**RESILIENT COMMUNITIES INFRASTRUCTURE PROGRAM PRIORITY PROJECT**

1. **Project Name and Address:**

Sewerage Lift Station L-14-6 Upgrade at Normandy and Alsace

Located at Normandy Ct. and Alsace Ct. in Marrero, Jefferson Parish, Louisiana

1. **Description of the Proposed Project:**

(Provide a brief description of the specific project activities and construction to be undertaken.)

At thelift station L-14-6, at the intersection of Normandy Ct. and Alsace Ct., raw sewage from area residences and businesses flows into the station’s wet well and is eventually pumped to the Marrero Waste Water Treatment Plant. The existing lift station is owned and operated by Jefferson Parish.

The Parish proposes to replace the existing sewerage lift station with a new lift station. Construction will include demolition of the existing lift station and construction of a new lift station. The construction will include but not be limited to excavation, installation of a concrete foundation, a new wet well, valve pit, pumps, valves, piping, controls, and other new equipment and related appurtenances, as well as paving work that may be necessary. The existing station will be decommissioned and removed. The new self-cleaning decrease clog risk pumps and controls are more technically advanced and will have the ability to reverse pump rotation and free clogged debris on its own. The all-new design will include wet wells with sloped wet well bottoms and inlets which are successful in helping prevent clogged suction lines and pumps. A Supervisory Control and Data Acquisition (SCADA) system will also be installed. A new quick connect isolation junction box will be installed on the new control panel to allow a portable generator to be quickly and efficiently connected to the lift station to provide emergency power during power outages. The existing emergency pump out (EPO) at the site may be reused if feasible, or a new EPO will be installed at the new lift station.

The proposed project is a Resilient Communities Infrastructure Program (RCIP) eligible activity under HCDA Section 105(a)(2), which includes the acquisition, construction, reconstruction, or installation (including design features and improvements with respect to such construction, reconstruction, or installation that promote energy efficiency) of public works, facilities (except for buildings for the general conduct of government), and site or other improvements.

1. **Estimated Total Project Cost, Source, Status, and Use of Funds:**

|  |  |  |  |
| --- | --- | --- | --- |
| PROJ ECT FUN DS | AMOUNT | SOURCE AN D STATUS | USE |
| CDBG | $1,000,000 |  | Construction |
| Local Funds | $270,000 | Jefferson Parish Sewer Funds | Program management, engineering, grant management, inspection, surveying, geotechnical, testing lab, bidding |
| Private Funds |  |  |  |
| Other State Funds |  |  |  |
| Federal Funds |  |  |  |
| Other Funds |  |  |  |
| **TOTAL** | $1,270,000 |  |  |

1. **Project Context:**

(Is this part of a larger plan/project? Is it separate in that it does not rely on other projects?)

This project is a separate project that is not dependent upon other projects. No other existing infrastructure will be impacted by the project.

1. **Beneficiaries/Public Benefit/Target Area and Boundaries:**

(Who are the beneficiaries, what are the benefits to these beneficiaries, and where do they live? Please also identify the specific project boundaries, including latitude and longitude, if applicable)

The project service area is primarily residential, in Marrero.

This project will serve a disadvantaged community that was economically distressed prior to the storm events as this area is a USDOT designated “Disadvantaged Community”.

The sewer lift station service area includes low- to moderate-income and other individuals that are vulnerable to station outages. The area also has a high minority concentration according to HUD’s Rental Assistance Demonstration (RAD) tool. The project will benefit the residents in the service area. The project will meet the national objective of AREA BENEFIT TO LOW/MODERATE INCOME residents. The beneficiary area is in Block Groups 1 in Census Tract 027703, Jefferson Parish, Louisiana. According to HUD’s American Community Survey based on the 2011-2015 ACS Low-and Moderate-Income Survey Data (LMISD), the LMI percentage of the Block Group is 52.40%. The LMI percentage is calculated by dividing the sum of the low-mod persons by the sum of the lowmoduniv persons for the block group.

Marrero is located on the West Bank of Jefferson Parish, south of the Mississippi River, between Westwego and Harvey. The beneficiary area is bound by the area south of Bretagne Ct., east of Lorraine Ct., west of Normandy Ct., and south of Alsace Ct. The project work will take place at latitude 29.855476 and longitude -90.115543.

This project will benefit the area by helping to address impacts from Hurricane Ida and reduce the risks of raw sewage overflows and backups during future storm events. There are numerous consequences associated with raw sewage overflows and backups. Raw sewage overflows and backups create a serious hazard to public health, safety, and the environment. Residents that are unable to evacuate during a storm event suffer unhealthy and unsanitary conditions. Without a functioning sewer system, evacuees are prevented from returning home, which often results in loss of personal income and added displacement costs for many residents. Residents that are forced to evacuate incur excessive storm related costs. There are also costs due to physical damages from raw sewage backups into homes and businesses. The impacts from inoperable lift stations due to clogging or the loss of power results in costs incurred by businesses from lost revenue due to closure and loss of client base. Businesses that are unable to re-open cannot generate revenue or pay employees.

1. **Recovery Rationale:**

(How does the project address the effects of the covered disasters? How does the project foster recovery?)

The primary source of power for sewerage lift station pumps is supplied by Entergy under normal conditions. During Hurricane Ida, Jefferson Parish was without Entergy power for a prolonged period that left this lift station inoperable. Storm debris, wastewater solids, sand, and silt, settled in the wet well and the pump’s volute, causing clogging of the pumps.

When power was restored at the station and the permanent pumps were re-started, the accumulated storm and wastewater debris were drawn into the pump impeller, resulting in impeller clogging that caused impeller damage, motor, and pump damages, or resulted in the station having reduced capacity. This led to service call outs and a strain on Parish resources and resulted in raw sewage overflows which impacted public health and welfare, safety, and the environment. Residents that did not evacuate suffered unhealthy and unsanitary conditions. Any businesses in the area were not able to operate normally.

To address the failure to function during Hurricane Ida and to mitigate risks from future storms, the Parish is proposing to replace the existing sewerage lift station at L-14-6 Normandy and Alsace with a new station with self-cleaning decrease clog risk pumps and controls that have the option to be run in reverse and free clogged debris in the pump’s volute. The new lift station will have more reliable robust controls that are more technically advanced. The new advanced design also includes a wet well with a sloped bottom and inlets that will also help prevent the clogging of pump suction lines and prolonged downtime of the station. A new, larger wet well is needed to accommodate the new submersible pumps. The successful restart of pumps when power is restored is an integral part of recovering from a storm event.

Also, the installation of a SCADA system will enable supervisors and/or operators to efficiently monitor, manage, and control electrical and mechanical equipment remotely. The SCADA system will allow an operator to interface with the station controls from an offsite location, which enables them to dispatch repair/cleaning crews when required, issue changes in PLC process control commands like “pump on”, “pump off”, etc. and receive predefined alarm notices.

The new controls will include a new emergency generator quick connect isolation junction box that will enable the Sewerage Department personnel and their emergency contractors to setup and install portable generators faster and more efficiently than they did in the aftermath of Hurricane Ida.

Having this new lift station will free up personnel for other tasks and will allow the pumping station to be back online quicker than it was after Hurricane Ida. Having a new, submersible pump lift station will improve safety for field personnel, reducing the risk of falls, especially during a hurricane or storm event when weather conditions are poor.

Overall, the new station will help to better address impacts that were encountered from Hurricane Ida and will reduce risks of negative impacts from future events.

1. **Description of Acquisition(s) Involved (if any):**

All property is owned by Parish, no land acquisition is necessary.

1. **Mitigation Plan:**

(All projects must include a mitigation plan to minimize damage in future storm events. Describe how the design of this project will include sustainable practices and mitigation components to advance long- term resilience.)

This new lift station will significantly reduce the risks from power outages and clogging more than the current lift station. This station will be able to be put back online faster and more efficiently than the existing lift station, in future storm events. This will help address impacts that occurred during Hurricane Ida and any similar impacts in future events.

The project will minimize lift station disruptions in operations. It will promote long term resiliency which will allow the Parish sewer system to better withstand, respond, and recover more rapidly from hurricane events. It will help mitigate the overall risk to the population and structures from flooding and future hazardous events while also reducing reliance on Federal funding in future disasters.

This project will result in a new lift station that will promote resiliency for years to come. It will promote the ability to minimize damage and recover quickly from extreme events and changing climate conditions, including natural hazard risks for the long term. The new station will include green technology, such as NEMA premium efficient motors to reduce energy consumption. Reliable, new, modern equipment that meets all code requirements will be employed for the project. When the new lift station is constructed, components will be elevated as applicable to mitigate flooding and future flood risk, in accordance with the Elevation Standards in the RCIP Policies and Procedures Manual.

This project will mitigate overall health risk to the population and the environment from uncontained raw sewage overflows. It will help mitigate the risks to water quality.

The project will allow any businesses in the area to re-open more quickly and help expedite the recovery of the economy after a disaster.

Sewer lift stations are lifelines that are the most fundamental services in the community that, when stabilized, enable all other aspects of society to function. They enable the continuous operation of critical government and business functions and are essential to human health, safety, the environment, and the economy. The stabilization of sewer lift stations is a priority after a disaster. Sewer lift stations provide lifeline services that are used day-to-day to support the recurring needs of the community and enable all other aspects of society to function. When sewer lift station operations are disrupted from clogging, decisive intervention (e.g., rapid re-establishment or employment of contingency response solutions) is required to stabilize the incident. This project would mitigate the stabilization of the sewer lift station.

During storm events, high flows from infiltration and inflow (I&I) carry sewer collection system debris that has built-up over time and storm-related debris to lift stations. This debris can overwhelm pumps and cause clogging, which puts additional stress and strain on pumping components. The accumulation of the storm debris, wastewater solids, sand, and silt that settles in the wet wells, combined with the possibility of the inability to pump during power outage, adds to the potential of pumps clogging.

The new wet well design includes a sloped concrete base directing debris towards pump inlets, which is proven to be successful in helping prevent clogging of pumps. A new, larger diameter wet well is required to accommodate the additional space needed for installation of submersible pumps. The new lift station’s components will have more reliable, robust controls that are more technically advanced components and will promote long term resilience. For future events, new controls will include a new emergency generator quick connect isolation junction box that will enable the Sewerage Department personnel and their emergency contractors to setup and install portable generators faster and more efficiently than they did in the aftermath of Hurricane Ida. The installation of a new SCADA system will enable supervisors and/or operators to efficiently monitor, manage, and control electrical and mechanical equipment remotely. The SCADA system will allow an operator to interface with the station controls from an offsite location, which enables them to dispatch repair/cleaning crews when required, issue changes in PLC process control commands like “pump on”, “pump off”, etc. and receive predefined alarm notices. New self-cleaning decrease clog risk pumps and controls will be installed that have the option to be run in reverse and free clogged debris in the pump’s volute. Submersible pumps are, by design, protected against any flooding that may occur during a storm event. The new lift station will also have the EPO capability, which allows a portable pump to be quickly connected to the lift station’s discharge piping to temporarily operate the station.

The safety for field personnel is greatly improved with the replacement of this dry pit lift station with a new submersible pump lift station. For a mechanic or other personnel to access pumps of a dry pit station, personnel are required to open an access hatch and climb down a ladder, which is at times greater than 20 feet deep. With a submersible pump lift station, for a mechanic to access the pump, a hatch is opened, and the pump is pulled to the surface to be examined at ground level. Safety grating is normally installed and the risk of falls causing injury or death is greatly reduced, especially during a hurricane or storm event when weather conditions are poor.

The project activity aligns with locally established plans and policies that are designed to reduce future risk to the jurisdiction of Jefferson Parish. The project complies with the following Jefferson Parish Hazard Mitigation Plan objectives and strategies:

* Identify and pursue preventive measures that will reduce future damages from hazards.
* Ensure that Parish critical facilities remain functional during natural hazards.
* Find and develop opportunities to work with other agencies to leverage mitigation funds, and to share information about the risks of natural hazards.
* Ensure that the Parish maximizes its opportunities for access to Federal and State grants and other kinds of assistance.
* Implement cost-effective projects and actions to reduce risk from natural hazards, both for Parish assets and operations, as well as for residents and businesses in the planning area.
* Protect waterways from pollutants or erosion caused by stormwater runoff or waste water.

The project will also help to reduce the discharge of raw sewage into waterways, which can have regional environmental impacts.

The project meets the Department of Sewerage's mission and goal to serve all the citizens of Jefferson Parish, including vulnerable, low- to moderate-income individuals in disadvantaged communities, by providing effective conveyance, treatment, and disposal while protecting public health and the environment. This project, proposed as a community development activity, involves sewer lift station improvements, which is consistent with the type of projects in the Parish’s capital improvement plan.

The historical pattern of extreme weather is expected to continue and become more severe due to climate change. Based on this, mitigation measures to reduce impacts caused by these types of hazards make this project more critical now than ever. The project will promote resiliency, which is defined as a community’s ability to minimize damage and recover quickly from extreme events and changing conditions, including natural hazard risks. The Jefferson Parish Department of Sewerage has the capacity and capability to implement the project in a timely and compliant manner. The Department has a qualified consulting team in place to that can assist with managing the program, providing grant administration, environmental reviews, Davis Bacon and Section 3 compliance, and other related compliance services for the project. Engineering, design, and other professional services will be performed for this project by qualified consultants and the project will be constructed by a licensed contractor. The new lift station will be owned and operated by Jefferson Parish; no land acquisition is required. The Department will commit local, sustainable funding to contribute towards the project, as well as to operate and maintain the new lift station for the long term.

1. **FEMA Public Assistance Eligibility:**

(Is the proposed project eligible for FEMA Public Assistance? Has an application been submitted to FEMA for the project? Please provide FEMA PW, if applicable.)

No