



**FEMA**

**U.S. Department of Homeland Security  
Federal Emergency Management Agency  
Region VI**  
Louisiana Recovery Office  
1500 Main Street  
Baton Rouge, Louisiana 70802

**FINAL FINDING OF NO SIGNIFICANT IMPACT**  
**RR 026-DESIRE AREA GROUP A ROAD NETWORK INFRASTRUCTURE RECOVERY  
RESTORATION**  
**NEW ORLEANS, ORLEANS PARISH, LOUISIANA**  
***FEMA-1603-DR-LA***

**BACKGROUND**

Hurricane Katrina made landfall on 29 August 2005, near the town of Buras, Louisiana, as a Category 3 storm with sustained winds of more than 125 miles per hour. The accompanying high winds, heavy rains, and flooding caused an accumulation of various types of debris on the streets and rights-of-way of New Orleans. Rain accumulation, in combination with debris blockage, saturated soils, and insufficient drainage, caused flooding and standing water in most of the Parish/City. As a result of this event, the roadway system incurred considerable damage.

In order to comply with the provisions of the National Environmental Policy Act of 1969 (NEPA) and the President’s Council on Environmental Quality (CEQ) regulations implementing NEPA (Title 40 of the Code of Federal Regulations [C.F.R.] Parts 1500-1508) (Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act 2005), a Programmatic Environmental Assessment (PEA), which would encompass the project now under review, was developed by FEMA. The Programmatic EA was entitled “The City of New Orleans Sewerage and Water Board of New Orleans Joint Infrastructure Recovery Request Project” (JIRR). This PEA concluded with a Finding of No Significant Impact (FONSI), dated 16 June 2016.

The Applicant has requested, via the State of Louisiana Governor’s Office of Homeland Security and Emergency Preparedness (LA GOHSEP), that FEMA provide disaster assistance through the granting of Federal funds under the auspices of the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), P.L. 93-288, as amended. Section 406 of the Stafford Act authorizes FEMA’s Public Assistance Program to fund projects to repair, restore, and replace facilities damaged as a result of the declared event. The Applicant has determined that repair of the original damaged facilities to their pre-Hurricane Katrina specifications would not be in the best interest of the community, however. Consequently, in accordance with 44 C.F.R. § 206.203(d), CNO has requested an Improved Project. An Improved Project is any project where an applicant chooses to make additional improvements to an existing facility in the course of making disaster repairs. An Improved Project restores the facility and maintains its function, either at the current site or in another existing or new facility.

For the current request, the City of New Orleans (Applicant) proposes to reconstruct a numerous street segments of the RR 026-Desire Area Group A Road Network (Project ID: RR026; Project Number FEMA 2013-FEMA-5BC). Due to the pre-disaster condition of portions of the City’s streets, only certain sections where demonstrable storm related damages was identified were found FEMA-eligible for storm-related repairs. Additionally, due to the aftereffects of the hurricane, over time the condition of the roads have worsened considerably. Rather than leave these roads in an undesirable state, the Applicant wishes to completely reconstruct the affected areas of the blocks under consideration to a level beyond their pre-storm condition.

The planned work would involve the complete replacement of the specified street blocks down to the sub-grade, in lieu of repairing only the FEMA-eligible sections, to include new curbs, as well as ADA-compliant ramps where they do not currently exist. As necessary, storm sewers, manholes, and drain lines would be adjusted, relocated, or removed. All work would occur within previously disturbed rights-of-way.

In accordance with the environmental review guidelines of the Council of Environmental Quality (CEQ) found at 40 C.F.R. Part 1500, as well as other relevant regulations and policies, HUD evaluated an Environmental Assessment (EA) submitted by the City of New Orleans. The purpose of FEMA's Supplemental EA (SEA) was to analyze potential environmental impacts of the proposed project that require additional site-specific analysis and to determine whether a FONSI was appropriate or whether preparation of an Environmental Impact Statement (EIS) was warranted. Although the three alternatives presented in the JIRR PEA are described somewhat differently, they are similar in intent to the alternatives analyzed in this SEA. Therefore, FEMA has considered the following: a No Action Alternative; the Preferred Action Alternative, which is to completely reconstruct the project street segments under consideration; and an Alternative Action, which is to repair the streets to their pre-storm condition.

## **FINDINGS**

FEMA has made the following determinations from the information contained in the JIRR PEA and FEMA's SEA:

The proposed project has been evaluated for significant adverse impacts to geology, soils, water resources (surface water, groundwater, and wetlands), floodplains, coastal resources, air quality, biological resources (vegetation, fish and wildlife, federally-listed threatened or endangered species and critical habitats), cultural resources, socioeconomics (including minority and low income populations), safety, noise, and hazardous materials. The results of these evaluations, as well as consultations and input from other federal and state agencies, are presented in the EA and SEA. During the construction period, short-term impacts to water quality, air quality, and noise are anticipated. All short-term impacts require conditions to minimize and mitigate adverse effects to the proposed project site and surrounding areas.

## **CONDITIONS**

The following conditions must be met as part of the implementation of the project. Failure to comply with these conditions may jeopardize federal funds:

- Follow applicable state, territory, tribal, and local permitting requirements for construction;
- Fugitive dust from earth moving activities, storage piles, disturbed surface areas, unpaved areas and other construction related activities will be controlled using one or more of the following measures: watering, coverings, wind fencing, covering of haul beds, wheel washers, vegetation, restricted site access, and/or street sweeping;
- Enclose or water down exposed dirt storage piles;
- Minimize the disturbed area and preserve vegetation to the maximum extent possible;
- Maintain topsoil whenever possible;
- Phase construction activities to the extent possible;

- The contractor shall prepare and maintain a Storm Water Pollution Prevention Plan (SWPPP), which describes in specific details the Contractor's program to prevent contamination of the storm water collection system for this project. The Subgrantee's Stormwater Pollution Prevention Plan and its related conditions is located in Appendix C. All projects will have a SWPPP that is consistent with the Municipal Separate Storm Sewer System (MS4) Permit for the Orleans Parish area and contractors will be required to take every reasonable precaution to prevent fuels, oils, asphalts, concrete, chemical, and other harmful materials from entering the drainage system and/or ground water table in accordance with the Section C204 of the DPW General Specifications. Storm Water Control Measures (SCMs) may include storm drain system protection, spill prevention and clean-up, employee training, project site housekeeping, and temporary erosion controls. Residue from dust collectors, concrete mixers, vehicles wash racks, an entrance/exits debris will be disposed of in an approved disposal facility;
- Establish stabilized construction entrances/exits (e.g. large crushed rocks, stone pads, steel wash racks, hose-down systems, and pads);
- Work will primarily be performed between 7:00am and 5:00pm, Monday through Friday. Subgrantee should limit construction activities, including operation of heavy machinery, to normal business hours (M-F 7am-5pm). Contractors will be required to conform to noise level restrictions as established in Section 66-202 of the City of New Orleans Municipal Code (50-75 dBA, depending on the zoning of the area). All construction machinery and vehicles shall be equipped with practical sound muffling devices and operated in a manner to cause the least noise, consistent with efficient performance of work. Activities near noise and vibration sensitive areas such as churches, hospitals, and schools will be minimized as much as practically possible.
- Ensure adequate maintenance of equipment, including proper engine maintenance, adequate tire inflation, and proper maintenance of pollution control devices;
- Existing trees and other vegetation within the construction area that may be impacted within the public right-of-way will be protected on a location-by-location basis. In general, the Recovery Roads Program will attempt to maintain the existing healthy canopy in place. Protective measures may include fencing and signage. Any trimming, root pruning, or removal of any tree or stump within the public right-of-way due to construction will be minimized as much as possible and be conducted under the supervision of a licensed arborist. Any trees removed from the construction site within the public right-of-way will be relocated if possible to an area in close proximity to the project site. Trenching within the critical root zone of a tree of a tree will not be permitted on tree roots or within the canopy limits unless approved by Parks and Parkways. Existing vegetation or cover disturbed by construction activities will be seeded and fertilized;
- At least 48 hours notice will be given to residents and emergency response agencies in advance of any street closures and anticipated areas of low water pressure;
- The Subgrantee is responsible for acquiring any Section 401/404 Clean Water Act (CWA) permits and/or Section 10 permits under the Rivers and Harbors Act. When these permits are required, Subgrantee must maintain documentation of compliance with applicable Nationwide Permit (NWP), exemption from requirements, or obtain individual permits from U.S. Army Corps of Engineers prior to construction, unless exempt by the NWP from pre-construction notification. The Subgrantee shall comply with all conditions of the required permit. All

coordination pertaining to these activities should be documented and copies forwarded to GOHSEP and FEMA as part of the permanent project files;

- Care should be taken to ensure that any potentially hazardous or toxic materials used for, generated, or encountered during pressure washing, cleaning, or any other construction activities, do not impact groundwater, waterways, wetlands, or nearby stormwater conveyance systems. Potentially hazardous and toxic wastes generated or encountered during these processes should be isolated, contained, and disposed of in an approved manner. This condition includes petroleum products and by-products use in machinery and equipment. The Subgrantee shall be responsible for complying with all relative rules of the Clean Water Act (CWA). No activity performed should have any impact on waters of the state;
- Appropriate measures for the proper assessment, remediation, management, and disposal of any contamination discovered in the course of construction activities must be initiated in accordance with applicable federal, state, and local regulations. The contractor is required to take appropriate actions to prevent, minimize, and control the spill of hazardous materials at the proposed site;
- Contractor and/or sub-contractors must properly handle, package, transport and dispose of hazardous materials and/or waste in accordance with all local, state, and federal regulations, laws, and ordinances, including all Occupational Safety and Health Administration worker exposure regulations covered within 29 CFR Parts 1910 and 1926;
- All work affecting the Agriculture Street Landfill Superfund Site must be undertaken in accordance with the Consent Decree between the City and USEPA including the *Technical Abstract for Utility Operations within the Agriculture Street Landfill Superfund Site*;
- A spill prevention and emergency response plan (SPERP) will be required for all construction contractor groups. The SPERP will need to identify at a minimum: emergency contact numbers for local, state and federal environmental and public health agencies, material safety data sheets (MSDS) for all hazardous substances, hazardous material inventory, spill prevention plan, spill response plan/emergency response plan, spill response equipment (e.g. absorbent pads, disposal containers) and reporting requirements;
- If any asbestos containing materials (ACM) and/or other hazardous materials are found during remediation or repair/replacement activities, the Subgrantee shall comply with all federal, state, and local abatement and disposal requirements under the National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Louisiana Administrative Code 33:III 5151. Demolition activities related to possible asbestos-containing materials (PACM) must be inspected for ACM/PACM where it is safe to do so. Should ACM be present, the Subgrantee is responsible for ensuring proper disposal in accordance with the previously referenced administrative orders. Regardless of the asbestos content, the Subgrantee is responsible for ensuring that all renovation or demolition activities are coordinated with the LDEQ to the extent required prior to initiating work. All documentation pertaining to these activities and Subgrantee compliance with any conditions should be forwarded to the state and FEMA for inclusion in the permanent project files;
- Unusable equipment, debris, and material shall be disposed of in an approved manner and location. The Subgrantee must handle, manage, and dispose of petroleum products, hazardous materials, and/or toxic waste in accordance with all local, state, and federal agency

requirements. All coordination pertaining to these activities should be documented and copies forwarded to the state and FEMA as part of the permanent project files;

- Contractors will be responsible for maintaining, securing, and protecting any staging area, containers, or bins set up for construction purposes. The storage of any equipment or materials will not be permitted immediately adjacent to canals or other water bodies, trees, transportation or utility servitudes, or private property without prior approval from the respective owner or regulatory agency. The contractors will be responsible to ensure all equipment arriving at or departing from the construction limits remains clean and to take any necessary measures to ensure foreign materials or debris is not tracked or deposited on opened streets or outside the construction site limits. The contractor will also be required to store and handle any fuels or other hazardous material in accordance with OSHA requirements, and ensure any such materials required at a construction site be adequately secured and protected at all times;
- In order to minimize indirect impacts (erosion, sedimentation, dust, and other construction-related disturbances) to nearby waters of the U.S. and surrounding drainage areas, the contractor must ensure compliance with all local, state, and federal requirements related to sediment control, disposal of solid waste, control and containment of spills, and discharge of surface runoff and stormwater from the site. All documentation pertaining to these activities and Subgrantee compliance with any conditions should be forwarded to LA GOHSEP and FEMA for inclusion in the permanent project files;
- The Subgrantee shall ensure that best management practices are implemented to prevent erosion and sedimentation to surrounding, nearby or adjacent wetlands. This includes equipment storage and staging of construction to prevent erosion and sedimentation to ensure that wetlands are not adversely impacted per the clean water act and executive order 11990;
- The Louisiana Department of Natural Resources (LDNR) requires that a complete Coastal Use Permit (CUP) Application package (Joint Application Form, location maps, project illustration plats with plan and cross section views, etc.) along with the appropriate application fee, be submitted to their office prior to construction. The Subgrantee is responsible for coordinating with and obtaining any required CUPs or other authorizations from the LDNR OCM's Permits and Mitigation Division prior to initiating work. The Subgrantee must comply with all conditions of the required permits. All documentation pertaining to these activities and Subgrantee compliance with any conditions should be forwarded to the state and FEMA for inclusion in the permanent project files;
- Coordination with the appropriate local levee district(s) and USACE would be required for work within 1,500 feet of Mississippi River levees and/or within 300 feet of hurricane protection levees. CNO and SWBNO are responsible for obtaining any required permits from these districts and following any conditions imposed;
- Avoid engaging in construction activities within 660 feet of a bald or golden eagle nest during nesting and fledging where there is no visual buffer or 330 feet where there is a visual buffer, as nesting eagles are quite sensitive to human activities during these times;
- No project may be built to a floodplain management standard that is less protective than what the community has adopted in local ordinances through their participation in the NFIP. FEMA PA-funded projects carried out in the floodplain must be coordinated with the local floodplain administrator for a floodplain development permit prior to the undertaking, and the action must be carried out in compliance with relevant, applicable, and required local codes and standards

and thereby, will reduce the risk of future flood loss, minimize the impacts of floods on safety, health, and welfare, and preserve and possibly restore beneficial floodplain values as required by EO 11988. Coordination pertaining to these activities and Subgrantee compliance with any conditions should be documented and copies forwarded to the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) and FEMA for inclusion in the permanent project files;

- Adverse effects must be minimized in accordance with FEMA's minimization standards in 44 CFR § 9.11. Treatment measures would be required to reduce adverse impacts below the level of significance;
- Louisiana law (Part VII of Chapter 8 of Title 40, and the sections at R.S. 40:1749.11 to 40:1749.26) requires excavators and demolishers to call a regional notification center prior to beginning work. Prior to any excavation or demolition, each excavator or demolisher, including cable television owners or operators, shall serve telephonic notice of the intent to excavate or demolish to the regional notification center serving the area in which the proposed excavation or demolition is to take place. Such notice shall be given to the notification center at least 96 hours, but not more than 120 hours (excluding weekends and holidays) prior to the commencement of any excavation or demolition activity. See entire laws at [www.laonecall.com](http://www.laonecall.com) or call 1-800-272-3020 for more information;
- This project involves the modification of a public structure that may contain surfaces coated with lead-based paint. The Subgrantee is responsible complying with all local, state, and federal laws and ensuring that project activities are coordinated with the Louisiana Department of Environmental Quality for abatement activities;
- The SSubgrantee is responsible for obtaining and/or complying with all federal, state and local permits, ordinances and/or requirements for the collection, handling, storage, transportation and disposal of any medical, hazardous, biological, radiological, pharmaceutical or toxic related waste or debris. Equipment such as ice machines, refrigerators, generators, air conditioning units, computers, and televisions may contain chlorofluorocarbons (CFCs), used oil, diesel and other petroleum products, mercury switches, used oil filters, fuel filters, and batteries. The SSubgrantee shall handle, manage, and dispose of damaged materials and equipment that may be hazardous waste, universal waste, and hazardous materials in accordance with the requirements of local, state, and federal regulations;
- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary;
- All waste is to be transported by an entity maintaining a current "waste hauler permit" specifically for the waste being transported, as required by Louisiana Department of Transportation and Development (DOTD), LDEQ, and other regulations;
- Disposal of demolition debris must be in accordance with all federal, state, and local laws, regulations, and rules. Prior to disposal, the SSubgrantee must identify and provide to FEMA and GOHSEP the waste disposal site, including the complete name, location, telephone number, and contact person of the facility. Due to the presence of the Agriculture Street Landfill Superfund site and the potentially hazardous nature of material to be removed from the site, all construction and demolition debris must be disposed in a Type I Industrial Landfill. The disposal facility must be permitted by the State of Louisiana Department of Environmental

Quality Permit Support Division to receive Regulated Asbestos Containing Material. Waste must be packaged, labeled, manifested, and transported in accordance with LDEQ regulations and requirements. Further, the Subgrantee must comply with Best Management Practices for Demolition, Construction, and Renovation Sites Under Five Acres (See Appendix C);

- To minimize worker and public health and safety risks from project construction and closure, all construction and closure work must be done using qualified personnel trained in the proper use of construction equipment, including all appropriate safety precautions. Additionally, all activities must be conducted in a safe manner in accordance with the standards specified in OSHA regulations;
- Appropriate signage and barriers shall be in place prior to construction activities in order to alert pedestrians and motorists of project activities and traffic pattern changes. The contractor will implement traffic control measures, as necessary. This shall include Subgrantee 24-hour emergency contact information;
- Subgrantee is responsible for maintaining construction site perimeter fencing where possible;
- The Subgrantee and its contractor(s) must take all reasonable precautions to control construction site access during project implementation, including posting appropriate signage and fencing, where possible, to minimize foreseeable potential public safety concerns. All activities shall be conducted in a safe manner in accordance with OSHA work zone traffic safety requirements. Truck and equipment routes must be kept free of construction debris;
- The Subgrantee and its contractor(s) are responsible for implementing all traffic control and warning in accordance with the Manual of Uniform Traffic Control Devices, including placing signs and signals in advance of construction activities in order to alert pedestrians and motorists of the upcoming work and traffic pattern changes. Subgrantee is responsible for compliance with Section C129, Temporary Signs, Barricades Pavement Markings, Construction Signing, Traffic Maintenance and Public Safety (See Appendix C);
- Subgrantee will perform all Treatment Measures identified by FEMA in consultation with SHPO and other consulting parties through the Section 106 review to offset any adverse effects;
- Subgrantee will implement an **Inadvertent Discovery Clause** to account for unanticipated discoveries. It shall read: If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the Subgrantee shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The Subgrantee shall inform their Public Assistance (PA) contacts at FEMA, who will in turn contact FEMA Historic Preservation (HP) staff. The Subgrantee will not proceed with work until FEMA HP completes consultation with the SHPO, and others as appropriate;
- Subgrantee will implement a **Louisiana Unmarked Human Burial Sites Preservation Act** discovery provision, as well. It shall read: If human bone or unmarked grave(s) are present within the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 et seq.) is required. The Subgrantee shall notify the law enforcement agency of the jurisdiction where the remains are located within twenty-four (24) hours of the discovery. The Subgrantee shall also notify FEMA and the Louisiana Division of Archaeology at 225-342-8170 within seventy-two (72) hours of the discovery;

- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater;
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permits Division at (225) 219-9371 to determine if your proposed project requires a permit.

***General comments/conditions provided by LDEQ:***

- If your project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit is required. An application or Notice of Intent will be required if the sludge management practice includes preparing biosolids for land application or preparing sewage sludge to be hauled to a landfill. Additional information may be obtained on the LDEQ website at <http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx> or by contacting the LDEQ Water Permits Division at (225) 219- 9371;
- All precautions should be observed to protect the groundwater of the region;
- Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact the LDEQ Water Permits Division to determine if special water quality-based limitations will be necessary;
- 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;
- Any renovation or remodeling must comply with Louisiana Environmental Regulatory Code requirements found at LAC Title 33 Part III Chapter 28, Lead-Based Paint Activities; LAC 33:III.Chapter 27, Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation); and LAC 33:III.5151, Emission Standard for Asbestos for any renovations or demolitions.

**CONCLUSION**

The results of these evaluations, as well as consultations and input from other Federal and state agencies, are presented in the SEA and appendices. Based on the information analyzed, FEMA has determined that the implementation of the proposed action would not result in significant adverse impacts to the quality of the natural and human environment. In addition, the proposed project does not appear to have the potential for significant cumulative effects when combined with past, present, and reasonably foreseeable future actions. As a result of this FONSI, an Environmental Impact Statement will not be prepared (per 44 C.F.R. § 10.9) and the proposed project as described in the SEA may proceed.



**APPROVALS**

**JERAME J  
CRAMER**

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Jerame J. Cramer, Date  
Environmental Liaison Officer  
LRO – 1603/1607-DR-LA



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Thomas M. (Mike) Womack, Date  
Director of Louisiana Recovery Office  
FEMA-1603/1607-DR-LA

Draft Supplemental Environmental Assessment  
**City of New Orleans**  
**RR 026-Desire Area Group A Road**  
**Network Infrastructure Recovery**  
**Restoration**

FEMA-1603-DR-LA

Orleans Parish, Louisiana

*October 2017*



**FEMA**

**U.S. Department of Homeland Security**  
**Federal Emergency Management Agency, Region VI**  
Louisiana Recovery Office  
1500 Main Street  
Baton Rouge, LA 70802

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Floodplain Administrator

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## LIST OF ACRONYMS AND ABBREVIATIONS

ACM	Asbestos Containing Material
ADA	American Disabilities Act
ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
BMP	Best Management Practices
CEQ	Council on Environmental Quality
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
C.F.R.	Code of Federal Regulations
CIP	Capital Improvement Program
CNO	City of New Orleans
CTR	In-house contract consultant
DFIRM	Digital Flood Insurance Rate Map
DHS	U.S. Department of Homeland Security
DoA	U.S. Department of the Army
EIS	Environmental Impact Statement
E.O.	Executive Order
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
FONSI	Finding of No Significant Impact
GPO	U.S. Government Printing Office
GPS	Geographic Positioning System
HANO	Housing Authority of New Orleans
HSDRRS	Hurricane and Storm Damage Risk Reduction System
HUD	U.S. Department of Housing and Urban Development
JIRR	Joint Infrastructure Recovery Request Project
LA DOTD	Louisiana Department of Transportation and Development
LA GOHSEP	Louisiana Governor's Office of Homeland Security and Emergency Preparedness
LAC	Louisiana Administrative Code
LDEQ	Louisiana Department of Environmental Quality
LPDES	Louisiana Pollutant Discharge Elimination System
M/O	Mill and Overlay
NEPA	National Environmental Policy Act
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NOPBR	New Orleans Public Belt Railroad
NRHP	National Register of Historic Places
OU	Operable Unit
PA	Public Assistance; Programmatic Agreement
PAH	Poly-aromatic hydrocarbons
PCB	Polychlorinated biphenyl

PCCP	Portland Cement Concrete Pavement
PEA	Programmatic Environmental Assessment
P.L.	Public Law
ppb	parts per billion
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
R/R	Repair/Replace
R.S.	Louisiana Revised Statutes
SARA	Superfund Amendments and Reauthorization Act
SDS	Safety Data Sheets
SEA	Supplemental Environmental Assessment
SFHA	Special Flood Hazard Area
SHPO	State Historic Preservation Office/Officer
SOV	Solicitation of Views
SWBNO	Sewerage & Water Board of New Orleans
TSCA	Toxic Substances Control Act
USACE	U.S. Army Corps of Engineers
U.S.C.	U.S. Code
USDHHS	U.S. Department of Health and Human Services
USDOC	U.S. Department of Commerce
USEPA	U.S. Environmental Protection Agency

# 1.0 INTRODUCTION

## 1.1 Hurricane Katrina

Hurricane Katrina made landfall on 29 August 2005, near the town of Buras, Louisiana, as a Category 3 storm with sustained winds of more than 125 miles per hour. The accompanying high winds, heavy rains, and flooding caused an accumulation of various types of debris on the streets and rights-of-way of New Orleans. Rain accumulation, in combination with debris blockage, saturated soils, and insufficient drainage, caused flooding and standing water in most of the parish/city. As a result of this event, the roadway system incurred considerable damage.

## 1.2 Project Authority

President George W. Bush declared a major disaster for the State of Louisiana (FEMA-1603-DR-LA) on 29 August 2005, authorizing the U.S. Department of Homeland Security's (DHS) Federal Emergency Management Agency (FEMA) to provide federal assistance in designated areas of Louisiana. This assistance is pursuant to the Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Public Law (P.L.) 93-288, as amended. Section 406 of the Stafford Act authorizes FEMA's Public Assistance (PA) Program to assist with funding the repair, restoration, reconstruction, or replacement of public facilities damaged as a result of the declared disaster.

In accordance with FEMA Instruction 108-1-1, a Programmatic Environmental Assessment (PEA) was prepared pursuant to Section 102 of the National Environmental Policy Act (NEPA) of 1969, as implemented by the regulations promulgated by the President's Council on Environmental Quality (CEQ); 40 Code of Federal Regulations (C.F.R.) Parts 1500-1508 (Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act 2005). The PEA, entitled "*The City of New Orleans Sewerage and Water Board of New Orleans Joint Infrastructure Recovery Request Project*" (JIRR), which would encompass the project now under review, was developed by FEMA to streamline approval of road and utility repair and replacement projects in the City of New Orleans within the PA Program. The JIRR PEA concluded with a Finding of No Significant Impact (FONSI), dated 16 June 2016. The JIRR PEA, which includes additional work not part of the grant application to FEMA, may be accessed at <https://www.fema.gov/media-library/assets/documents/116899>.

This Draft Supplemental Environmental Assessment (SEA) also has been conducted in accordance with NEPA and the associated CEQ regulations, as well as FEMA's own regulations implementing NEPA (44 C.F.R. Part 9) (Floodplain Management and Protection of Wetlands 1980). The purpose of this SEA is to analyze potential environmental impacts of the proposed project that were not considered previously in the JIRR PEA. The results of this SEA will be used to make a decision whether to initiate preparation of an Environmental Impact Statement (EIS) or to prepare a Finding of No Significant Impact (FONSI).

## 1.3 Background

According to the undated City of New Orleans *Desire Area Neighborhood Planning District 7 Rebuilding Plan*, between 1900 and 1920, various canals along Franklin Avenue, Alvar Street, and Desire Street served as drainage for the Desire Area. Between 1919 and 1935, these canals were replaced with subsurface drainage and covered, making the Desire neighborhood more desirable for development and increased the level of railroad development. In 1946, the Desire neighborhood was supported by Gulf Mobile, Ohio Railroad, Louisville and Nashville Railroad, New Orleans and Northeastern Railroad, and the Public Beltway. In the early 1930's, the Desire Area neighborhood was home to many low income white individuals and families that settled in housing units along Almonaster Avenue, Chef Menteur Highway (U.S. Highway 90), Peoples Avenue, and St. Ferdinand Street. The Desire Development was a direct result of the 1937 Housing Act, also known as the Wagner Act. The Desire Development was one of the last developments constructed under the Title III program of the 1949 U.S. Housing Program. As part of Title II of this program, Moton and Lockett Elementary Schools were constructed.

The Desire Development was one of the more poorly constructed developments, with the structures being constructed of wood with a brick veneer. Initial cost savings on construction caused major long-term damage and resulted in high insurance costs for the owners of the properties, since the structures were not fire-resistant. Over the ensuing years, the Desire Development experienced major problems, including poor maintenance, physical deterioration, poverty among the area residents, drug-related crime, and documented police brutality and corruption. In 1995, the Desire Development was awarded a HOPE VI grant designed to improve the living conditions and environment of the neighborhood. The Desire Area has since been redeveloped in three separate phases.

According to the *Desire Area Neighborhood Planning District 7 Rebuilding Plan*, the infrastructure, including the sanitary sewer and water system in the Desire neighborhood received major damage as a result of Hurricane Katrina. The Sewerage and Water Board of New Orleans (SWBNO) identified and repaired leaks and breaks in the system daily immediately after Hurricane Katrina. The lift station and pump stations serving the neighborhood are at 100% capacity. In addition, the Desire Area street system was heavily damaged by not only flood waters but from subsidence of compact fill used to support street surfaces as well as recovery vehicles and debris contractors working on streets not designed to hold heavy traffic and equipment. Over 8,600 linear feet of the 86,000 linear feet of streets in the Desire Area have been designated as “failed” or “in poor condition” and are in need of major repair. Debris resulting from Hurricane Katrina resulted in clogged street drains and catch basins immediately after the storm. The neighborhood also faced poor street conditions and potholes pre-Katrina. This was an issue not only in Desire, but city-wide. The Desire Development is considered private parcels and therefore not under the jurisdiction of the City of New Orleans. This property is under the jurisdiction of the Housing Authority of New Orleans (HANO). However 1,300 linear feet of the 1,900 linear feet immediately surrounding the Desire Development have been deemed as “failed” or “in poor condition”.

Over 85% of the street signage was missing within the Desire neighborhood immediately after Hurricane Katrina. These street signs are critical for way-finding, reconstruction recovery and emergency services. Most importantly, the majority of the stop signs and traffic signals at key intersections and streets were either missing or damaged, creating a substantial traffic danger and hazard. Hurricane Katrina’s high velocity winds uprooted trees, causing major damage to the sidewalk systems. In addition, debris contractors substantially damaged sidewalks and curb and gutter systems as they removed storm related debris from the neighborhood during clean-up operations after the storm.

As a result of storm-related damage in the Desire Area, the City of New Orleans (CNO or Sub-Recipient) has requested, through the State of Louisiana Governor’s Office of Homeland Security and Emergency Preparedness (LA GOHSEP) (Recipient) that FEMA provide disaster assistance consisting of federal grant funds in accordance with the provisions of the Stafford Act. FEMA has determined that CNO is eligible for federal disaster public assistance and that the streets proposed for reconstruction in the vicinity of the Sub-Recipient’s RR26-Desire Area Group A Road Network (Project ID: RR026; Project Number: FEMA 2013-FEMA-5BC) qualify for repair/reconstruction as a critical or non-critical facility serving the needs of the general public. The streets and sidewalks to be repaired or reconstructed are all located within the RR26-Desire Area Group A Road Network in New Orleans, Louisiana, 70126.

This project is one of more than 200 individual projects in the CNO’s Capital Improvement Program (CIP), which aims to repair all or portions of approximately 400 miles of roadway in New Orleans. This program used a combination of federal and local funds. The CIP will be implemented in three (3) waves and is expected to be implemented between 2017 and 2020. Due to the magnitude of this project, the CNO plans to provide multiple resources to inform the public about the CIP and the specific projects that may impact individuals and businesses within the CNO. Further discussion of this public engagement plan is discussed in Section 6.

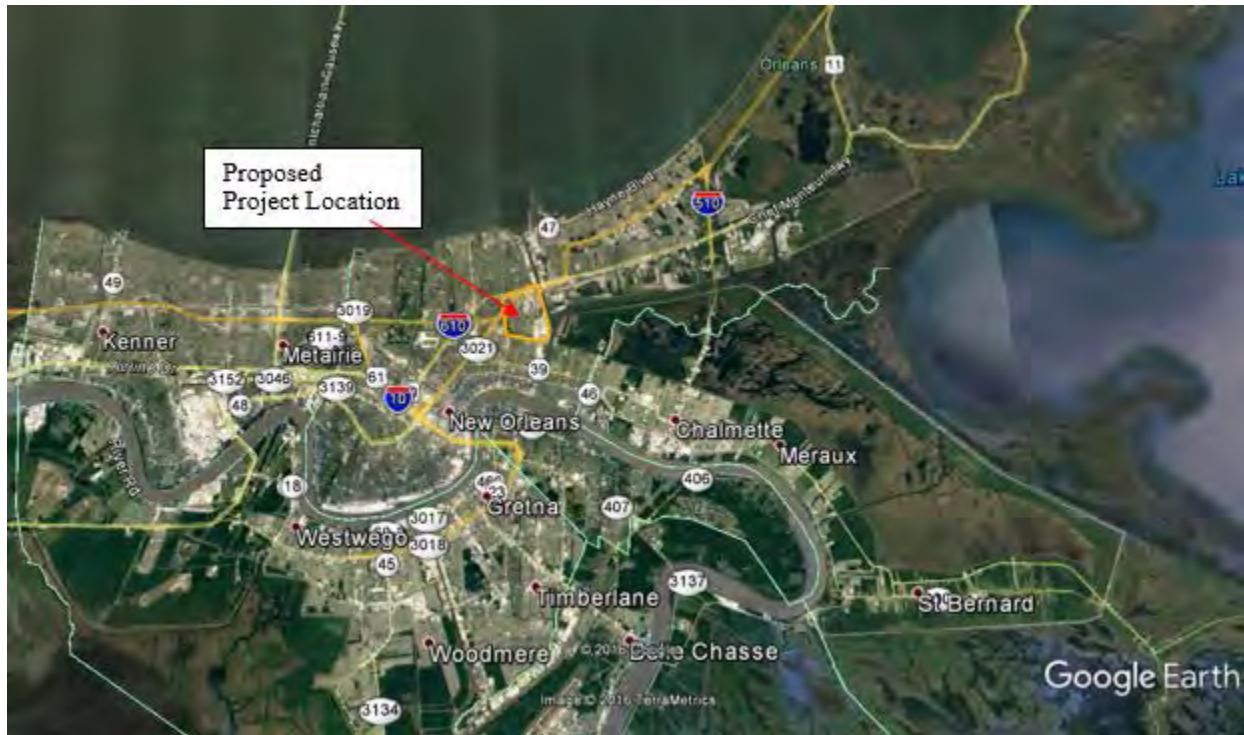
The proposed project boundary consists of Chef Menteur Highway (Highway 90) to the north, Almonaster Avenue and railroad tracks to the west, Florida Avenue to the south, and the Industrial Canal to the east.



The general project location with the City of New Orleans is shown in *Figure 1* and project footprint is shown in *Figure 2*. A graphic depicting the CNO's plans for investment in the future of the Desire Area neighborhood is depicted in *Figure 3* (CNO, undated).

The general project footprint is defined by the following GPS coordinates:

- Northwest Corner: Latitude 30.002549 Longitude -90.045335
- Northeast Corner: Latitude 30.007948 Longitude -90.027659
- Southeast Corner: Latitude 29.981314 Longitude -90.024021
- Southwest Corner: Latitude 29.985537 Longitude -90.043549



**Figure 1 – Overview of the Desire Area Group A Road Network Project Location in New Orleans, Louisiana. The project location is highlighted in orange. (Image Source - Google Earth 2016)**



Figure 2 – Project area location, which is highlighted in orange. (Image Source - Google Earth 2016)



Figure 3 – CNO Project List for the Desire Area neighborhood (Image Source - *Desire Area Neighborhood Planning District 7 Rebuilding Plan*).

## **2.0 PURPOSE AND NEED**

The objective of FEMA’s PA Grant Program is to provide assistance to state, tribal, and local governments, as well as certain types of private non-profit organizations, such that communities can quickly respond to, recover from, and mitigate major disasters and emergencies. Prior to Hurricane Katrina, a major disaster, the project area was served by numerous residential streets. Although, as stated earlier, these roads were somewhat deteriorated before the storm, due to the hurricane’s negative influence, they have since worsened considerably. According to the CNO, based on comprehensive, scientific assessment of City-owned streets conducted in the spring of 2015, the current average pavement condition rating for the City’s street is “Poor (D-)”. Further, approximately 65 percent of the City’s streets are rated as “Poor” or worse condition. Restoration of facilities and services lost as a result of Hurricane Katrina in a manner that best serves the local community is needed.

### 3.0 ALTERNATIVES

#### 3.1 Overview of Alternatives

The NEPA process consists of an evaluation of the environmental effects of a federal action, including its alternatives. Three alternatives have been proposed and will be analyzed in this SEA, including 1) the “No Action” alternative, 2) Repair of Damaged Street Sections Pre-Katrina Condition, and 3) Repair/reconstruction of the RR26-Desire Area Group A Road Network (Proposed Action). FEMA will consider the following:

#### 3.2 Alternative 1 – No Action

Under the “No Action” alternative, no repairs/reconstruction would be made to the Desire Area Roads. The already deteriorated condition of these streets would continue to worsen, possibly causing damage to vehicles, impairing response times by emergency services, and eventually preventing homeowners from accessing their properties. In addition, the placement of accessible ramps at street corners in compliance with the Americans with Disabilities Act (ADA) would not be performed. This alternative does not meet the purpose and need, but will continue to be evaluated throughout this SEA and serve as a baseline comparison of impacts from other action alternatives.

#### 3.3 Alternative 2 – Repair of Damaged Street Sections to Pre-Hurricane Condition

This alternative would entail restoring the street blocks currently under review to their pre-storm condition. Only those sections damaged as a direct result of the hurricane would be repaired, leaving any other deteriorated portions as is. The work would include in-kind resurfacing of the damaged street segments (either asphalt or concrete), repairs to driveways affected by the street resurfacing, repairs to sidewalks and curbs, and the installation of ADA-compliant ramps where they do not currently exist. Roadway and sidewalk restoration work is planned on approximately 35 streets and along approximately 60 individual block segments. The specific streets and block segments involved in this project are depicted in Table 1 and *Figure 4*.

All work would be conducted following the provisions detailed in the *General Specifications for Street Paving*, 2015 Edition, Department of Public Works, City of New Orleans Louisiana document, which was adopted by the Commission Council on 5 November, 2015 by Ordinance No. 026696 MCS, and provision detailed the Special Specifications - DPW document dated 01 January 2017.

**Table 1. List of Project Streets and Block Segments in the Alternative 2 Project Scope**

Street Name	100 Block Number	Beginning Street	Ending Street	Description of Work
Abundance Street	2800	St. Ferdinand Street	Press Street	R/R ADA
Abundance Street	2900-3000	Press Street	Feliciana Street	R/R Concrete and ADA
Abundance Street	3100	Feliciana Street	Metropolitan Street	R/R Sidewalk and Concrete
Abundance Street	3200	Metropolitan Street	Louisa Street (RB)	R/R Sidewalk and Concrete
Acacia Street	3200	Metropolitan Street	Louisa Street (RB)	R/R Sidewalk, Driveway, Asphalt, and ADA
Alja Meyers Place	3100	Clouet Street	Metropolitan Street	R/R Asphalt
Alja Meyers Place	3150-3200	Metropolitan Street	Piety Street	R/R Asphalt
Apache Street	3700	Dead End	Chickasaw Street	R/R Sidewalk and ADA
Benefit Street	2900	St. Ferdinand Street	Press Street	R/R ADA
Benefit Street	3000-3015	Press Street	Feliciana Street	R/R ADA
Benefit Street	3100	Feliciana Street	Metropolitan Street	R/R Sidewalk and Concrete
Benefit Street	3150	Metropolitan Street	Louisa Street (RB)	R/R Concrete

Street Name	100 Block Number	Beginning Street	Ending Street	Description of Work
Chickasaw Street	3200	Metropolitan Street	Louisa Street (RB)	M/O
Clouet Street	2700	Dead End	Industry Street	R/R Sidewalk and Composite
Clover Street	3200	Metropolitan Street	Louisa (RB)	R/R Sidewalk, Asphalt, and ADA
Desire Parkway	3600	Sidney Duplessis Drive	Albert Savoy Way	R/R Concrete
Edna Street	2700-2800	Almonaster Avenue	St. Ferdinand Street	R/R Sidewalk and Driveway
Feliciana Street	2800-2900	Industry Street	Agriculture Street	R/R Sidewalk and Concrete
Feliciana Street	3000	Abundance Street	Treasure Street	R/R Sidewalk, Concrete, and ADA
Feliciana Street	3100	Treasure Street	Benefit Street	R/R Sidewalk, Concrete, and ADA
Ford Street	3900	Tecumseh Street	Powhatan Street	R/R Sidewalk
Gordon Plaza	1-80	Benefit Street	Press Street	R/R Sidewalk and ADA
Hiawatha Street	2850-2900	Buck Street	McFarland Street	R/R Sidewalk
Hiawatha Street	3000	McFarland Street	Velie Street	R/R Sidewalk
Humanity Street	3000	Montegut Street	Feliciana Street	R/R Sidewalk, Driveway, Asphalt, M/O, and ADA
Humanity Street	3000-3100	Feliciana Street	Metropolitan Street	R/R Sidewalk, Driveway, and Asphalt
Humanity Street	3150-3200	Metropolitan Street	Piety Street	R/R Sidewalk and Composite
Humanity Street	3300	Piety Street	Oliver White Street	R/R Sidewalk and Asphalt
Industry Street	3100	Clouet Street	Metropolitan Street	R/R Sidewalk
Iroquois Street	4000-4100	Pocahontas Street	Old Gentilly Road	R/R Sidewalk, Asphalt, and ADA
Liberty Terrace	100-200	Almonaster Avenue (EB)	Almonaster Avenue (WB)	R/R Sidewalk
McFarland Street	3900-4050	Chickasaw Street	Powhatan Street	R/R Sidewalk, Asphalt, and ADA
Metropolitan Street	3700-3750	Myrtle Street	Clover Street	R/R Sidewalk, M/O, Composite, and ADA
Metropolitan Street	3800	Clover Street	Tecumseh Street	R/R Sidewalk, M/O, Composite, and ADA
Metropolitan Street	3900	Tecumseh Street	Powhatan Street	R/R Sidewalk, M/O, Composite, and ADA
Metropolitan Street	4000	Powhatan Street	Almonaster Avenue	R/R Sidewalk, Concrete, M/O, and ADA
Montegut Street*	3200	Benefit Street	Humanity Street	Patch, M/O
Morrice Duncan	3300	Humanity Street	Pleasure Street	R/R Concrete
Myrtle Street	3200	Metropolitan Street	Louisa Street (RB)	R/R Asphalt and M/O
Old Gentilly Road	4000	Iroquois Street	St. Ferdinand Street	R/R Sidewalk
Packard Street	3800	Chickasaw Street	Tecumseh Street	R/R Side and ADA
Packard Street	3900	Tecumseh Street	Powhatan Street	R/R Side and ADA
Pleasure Street	3300	Piety Street	Oliver White Street	R/R Sidewalk
Pocahontas Street	3000-3040	McFarland Street	Velie Street	R/R Sidewalk

Street Name	100 Block Number	Beginning Street	Ending Street	Description of Work
Powhatan Street	2800-2840	Packard Street	Iroquois Street	R/R Sidewalk, Asphalt, and ADA
Powhatan Street	2900	Iroquois Street	Velie Street	R/R Sidewalk and ADA
Simmons Drive	300	Almonaster Avenue	Almonaster Avenue	R/R Sidewalk
St. Ferdinand Street	3000-3100	Abundance Street	Benefit Street	R/R Sidewalk and ADA
St. Ferdinand Street	3200	Benefit Street	Higgins Boulevard	R/R Sidewalk and ADA
St. Ferdinand Street	3300-3400	Higgins Boulevard	Almonaster Boulevard	R/R Sidewalk, Driveway, Asphalt, ADA
St. Ferdinand Street	3500	Higgins Boulevard	Almonaster Boulevard	R/R Sidewalk, Driveway, and Asphalt
St. Ferdinand Street	3600	Higgins Boulevard	Almonaster Boulevard	R/R Sidewalk and Driveway
St. Ferdinand Street	3650	Higgins Boulevard	Almonaster Boulevard	R/R Sidewalk and Driveway
St. Ferdinand Street	3700	Higgins Boulevard	Almonaster Boulevard	R/R Sidewalk
Stutz Street	4000	Hiawatha Street	Pocahontas Street	R/R Sidewalk and ADA
Tecumseh Street	2830	Packard Street	Iroquois Street	R/R Sidewalk
Tecumseh Street	3200	Metropolitan Street	Louisa Street (RB)	R/R Concrete and ADA
Treasure Street	3300	Piety Street	Oliver White Street	R/R Concrete and Sidewalk
Ursula Spencer Way	2900	Agriculture Street	Abundance Street	R/R Concrete
Velie Street	4030	Hiawatha Street	Pocahontas Street	R/R Sidewalk

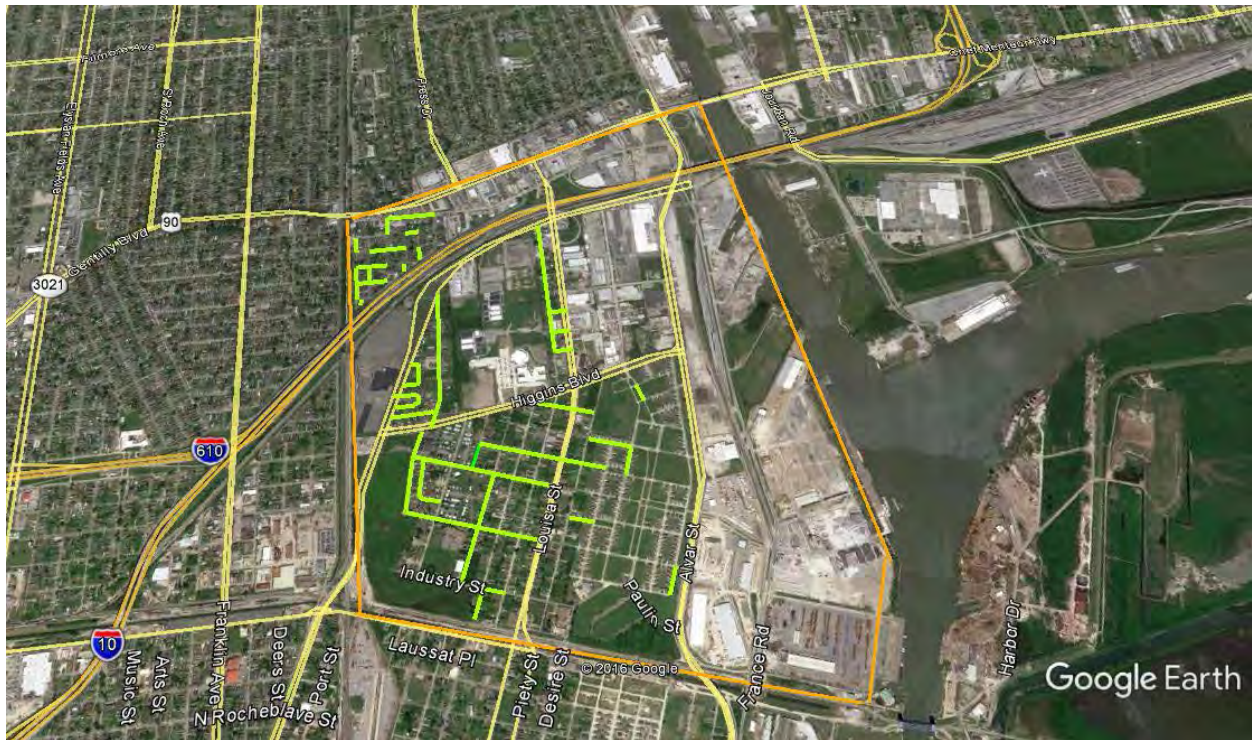
Table 1. Notes:

R/R = Repair/Replace

ADA = Americans with Disabilities Act

M/O = Mill and Overlay

\* The CNO has scheduled the work 3200 Montegut Street in the upcoming proposed, (but not yet submitted) Desire Group B project; however, in order to consolidate all proposed work within the Agriculture Street Landfill footprint, FEMA will evaluate the 3200 Montegut Street segment work in this SEA. Because of this, specific construction plans for this street segment are not included in this SEA.



**Figure 4 – Aerial view of the streets in involved in Alternative 2. The affected street segments are highlighted in green. (Image Source - Google Earth 2016)**

### **3.4 Alternative 3 – Repair/Reconstruction of the RR26-Desire Area Group A Road Network (Proposed Action)**

According to the Proposed Action Alternative, rather than leave these streets in an undesirable state, the Sub-Recipient would use eligible funding to repair/reconstruct the blocks under consideration in their entirety. The RR26-Desire Area Group A project, based on the current anticipated designed scope of work will typically consist of Portland Cement Concrete Pavement (PCCP) roadway pavement isolated patching (incidental roadway repairs or minor pavement rehabilitation), full panel replacement (minor pavement rehabilitation), and/or full block reconstruction (major pavement rehabilitation); asphaltic concrete roadway pavement isolated full depth patching (incidental roadway repairs or minor pavement rehabilitation), mill (cold planing) & overlay (major pavement rehabilitation), and/or full block reconstruction (major pavement rehabilitation); and composite pavement (asphaltic concrete topped PCCP pavement) isolated full depth patching (incidental roadway repairs or minor pavement rehabilitation), mill (cold planing) & overlay (major pavement rehabilitation), and/or full block reconstruction (major pavement rehabilitation). In addition to the roadway pavement restoration scope, the project scope will also consist of any necessary associated demolition, removal and reconstruction of the roadway pavement structure, subbase and/or base courses, placement of engineering fabrics (geotextile and/or geogrid), bus pads, curbs, curbs & gutters, driveway aprons, sidewalks, ADA-compliant handicapped ramps, roadway striping and pavement markings, ditches, swales and bio swales, parking and bicycle lanes, relocation of underground streetlight and/or traffic signal conduit, restoration of medians, other incidental paved areas, and/or other street system feature work within the public right-of-way. In some instances public maintained brick, paver, stone, and/or aggregate pavement sections or services alleyways will be repaired as needed to restore to the pre-disaster function and condition.

For the individual street blocks undergoing roadway restoration work, where necessitated due to disaster related damages or constructability and/or site condition issues, the construction scope may also incorporate

a combination of utility infrastructure structures/components, including but not limited to, minor drainage (storm sewer) (less than 36 inches in diameter), water and/or sewerage (sanitary sewer) mains and service laterals and house connection repairs, relocations / offsets, or replacements; utility manholes, drop manholes, catch basins, drop inlets, conflict boxes, and other utility structure adjustments, repairs or replacements, including associated trench excavation, bedding, backfill and pavement restoration or pipe boring / jacking operations and associated pit restoration; water and sewer meters, valves, hydrants, and other utility system appurtenances and components cleaning, adjustments, relocations, repairs or replacements within the public right-of-way or publically maintained servitudes or easements. Drainage structures may require assessment, clean-out, CCTV inspection and/or other analysis, to identify specific damages and necessary repair scope.

Ground disturbing activities for the planned roadway and utility infrastructure scope would consist of general excavation for the roadway pavement patching or reconstruction and base layer sections (typically 24 inches in depth (less than 30 inches)); curbs & gutters, sidewalk, driveways, footlaps, and ADA ramp repairs or replacements including base material. Sub-surface utility work would consist of drainage (storm sewer) line repairs or replacements including trench bedding (typically 3 feet to 6 feet in depth); water main repairs or replacements including trench bedding (typically 4 feet to 10 feet in depth); sewer line repairs or replacements including trench bedding (typically buried 6 feet to 15 feet in depth); associated utility service line lateral of varying depth from the point of origin at the main to the connection point; utility structure manhole & inlet repairs or replacements (typically 3 feet to 15 feet in depth); minor tree root pruning; and other incidentals necessary to execute the designed work depicted in the proposed plans and outlined in the scope of work. The typical utility main trench will vary from 4 feet to 10 feet in width and service lateral trenches from 3 feet to 5 feet in width.

Where necessary to implement the planned roadway and utility infrastructure scope of work, existing roadway pavement and other incidental paved area structures will be removed and properly disposed of off-site. In addition, any utility pipes, utility structures, and other system appurtenances impacted by the planned scope of work will be removed and disposed of as required to implement the scope of work. Existing disturbed soil may be reworked and compacted on site, temporarily removed and reused where feasible, or removed and replaced with new material as dictated by the project site conditions, geotechnical findings and/or engineering design in accordance with local standards and requirements. According to project construction plans, the total length of the project is estimated to be 17,555 linear feet. The specific streets and block segments involved in this project and the types of work proposed at each block segment are further defined in and *Figure 5*. Construction plans for specific areas within the proposed project are attached to this SEA in Appendix A.

Roadway and sidewalk restoration work and sub-surface utility work is planned on approximately 38 streets and along approximately 82 individual block segments. The specific streets and block segments involved in the proposed project are further defined in and *Table 2* and *Figure 5*.

All work would be conducted following the provisions detailed in the *General Specifications for Street Paving*, 2015 Edition, Department of Public Works, City of New Orleans Louisiana document, which was adopted by the Commission Council on 5 November, 2015 by Ordinance No. 026696 MCS, and provision detailed the Special Specifications - DPW document dated 01 January 2017.



**Table 2. List of Project Streets and Block Segments in the Alternative 3 Project Scope**

Street Name	100 Block Number	Beginning Street	Ending Street	Description of Work
Abundance Street	2800	St. Ferdinand Street	Press Street	R/R ADA
Abundance Street	2900-3000	Press Street	Feliciana Street	R/R Concrete and ADA
Abundance Street	3100	Feliciana Street	Metropolitan Street	R/R Sidewalk and Concrete
Abundance Street	3200	Metropolitan Street	Louisa Street (RB)	R/R Sidewalk and Concrete
Acacia Street	3200	Metropolitan Street	Louisa Street (RB)	R/R Sidewalk, Driveway, Asphalt, and ADA
Alja Meyers Place	3100	Clouet Street	Metropolitan Street	R/R Asphalt
Alja Meyers Place	3150-3200	Metropolitan Street	Piety Street	R/R Asphalt
Apache Street	3700	Dead End	Chickasaw Street	R/R Sidewalk and ADA
Benefit Street	2900	St. Ferdinand Street	Press Street	R/R ADA
Benefit Street	3000-3015	Press Street	Feliciana Street	R/R ADA
Benefit Street	3100	Feliciana Street	Metropolitan Street	R/R Sidewalk and Concrete
Benefit Street	3150	Metropolitan Street	Louisa Street (RB)	R/R Concrete
Chickasaw Street	3200	Metropolitan Street	Louisa Street (RB)	M/O
Chickasaw Street	3300	Louisa Street	Desire Parkway	Utility
Clouet Street	2700	Dead End	Industry Street	R/R Sidewalk and Composite
Clouet Street	2800	Industry Street	Abundance Street	Utility
Clouet Street	3100	Abundance Street	Benefit Street	Utility
Clouet Street	3200	Benefit Street	Humanity Street	Utility
Clouet Street	3400	Pleasure Street	Higgins Boulevard	Utility
Clover Street	3200	Metropolitan Street	Louisa (RB)	R/R Sidewalk, Asphalt, and ADA
Desire Parkway	3600	Sidney Duplessis Drive	Albert Savoy Way	R/R Concrete
Desire Parkway	3600	Higgins Boulevard	Chickasaw Street	Utility
Edna Street	2700-2800	Almonaster Avenue	St. Ferdinand Street	R/R Sidewalk and Driveway
Feliciana Street	2800-2900	Industry Street	Agriculture Street	R/R Sidewalk and Concrete
Feliciana Street	3000	Abundance Street	Treasure Street	R/R Sidewalk, Concrete, and ADA
Feliciana Street	3100	Treasure Street	Benefit Street	R/R Sidewalk, Concrete, and ADA
Feliciana Street	3200	Benefit Street	Humanity Street	Utility
Feliciana Street	3300	Humanity Street	Pleasure Street	Utility
Ford Street	3900	Tecumseh Street	Powhatan Street	R/R Sidewalk
France Road	3800	No Intersecting Street (STA. 101+00)	No Intersecting Street (STA. 111+94)	Utility
Gordon Plaza	1-80	Benefit Street	Press Street	R/R Sidewalk and ADA
Hiawatha Street	2850-2900	Buck Street	McFarland Street	R/R Sidewalk
Hiawatha Street	3000	McFarland Street	Velie Street	R/R Sidewalk
Humanity Street	3000	Montegut Street	Feliciana Street	R/R Sidewalk, Driveway, Asphalt, M/O, and ADA

Street Name	100 Block Number	Beginning Street	Ending Street	Description of Work
Humanity Street	3000-3100	Feliciana Street	Metropolitan Street	R/R Sidewalk, Driveway, and Asphalt
Humanity Street	3150-3200	Metropolitan Street	Piety Street	R/R Sidewalk and Composite
Humanity Street	3300	Piety Street	Oliver White Street	R/R Sidewalk and Asphalt
Industry Street	3100	Clouet Street	Metropolitan Street	R/R Sidewalk
Iroquois Street	4000-4100	Pocahontas Street	Old Gentilly Road	R/R Sidewalk, Asphalt, and ADA
Liberty Terrace	100-200	Almonaster Avenue (EB)	Almonaster Avenue (WB)	R/R Sidewalk
Louisa Street	2700	Florida Avenue	Industry Street	Utility
Louisa Street	2900	Industry Street	Abundance Street	Utility
Louisa Street	3900	Tecumseh Street	Powhatan Street	Utility
McFarland Street	3900-4050	Chickasaw Street	Powhatan Street	R/R Sidewalk, Asphalt, and ADA
Metropolitan Street	2800	Industry Street	Abundance Street	Utility
Metropolitan Street	3100	Abundance Street	Benefit Street	Utility
Metropolitan Street	3500	Alja Meyers Place	Higgins Boulevard	Utility
Metropolitan Street	3600	Higgins Boulevard	Myrtle Street	Utility
Metropolitan Street	3700-3750	Myrtle Street	Clover Street	R/R Sidewalk, M/O, Composite, and ADA
Metropolitan Street	3800	Clover Street	Tecumseh Street	R/R Sidewalk, M/O, Composite, and ADA
Metropolitan Street	3900	Tecumseh Street	Powhatan Street	R/R Sidewalk, M/O, Composite, and ADA
Metropolitan Street	4000	Powhatan Street	Almonaster Avenue	R/R Sidewalk, Concrete, M/O, and ADA
Montegut Street*	3200	Benefit Street	Humanity Street	Patch, M/O
Montegut Street	3300	Humanity Street	Higgins Boulevard	Utility
Morrice Duncan	3300	Humanity Street	Pleasure Street	R/R Concrete
Myrtle Street	3200	Metropolitan Street	Louisa Street (RB)	R/R Asphalt and M/O
Old Gentilly Road	4000	Iroquois Street	St. Ferdinand Street	R/R Sidewalk
Packard Street	3800	Chickasaw Street	Tecumseh Street	R/R Side and ADA
Packard Street	3900	Tecumseh Street	Powhatan Street	R/R Side and ADA
Piety Street	2700-2900	Florida Avenue	Abundance Street	Utility
Piety Street	3400	Pleasure Street	Alja Meyer Place	Utility
Pleasure Street	3300	Piety Street	Oliver White Street	R/R Sidewalk
Pocahontas Street	3000-3040	McFarland Street	Velie Street	R/R Sidewalk
Powhatan Street	2800-2840	Packard Street	Iroquois Street	R/R Sidewalk, Asphalt, and ADA
Powhatan Street	2900	Iroquois Street	Velie Street	R/R Sidewalk and ADA
Powhatan Street	3900	Metropolitan Street	Louisa Street	Utility
Simmons Drive	300	Almonaster Avenue	Almonaster Avenue	R/R Sidewalk
St. Ferdinand Street	3000-3100	Abundance Street	Benefit Street	R/R Sidewalk and Concrete

Street Name	100 Block Number	Beginning Street	Ending Street	Description of Work
St. Ferdinand Street	3200	Benefit Street	Higgins Boulevard	R/R Sidewalk and Concrete
St. Ferdinand Street	3300-3400	Higgins Boulevard	Almonaster Boulevard	R/R Sidewalk, Driveway, Asphalt, ADA
St. Ferdinand Street	3500	Higgins Boulevard	Almonaster Boulevard	R/R Sidewalk, Driveway, and Asphalt, Utility
St. Ferdinand Street	3600	Higgins Boulevard	Almonaster Boulevard	R/R Sidewalk and Driveway
St. Ferdinand Street	3650	Higgins Boulevard	Almonaster Boulevard	R/R Sidewalk and Driveway
St. Ferdinand Street	3700	Higgins Boulevard	Almonaster Boulevard	R/R Sidewalk
St. Ferdinand Street	4000	Chickasaw Street	Old Gentilly Road	Utility
Stutz Street	4000	Hiawatha Street	Pocahontas Street	R/R Sidewalk and ADA
Tecumseh Street	2830	Packard Street	Iroquois Street	R/R Sidewalk
Tecumseh Street	3200	Metropolitan Street	Louisa Street (RB)	R/R Concrete and ADA
Treasure Street	3300	Piety Street	Oliver White Street	R/R Concrete and Sidewalk
Ursula Spencer Way	2900	Agriculture Street	Abundance Street	R/R Concrete
Velie Street	4030	Hiawatha Street	Pocahontas Street	R/R Sidewalk

Table 2. Notes:

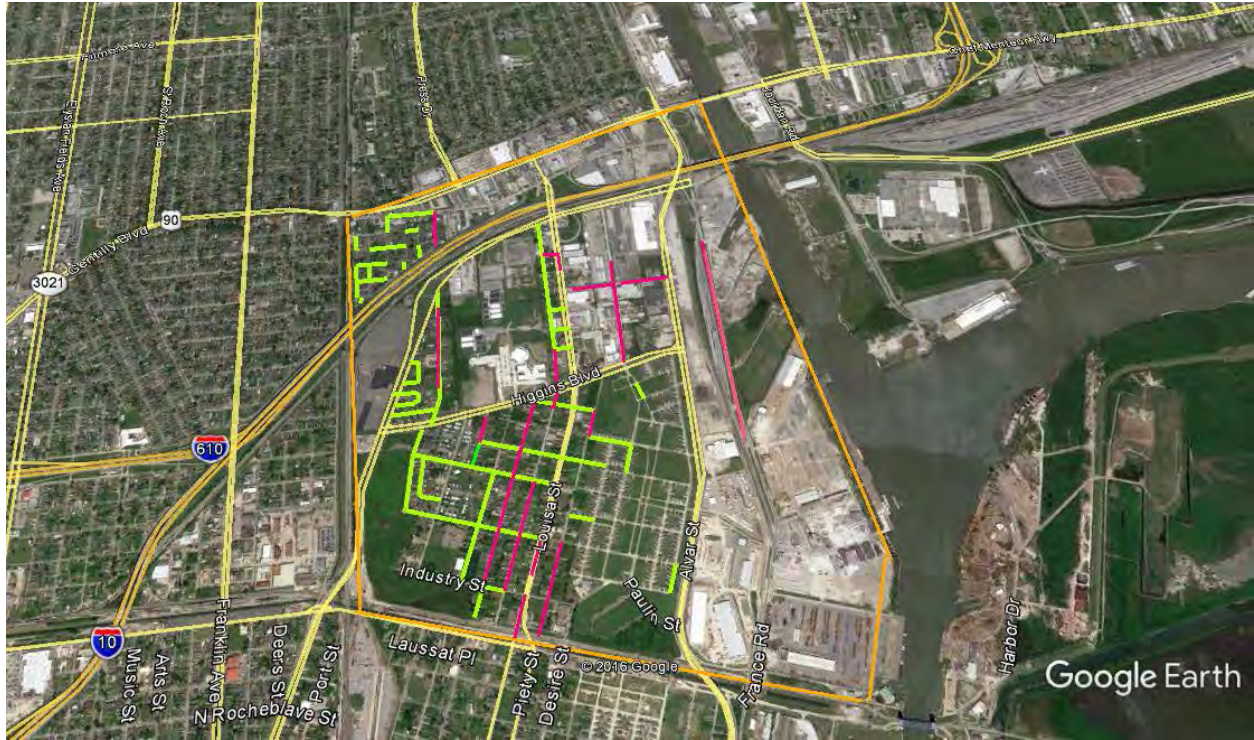
R/R = Repair/Replace

ADA = Americans with Disabilities Act

M/O = Mill and Overlay

Utility = Repair/Replacement of Water Mains, Fire Hydrants, and Associated Structures

\* The CNO has scheduled the work 3200 Montegut Street in the upcoming proposed, (but not yet submitted) Desire Group B project; however, in order to consolidate all proposed work within the Agriculture Street Landfill footprint, FEMA will evaluate the 3200 Montegut Street segment work in this SEA. Because of this, specific construction plans for this street segment are not included in this SEA.



**Figure 5 – Aerial view of the streets in involved in the Alternative 3, including all proposed street, sidewalk, and utility work. The affected street segments where surface work would occur are highlighted in green. The affected street where sub-surface utility work would occur are highlighted in pink. (Image Source - Google Earth 2016)**

## **4.0 AFFECTED ENVIRONMENT AND ALTERNATIVES ANALYSIS**

### **4.1 Water Resources – Floodplains**

#### **4.1.1 Regulatory Setting**

Executive Order (E.O.) 11988, *Floodplain Management*, requires federal agencies to avoid direct or indirect support or development within or affecting the 1% annual chance Special Flood Hazard Area (SFHA) (i.e., the 100-year floodplain) or, for “Critical Actions,” within the 0.2% annual chance SFHA (i.e., the 500-year floodplain), whenever there is a practicable alternative (U.S. President 1977a). FEMA’s regulations for complying with E.O. 11988 are found at 44 C.F.R. Part 9, Floodplain Management and Protection of Wetlands (1980).

#### **4.1.2 Existing Conditions**

In July 2005, prior to Hurricane Katrina, FEMA initiated a series of flood insurance studies for many of Louisiana’s coastal parishes as part of the Flood Map Modernization Effort through FEMA’s National Flood Insurance Fund. These studies were necessary because the flood hazard and risk information shown on the effective Flood Insurance Rate Maps (FIRMs) was developed during the 1970s. Since that time, the physical terrain had changed considerably, including a significant loss of wetland areas. After Hurricanes Katrina and Rita (August and September 2005, respectively), FEMA expanded the scope of work to include all of coastal Louisiana. The magnitude of impacts caused by the two (2) hurricanes reinforced the urgency to obtain additional flood recovery data for the coastal zones of the state. More detailed analysis was possible because new data obtained after the hurricanes included information on levees and levee systems, new high-water marks, and new hurricane parameters.

Updated preliminary flood hazard maps from an intensive five-year mapping project guided by FEMA subsequently were provided to all Louisiana coastal parishes. These maps, released in early 2008, known as Preliminary Digital Flood Insurance Rate Maps (DFIRMs), were based on the most technically advanced flood insurance studies ever performed for Louisiana, followed by multiple levels of review. The DFIRMs provided communities with a more scientific approach to economic development, hazard mitigation planning, emergency response, and post-flood recovery.

The U.S. Army Corps of Engineers (USACE) has completed and certified the new Hurricane and Storm Damage Risk Reduction System (HSDRRS) for the Greater New Orleans area. This 350-mile system of levees, floodwalls, surge barriers, and pump stations will reduce the flood risk associated with future storm events. In September 2011, the USACE provided FEMA with assurances that the HSDRRS is capable of defending against a storm surge with a 1% annual chance of occurrence (DHS 2011). The areas protected include portions of St. Bernard, St. Charles, Jefferson, Orleans, and Plaquemines Parishes. Although the 100-year perimeter system is now complete, additional contracts for armoring and environmental mitigation are either ongoing or have not yet been awarded (DoA 2014). In November 2012, FEMA revised the 2008 preliminary DFIRMs within the HSDRRS to incorporate the reduced flood risk associated with the system improvements. The preliminary DFIRMs were subsequently revised in 2013 and 2014.

The 2014 Revised Preliminary DFIRMs, which became Effective on 30 September 2016, are currently viewed as the best available flood risk data for Orleans Parish. In many areas, the flood risk has been significantly reduced due to heightened protection. No project should be built to a floodplain management standard that is less protective than what a community has adopted in local ordinances through its participation in the National Flood Insurance Program (NFIP) (DHS 2011). As a result of its new floodplain ordinance adopted May 2016, the New Orleans/Orleans Parish NFIP community uses these 2014 maps for floodplain management purposes (CNO 2016).

Orleans Parish enrolled in the NFIP on 3 August 1970. The majority of this project is located within a levee-protected area of the 100-year floodplain. The proposed work on France Road is located outside of the levee-protected area. Effective DFIRM Panels covering the proposed project area where work would

take place include 22071C0118 (*Figure 6*), 22071C0231F (*Figure 7*), 22071C0119F (*Figure 8*), and 22071C0232F (*Figure 9*), all dated 30 September, 2016. These DFIRMs indicate that a portions of the project area are located within Flood Zone “Shaded X” (light gray areas on the DFIRMs), an area levee-protected from the base flood but subject to the 0.2% annual chance flood, based upon shallow ponding only (*Figures 6, 7, 8 and 9*). The remaining portions of the project work would occur in Flood Zones AE EL -3.0 and AE EL 6 (dark gray areas on the DFIRMs). Ground elevations within the area range from approximately -3.0 feet below sea level to 3.0 feet above sea level (North American Vertical Datum of 1988). According to the undated City of New Orleans *Desire Area Neighborhood Planning District 7 Rebuilding Plan*, flood water depths range between 6 and 8 feet in much of the Desire neighborhood (*Figure 10*). In compliance with E.O. 11988, an 8-step process was completed and documentation is attached in Appendix C.

According to a letter dated 3 March 2017 from Jerome Landry, Certified Floodplain Manager (CFM), Floodplain Administrator, “The Department of Safety & Permits New Orleans has reviewed The [CNO] [DPW] and [SWBNO] *Joint Recovery Program* project for compliance with our Floodplain Ordinance, Chapter 78 of *The City Code of Ordinances*. The proposed work reviewed by this office will be in compliance with our floodplain ordinance. The scope of work for the Joint Recovery Program states that ‘All restored pavement and other roadway structures will typically be repaired or replaced to the existing elevation, with minor changes as necessary to maintain positive drainage and minimize pooling water along paths of travel and street surfaces. The planned activities will have no significant impact on the slope of local topography or lands/properties bordering the project limits.’” A copy of this letter is attached in Appendix C.



**Figure 6 – Effective FIRM Panel Number 22071C0118F, dated 30 September 2016. The proposed project boundaries are highlighted in red. (Image Source – FEMA)**

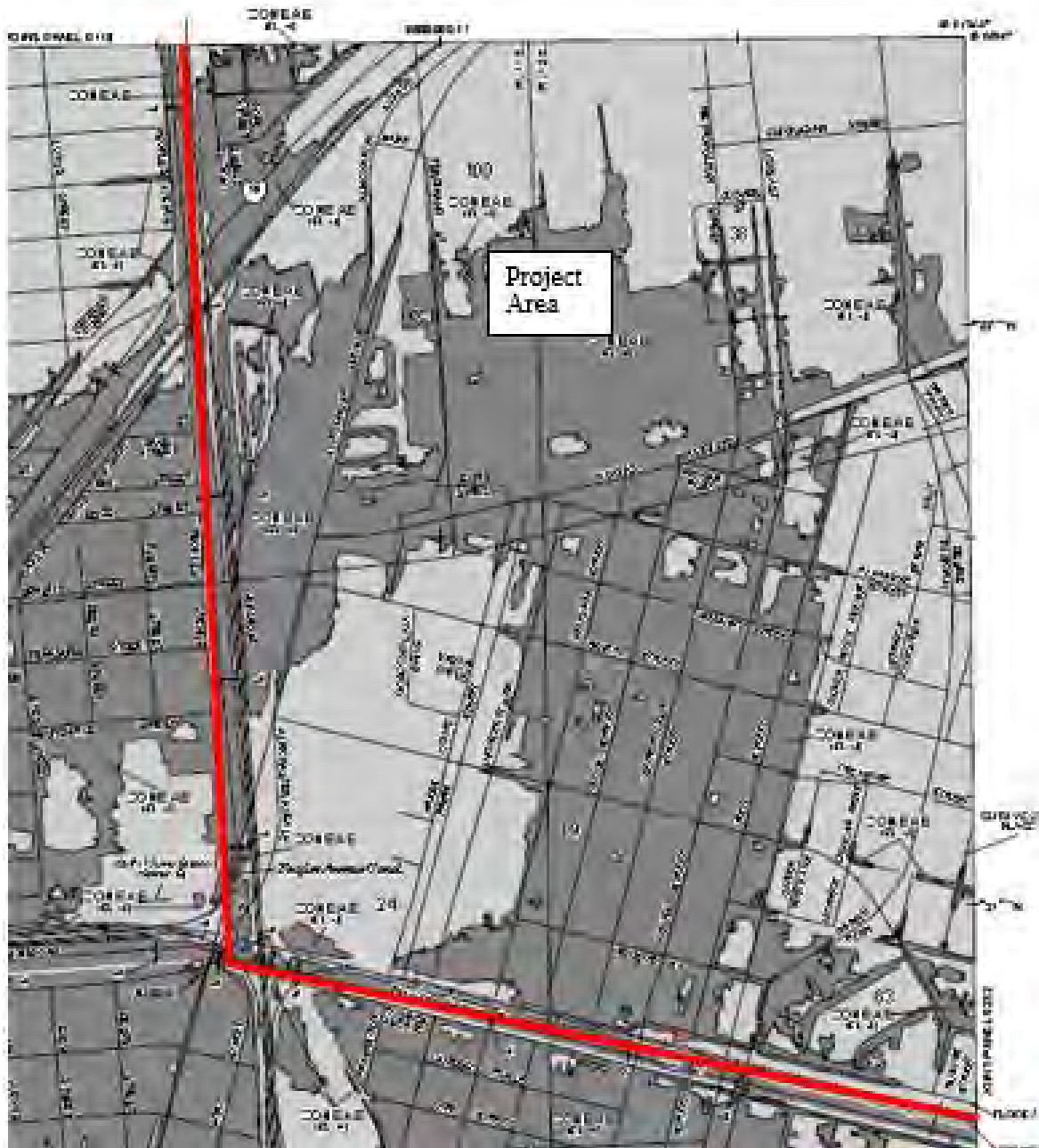


Figure 7 - Effective FIRM Panel Number 22071C0231F, dated 30 September 2016. The proposed project boundaries are highlighted in red. (Image Source – FEMA)

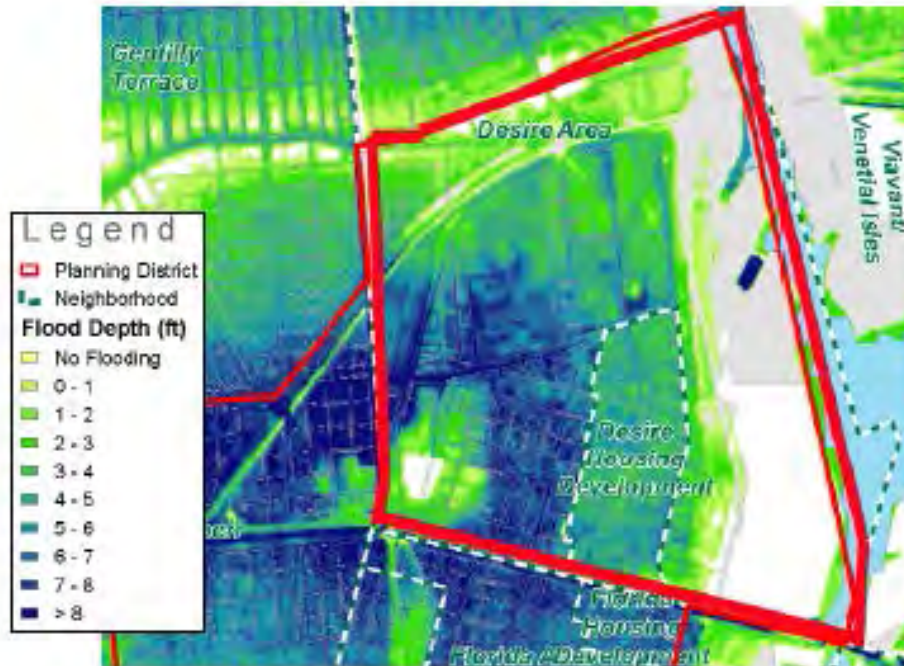


Figure 8 - Effective FIRM Panel Number 22071C0119F, dated 30 September 2016. The proposed project boundaries are highlighted in red. (Image Source – FEMA)





Figure 9 - Effective FIRM Panel Number 22071C0232F, dated 30 September 2016. The proposed project boundaries are highlighted in red. (Image Source – FEMA)



**Figure 10 – Flood depths during Hurricane Katrina in the Desire Area neighborhood (Image Source - *Desire Area Neighborhood Planning District 7 Rebuilding Plan*).**

#### **4.1.3 Environmental Consequences**

Practicable alternatives to locating the proposed action in the floodplain were identified and evaluated. Various practicability factors were considered including feasibility, social concerns, hazard reduction, mitigation costs, and environmental impacts.

##### **Alternative 1 – No Action**

Under the “No Action” alternative, there would be no repairs to the streets in the vicinity of the Desire Area Group A Road Network. This course would have no further adverse impacts on the floodplain, but would leave the damaged facilities and their environs in an unsafe condition, which would represent a safety hazard to the public and nearby properties.

##### **Alternative 2 – Repair of Damaged Street Sections to Pre-Hurricane Condition**

Alternative 2 was reviewed for possible impacts associated with occupancy or modification to a floodplain. This alternative would restore damaged infrastructure to its pre-storm condition.

Due to the local topography and the previously developed character of the work area, impacts to the nature of the floodplain itself have been determined to be negligible. Repair of the existing streets would not affect the functions and values of the 100-year floodplain since they would not impede or redirect flood flows.

Per 44 C.F.R. § 9.11(d)(6), no project should be built to a floodplain management standard that is less protective than what the community has adopted in local ordinances through their participation in the NFIP. The Sub-Recipient would be required to coordinate with the local floodplain administrator regarding floodplain permit(s) prior to the start of any activities.

### **Alternative 3 – Repair/Reconstruction of the RR26-Desire Area Group A Road Network (Proposed Action)**

The Proposed Action Alternative also was reviewed for possible impacts associated with occupancy or modification to a floodplain. Under this alternative, infrastructure would be reconstructed at its original location in substantially the same footprint, but include applicable codes and standards upgrades, as well as necessary adjustments and/or relocations of storm sewers, manholes, and drain lines in order to improve drainage. As with Alternative 2, due to the local topography and the previously developed character of the proposed site, impacts to the nature of the floodplain itself have been determined to be negligible. The proposed reconstruction and upgrading of the streets likely would not affect the functions and values of the 100-year floodplain since the result would not impede or redirect flood flows.

Per 44 C.F.R. 9.11(d)(6), no project should be built to a floodplain management standard that is less protective than what the community has adopted in local ordinances through their participation in the NFIP. The Sub-Recipient would be required to coordinate with the local floodplain administrator regarding floodplain permit(s) prior to the start of any activities.

## **4.2 Cultural Resources**

### **4.2.1 Regulatory Setting**

The consideration of impacts to historic and cultural resources is mandated under § 101(b)(4) of NEPA as implemented by 40 C.F.R. Parts 1501-1508. Section 106 of the National Historic Preservation Act (NHPA) requires federal agencies to take into account their effects on historic properties (i.e., historic and cultural resources, including American Indian Cultural Sites) and allow the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. Additionally, it is the policy of the federal government to consult with Indian Tribal Governments on a Government-to-Government basis as required in E.O. 13175 (U.S. President 2000). FEMA has chosen to address potential impacts to historic properties through the “Section 106 consultation process” of NHPA as implemented through 36 C.F.R. Part 800.

In order to fulfill its Section 106 responsibilities, FEMA has initiated consultation on this project in accordance with the Statewide Programmatic Agreement (PA) dated December 21, 2016, between the Louisiana State Historic Preservation Officer (SHPO), the Louisiana Governor’s Office of Homeland Security and Emergency Preparedness (LA GOHSEP), the Alabama-Coushatta Tribe of Texas, the Caddo Nation, the Chitimacha Tribe of Louisiana, the Choctaw Nation of Oklahoma, the Coushatta Tribe of Louisiana, the Jena Band of Choctaw Indians, the Mississippi Band of Choctaw Indians, the Quapaw Tribe of Oklahoma, the Seminole Nation of Oklahoma, the Seminole Tribe of Florida, the Tunica-Biloxi Tribe of Louisiana, and the Advisory Council on Historic Preservation (<http://www.fema.gov/new-orleans-metropolitan-area-infrastructure-projects-2#2>). The 2016 Statewide Programmatic Agreement (PA) was created to streamline the § 106 review process, and may be reviewed at <https://www.fema.gov/media-library/assets/documents/128322>.

The “Section 106 process” outlined in the Statewide Agreement requires the identification of historic properties that may be affected by the proposed action or alternatives within the project’s area of potential effects (APE). Historic properties, defined in § 101(a)(1)(A) of NHPA, include districts, sites (archaeological and religious/cultural), buildings, structures, and objects that are listed in or determined eligible for listing in the National Register of Historic Places (NRHP). Historic properties are identified by qualified agency representatives in consultation with interested parties. Below is a consideration of various alternatives and their effects on historic properties.

### **4.2.2 Existing Conditions – Identification and Evaluation of Historic Properties**

On 23 September 2016, FEMA Historic Preservation Staff consulted the NRHP database, the Louisiana Cultural Resources Map, and project files and determined that the Undertaking is not located within a listed

or eligible National Register Historic District nor is it located within view-shed of a property individually listed in the NRHP.

### **4.2.3 Environmental Consequences**

#### **Alternative 1 – No Action**

This alternative does not include any FEMA undertaking; therefore FEMA has no further responsibilities under § 106 of the NHPA.

#### **Alternative 2 – Repair of Damaged Street Sections to Pre-Hurricane Condition**

The proposed undertaking would utilize FEMA funding to repair damaged street sections to pre-hurricane condition. The scope of work elements, in and of themselves, meet the criteria in Appendix B: Programmatic Allowances, Tier 2, Section C (Transportation Facilities) Number (1 a.-b. and 2 a, c and-e.) and Section D Number 1(b and d), of FEMA’s Programmatic Agreement (PA) dated December 21, 2016. In accordance with this PA, FEMA is not required to determine the National Register eligibility of properties where work performed meets the Appendix B criteria.

#### **Alternative 3 – Repair/Reconstruction of the RR26-Desire Area Group A Road Network (Proposed Action)**

The proposed undertaking would utilize FEMA funding to repair damaged street sections to pre-hurricane condition. The scope of work elements, in and of themselves, meet the criteria in Appendix B: Programmatic Allowances, Tier 2, Section C (Transportation Facilities) Number (1 a.-b. and 2 a, c and-e.) and Section D Number 1(b and d), of FEMA’s Programmatic Agreement (PA) dated December 21, 2016. In accordance with this PA, FEMA is not required to determine the National Register eligibility of properties where work performed meets the Appendix B criteria.

### **4.3 Socioeconomic Resources**

#### **4.3.1 Environmental Justice**

##### **4.3.1.1 Regulatory**

E.O. 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, was signed on 11 February 1994 (U.S. President 1994). This E.O. directs federal agencies to make achieving environmental justice part of their missions by identifying and addressing, as appropriate, disproportionately high adverse human health, environmental, economic, and social effects of their programs, policies, and activities on minority and/or low-income populations.

##### **4.3.1.2 Existing Conditions**

Information obtained from the U.S. Census Bureau (U.S. Department of Commerce [USDOD] 2010), compiled and extrapolated by the U.S. Environmental Protection Agency (USEPA) and presented on its Enforcement and Compliance History website, indicates that the population within a three (3)-mile radius of the proposed project site is composed of 91.3% African-American, 5.6% White, 2.5% Hispanic, and 0.6% other groups. Of these households, 47.3% have incomes less than \$25,000 per year, with approximately 36.2% of individuals existing below the poverty level. For the 5-year dataset 2010-2014, the U.S. Census Bureau’s American Community Survey (USDOD 2014) estimated median household income over the preceding 12 months for New Orleans at \$36,964 (in 2014 inflation-adjusted dollars), with a margin of error of +/- \$767.

### **4.3.1.3 Environmental Consequences**

In compliance with E.O. 12898, the following key questions were addressed with regard to potential Environmental Justice concerns:

- Is there an impact caused by the proposed action? Yes
- Is the impact adverse? No (conditionally)
- Is the impact disproportionate? No
- Has an action been undertaken without considerable input by the affected low-income and/or minority community? No

#### **Alternative 1 – No Action**

The “No Action” alternative would not involve the implementation of a federal program, policy, or activity. Under this alternative, no repairs would be made to the Desire Area roads. The already deteriorated condition of these streets would continue to worsen, possibly causing damage to vehicles, impairing response times by emergency services, and eventually preventing homeowners from accessing their properties. Although the streets in question are currently passable, this alternative has the potential to permit disproportionately high adverse impacts to minority and/or low-income populations to occur in the future.

#### **Alternative 2 – Repair of Damaged Street Sections to Pre-Hurricane Condition**

This alternative would involve repairing the street blocks currently under review to their pre-storm condition. Only those sections damaged as a direct result of the hurricane would be repaired, leaving any other deteriorated portions as is. Alternative 2 would meet minimum federal agency responsibilities under E.O. 12898 and would not result in adverse impacts to any population.

#### **Alternative 3 – Repair/Reconstruction of the RR26-Desire Area Group A Road Network (Proposed Action)**

Under the Proposed Action Alternative, work would consist of repairing or completely reconstructing the streets and sidewalks down to the sub-grade. As necessary, storm sewers, manholes, and drain lines would be adjusted, relocated, or removed. Due to the likely presence of hazardous material under the existing roads, the proposed scope of work has the potential to create disproportionately high adverse impacts to minority and/or low-income populations unless precautions are taken (see Sections 4.3.2 and 4.3.3 for additional discussion). If the conditions and mitigation measures described in Section 7.0 are implemented, this alternative will not cause adverse impacts to any population.

### **4.3.2 Hazardous Material**

#### **4.3.2.1 Regulatory Setting**

The management of hazardous materials is regulated under various federal and state environmental and transportation laws and regulations, including but not limited to the Resource Conservation and Recovery Act (RCRA); the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Toxic Substances Control Act (TSCA); the Emergency Planning and Community Right-to-Know provisions of the Superfund Amendments and Reauthorization Act (SARA); the Hazardous Materials Transportation Act; and the Louisiana Voluntary Investigation and Remedial Action statute. The purpose of the regulatory requirements set forth under these laws is to ensure the protection of human health and the environment through proper management (identification, use, storage, treatment, transport, and disposal) of these regulated materials. Some of the laws provide for the investigation and cleanup of sites already contaminated by releases of hazardous materials, wastes, or substances.

The TSCA (codified at 15 U.S. Code [U.S.C.] § 53), authorizes the USEPA to protect the public from “unreasonable risk of injury to health or the environment” by regulating the introduction, manufacture, importation, sale, use, and disposal of specific new or already existing chemicals. “New Chemicals” are defined as “any chemical substance which is not included in the chemical substance list compiled and published under [TSCA] § 8(b).” Existing chemicals include any chemical currently listed under § 8(b), including polychlorinated biphenyls (PCBs), asbestos, radon, lead-based paint, chlorofluorocarbons, dioxin, and hexavalent chromium.

TSCA Subchapter I, “Control of Toxic Substances” (§§ 2601-2629), regulates the disposal of PCB-containing products, sets limits for PCB levels present within the environment, and authorizes the remediation of sites contaminated with PCBs. Subchapter II, “Asbestos Hazard Emergency Response” (§§ 2641-2656), authorizes the USEPA to impose requirements for asbestos abatement in schools and requires accreditation of those who inspect asbestos-containing materials. Subchapter IV, “Lead Exposure Reduction” (§§ 2681-2692), requires the USEPA to identify sources of lead contamination in the environment, to regulate the amounts of lead allowed in products, and to establish state programs that monitor and reduce lead exposure.

The Small Business Liability Relief and Revitalization Act (the Brownfield Amendments) clarified CERCLA liability provisions for potential property owners. If the potential property owners meet the specific provisions of the act, including an adequate inquiry on past uses of the property, the landowner will be able to assert the innocent landowner defense, contiguous property exemption, and bona fide prospective purchaser exemption to CERCLA liability. The USEPA has published the Draft “all appropriate inquiries” rule (40 CFR § 312.10) that establishes the criteria for conducting Environmental Site Assessments on properties considered for acquisition. This would apply to proposed activities which may require land acquisition for the establishment of new rights-of-way.

In addition, the USEPA regulates hazardous air pollutants, such as asbestos, under the “air toxics” provisions of the Clean Air Act (CAA). Section 112 of the CAA established the National Emission Standards for Hazardous Air Pollutants (NESHAP) and required the USEPA to develop and enforce regulations to protect the public from exposure to airborne contaminants that are known to be hazardous to human health. Major health effects associated with asbestos include lung cancer, mesothelioma, and asbestosis (USEPA 2016a).

#### ***4.3.2.2 Existing Conditions***

Hazardous substances are defined as any solid, liquid, contained gaseous or semisolid waste, or any combination of wastes that pose either a substantial present, or potential future hazard to human health and the environment. Improper management and disposal of hazardous substances can lead to contamination of groundwater and/or surface water, including drinking water supplies, and soils. Evaluations of hazardous substances and wastes must consider whether any hazardous material will be generated by a proposed activity and whether a hazardous material already exists at the site or in the general vicinity of the site that could adversely impact the community or site workers. Existing hazardous materials and waste concerns can impact future uses of a site.

Transit projects may encounter hazardous materials during construction, especially if a project is built on a Brownfield or a previously disturbed site. Hazardous material is a generic term for anything toxic to humans or the environment. It includes dangerous waste, problem waste, petroleum products, and other hazardous substances. Materials that may constitute a hazardous waste include petroleum products, pesticides, organic compounds, heavy metals, or other compounds injurious to human health and the environment. The nature and extent of hazardous contamination can vary widely. Early detection, evaluation, and remediation of hazardous waste are essential to minimize project delays and protect the environment.

The following construction concerns are associated with areas of soil and/or groundwater contamination and/or building/structure demolition:

- Asbestos;
- Lead-based paint;
- Health and safety of workers encountering contaminated material;
- Special handling and disposal requirements for contaminated material and a corresponding cost increase;
- Inability to reuse contaminated soil as fill in other areas of the project.

The flood events in Louisiana resulting from the levee breaches caused by Hurricanes Katrina and Rita left behind sediments ranging in depth from less than an inch to several feet throughout various areas in Orleans, Plaquemines, and St. Bernard Parishes. USEPA conducted environmental sediment sampling and analysis of the sediment material following established USEPA sampling protocols. The results of those soil analyses, which can be found at <http://www.epa.gov/katrina/testresults/sediments/summary.htm>, are incorporated by reference into this SEA.

The southwest portion of the Desire Area Group A Road Network project area overlies the footprint of the Agriculture Street Landfill (EPA Registry ID: 110009336557; EPA, 2012), as detailed in Table 3 and *Figure 11*, an active municipal landfill for the New Orleans area from approximately 1909 to 1958. During its operation, the landfill received municipal wastes as well as ash from nearby incinerators. Additionally, open-burning was utilized frequently as a method for waste reduction at the site. In 1965, the landfill was briefly reopened to burn debris and waste resulting from the clean-up efforts in the aftermath of Hurricane Betsy (EPA, 2012). Beginning in the 1970s and continuing into the late 1980s, the northeastern section of the landfill site, approximately 47 acres, was developed for residential use. Developments included private single- and multi-family residences, a shopping center, a community center, an electrical substation, and an elementary school that included a playground complex (EPA, 2011). The remainder of the landfill site, approximately 48 acres, remained undeveloped and heavily vegetated. A series of removal actions, or short-term cleanups, addressed remediation of threats to human health and the environment. The remedy for subsurface contamination at the Agriculture Street Landfill Superfund Site includes a subsurface geotextile mat over contaminated material left in place. The geotextile mat is covered by 18 inches of clean soil and a vegetative cover in the rights-of-ways. No waste source material was removed from beneath roadways, sidewalks, parking areas, or building foundation slabs.

**Table 3. List of Project Streets and Block Segments which are located in full or in part within the Agriculture Street Landfill footprint and were part of the EPA’s response action**

Street Name	100 Block Number	Beginning Street	Ending Street	Description of Proposed Work
Abundance Street	2800	St. Ferdinand Street	Press Street	R/R ADA
Abundance Street	2900-3000	Press Street	Feliciana Street	R/R Concrete and ADA
Benefit Street	2900	St. Ferdinand Street	Press Street	R/R ADA
Benefit Street	3000-3015	Press Street	Montegut Street	R/R ADA
Feliciana Street	2800-2900	Industry Street	Abundance Street	R/R Sidewalk and Concrete
Gordon Plaza	1-80	Benefit Street	Press Street	R/R Sidewalk and Concrete
Montegut Street*	3200	Benefit Street	Humanity Street	Patch, M/O
St. Ferdinand Street	3000-3100	Abundance Street	Benefit Street	R/R Sidewalk and Concrete
St. Ferdinand Street	3200	Benefit Street	Higgins Boulevard	R/R Sidewalk and Concrete

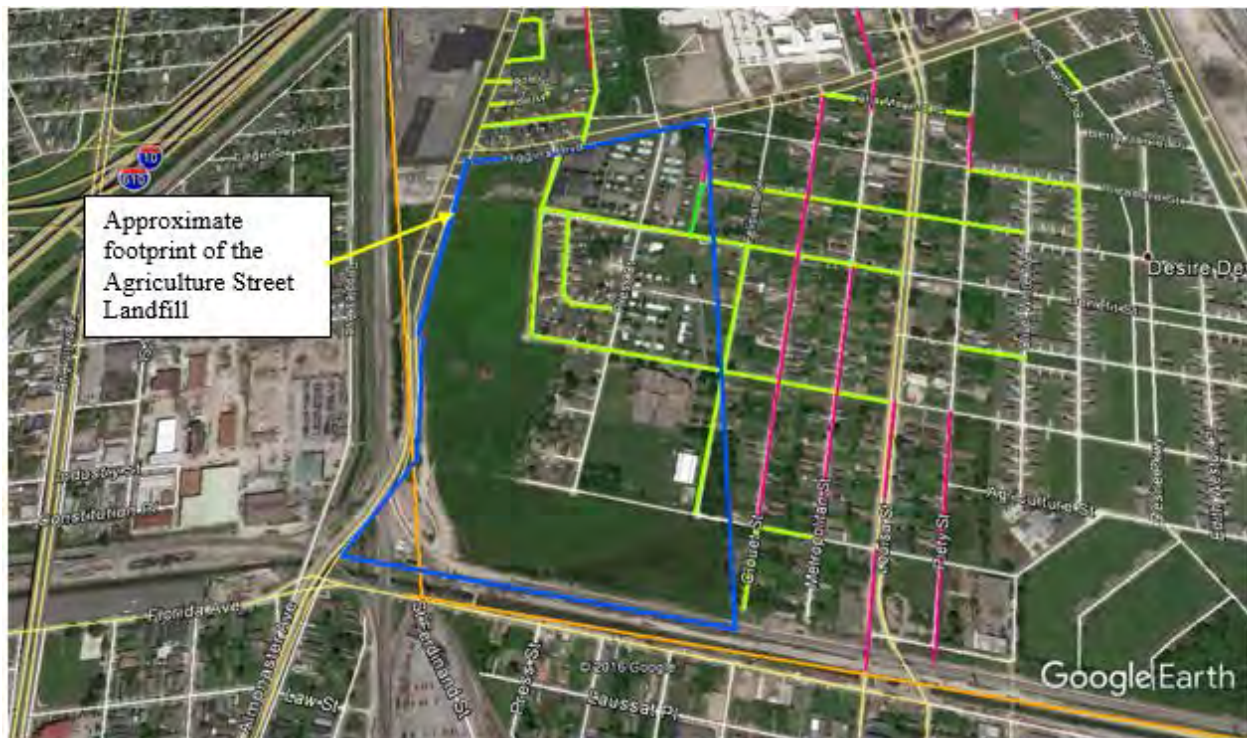
Table 3. Notes:

R/R = Repair/Replace

ADA = Americans with Disabilities Act

M/O = Mill and Overlay

\* The CNO has scheduled the work 3200 Montegut Street in the upcoming proposed, (but not yet submitted) Desire Group B project; however, in order to consolidate all proposed work within the Agriculture Street Landfill footprint, FEMA will evaluate the 3200 Montegut Street segment work in this SEA. Because of this, specific construction plans for this street segment are not included in this SEA.

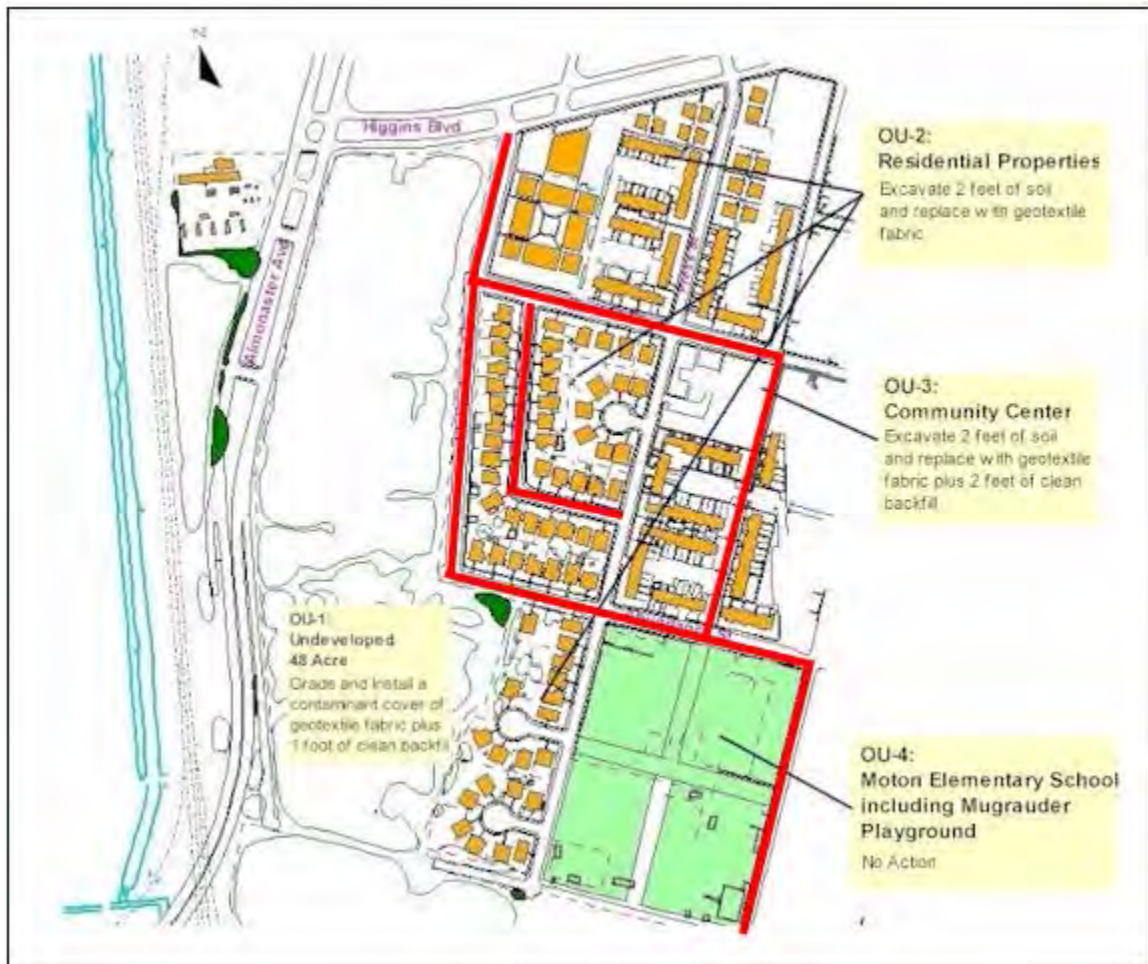


**Figure 11 – The southwest portion of the project area depicting the approximate footprint of the Agriculture Street Landfill outlined in blue. (Image Source - Google Earth 2016)**



The Agriculture Street Landfill site was placed on the National Priority List (NPL) in 1994 by the USEPA after investigations recorded elevated levels of contaminants of potential concern consisting of lead, arsenic, and poly-aromatic hydrocarbons (PAHs) in the soil (IT/OHM, 1999 and EPA, 2008). The site was divided by the USEPA into five OU (Figures 12 and 13), which are listed as follows (EPA, 2008):

- OU1: Undeveloped Property
- OU2: Residential Properties, which consist of the Gordon Plaza apartments, single-family dwellings in the Gordon Plaza subdivision, Press Court townhomes, retail businesses and Housing Authority of New Orleans' (HANO)'s Press Park Housing Development
- OU3: Shirley Jefferson Community Center, also known as Press Park Community Center
- OU4: Moton Elementary School, which includes Magrauer Playground
- OU5: Groundwater



**Figure 12 – Agriculture Street Landfill Operable Units. The street segments overlying the Agriculture Street Landfill are highlighted in red. (Image Source - EPA, 2011)**



**Figure 13 - Aerial image of Agriculture Street Landfill Operable Units. The street segments overlying the Agriculture Street Landfill are highlighted in orange. (Image Source - EPA, 2008)**

Beginning in March 1994, USEPA installed an eight-foot high chain link fence topped with barbed wire around the entire undeveloped portion of the former landfill (OU1) in a time-critical removal action. Several gates were installed to facilitate vehicular access by utility companies to electrical lines that traverse the site. USEPA conducted a second time-critical removal action at the site in February 1995. The removal action consisted of removing playground equipment and covering contaminated soil at OU3 with heavy grass sod. A third time-critical removal action was completed in March 1996 by USEPA to repair the fence surrounding OU1, which had been damaged by trespassers.

On September 2, 1997, a Record of Decision (ROD) for OU4 and OU5 was signed requiring no further action as there was no identifiable risk to human health (EPA, 1997). The Moton Elementary School (OU4) was built on a three foot layer of clean fill, which addressed all risks posed by this portion of the site. Regarding the ground water (OU5), residents in the site area were confirmed to be served by the municipal drinking water supply of the City of New Orleans, and information obtained from the Louisiana Department of Environmental Quality (LDEQ), during site investigation activities confirmed that ground water beneath the site is not used for any beneficial purpose and should not be considered a potential source of drinking water. In addition, site ground water presents no other pathway of exposure (to surface water, for example). The ROD for OU4 and OU5 recommended that both OUs be deleted from the NPL. After public notice and an opportunity for public comment, OU4 and OU5 were deleted from the NPL on June 15, 2000.

Also on September 2, 1997, the USEPA issued an Action Memorandum authorizing a Non-Time Critical Removal Action for OU1, OU2, and OU3 (EPA, 1997). It resulted in two separate response phases: Phase I from October 1998 to February 2000 and Phase II from August 2000 to April 2001 (EPA, 2000 and 2008, respectively). Response actions created by the Action Memorandum and conducted during the remediation phases eliminated human risk by excavating the top 12 inches to 24 inches of soil, placing a geotextile filter fabric covered with orange netting in order to delineate contaminated soil from clean fill, and replacing the top 12 to 24 inches of soil with clean fill. OU1 was cleared of vegetation and graded followed by the placement of a geotextile filter fabric, as well as the orange netting, on the subgrade, which was then covered with 12 inches of clean fill. The purpose of the geotextile filter fabric was to create a physical barrier between clean cover soils and contaminated subsoil. For OU2 and OU3, the top 24 inches of existing and waste material on the residential properties and community center were excavated and transported off-site for disposal. A permeable geotextile filter fabric, as well as the orange netting, was placed on the subgrade and covered with 24 inches of clean fill (EPA, 2011). The clean fill was then covered with grass sod, landscaping and yard restoration, driveway and sidewalk replacement, and final detailing. After conclusion of the second phase response action, USEPA had implemented the removal action on 99% of the site (nine private homeowners elected not to participate in the removal action). At the conclusion of each phase of the response action, a Closeout Completion Package was provided to each owner of property in OU 1, 2, or 3 who participated in the removal action. The package contained a Closeout Letter; a Certificate of Completion; and instructions on how to maintain the permeable cap, including instructions for any necessary excavation below the geotextile filter/orange netting. Owners of properties that were not part of the response action received a letter and fact sheet from USEPA stating that maintaining the surface vegetation will minimize the potential exposure to contaminants in the subsurface soils and will prevent soil erosion. The letter also informed the residents that the contaminants of concern do not readily dissolve in water, but adhere to soil particles. Thus, in the event of a flood, the contaminants in the subsurface soil are expected to remain in place and not pose an additional risk of exposure to the residents.

USEPA also coordinated with the utility companies serving the communities within the site's boundary. The USEPA developed Technical Abstract papers providing instructions for utility repair excavations, which would ensure the continued integrity of the permeable barrier on those properties where it was installed. Instructions for excavation both above and below the geotextile barrier were included in the paper. Copies of the Technical Abstracts were provided to all of the utility companies and also made available at the repositories. The USEPA also conducted a field demonstration of excavation and backfill procedures for utility companies at the site on December 1, 1999. In 2002, a second ROD issued by the USEPA for OU1, OU2 and OU3 required no further action as the clean-up under the 1997 Action Memorandum addressed the on-site contamination related concerns (EPA, 2002).

In August 2005, floodwaters resulting from Hurricane Katrina deposited sediment across many parts of New Orleans, including Press Park. In September 2005, a comprehensive investigation to characterize any potential environmental effects to parishes flooded by up to ten feet of water from Lake Pontchartrain and the Mississippi River / Gulf of Mexico outlet was conducted by the EPA as part of a characterization of post-hurricane conditions (EPA, 2006). Nine samples of flood-deposited sediments were collected from the

Agriculture Street Landfill/Press Park area and were analyzed for over 200 organic contaminants, including metals and PAHs. Results from the analytical sampling indicated benzo(a)pyrene, a PAH, was found in a small section of the site. Per the USEPA findings, it was determined further analysis would be conducted in the affected area (EPA, 2005). USEPA assessed and sampled the site on October 1 and 2, 2005 for both lead and arsenic and again on October 28, 2005 for Target Analytical List (TAL) metals and PAHs. The results of these analyses reported that flooding did not cause any upward movement of lead through the remediated soil; however, benzo(a)pyrene, which is considered a PAH, was reported as containing levels that exceeded LDEQ's Risk Evaluation / Corrective Action Program (RECAP) criteria. On February 16 and 17, 2006, USEPA re-examined benzo(a)pyrene levels through sediment sampling to determine potential health risks to humans. On August 29, 2006, the U.S. Department of Health and Human Services concluded in a Health Consultation report that without data to confirm the total PAH concentrations have degraded below levels of concern, the incidental ingestion of soil containing benzo(a)pyrene poses an indeterminate public health hazard. The report further concluded the majority of the contaminants detected in flood-deposited sediments and soils at the site posed no apparent public health hazard to residents (DHH, 2006). Due to hurricane related damage to site structures, sediment sample readings, a rash of illegal dumping reports and community concerns on the integrity of the earthen protective layer (cap) over the former Agriculture Street Landfill site, the perimeter of Press Park OU2 and OU3 was fenced-in and considered abandoned. In January 2008, a Consent Decree between the USEPA and the City of New Orleans was signed outlining cover maintenance and Institutional Controls (ICs) for OU1, OU2, and OU3 (EPA, 2008).

In April 2008, a Second Five – Year Review Report for the Agriculture Street Landfill Superfund Site was published that addressed the earthen cap maintenance issues, ICs for dealing with property owners and local utilities, and further Consent Decree agreements between the USEPA and the City of New Orleans. Currently, semi-annual inspections are performed by the LDEQ on all OUs to address any site issues agreed upon within the Consent Decree, including maintenance activities and reports of illegal dumping (EPA, 2008).

Subsequent to the cleanup, the City entered into a Consent Decree with the USEPA to protect the remedy on the site, and thereby, the public health or welfare and the environment. As part of the Consent Decree, the City agreed to development of a Technical Abstract for Utility Operations within the Agriculture Street Landfill Superfund Site (USEPA 2006). This document stipulates procedures that must be followed when utility work affects the Agriculture Street Landfill site. The Consent Decree mandates that the City of New Orleans direct all its agencies and departments, including the Sewerage and Water Board and Public Works, to incorporate the technical abstract and its included procedures as standard operating procedures for all work within the Agriculture Street Landfill Superfund Site footprint. A copy of the Consent Decree may be reviewed by clicking on <https://www.fema.gov/media-library/assets/documents/128400/> or at [https://www.fema.gov/media-library-data/20130726-1911-25045-6452/hano\\_press\\_park\\_draft\\_ea\\_appendix\\_a\\_04\\_13.pdf](https://www.fema.gov/media-library-data/20130726-1911-25045-6452/hano_press_park_draft_ea_appendix_a_04_13.pdf).

USEPA and Louisiana Department of Environmental Quality (LDEQ) database searches for the proposed project vicinity revealed several known offsite hazardous waste site in close proximity. There are ten (10) Hazardous Waste Generators and two (2) sites that report their water discharges to the EPA. There are no reported leaking underground storage tank sites in close proximity.

There were three (3) reported incidents in project vicinity in LDEQ EDMS database. The first incident occurred in June 2013. There was a report incident of car transmissions being drained into the soil at a facility in the 4000 block of Metropolitan Street. Fluids, including battery acid, motor oil, and radiator fluids were also spilled or not properly contained. This incident was closed by the LDEQ on 17 June 2013. The second incident occurred in the 3200 block of Piety Street, where there was a complaint of suspect asbestos-containing material being illegally dumped. The materials were removed and the incident was closed by LDEQ on 14 June 2004. The third incident was discovered by Entergy in August 2009 in the 3700 block of Louisa Street. The incident involved an oil release that occurred at an undetermined time

after Hurricane Katrina. The oil release was at an above ground vault structure containing transformers at an abandoned school. Entergy estimated that a total of 138 gallons of mineral oil were released as a result of vandalism.

No other sites of concern outside the immediate project area were found within one-half (½) mile of the outer project boundary during a review of LDEQ's Voluntary Remediation Program/Brownfields Initiative database, as well as its EDMS database for other hazardous waste management and disposal, solid waste disposal, enforcement, or related activities. There are no recorded active oil or gas wells within one (1) mile of the project area.

According to an article from NOLA.com/Times Picayune dated July 12, 2017, entitled *New Orleans road work could raise lead levels in your water, officials warn*, which can be reviewed at [http://www.nola.com/environment/index.ssf/2017/07/lead\\_water\\_new\\_orleans\\_road\\_wo.html#incart\\_river\\_home](http://www.nola.com/environment/index.ssf/2017/07/lead_water_new_orleans_road_wo.html#incart_river_home), the FEMA-funded road work taking place in the City of New Orleans could “unearth another aspect of the city’s aging infrastructure in desperate need of repair – undiscovered lead water service lines.” The New Orleans Sewerage and Water Board and Mayor Mitch Landrieu's office are notifying residents citywide of the possibility of temporary elevated lead levels in drinking water as crews begin to dig up roads in coming months. “The City of New Orleans ensures that the water coming out of the plant and into the distribution and main pipe system is lead free,” Cedric Grant, Executive Director of the Sewerage & Water Board said. “We treat it extensively in the plant, but we also provide corrosion control.” The Environmental Protection Agency also requires the city to complete citywide lead testing once every three years. EPA rules require that no more than 10 percent of 50 homes tested have lead levels at or above 15 parts per billion (ppb). The last official EPA sampling was completed in November 2016. Grant said more than 100 tests were completed at sites across the city and all the tests fell below the EPA threshold. (The East Bank of Orleans Parish had an average count of 7 ppb and the West Bank an average of 2 ppb.)

Despite treatment, lead contamination is still a possibility in New Orleans. By the time drinking water leaves your tap, it has woven through a system of dozens, if not hundreds, of water supply pipes, including service pipes that are on private property. Those private lines are the ones that remain the biggest mystery to the city. Grant noted the Sewerage & Water Board can replace all the lead pipes its finds on public property, but not those underneath private property. He said homeowners and others who want lead water pipes on their property to be replaced will need to hire their own contractor to complete the work. Road work can enhance that risk. City lines are often disconnected and reconnected with a homeowner's pipe system. That can dislodge deposits that have prevented lead from leeching into water in the homeowner's pipe. Lead can be released into the water for months after a reconnection is completed. Sarah McLaughlin Porteous, the director of the city's Special Projects & Strategic Engagement Office, said the S&WB and the city will be notifying affected property owners and renters of the possibility of elevated lead levels before each road project begins, through the city's RoadWork NOLA email newsletter, inserts in water bills, and during community meetings, which will be held at the start of each project. Grant said the S&WB will also be going door-to-door with flyers to notify property owners in areas where lead water supply pipes are found during road work.

#### **4.3.2.3 Environmental Consequences**

##### **Alternative 1 – No Action**

The “No Action” alternative would not disturb any hazardous materials or create any additional hazards to human health.

##### **Alternative 2 – Repair of Damaged Street Sections to Pre-Hurricane Condition**

Because Alternative 2 would deal with surface repairs to the Desire Area Group A Road Network Streets, removal of paving material to a point deep enough to encounter potential hazardous material would not be expected. Should deeper excavation be necessary for repairs, however, any hazardous constituents encountered would require that appropriate measures for the proper assessment, remediation, and

management of the contamination be initiated in accordance with applicable federal, state, and local rules and regulations. In addition, work under this alternative would require that best management practices (BMPs) be followed; appropriate measures to prevent, minimize, and control spills of hazardous materials taken; and any generated hazardous or non-hazardous wastes disposed of in accordance with applicable federal, state, and local requirements.

### **Alternative 3 – Repair/Reconstruction of the RR26-Desire Area Group A Road Network (Proposed Action)**

The Proposed Action Alternative could involve disturbance of potentially contaminated soil through actions including but not limited to compacting and shaping the subgrade, removal of culvert pipes, installation of new manholes, and removal of drain lines. In addition, culvert pipes and drain lines made of cement-asbestos material were used extensively in the mid- to late-20<sup>th</sup> Century. Disturbing or removing this type of pipe could potentially release friable asbestos into the air. As a result of these construction activities, nearby residents and young children, as well as City and contract construction workers, would face potential health hazards due to exposure to contaminated soil and dust (see Section 4.3.3 for additional discussion).

On 31 January 2017 and 23 March 2017, FEMA coordinated with the USEPA and LDEQ through a Solicitation of Views (SOV) (Appendix B). The LDEQ responded on 2 May 2017 and had no objections to the proposed project. The LDEQ also provided a number of recommendations, which are included in Section 7 Conditions and Mitigation Measures.

In responses dated 31 January 2017 and 6 April 2017, USEPA indicated that “No response action was implemented by EPA on the streets within the site’s boundary. As with any road repairs or construction, safety measures should be followed. Should any excess soil require disposal, parties should coordinate with the City of New Orleans on the appropriate facility to use. Also, the city of New Orleans is a member of LA One Call and they should be contacted to help the contractor dig safely. Attached is a Technical Abstract EPA developed for utility companies and Railroad who perform work in the area. This is a tool that will be helpful, when plans are developed” (Appendix B).

The EPA completed the Draft phase of its response action at the Agriculture Street Landfill site in 2002. The response action involved excavation, removal, and disposal of contaminated soil to an appropriate facility, and the restoration of remediated properties, including sidewalks and residential driveways. In these areas, a permeable geotextile membrane and an orange marker was placed in the excavated areas, before the areas were backfilled with clean soil and restored. This marker serves as an indicator for owners to be mindful that landfill material may exist below the marker, and the proper protocols should be followed should work be required below the permeable marker. All property owners and utility companies were provided with a copy of the post-removal maintenance guidelines in the event the excavation below the marker is needed.

The EPA enclosed a 2013 Technical Abstract (Appendix B) that provides the protocol utility companies and the Railroad Company follow when performing work within the boundaries where EPA implemented the response action. This Abstract should also be included in the plans associated with the street and sidewalks that are within the proposed project site and overlie the Agriculture Street Landfill.

Under this Alternative, the proposed infrastructure repairs could disturb subsurface hazardous materials or increase potential hazards to human health. The sites could be adjacent to hazardous material or solid waste facilities. Any hazardous constituents encountered at the site during construction operations would require that appropriate measures for the proper assessment, remediation, and management of the contamination be initiated in accordance with applicable federal, state, and local rules and regulations. BMPs must be followed; appropriate measures to prevent, minimize, and control spills of hazardous materials taken; and any generated hazardous or non-hazardous wastes disposed of in accordance with applicable federal, state, and local requirements (see conditions).

Additionally, facilities must immediately report accidental releases of EHS chemicals and “hazardous substances” in quantities greater than corresponding Reportable Quantities defined in CERCLA to State and local officials. This information must be made available to the public. Facilities manufacturing, processing, or storing designated hazardous chemicals must make Safety Data Sheets (SDSs) (formerly Material Safety Data Sheets) (formerly MSDSs) describing the properties and health effects of these chemicals available to State and local officials and local fire departments. Facilities must also report, to State and local officials and local fire departments, inventories of all onsite chemicals for which SDSs exist. This information must be made available to the public.

An asbestos survey and a lead/lead-based paint survey should be conducted where piping demolition is required. If the analytical results indicate asbestos, lead piping, or lead-based paint is present, proper measures would be incorporated in the design documents and implemented during construction activities to minimize worker and public exposure to asbestos and lead and to ensure that demolition materials are handled and disposed of in accordance with applicable regulations. If analytical results indicate any materials contain asbestos, a comprehensive Asbestos Operations and Maintenance Plan would be developed in accordance with applicable regulations. This Plan would address worker training, as well as safety measures to be taken when disturbing asbestos-containing materials, and during abatement activities. Work would be undertaken in accordance with applicable federal, state and local requirements.

All work undertaken for complete repair on a system basis affecting the Agriculture Street Landfill Superfund Site must be undertaken in accordance with the Consent Decree between the City and USEPA including the Technical Abstract for Utility Operations within the Agriculture Street Landfill Superfund Site.

### **4.3.3 Public Health and Safety**

#### **4.3.3.1 Background**

A considerable number of health and safety laws and regulations exist for a wide variety of activities; however, an exhaustive review of these various rules is beyond the scope of this SEA.

The presence of adjacent residences with children to streets to be repaired/reconstructed triggers a consideration of E.O. 13045, *Protection of Children from Environmental Health Risks and Safety Risks*. The Policy section of this E.O. acknowledges that “children may suffer disproportionately from environmental health risks and safety risks. These risks arise because: children’s neurological, immunological, digestive, and other bodily systems are still developing; [and] children eat more food, drink more fluids, and breathe more air in proportion to their body weight than adults.” Federal agencies are required to make identifying and assessing “environmental health risks and safety risks that may disproportionately affect children” a high priority (U.S. President 1997). As a result, extra precautions must be taken when work occurs where children may be near.

#### **4.3.3.2 Existing Conditions**

Construction activities frequently involve the use of hazardous materials such as fuels, oils, solvents, cleaners, and degreasers. Culverts and pipes may contain asbestos or lead, which could present a risk to workers and nearby populations from dust and fume inhalation. Excavation, filling, saw-cutting, jack-hammering, and paving activities have the potential for the generation of large quantities of dust and asphalt emissions. Impacts would be especially adverse for sensitive subpopulations such as children, hospital patients, the elderly, and infirm.

Workers also may be exposed to environmental contamination beneath roadways due to the consequences of historical construction, land use, or waste management practices. Unanticipated conditions could exist whereby workers are directly exposed to hazardous substances, such as chemicals from a leaking underground storage tank or, as in the current case, from prior land disposal of hazardous materials in the Agriculture Street Landfill.

Due to the time period in which the Agriculture Street Landfill of the project area (beginning approximately in 1909 and continuing until the landfill was closed in 1965), the nature and origin of the materials that were dumped in the landfill cannot be determined with certainty. Because the site is an EPA Superfund site, the chemical composition of the material has been substantially characterized. Soil constituents of concern exceeding LDEQ screening standards consisted of various metals (such as arsenic and arsenic compounds, lead, and mercury), as well as several PAHs, including benzo(a)pyrene and benzo(b)fluoranthene.

The health hazards from any potential contaminant depend primarily on the concentration and the degree/nature of exposure. In the current situation, the primary method of exposure would likely be from airborne dust particles suspended during earthwork and from contaminated runoff during rain events. Although both children and adults could come into contact with hazardous substances through either of these routes, the concentration of any individual contaminant within the generated dust or runoff is unknown and cannot currently be predicted. Thus, any definitive statements about hazards to public health cannot be made with certainty.

In lieu of assigning probabilities of potential effects for the constituents of concern, only general health risks from inhalation or dermal exposure to these contaminants can be provided. The actual potential for exposure to nearby residents and young children may be quite low.

**Arsenic** – Arsenic is a known carcinogen. Inhalation of high levels of inorganic arsenic can cause a sore throat and irritated lungs, with possible changes to the blood vessels of the skin. Longer exposure at lower concentrations also can lead to skin changes, as well as circulatory and peripheral nervous disorders. Arsenic can be passed from mother to child in breast milk. Direct dermal contact with high concentrations of inorganic arsenic compounds can cause the skin to become irritated; however, this contact is not likely to lead to any serious internal effects (U.S. Department of Health and Human Services [USDHHS] 2007a).

**Lead** – Lead may be absorbed both through inhalation and dermal exposure, with inhalation as the most effective route. In the body, the main target is the central nervous system; however, children are most susceptible to adverse health effects, including consequences to mental and physical development, behavior, and intelligence. Lead can be present in breast milk. No safe level for lead has been determined (USDHHS 2007b).

**Mercury** – Mercury can vaporize and be inhaled. In the body, the main targets are the central nervous system, lungs, and kidneys. Pregnant women can mercury to her unborn child, and mercury can be passed from a mother to child through breast milk. Some of the problems mercury in the body can cause include shortness breath, chest pain, nausea, vomiting, diarrhea, headache, vision problems, and tremors. There is no safe level for mercury exposure (USDHHS 2012).

**PAHs** – PAHs are a class of chemicals formed as by-products of burning, including fossil fuels, cigarettes, and barbecue grills. Many are carcinogenic. They can be absorbed through inhalation and dermal contact. Long-term exposure can decrease respiratory function. Without repeated exposure, these chemicals are not stored in the body for long periods (i.e., are excreted within a few days) (USDHHS 1995).

#### **4.3.3.3 Environmental Consequences**

##### **Alternative 1 – No Action**

Under the “No Action” alternative there would be no repair/reconstruction of the streets, so no hazardous materials would be disturbed. Any unknown health or safety concerns would remain to be discovered.

##### **Alternative 2 – Repair of Damaged Street Sections to Pre-Hurricane Condition**

Because Alternative 2 would deal with surface repairs to Desire Area Group A Road Network Streets, removal of paving material to a point deep enough to encounter potential hazardous material would not be expected. Should deeper excavation be necessary for repairs, however, any hazardous constituents



encountered would require that appropriate measures for the proper assessment, remediation, and management of the contamination be initiated in accordance with applicable federal, state, and local rules and regulations. These measures would substantially reduce any potential for contaminants to cause negative health effects to construction workers, nearby residents, and young children.

Work under this alternative would require that BMPs be followed, including appropriate measures to prevent, minimize, and control spills of hazardous materials. In addition, in order to minimize the potential for inhalation exposure, the contractor would be responsible for using BMPs to reduce fugitive dust generation. For example, the contractor would be required to water down construction areas when necessary to minimize suspended particulate matter. Section 7.0 of this SEA includes additional conditions.

### **Alternative 3 – Repair/Reconstruction of the RR26-Desire Area Group A Road Network (Proposed Action)**

The Proposed Action Alternative would involve disturbance of potentially contaminated soil through actions including but not limited to compacting and shaping the subgrade, removal of culvert pipes, installation of new manholes, and removal of drain lines. In addition, culvert pipes and drain lines made of cement-asbestos, which could potentially release friable asbestos into the air, also may be encountered. As a result of these construction activities, nearby residents and young children, as well as City and contract construction workers, would face potential health hazards due to exposure to unknown quantities of contaminated soil and dust.

Any hazardous constituents encountered at the site during construction operations would require that appropriate measures for the proper assessment, remediation, and management of the contamination be initiated in accordance with applicable federal, state, and local rules and regulations. In order to pursue work under this alternative, BMPs must be followed, including appropriate measures to prevent, minimize, and control spills of hazardous materials. In addition, in order to minimize the potential for inhalation exposure, the contractor must use BMPs to reduce fugitive dust generation. For example, the contractor is required to water down construction areas when necessary to minimize suspended particulate matter. Section 7.0 of this SEA includes additional conditions which must be adhered to in order to avoid jeopardizing the receipt of federal funding.

## 5.0 CUMULATIVE IMPACTS

CEQ regulations state that the cumulative impact of a project represents the “impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time” (40 C.F.R. § 1508.7).

In its comprehensive guidance on cumulative impacts analysis under NEPA, CEQ notes that “the range of actions that must be considered includes not only the project proposal, but all connected and similar actions that could contribute to cumulative effects” (Regulations for Implementing the Procedural Provisions of the NEPA 2005). The term, “similar actions,” may be defined as “reasonably foreseeable or proposed agency actions [having] similarities that provide a basis for evaluating the environmental consequences together, such as common timing or geography” (40 C.F.R. § 1508.25[a][3]).

Not all potential issues identified during cumulative effects scoping need be included in an EA. Because some effects may be irrelevant or inconsequential to decisions about the proposed action and alternatives, the focus of the cumulative effects analysis should be narrowed to important issues of national, regional, or local significance. To assist agencies in this narrowing process, CEQ (2007) provides a list of several basic questions to be considered, including: (1) Is the proposed action one of several similar past, present, or future actions in the same geographic area?; (2) Do other activities (governmental or private) in the region have environmental effects similar to those of the proposed action?; (3) Have any recent or ongoing NEPA analyses of similar or nearby actions identified important adverse or beneficial cumulative effect issues?; and (4) Has the impact been historically significant, such that the importance of the resource is defined by past loss, past gain, or investments to restore resources?

It is normally insufficient when conducting a cumulative effects analysis to merely analyze effects within the immediate area of the proposed action. Geographic boundaries should be expanded for cumulative effects analysis and conducted on the scale of human communities, landscapes, watersheds, or airsheds. Temporal frames should be extended to encompass additional effects on the resources, ecosystems, and human communities of concern. A useful concept in determining appropriate geographic boundaries for a cumulative effects analysis is the project impact zone, that is, the area (and resources within that area) that could be affected by the proposed action. The area appropriate for analysis of cumulative effects will, in most instances, be a larger geographic area occupied by resources outside of the project impact zone (CEQ 2007).

The proposed project site is centered at Latitude 29.992555, Longitude -90.036158 within zip code 70126. The approximate physical boundaries of the proposed work are Inner Harbor Navigation Canal, Chef Menteur Highway, Florida Avenue and Peoples Avenue. These borders comprise an area of approximately 1.6 square miles. FEMA has determined that a 1.5 mile radius buffer constitutes an appropriate boundary for a cumulative impact analysis of the proposed action and the alternatives.

In Orleans parish, over 8,000 FEMA program-funded emergency protective measures, repair projects and hazard mitigation projects that have occurred, are occurring, or are reasonably foreseen to occur to buildings, recreational and educational facilities, public utilities, and waterways from August 2005 through July 2017. Figure 14 depicts FEMA-funded undertakings that fall within the 1.5 mile radius buffer, representing 241 project sites with an obligated amount of \$249 million for three FEMA disasters. While 98% the project sites in the radius buffer were Public Assistance grants (237 project sites, with a total of \$195 million obligated), the remaining two percent (4 sites) are 404 Hazard Mitigation project sites and comprise 21% of all FEMA funds in the radius buffer, totaling \$53 million. For PA projects, the

predominant program type is Public Buildings (Category E, 183 sites) and the Hazard Mitigation projects consisted solely of one program type, Storm Water Management.

By disaster, DR-1603 has the majority, with 222 sites (92%), followed by DR-4080 (7%), and DR-1786 (1%). Temporal frames trend toward the majority of projects completed prior to 2013, with 162 sites (66%) associated with projects completed between 2006 and 2012. The remaining 83 sites (34%) have completion dates from 2013 to the present.

Five projects associated with EAs have sites that fall within the radius buffer. Of these, three EAs are completed, one is in progress and one has both a completed EA and an SEA in progress. FEMA-funded projects associated with these EA sites are detailed in Table 4 and locations within the buffer depicted on Figure 14. All EAs are for Hurricane Katrina (DR-1603) projects. FEMA-funded actions are subjected to various levels of environmental review as a requirement for the receipt of federal funding. A Subgrantee’s failure to comply with any required environmental permitting or other condition is a grant violation, which can result in the loss of federal assistance, including funding.

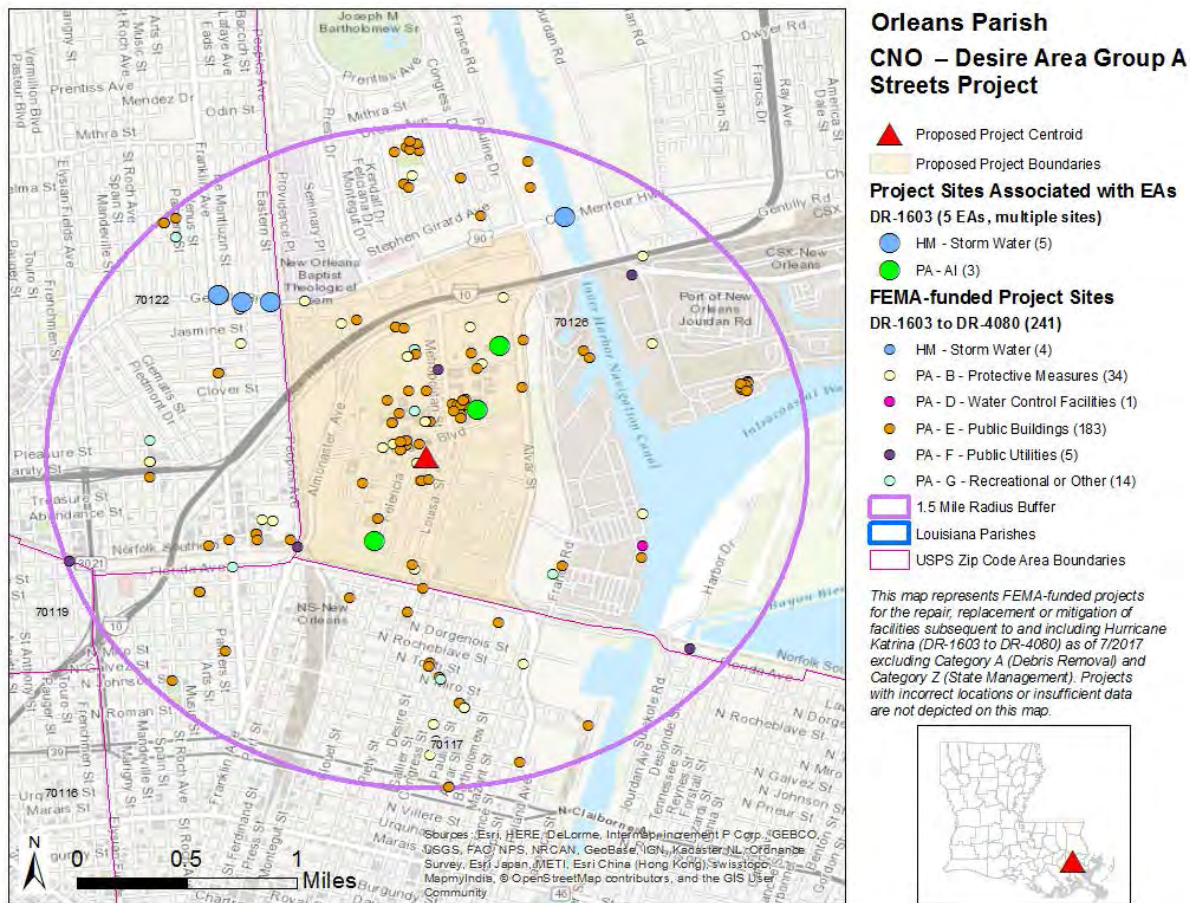


Figure 14 - Map of FEMA-funded Projects within a One Mile Radius Study Area (Image Source - FEMA).

After the devastation of the 2005 hurricane season, the USACE, Mississippi Valley Division, New Orleans District was tasked with the planning, design, and construction of a 350-mile system of levees, floodwalls, surge barriers, and pump stations to “increase public safety and enable the physical and economic recovery of the area to occur through the reduction of storm damage risk to residences, businesses, and other

infrastructure from hurricanes (100-year storm events) and other high-water events within the Greater New Orleans Metropolitan Area.” Referred to as the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS), it is one of the largest civil works projects ever undertaken, at an estimated cost of \$14 billion (DoA 2013a). Major drainage features associated with this infrastructure project within Orleans Parish include the Mississippi River (Waterbody ID# LA070301) and the Industrial Canal (Waterbody ID# LA041501). Except during major river flooding events, these watercourses serve to remove excess water from the local area more efficiently, providing a positive cumulative benefit to residents and businesses.

Table 4 below lists and briefly describes known present, past, and reasonably foreseeable infrastructure and recovery improvement projects, including activities identified by FEMA that may have the potential for cumulative impacts when combined with the effects of the present proposed action. The table also identifies the potential for cumulative impacts when combined with the effects of the proposed action and the rationale for that assessment.

**Table 4. Projects that May Have the Potential to Contribute to Cumulative Impacts**

<b>Project Name/Status</b>	<b>Lead Agency or Firm</b>	<b>Location</b>	<b>Description</b>	<b>Cumulative Impact</b>	<b>Rationale</b>
<b>City of New Orleans City-Wide Road Repairs</b>	City of New Orleans Department of Public Works	New Orleans City-Wide	Repairs, replacements, and improvements to roads and components damaged as a result of Hurricane Katrina. Elements include upgrades to current codes and standards including mitigation measures to reduce the risk of future damages in the next flood.	Less than significant	Effects of this project when combined with those of the proposed action will not result in significant cumulative impacts.

<b>Project Name/Status</b>	<b>Lead Agency or Firm</b>	<b>Location</b>	<b>Description</b>	<b>Cumulative Impact</b>	<b>Rationale</b>
<b>Comprehensive Environmental Document, Phase I Study for HSDRRS</b>	USACE	217 miles of post-Katrina HSDRRS work located within the Greater New Orleans Metropolitan Area; the area within Lake Pontchartrain and West Bank and vicinity.	Evaluates the cumulative impacts associated with the implementation of the HSDRRS; describes cumulative impacts of HSDRRS construction completed as of July 2011; and incorporates information from Individual Environmental Reports (IERs) and supplemental IERs completed as of 15 November 2010	Less than significant	Adversely affected resources for the HSDRRS project (regional soils, habitat supporting wildlife, wetlands and jurisdictional bottomland hardwood resources) are significantly different from those in the currently proposed action. Through mitigation and compensation measures, the overall socioeconomic benefits are expected to outweigh the unavoidable natural resources impacts and, thus, would not impact the proposed action.
<b>Hurricane Storm Damage Risk Reduction System</b>	USACE	New Orleans Regional Metropolitan Area	Complete re-engineering the levee system in New Orleans and surrounding areas in order to withstand effects from a “100 year storm,” or a storm that has a 1% chance of occurring each year.	Less than significant	Effects from this project reduce overall impacts in the areas levee protected from the base flood including the site of the proposed action.
<b>New Orleans East Streetscape</b>	Housing and Urban Development (HUD)	Eastern New Orleans	Addition of sidewalks, street lights, trees, a bike lane, and trash receptacles	Less than significant	Restoration and improvement to existing infrastructure
<b>New Orleans Rail Gateway</b>	Federal Railroad Administration	Rail corridors citywide	Environmental Impact Statement currently in preparation for upgrades to the city’s rail system (Louisiana Department of Transportation and Development [LA DOTD] 2014)	Less than significant	Although the New Orleans Public Belt Railroad (NOPBR) is adjacent to the proposed cruise terminal, close coordination will occur with the railroad to minimize traffic disruption.

<b>Project Name/Status</b>	<b>Lead Agency or Firm</b>	<b>Location</b>	<b>Description</b>	<b>Cumulative Impact</b>	<b>Rationale</b>
<b>New Orleans Sewer and Water Board Water Supply and Sanitary Sewer System-Wide Repairs</b>	Sewer and Water Board of New Orleans	New Orleans City-Wide	Repairs and improvements to water and sanitary sewer system components damaged as a result of Hurricane Katrina. Elements include upgrades to current codes and standards including mitigation measures to reduce the risk of future damages in the next flood.	Less than significant	Project is conditioned to comply with minimum NFIP floodplain development regulations as adopted by the local community and will thereby reduce risk and increase protection from future damage.
<b>Recovery School District Single Settlement Request</b>	Recovery School District	New Orleans City Wide	Refurbishment, repair, reconstruction, and new construction for restoration of the school system	Less than significant	Project is conditioned to comply with minimum NFIP floodplain development regulations as adopted by the local community and will thereby reduce risk and increase protection from future damage.
<b>Press Park Residential Development &amp; Community Center</b>	Housing Authority of New Orleans	Desire Neighborhood in New Orleans	Demolition to concrete slabs with no remediation	Negligible	Demolition of selected structures down to the slab with no soil disturbance and no exposures to contamination
<b>CNO: Emergency Maintenance Division Central Maintenance and Fuel Facility</b>	City of New Orleans	Desire Neighborhood in New Orleans	Construction of a new facility	Negligible	Construction of a new facility; no impact on proposed action

<b>Project Name/Status</b>	<b>Lead Agency or Firm</b>	<b>Location</b>	<b>Description</b>	<b>Cumulative Impact</b>	<b>Rationale</b>
<b>Desire Street Ministries Multi-Purpose Building</b>	Desire Street Ministries	Desire Neighborhood in New Orleans	Construction of a new 52,000 square foot multi-purpose building	Negligible	Construction of a new facility; no impact on proposed action
<b>Response to Hurricanes Katrina and Rita</b>	USACE	Orleans, St. Bernard, Jefferson, Plaquemines, St. Mary's, Terrebonne, and Lafourche Parishes	Evaluates emergency actions to dewater New Orleans Metropolitan Area; rehabilitate federally authorized levees, and restore non-federal levees and pump stations (Orleans, St. Bernard, Jefferson and Plaquemines Parishes); and flood prevention operations (St. Mary, Terrebonne, and Lafourche Parishes)	No effect	Adverse impacts to resources (wetlands) required compensatory mitigation and are significantly different from those in the currently proposed action; no similar resources associated with proposed action; no impact on proposed action
<b>SWBNO Pump Stations</b>	USACE	Throughout Orleans Parish	Pump station elevation	Negligible	Restoration and improvements to existing infrastructure; no impact on proposed action

As identified in Table 4, the cumulative effect of these present, past, and reasonably foreseeable future actions is not anticipated to result in a significant impact to any resource. Each of the projects either aims to restore or improve the function of pre-existing infrastructure within an urban setting or proposes redevelopment consistent with current zoning requirements, with minimal impacts to the natural and human environment.

## 6.0 PUBLIC INVOLVEMENT AND AGENCY COORDINATION

Due to the magnitude of the CIP, the CNO has established a web site entitled “Road Work NOLA”, which may be assessed at <http://roadwork.nola.gov/home/> to help the residents and businesses of the CNO learn and stay informed about the individual project that may affect them. The web site is devoted to the planned road work in the City, including the project evaluated in this SEA, and provides information to public about the program, including specific projects, types of repairs to be performed, and answers to frequently asked questions (FAQs).

In addition to the implementation of the web site, the CNO also has defined broad communication goals, measurable communication objectives, target audiences, and proposed communication solutions to inform the all affected City residents and businesses about the road work program. These solutions will include stakeholder engagement, community outreach, neighborhood and civic association visits, a construction hotline, which may accessed by calling 504-658-ROAD (7623), use of social media platforms, targeted mass mailings, door to door canvassing (as needed), distribution of educational literature to targeted public locations such as libraries, community centers, shopping centers, and schools, internal communications, and the use of earned media, including newspaper interviews, radio and TV segments, news releases, and public service announcements. The CNO also plans to create and distribute CIP Fact Sheets, brochures with magnets, and a CIP Monthly Newsletter to be distributed with project updates, construction activities, and their anticipated impacts. In addition, there is a local Fix My Streets Task Force, made up of residents across the CNO, which is working to identify solutions to fill the gap between available funding and required funding to reconstruct the streets in poor or worse condition that have not been included in the CIP.

The public is invited to comment on the proposed action. A legal notice for the project will be published on Friday, October 27, 2017; Wednesday, November 1, 2017, and Friday, November 3, 2017 in the Times-Picayune, the journal of record for Orleans Parish. Additionally, the draft Supplemental Environmental Assessment will be made available for review at the New Orleans Public Library located at 219 Loyola Avenue, New Orleans, LA 70112 and the Norman Meyer Library located at 3001 Gentilly Boulevard, New Orleans, LA 70122. Further, there will be a 30-day comment period, beginning on Saturday, October 28, 2017, and concluding on Tuesday, November 28, 2017 at 4:00PM. The document also has been published on FEMA’s websites. A copy of the Public Notice is attached in Appendix D.

The state and federal agencies consulted were:

- Louisiana Department of Environmental Quality
- U.S. Environmental Protection Agency



## 7.0 CONDITIONS AND MITIGATION MEASURES

Construction of the proposed improvements at the proposed location was analyzed based on the studies, consultations, and reviews undertaken as reported in this SEA. The findings of this SEA conclude that no significant adverse impacts to geology, groundwater, floodplains, public health and safety, hazardous materials, socioeconomic resources, environmental justice, or cultural resources are anticipated from the proposed action at the proposed site under the Preferred Alternative.

During project construction, short-term impacts to soils, surface water, 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 effects are anticipated from the proposed project. Therefore, FEMA 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.

FEMA requires that the Sub-Recipient take the following measures to the extent practicable and applicable to avoid or further minimize impacts to the quality of the human environment. The general mitigation measures outlined in this section may be superseded by higher or more stringent standards required by the particular federal, or territory, Tribe, or local government agency issuing a permit, license, or approval for the project.

- Follow applicable state, territory, tribal, and local permitting requirements for construction;
- Fugitive dust from earth moving activities, storage piles, disturbed surface areas, unpaved areas and other construction related activities will be controlled using one or more of the following measures: watering, coverings, wind fencing, covering of haul beds, wheel washers, vegetation, restricted site access, and/or street sweeping;
- Enclose or water down exposed dirt storage piles;
- Minimize the disturbed area and preserve vegetation to the maximum extent possible;
- Maintain topsoil whenever possible;
- Phase construction activities to the extent possible;
- The contractor shall prepare and maintain a Storm Water Pollution Prevention Plan (SWPPP), which describes in specific details the Contractor's program to prevent contamination of the storm water collection system for this project. The Sub-Recipient's Stormwater Pollution Prevention Plan and its related conditions is located in Appendix C of the FEMA JIRR dated 16 June 2016. All project will have a SWPPP that is consistent with the Municipal Separate Storm Sewer System (MS4) Permit for the Orleans Parish area and contractors will be required to take every reasonable precaution to prevent fuels, oils, asphalts, concrete, chemical, and other harmful materials from entering the drainage system and/or ground water table in accordance with the Section C204 of the DPW General Specifications. Storm Water Control Measures (SCMs) may include storm drain system protection, spill prevention and clean-up, employee training, project site housekeeping, and temporary erosion controls. Residue from dust collectors, concrete mixers, vehicles wash racks, an entrance/exits debris will be disposed of in an approved disposal facility;
- Establish stabilized construction entrances/exits (e.g. large crushed rocks, stone pads, steel wash racks, hose-down systems, and pads);
- Work will primarily be performed between 7:00am and 5:00pm, Monday through Friday. Sub-Recipient should limit construction activities, including operation of heavy machinery, to normal business hours (M-F 7am-5pm). Contractors will be required to conform to noise level restrictions as established in Section 66-202 of the City of New Orleans Municipal Code (50-75 dBA,

depending on the zoning of the area). All construction machinery and vehicles shall be equipped with practical sound muffling devices and operated in a manner to cause the least noise, consistent with efficient performance of work. Activities near noise and vibration sensitive areas such as churches, hospitals, and schools will be minimized as much as practically possible.

- Ensure adequate maintenance of equipment, including proper engine maintenance, adequate tire inflation, and proper maintenance of pollution control devices;
- Existing trees and other vegetation within the construction area that may be impacted within the public right-of-way will be protected on a location-by-location basis. In general, the Recovery Roads Program will attempt to maintain the existing healthy canopy in place. Protective measures may include fencing and signage. Any trimming, root pruning, or removal of any tree or stump within the public right-of-way due to construction will be minimized as much as possible and be conducted under the supervision of a licensed arborist. Any trees removed from the construction site within the public right-of-way will be relocated if possible to an area in close proximity to the project site. Trenching within the critical root zone of a tree will not be permitted on tree roots or within the canopy limits unless approved by Parks and Parkways. Existing vegetation or cover disturbed by construction activities will be seeded and fertilized;
- At least 48 hours notice will be given in advance of any street closures and anticipated areas of low water pressure to residents and emergency response agencies;
- The Sub-Recipient is responsible for acquiring any Section 401/404 Clean Water Act (CWA) permits and/or Section 10 permits under the Rivers and Harbors Act. When these permits are required, Sub-Recipient must maintain documentation of compliance with applicable Nationwide Permit (NWP), exemption from requirements, or obtain individual permits from U.S. Army Corps of Engineers prior to construction, unless exempt by the NWP from pre-construction notification. The Sub-Recipient shall comply with all conditions of the required permit. All coordination pertaining to these activities should be documented and copies forwarded to the state and FEMA as part of the permanent project files;
- Care should be taken to ensure that any potentially hazardous or toxic materials used for, generated, or encountered during pressure washing, cleaning, or any other construction activities, do not impact groundwater, waterways, wetlands, or nearby stormwater conveyance systems. Potentially hazardous and toxic wastes generated or encountered during these processes should be isolated, contained, and disposed of in an approved manner. This condition includes petroleum products and by-products use in machinery and equipment. The Sub-Recipient shall be responsible for complying with all relative rules of the Clean Water Act (CWA). No activity performed should have any impact on waters of the state;
- Appropriate measures for the proper assessment, remediation, management, and disposal of any contamination discovered in the course of construction activities must be initiated in accordance with applicable federal, state, and local regulations. The contractor is required to take appropriate actions to prevent, minimize, and control the spill of hazardous materials at the proposed site;
- Contractor and/or sub-contractors must properly handle, package, transport and dispose of hazardous materials and/or waste in accordance with all local, state, and federal regulations, laws, and ordinances, including all Occupational Safety and Health Administration worker exposure regulations covered within 29 CFR Parts 1910 and 1926;

- All work affecting the Agriculture Street Landfill Superfund Site must be undertaken in accordance with the Consent Decree between the City and USEPA including the *Technical Abstract for Utility Operations within the Agriculture Street Landfill Superfund Site*;
- A spill prevention and emergency response plan (SPERP) will be required for all construction contractor groups. The SPERP will need to identify at a minimum: emergency contact numbers for local, state and federal environmental and public health agencies, material safety data sheets (MSDS) for all hazardous substances, hazardous material inventory, spill prevention plan, spill response plan/emergency response plan, spill response equipment (e.g. absorbent pads, disposal containers) and reporting requirements;
- If any asbestos containing materials (ACM) and/or other hazardous materials are found during remediation or repair/replacement activities, the Sub-Recipient shall comply with all federal, state, and local abatement and disposal requirements under the National Emissions Standards for Hazardous Air Pollutants (NESHAP) and Louisiana Administrative Code 33:III 5151. Demolition activities related to possible asbestos-containing materials (PACM) must be inspected for ACM/PACM where it is safe to do so. Should ACM be present, the Sub-Recipient is responsible for ensuring proper disposal in accordance with the previously referenced administrative orders. Regardless of the asbestos content, the Sub-Recipient is responsible for ensuring that all renovation or demolition activities are coordinated with the LDEQ to the extent required prior to initiating work. All documentation pertaining to these activities and Sub-Recipient compliance with any conditions should be forwarded to the state and FEMA for inclusion in the permanent project files;
- Unusable equipment, debris, and material shall be disposed of in an approved manner and location. The Sub-Recipient must handle, manage, and dispose of petroleum products, hazardous materials, and/or toxic waste in accordance with all local, state, and federal agency requirements. All coordination pertaining to these activities should be documented and copies forwarded to the state and FEMA as part of the permanent project files;
- Contractors will be responsible for maintaining, securing, and protecting any staging area, containers, or bins set up for construction purposes. The storage of any equipment or materials will not be permitted immediately adjacent to canals or other water bodies, trees, transportation or utility servitudes, or private property without prior approval from the respective owner or regulatory agency. The contractors will be responsible to ensure all equipment arriving at or departing from the construction limits remains clean and to take any necessary measures to ensure foreign materials or debris is not tracked or deposited on opened streets or outside the construction site limits. The contractor will also be required to store and handle any fuels or other hazardous material in accordance with OSHA requirements, and ensure any such materials required at a construction site be adequately secured and protected at all times;
- In order to minimize indirect impacts (erosion, sedimentation, dust, and other construction-related disturbances) to nearby waters of the U.S. and surrounding drainage areas, the contractor must ensure compliance with all local, state, and federal requirements related to sediment control, disposal of solid waste, control and containment of spills, and discharge of surface runoff and stormwater from the site. All documentation pertaining to these activities and Sub-Recipient compliance with any conditions should be forwarded to LA GOHSEP and FEMA for inclusion in the permanent project files;
- The Sub-Recipient shall ensure that best management practices are implemented to prevent erosion and sedimentation to surrounding, nearby or adjacent wetlands. This includes equipment storage

and staging of construction to prevent erosion and sedimentation to ensure that wetlands are not adversely impacted per the clean water act and executive order 11990;

- The Louisiana Department of Natural Resources (LDNR) requires that a complete Coastal Use Permit (CUP) Application package (Joint Application Form, location maps, project illustration plats with plan and cross section views, etc.) along with the appropriate application fee, be submitted to their office prior to construction. The Sub-Recipient is responsible for coordinating with and obtaining any required CUPs or other authorizations from the LDNR OCM's Permits and Mitigation Division prior to initiating work. The Sub-Recipient must comply with all conditions of the required permits. All documentation pertaining to these activities and Sub-Recipient compliance with any conditions should be forwarded to the state and FEMA for inclusion in the permanent project files;
- Coordination with the appropriate local levee district(s) and USACE would be required for work within 1,500 feet of Mississippi River levees and/or within 300 feet of hurricane protection levees. CNO and SWBNO are responsible for obtaining any required permits from these districts and following any conditions imposed;
- Avoid engaging in construction activities within 660 feet of a bald or golden eagle nest during nesting and fledging where there is no visual buffer or 330 feet where there is a visual buffer, as nesting eagles are quite sensitive to human activities during these times;
- No project may be built to a floodplain management standard that is less protective than what the community has adopted in local ordinances through their participation in the NFIP. FEMA PA-funded projects carried out in the floodplain must be coordinated with the local floodplain administrator for a floodplain development permit prior to the undertaking, and the action must be carried out in compliance with relevant, applicable, and required local codes and standards and thereby, will reduce the risk of future flood loss, minimize the impacts of floods on safety, health, and welfare, and preserve and possibly restore beneficial floodplain values as required by EO 11988. Coordination pertaining to these activities and Sub-Recipient compliance with any conditions should be documented and copies forwarded to the Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) and FEMA for inclusion in the permanent project files;
- Adverse effects must be minimized in accordance with FEMA's minimization standards in 44 CFR § 9.11. Treatment measures would be required to reduce adverse impacts below the level of significance;
- Louisiana law (Part VII of Chapter 8 of Title 40, and the sections as Revised Statutes (R.S.) 40:1749.11 to 40:1749.26) requires excavators and demolishers to call a regional notification center prior to beginning work. Prior to any excavation or demolition, each excavator or demolisher, including cable television owners or operators, shall serve telephonic notice of the intent to excavate or demolish to the regional notification center serving the area in which the proposed excavation or demolition is to take place. Such notice shall be given to the notification center at least 96 hours, but not more than 120 hours (excluding weekends and holidays) prior to the commencement of any excavation or demolition activity. See entire laws at [www.laonecall.com](http://www.laonecall.com) or call 1-800-272-3020 for more information;
- This project involves the modification of a public structure that may contain surfaces coated with lead-based paint. The Sub-Recipient is responsible complying with all local, state, and federal laws and ensuring that project activities are coordinated with the Louisiana Department of Environmental Quality for abatement activities;

- The Sub-Recipient is responsible for obtaining and/or complying with all federal, state and local permits, ordinances and/or requirements for the collection, handling, storage, transportation and disposal of any medical, hazardous, biological, radiological, pharmaceutical or toxic related waste or debris. Equipment such as ice machines, refrigerators, generators, air conditioning units, computers, and televisions may contain chlorofluorocarbons (CFCs), used oil, diesel and other petroleum products, mercury switches, used oil filters, fuel filters, and batteries. The Sub-Recipient shall handle, manage, and dispose of damaged materials and equipment that may be hazardous waste, universal waste, and hazardous materials in accordance with the requirements of local, state, and federal regulations;
- If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary;
- All waste is to be transported by an entity maintaining a current "waste hauler permit" specifically for the waste being transported, as required by Louisiana Department of Transportation and Development (DOTD), LDEQ, and other regulations;
- Disposal of demolition debris must be in accordance with all federal, state, and local laws, regulations, and rules. Prior to disposal, the Sub-Recipient must identify and provide to FEMA and GOHSEP the waste disposal site, including the complete name, location, telephone number, and contact person of the facility. Due to the presence of the Agriculture Street Landfill Superfund site and the potentially hazardous nature of material to be removed from the site, all construction and demolition debris must be disposed in a Type I Industrial Landfill. The disposal facility must be permitted by the State of Louisiana Department of Environmental Quality Permit Support Division to receive Regulated Asbestos Containing Material. Waste must be packaged, labeled, manifested, and transported in accordance with LDEQ regulations and requirements. Further, the Sub-Recipient must comply with Best Management Practices for Demolition, Construction, and Renovation Sites Under Five Acres (See Appendix C of the FEMA JIRR dated 16 June 2016);
- To minimize worker and public health and safety risks from project construction and closure, all construction and closure work must be done using qualified personnel trained in the proper use of construction equipment, including all appropriate safety precautions. Additionally, all activities must be conducted in a safe manner in accordance with the standards specified in OSHA regulations;
- Appropriate signage and barriers shall be in place prior to construction activities in order to alert pedestrians and motorists of project activities and traffic pattern changes. The contractor will implement traffic control measures, as necessary. This shall include Sub-Recipient 24-hour emergency contact information;
- Sub-Recipient is responsible for maintaining construction site perimeter fencing where possible;
- The Sub-Recipient and its contractor(s) must take all reasonable precautions to control construction site access during project implementation, including posting appropriate signage and fencing, where possible, to minimize foreseeable potential public safety concerns. All activities shall be conducted in a safe manner in accordance with OSHA work zone traffic safety requirements. Truck and equipment routes must be kept free of construction debris;
- The Sub-Recipient and its contractor(s) are responsible for implementing all traffic control and warning in accordance with the Manual of Uniform Traffic Control Devices, including placing signs and signals in advance of construction activities in order to alert pedestrians and motorists of the upcoming work and traffic pattern changes. Sub-Recipient is responsible for compliance with

Section C129, Temporary Signs, Barricades Pavement Markings, Construction Signing, Traffic Maintenance and Public Safety (See Appendix C of the FEMA JIRR dated 16 June 2016);

- Sub-Recipient will perform all Treatment Measures identified by FEMA in consultation with SHPO and other consulting parties through the Section 106 review to offset any adverse effects;
- Sub-Recipient will implement an **Inadvertent Discovery Clause** to account for unanticipated discoveries. It shall read: If during the course of work, archaeological artifacts (prehistoric or historic) are discovered, the Sub-Recipient shall stop work in the vicinity of the discovery and take all reasonable measures to avoid or minimize harm to the finds. The Sub-Recipient shall inform their Public Assistance (PA) contacts at FEMA, who will in turn contact FEMA Historic Preservation (HP) staff. The Sub-Recipient will not proceed with work until FEMA HP completes consultation with the SHPO, and others as appropriate;
- Sub-Recipient will implement a **Louisiana Unmarked Human Burial Sites Preservation Act** discovery provision, as well. It shall read: If human bone or unmarked grave(s) are present within the project area, compliance with the Louisiana Unmarked Human Burial Sites Preservation Act (R.S. 8:671 et seq.) is required. The Sub-Recipient shall notify the law enforcement agency of the jurisdiction where the remains are located within twenty-four (24) hours of the discovery. The Sub-Recipient shall also notify FEMA and the Louisiana Division of Archaeology at 225-342-8170 within seventy-two (72) hours of the discovery;
- If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify its LPDES permit before accepting the additional wastewater;
- All precautions should be observed to control nonpoint source pollution from construction activities. LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact the LDEQ Water Permits Division at (225) 219-9371 to determine if your proposed project requires a permit.

***General comments/conditions provided by LDEQ:***

- If your project will include a sanitary wastewater treatment facility, a Sewage Sludge and Biosolids Use or Disposal Permit is required. An application or Notice of Intent will be required if the sludge management practice includes preparing biosolids for land application or preparing sewage sludge to be hauled to a landfill. Additional information may be obtained on the LDEQ website at <http://www.deq.louisiana.gov/portal/tabid/2296/Default.aspx> or by contacting the LDEQ Water Permits Division at (225) 219- 9371;
- All precautions should be observed to protect the groundwater of the region;
- Please be advised that water softeners generate wastewaters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact the LDEQ Water Permits to determine if special water quality-based limitations will be necessary;
- 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;

- Any renovation or remodeling must comply with Louisiana Administrative Code (LAC) 33:III.Chapter 28, Lead-Based Paint Activities; LAC 33:III.Chapter 27, Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation); and LAC 33:III.5151, Emission Standard for Asbestos for any renovations or demolitions.
- In a letter from the LDEQ dated 7/5/2017, LDEQ granted the CNO a LPDES Construction General Permit. The project authorization number is LAR10M215. This construction project, if qualified under the conditions of the permit and unless notified otherwise by this office, is authorized to discharge storm water associated with construction activity to Lake Pontchartrain, Bayou Bienvenue, Algiers Canal and Gulf Intracoastal Waterway under the terms and conditions established under Louisiana's LPDES Construction General Permit. This number and the Agency Interest Number (206772) listed above should be referenced in all future correspondence with this office. Coverage under this general permit will be terminated on September 30, 2019, as indicated by the year(s) selected. Please note extensions of coverage beyond September 30, 2019, (the expiration date of the LPDES Large Construction General Permit) may not be granted. Permittees with coverage upon the expiration date of the general permit will be provided with instructions for permit renewal when the general permit is reissued. Permit LAR10M215 requires certain storm water pollution prevention and control measures, possible monitoring and reporting, and regular inspections. You must prepare and implement a storm water pollution prevention plan (SWPPP) that is tailored to your site. As a construction project authorized to discharge under this general permit, all terms and conditions of the permit must be complied with in order to maintain coverage and to avoid possible penalties. Coverage under this permit does not relieve the permittee from any regulatory responsibility to apply for and receive other permits or authorizations that may be required as a result of activities ongoing or planned at this site. Any activity resulting in a discharge to waters of the state, such as that from a sanitary sewage treatment plant, must have all necessary permits prior to commencement of the planned discharge.

## **8.0 LIST OF PREPARERS**

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