 71.7 percent | 612 | 60.8 percent | 737 | 29.1 percent | 435 | 22.9 percent |
| Households below poverty level | 728 | 54.5 percent | --- | --- | 1,067 | 63.5 percent | --- | --- | 603 | 23.8 percent | --- | --- |

Source: USCB 2008c (2000 Census data) and ESRI 2008 (2008 estimates).

Table 3-10. Demographic Profile of Population and Income in the Surrounding Community – Alternative Location in Jefferson Parish, Louisiana

| | ¼ mile radius of Ochsner Site | | | | Jefferson Parish | | | | State of Louisiana | | | |
|---|-------------------------------|--------------|--------|--------------|------------------|--------------|---------|--------------|--------------------|--------------|-----------|--------------|
| | 2000 | | 2008 | | 2000 | | 2008 | | 2000 | | 2008 | |
| | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent | Number | Percent |
| Total Population | 1,810 | 100 percent | 1,748 | 100 percent | 455,466 | 100 percent | 446,686 | 100 percent | 4,468,976 | 100 percent | 4,500,627 | 100 percent |
| Race | | | | | | | | | | | | |
| White | 1,292 | 71.4 percent | 1,078 | 61.7 percent | 318,002 | 69.8 percent | 279,942 | 62.7 percent | 2,856,161 | 63.9 percent | 2,791,775 | 62.0 percent |
| Black or African American | 406 | 22.4 percent | 530 | 30.3 percent | 104,121 | 22.9 percent | 124,474 | 27.9 percent | 1,451,944 | 32.5 percent | 1,512,095 | 33.6 percent |
| American Indian or Alaska Native | 5 | 0.3 percent | 5 | 0.3 percent | 2,032 | 0.4 percent | 2,153 | 0.5 percent | 25,477 | 0.6 percent | 29,914 | 0.7 percent |
| Asian | 51 | 2.8 percent | 69 | 3.9 percent | 14,065 | 3.1 percent | 20,010 | 4.5 percent | 54,758 | 1.2 percent | 70,991 | 1.6 percent |
| Native Hawaiian or Other Pacific Islander | 1 | 0.1 percent | 1 | 0.1 percent | 154 | 0.0 percent | 171 | 1.0 percent | 1,240 | 0.0 percent | 1,530 | 0.0 percent |
| Some Other Race | 33 | 1.8 percent | 38 | 2.2 percent | 9,239 | 2.0 percent | 10,737 | 2.4 percent | 31,131 | 0.7 percent | 36,450 | 0.8 percent |
| Two or More Races | 22 | 1.2 percent | 27 | 1.5 percent | 7,853 | 1.7 percent | 9,199 | 2.1 percent | 48,265 | 1.1 percent | 57,872 | 1.3 percent |
| Ethnicity | | | | | | | | | | | | |
| Hispanic or Latino | 108 | 6.0 percent | 117 | 6.7 percent | 32,418 | 7.1 percent | 35,976 | 8.1 percent | 107,738 | 2.4 percent | 122,882 | 2.7 percent |
| Minority Population | | | | | | | | | | | | |
| Total Minority Population | 587 | 32.4 percent | 670 | 38.3 percent | 157,404 | 34.5 percent | 166,744 | 37.3 percent | 1,674,585 | 37.5 percent | 1,708,852 | 38.0 percent |
| Income | | | | | | | | | | | | |
| < \$15,000 per year per household | 178 | 24.4 percent | 144 | 19.9 percent | 30,234 | 17.1 percent | 25,166 | 14.6 percent | 400,016 | 24.1 percent | 345,777 | 20.5 percent |
| Households below poverty level | 94 | 12.9 percent | --- | --- | 22,268 | 12.6 percent | --- | --- | 31,691 | 19.1 percent | --- | --- |

Source: USCB 2008c (2000 Census data) and ESRI 2008 (2008 estimates).

3.6.3.2 Discussion of Impacts – Environmental Justice

The environmental justice analysis was conducted in order to determine if the Proposed Actions or alternative actions would have disproportionately high and adverse human health or environmental effects on minority and low-income populations. The first step in the analysis is the identification of potential impacts associated with the Proposed Actions and alternatives (FEMA 2008). This was accomplished in the evaluation of environmental consequences performed for each resource category in Section 3.0 of this PEA.

The second step identifies areas most likely to experience direct or indirect human health or environmental effects, which were determined to be those areas within one-quarter mile of each site evaluated in this PEA, as well as the sites themselves. The third step focuses on persons living in the potentially affected areas. An analysis was performed to determine whether the potentially affected communities include a minority and/or low-income population. The populations within one-quarter mile of each site were each characterized in Section 3.6.4.1 through evaluation of demographic data to determine whether they constitute a community of concern for environmental justice purposes. Communities of concern were identified for the existing, Tulane/Gravier, and Lindy Boggs locations. No community of concern was identified for the Ochsner location.

The fourth step, which is presented in this Discussion of Impacts section, is to determine if any adverse environmental effects are likely to fall disproportionately on communities of concern, constituting a “disproportionately high and adverse” impact. An adverse effect is considered disproportionate when it is predominantly experienced by a minority or low-income segment of the population; that is, where it is more severe for that segment than for other population segments. Based on the analysis of impacts for all resource categories presented in this PEA, it was determined that there would be no significant adverse human health impacts on residents in the study area. Therefore, there would be no disproportionate and adverse impacts felt by environmental justice communities of concern. Similarly, given the lack of potential significant environmental effects on the physical environment (land, water, biological resources, air, noise) and the built environment (land use, infrastructure, transportation), there would be no disproportionately high and adverse impacts on environmental justice communities of concern because of negative environmental effects. Potentially significant adverse effects have been identified for the two remaining resource categories addressed in this PEA: cultural resources and socioeconomics. The moderate to major effects identified for cultural resources will be addressed through avoidance, minimization and/or mitigation through the Section 106 process. Therefore, socioeconomics was identified as the resource category that could potentially result in disproportionate impacts to environmental justice communities. The results of the environmental justice analysis of socioeconomic impacts, in particular the residential displacement actions that would affect communities of concern, are discussed below.

An integral component of the environmental justice analysis under the NEPA process is public participation. Adequate public participation is important to incorporating environmental justice considerations into the process, by ensuring that potentially affected parties are not overlooked and excluded. The extensive public participation efforts conducted for this PEA are discussed in Section 1.2.4.1, Public Involvement.

Impacts of the No Action Alternative

Under the No Action alternative, the new VAMC and LSU AMC facilities would not be constructed and the SLVHCS and MCLNO medical systems would continue to operate at their current reduced capacities. No construction would occur at any of the alternative locations and no residents would be displaced. Therefore, there would be no direct physical impacts on environmental justice communities of concern at any of the locations. However, there would be a direct adverse impact on those members of the community who are uninsured, given that the MCLNO has been a primary provider of healthcare to uninsured persons in the New Orleans metropolitan area. This could be considered a disproportionately high and adverse impact to low-income populations because the adverse effect would be more severe for that segment than for other population segments. Without implementation of the Proposed Actions, the SLVHCS and MCLNO medical complexes would continue to operate with inadequate facilities. The reestablishment of a complete, quality healthcare system and medical training center for the people of New Orleans and for veterans throughout the Gulf Coast Region would not occur. This could have an adverse indirect impact on minority and low-income populations in Orleans Parish, as well as on the general population of the area.

Impacts of the Proposed Actions

Direct Impacts

The proposed Tulane/Gravier locations, including the new VAMC and LSU AMC sites, are considered separately for the environmental justice analysis. The on-site residents as well as the surrounding community are addressed for both sites. As described in the Existing Conditions discussion in Section 3.6.4.1, environmental justice communities of concern were identified for the populations residing on each site as well as for the populations located within one-quarter mile of each site.

Under the Proposed Actions, the resident populations that currently occupy the proposed Tulane/Gravier VAMC and LSU AMC locations would be directly impacted. The existing residential structures, as well as commercial and other structures on these properties, would be removed and hospitals and other medical-related buildings would be constructed in their place. The majority of the area within these proposed sites is vacant land, vacant structures, or surface parking lots. Less than half of the areas within these sites are currently utilized for inhabited residential or active commercial uses.

A total of approximately 618 persons are estimated to reside currently on these two sites in a total of 265 housing units. These totals include approximately 331 residents and 140 housing units on the VAMC site; 88 percent of whom are minority and 46 percent low-income. There are a total of 125 housing units on the LSU AMC site and 287 residents, of whom 87 percent are minority and 48 percent are low-income (ESRI 2008). As a direct result of the Proposed Actions, these residents of the proposed VAMC and LSU AMC sites would be displaced and required to relocate to available housing outside of the project areas. It is reasonable to assume that the residents displaced from these sites would remain in the City, as there are vacant residential properties available.

In order to evaluate environmental justice impacts, a determination must be made as to whether any adverse effects are likely to fall disproportionately on a community of concern and whether those effects are significant. As described previously, an adverse effect is considered disproportionate when it is predominantly experienced by a minority or low-income segment of the population; that is, where it is more severe for that segment than for other population segments. The populations residing within one-quarter mile of the VAMC site and the LSU AMC site were each identified in Section 3.6.4.1 as an environmental justice community of concern, based on the proportion of minority and low-income residents. Orleans Parish itself, with a population of almost 70 percent minority, would itself be considered a community of concern for environmental justice purposes. Therefore, the effects from construction of medical facilities at the proposed Tulane/Gravier sites on minority and low-income populations (that is, displacement of those populations) would not appreciably exceed the effects on the general population within one-quarter mile of the sites, or within Orleans Parish as a whole, if the facilities were built at different locations.

The displacement of minority and low-income populations currently residing on the VAMC and LSU AMC sites, including disruption of social networks (child care, informal employment, etc.), is an adverse effect of the proposed actions. However, the relocation of residents is not considered a significant effect if those residents are able to find comparable housing within the area. Mitigation measures would be employed to assist residents in finding suitable replacement housing. Mitigation measures include options to avoid, minimize, rectify, reduce or eliminate the adverse impacts associated with the Proposed Actions (FEMA 2008).

As described in Section 3.6.1.2, mitigations measures, in compliance with the URA and the Louisiana Expropriation Provisions, would be implemented to reduce the adverse effects of displacement on the residents, as well as businesses and nonprofit organizations, affected by construction of the new VAMC and LSU AMC facilities at the proposed Tulane/Gravier locations. Mitigation measures that reinforce the government commitment to provide housing for those displaced would include provision of replacement housing payments for the increased costs of renting or purchasing a comparable replacement dwelling; provision of “housing of last resort” when comparable decent, safe, and sanitary replacement housing within a displaced person’s financial means cannot be made available; and assisting displaced persons by offering services such as transportation to locate replacement housing, social services or financial referrals, and listings of comparable dwellings. The mitigation measures to be employed are described in detail in Section 5.0, Mitigation, of this PEA.

As described in Section 3.6.1.1, availability of affordable housing has been an issue in New Orleans in the years following Hurricane Katrina. Although availability of rental units in multi-family housing has continued to improve, market pressures have acted to keep rents well above pre-Hurricane Katrina levels. Rents in the Mid-City area as of Fall 2007 had declined about 11 percent from post-Hurricane Katrina highs, but still remain elevated, averaging about \$1,000 for a one-bedroom apartment and about \$1,100 to \$1,500 for a two-bedroom unit. The availability of affordable apartments is expected to improve, however, as units financed through incentives provided under the Road Home Small Rental Program (smaller properties such as duplexes, triplexes, and four-plexes) and Gulf Opportunity Zone (larger properties) come on the market. There are approximately 2,000 of these units currently in development within Orleans Parish that

will add to the inventory of affordable housing within the next six to 12 months. When property owners rebuild through the State's Road Home Small Rental Program, they agree to "bought down" affordable rent levels as a condition of the grant. The Louisiana Recovery Authority has awarded funds to owners of 8,740 units in Orleans Parish, 7,540 of which will be affordable rental apartments (UNO 2008).

Indirect Impacts

Benefits to minority and low-income communities also are assessed as part of the environmental justice analysis. The Proposed Actions would support reestablishment of the healthcare system and medical training centers for the people of New Orleans, in particular the indigent, uninsured, and low-income populations who have traditionally been served by the MCLNO, and for veterans throughout the Gulf Coast Region. Improved access to healthcare would have a beneficial indirect effect on minority and low-income populations within the Tulane/Gravier area, as well as throughout New Orleans. Further, employment opportunities would be expanded for the operation and maintenance of the improved medical facilities. These opportunities could provide a long term, beneficial impact for the regional population. The redevelopment of these centers could create a world-class academic medical community that could serve as an economic catalyst for development and growth in the surrounding neighborhoods.

Impacts of Alternatives # 2 through # 4

Alternative # 2 – Lindy Boggs Location

The environmental justice evaluation for development of the LSU AMC at the Tulane/Gravier location under this alternative would be the same as described for the Proposed Actions. Although the population within one-quarter mile of the Lindy Boggs site was identified in Section 3.6.4.1 as an environmental justice community of concern, the site itself does not contain a residential population. Therefore, relocation of a community of concern would not occur under this alternative and there would be no direct or indirect adverse impacts in regard to environmental justice concerns. Improved access to healthcare provided by Alternative # 2 would have a beneficial indirect effect on minority and low-income populations within the neighborhoods surrounding the Lindy Boggs site, as well as throughout New Orleans.

Alternative # 3 – Ochsner Location

The environmental justice evaluation for development of the LSU AMC at the Tulane/Gravier location under Alternative # 3 would be the same as described for the Proposed Actions. No environmental justice community of concern was identified in Section 3.6.4.1 for the area within one-quarter mile of the Ochsner site and the site itself does not contain a residential population. Therefore, relocation of a community of concern would not occur under this alternative and there would be no direct or indirect adverse impacts in regard to environmental justice concerns. Improved access to healthcare under this alternative would have a beneficial indirect effect on minority and low-income populations within the neighborhoods surrounding the Ochsner site, as well as throughout New Orleans.

Alternative # 4 – Charity Hospital Location

Although the population within one-quarter mile of the existing Charity Hospital site was identified in Section 3.6.4.1 as an environmental justice community of concern, the site itself does not contain a residential population. Therefore, relocation of a community of concern would not occur under this alternative and there would be no direct or indirect adverse impacts in regard to environmental justice concerns. Improved access to healthcare provided by Alternative # 4 would have a beneficial indirect effect on minority and low-income populations within the neighborhoods surrounding the Charity Hospital site, as well as throughout New Orleans. In addition, employment opportunities would be expanded for the construction, operation, and maintenance of the improved medical facilities. These opportunities could provide a long term, beneficial impact for the regional population.

3.7 TRANSPORTATION

3.7.1 Existing Conditions - Transportation

Transportation resources include personal transportation via interstate roads and city arterial streets and public transportation via street cars, buses, passenger railroads, and air transport. Pedestrian access is provided by sidewalks and bicycle access.

3.7.1.1 Existing Locations

Roadway Network

The existing VAMC and Charity Hospital facilities are located one block east of I-10 with access to the facilities from I-10 West via the Canal Street exit, Cleveland Avenue, LaSalle Street and Gravier Street. From I-10 East, access is from the Poydras Street exit via LaSalle Street and Gravier Street. Major arterials around the facilities also include Tulane Avenue, Poydras Street, South Claiborne Avenue, and Loyola Avenue.

These roads are large enough to have supported pre-Katrina traffic levels when all area medical facilities were fully operational.

Public Transit

The New Orleans area is served by New Orleans Regional Transit Authority (RTA) within the city limits of New Orleans and Jefferson Transit (JeT) the transit provider for Jefferson Parish. JeT provides access from Jefferson Parish to the New Orleans Central Business District and provides service to Louis Armstrong New Orleans International Airport. Both RTA and JeT have route that provide access to the existing medical facilities. The RTA system has free fares for disabled passengers and the JeT system has reduced fares for riders 65 or older, mobility impaired, disabled, or Medicare card holders.

RTA offers streetcar service along Canal Street, but this line does not provide direct access to any of the existing facilities.

The New Orleans Union Passenger Terminal in the Central Business District provides access to the Amtrak passenger railroad system and the Greyhound bus system. This terminal is approximately 0.5 to 1.0 mile south and southeast of the existing sites. Moderate pedestrian and bicycle access is provided via the contiguous sidewalks and pedestrian signals at most intersections.

3.7.1.2 Alternative # 1 – Proposed Actions – Tulane/Gravier Locations

Roadway Network

The proposed Tulane/Gravier location for the VAMC is located between Tulane Avenue, Canal Street, South Rocheblave Street, and South Galvez Street. Tulane Avenue (US 90) and Canal Street are six-lane divided major arterials, South Galvez Street is a four-lane divided arterial and South Rocheblave Street is a city street. The proposed LSU AMC location is located across South Galvez Street from the proposed VAMC location. It is also bound by Tulane Avenue and Canal Street as well as South Claiborne Avenue.

Access from I-10 West is via the Canal Street exit and access from I-10 East is provided via the Poydras Street exit and South Claiborne Avenue. The proposed Tulane/Gravier sites are directly connected to two six-lane major arterials and two four-lane arterial roads. Vehicles can arrive and depart via I-10 East and West, Tulane Avenue, Canal Street, South Galvez Street, and South Claiborne Avenue, all multi-lane divided highways that are directly connected to one or both of the proposed Tulane/Gravier locations. The interstate and major arterial roads would support the traffic of the proposed VAMC and LSU AMC.

Public Transit

The New Orleans area is served by New Orleans RTA within the city limits of New Orleans. JeT provides access the New Orleans Central Business District to Jefferson Parish and provides service to Louis Armstrong New Orleans International Airport. RTA currently has routes that provide access to the Tulane/Gravier area. RTA also offers streetcar service along Canal Street on the northern side of the proposed Tulane/Gravier area locations.

The New Orleans Union Passenger Terminal in the Central Business District provides access to the Amtrak passenger railroad system and the Greyhound bus system. This terminal is approximately 1 mile south of the Tulane/Gravier locations. Moderate pedestrian and bicycle access is provided via the contiguous sidewalks and pedestrian signals at most intersections.

A proposed greenway corridor, the Lafitte Greenway, is located four blocks to the north along St. Louis Street. The Lafitte Greenway is the old Norfolk Southern Rail Line from Basin Street to Canal Boulevard. Phase 1 is planned to run from Basin Street to Bayou Saint John at Jefferson Davis Parkway where it connects with the existing pedestrian and bicycle greenway at Bayou Saint John. Once complete the greenway would provide easier pedestrian and bicycle access to the proposed VAMC and LSU AMC Tulane/Gravier locations. Currently there are contiguous sidewalks and pedestrian signals at most intersections and bicycles could share the road on the lower speed streets.

3.7.1.3 Alternative # 2 – Lindy Boggs Location

Roadway Network

The Lindy Boggs site is located in the Mid-City neighborhood 2.3 miles northwest of the Central Business District in the area bounded by North Carrollton Avenue, Jefferson Davis Parkway, Toulouse Street, and Bienville Street. Access to the site is provided by Canal Street (two [2] blocks south), Orleans Avenue (one [1] block north), Carrollton Avenue, and Jefferson Davis Parkway, which are all four-lane divided arterials streets. On the north and south sides, the site is bordered by Bienville Avenue and Toulouse Street. Bienville is a four-lane divided street connected to Canal Street by Carrollton Avenue, Jefferson Davis Parkway, and six local streets. Toulouse is a two-lane city street. Access from I-10 is via Orleans Avenue/North Claiborne Avenue (1.7 miles) or Carrollton Avenue/City Park Avenue (1.9 miles). All roads around the Lindy Boggs site would be sufficient to support the expected traffic level of a single medical facility. These roads previously provided access to the LBMC and other commercial and industrial sites.

Public Transit

The New Orleans area is served by New Orleans RTA within the city limits of New Orleans. JeT provides access from the New Orleans Central Business District to Jefferson Parish and provides service to Louis Armstrong New Orleans International Airport. RTA currently has routes that provide access to the Lindy Boggs area.

RTA offers streetcar service along Canal Street and Carrollton Avenue. The Carrollton Avenue streetcar would provide direct access on the west side of the Lindy Boggs site. The Canal Street streetcar would be accessible two blocks south of the site.

The New Orleans Union Passenger Terminal in the Central Business District provides access to the Amtrak passenger railroad system and the Greyhound bus system. This terminal is approximately 3.3 miles south of the Lindy Boggs locations.

The proposed Lafitte Greenway corridor will provide vastly improved pedestrian and bicycle access to the Lindy Boggs site. The Lafitte Greenway is the old Norfolk Southern Rail Line from Basin Street to Canal Boulevard next to Saint Louis Avenue. Phase 1 runs from Basin Street to Bayou Saint John at Jefferson Davis Parkway where it connects with the existing pedestrian and bicycle greenway at Bayou St John. Once Phase 1 is complete it will provide dedicated pedestrian and bicycle access to the site. However, current plans call for the greenway to bisect the Lindy Boggs site west to east from the end of Saint Louis Street. If the VAMC were constructed at the Lindy Boggs site, designs would have to incorporate the greenway or the greenway would have to be rerouted around the site.

3.7.1.4 Alternative # 3 – Ochsner Location

Roadway Network

The Ochsner Site is located in Jefferson Parish north of the Ochsner Clinic at 1315 Jefferson Highway. Jefferson Highway (US 90), which is a six-lane divided major arterial roadway, provides vehicular access to the property which is a six-lane divided major arterial roadway. Access to Earhart Expressway north of the site is provided through a residential area via Deckbar Avenue where east bound traffic can cross the railroad tracks with grade separated access ramps. Access from I-10 East via South Carrollton Avenue and Earhart Expressway (3.7 miles) and I-10 West via South Carrollton Avenue and South Claiborne Avenue/Jefferson Highway (3.7 miles). All roads around the Ochsner site would be sufficient to support the expected traffic level of a single medical facility. These roads currently provide access to the Ochsner Medical Facility and other commercial and industrial sites.

The Central Business District is 5.1 miles travel distance to gain access to the train station or bus transportation. The Louis Armstrong International Airport is 8.4 miles travel distance.

Public Transit

Local bus transportation is provided by JeT within Jefferson Parish. Jefferson Highway is served by one bus route, E3 Kenner Local Route, which begins at the Louis Armstrong International Airport and terminates at the intersection of Carrollton and Claiborne Avenues. There is currently a stop near the Ochsner Medical Center. At Carrollton Avenue, riders can access RTA routes and the Carrollton Avenue streetcar.

The only major arterial road that provides direct access to the Ochsner site is Jefferson Highway. The six-lane divided road currently provides access to the Ochsner Medical Center and would support traffic to the VAMC if it is constructed at the Ochsner site.

The Ochsner Site has limited access for pedestrians and cyclists. There is a sidewalk on the Ochsner property on the south side of Jefferson Highway. Sidewalks are not contiguous in other areas. Cyclists are not offered a dedicated bicycle lane and would have to share the road with high vehicular traffic volumes, which would be dangerous and prohibitive.

3.7.2 Discussion of Impacts - Transportation

3.7.2.1 Impacts of the No Action Alternative

Since no construction would occur at the existing sites, there would be no adverse direct, indirect, or cumulative impacts on the characteristics of the transportation environment within the project area under the No Action alternative. However, the existing conditions described in Section 3.7.1.1 would continue.

3.7.2.2 Impacts of the Proposed Actions

Direct Impacts

The proposed Tulane/Gravier sites are located close to I-10 and other six-lane divided major arterial roadways. The traffic patterns around the proposed Tulane/Gravier sites, which are in close proximity to the existing medical facility site, would reestablish vehicular usage similar to that prior to Hurricane Katrina. It is believed that the existing roadway network has sufficient capacity to accommodate the traffic patterns that existed prior to the storm and, as the project designs for the Proposed Actions move forward, the entry and exits from the site can be established and the appropriate, design-specific traffic studies can be performed. The focus of these studies will be to confirm the traffic capacity of the highway network, determine the turning movements into and out of the parcels, and confirm the appropriate signalization and turn lanes for the traffic movements.

The concept of the hospital facility is more horizontal construction than vertical construction. This will necessitate road closures for the “local” streets that currently run through the proposed Tulane/Gravier sites. For example, it is likely that Cleveland and Palmyra Streets may no longer provide east/west access through the area. Similarly, South Miro, South Johnson, and other north/south through streets may be permanently closed. Local traffic would be studied to ensure that adequate capacity is included in the major arterials to accommodate the local traffic that currently uses the streets that will be converted into hospital complex buildings and campus facilities.

During construction there would be a large volume of construction vehicles beginning during the demolition phase and continuing through construction. For the most part, these vehicles will utilize for the most part the major arterial roadways and not the local streets within residential areas.

Indirect Impacts

The Proposed Actions would change the routine traffic patterns in the area due to the closure of local streets and increased traffic on the major arterials along the perimeter of the proposed location. These changes in traffic patterns could have an adverse indirect impact on local residents and business owners in the Tulane/Gravier area surrounding the proposed location by increasing work commute times or redirecting consumer traffic. However, positive indirect impacts include additional public transportation, better pedestrian and cycling options in the area, and enhanced landscaping and cityscape, all of which could result in a better sense of community in the area.

3.7.2.3 Impacts of Alternatives # 2 through # 4

The transportation facilities at the existing Charity Hospital site and the alternative Ochsner and Lindy Boggs sites are very similar to the Tulane/Gravier sites of the Proposed Actions with the following exceptions:

- The Ochsner and Lindy Boggs sites are not as close to I-10 as the Tulane/Gravier sites or Charity Hospital;
- While the Lindy Boggs site is accessible by two major arterials, Orleans Avenue and Canal Street, the site is not immediately adjacent to either of these streets;
- While the Ochsner site is accessible by two major arterials, Jefferson Highway and Earhart Expressway, the site is immediately adjacent to only Jefferson Highway and Earhart Expressway is accessible only via a local residential road (Deckbar Avenue); and
- There are no feeder streets adjacent to the Ochsner site.

As described in Section 3.7.1.3, the proposed Lafitte Greenway is designed to bisect the Lindy Boggs site. Should the Lindy Boggs site be selected, the planned pedestrian and cycling access to the area would be impacted. The medical facility plans would have to incorporate the existing greenway plan or the section of the greenway would have to be rerouted around the site. Selection of the Lindy Boggs site would also impact the proposed development for the area described in the Master Plan for the Lafitte Greenway (FOLC 2007). The plan currently calls for the entire Lindy Boggs site to be designated as “trail-oriented development” which would integrate land use changes and architecture in the area with the greenway.

3.8 HUMAN HEALTH AND SAFETY

Construction and demolition activities would expose on-site workers to hazards associated with most large construction projects. According to the Occupational Safety and Health Administration (OSHA), the top four causes of construction fatalities are falls, heavy equipment accidents, trenching accidents, and electrocutions. These hazards would be expected at each of the proposed and alternative project sites. In general, the sites requiring the greatest amount of demolition would statistically present the greatest occupational risk.

Environmental hazards of demolition, construction, and renovation projects would include working in extreme temperatures (primarily heat stress) and potential exposures to biological hazards such as mosquitoes, ticks, and poisonous spiders, such as the black widow and brown recluse, and venomous snakes, such as the southern copperhead. Buildings set for demolition may also require preliminary remediation for asbestos-containing building material (ACBM), and/or other hazardous materials. Some sites may also require the removal of underground storage tanks (USTs) or leaking underground storage tanks (LUSTs) and remediation of contaminated soils.

The following sections present details about the potential hazards that may be associated with each of the sites. This information is presented to determine the potential impact of site selection (i.e., the selection of one site over another may result in greater risks to site workers). The direct impacts to human health and the environment from the site-specific hazards will be addressed following site selection using the tiered approach described in Section 1.2.

Any work funded by the City of New Orleans using CDBG funds must comply with HUD’s Environmental Criteria and Standards (24 CFR 51) relative to siting HUD projects near hazardous operations handling conventional fuels or chemicals of an explosive or flammable

nature (Subpart C) (HUD 2008a). The purpose of this HUD regulation is to alert those responsible for siting HUD-assisted projects to the inherent potential dangers when such projects are located in the vicinity of hazardous operations. The analysis presented in the following sections did not examine the individual sites' compliance with HUD's siting safety standards published in 24 CFR 51.203. This analysis will be part of the second tier assessment once the sites have been selected.

The VAMC project will receive HUD funding from the City of New Orleans using CDBG funds. Any work supported with HUD funds must comply with HUD's Environmental Criteria and Standards (24 CFR 51) relative to siting HUD projects near hazardous operations handling conventional fuels or chemicals of an explosive or flammable nature (Subpart C) (HUD 2008a). The purpose of this HUD regulation is to alert those responsible for the siting HUD-assisted projects to the inherent potential dangers when such projects are located in the vicinity of such hazardous operations. The following sections describe each site in relation to HUD's siting safety standards published in 24 CFR 51.203.

3.8.1 Existing Conditions – Human Health and Safety

The existing human health and safety conditions at the existing VAMC and Charity Hospital sites and the proposed VAMC and LSU AMC Tulane/Gravier sites are provided below. Specific conditions are provided for the proposed VAMC and LSU AMC sites, the proposed Ochsner VAMC site, and the proposed Lindy Boggs VAMC site based on detailed Phase I Environmental Site Assessments (ESA) and/or Phase II Site Investigations conducted at the sites. Health and safety concerns include the presence of USTs, contaminated soil and groundwater, hazardous materials/hazardous waste, ACBM, lead-based paints, polychlorinated biphenyls (PCBs), and mold.

In accordance with HUD requirements, a survey of above ground storage tanks (AST) with a capacity over 100 gallons was conducted for areas within an approximate one-mile radius of the proposed VAMC Tulane/Gravier, Lindy Boggs, and Ochsner sites. Pursuant to 24 CFR 51.202(a), HUD assistance cannot be used for a project located less than ASD from a hazard has been defined by 24 CFR 51.201 unless appropriate mitigation measures are implemented. An ASD, as defined by 24 CFR 51.201, means "the distance beyond which the explosion or combustion of a hazard is not likely to cause structures or individuals to be subjected to blast overpressure or thermal radiation flux levels in excess of the safety standards in [24 CFR] 51.203." Appropriate mitigation measures are described in 24 CFR 51.205 and allow the standards to be eliminated or modified if: 1) the nature of the topography shields the proposed project from the hazard, 2) an existing permanent fire resistant structure of adequate size and strength will shield the proposed project from the hazard, 3) a barrier is constructed surrounding the hazard, at the site of the project, or in between the potential hazard and the proposed project, or 4) the structure and outdoor areas used by people are designed to withstand blast overpressure and thermal radiation anticipated from the potential hazard (e.g., the project is of masonry and steel or reinforced concrete and steel construction). However, because of the lack of natural topographic relief in the area, topography is not expected to be an acceptable barrier in any instances. Appendix F identifies the ASTs in the proposed site areas and presents the analysis of the ASDs for each.

3.8.1.1 Existing Locations

The existing VAMC and Charity Hospital buildings were extensively damaged during Hurricane Katrina. University Hospital reopened in November 2006 and operates as the LSU Interim Hospital (MCLNO 2008). VA currently operates the New Orleans VA Outpatient Clinic atop a parking structure at 1601 Perdido Street, but the main VAMC hospital structure is not occupied.

Charity Hospital is closed and has not been occupied by patients since it was evacuated following the hurricane. Following the evacuation, a group of doctors, nurses, and military personnel spent a month decontaminating and cleaning the first three floors with the intent of returning some hospital functions. However, LSU officials determined that the building was beyond repair and ordered the team to suspend its rehabilitation work. No additional rehabilitation activities have been conducted at the facility since then.

The USEPA reports that the following hazardous materials are commonly used in hospitals: mercury, items containing mercury, photographic/x-ray filler solutions, silver recovered from fixer solutions, ethanol, formaldehyde, x-ray film containing silver/metals, spent/off spec/excess laboratory chemicals (solvents, acids, bases), chemotherapy drugs, waste/excess paints and cleaning products, florescent light bulbs, high intensity discharge lamps, batteries, computer equipment, lead aprons and shielding, cathode ray tube screens, compressed gasses, and waste/excess pesticides and fungicides (USEPA 2008a). There is no information provided on the amount of hazardous materials that remain in the unoccupied structures of Charity Hospital and the VAMC. The existing New Orleans VAMC is classified under Resource Conservation and Recovery Act (RCRA) as a conditionally exempt small quantity generator, generating no more than 220 pounds of hazardous waste and 2.2 pounds of acutely hazardous waste per calendar month (URS 2008a).

Based on the age of the existing facilities, it is reasonable to expect that ACBM and lead-based paint, as defined by Louisiana regulations, may be present. Furthermore, VA states mold control is an ongoing problem at the existing VAMC and conditions are most likely similar at other nearby medical facilities, including Charity Hospital. In its Report to Congress, VA states, “The extensive evidence of lingering mold and contamination is a major concern” (VA 2006).

The USEPA states that failure to remove contaminated materials and to reduce moisture and humidity can present serious long-term health risks. Standing water and wet materials are a breeding ground for microorganisms, such as viruses, bacteria and mold. They can cause disease, trigger allergic reactions, and continue to damage materials long after the flood. Charity Hospital, like many other facilities in the New Orleans area, suffered massive flooding and wind driven rain damages to the exterior envelope.

If Charity Hospital is to be modified/renovated (Alternative # 4), the exterior of the building must first be addressed prior to performing interior work, to prevent the continued infiltration of water. A complete mold and moisture damage assessment must be performed within the property and damaged building components must be identified for remediation for moisture, mold, and bacteria. This assessment will result in a detailed remediation protocol to be used by a contractor. This protocol must take into account other hazardous conditions within the building,

such as the presence of asbestos, lead-based paint, and radiation sources. The interior of the building must be addressed by a licensed mold abatement contractor to perform complete removal of all building components exposed to floodwaters, containing mold growth, and exhibiting moisture damage. The wall and ceiling cavities must be evaluated in detail, and will likely require additional remediation measures. Containment would need to be installed to prevent the migration of mold and bacteria. Air monitoring must be performed on all floors to ensure that the concentrations of mold spores are not in excess of the outdoor concentrations and are maintained to a minimum to prevent adverse reactions. Clearance sampling for mold and bacteria must be performed at the end of remediation. Due to the presence of other hazards in building components, asbestos and lead clearance testing will be necessary.

According to a Phase I ESA conducted by URS one leaking underground storage tank and a manufactured gas plant are located at the existing VAMC site (URS 2008a). The LDEQ reports four USTs at Charity Hospital (LDEQ 2007). In 2003, the State issued a compliance order for Charity Hospital to upgrade the cathodic protection and spill/overflow prevention. In a May 2007 inspection, the State reported that the tanks had not been upgraded or removed due to Hurricane Katrina (LDEQ 2007).

3.8.1.2 Alternative # 1 – Proposed Actions – Tulane/Gravier Locations

URS conducted a Phase I ESA for the proposed Tulane/Gravier VAMC site in November 2007 (URS 2008a). The URS ESA included a review of a July 2007 ESA conducted by Materials Management Group, Inc. (MMG) of a 27-city block area (approximately 79 acres in size) bordered by Canal Street to the north, South Claiborne Avenue to the east, Tulane Avenue to the south, and South Rocheblave Street which included both the proposed VAMC and LSU AMC sites (MMG 2007). An Environmental Data Resources, Inc. (EDR) database search was also performed by URS to search for recognized environmental conditions in the 12-block area (EDR 2007a). The following summarizes the environmental concerns and human health and safety issues associated with the Tulane/Gravier sites were identified by URS and MMG for the proposed VAMC and LSU AMC sites:

- USTs at 5 locations within or adjacent to the proposed sites (URS 2008a),
- LUSTs at 1 location within or adjacent to the proposed sites (URS 2008a),
- Potential petroleum or hazardous material release at 16 locations on or with 0.25 miles from the proposed site (URS 2008a),
- hazardous materials/hazardous waste including abandoned cars, drums, tanks, and small and large quantity generators on or with 0.25 miles from the proposed site (URS 2008a, EDR 2007a),
- radiation sources at five locations on or with 0.25 miles from the proposed site (URS 2008a),
- prospective state Brownfield sites at three locations near the proposed sites (EDR 2007a),
- mold, resulting from flooding caused by Hurricane Katrina,
- asbestos in older residential and commercial structures, and
- lead in residential and commercial structures constructed prior to 1978.

The AST survey presented in table F-1 (Appendix F) identified 29 ASTs within an approximate mile of the proposed VAMC Tulane/Gravier site (Figure F-1 in Appendix F). The ASD for one of these ASTs, a 20,000-gallon diesel fuel tank, is greater than the distance of the tank to the site. As such, mitigation measures as defined at 24 CFR 51.205 are necessary for compliance with HUD safety standards. As discussed below, these mitigating measures are already in place.

The 20,000-gallon diesel tank (Figure F-2 in Appendix F) is located in 400 block of South Prieur Street southeast of the proposed VAMC Tulane/Gravier site. There is a parking garage directly to the east and a large building immediately adjacent to the tank to the west. This tank is approximately two blocks from the southeastern corner of the proposed site and there are three building structures blocking the line of sight from the tank to the site. Based on the thermal radiation flux mitigation provided by the existing structures, the estimated flux at the site perimeter is reduce to below the HUD safety standard for people exposed in unprotected areas (Rivera 2008). Should the mitigating structures be removed, additional mitigation measures may be required to ensure compliance with the HUD safety standards.

3.8.1.3 Alternative # 2 – Lindy Boggs Location

Environ International Corporation (Environ) performed a Phase I ESA at the existing LBMC (Environ 2006), which makes up 10.5 acres of the southeastern corner of the proposed 40-acre VAMC Lindy Boggs site. The LBMC site is bounded by the Jefferson Davis Parkway on the southeast, Bienville Avenue on the southwest, Roosevelt Street (North Cortez) on the northwest, and Conti Street on the northeast. The LBMC is currently closed and unoccupied.

As discussed previously, the following hazardous materials are commonly used in hospitals: mercury, items containing mercury, photographic/x-ray filler solutions, silver recovered from fixer solutions, ethanol, formaldehyde, x-ray film containing silver/metals, spent/off spec/excess laboratory chemicals (solvents, acids, bases), chemotherapy drugs, waste/excess paints and cleaning products, florescent light bulbs, high intensity discharge lamps, batteries, computer equipment, lead aprons and shielding, cathode ray tube screens, compressed gasses, and waste/excess pesticides and fungicides. The Phase I ESA reported the following with respect to as-found conditions (Environ 2006):

Many partially filled or full sharps containers and biohazardous containers and bags were observed throughout various areas of the hospital, and chemical containers were observed in various departments. Many containers of pathology specimens remained in the Pathology Department.

The fixer and developer chemicals and the silver recovery units remained in the [Radiology Department] processing rooms.

. . . various containers of laboratory chemical, such as xylene, stains, etc. were observed on shelving, within cabinets, and on countertops in the [pathology] laboratory.

Chemicals used in the laboratory and pathology included acids, stains, alcohol, xylene, and formalin, which were observed to be stored in cabinets.

The medical waste does not appear to have been removed since the hospital ceased operations.

Environmental concerns at the Lind Boggs site based on findings of the Environ Phase I ESA (Environ 2006) and the EDR report (EDR 2006), Appendix B of the Phase I ESA and a subsequent EDR report on the Lindy Boggs site (EDR 2008) are listed below and include concerns at sites identified in the EDR reports that were mapped on or adjacent to the proposed VAMC Lindy Boggs site.

Information was also obtained during a National Emission Standards for Hazardous Air Pollutants (NESHAP) hazardous materials survey prepared by Professional Services Industries, Inc. (PSI) in January 2007 in support of the LBMC demolition. This investigation included asbestos and lead-based paint surveys and a visual inspection for other hazardous materials (PSI 2007). The PSI visual inspection at the LBMC attempted to identify following: PCB ballasts (~7,000 identified), mercury switches, fluorescent light bulbs (~13,700 identified), sodium vapor lights, lead-acid batteries (> 200 identified), hydraulic lift fixtures (identified), septic tanks/drainfields, USTs/ASTs (identified), 55-gallon drums, paints and related materials (identified), small house-hold type cleaners (identified), and biohazard medical waste (identified) (PSI 2007). Environmental concerns include:

- eight on-site USTs and 11 off-site within 0.25 miles (EDR 2006, 2008),
- potential petroleum or hazardous material releases from 46 historical auto stations within 0.25 miles of the site (four being inside or adjacent to the site)
- 22 historical drycleaner facilities within 0.25 miles of the site (EDR 2006),
- hazardous materials/hazardous waste, including small and large quantity generators within or near the site (EDR 2006),
- prospective state Brownfield sites (EDR 2008, 2006),
- mold, resulting from flooding caused by Hurricane Katrina,
- asbestos in building materials such as floor tiles and mastic, roof flashing, lab counter tops, and pipe insulation (PSI 2007),
- lead in residential and commercial structures constructed prior to 1978, and
- PCBs in older transformers, fluorescent light fixtures, and hydraulic equipment.

The AST survey presented in table F-2 (Appendix F) identified 28 ASTs within an approximate mile of the proposed VAMC Lindy Boggs site (Figure F-3 in Appendix F). The ASD for each tank is less than the distance from the tank to the proposed project site. Therefore, no mitigation would be required for compliance with HUD safety standards.

3.8.1.4 Alternative # 3 – Ochsner Location

Several Phase I ESAs have been conducted on or near the proposed Ochsner VAMC site dating back to 1991 with the most recent conducted by URS (URS 2008b). The information provided by the URS ESA, which summarized the previous ESAs and provided new information from a recent EDR database search (EDR 2007b), is provided below. In addition to the specific information provided, the URS Phase I ESA also identified “drums, tanks, and containers with

unknown contents; abandoned rail cars; trash; and debris.” Environmental concerns at the Ochsner site include:

- former USTs in the area of the existing Ochsner overflow parking lot (URS 2008b),
- an aboveground storage tank in the cold storage section of the vacant A&P warehouse (URS 2008b),
- potential petroleum or hazardous material releases based on soil contamination (arsenic and metals) identified along the rail spur and off-site upgradient petroleum releases at three locations within 1/8 mile east-southeast of the site (URS 2008b),
- groundwater contamination, although No Further Actions were recommended to LDEQ based on a groundwater investigation conducted at the former Sears warehouse (URS 2008b),
- hazardous materials/hazardous waste from several drums, containers, abandoned railroad cars containing miscellaneous materials, and an abandoned vehicle (URS 2008b),
- mold, resulting from flooding caused by Hurricane Katrina,
- asbestos in older residential and commercial structures,
- lead in structures constructed prior to 1978, and
- PCBs in older light ballasts.

The AST survey presented in table F-3 (Appendix F) identified approximately 181 ASTs within an approximate mile of the proposed VAMC Ochsner site (Figure F-4 in Appendix F). The ASD for each tank is less than the distance from the tank to the proposed project site. Therefore, no mitigation would be required for compliance with HUD safety standards.

3.8.2 Discussion of Impacts – Human Health and Safety

3.8.2.1 Impacts of the No Action Alternative

Since no construction would occur at the existing sites, there would be no adverse direct, indirect, or cumulative impacts to human health and safety within the project area under the No Action alternative. However, the existing health and safety concerns described in Section 3.8.1.1 would persist.

3.8.2.2 Impacts of the Proposed Actions

Direct Impacts

The Proposed Actions’ sites contain several USTs, a LUST, and numerous sites of potential hazardous material releases (see Section 3.8.1.2). These sites may require remediation that would potentially expose workers to hazardous materials and other hazardous environments such as trenches and confined spaces.

As stated previously, the perimeter of the proposed VAMC Tulane/Gravier site is within the ASD of one AST identified during the survey of the area. However, there are many structures between each AST and the perimeter of the proposed sites that would act as barriers to thermal radiation flux and blast overpressure eliminating the need to apply the HUD safety standards at the proposed sites.

Occupational hazards associated with demolition and construction would also be present at the proposed sites. The risks associated with these hazards are typically proportional to the time involved in the tasks. As such, a site with less complicated demolition tasks that would take less time would inherently involve less occupational risks. To compare such risks between proposed sites, the estimated total volume of waste generated from site demolition is compared. As discussed in Section 3.4.2.2, the estimated volumes of waste demolition from the proposed LSU AMC and VAMC sites are 89,000 tons and 48,000 tons, respectively.

However, as discussed previously, new medical facilities are needed to replace the former VAMC and Charity Hospital. New facilities will provide a substantial positive impact to the health and well being of the community.

Indirect Impacts

There is the potential for uncontrolled releases of hazardous materials currently contained within the project areas to cause off-site contamination and result in non-occupational exposures. These releases could occur as a result of on-site activities or off-site transportation of the materials. These impacts would only occur during abatement, demolition, and remediation portions of the project and are expected to be controlled with strict adherence with applicable health, safety, and environmental regulations and the use of BMPs.

For example, without implementation of proper controls, remediation workers could transport hazardous materials such as asbestos fibers or lead dust from the work site to their homes. This would result in non-occupational exposures. Additionally, a truck that pumped oil out of an abandoned UST could be involved in an accident and leak its load into a storm drain or onto a residential property.

In addition, with the demolition and clearing of the Tulane/Gravier sites, there will be a significant amount of solid waste (demolition debris) that must be transported off-site.

3.8.2.3 Impacts of Alternatives # 2 through # 4

The direct and indirect impacts to environmental health and safety for Alternatives # 2 and # 3 would be similar to those described under the Proposed Actions. The Lindy Boggs and Ochsner sites contain several USTs, no LUSTs, and several sites of potential hazardous material releases (see Sections 3.8.1.3 and 3.8.1.4, respectively). In general, however, both of the alternative sites have fewer identified concerns than the proposed Tulane/Gravier sites. These alternative sites may require remediation that would potentially expose workers to hazardous materials and other hazardous environments such as trenches and confined spaces.

As stated previously, the perimeter of the Lindy Boggs and Ochsner sites are within the ASD of no ASTs. As such, no mitigation measures would be necessary for construction at either site to comply with HUD safety standards.

However, pre-construction activities will involve the demolition of different types of structures at alternative locations. To compare the potential occupational risks, the estimated volumes of waste from the Lindy Boggs site (102,000 tons) and the Ochsner site (70,000 tons) can be compared against the Tulane/Gravier site for the VAMC (48,000 tons).

Therefore, the direct impacts to health and safety at the alternative sites under Alternatives # 2 and # 3 might be greater than the proposed Tulane/Gravier sites due to the nature of the demolition tasks. Additionally, the indirect impacts of increased risks due to off-site waste transportation would potentially be greater.

Under Alternative # 4, the health and safety impacts would include risks associated with pre-demolition tasks such as those expected with the LBMC demolition under Alternative # 2 where lead, asbestos, and mold abatement may be necessary. While remodeling and rehabilitation tasks will carry occupational risks, when waste transportation risks are included, the overall environmental health and safety risks for Alternative # 4 would be less than Alternatives # 2 and # 3.

3.9 BIOLOGICAL RESOURCES

Existing conditions and environmental impacts related to biological resources within the Tulane/Gravier, Ochsner, and Lindy Boggs sites, and adjacent locations, are discussed in this section. Biological resources include both terrestrial and aquatic habitats and the species of plants and animals they support. The biological environment in the areas that comprise the existing, proposed, and alternative locations include vegetation, habitats, and wildlife.

3.9.1 Existing Conditions - Biological Environment

Existing and Proposed Tulane/Gravier Locations

The existing VAMC and Charity Hospital locations (Alternative # 4) and the proposed Tulane/Gravier VAMC and LSU AMC sites (Alternative # 1) are located in a highly urban area near the center of the City of New Orleans (figure 1-1). The 30-acre proposed VAMC site includes 12 city blocks and contains approximately 150 residential and 40 commercial parcels (URS 2008a). The proposed site for a new LSU AMC facility is located immediately southeast of the proposed VAMC site, across Galvez Street. This site covers approximately 37 acres, includes 15 city blocks, and supports land uses similar to those of the VAMC site. The existing Charity Hospital is located on approximately 4.3 acres on one city block in the Central Business District. Charity Hospital shares the block with the LSU Medical Center. There are no wetlands or waterbodies within or adjacent to these locations, as indicated by the National Wetlands Inventory (U.S. Fish and Wildlife Service [USFWS] 2008).

Very little naturally occurring vegetation remains within the densely developed, urban setting of the existing or proposed sites (URS 2008a). As a result, little diversity exists among the plant and animal communities present. The proposed Tulane/Gravier VAMC and LSU AMC sites are dominated by buildings, paved roads, parking lots, and sidewalks. They contain limited, fragmented areas of vegetation that include grasses and herbs covering empty lots and small fields, small grass lawns associated with residences, ornamental shrubs, and scattered trees, such as palmettos (*Sabal* spp.) and live oaks (*Quercus virginiana*). There are a number of live oaks that line both sides of Banks Street on the south side of the proposed VAMC site. Several of these trees have girths of 8 feet or greater and, therefore, qualify for the Live Oak Registry maintained by the Louisiana Garden Club Federation.

Approximately 4 acres, or 12 percent, of the proposed VAMC site is estimated to be grass-covered open space (see figure 3-2). Similarly, approximately 4 acres, or 11 percent, of the total area of the proposed LSU AMC site is currently open space (see figure 3-3). The properties containing the existing facilities contain even less open space which generally consists of landscaped borders, courtyards, and buffer areas maintained as green space.

Undeveloped open spaces, such as landscaped areas of grass and shrubs or residential lawns, provide limited habitat for wildlife that commonly utilize urban settings. These may include mammals such as the raccoon (*Procyon lotor*), gray squirrel (*Sciurus carolinensis*), and house mouse (*Mus musculus*); birds such as the American robin (*Turdus migratorius*), common grackle (*Quiscalus quiscula*), house sparrow (*Passer domesticus*), and rock pigeon (*Columbia livia*); reptiles such as the green anole (*Anolis carolinensis*); and amphibians such as the Gulf Coast toad (*Bufo valliceps valliceps*).

Alternative # 2 – Lindy Boggs Location

The Lindy Boggs site consists of approximately 40 acres of land in the Mid-City area of New Orleans (figure 1-2). Areas of potential terrestrial habitat on the Lindy Boggs site are limited to a total of roughly 9 acres not covered by buildings or pavement. These areas include small patches or islands of grass in parking lots and along sidewalks, ornamental trees and shrubs lining parking areas and building entrances, and a 2.7-acre vacant lot covered by grass. The remaining 30 acres consist entirely of commercial, industrial, and medical buildings, parking structures, and paved parking. The physical location and urban setting of this site are similar to those of the Tulane/Gravier locations; therefore, similar species potentially could occur in the vegetated areas.

The perimeter of the Lindy Boggs site at its closest point is less than 200 feet west of the south terminus of Bayou St. John. From there, Bayou St. John extends north through the center of New Orleans for approximately 4 miles to its mouth at Lake Pontchartrain. Historically, the bayou began as a natural drainage from the Mississippi River to Lake Pontchartrain, and today its width varies from about 200 to 700 ft (Orleans Levee Board 1996). Bayou St. John is designated as a Natural and Scenic River by Louisiana State legislation (Louisiana Scenic Rivers Act of 1976, amended 1988, No. 947, Section 1). The bayou has an average salinity of 3.5 parts per thousand and provides suitable habitat for both freshwater and some estuarine aquatic species (LPBF 2006). Common freshwater fish that occur in Bayou St. John include the largemouth

bass (*Micropterus salmoides*), sunfish (*Lepomis* spp.), and catfish (*Ictalurus* spp.). Estuarine fishes, such as the inland silverside (*Menidia beryline*) and sheepshead minnow (*Cyprinodon ariegates*), also are found in the bayou, though they do not reproduce there due to the low salinity levels (LBPF 2006).

Alternative # 3 – Ochsner Location

The Ochsner site is approximately 27 acres of developed land adjacent to the existing Ochsner Medical Center (Main Campus) in Jefferson Parish (figure 1-3). This site contains warehouses, small commercial businesses, railroad tracks, access roads, two helipads (one no longer in use), and a parking lot. The land surrounding these structures and features does include some grassy areas but is covered primarily by pavement. The physical setting of this site is very similar to the existing and Tulane/Gravier locations; that is, it is highly developed with similar vegetation types and wildlife.

Wildlife habitat on this site is limited to the only substantially vegetated areas present: a 2.7-acre vacant grass lot behind a warehouse and a 1.4-acre brushy area of trees and shrubs, on the northern end of the site and bounded by railroad tracks near the active helicopter landing pad. These 4 acres of marginal habitat cover approximately 15 percent of the site; the remaining 85 percent is limited to commercial parcels, both occupied and vacant. Given the highly urban setting and the habitats available, species similar to those described for the existing and proposed Tulane/Gravier locations would be expected to occur within or adjacent to the Ochsner site.

3.9.2 Discussion of Impacts - Biological Environment

Impacts of the No Action Alternative

Since no construction would occur at the existing sites under the No Action alternative, the existing conditions described in the Section 3.9.1.1 would continue, and there would be no significant direct or indirect adverse impacts on biological resources within this area.

Impacts of the Proposed Actions

Direct Impacts

Approximately 8 acres of terrestrial habitat (non-continuous acres of open space) would be lost with the construction of new VAMC and LSU AMC facilities at the Tulane/Gravier locations. This acreage consists of fragmented, marginal habitat areas, mainly empty lots and small residential yards, supporting plant and animal communities of minimal diversity and abundance. The direct impact on biological resources from the removal of these habitats would likely be temporary because future design plans for the new facilities would incorporate landscape elements into all facility grounds, including substantial park-like green spaces, curbside trees, and other ornamental trees and shrubs planted in areas surrounding the structures. The live oaks on Banks Street along the boundary of the proposed VAMC site and other existing street trees in the project area would be protected in accordance with the tree protection requirements of the Code of Ordinances for the City of New Orleans and incorporated into the design of the new