

# Grantee: Houston, TX

## Grant: B-18-MP-48-0001

### October 1, 2021 thru December 31, 2021

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<b>Grant Number:</b> B-18-MP-48-0001	<b>Obligation Date:</b>	<b>Award Date:</b>
<b>Grantee Name:</b> Houston, TX	<b>Contract End Date:</b> 05/05/2033	<b>Review by HUD:</b> Submitted - Await for Review
<b>Grant Award Amount:</b> \$61,884,000.00	<b>Grant Status:</b> Active	<b>QPR Contact:</b> No QPR Contact Found
<b>LOCCS Authorized Amount:</b> \$61,884,000.00	<b>Estimated PI/RL Funds:</b>	
<b>Total Budget:</b> \$61,884,000.00		

### Disasters:

#### Declaration Number

FEMA-4223-TX  
FEMA-4245-TX

### Narratives

#### Mitigation Needs Assessment:

##### MITIGATION NEEDS ASSESSMENT

As required by HUD, the City of Houston developed a mitigation needs assessment based in part on the City of Houston's Hazard Mitigation Plan. To develop the mitigation needs assessment, the City reviewed: the FEMA Local Mitigation Plan Handbook, Department of Homeland Security (DHS) Office of Infrastructure Protection, National Association of Counties Improving Lifelines (2014), resources about wildfires from the U.S. Forest Service, and the National Interagency Coordination Center (NICC), and HUD's CPD mapping tool. This assessment addresses current and future risks, including hazards, vulnerability, and impacts of disasters, and identifies appropriate mitigation actions to reduce the highest risks that Houston faces.

The CDBG-Mitigation needs assessment considers the City of Houston's risk landscape: a complex water system and growing population. Most of Houston is located on the gulf coastal plain and is categorized as flat terrain: Downtown stands only 50 feet above sea level and the highest point is approximately 125 feet above sea level. Houston has four major bayous each playing a critical role in the local drainage infrastructure: conveying water from neighborhoods to Galveston Bay. These include: 1) Buffalo Bayou, which runs west to east, through downtown, and empties into the Houston Ship Channel; 2) White Oak Bayou, located on the northwest side of the City; 3) Brays Bayou, located west-southwest of downtown; and 4) Sims Bayou, located southwest of downtown. White Oak, Brays, and Sims Bayous flow into Buffalo Bayou. Other major waterways include the San Jacinto River, which flows through the far northeastern portion of the City and into Lake Houston. Contributing to growing risks, the Houston area growth rate is among the highest in the nation, and the overall population of the Houston-Galveston region is projected to increase from 5.8 million (2010 census figure) to 9.6 million by 2040.

#### Hazard Analysis, Lifeline, and Vulnerability Assessment

Upon a review of the full range of natural hazards suggested under the FEMA planning guidance, the City of Houston identified 12 hazard types, 11 natural hazards and 1 quasi-technological hazard (dam failure), as significant enough to include in the City of Houston's Hazard Mitigation Plan, and the twelve hazard types are noted in the CDBG-Mitigation risk assessment.

Hazards Houston may encounter include: Flood, Hurricane, Extreme Heat, Thunderstorm Wind, Lightning, Tornado, Expansive Soils, Hail, Wildfire, Drought, Dam Failure, and Winter Storm. The CDBG-Mitigation risk assessment addresses all hazards identified in the City of Houston's Hazard Mitigation Plan. Detailed analyses are provided on hazards which have significantly impacted Houston in recent years, as well as sea level rise.

The City created four categories of disaster severity to assist in identifying disaster risk, and the four categories of severity are: Substantial, Major, Minor and Limited. Disaster events and hazards with Substantial Severity can result in: multiple deaths, complete shutdown of facilities for 30 days or more, and/or more than 50 percent of property destroyed or with major damage. A disaster event with Major Severity can result in: injuries and illnesses resulting in permanent disability, complete shutdown of critical facilities for at least 2 weeks, and/or more than 25 percent of p

#### Mitigation Needs Assessment:

roperty destroyed or with major damage. The City determined in its Hazard Mitigation Plan that Flood, Hurricane, Extreme Heat, Thunderstorm Wind, Lightning, and Tornado events have the chance for substantial or major severity. FEMA defined Community Lifelines for incident response allows the federal government to better understand the impacts of hazards and disasters in state and local jurisdictions. Ensuring the resilience of Community Lifelines is an important concept in all phases of emergency management, response, and recovery. Many of the noted hazards present significant impact to the identified lifelines of: Safety and Security; Food, Water, Sheltering; Communications; Transportation; Health and Medical;



Hazardous Material (Management); and Energy (Power and Fuel). Identification and assessment of each lifeline by hazard using vulnerability and consequence/impact assessments helped inform the determination of the City's use of funds for the CDBG-Mitigation program.

There are areas within Houston in which disparities exist in relation to housing, open space, amenities, sustainable land use patterns, cultural preservation, and access to social programs and resources. Through the identification and mapping of the areas with highest vulnerabilities, the City can work with various communities to strategically mitigate the highest risks and target additional benefits. Social vulnerability is included as part of the mitigation needs assessment to develop mitigation strategies that will provide the maximum benefit to the most vulnerable areas and address the highest ranked risks and hazards. According to the Centers for Disease Control and Prevention (CDC), "social vulnerability refers to the resilience of communities when confronted by external stresses on human health, stresses such as natural or human-caused disasters, or disease outbreaks. Reducing social vulnerability can decrease both human suffering and economic loss." How the proposed mitigation actions help address areas with the highest social vulnerability across different themes will be considered in project prioritization and program formulation.

## **Proposed Use of Funds:**

### **USE OF FUNDS**

#### **Connection to Identified Risk**

The City considered the mitigation needs assessment, threats to Community Lifelines, and public feedback and allocated funding for infrastructure programs to lessen the risk of flooding in buildings with the goal of removing people and property from harm's way. In addition, decreasing flooding will also improve mobility so services that enable the continuous operation of critical business and government functions and are critical to the protection of human health and safety would remain available and accessible. There is a need to improve the City's infrastructure, particularly its drainage systems, to reduce flooding.

#### **Allocations and Low- and Moderate-Income Priority**

The City of Houston allocates CDBG-MIT resources to fund a Local Flood Mitigation Program and Administrative activities. Per requirements, at least 50 percent of CDBG-MIT funds will be spent to benefit low- and moderate- income (LMI) communities. The entire CDBG-MIT allocation will be used in HUD-identified most impacted and distressed (MID) area, as the City of Houston is entirely within a HUD-identified MID area.

Although impacts from flooding and extreme weather vary from one neighborhood to the next, the relative disaster- related losses experienced in LMI communities and communities of color is disproportionately high. The City of Houston is committed to driving an equitable recovery and serving all residents, particularly the most vulnerable in LMI areas which will be prioritized for CDBG-MIT activities. And as a significant majority of Houston residents are from diverse backgrounds, the City will seek to serve as many members of protected classes as possible by serving LMI areas. The requirement for CDBG-MIT funds is to expend at least 50 percent of CDBG-MIT on activities benefiting LMI persons and the City expects to exceed this requirement.

The City of Houston will prioritize infrastructure projects funded with CDBG-MIT that address flooding in LMI neighborhoods. Decreasing flood risks in neighborhoods, especially LMI neighborhoods, will increase the ability of individuals and households to more quickly recover from future flood events, including residents from a variety of protected classes. Decreasing flood risk will also reduce disruptions at a larger-scale while reducing the negative social and economic consequences of flooding, allowing Houstonians to return to normalcy more quickly. Minimizing flooding in neighborhoods through flood mitigation projects will protect housing and make neighborhoods safer and more desirable places to live.

#### **CDBG-MIT Activities**

The following activities were developed to meet the requirements of the CDBG-MIT program, as well as other federal, state, and local requirements and regulations, and to fund mitigation activities that protect against loss of life and property as efficiently and expeditiously as possible. The following activities address flooding through infrastructure improvements but do not include direct assistance to household beneficiaries.

#### **Local Flood Mitigation Program**

The Local Flood Mitigation Program is a crucial component of a comprehensive, long-term recovery strategy to improve the City's drainage systems and reduce the risk of potential flooding in neighborhoods and homes.

## **Proposed Use of Funds:**

The purpose of this program is to reduce the number of homes damaged by floodwaters thereby decreasing direct flooding impacts for Houston families. Program benefits will impact residents at multiple scales including decreasing flooding within homes, neighborhoods, and ultimately benefiting the watershed. There will likely be many co-benefits to addressing flooding in homes through infrastructure improvements, such as include improved mobility, aesthetic improvements, recreational benefits, property value increases, and life cycle cost savings. This program will be administered by the City of Houston through the Housing and Community Development Department (HCDD) and Houston Public Works (HPW).

This program will improve the storm water drainage system in Houston and is an eligible mitigation activity under the infrastructure criteria as defined in the CDBG-MIT requirements. This activity will alleviate capacity issues and align improvements with Harris County Flood Control District's assets to address the flood risks from severe storms and hurricanes as identified in the mitigation needs assessment.

Under its Capital Improvements Plan (CIP), HPW has a current list of unfunded or underfunded drainage improvement projects. An analysis will be conducted to select projects that will maximize system capacity, address need, and have the greatest benefit on the health, safety, and overall welfare of Houstonians. Need identification starts with a comprehensive assessment of existing conditions compared to predefined acceptable level of service standards. Need is also driven by a combination of factors that indicate an inability of infrastructure to address storm drainage needs - primarily resulting in structural flooding. For CDBG-MIT funding, priority will be given to projects that: benefit primarily LMI communities, can be completed in a timely manner, align with other local and/or regional infrastructure efforts to ensure consistency, include natural infrastructure or other low impact development methods, and foster other resilience and mitigation efforts like community-level planning and contribute to the City's resilient strategy in Resilient Houston. Prioritizing projects in LMI communities and minimizing flooding in neighborhoods through flood mitigation projects will protect housing, further fair housing, and make Houston neighborhoods safer and more desirable places to live.

#### **Administration**

The City's administrative will fund the general administration of the CDBG-MIT program and may include, but not be limited to the City's staff time, or the time of its contractors, to: administer and manage mitigation activities; perform compliance, monitoring, and reporting of the activities; and utilize funds for other costs specified as eligible administrative expenses in 24 CFR, part 570, subpart C.



Overall	This Report Period	To Date
<b>Total Projected Budget from All Sources</b>	\$0.00	\$3,094,200.00
<b>Total Budget</b>	\$0.00	\$3,094,200.00
<b>Total Obligated</b>	\$0.00	\$0.00
<b>Total Funds Drawdown</b>	\$0.00	\$0.00
<b>Program Funds Drawdown</b>	\$0.00	\$0.00
<b>Program Income Drawdown</b>	\$0.00	\$0.00
<b>Program Income Received</b>	\$0.00	\$0.00
<b>Total Funds Expended</b>	\$0.00	\$0.00
<b>HUD Identified Most Impacted and Distressed</b>	\$0.00	\$0.00
<b>Other Funds</b>	\$ 0.00	\$ 0.00
Match Funds	\$ 0.00	\$ 0.00
Non-Match Funds	\$ 0.00	\$ 0.00

### Funds Expended

Overall	This Period	To Date
City of Houston Housing and Community Development	\$ 0.00	\$ 0.00

## Progress Toward Required Numeric Targets

Requirement	Target	Projected	Actual
<b>Overall Benefit Percentage</b>	50.00%	.00%	.00%
<b>Overall Benefit Amount</b>	\$29,394,900.00	\$ .00	\$ .00
<b>Limit on Public Services</b>	\$9,282,600.00	\$ .00	\$ .00
<b>Limit on Admin/Planning</b>	\$12,376,800.00	\$3,094,200.00	\$ .00
<b>Limit on Admin</b>	\$3,094,200.00	\$3,094,200.00	\$ .00
<b>Most Impacted and Distressed</b>	\$61,884,000.00	\$3,094,200.00	\$ .00

## Overall Progress Narrative:

HUD allocated \$61,884,000 in CDBG-MIT funds directly to the City of Houston for two qualifying disasters occurring in 2015, to be used in areas impacted by recent disasters to carry out strategic and high-impact activities to mitigate disaster risks and reduce future losses.

As a result of the mitigation needs assessment, funding is being allocated for infrastructure programs to lessen the risk of flooding in buildings with the ultimate goal of removing people and property from harm's way. In addition, decreasing flooding will also improve mobility so services that enable the continuous operation of critical business and government functions that are critical to the protection of human health and safety would remain available and accessible. This program will be administered by the City of Houston through the Housing and Community Development Department (HCDD) and Houston Public Works (HPW).

Houston Public Works (HPW) continues to finalize estimated project budgets, scope of work (SOW), schedules, and spending forecast for four (4) proposed projects. HCDD has also identified one (1) proposed infrastructure project with a Subrecipient that is under review pending final budget and SOW request. MIT Technical Assistance and training is provided by Civix on a bi-weekly basis to assist in eligibility, policies, and procedures review of proposed projects up to contract end date of 12/31/2021. Additional project kick-off meetings are held bi-weekly (10/1/2021 to 12/31/2021).

A summary status of Infrastructure projects is provided below.

### INFRASTRUCTURE

#### Program Development/Implementation

- Evaluation and selection of eligible projects (March 2021 to December 2021)
- Development of project scopes of work/budgets (March 2021 to December 2021)
- Development of Letters of Agreement language (January 2022 - June 2022)
- HCDD Eligibility / Compliance / HUD AUGF submission process (January 2022 to April 2022)



Melrose Park Drainage and Paving Improvements â€” Approximately \$19.9MM  
 â€¢ Construction (Only) â€” Expected Timeline (2/2023 â€” 1/2026)

French Town Recreation Drainage Improvements â€” Approximately \$9.15MM  
 â€¢ SOW Justification Letter â€” (August 2021 â€” December 2021)  
 â€¢ Construction (Only) â€” Expected Timeline (7/2023 â€” 9/2025)

Cambridge Park Recreation Drainage Improvements â€” Approximately \$6.6MM  
 â€¢ SOW Justification Letter â€” (August 2021 â€” December 2021)  
 â€¢ Design Phase â€” (TBD)  
 â€¢ Construction Phase â€” (TBD)

Turkey Gulley Drainage and Paving Improvements â€” Approximately \$10MM  
 â€¢ Pending eligibility documentation  
 â€¢ Construction (Only) â€” Expected Timeline (TBD)

800 Middle Paving Improvements â€” Approximately \$9.5MM  
 â€¢ Construction (Only) â€” Expected Timeline (TBD)

The proposed infrastructure projects are being vetted for eligibility and compliance. Should the outcome of the eligibility review for these projects return unfavorable, the City of Houston has supplemental projects in cue.

The neighborhood areas have experienced single and repetitive structural flood losses. The proposed recreation detention improvements will expand existing ponds to create additional feet of detention storage and serve as mitigation to current drainage improvements in the neighborhoods while improving impacted recreational spaces. Proposed projects are partnership efforts with a long-term impact to reduce flooding and provide resilient investments to the affected neighborhoods by leveraging local, state, and federal funds.

## Project Summary

Project #, Project Title	This Report	To Date	
	Program Funds Drawdown	Project Funds Budgeted	Program Funds Drawdown
03-PF, Public Facilities and Improvements (Infrastructure)	\$0.00	\$58,789,800.00	\$0.00
21A-ADM, Administration	\$0.00	\$3,094,200.00	\$0.00
9999, Restricted Balance	\$0.00	\$0.00	\$0.00

