



Draft Environmental Assessment

**Wharton Hall
Drainage Improvements Project,
Lafayette, Louisiana**

Lafayette Parish, Louisiana
HMGP 1786-0099

FEMA-1786-DR-LA

August 2011



FEMA

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New Orleans Recovery Office

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LIST OF ACRONYMS

ACHP	Advisory Council on Historic Preservation
AI	Agency Interest
APE	Area of Potential Effect
BMP	Best Management Practices
CAA	Clean Air Act
CBRA	Coastal Barrier Resources Act
CBRS	Coastal Barrier Resources System
CCC	Civilian Conservation Corps
CFR	Code of Federal Regulations
CUP	Coastal Use Permit
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
DA	Department of the Army
DFIRM	Digital Flood Insurance Rate Map
EA	Environmental Assessment
EIS	Environmental Impact Statement
EL	Elevation
EPA	Environmental Protection Agency
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
GOHSEP	Governor's Office of Homeland Security and Emergency Preparedness
HMGP	Hazard Mitigation Grant Program
LADOTD	Louisiana Department of Transportation and Development
LDEQ	Louisiana Department of Environmental Quality
LDNR	Louisiana Department of Natural Resources
LDWF	Louisiana Department of Wildlife and Fisheries
LPDES	Louisiana Pollutant Discharge Elimination System
MSL	Mean Sea Level
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NRCS	National Resources Conservation Service
NRHP	National Register of Historic Places
OSHA	Occupational Safety and Health Administration
PE	Professional Engineer
PLS	Professional Land Surveyor
RHA	Rivers and Harbors Act
SHPO	State Historic Preservation Office/Officer
SONRIS	Strategic Online Natural Resources Information System
SPOC	Single-Point-of-Contact
ULL	University of Louisiana at Lafayette
USACE	United States Army Corps of Engineers

USFWS
UST

United States Fish and Wildlife Service
Underground Storage Tank

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1.0 INTRODUCTION

1.1 Project Authority

In accordance with 44 Code of Federal Regulation (CFR) for the Federal Emergency Management Agency (FEMA), Subpart B – Agency Implementing Procedures, Section 10.9, an environmental assessment (EA) was prepared pursuant to Section 102 of the National Environmental Policy Act of 1969, as implemented by the regulations promulgated by the President’s Council on Environmental Quality (40 CFR Parts 1500-1508). The purpose of this EA is to analyze the impacts of a proposed drainage improvements project on the University of Louisiana at Lafayette (ULL) Campus in the City of Lafayette, Louisiana. FEMA will use the findings in this EA to determine whether to prepare an Environmental Impact Statement (EIS) or a Finding of No Significant Impact (FONSI).

Hurricane Gustav, a Category 4 hurricane with a storm surge above normal high tide levels, moved across the Louisiana, Mississippi, and Alabama gulf coasts on September 1, 2008. The maximum sustained winds at landfall were estimated at 155 miles per hour. President Bush declared a major disaster for the State of Louisiana due to damages from Hurricane Gustav and signed a disaster declaration (FEMA-1786-DR-LA) on September 2, 2008, authorizing the Department of Homeland Security’s Federal Emergency Management Agency (FEMA) to provide federal assistance in designated areas of Louisiana. FEMA is administering this disaster assistance pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), PL 93-288, as amended. Section 404 of the Stafford Act authorizes FEMA’s Hazard Mitigation Grant Program (HMGP) to provide funds to states and local governments to implement long-term hazard mitigation measures after a major disaster declaration.

1.2 PROJECT LOCATION/BACKGROUND

Lafayette Parish is located in southwestern Louisiana (see figure 1). It is approximately 181,120 acres (283 square miles), bordered to the east by Iberia and St. Martin Parishes, to the south by Vermilion Parish, to the west by Acadia Parish, and to the north by St. Landry Parish. The City of Lafayette is located in eastern Lafayette Parish, with approximately 113,732 people, according to 2005-2009 U.S. Census figures. Lafayette is approximately 135 miles from New Orleans, Louisiana and 60 miles from Baton Rouge, Louisiana. The center of the proposed project area is located approximately 0.68 miles northwest of the Vermilion River. Specifically, this project is located along Boucher Drive and McKinley Street on the campus of ULL (see figure 2 and figure 3). The proposed drainage improvements on Boucher Drive would begin approximately at (30.21419, -92.01662) and end at the intersection of Boucher Drive and McKinley Street (30.213438, -92.015770). The proposed drainage improvements on McKinley Street would begin at approximately (30.213861, -92.015334) and end at (30.210797, -92.018497) before going into Girard Park. The proposed project is located in Section 67, Township T9S, R4E, and Section 44, Township T10S, R43.

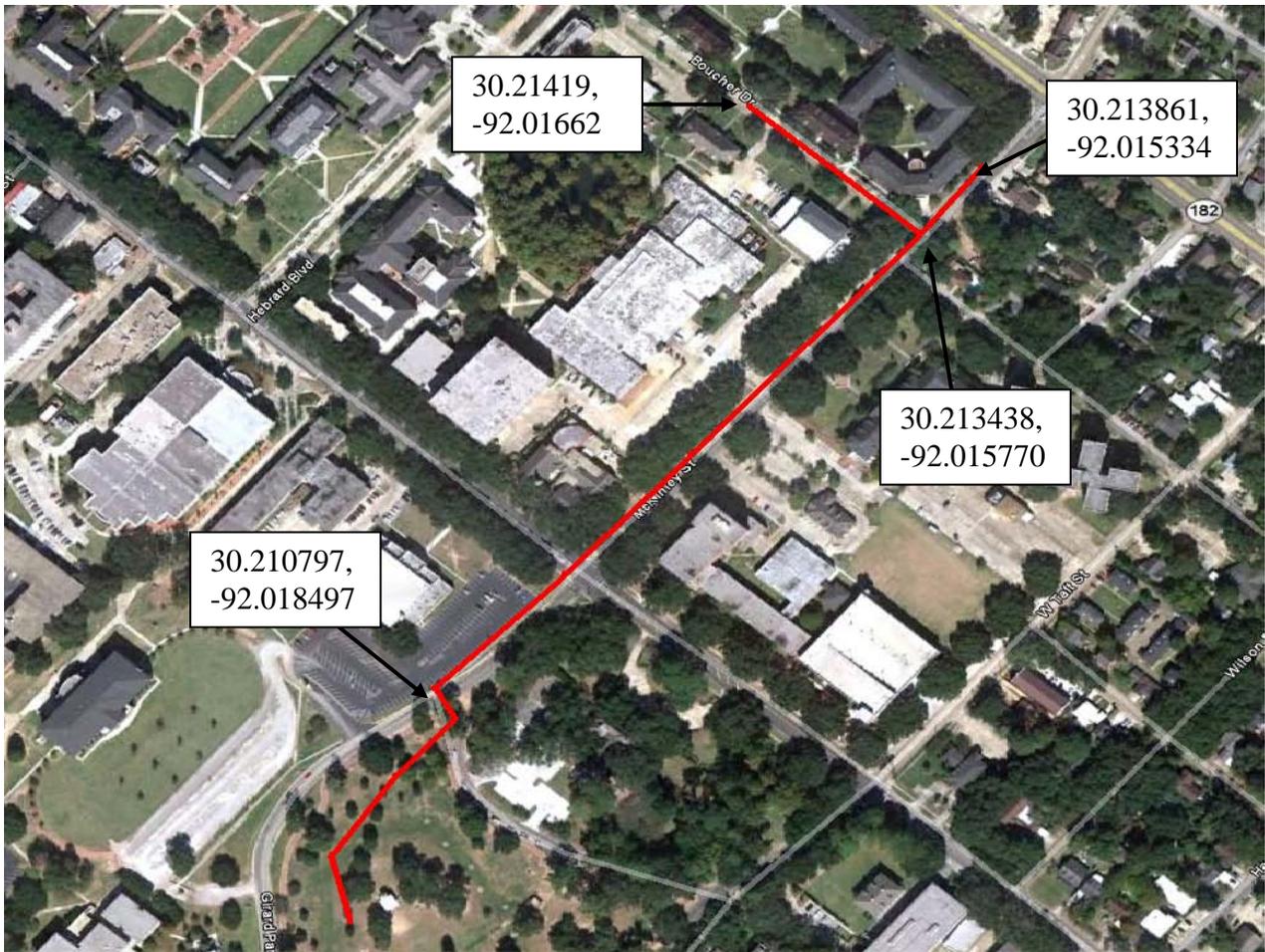
Figure 1: State Map of Louisiana



Figure 2: Site Location in Lafayette, Lafayette Parish, Louisiana



Figure 3: Proposed Project Location



2.0 PURPOSE AND NEED

On September 1, 2008 storm surge caused by Hurricane Gustav inundated large portions of Louisiana causing extensive flood damage to residences across Lafayette Parish. The purpose of this EA is to evaluate alternatives that would reduce flooding on the ULL Campus. According to information provided by Lafayette Parish, the existing subsurface drainage system in the project area is ineffective, incapable of handling even the two-year storm event (storm that has a 50% chance of occurring in any given year). The continuation of intense rainfall events has repeatedly caused several buildings within the campus to flood, along with flooding near student housing and inundation of the streets within the immediate area. These frequent flooding events often affect daily operations at the University, while also potentially placing the lives of students and faculty in danger due to unsafe driving conditions caused by the lack of drainage.

Over the last three years, there have been at least ten flooding events in the project area which caused delays to normal campus operations and required work to be performed. These flooding events can largely be attributed to an undersized subsurface drainage system. The proposed drainage improvements would stop or decrease flooding in the project area, allowing normal

campus operations to remain uninterrupted during rain events equal to or greater than the two-year storm.

3.0 ALTERNATIVES

Three different alternatives have been proposed and reviewed for this project. They include: 1) The No Action Alternative, 2) The Wharton Hall Drainage Improvements Alternative (Proposed Action), and 3) Wharton Hall Drainage Pump Station Alternative (eliminated from further consideration).

3.1 Alternative 1- No Action

Under this alternative, Lafayette Parish would not perform any subsurface drainage improvements within the project area. Consequently, the buildings and streets in the project area would continue to flood during severe storms, tropical storms, and hurricanes.

3.2 Alternative 2- Wharton Hall Drainage Improvements (Proposed Action)

The proposed action for this project would essentially consist of removing a large section of the existing storm drainage pipe along McKinley Street and replacing it with a new storm drainage pipe of increased size, as well as installing new drainage piping along Boucher Drive and in Girard Park in order to expand the capacity of the subsurface drainage system in the project area. All new piping for this project would be installed between 3 feet and 10 feet deep in the ground as necessary to ensure the gravity system is capable of providing the proposed amount of drainage.

The improvements along the southwest side of Boucher Drive would include installing approximately 408 feet of 18-inch reinforced concrete pipe beginning near the intersection McKinley Street and Boucher Drive (30.213438, -92.015770), and extending west towards Hebrard Boulevard, ending near the Saucier Clinic (30.21419, -92.01662). Additionally, the applicant would install a 15-inch reinforced concrete pipe that would cross Boucher Drive near the Saucier Clinic, connecting the proposed drainage improvements to an existing culvert on the northeast right-of-way of Boucher Drive (see Appendix A).



Photo 1 - Typical flooding along Boucher Drive right-of-way

Along the northwest side of McKinley Street, the applicant proposes to install approximately 1350 feet of new piping beginning approximately at 30.213861, -92.015334 and ending at approximately 30.210797, -92.018497 (near parking lot for Earl K. Long Gym, see figure 3). These improvements would include installing an estimated: 170 feet of 15-inch reinforced concrete pipe; 210 feet of 18-inch reinforced concrete pipe; 315 feet of 30-inch reinforced concrete pipe; 230 feet of 42-inch reinforced concrete pipe; 75 feet of 36-inch reinforced concrete pipe; and 350 feet of 48-inch reinforced concrete pipe. Most of this new piping would replace an existing 21-inch reinforced concrete pipe along McKinley Street.

In two sections the new drainage improvements will actually be placed parallel to, and function alongside of, the existing subsurface drainage. The first of these sections, approximately 200 feet in length, runs from the intersection of McKinley Street and Tulane Avenue (30.213362, -92.015858) to an existing 15-inch drainage pipe near McLaurin Gym (30.212938, -92.016268). The second section, approximately 40 feet in length, is just northeast of the intersection of McKinley Street and East St. Mary Boulevard (30.211535, -92.017667), and runs roughly 40 feet to the southeast (30.211555, -92.017645). Excluding these two sections, all new piping would be installed in place of the existing subsurface drainage, which would be removed.



Photo 2- Right-of-Way along McKinley Street, between Tulane Avenue & St. Mary Boulevard

At the southwestern end of the section along McKinley Street, approximately 50 feet of 48-inch reinforced concrete pipe would be installed, carrying storm water from the proposed subsurface drainage system across McKinley Street into Girard Park where a retention pond already exists. In Girard Park thirty-five feet of 15-inch reinforced concrete pipe and 465 feet of 54-inch reinforced concrete pipe would be installed. A new junction box would be installed at approximately 30.20968, -92.01924 to tie this new 15-inch and 54-inch piping in with the existing subsurface drainage in the park. From this junction box to an existing inlet at 30.20908, -92.01929, the existing swale would be re-graded to eliminate a high point in the grade which would cause water to back up.



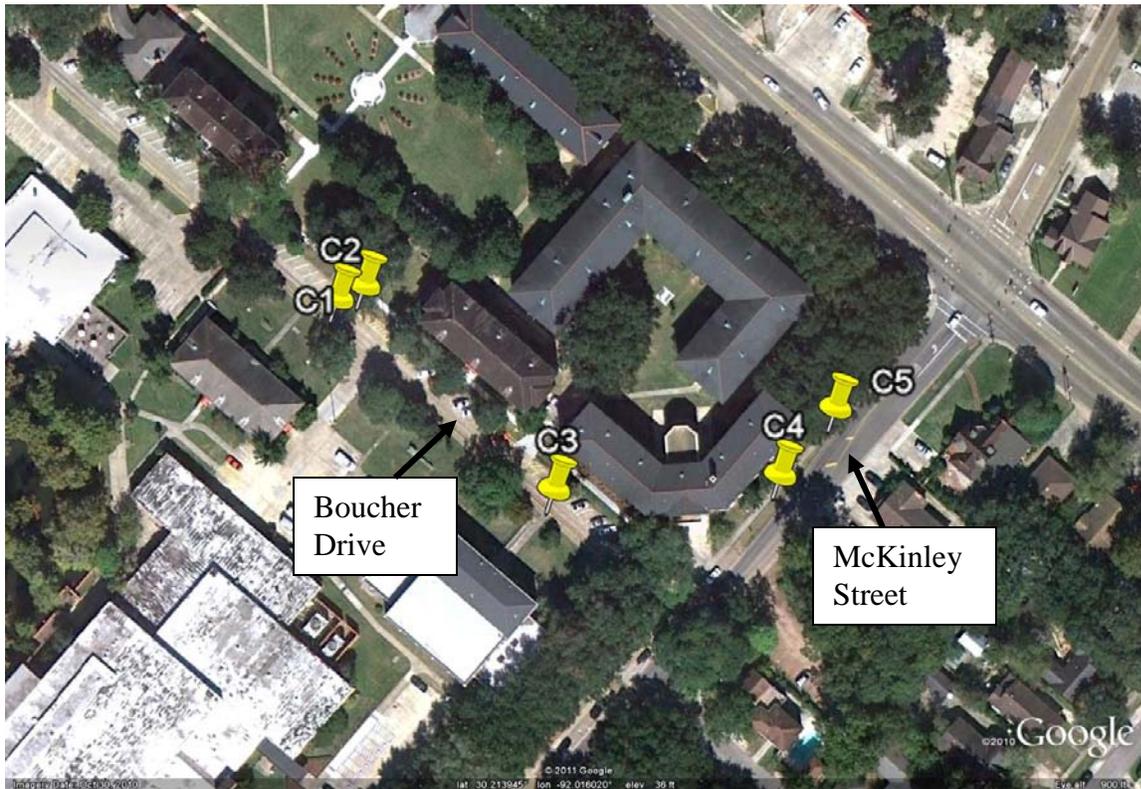
Photo 3: Girard Park

The applicant also proposes installing the necessary number of culvert boxes and manholes associated with this new piping. The proposed dimensions and locations of the new culvert boxes are listed in the table below (see Table 1 and Figures 4 and 5).

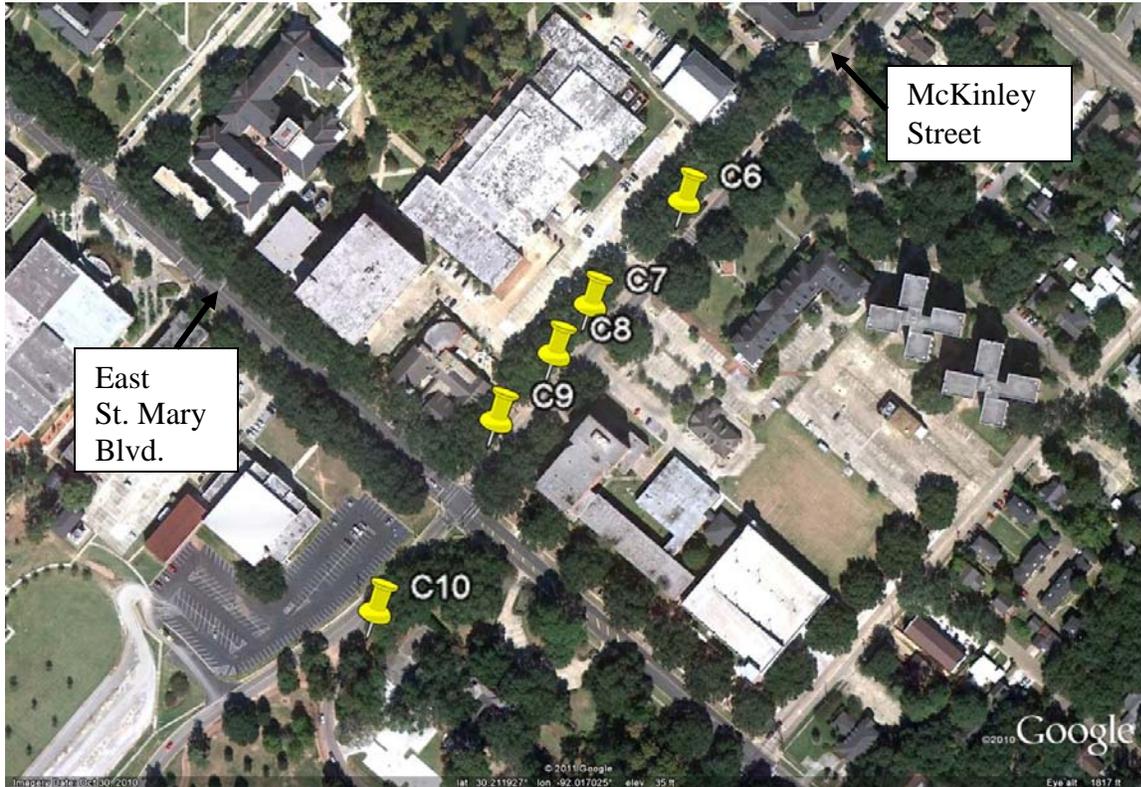
Table 1: Summary of Pertinent Data for the Proposed Culverts

Site Number	Latitude	Longitude	Proposed Dimensions
C1	30.214154	-92.016635	6" x 33" x 48"
C2	30.214123	-92.016708	6" x 33" x 48"
C3	30.213667	-92.016111	6" x 33" x 48"
C4	30.213702	-92.015487	6" x 33" x 48"
C5	30.213861	-92.015334	6" x 33" x 48"
C6	30.212752	-92.016472	6" x 33" x 48"
C7	30.212243	-92.017007	6" x 33" x 48"
C8	30.212001	-92.017212	6" x 33" x 48"
C9	30.211673	-92.017542	8.5" x 33" x 64"
C10	30.210732	-92.018233	6" x 33" x 48"

Figure 4: Culverts 1 through 5 (to be installed)



**Figure 5:
Culverts 6 through 10 (To be installed)**



The proposed dimensions and locations of the new manholes are listed in the table below (See Table 2 and Figures 6 and 7).

Table 2: Summary of Pertinent Data for Proposed Manholes

Site Number	Latitude	Longitude	Manhole Type (See Attached Plans for Details)
M1	30.214014	-92.016531	4
M2	30.213009	-92.016209	3
M3	30.212641	-92.016596	3
M4	30.212126	-92.017138	2
M5	30.211592	-92.017674	2
M6	30.211535	-92.017696	1A
M7	30.211614	-92.01778	1
M8	30.211386	-92.017841	2
M9	30.21098	-92.018231	2
M10	30.210699	-92.018404	2
M11	30.210243	-92.018857	2
M12	30.209935	-92.019087	2

Figure 6:
Manholes 1 through 6 (To be installed)

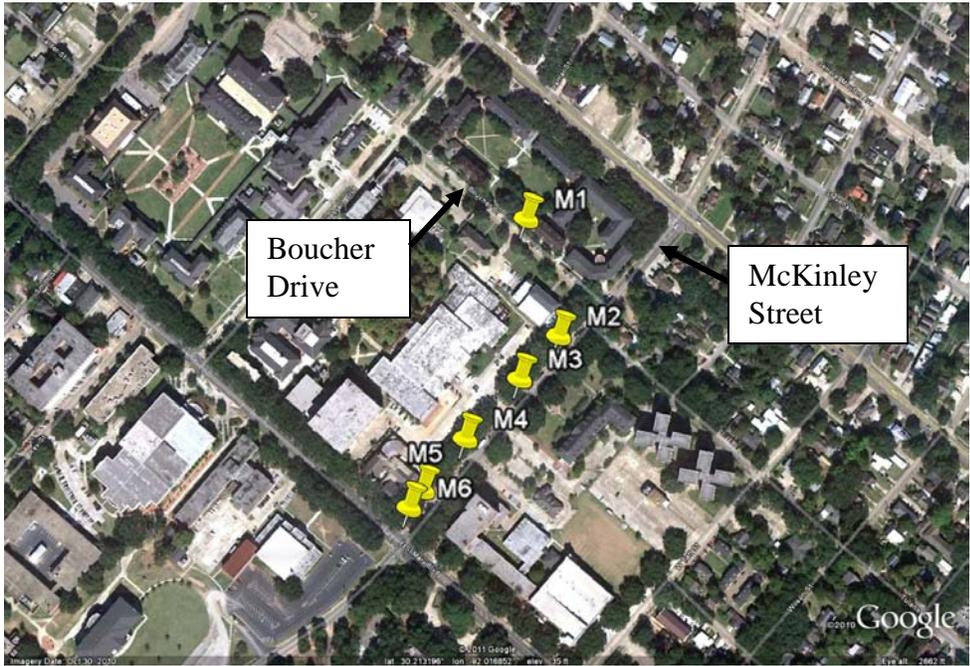
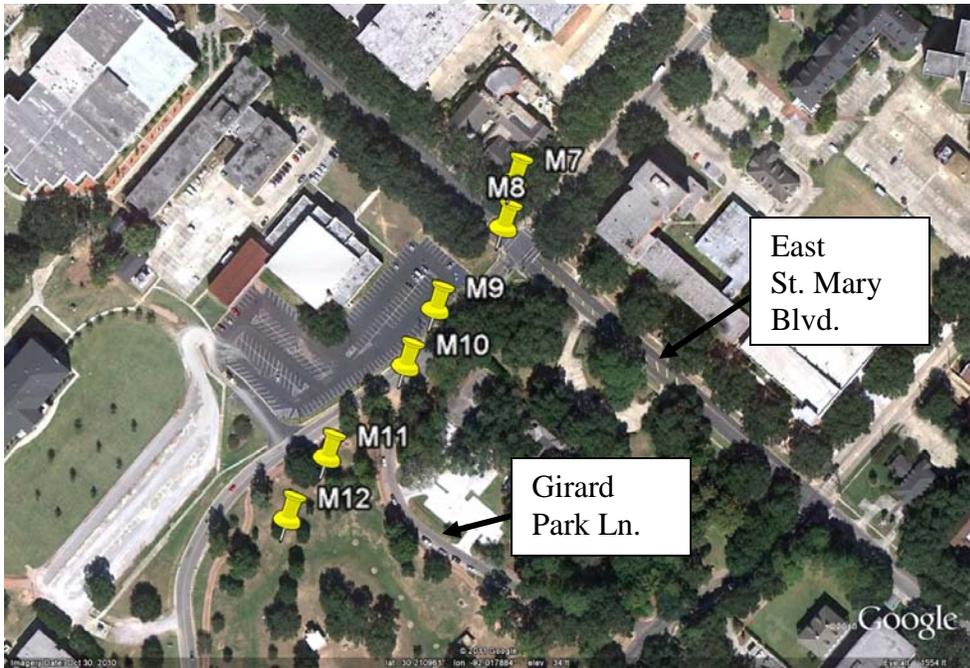


Figure 7:
Manholes 7 through 12 (To be installed)



3.3 Alternative 3- Wharton Hall Pump Station (Eliminated From Further Consideration)

Lafayette Parish considered constructing a drainage pump station and force main instead of a gravity system. The drainage pump station would need to intercept the drainage from the Student Union parking lot and the drainage crossing from Angelle Hall. The water would be pumped from that area to the current discharge point in Girard Park. Siting for the pump station would very likely impact one or more existing oak trees along McKinley Street due to a lack of space within the existing right-of-way or servitude. Additionally, some drainage improvements would still be needed along Boucher Drive and along McKinley Street from the intersection with Boucher Drive toward the intersection with East University Avenue to address the specific problems in those areas.

The pumping equipment would likely have to be replaced every ten years or so, and these operation and maintenance costs would have to be taken into account. Thus, this alternative would not likely be a cost effective alternative to the gravity system, particularly since the applicant is trying to correct a drainage problem on what is essentially a hill.

After careful consideration, Lafayette Parish eliminated this alternative from further consideration due to the reasons listed above.

4.0 AFFECTED ENVIRONMENT AND IMPACTS

4.1 Impact Summary

The following matrix summarizes the results of the environmental review process (Table 3). Potential environmental impacts that were found to be negligible are not evaluated further. Resource areas that have the potential for impacts of minor, moderate, or major intensity are further developed in the following sections. Definitions of the impact intensity are described below:

Negligible: The resource area would not be affected, or changes would be either non-detectable or if detected, would have effects that would be slight and local. Impacts would be well below regulatory standards, as applicable.

Minor: Changes to the resource would be measurable, although the changes would be small and localized. Impacts would be within or below regulatory standards, as applicable. Mitigation measures would reduce any potential adverse effects.

Moderate: Changes to the resource would be measurable and have both localized and regional scale impacts. Impacts would be within or below regulatory standards, but historical conditions are being altered on a short-term basis. Mitigation measures would be necessary and the measures would reduce any potential adverse effects.

Major: Changes would be readily measurable and would have substantial consequences on a local and regional level. Impacts would exceed regulatory standards. Mitigation measures to

offset the adverse effects would be required to reduce impacts, though long-term changes to the resource would be expected.

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Table 3: Affected Environment and Environmental Consequences Matrix

Resource Area	Impact Intensity				Impact Summary	Agency Coordination / Permits	Mitigation
	Negligible	Minor	Moderate	Major			
Land Use	X				The proposed project area encompasses the University of Louisiana at Lafayette Campus and Girard Park, which contains multiple recreational facilities. The proposed scope of work could cause a temporary disturbance with regards to campus operations and use of the park.		
Geology and Soils	X				Potential for short-term localized increase in soil erosion during construction.	Natural Resources Conservation Service (NRCS) correspondence letter from Kevin D. Norton of the Alexandria, LA office, dated 4/27/2011. (See Appendix B) Louisiana Department Environmental Quality (LDEQ) email dated 3/9/2011. (See Appendix B)	Implement construction Best Management Practices (BMPs); install silt fences/straw bales to reduce sedimentation. Area soils would be covered and /or wetted during construction. If fill is stored on site as part of unit installation or removal, the contractor would be required to appropriately cover it (see also Section 6.0).
Hydrology and Floodplains (Executive Order 11988)		X			Preliminary Flood Insurance Rate (DFIRMs) Maps were reviewed on FEMA's web site. According to DFIRM 22055C 0160J, with a preliminary date of Sept. 28, 2007, the project area is located in Zone X (outside of the 100- and 500-year floodplains). See Section 4.2.1.		
Wetlands (Executive Order 11990)	X				U.S. Fish and Wildlife Service (USFWS) mapped wetlands are not present in the proposed project area.	Letter from the U.S. Army Corps of Engineers, dated 5/20/2011.	
Surface Water and Water Quality		X			Potential for short-term localized increase in sedimentation during construction. See also Section 4.2.2.	LDEQ email dated 3/9/2011. (See Appendix B)	Contractor to contact the LDEQ to determine if a Louisiana Pollutant Discharge Elimination System (LPDES) permit is required. If required, the contractor must follow all requirements of the LPDES permit. Implement construction BMPs; install silt fences/ straw bales to reduce sedimentation (see also Section 6.0)
Groundwater	X				Lafayette Parish overlies Chicot aquifer system which has been designated a sole source aquifer by the Environmental Protection Agency (EPA). The proposed project, however, should not have an adverse effect on the quality of the ground water underlying the project site.	EPA email dated 3/9/2011. (See Appendix B)	The contractor should observe all precautions to protect the groundwater of the region. The LDNR Office of Conservation should be contacted at 225-342-5540 if any unregistered drinking water wells are encountered during construction work (see Section 6.0).

Resource Area	Impact Intensity				Impact Summary	Agency Coordination / Permits	Mitigation
	Negligible	Minor	Moderate	Major			
Coastal Resources	X				According to the Coastal Zone Management map, referenced on 3/17/2011, the proposed project area is not in the Coastal Zone and would therefore have no effect on any coastal resources. The site is not located within a Coastal Barrier Resource System Unit (CBRS) according to the Preliminary Flood Insurance Rate Map.	Letter from the Louisiana Department of Natural Resources (LDNR), Coastal Zone Management Program, dated 3/15/2011. (See Appendix B)	
Air Quality	X				During construction, potential short-term localized increase in vehicle emissions and dust particles. The Lafayette Parish airshed is in attainment for criteria pollutants per the Clean Air Act (CAA).	LDEQ email dated 3/9/2011. (See Appendix B)	Vehicle operation times would be kept to a minimum. Area soils would be covered and/or wetted during construction to minimize dust. (see also Section 6.0).
Vegetation and Wildlife	X				The proposed project area is heavily developed area and consists of maintained grassland or paved roadways and parking lots. No long-term impacts to existing vegetation and wildlife are anticipated. According to the preliminary construction plans provided by the applicant, the contractor will remove some trees in Girard Park to complete the proposed scope of work. Specifically, a 6-inch Oak, 3-inch Oak, 4-inch Holly, and 4-inch tree of an unspecified type would be removed.	USFWS determination of no effect, dated 3/1/2011. (See Appendix B)	
Threatened and Endangered Species (Endangered Species Act Section 7)	X				No impact to federally listed threatened or endangered species is anticipated. No impacts to critical habitats are anticipated.	USFWS determination of no effect, dated 3/1/2011. Louisiana Department of Wildlife and Fisheries (LDWF) letter dated 3/10/2011. (See Appendix B)	

Resource Area	Impact Intensity				Impact Summary	Agency Coordination / Permits	Mitigation
	Negligible	Minor	Moderate	Major			
Cultural Resources (National Historic Preservation Act Section 106)	X				<p>Lafayette Parish proposes to improve the sewer system and drainage conditions on the University of Louisiana Lafayette (ULL) campus in the city of Lafayette, Lafayette Parish. The sewer system improvements within the main campus on Boucher Drive and McKinley Street have been cleared programmatically (2011 Statewide Programmatic Agreement: Appendix C.I.A), as all planned activities occur within existing utility trenches. The terminus of the sewer improvements, Girard Park, was not cleared programmatically. Based on research using FEMA's Cultural Resource Database, updated in coordination with State Historic Preservation Officer (SHPO) in March 2010, FEMA has determined there are no archaeological sites located within one (1) mile of any previously identified archaeological sites. However, a 1940 Sanborn Fire Insurance map revealed the presence of a Civilian Conservation Corps (CCC) camp within the boundaries of the modern Girard Park. Upon consultation with SHPO it was determined that a site visit was necessary. A site visit was conducted with FEMA SHPO Liaison Jason Emery. Girard Park has been heavily landscaped in the past, and one soil probe excavated with the SHPO Liaison confirmed the presence of disturbed soil. No historic properties were discovered during this site visit.</p> <p>FEMA has determined that there is a No Effect to Historic Properties determination as a result of the proposed undertaking. SHPO concurrence with this determination was received April 25, 2011. Consultation with affected tribes including the Choctaw Nation of Oklahoma, Coushatta Tribe of Louisiana, Jena Band of Choctaw Indians, Mississippi Band of Choctaw Indians, and Tunica-Biloxi Tribe of Louisiana was conducted per 36 CFR §800.2(c)(2)(i)(B). No tribal concurrences were received. Therefore, no impacts to cultural resources are anticipated by the proposed action.</p>		<p>If archaeological artifacts or features (prehistoric or historic) or human remains are discovered during the course of FEMA funded work at the project site, the Applicant must ensure that their Contractor stops work in the vicinity of the discovery and takes all reasonable measures to avoid and minimize harm to the discovery. The Applicant shall inform the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) and FEMA of the discovery, and FEMA would deploy an archaeologist to the location to conduct a site condition assessment. The Applicant would not proceed with work until FEMA has completed consultation with the SHPO on the treatment of the discovery.</p> <p>The Applicant would immediately notify GOHSEP, FEMA, the local Police Department, and the local Coroner's Office of the discovery. The local Coroner's Office would assess the nature and age of the human skeletal remains. If the Coroner's Office determines that the human skeletal remains are older than 50 years of age, the Louisiana Division of Archaeology would take jurisdiction over the remains. Within twenty-four (24) hours, FEMA would notify the Louisiana Division of Archaeology (225-342-8170) of the finding. Within seventy-two (72) hours, FEMA would take the lead in working with the Louisiana Division of Archaeology and other interested parties, as necessary, to ensure compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 <i>et seq.</i>) and other applicable laws. In addition, the Applicant must afford FEMA the opportunity to comply with the "Human Remains Policy" set forth by the ACHP.</p> <p>The applicant must comply with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 <i>et seq.</i>) and the Inadvertent Discovery Clause, which can be found under conditions section of this EA.</p> <p>See also Section 6.0.</p>

Resource Area	Impact Intensity				Impact Summary	Agency Coordination / Permits	Mitigation
	Negligible	Minor	Moderate	Major			
Environmental Justice (Executive Order 12898)/ Socioeconomics	X				According to the American Census, Estimated Data for 2005-2009, the percentage of families in the city of Lafayette below the poverty level is 12.8%. This figure for the U.S. as a whole is 9.9%. The median per capita income for Lafayette is \$27,926. The figure for the U.S. as a whole is \$27,041. The demographics for Lafayette are as follows: Caucasian: 65.5% African American: 31.1%, Hispanic 2.8%, and Asian 1.5%. The demographic for the U.S. as a whole are: Caucasian: 74.5% African American: 12.4%, Hispanic: 15.1%, and Asian: 4.4%. The proposed project area is a college campus and the proposed scope of work will not have an adverse or disproportionate impact on minority or low-income populations.	Census data obtained at http://factfinder.gov/home/saff/Main.htm?lang=en	
Noise		X			During the construction period there would be a short-term increase in noise levels. See also Section 4.3.		The applicant is to comply with all local noise ordinances. See also Sections 4.3 and 6.0
Public Safety	X				No impacts to safety and security are anticipated.		The contractor would place fencing around the work area perimeters to protect nearby residents from vehicular traffic. To minimize worker and public health and safety risks from project construction and closure, all construction and closure work would be done using qualified personnel trained in the proper use of construction equipment, including all appropriate safety precautions. Additionally, all activities would be conducted in a safe manner in accordance with the standards specified in Occupational Safety and Health Administration (OSHA) regulations and the USACE safety manual. The contractor would post appropriate signage and fencing to minimize potential adverse public safety concerns. See also Section 6.0.

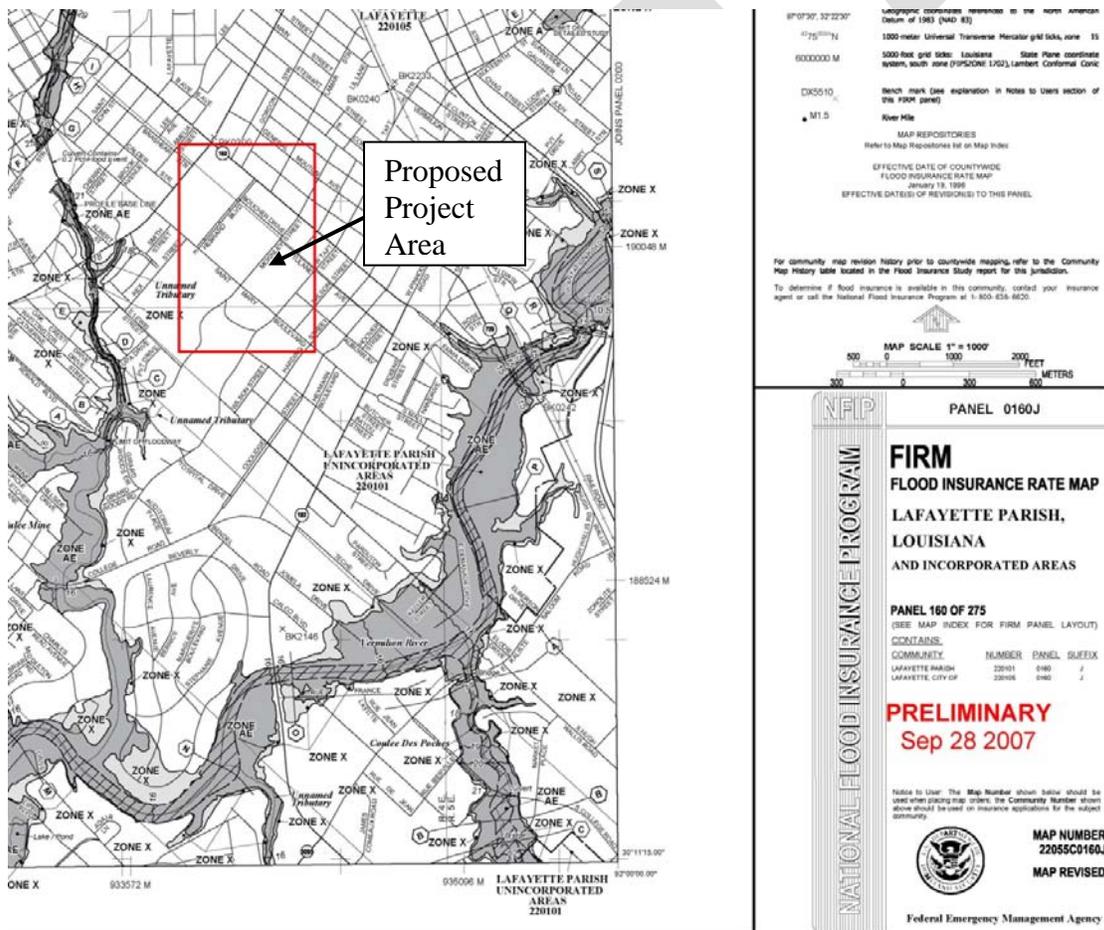
Resource Area	Impact Intensity				Impact Summary	Agency Coordination / Permits	Mitigation
	Negligible	Minor	Moderate	Major			
Traffic and Transportation		X			Traffic volumes along the respective work areas would increase temporarily during work activities. Surface traffic on the affected areas of McKinley Street, Boucher Drive, Girard Park Drive, and Girard Park Circle would be impacted during the installation the proposed culverts and manholes on these streets. See also Section 4.4.		Appropriate signage and barriers should be in place prior to construction activities in order to alert pedestrians and motorists of project activities and traffic pattern changes. The contractor would implement traffic control measures, as necessary. See also Sections 4.4 and 6.0.
Hazardous Materials and Toxic Wastes	X				EPA and Louisiana LDEQ hazardous materials database searches were queried for the project work areas. No sites of concern were identified by the database search within the project area. The LDNR Strategic Online National Resources Information System (SONRIS) database was queried for the project work areas. There are no registered oil/gas wells or drinking water wells located within the project area. There are no groundwater areas of concern.	The following web sites were referenced for Hazardous Materials and Toxic Waste data (see references for more information): EPA Envirofacts, Enviromapper, LDEQ EMS site, LDEQ VRP List, EPA Brownfields, LDEQ State Brownfields List, LDNR SONRIS, LDEQ LUST List, LDEQ Authorized Deris Sites, USGS National Map Viewer, Louisiana State Library	If hazardous materials are unexpectedly encountered in the project area during the proposed construction operations, appropriate measures for the proper assessment, remediation, management and disposal of the contamination would be initiated in accordance with applicable federal, state, and local regulations. The contractor would be required to take appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction area. The LDNR Office of Conservation should be contacted at 225-342-5540 if any unregistered wells of any type are encountered during construction work. For pipelines and other underground hazards, Louisiana One Call should be contacted at 800-272-3020 prior to commencing operations.

4.2 Water Resources

4.2.1 Hydrology and Floodplains

Executive Order 11988 (Floodplain Management) requires federal agencies to avoid or minimize development in the floodplain except when there are no practicable alternatives. Lafayette Parish enrolled in the National Flood Insurance Program (NFIP) on August 1, 1980. The City of Lafayette enrolled in the National Flood Insurance Program (NFIP) on September 30, 1980. Preliminary Digital Flood Insurance Rate Maps (PDFIRMs) were produced for Lafayette Parish, dated September 28, 2007. Although the Parish has not yet adopted these PDFIRMs, FEMA requires use of the PDFIRM data because it is the best available data. According to PDFIRM Panel Number 22055C 0160J (Figure 8) the proposed project is located in Zone X (an area that is determined to be outside the 100- and 500-year floodplains).

Figure 8: Preliminary DFIRM 22055C 0160J



Alternative 1- No Action: The No Action Alternative would have no effect on floodplains.

Alternative 2- Wharton Hall Drainage Improvements (Proposed Action): The project is located in a zone X (outside the 100- and 500-year floodplains).

The proposed action is not anticipated to have any affects on the floodplains. However, the applicant is still required to coordinate and comply with the local Floodplain Administrator regarding floodplain permit(s) prior to the start of any activities. All Coordination pertaining to these permit(s) should be documented to the local Floodplain Administrator and copies provide to LA GOHSEP and FEMA as part of the permanent project files.

In a memo dated March 17, 2011 (see Appendix C), John A. Key, P.E., P.L.S., Consulting Engineer and Land Surveyor, stated the following:

1. The proposed drainage system will work as designed if it is constructed in accordance with the plans and specifications.
2. There should be no adverse impacts upstream of the proposed project because of the significant difference in elevation between the areas upstream and the discharge point in Girard Park. For example, the ground elevations around the ULL campus and surrounding neighborhoods are at approximately EL. 35.0 feet above mean sea level (msl) or higher, and the elevation of the top bank of the swale in the park at the point where the proposed drainage connects to the existing system is approximately EL. 28.0 feet above msl or lower.
3. The proposed drainage system will not adversely impact the existing drainage system in Girard Park. The connection to the existing 48- inch piping will overflow into the large swale area and will be conveyed downstream by the swale ditch to the point where it can get into the existing 60- inch outfall piping. The existing 60- inch piping is adequate to handle the existing flows and the proposed discharge from this project.
4. No analysis was performed on the large drainage area and major drainage system downstream of the existing 60- inch outfall line because that was not included in the scope of work for this project. However, it is reasonable to assume that this major drainage system should be able to handle the total flow capacity of the existing 60- inch pipe.

4.2.2 Surface Water and Water Quality

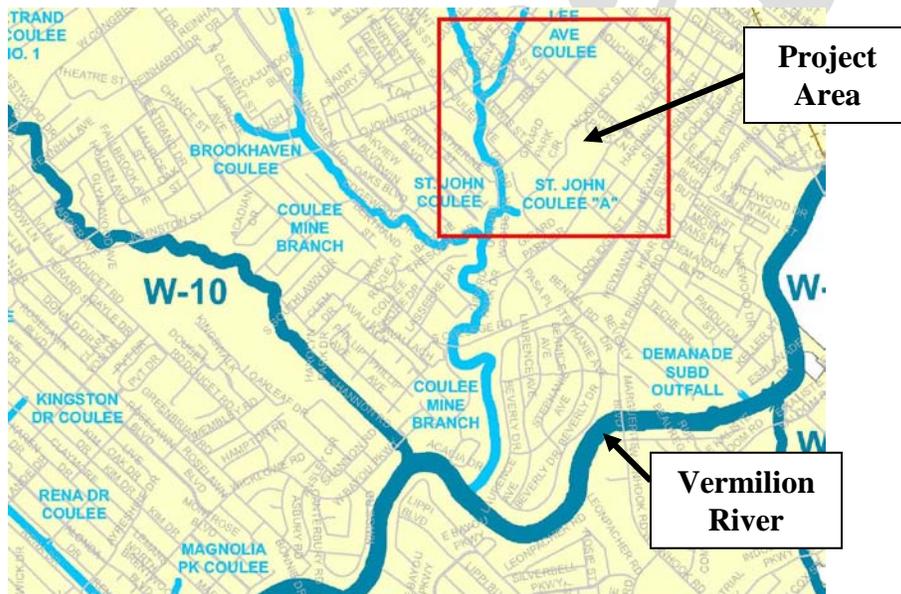
According to the documentation provided by Lafayette Parish, stormwater from the project drainage area drains into St. John Coulee “A” to Coulee Mine Branch. From Coulee Mine Branch the effluent will be discharged into the Vermilion River (see figure 9).

The Vermilion River runs through the center of Lafayette and is approximately 72 miles long. It helps to form the common boundary of Lafayette and St. Martin Parishes and flows generally southward, before draining into the Vermilion Bay, and eventually, the Gulf of Mexico.

Alternative 1- No Action: The No Action Alternative would not change site drainage or have an effect on the surface water quality of the area.

Alternative 2- Wharton Hall Drainage Improvements (Proposed Action): During construction there is the potential to impact surface waters through minor erosion and sedimentation. Excavation and trenching would be required to replace the existing subsurface drainage system in the project area. In order to minimize impacts to waters of the United States, the contractor is required to implement BMPs that meet the LDEQ permitting specifications for storm water discharge regulated under Section 402 of the Clean Water Act (CWA). This includes specific construction measures to reduce or eliminate run-off impacts. However, any adverse effects to water quality associated with the construction of the projects would be short term and minimized by the measures described above.

Figure 9: Drainage Map of Project Area



4.3 Noise

Noise is generally described as unwanted sound. The project area is generally fully developed with residential and commercial structures; numerous roadways cross over or are located near the proposed project. There are numerous noise receptors within 500 feet of the proposed project. There are numerous residential and commercial properties in the immediate area. Existing noise consists primarily of traffic noise. Noise levels

within and adjacent to the project area would increase during construction activities as a result of construction equipment and increased vehicular activity.

Alternative 1- No Action: The No Action Alternative would have no impact on noise in the project area.

Alternative 2-Wharton Hall Drainage Improvements (Proposed Action): The extraction and replacement of the existing subsurface drainage system, along with the installation of the necessary number of culverts and manholes, would result in an increase in noise. The increase is expected to be temporary and would not affect any sensitive receptors. The applicant is expected to comply with all relevant, local noise ordinances.

4.4 Traffic and Transportation

The proposed site is located in a developed, moderate to heavy traffic volume area.

Alternative 1- No Action: The No Action alternative would have no effect on traffic.

Alternative 2 – Wharton Hall Drainage Improvements (Proposed Action): Construction at the proposed project site would have a temporary effect on traffic by increasing the number of heavy machinery vehicles on McKinley Street, Boucher Drive, Girard Park Drive, and Girard Park Circle. Construction traffic should be closely monitored and controlled as appropriate. All construction activities would be conducted in a safe manner in accordance with OSHA requirements.

Surface traffic on the affected areas of McKinley Street, Boucher Drive, Girard Park Drive, and Girard Park Circle would be impacted during the installation the proposed culverts and manholes on these streets. The contractor will implement traffic control measures as necessary. During construction activities, the construction site(s) would be fenced off to discourage trespassers.

5.0 CUMULATIVE IMPACTS

Cumulative impacts are those effects on the environment that result from the incremental effect of the action when added to past, present, and reasonably foreseeable future actions, regardless of what agency (federal or nonfederal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

There are no other known projects that, when added to the proposed action, would have a significant cumulative adverse impact on the human environment.

6.0 CONDITIONS AND MITIGATION MEASURES

Based upon the studies and consultations undertaken in this environmental assessment, several conditions and mitigation measures must be taken by the applicant prior to and during project implementation.

- In order to minimize impacts to waters of the U.S., the contractor is required to implement BMPs that meet the LDEQ permitting specifications for storm water discharge regulated under Section 402 of the CWA. This includes designing the site with specific construction measures to reduce or eliminate run-off impacts. LDEQ has stormwater general permits for construction areas equal to or greater than five acres. It is recommended that the LDEQ Water Permit Division be contacted at (225) 219-3181 to determine whether the proposed improvements require one of these permits.
- The contractor would be responsible for keeping all excavated areas periodically sprayed with water, all equipment maintained in good working order, and all construction vehicles would be limited to 15 miles per hour to minimize pollution/fugitive dust.
- Any changes or modifications to the proposed project would require a revised determination. Off-site locations of activities such as borrow; disposals, haul-and detour-roads and work mobilization site developments may be subject to the Department of the Army (DA) regulatory requirements and may have an impact to a DA project.
- If any solid or hazardous wastes, or soils and/or groundwater contaminated with hazardous constituents are encountered during the project, notification to LDEQ's Single-Point-of-Contact (SPOC) at (225) 219-3640 is required. Additionally, precautions should be taken to protect workers from these hazardous constituents.
- Construction traffic should be closely monitored and controlled as appropriate. All construction activities would be conducted in a safe manner in accordance with OSHA requirements. To alert motorists and pedestrians of project activities, appropriate signage and barriers should be used during construction. During construction activities, the construction site(s) would be fenced off to discourage trespassers.
- If archaeological artifacts or features (prehistoric or historic) are discovered during the course of FEMA funded work at the project site, the Applicant must ensure that their Contractor stops work in the vicinity of the discovery and takes all reasonable measures to avoid and minimize harm to the discovery. The Applicant shall inform GOHSEP and FEMA of the discovery, and FEMA would deploy an archaeologist to the location to conduct a site condition assessment.

The Applicant would not proceed with work until FEMA has completed consultation with the SHPO on the treatment of the discovery.

- In addition, if human remains are discovered during the course of FEMA funded work, the Applicant and the Applicant's Contractor are responsible for immediately halting work within the vicinity of the human remains finding. The Applicant would immediately notify GOHSEP, FEMA, the local Police Department, and the local Coroner's Office of the discovery. The local Coroner's Office would assess the nature and age of the human skeletal remains. If the Coroner's Office determines that the human skeletal remains are older than 50 years of age, the Louisiana Division of Archaeology would take jurisdiction over the remains. Within twenty-four (24) hours, FEMA would notify the Louisiana Division of Archaeology (225-342-8170) of the finding. Within seventy-two (72) hours, FEMA would take the lead in working with the Louisiana Division of Archaeology and other interested parties, as necessary, to ensure compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 *et seq.*) and other applicable laws. In addition, the Applicant must afford FEMA the opportunity to comply with the "Human Remains Policy" set forth by the ACHP.

Failure to comply with these conditions may make part or all of these projects ineligible for FEMA funding.

7.0 PUBLIC INVOLVEMENT

The public will be invited to comment on the proposed action. A legal notice was published in the following newspapers: *The Baton Rouge Advocate* and the *Lafayette Daily Advisor* from August 5, 2011 to August 9, 2011. The Draft Environmental Assessment was published on FEMA's and the Parish's official websites. A copy of the Public Notice is attached in Appendix D.

8.0 AGENCY COORDINATION

U.S. Army Corps of Engineers
Louisiana Department of Environmental Quality
Louisiana Department of Natural Resources
Louisiana Department of Wildlife and Fisheries
Environmental Protection Agency
USDA Natural Resources Conservation Service
Louisiana State Historic Preservation Officer
US Fish and Wildlife Service

9.0 CONCLUSION

Construction of the proposed drainage improvements at the proposed location was analyzed based on the studies, consultations, and reviews undertaken as reported in this

draft EA. The findings of this EA conclude that the proposed action at the proposed site would result in no significant adverse impacts to geology, groundwater, floodplains, public health and safety, hazardous materials, socioeconomic resources, environmental justice, or cultural resources are anticipated under the Proposed Action Alternative. During project construction, short-term impacts to soils, surface water, transportation, air quality, and noise are anticipated and conditions have been incorporated to mitigate and minimize the effects.

Project short-term adverse impacts would be mitigated using BMPs, such as silt fences, proper vehicle and equipment maintenance, and appropriate signage. No long-term adverse impacts are anticipated from the proposed project. Therefore, FEMA presently finds the proposed action meets the requirements for a Finding of No Significant Impacts (FONSI) under NEPA and the preparation of an EIS will not be required. If new information is received that indicates there may be significant adverse effects, then FEMA would revise the findings and issue a second public notice, for additional comments. However, if there are no changes, this Draft EA will become the Final EA.

10.0 LIST OF PREPARERS

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11.0 REFERENCES

EPA Envirofacts - <http://www.epa.gov/enviro/>

Enviromapper (for sediment/soil sampling data and HazMat sites) - <http://www.epa.gov/enviro/katrina/emkatrina.html>

EPA Brownfields - http://oaspub.epa.gov/enviro/bms_report.get_list?juris_value=&juris_search_type=Beginning+With&juris_type_label=-1&state_code=LA&zip_code=&proj_value=&proj_search_type=Beginning+With&rec_value=&rec_search_type=Beginning+With&cfda_type=NULL&CFDA_ID=&prop_value=&prop_search_type=Beginning+With&propaddr_name=&propcity_name=&propstate_code=LA

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APPENDIX A
CONSTRUCTION PLANS

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APPENDIX B

AGENCY CORRESPONDENCE

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APPENDIX C

HYDRAULIC AND HYDROLOGY INFORMATION

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APPENDIX D
PUBLIC NOTICE