Regional Mitigation Program

Texas General Land Office

Community Development & Revitalization

Houston-Galveston Area Council

2022-100164-RMP

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Regional Mitigation Program Application

General

Applicant Information

Applicant: Houston-Galveston Area Council

County: Harris

Program: Regional Mitigation Program: H-GAC - HUD MID

COG: Houston-Galveston Area Council (HGAC)

Phone Number: (713) 499-6653

Address: 3555 Timmons Lane Suite 100, Houston, Texas 77027

Website: www.h-gac.com

Employer Identification Number (EIN): 741557575

Taxpayer Identification Numbers (TIN): 17415575756

UEI (Unique Entity Identifier): VZFJDZCKG8C7

Data Universal Numbering System (DUNS): 072188840

SAM.gov Registration Expiration Date: 5/19/2023

Is the applicant an eligible subrecipient applying in conjunction with or on behalf of another entity (non-city) within the county? No

How much funding was the applicant allocated by the approved COG MOD? $62,000,200.00

Is the applicant participating in the National Flood Insurance Program? No

Fiscal Year End Date (Month): December

Fiscal Year End Date (Day): 31

Application Contacts

Contact Role	Organization	First Name	Last Name	Title	Phone	Email
Engineer	Placeholder	Placeholder	Placeholder	Placeholder	(713) 499-6653	justin.bower@h-gac.com
Chief Elected Official	Waller County	County Judge Trey	Duhon	Chair, H-GAC Board of Directors	(713) 627-3200	justin.bower@h-gac.com

Contact Role	Organization	First Name	Last Name	Title	Phone	Email
Grant Administrator	Houston-Galveston Area Council	Nancy	Haussler	Chief Financial Officer	(713) 993-4510	nancy.haussler@h-gac.com
Authorized Representative	Houston-Galveston Area Council	Charles	Wemple	Executive Director	(713) 993-4514	charles.wemple@h-gac.com
Primary Contact	Houston-Galveston Area Council	Justin	Bower	Director of Community and Environmental Planning	(713) 499-6653	justin.bower@h-gac.com

SF-424 Questions

Applicant Type: Council of Governments

Application Title: Regional Priority Allocations Projects - HUD

Is the applicant delinquent on any federal debt? No

Activities

Activity

DRGR Activity	Planned Budget Amount
Flood and Drainage Facilities	$31,300,230.00
Sewer Facilities	$23,404,591.60

Project

Site: Project Site Title	Site: Street Address
Crosby-Eastgate Mitigation Bank - Project Site	Crosby Eastgate Road
Seashell Line Replacement	multiple
New Wastewater Plant Site	4128 State Highway 71
Old Wastewater Plant	Tait Street, Columbus Texas
Simonton Pinch Point - North	Fort Bend County
Simonton Pinch Point - South	Fort Bend County

Budget Line Summary

Total Engineering over Total Construction: 12.4%

Total Admin + Environmental over Total Amount Requested: 5.78%

Allowable Fee Percentage Cap for Admin + Environmental: 6%

Program Budget Code	Planned/Requested Amount
Grant Administration	$122,923.00
Engineering	$16,073.75
Construction	$5,085,333.25
Acquisition	$0.00
Planning	$0.00
Special Environmental	$150,000.00
Environmental	$100,000.00
Grant Administration	$225,402.10
Environmental	$80,000.00
Planning	$0.00
Acquisition	$0.00

Program Budget Code	Planned/Requested Amount
Special Environmental	$0.00
Engineering	$588,000.00
Construction	$6,700,000.00
Planning	$0.00
Acquisition	$100,000.00
Environmental	$30,000.00
Construction	$12,861,000.00
Engineering	$1,929,150.00
Grant Administration	$891,039.50
Special Environmental	$0.00
Environmental	$0.00
Grant Administration	$1,560,000.00
Special Environmental	$0.00
Acquisition	$500,000.00
Planning	$0.00
Engineering	$3,085,375.00
Construction	$20,680,525.00

Duplication of Benefits

FEMA Coverage

Did you receive any FEMA funding? No

Do you anticipate any FEMA funding? No

Was the proposed project eligible for FEMA? No

Is the budget in this application funding for the nonfederal share of a FEMA project? No

If yes, have funds been awarded?

If FEMA funds were received, explain why funds are needed above and beyond the FEMA funding:

Insurance Coverage

Did the applicant have insurance coverage on the proposed project? No

Name of Insurance Company:

Amount claimed/received for the project:

If a claim was not filed, please explain below:

Explain why funds are required above and beyond the insurance funding:

Other Funding

Has the applicant submitted a request to fund a part of or the whole project described in the application? No

Are local or other funds available to address the proposed project in whole or in part? No

Have any other state and/or federal agencies been contacted concerning funding for the proposed project? Yes

Disclose source(s) and use(s) of non-CDBG-MIT funds (Each row is a funding source):

Fair Housing

What methods and criteria were used to prioritize the projects in the application, including affirmatively furthering fair housing? Houston-Galveston Area Council determined the proposed project by initially collecting proposals throughout the region. It was then reviewed with relevant data to determine the impact it would have as a regional project, and its improvement on populations most often impacted by disasters,such as low-and-moderate income residents. The communities benefiting from this project range from Medium Low to High, as identified on the SoVI scales presented on the GIS Viewer.

What are the identified protected classes, racially and ethnically concentrated areas, and concentrated areas of poverty that may be impacted by this project? The identified protected classes, racially and ethnically concentrated areas, and concentrated areas of poverty that may be impacted by these projects are detailed in the attached, CDBG Mitigation Viewer Output documents. In general, these areas have a mix of populations, and portions of their beneficiary areas include historically under-served groups and/or economically disadvantaged communities. The regional Crosby, Brazos Pinch Point, and Lower Colorado projects all directly impact flood mitigation and also impact the ability of those areas to ensure continuity of evacuation routes and increase community resilience over a broad area. The Surfside and Columbus projects impact their entire respective service areas and directly impact continuity of service and community recovery. All of these areas and populations are disproportionately impacted by disasters and loss of wastewater service, and often need the access to emergency services, and evacuation routes well in advance. These proposed projects will reduce the impact it has on these populations.

Provide a meaningful analysis that describes how these identified populations may be impacted by this project. Crosby Mitigation Bank (Cedar Bayou Watershed area) - This project will provide direct benefit to this watershed through increase wetland capacity, and increased benefit through enabling additional flood projects in the watershed project area through its mitigation function. Populations who are disproportionately impacted by flooding will see the greatest benefit.

City of Surfside Wastewater Improvements - This project will ensure continuity of wastewater service and increase the capacity of the community to recover from future storm events. Populations who are disproportionately impacted by the existing hazards will see the greatest benefit.

City of Columbus WWTP - This project will ensure continuity of wastewater service and increase the capacity of the community to recover from future storm events, reduce environmental damage, and promote future economic growth. Populations who are disproportionately impacted by the existing hazards will see the greatest benefit.

Fort Bend County - This project will greatly impact the ability of all populations; especially those populations identified as being disproportionately impacted by storm events, to evacuate during storm events, and prevent disruption of transit and reduce potential erosion and downstream impacts in general.

For each fair housing activity, provide a name and status. If the activity is Completed, enter the Date Initiated. If the activity is Planned, enter the To Be Completed By date:

Item	Name	Status	Date Initiated	To be completed by
Fair Housing Activity 1	Declaring Fair Housing Month (H-GAC, annual)	Planned		5/1/2023
Fair Housing Activity 2	Conduct Regional Housing Peer Exchanges (Missing Middle, etc - H-GAC, ongoing))	Completed	8/17/2018	12/31/2025
Fair Housing Activity 3	Conduct Regional Housing Coordination (H-GAC, https://www.h-gac.com/regional-housing-coordination)	Completed	12/31/2020	12/31/2025
Fair Housing Activity 4	Maintain Housing-related Toolboxes online (H-GAC, https://www.h-gac.com/regional-housing-coordination/common-housing-questions)	Completed	12/31/2020	12/31/2025

Procurement

Have services been procured for Engineering, Grant Administration, or Environmental Services? Yes

Are there any persons/entities with a reportable financial interest to disclose? Yes

Vendor Type	Procurement Status	Vendor Name	Contact Phone	Contact Email
Environmental	Procured	Multiple	(713) 499-6653	justin.bower@h-GAC.com
Engineering	Procured	Multiple	(713) 499-6653	justin.bower@h-GAC.com
Grant Administration	In House			

Documents

Document Type	File Attachment (Text)
Race/Ethnicity/Gender Calculator	Placeholder.pdf
Environmental Exempt Form for planning and administrative activities	Placeholder.pdf
Supporting census tract/block group or other beneficiary data maps	CrosbyEastgate_BlockGroups_BenefitArea.pdf
LMISD data and/or CDBG-MIT Survey documentation	CrosbyEastgate_BlockGroups_LMISD.pdf
CDBG-MIT - Budget Justification of Retail Costs form (completed, signed, and sealed by a professional engineer or architect licensed to work in the State of Texas)	DRAFT_UNSEALED_CrosbyEastgate_budget-justification-of-retail-costs.xlsx
Environmental Exempt Form for planning and administrative activities	Placeholder.pdf
Financial Interest Reports	HGAC_FIR.xlsx
Certificate of Convenience and Necessity (CCN)	City of Surfside Beach Certificate of Convenience and Necessity Reference and Service Area Map.pdf
Environmental Exempt Form for planning and administrative activities	Placeholder.pdf
Signed Applicant Certifications	HGAC local-certification-form HUD signed.pdf
Copies of Agreement	0126_1_031423 MOU HGAC Q700-01-00-Y002 PCT 3 backup.pdf
SF-424 (completed and signed)	sf424 HGAC HUD.pdf
Maps indicating latitude and longitude for proposed locations	Q700 Lat Long Map.pdf
Documentation to support Urgent Need Mitigation national objective	HarrisCounty-Vol2_Planning_Partner_Annexes-FloodControl.pdf
Documentation to support Urgent Need Mitigation national objective	HarrisCounty-Vol1_Area_Wide_Elements.pdf
DP05 (ACS 5-year estimate)	CensusTractsFiltered_ACSDP5Y2021.DP05-Data.xlsx
CDBG Mitigation Viewer Export	Brazos Pinch Point GIS Viewer output.pdf
CDBG Mitigation Viewer Export	Columbus GIS VIewer Output.pdf
CDBG Mitigation Viewer Export	Surfside GIS Viewer output.pdf
CDBG Mitigation Viewer Export	Crosby GIS Screening report.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	HarrisCounty-Vol1_Area_Wide_Elements.pdf

Document Type	File Attachment (Text)
Scope of work information, maps, and other applicable documentation for each Local effort identified	HarrisCounty-Vol2_Planning_Partner_Annexes-FloodControl.pdf
Copies of Agreement	Fort Bend - MOU signed.pdf
Race/Ethnicity/Gender Calculator	RE Calculator - Surfside.xlsx
Race/Ethnicity/Gender Calculator	re-calculator Columbus.xlsx
CDBG-MIT - Budget Justification of Retail Costs form (completed, signed, and sealed by a professional engineer or architect licensed to work in the State of Texas)	20230315_OPCC_to HGAC-Sealed.pdf
Copies of required permits	NWP-27.pdf
LMISD data and/or CDBG-MIT Survey documentation	Surfside Beach LMISD data summary.xlsx
Scope of work information, maps, and other applicable documentation for each Local effort identified	20220304_Draft-VOSB Vacuum Collection Eval.pdf
Copies of Agreement	Surfside Beach - MOU Signed.pdf
Supporting census tract/block group or other beneficiary data maps	Exhibit C_Prop Gravity.pdf
DP05 (ACS 5-year estimate)	ACSDP5Y2021.DP05-2023-03-15T084514 surfside beach.xlsx
Maps indicating latitude and longitude for proposed locations	Exhibit C_Prop Gravity.pdf
LMISD data and/or CDBG-MIT Survey documentation	yes-waiver-lmisd-block-group-county (9).xlsx
Scope of work information, maps, and other applicable documentation for each Local effort identified	Army Corps Study Final report with REP and PPA language_5_APR_19.pdf
Certificate of Convenience and Necessity (CCN)	SEWERWATERMAP.pdf
LMISD data and/or CDBG-MIT Survey documentation	Columbus LMISD Map CT BG.pdf
Environmental Exempt Form for planning and administrative activities	Need City Signature - Part-58-Exempt-CENST_ City of Columbus CDBG-MIT MOD WWTP Application.pdf
CDBG-MIT - Budget Justification of Retail Costs form (completed, signed, and sealed by a professional engineer or architect licensed to work in the State of Texas)	Columbus budget justification of retail costs.pdf
Copies of Agreement	City of Columbus - MOU Signed.pdf
Maps indicating latitude and longitude for proposed locations	Columbus WWTP sites 11x17.pdf

Document Type	File Attachment (Text)
Supporting census tract/block group or other beneficiary data maps	Columbus LMISD Map CT BG.pdf
Documentation to support Urgent Need Mitigation national objective	Columbus urgent need documentation.pdf
DP05 (ACS 5-year estimate)	ACSDP5Y2021.DP05-2023-03-14T074656 ACS Columbus.xlsx
Race/Ethnicity/Gender Calculator	Pinch Point Combined RE Data.xlsx
DP05 (ACS 5-year estimate)	Fort Bend Count DP05.xlsx
DP05 (ACS 5-year estimate)	Austin County_DP05.xlsx
DP05 (ACS 5-year estimate)	Waller County_DP05.xlsx
Current Printout of SAM.gov Registration	SAMGOV registration.jpg
Race/Ethnicity/Gender Calculator	Fort Bend County RE_Pinch Point.xlsx
Race/Ethnicity/Gender Calculator	Austin County RE_Pinch Point.xlsx
Race/Ethnicity/Gender Calculator	Waller County RE_Pinch Point.xlsx
LMISD data and/or CDBG-MIT Survey documentation	Pinch Point LMISD.pdf
CDBG-MIT - Budget Justification of Retail Costs form (completed, signed, and sealed by a professional engineer or architect licensed to work in the State of Texas)	FBC Brazos River Pinch Point Table 2_Executed.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	Simonton Cutoff Regional Impact Study.pdf
Maps indicating latitude and longitude for proposed locations	Brazos River Pinch Point Project Layout.pdf
Supporting census tract/block group or other beneficiary data maps	Pinch Point Benefit Area.pdf
Single Audit or Annual Financial Statement	H-GAC 2021-Annual-Financial-Report.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	FBC CDBG-MIT Project - Pinch Point_PDF Pkg.pdf

Fort Bend County - Brazos River Erosion at Simonton Pinch Point

Project Info

Project Information

DRGR Activity: Flood and Drainage Facilities

Project Type: Flood and Drainage

Project Title: Fort Bend County - Brazos River Erosion at Simonton Pinch Point

Does this project include replacement or relocation of a facility (i.e., lift station, water treatment plant, etc.)? No

Provide a detailed description of the scope of work proposed. For proposed work involving a length of road, ditch, channel, etc., report the scope of the project in linear feet (lf): The scope of work involves the design and construction of erosion protection on the banks of the Brazos River at two (2) locations in Simonton, Texas to address meander migration and to prevent a cutoff occurring on the river.

The project will have multiple benefits by reducing the meander migration and subsequent bank erosion on the river, particularly at key bridge crossings, both upstream and downstream of the immediate area of the project s proposed construction. Currently, the Brazos River s center line distance from Simonton, Texas to its confluence with the Gulf of Mexico in Freeport, Texas is approximately 140 miles. Should the Simonton Cutoff occur, approximately six (6) miles of the river s centerline length will be lost. This loss of nearly 4% of its length to sea level will cause the river to begin regaining its equilibrium with sea level by head cutting (scouring) upstream which will produce massive sediment deposition resulting in increases in flow volumes and velocities, channel widening and increased meander migration (bank erosion). Millions of cubic yards of sediment from the cutoff and the resulting upstream head cut (scour) will be deposited downstream on the inside of the meanders of the river causing increased bank erosion on the outside of the meanders and increasing normal flow velocities up to 14% both upstream and downstream of the cut off as the river attempts to regain its equilibrium. A study has shown that the effects of this cutoff would cause increased meander migration in Waller, Fort Bend and Brazoria Counties as the river over time will, by increased bank erosion, begin to regain the six (6) miles in length to sea level that was lost due to the cutoff. It should be noted that this increased bank erosion is in addition to the bank erosion, experienced from 2015 to 2017, which averaged around 25 feet of lost bank per year.

Site: Project Site Title	Site: Street Address
Simonton Pinch Point - North	Fort Bend County
Simonton Pinch Point - South	Fort Bend County

Describe a plan for the long-term funding and management of the operations and maintenance of the project: The management of the operations and maintenance of the erosion protection included in the proposed project are to be conducted by the Fort Bend County

Drainage District. Annual maintenance of erosion protection and vegetation of slopes is estimated to be around $25,000.

Total proposed number of linear feet: 10,200

Total number of proposed public facilities:

Project Phase	Start Date	End Date	Length (in months)
Contract Closeout	8/1/2026	11/1/2026	3
Submit As-Builts/COCC/FWCR	7/1/2026	8/1/2026	1
Construction	11/1/2024	6/1/2026	19
Construction NTP	10/1/2024	11/1/2024	1
Contract Award	9/1/2024	10/1/2024	1
Bid Advertisement	8/1/2024	9/1/2024	1
Acquisition	4/1/2024	8/1/2024	4
Environmental Review	6/1/2023	6/1/2024	12
Engineering Design	6/1/2023	8/1/2024	14
Start-Up Documentation	6/1/2023	9/1/2023	3

National Objective

National Objective

Provide Total Number of Beneficiaries: 63,770

Provide number of LMI Beneficiaries 35,075

Percentage of LMI Beneficiaries: 55%

Is that applicant a HUD Exception Grantee? No

Census Tract	Block Group List (Text)
760,200	Group 2
760,100	Group 2
680,200	Group 3
675,800	Group 1 ; Group 2
675,500	Group 2
675,400	Group 1 ; Group 2
675,300	Group 1 ; Group 2 ; Group 3 ; Group 4
675,200	Group 1 ; Group 2 ; Group 3 ; Group 4
675,100	Group 1 ; Group 2 ; Group 3 ; Group 4
675,000	Group 1 ; Group 2
674,900	Group 1 ; Group 2 ; Group 3 ; Group 4
674,800	Group 1 ; Group 2 ; Group 3 ; Group 4 ; Group 5
674,700	Group 2
672,300	Group 1
672,300	Group 1

Male: 31,499

Female: 32,271

Total: 63,770

Race	Hispanic Population	Non-Hispanic Population	Total Population
American Indian/Alaskan Native	139	65	204

Race	Hispanic Population	Non-Hispanic Population	Total Population
Native Hawaiian / Other Pacific Islander	0	44	44
Black African American	112	12,802	12,914
Other Multi-Racial	5,756	1,675	7,431
American Indian/Alaskan Native/Black African American	28	9	37
Asian/White	460	134	594
Black African American/White	351	102	453
American Indian/Alaskan Native/White	165	49	214
White	3,015	19,804	22,819
Some Other Race	6,176	205	6,381
Asian	592	12,087	12,679

Which HUD national objective does the project meet? LMI

Describe activities that benefit low- and moderate-income people: The project will greatly support Fort Bend County's regional effort to stabilize sites along the Brazos River. Regionally, this project has significant ramifications if the Simonton Pinch Point occurs due to the projected accelerated river flows both upstream and down stream. The support of the project is widely documented from the region through HGAC's previous planning and project evaluation efforts. Moreover, the benefit to the 63,770, of which 35,075 (55.0%) are Low-to-Moderate Income (LMI), is an example of the regional impact.

Method(s) used to determine the beneficiaries: LMI Area Benefit

What method was used for Beneficiary Identification? Census (HUD LMISD)

Provide a brief description of the beneficiary identification method used to determine this national objective and upload supporting beneficiary maps, census data, and/or survey documents: The project impact area is the listing of census tracts and block groups as detailed above and in the attached report. This area represents the impact zone of the river cutoff at Simonton and the corollary effect on the major bridges crossing the Brazos as well as the residential areas that are impacted. The selected benefit area represent substantial portion of the population that will benefit from the proposed project. Therefore, it was determined that the LMISD Census data was best used to identify and document these beneficiaries.

U.S. Congressional District #: 9;22

Texas Representative District #: 26;27;28;85

Texas Senate District #: 13;17;18

Environmental

What is the current status of the project? Not yet begun

Will the assistance requested have any negative impact(s) or effect(s) on the environment? No

Is the proposed project likely to require an archaeological assessment? Yes

Is the proposed site(s) listed on the National Register of Historic Places? No

Is the project in a designated floodway or coastal high hazard area? Yes

Is the project in a designated special flood hazard area or a designated wetland? Yes

For projects in the 500 or 100-year floodplain: Does your project involve a critical action as defined in 24CFR55.2(b)(3)? No

Is any project site located in a known critical habitat for endangered species? Yes

Is any project site a known hazardous site? No

Is any project site located on federal lands or at a federal installation? No

Is any project site subject to or participating in Fixing America's Surface Transportation Act (FAST-41) (P.L. 114-94)? No

What level of environmental review is likely needed for this project? Environmental Assessment

Provide any additional detail or information relevant to Environmental Review: This project will require coordination with the USACE, however the project will remain above the ordinary high water mark and will not require an individual permit. Coordination with other agencies may necessitate various special services (i.e. historical resources, biological survey, etc.). Additionally, the project will occur within the floodway; however, these improvements are functionally dependent and will reduce the impacts of future flooding events.

Provide a brief narrative regarding how CDBG-MIT funding is to be used. Demonstrate that HUD CDBG environmental requirements have been met to date:

Permits

Does the project require any federal, state, or other permits, approvals, or waivers to complete the proposed work? No

If yes, describe the type and purpose of each permit and its association with the proposed project. Provide a copy of each permit already executed:

Does the project require any type of ratified, legally binding agreement between the applicant and any other entity to provide continual operation upon completion? Yes

If yes, describe the type and purpose of each agreement and its association with the proposed project. Provide a copy of each agreement already executed or drafted: Fort Bend County and the Houston-Galveston Area Council currently are cooperating on this application under a Memorandum of Understanding. When the project is approved by GLO, both parties will enter into an Interlocal Agreement stipulating roles and responsibilities including long term maintenance of the project. A copy of the MOU is attached.

For sewer and/or water facilities projects, does the applicant currently hold the Certificate of Convenience and Necessity (CCN) for the target area proposed in the application? (If not a sewer and/or water facilities project, please choose N/A): N/A

Budget Activity Lines

Program Budget Code	Planned/Requested Amount	Planned Other Funds Amount	Total	Percent of Total
Environmental	$0.00	$0.00	$0.00	0%
Grant Administration	$1,560,000.00	$0.00	$1,560,000.00	6%
Special Environmental	$0.00	$0.00	$0.00	0%
Acquisition	$500,000.00	$0.00	$500,000.00	1.9%
Planning	$0.00	$0.00	$0.00	0%
Engineering	$3,085,375.00	$0.00	$3,085,375.00	11.9%
Construction	$20,680,525.00	$0.00	$20,680,525.00	80.1%

Mitigation

Identify the specific risk the proposed project will mitigate against: Severe Coastal Flooding;Riverine Flooding;Storms

Describe as to how the proposed project addresses/mitigates against the current and future risks identified: Due to the accelerated bank erosion on the Brazos River following significant flooding in 2015, 2016 and Hurricane Harvey in 2017, Huitt-Zollars, Inc. was retained by the Fort Bend County Drainage District to conduct geomorphologic studies of the meander migration and bank erosion at several locations along the Brazos River in Fort Bend County, Texas. These locations focused on government infrastructure to include roads, levees, bridges, buildings and parklands along the river. The results of these studies are most disturbing. In less than 30 years, continuing erosion of the riverbank may cause loss of human life while threatening residences, roads, levees and Hurricane Evacuation Routes on Farm to Market Roads, State Highways and Interstate Highway bridges.

Project Brazos, a multi-jurisdictional effort to address the riverbank erosion, has identified thirteen (13) critical sites along the Brazos River in Fort Bend County. However, the most concerning of these sites involves the prevention of a river cutoff (neck or chute) occurring at a Pinch Point near Simonton, Texas. Due to its regional impact, priority of repair and paramount importance, the Water Resources Committee of HGAC made this project its only Tier 1 engineering and construction project.

This Pinch Point is created by the continuing and progressive migration of two (2) meanders due to river bank erosion. The bank erosion from major flood events on the Brazos River from 2015 to 2017 decreased the distance between the meanders by nearly 200 feet. Currently, the meanders are approximately 1,100 feet apart. See location of the potential cutoff below which is approximately eight (8) miles south of Interstate Highway 10 bridges.

Provide information about how the proposed mitigation efforts integrate into the community's emergency and resiliency plans: Within the project area, there are several key bridges over the Brazos River that are at risk should the Simonton Cutoff occur. These bridges include bridges for FM 1093, FM 1489, FM 723 and US 90A. Should these bridges become impassable due to river bank erosion, such as the permanently closed southbound US 59/IH 69 turnaround at the Brazos River, the residents of Fort Bend County in the beneficiary area will be trapped on the southside of the river unable to travel north to avoid storm events.

By way of example, during Hurricane Harvey, the US 59/IH 69 bridge over the San Jacinto River was compromised when the river washed out material around the footings of the interior bridge supports. This significantly impacted the population seeking safety from the storm as well as the ability of emergency personnel to respond. In an effort to avoid this tragic situation, the proposed solution to stabilize the Brazos River and prevent the cutoff will ensure significant changes in the river are controlled, thus avoiding the issues experienced on US 59/IH 69 over the San Jacinto River. Should any of the bridges within the beneficiary area be compromised due to river bank erosion, the associated consequences potentially puts lives in danger.

In the space provided, list documentation provided to support the identification of the threat or hazard and how it relates to potential impact: See attached engineering memo and study.

Provide a brief description of how the proposed project addresses an integrated approach to mitigation: Following Hurricane Harvey, the County conducted initial recovery efforts and completed various infrastructure audits to determine additional needs. While a variety of needs were determined to still be present, the County identified that the Pinch Point project, as detailed within this application, would serve the region most effectively. Where housing quality and availability is lacking it is typically associated with underdeveloped and inadequate infrastructure. Drainage and flood mitigation networks and improvements play a critical role within a community and the County is no exception. Stabilizing the Brazos River banks at critical locations will allow for protection of property and ingress egress during disaster events. The environmental issues that impact the community will be addressed as needed to ensure a safe and healthy community moving forward. Taken together, the actions toward the development of the improved infrastructure detailed within this application provide a foundation of mitigation and inclusion that will ensure new infrastructure is well planned and constructed. These efforts will ensure that the community will be more resilient to the damage caused by future natural disasters.

Considering the local evaluation of hazard risks, responsible floodplain management, future extreme weather/natural disaster events, and long-term risks, describe how the proposed project promotes sustainable community resilience: The Project is a regional approach with broad support from local, state and federal stakeholders to include TxDOT, the Brazos River Authority and the United States Army Corps of Engineers (USACE) - Galveston District and its Engineer Research and Development Center (ERDC) in Vicksburg, Mississippi. Currently, fourteen (14) Resolutions and a Letter of Support have been received supporting Project Brazos. Over the past four years, Fort Bend County Drainage District has invested time and money into understanding the problem and in developing feasible solutions to address it. This project employs an environmentally friendly repair using a longitudinal stone dike along the toe of the bank with stone tiebacks constructed at around 200 feet on center to protect the upstream and downstream portions of the repair from being flanked by the erosion. This repair method was coordinated with USACE ERDC s River and Estuarine Engineering Branch. In addition, this repair method promotes revegetation and habitat development and is in accordance with USACE s Engineering with Nature and Implementation of Natural and Nature-Based Features (EWN-NNBF) Guidelines.

Describe how the proposed project is consistent with local and regional planning efforts to effect disaster mitigation: This Pinch Point is created by the continuing and progressive migration of two (2) meanders due to river bank erosion. The bank erosion from major flood events on the Brazos River from 2015 to 2017 decreased the distance between the meanders by nearly 200 feet. Currently, the meanders are approximately 1,100 feet apart. See location of the potential cutoff below which is approximately eight (8) miles south of Interstate Highway 10 bridges.

To understand the potential impacts associated with the meander cutoff in Simonton, it is important to have a basic understanding of how a cutoff forms and what impact it has on the river and surrounding areas. There are two (2) ways cutoffs are formed. The first is the Chute Cutoff which occurs during a significant flood event, at which time the river, from overland flows, carves a new channel across the floodplain. This causes split flows initially until the majority of the river flows through the widening cutoff resulting in a silted oxbow in what was formerly the river. An example of a chute cutoff recently occurred on the Brazos River in southern Fort Bend

County. Please see the three (3) photographs below. In 2014, the distance between both meanders was over 1,400 feet. During Hurricane Harvey in August 2017, the flooding and overland flows carved a new channel across the floodplain. Today, the river s channel gradient has been increased due to the loss of approximately one (1) mile of its distance to sea level in Freeport, Texas. In addition, the abandoned channel reach is being turned into an oxbow due to the deposition of sediment.

To understand the potential impacts associated with the meander cutoff in Simonton, it is important to have a basic understanding of how a cutoff forms and what impact it has on the river and surrounding areas. There are two (2) ways cutoffs are formed. The first is the Chute Cutoff which occurs during a significant flood event, at which time the river, from overland flows, carves a new channel across the floodplain. This causes split flows initially until the majority of the river flows through the widening cutoff resulting in a silted oxbow in what was formerly the river. An example of a chute cutoff recently occurred on the Brazos River in southern Fort Bend County. Please see the three (3) photographs below. In 2014, the distance between both meanders was over 1,400 feet. During Hurricane Harvey in August 2017, the flooding and overland flows carved a new channel across the floodplain. Today, the river s channel gradient has been increased due to the loss of approximately one (1) mile of its distance to sea level in Freeport, Texas. In addition, the abandoned channel reach is being turned into an oxbow due to the deposition of sediment.

The second type of cutoff is a Neck (Progressive) Cutoff. It occurs from increasing sinuosity and decreasing radius of curvature until the river channel double backs upon itself via progressive migration. Again, over time an oxbow will form. This is what has been occurring at the Pinch Point location for many years. Once a cutoff occurs, the river s length to sea level is shortened. Currently, the Brazos River s center line distance from Simonton to its confluence with the Gulf of Mexico in Freeport, Texas is approximately 140 miles. Should the Simonton Cutoff occur, approximately six (6) miles of the river s centerline length to sea level will be lost and the river s channel bottom gradient will be greatly increased. This loss of nearly 4% of its centerline length and increased channel bottom gradient will cause a knickpoint to form from which a head cut will begin migrating upstream. This head cut will deepen and widen the channel upstream while scouring out millions of cubic yards of sediment from the cutoff and channel bottom. Flow velocities both upstream and downstream and sediment deposition downstream will increase resulting in increased meander migration (bank erosion) as the river strives to maintain a certain length, which translates into a consistent slope and sediment transport over time. (Reference - Attributes of the Lower Mississippi River Batture, USACE Mississippi River Geomorphology and Potamology Program Tech Note No. 4 dated March 2018.)

A river with large bed loads, like the Brazos River, will continuously shorten and lengthen itself by cutoffs and meander migration (bank erosion on the outside of river curves), respectively. The net result, should the Simonton cutoff occur, is that the Brazos River will strive to maintain a certain length by regaining the six (6) miles it lost by increased meander migration above what is normally experienced on the river. An historical case study shows that over a 100-year period on the lower Mississippi River, the river shortened itself by 218 miles due to cutoffs, however the corresponding increased meander migration resulted in a net change in length of only 8 miles. (Reference - Winkley, B. R. 1977. Man-Made Cutoffs on the Lower Mississippi River: Conception, Construction and River Response. Potamology Investigations Report No. 300-2. U.S. Army Corps of Engineers, Vicksburg District, MS.)

Huitt-Zollars, Inc. performed geomorphologic analyses at several separate meander locations on the Brazos River at the Pinch Point and both upstream and downstream to project the migration of these meanders over the next thirty (30) years. Working with Dr. Jean-Louis Briaud, PhD, PE at Texas A&M University, we performed these analyses using the Texas A&M University Observation Method for Meander Migration (TAMU-OMMM) developed by Dr. Briaud. This included obtaining soil borings along the river and testing the erodibility of the various soil layers using Dr. Briaud s Erosion Function Apparatus (EFA). The TAMU-OMMM results in a site-specific meander migration prediction based on the past observed movement of the meander, the past flow hydrograph, the erodibility of the soil at the meander site, and an assumed future hydrograph. A point is selected on the river s outer bank as well as a direction along which the migration is to be predicted. TAMU-OMM uses the EFA test results along with the past observations to develop a site-specific prediction model. This model is used with the hydrographs to calculate the future meander for the selected point and direction of the meander. A deterministic prediction was made by using one prediction of the future hydrograph. In addition, predictions of many equally possible hydrographs in a probabilistic manner were made to perform a probabilistic migration analysis.

Was a cost-benefit analysis used in the selection of the proposed project? No

Describe how the proposed project impacts vulnerable populations in the local community.: The beneficiaries of this project will be the residents in Austin, Waller and Fort Bend Counties that depend on open and safe routes over the river daily and particularly in times of storm events. Based on the available census data, 63,770 residents of Austin, Waller and Fort Bend Counties, of which 55.00% are considered Low-to-Moderate Income (LMI) persons, will benefit from the project (see attached LMISD data).

Describe how the proposed project creates economic opportunities for the local community: This project creates economic opportunities for the region because it will reduce the risk businesses and residents would otherwise face from potential flooding as a result of the Brazos river migration in the area. Without these improvements, the area will continue to become more susceptible to extreme events thus slowing the rate of development and or redevelopment within the region.

Does this project disproportionately impact vulnerable populations in the local community? No

Does the proposed project align with investments from other state or local capital improvements and infrastructure development efforts? No

Does the proposed project employ adaptable and reliable technology to guard against premature obsolescence? Yes

Describe the applicant's overall mitigation plan and how the project addressed in this application furthers that plan: Following the disaster events of 2015, 2016, and 2017 (Harvey), the County began working with a highly qualified team of professional consultants that identified a need to improve its failing infrastructure and better regulate future construction, otherwise the same flooding damages would continue occurring to houses, buildings, and infrastructure. Without improved drainage, identification of regional detention, and the stabilization of the Brazos River Bank continued flooding and damage would encourage residential and commercial migration out of the County. Without addressing river migration and the consequential impacts upstream and down stream, roads would also continue to flood and deteriorate during high rain events, cutting off residents' ability to evacuate and commerce to continue. Without improving drainage, the County cannot protect residents, mitigate disasters, and make sustainable community decisions.

During the planning and development phase, County Officials developed a long range approach to its recovery efforts. This approach considers three (3) main factors: 1) health and safety of residents; 2) the viability and sustainability of the community; and 3) comprehensive mitigation measures that would protect the County and its residents from future storm events. The outcome of this planning and development phase identified various river erosion stabilization projects of which includes the Pinch Point project in Simonton. It is believed that completing these improvements will allow the County to move toward the effort of long-term recovery with the focus on addressing additional critical infrastructure that will positively impact the County's ability to attract and develop additional housing and sustainable infrastructure, which will have a revitalizing effect on growth and development.

Describe how the proposed project will contribute to the community's resiliency against future disasters as a result of these projects: In the vicinity of the cutoff, the river velocity increased by up to 19%. The cutoff would negatively impact the local community as well as endanger the FM 1093 bridge. Upstream of the cutoff in Waller and Austin Counties, the river velocities increased by nearly 14%. This increase in velocity upstream of the cutoff was due primarily to the change of the river bottom gradient which causes a knickpoint to form which progressed upstream due to headcutting.

Shown below in the attached report, TAMU-OMMM predictions at a meander six (6) miles upstream of the cutoff in Austin and Waller Counties which is only two (2) miles south of Interstate Highway 10. The H&H model with the cutoff occurring shows an increase in flow velocities of 14%. The resulting purple lines are an indication of the regional impact the cutoff will have and how its formation will cause significantly more

meander migration (bank erosion) even upstream of the cutoff.

Downstream of the cutoff, the river velocities will be similarly increased by 14% on the outside curves of the meanders due to the cutoff occurring. Using the TAMU-OMMM, we then recomputed the extent of the meander migration based on these increased velocities. The results were again striking. Meander locations at the bridges for FM 1093, FM 1489, FM 723 and US 90A showed significant increased migration, threatening the abutments and structural approaches to the bridges. These damages would be similar to the damages caused by the bank erosion which has permanently closed the southbound turn around on Interstate 69/US Highway 59.

Failure to prioritize the river stabilization and mitigate the Pinch Point cutoff will have detrimental impacts for the regional. As stated previously, this project has been identified by HGAC as a Tier 1 project due to the implications of the devastation that will be caused if the cutoff occurs.

Crosby-Eastgate Mitigation Bank

Project Info

Project Information

DRGR Activity: Flood and Drainage Facilities

Project Type: Flood and Drainage

Project Title: Crosby-Eastgate Mitigation Bank

Does this project include replacement or relocation of a facility (i.e., lift station, water treatment plant, etc.)? No

Provide a detailed description of the scope of work proposed. For proposed work involving a length of road, ditch, channel, etc., report the scope of the project in linear feet (lf): The Crosby-Eastgate Mitigation Bank project encompasses the construction of a 226.3 acre wetlands mitigation bank along Cedar Bayou in Harris County near Crosby Eastgate Road, Crosby, Texas 77532 (29.991695, -95.021966) located north of the intersection of Crosby Eastgate and Louis Road, north of Felscher lane and south of Cedar Creek. This wetland development project will create wetland mitigation credits to offset permitted wetland impacts caused by other Flood Control District projects in the watershed and region. Wetlands mitigation banks support the mission of the Flood Control District by streamlining the construction of important flood damage reduction projects, and by allowing the Flood Control District to more efficiently obtain necessary U.S. Army Corps of Engineers permits. Mitigation banking on large tracts of land allows for greater floodplain storage and habitat conductivity, eliminates temporal loss of wetlands functions and values, and creates a more sustainable system, with greater diversity of habitat and wetland functions.

Site: Project Site Title	Site: Street Address
Crosby-Eastgate Mitigation Bank - Project Site	Crosby Eastgate Road

Describe a plan for the long-term funding and management of the operations and maintenance of the project: Mitigation Bank maintenance funding orginates from the development of other mitigation projects in the region via the debiting of mitigation credits wetland bank . To debit the mitigation credits, a portion of the budgets of the projects requiring wetland mitigation is allocated to the wetland mitigaiton bank. These funds are then used to maintain the bank. Management and operation of the mitigation bank will be carried out by Harris County Flood Control District personnel in accordance with existing policies and standards used for the Flood Control Districts other Wetland Mitigation Banks.

Total proposed number of linear feet:

Total number of proposed public facilities: 1

Project Phase	Start Date	End Date	Length (in months)
Start-Up Documentation	11/1/2022	5/1/2023	6
Acquisition	5/15/2023	12/15/2023	7
Submit As-Builts/COCC/FWCR	5/12/2025	6/12/2025	1
Contract Closeout	2/16/2025	5/16/2025	3
Construction	11/12/2024	5/12/2025	6
Construction NTP	10/12/2024	11/12/2024	1
Contract Award	9/12/2024	10/12/2024	1
Bid Advertisement	8/12/2024	9/12/2024	1
Environmental Review	5/15/2023	5/15/2024	12
Engineering Design	5/15/2023	5/15/2024	12

National Objective

National Objective

Provide Total Number of Beneficiaries: 101,540

Provide number of LMI Beneficiaries 52,510

Percentage of LMI Beneficiaries: 51.71%

Is that applicant a HUD Exception Grantee? No

Census Tract	Block Group List (Text)
254,600	Group 1 ; Group 2 ; Group 3
254,500	Group 1 ; Group 2
254,400	Group 1 ; Group 2 ; Group 3 ; Group 4
254,300	Group 1 ; Group 2 ; Group 3 ; Group 4
254,200	Group 1 ; Group 2 ; Group 3
254,100	Group 1 ; Group 2 ; Group 3 ; Group 4
254,000	Group 1 ; Group 2
253,900	Group 1 ; Group 2 ; Group 3
253,800	Group 1 ; Group 2 ; Group 3 ; Group 4
253,700	Group 2 ; Group 3 ; Group 4
253,600	Group 1 ; Group 2 ; Group 3 ; Group 4
253,500	Group 1 ; Group 2 ; Group 3 ; Group 4
253,400	Group 1
253,200	Group 1 ; Group 2 ; Group 4
253,100	Group 2
25,300	Group 1 ; Group 2 ; Group 3
252,900	Group 1 ; Group 3 ; Group 4 ; Group 5
252,800	Group 1 ; Group 3
252,700	Group 1 ; Group 2
251,902	Group 1 ; Group 3
251,901	Group 1 ; Group 4
251,700	Group 4

Male: 50,496

Female: 51,044

Total: 101,540

Race	Hispanic Population	Non-Hispanic Population	Total Population
Black African American	8,352	14,028	22,380
Asian	969	1,031	2,000
American Indian/Alaskan Native/Black African American	0	62	62
Other Multi-Racial	1,945	0	1,945
Some Other Race	0	9,318	9,318
Native Hawaiian / Other Pacific Islander	0	55	55
Black African American/White	0	328	328
Asian/White	0	664	664
American Indian/Alaskan Native/White	0	422	422
American Indian/Alaskan Native	487	357	844
White	30,545	32,977	63,522

Which HUD national objective does the project meet? UNM

Describe activities that benefit low- and moderate-income people:

Method(s) used to determine the beneficiaries: UNM Area Benefit

What method was used for Beneficiary Identification? Census (HUD LMISD)

Provide a brief description of the beneficiary identification method used to determine this national objective and upload supporting beneficiary maps, census data, and/or survey documents: The selected benefit area represents substantial portion of the population that will benefit from the proposed project. Census Blocks have greater than 60% of households benefitting. Therefore, it was determined that the LMISD Census data was best used to identify and document these beneficiaries.

U.S. Congressional District #: 36

Texas Representative District #: 128

Texas Senate District #: 3;4

Environmental

What is the current status of the project? Not yet begun

Will the assistance requested have any negative impact(s) or effect(s) on the environment? No

Is the proposed project likely to require an archaeological assessment? Yes

Is the proposed site(s) listed on the National Register of Historic Places? No

Is the project in a designated floodway or coastal high hazard area? Yes

Is the project in a designated special flood hazard area or a designated wetland? Yes

For projects in the 500 or 100-year floodplain: Does your project involve a critical action as defined in 24CFR55.2(b)(3)? No

Is any project site located in a known critical habitat for endangered species? No

Is any project site a known hazardous site? No

Is any project site located on federal lands or at a federal installation? No

Is any project site subject to or participating in Fixing America's Surface Transportation Act (FAST-41) (P.L. 114-94)? No

What level of environmental review is likely needed for this project? Environmental Assessment

Provide any additional detail or information relevant to Environmental Review: An Archaeological Assessment has been completed. Moore Archeological Consulting of Houston, TX, under subcontract with RGME, was responsible for conducting cultural resources surveys at CEMB. Portions of the site were likely historically utilized by Native American settlements and early colonial settlements as implied by the proximity to Cedar Bayou and natural topography of the area. The southern portions of the site contain pimple-mounds where artifacts are likely to be located. Earthwork activities will be limited to manipulation of previously disturbed areas; therefore, no impacts to cultural resources are anticipated. The concurrence letter from the Texas Historical Commission was received September 17, 2018.

Provide a brief narrative regarding how CDBG-MIT funding is to be used. Demonstrate that HUD CDBG environmental requirements have been met to date:

Permits

Does the project require any federal, state, or other permits, approvals, or waivers to complete the proposed work? Yes

If yes, describe the type and purpose of each permit and its association with the proposed project. Provide a copy of each permit already executed: USACE Mitigation Banking Instrument

Nationwide Permit 27

Aquatic Habitat Restoration, Enhancement, and Establishment Activities

Effective Date: February 25, 2022 / Expiration Date: March 14, 2026

Authority: Sections 10 and 404

Activities in waters of the United States associated with the restoration, enhancement, and establishment of tidal and non-tidal wetlands and riparian areas, the restoration and enhancement of non-tidal streams and other non-tidal open waters, and the rehabilitation or enhancement of tidal streams, tidal wetlands, and tidal open waters, provided those activities result in net increases in aquatic resource functions and services.

Does the project require any type of ratified, legally binding agreement between the applicant and any other entity to provide continual operation upon completion? Yes

If yes, describe the type and purpose of each agreement and its association with the proposed project. Provide a copy of each agreement already executed or drafted: Harris County/Harris County Flood Control District and the Houston-Galveston Area Council are cooperating on this application under a Memorandum of Understanding. When the project is approved, both parties will sign an Interlocal Agreement stipulating the roles and responsibilities through implementation of the project, including long term maintenance of the site. A copy of the current MOU is attached.

For sewer and/or water facilities projects, does the applicant currently hold the Certificate of Convenience and Necessity (CCN) for the target area proposed in the application? (If not a sewer and/or water facilities project, please choose N/A): N/A

Budget Activity Lines

Program Budget Code	Planned/Requested Amount	Planned Other Funds Amount	Total	Percent of Total
Grant Administration	$122,923.00	$25,545.75	$148,468.75	2.6%
Engineering	$16,073.75	$233,287.25	$249,361.00	4.3%
Construction	$5,085,333.25	$42,077.00	$5,127,410.25	88.7%
Acquisition	$0.00	$5,000.00	$5,000.00	0.1%
Planning	$0.00	$0.00	$0.00	0%
Special Environmental	$150,000.00	$0.00	$150,000.00	2.6%
Environmental	$100,000.00	$0.00	$100,000.00	1.7%

Mitigation

Identify the specific risk the proposed project will mitigate against: Riverine Flooding

Describe as to how the proposed project addresses/mitigates against the current and future risks identified: The proposed project address' flood risk reduction.This 226.3 acre mitigation bank will offset the the impact of the function and values lost due to unavoidable adverse impacts to jurisdictional wetland resources that normally convey a multitude of ecosystem services within the service area through mitigation credits. The basic goal of the proposed project is to restore per-channelization hydrology and ecologic site conditions within the bank area. Further, the goal of the bank is to enhance/generate approximately 70 acres of established wetlands and re-establish approximately 85 acres of wetlands; reestablishing a forested riparian zone along Cedar Bayou in eastern Harris County and benefiting wildlife species (especially waterfowl) that use this region.

Provide information about how the proposed mitigation efforts integrate into the community's emergency and resiliency plans: The bank offers a sustainability solution that will support ongoing efforts to restore and maintain water quality of Cedar Bayou, its tributaries, and ultimately, Galveston Bay. This bank will provide floodwater retention protecting downstream homes and businesses, restored habitat for multiple wildlife species, and more new trees that will improve air quality and remove carbon dioxide from the atmosphere.

In the space provided, list documentation provided to support the identification of the threat or hazard and how it relates to potential impact: Harris County Multi-hazard Mitigation Action Plan : Area Wide Elements

- Action 8, 10, 11

Harris County Multi-hazard Mitigation Action Plan : Partner Annex Pg. 35-27 : Action FCD57 F-48, Q700-01-CON, Design and Construction of Crosby Eastgate Environmental Mitigation Bank

Hazards Mitigated: Flooding.

Provide a brief description of how the proposed project addresses an integrated approach to mitigation: A wetlands mitigation bank is a consolidated area in which valuable environmental resources are created, restored, enhanced or preserved. A mitigation bank offers the increase of wetlands (credits) as a replacement for wetlands that will be impacted or destroyed by future projects (debits). When compared to a series of fragmented, smaller wetlands, a consolidation of wetlands in a mitigation bank provides a greater diversity of habitat, preserves natural areas, creates a more sustainable system, and increases overall effectiveness of wetland functions. Mitigation banking is considered a superior option when compared to project-by-project or "permittee-responsible mitigation" on smaller, often isolated tracts. Mitigation banking leads to better-organized planning and consolidation of habitat, and encourages a long-term commitment to wetland protection. Larger tracts provide greater floodplain storage, support a greater diversity of habitat and wetland functions, and give wildlife room to roam freely. By creating the mitigation bank BEFORE development impacts occur, the mitigation bank helps prevent temporary losses of important wetland functions and values. A wetlands mitigation bank also benefits developers by streamlining the permitting process. As compared to "permittee-

responsible mitigation," a mitigation bank gives developers, utility providers, and state and local governments the opportunity to satisfy their statutory wetland mitigation requirements by paying a predictable, one-time fee for credits. The permit-holder assumes no long-term monitoring or maintenance obligations. The bank operator is responsible for monitoring and maintenance, and for ensuring the sustainability of the mitigation bank.

Considering the local evaluation of hazard risks, responsible floodplain management, future extreme weather/natural disaster events, and long-term risks, describe how the proposed project promotes sustainable community resilience: The plan identifies riverine Flooding at a 100-yr recurrence interval as affecting 8.9% of the total planning area population and structures as well as 23.0% of the County's critical facilities; ranking as the #2 hazard after Hurricanes.

Wetlands are among the most productive of ecosystems and perform many important functions that benefit people and wildlife while also providing flood risk reduction benefits in their local watersheds. Wetlands Mitigation Banks are permanently protected properties in which these important natural resources are preserved, restored or enhanced.

By preserving, restoring and creating wetlands within its mitigation banks, the Harris County Flood Control District provides opportunities for federally permitted government and private developments to mitigate for the unavoidable loss of wetlands elsewhere in Harris County. The creation of wetlands credits at our mitigation banks helps offset the debits of wetlands losses due to development. The sale of those credits helps ensure the long-term sustainability of these important wetlands preserves.

Wetlands mitigation banks support the mission of the Flood Control District by streamlining the construction of important flood damage reduction projects, and by allowing the Flood Control District to more efficiently obtain necessary U.S. Army Corps of Engineers permits. Mitigation banking on large tracts of land, such as the Greens Bayou Wetlands Mitigation Bank, allows for greater floodplain storage and habitat conductivity, eliminates temporal loss of wetlands functions and values, and creates a more sustainable system, with greater diversity of habitat and wetland functions.

Describe how the proposed project is consistent with local and regional planning efforts to effect disaster mitigation: Hazard mitigation planning for Harris County identifies ways to reduce risk from foreseeable natural hazards that

may impact the county. Harris County prepared an initial hazard mitigation plan in 2015, with cities and special

purpose jurisdictions in the county participating as partners in the plan. Since the completion of that plan, the

County has continued to experience major growth in residential, commercial and infrastructure development. To address these changes, and to meet federal requirements for keeping hazard mitigation plans current, Harris

County has completed the 2020 Harris County Multi-Hazard Mitigation Action Plan the first update to the

initial 2015 plan. In preparing it, Harris County again partnered with local cities and special-purpose

jurisdictions 38 planning partners in all. Such multi-jurisdictional planning allows these partners to pool

resources and eliminate redundant activities within an area that has uniform risk exposure and vulnerabilities. The project is named as a recommended project to address two mitigation goals and three objectives in the Harris County Multi Hazard Mitigation Plan.

Was a cost-benefit analysis used in the selection of the proposed project? No

Describe how the proposed project impacts vulnerable populations in the local community.: The project provides flood risk reduction benefits through the establishment and restoration of wetlands in the local watershed. In addition to positive impacts on conveyance and storm-water storage capacity in extreme storm events, the wetland mitigation bank serves to provide water quality benefits. Thereby reducing levels of potentially harmful substances in surface water and bio-accumulation in edible fresh-water species of fish and amphibians; lowering the exposure within surrounding communities.

Describe how the proposed project creates economic opportunities for the local community: The project provides flood risk reduction benefits through the establishment and restoration of wetlands in the local watershed. In addition to positive impacts on conveyance and storm-water storage capacity in extreme storm events, flood risk reduction and aligned mitigation measures make properties more desirable for development, reduce disruption and relocation costs, and lower transportation disruptions caused by excess storm-water. The above impacts provide a more stable environment for community development, long term community safety, and commercial expansion.

Does this project disproportionately impact vulnerable populations in the local community? No

Does the proposed project align with investments from other state or local capital improvements and infrastructure development efforts? No

Does the proposed project employ adaptable and reliable technology to guard against premature obsolescence? No

Describe the applicant's overall mitigation plan and how the project addressed in this application furthers that plan: Hazard mitigation planning for Harris County identifies ways to reduce risk from foreseeable natural hazards that

may impact the county. Harris County prepared an initial hazard mitigation plan in 2015, with cities and special

purpose jurisdictions in the county participating as partners in the plan. Since the completion of that plan, the

County has continued to experience major growth in residential, commercial and infrastructure development. To address these changes, and to meet federal requirements for keeping hazard mitigation plans current, Harris

County has completed the 2020 Harris County Multi-Hazard Mitigation Action Plan the first update to the

initial 2015 plan. In preparing it, Harris County again partnered with local cities and special-purpose

jurisdictions 38 planning partners in all. Such multi-jurisdictional planning allows these partners to pool

resources and eliminate redundant activities within an area that has uniform risk exposure and vulnerabilities. The plan identifies riverine Flooding at a 100-yr recurrence interval as affecting 8.9% of the total planning area population and structures as well as 23.0% of the County's critical facilities; ranking as the #2 hazard after Hurricanes. The project addresses several Mission Goals including: "#7 Investigate and implement a range of structural projects that will reduce the effects of natural hazards on public and private property throughout the county." and "#8 Investigate and implement a range of nature-based solutions and utilize and enhance natural resources and their ability to reduce the impacts from natural hazards". As a regional flood project, the Crosby-Eastgate Mitigation Bank Projet also addresses three planning objectives: "#8Support hazard mitigation measures that promote and enhance natural processes and minimize adverse impacts on the ecosystem.#10. Advance community resilience through preparation, adoption, and implementation of state, regional and local multi-hazard mitigation plans and projects. # 11. Encourage projects that simultaneously reduce risk while increasing resilience and sustainability."

Describe how the proposed project will contribute to the community's resiliency against future disasters as a result of these projects: Wetlands are among the most productive of ecosystems and perform many important functions that benefit people and wildlife. Wetlands Mitigation Banks are permanently protected properties in which these important natural resources are preserved, restored or enhanced.

By preserving, restoring and creating wetlands within its mitigation banks, the Harris County Flood Control District provides opportunities for federally permitted government and private developments to mitigate for the unavoidable loss of wetlands elsewhere in Harris County. The creation of wetlands credits at our mitigation banks helps offset the debits of wetlands losses due to development. The sale of those credits helps ensure the long-term sustainability of these important wetlands preserves.

Wetlands mitigation banks support the mission of the Flood Control District by streamlining the construction of important flood damage reduction projects, and by allowing the Flood Control District to more efficiently obtain necessary U.S. Army Corps of Engineers permits. Mitigation banking on large tracts of land, such as the Greens Bayou Wetlands Mitigation Bank, allows for greater floodplain storage and habitat conductivity, eliminates temporal loss of wetlands functions and values, and creates a more sustainable system, with greater diversity of habitat and wetland functions.

City of Columbus Wastewater Treatment Plant

Project Info

Project Information

DRGR Activity: Sewer Facilities

Project Type: Sewer Facilities

Project Title: City of Columbus Wastewater Treatment Plant

Does this project include replacement or relocation of a facility (i.e., lift station, water treatment plant, etc.)? Yes

Provide a detailed description of the scope of work proposed. For proposed work involving a length of road, ditch, channel, etc., report the scope of the project in linear feet (lf): The City of Columbus McCormick Street Wastewater Treatment Facility, located on the Colorado River, has a long history of experiencing significant impacts from flooding. The southwest bank

of the Colorado River is eroding, and the river is encroaching on the wastewater treatment facility site. The McCormick Wastewater Treatment Facility serves the entire City of Columbus except

for the industrial park, which has a separate industrial wastewater treatment plant. The Army Corps of Engineers performed a Federal Determination Interest Study in 2016 and a feasibility

study in 2018 regarding the riverbank erosion at this site. The Army Corps of Engineers is currently working on a project to stabilize the river bank adjacent to the wastewater treatment plant. Should the facility remain in this location, it is highly possible that the Colorado River will washout the wastewater treatment facility. During Hurricane Harvey, the river came within approximately 25 feet of washing the existing facility away. Wastewater equipment within the

existing plant was flooded by the rising waters of the Colorado River. The proposed wastewater treatment improvement activities include replacement of the existing McCormick Wastewater Treatment Plant with a new, relocated treatment facility. The new facility will be located approximately 500 feet further away from the Colorado River than the existing facility. Constructing a new wastewater treatment plant further away from the river will reduce the likelihood of the treatment facility being washed away by the river. The new facility will also include an emergency standby generator to maintain wastewater treatment abilities during a

power outage. The City of Columbus has an existing 0.65 million gallons per day (MGD) wastewater treatment

facility that includes a single bullseye treatment unit, sand drying beds, polymer beds, an influent lift station, and mechanical bar screen. The proposed project is to construct a new diffused-air

wastewater treatment unit with dual treatment trains, a new headworks structure, new emergency standby power generator, new sludge drying beds, and all related appurtenances for a fully operational wastewater treatment facility approximately 600 feet from the western

riverbank of the Colorado River. The project will also include decommissioning and removal of the existing wastewater treatment facility.

Site: Project Site Title	Site: Street Address
New Wastewater Plant Site	4128 State Highway 71
Old Wastewater Plant	Tait Street, Columbus Texas

Describe a plan for the long-term funding and management of the operations and maintenance of the project: The operations and management of the wastewater treatment plant will be conducted by the City of Columbus as part of its ongoing utility operations. The new facility will replace an existing facility. For additional information on fhe City of Columbus' utilities, please visit https://www.columbustexas.net/page/city.utilities

Total proposed number of linear feet:

Total number of proposed public facilities: 1

Project Phase	Start Date	End Date	Length (in months)
Contract Closeout	3/3/2026	5/3/2026	2
Submit As-Builts/COCC/FWCR	2/15/2025	3/15/2025	1
Construction	7/1/2024	1/1/2026	18
Construction NTP	6/1/2024	7/1/2024	1
Contract Award	4/15/2024	5/15/2024	1
Bid Advertisement	12/1/2023	2/1/2024	2
Acquisition	9/1/2023	12/1/2023	3
Environmental Review	5/1/2023	8/1/2023	3
Engineering Design	5/1/2023	8/1/2023	3
Start-Up Documentation	4/1/2023	6/1/2023	2

National Objective

National Objective

Provide Total Number of Beneficiaries: 3,617

Provide number of LMI Beneficiaries 1,757

Percentage of LMI Beneficiaries: 48.58%

Is that applicant a HUD Exception Grantee? No

Census Tract	Block Group List (Text)
7,505	Group 1 ; Group 2 ; Group 3 ; Group 4
7,504	Group 1

Male: 1,799

Female: 1,818

Total: 3,617

Race	Hispanic Population	Non-Hispanic Population	Total Population
Some Other Race	358	0	358
Black African American	0	615	615
White	284	2,287	2,571
Other Multi-Racial	24	10	34
Black African American/White	10	5	15
Asian	0	24	24
American Indian/Alaskan Native	0	0	0
Asian/White	0	0	0
American Indian/Alaskan Native/White	0	0	0
Native Hawaiian / Other Pacific Islander	0	0	0
American Indian/Alaskan	0	0	0

Race	Hispanic Population	Non-Hispanic Population	Total Population
Native/Black African American			

Which HUD national objective does the project meet? UNM

Describe activities that benefit low- and moderate-income people:

Method(s) used to determine the beneficiaries: UNM Area Benefit (City-wide)

What method was used for Beneficiary Identification? Census (HUD LMISD)

Provide a brief description of the beneficiary identification method used to determine this national objective and upload supporting beneficiary maps, census data, and/or survey documents: The wastewater plant serves as the sole treatment works for the entire residential area of the city, outside of an industrial park. The entire city population described in the ACS 5 year estimate are beneficiaries to continuous service, and conversely, would be harmed by loss of service.

U.S. Congressional District #: 10

Texas Representative District #: 85

Texas Senate District #: 17

Environmental

What is the current status of the project? Not yet begun

Will the assistance requested have any negative impact(s) or effect(s) on the environment? No

Is the proposed project likely to require an archaeological assessment? No

Is the proposed site(s) listed on the National Register of Historic Places? No

Is the project in a designated floodway or coastal high hazard area? No

Is the project in a designated special flood hazard area or a designated wetland? No

For projects in the 500 or 100-year floodplain: Does your project involve a critical action as defined in 24CFR55.2(b)(3)?

Is any project site located in a known critical habitat for endangered species? No

Is any project site a known hazardous site? No

Is any project site located on federal lands or at a federal installation? No

Is any project site subject to or participating in Fixing America's Surface Transportation Act (FAST-41) (P.L. 114-94)? No

What level of environmental review is likely needed for this project? Environmental Assessment

Provide any additional detail or information relevant to Environmental Review: NA

Provide a brief narrative regarding how CDBG-MIT funding is to be used. Demonstrate that HUD CDBG environmental requirements have been met to date:

Permits

Does the project require any federal, state, or other permits, approvals, or waivers to complete the proposed work? Yes

If yes, describe the type and purpose of each permit and its association with the proposed project. Provide a copy of each permit already executed: TCEQ, which may take 12 months

Does the project require any type of ratified, legally binding agreement between the applicant and any other entity to provide continual operation upon completion? Yes

If yes, describe the type and purpose of each agreement and its association with the proposed project. Provide a copy of each agreement already executed or drafted: The Houston-Galveston Area Council has entered into a Memorandum of Understanding with the City of Columbus that details our intent to enter into an Interlocal Agreement if and when this project is approved by GLO. The Interlocal Agreement will detail the ongoing relationship and the City's intent to continually operate the WWTF. A copy of the MOU is attached.

For sewer and/or water facilities projects, does the applicant currently hold the Certificate of Convenience and Necessity (CCN) for the target area proposed in the application? (If not a sewer and/or water facilities project, please choose N/A): Yes

Budget Activity Lines

Program Budget Code	Planned/Requested Amount	Planned Other Funds Amount	Total	Percent of Total
Planning	$0.00	$0.00	$0.00	0%
Acquisition	$100,000.00	$0.00	$100,000.00	0.6%
Environmental	$30,000.00	$0.00	$30,000.00	0.2%
Construction	$12,861,000.00	$0.00	$12,861,000.00	81.3%
Engineering	$1,929,150.00	$0.00	$1,929,150.00	12.2%
Grant Administration	$891,039.50	$0.00	$891,039.50	5.6%
Special Environmental	$0.00	$0.00	$0.00	0%

Mitigation

Identify the specific risk the proposed project will mitigate against: Riverine Flooding

Describe as to how the proposed project addresses/mitigates against the current and future risks identified: The proposed project would abandon and decommission an existing wastewater treatment facility adjacent to the Colorado River whose site has had severe erosion issues in prior storm events. The City of Columbus McCormick Street Wastewater Treatment Facility, located on the Colorado River, has a long history of experiencing significant impacts from flooding. The southwest bank of the Colorado River is eroding, and the river is encroaching on the wastewater treatment facility site. The McCormick Wastewater Treatment Facility serves the entire City of Columbus except for the industrial park, which has a separate industrial wastewater treatment plant. The Army Corps of Engineers performed a Federal Determination Interest Study in 2016 and a feasibility study in 2018 regarding the riverbank erosion at this site. The Army Corps of Engineers is currently working on a project to stabilize the river bank adjacent to the wastewater treatment

plant. Should the facility remain in this location, it is highly possible that the Colorado River will washout the wastewater treatment facility. During Hurricane Harvey, the river came within approximately 25 feet of washing the existing facility away. Wastewater equipment within the existing plant was flooded by the rising waters of the Colorado River. Loss of the plant would leave the service area without wastewater service and without feasible alternative.

Provide information about how the proposed mitigation efforts integrate into the community's emergency and resiliency plans: Loss of the plant would leave the service area without wastewater service and without feasible alternative. Continuity of service is a necessary element of disaster preparedness and response. The mitigation efforts would greatly reduce the risk of loss of wastewater service in riverine flooding events.

In the space provided, list documentation provided to support the identification of the threat or hazard and how it relates to potential impact: The Army Corps of Engineers performed a Federal Determination Interest Study in 2016 and a feasibility study in 2018 regarding the riverbank erosion at this site.

Provide a brief description of how the proposed project addresses an integrated approach to mitigation: The current plant is the primary source of wastewater service to the community, and continued service is necessary to preserve residential quality of life, support economic growth, and enable community recovery from disaster events. The Columbus facility is listed as critical infrastructure in the Colorado County Hazard Mitigation Plan, and is also specifically called out as being in the 100 year floodplain (old facility). (https://www.co.colorado.tx.us/upload/page/6211/Colorado_HMPUpdate%20October2016.pdf)

Considering the local evaluation of hazard risks, responsible floodplain management, future extreme weather/natural disaster events, and long-term risks, describe how the proposed project promotes sustainable community resilience: The proposed project moves the City's sole wastewater plant away from a rapidly eroding riverbank to a more sheltered location, reducing immediate risk, but also increasing the chance of continuity of operations in storm events. The new facility will no longer be on a side road, but a state highway, increasing

accessibility for emergency equipment. In general, the continuity of wastewater service is a fundamental component of community resilience, especially when the ocmmunty relies on a single plant.

Describe how the proposed project is consistent with local and regional planning efforts to effect disaster mitigation: Continuity of operations for utilities and reducing the threat of inundation by placing critical infrastructure outside of imminent risk of riverine flooding (as compared to the existing facility)

Was a cost-benefit analysis used in the selection of the proposed project? No

Describe how the proposed project impacts vulnerable populations in the local community.: Vulnerable communities are first and disproportionately impacted by lack of basic services, especially when they may not have equal access to transport to move to areas of service. Improving system resilience benefits all community members, but especially those who are most impacted by the mitigated threat of loss of continuity of service.

Describe how the proposed project creates economic opportunities for the local community: The direct impact of the project will be short term localized economic benefit of construction. However, long term economic growth and development rely on availability and confidence in basic utilities. The project will better support long term growth in this capacity.

Does this project disproportionately impact vulnerable populations in the local community? No

Does the proposed project align with investments from other state or local capital improvements and infrastructure development efforts? Yes

Does the proposed project employ adaptable and reliable technology to guard against premature obsolescence? Yes

Describe the applicant's overall mitigation plan and how the project addressed in this application furthers that plan: The Houston-Galveston Area Council's Application for priority flood mitigation projects is intended to support regionally significant and urgently needed local projects across our 13-county area. Projects were identified by a Committee of local representatives from the region, and were selected and prioritized based on their potential impact. Projects like the Columbus project, in which infrastructure is imminently in danger from flooding, the loss of which would be catastrophic to the community without feasible alternative, are prioritized in the approach. The Columbus project is a Tier 1 project.

Describe how the proposed project will contribute to the community's resiliency against future disasters as a result of these projects: Continuity of utility service is essential for disaster resilience, and recovery. More broadly speaking, removing the wastewater treatment facility for this growing community and replacing it with a less vulnerable facility will increase likelihood of continuity of service or decease downtime.

City of Surfside Wastewater Improvements

Project Info

Project Information

DRGR Activity: Sewer Facilities

Project Type: Sewer Facilities

Project Title: City of Surfside Wastewater Improvements

Does this project include replacement or relocation of a facility (i.e., lift station, water treatment plant, etc.)? No

Provide a detailed description of the scope of work proposed. For proposed work involving a length of road, ditch, channel, etc., report the scope of the project in linear feet (lf): This project involved construction of a gravity wastewater system, lift station, and force main and abandonment of a vacuum sewer system to increase system capacity and resiliency.

The Village of Surfside Beach is seeking funding assistance for the replacement and rehabilitation of their vacuum sewer collection system. The vacuum system was originally constructed in 1999 and is comprised of three main lines (Seashell, Treaty, Fort Velasco). Valve pits are located near homes along the vacuum main lines and provide the residential service connection to the vacuum system. These valve pits are plagued with maintenance issues with the largest culprits being sand infiltration, groundwater infiltration, inflow from high-tides, sanitary sewer overflows, and are susceptible to damage during storms. This causes the entire system to lose vacuum pressure and jeopardize wastewater service on a near daily basis. It is reported by the Village that the Seashell line has significantly more issues than the other two as it is closest to the beach. Hurricane Ike (2008), Hurricane Harvey (2017), and Hurricane Nicholas (2021) each left portions of the vacuum system inundated with sand and sea water making them completely inoperable. Portions of the Village s residents had no sewer service after these events.

A vacuum system evaluation was performed by Kimley-Horn and Associates, Inc., and it was found that replacement of the Seashell line with a gravity wastewater system (approximately 12,600 linear feet of 10-inch wastewater) and submersible lift station (approximately 120 gpm, peak flow) will provide the Village the following benefits:

Removal of approximately 90 valve pits and approximately 190 homes and businesses off the vacuum sewer collection system.

Reduced SSOs in the vacuum sewer collection system

Reduced expenditures from maintenance and operations

Increased level of wastewater service to the Village during peak tourist times

Increased wastewater system resiliency from future storm events

The new gravity sewer line and submersible lift station will be constructed with the following measures to increase the system resiliency:

Corrosion resistant manhole lids and covers to reduce corrosion from sea spray and sea water.

Fused poly pipe to reduce groundwater inflow and infiltration

The lift station will have the electrical gear raised above the 500-yr base flood elevation.

Kimley-Horn and the Village have been in contact with the Texas Commission on Environmental Quality (TCEQ) to have the project permitted through the appropriate channels. TCEQ approval will be required prior to commencing construction. No other permitting concerns are known at this time.

Site: Project Site Title	Site: Street Address
Seashell Line Replacement	multiple

Describe a plan for the long-term funding and management of the operations and maintenance of the project: The City of Surfside Beach will own and maintain the system as part of their sewer utility. Ongoing roles and responsibilities for its maintenance will be funded by their current utility funding structure.

Total proposed number of linear feet: 12,600

Total number of proposed public facilities:

Project Phase	Start Date	End Date	Length (in months)
Contract Closeout	4/1/2025	6/1/2025	2
Submit As-Builts/COCC/FWCR	2/1/2024	3/1/2024	1
Construction	2/1/2024	12/1/2024	10
Construction NTP	2/1/2024	3/1/2024	1
Contract Award	8/1/2023	9/1/2023	1
Bid Advertisement	5/1/2023	7/1/2023	2
Acquisition	5/1/2023	3/1/2024	10
Engineering Design	5/1/2023	3/1/2024	10
Environmental Review	5/1/2023	3/1/2024	10
Start-Up Documentation	11/1/2022	3/1/2023	4

National Objective

National Objective

Provide Total Number of Beneficiaries: 590

Provide number of LMI Beneficiaries 310

Percentage of LMI Beneficiaries: 52.54%

Is that applicant a HUD Exception Grantee? No

Census Tract	Block Group List (Text)
6,642	Group 3

Male: 334

Female: 256

Total: 590

Race	Hispanic Population	Non-Hispanic Population	Total Population
Some Other Race	8	20	28
Black African American	0	8	8
Asian	3	0	3
American Indian/Alaskan Native/White	3	5	8
White	45	480	525
Black African American/White	3	4	7
Asian/White	3	5	8
Other Multi-Racial	1	2	3
Native Hawaiian / Other Pacific Islander	0	0	0
American Indian/Alaskan Native/Black African American	0	0	0

Race	Hispanic Population	Non-Hispanic Population	Total Population
American Indian/Alaskan Native	0	0	0

Which HUD national objective does the project meet? LMI

Describe activities that benefit low- and moderate-income people: Low- and moderate-income people are disproportionately impacted by coastal disasters and by loss of continuity of utility service. The proposed project would replace a wastewater line that is vulnerable to coastal flooding and storm events with a more resilient piece of infrastructure. The entire city area will benefit because it reduces demand and vulnerability on the rest of the existing vacuum system. The proposed system will reduce sanitary sewer overflows and the potential disproportionate health risk to LMI populations, reduce expenditures in general allowing for better use of city resources, increased level of service, and greatly increase resilience and recovery during both normal conditions and storm events.

Method(s) used to determine the beneficiaries: LMI Area Benefit (City-wide)

What method was used for Beneficiary Identification? Census (HUD LMISD)

Provide a brief description of the beneficiary identification method used to determine this national objective and upload supporting beneficiary maps, census data, and/or survey documents: The Block group the project resides in covers a large area not served by the project. The benefits, as discussed, are city-wide, by reducing vulnerability of the overall system, etc. Therefore, the LMISD data for the city was used. The benefit area extends beyond the project area, affecting the whole city directly, so the entire city data from LMISD was used rather than a survey of just the project area.

U.S. Congressional District #: 14

Texas Representative District #: 25

Texas Senate District #: 17

Environmental

What is the current status of the project? Not yet begun

Will the assistance requested have any negative impact(s) or effect(s) on the environment? No

Is the proposed project likely to require an archaeological assessment? No

Is the proposed site(s) listed on the National Register of Historic Places? No

Is the project in a designated floodway or coastal high hazard area? Yes

Is the project in a designated special flood hazard area or a designated wetland? No

For projects in the 500 or 100-year floodplain: Does your project involve a critical action as defined in 24CFR55.2(b)(3)?

Is any project site located in a known critical habitat for endangered species? No

Is any project site a known hazardous site? No

Is any project site located on federal lands or at a federal installation? No

Is any project site subject to or participating in Fixing America's Surface Transportation Act (FAST-41) (P.L. 114-94)? No

What level of environmental review is likely needed for this project? Environmental Assessment

Provide any additional detail or information relevant to Environmental Review: HUD/GLO Environmental Assessment (EA) and Environmental Review Record (ERR), and aquatic resources delineation and impact analysis per NEPA, 24 CFR Part 58 is required for this project.

Provide a brief narrative regarding how CDBG-MIT funding is to be used. Demonstrate that HUD CDBG environmental requirements have been met to date:

Permits

Does the project require any federal, state, or other permits, approvals, or waivers to complete the proposed work? Yes

If yes, describe the type and purpose of each permit and its association with the proposed project. Provide a copy of each permit already executed: HUD/GLO Environmental Assessment (EA) and Environmental Review Record (ERR), and aquatic resources delineation and impact analysis per NEPA, 24 CFR Part 58 is required for this project. Additional permit requirements, including TCEQ permit requirements for changes to the wastewater system, will be identified in the project environmental review and planning.

Does the project require any type of ratified, legally binding agreement between the applicant and any other entity to provide continual operation upon completion? Yes

If yes, describe the type and purpose of each agreement and its association with the proposed project. Provide a copy of each agreement already executed or drafted: As the applicant, the Houston-Galveston Area Council is working with the City of Surfside to propose this project. The two parties are currently operating under a Memorandum of Understanding that identifies roles and responsibilities through the application process. If GLO approves the project, H-GAC and the City of Surfside Beach will enter into am Interlocal Agreement that binds them to the formal roles and responsibilities in implementing and maintaining the project. A copy of the current MOU is attached.

For sewer and/or water facilities projects, does the applicant currently hold the Certificate of Convenience and Necessity (CCN) for the target area proposed in the application? (If not a sewer and/or water facilities project, please choose N/A): Yes

Budget Activity Lines

Program Budget Code	Planned/Requested Amount	Planned Other Funds Amount	Total	Percent of Total
Grant Administration	$225,402.10	$0.00	$225,402.10	3%
Environmental	$80,000.00	$0.00	$80,000.00	1.1%
Planning	$0.00	$0.00	$0.00	0%
Acquisition	$0.00	$0.00	$0.00	0%
Special Environmental	$0.00	$0.00	$0.00	0%
Engineering	$588,000.00	$0.00	$588,000.00	7.7%
Construction	$6,700,000.00	$0.00	$6,700,000.00	88.2%

Mitigation

Identify the specific risk the proposed project will mitigate against: Severe Coastal Flooding;Storms

Describe as to how the proposed project addresses/mitigates against the current and future risks identified: The proposed project removes a portion of the city's vacuum system that is highly susceptible to flooding, slow to recover, puts burden on the rest of the city's system, and requires 90 valve pits to function properly. Located directly adjacent to the beach/coast, this system is highly vulnerable to coastal flooding. The replacement of the vacuum system and pits with a gravity wastewater line will decrease downtime and increase community resilience in storm events, reduce the overall burden to the rest of the system, reduce SSOs and public health concerns, better handle peak tourist loads, and reduce city expenditure allowing for investment in other aspects of system resilience.

Provide information about how the proposed mitigation efforts integrate into the community's emergency and resiliency plans: Increasing system resilience by ensuring better continuity of service or decreased downtime in storm events increases community resilience and speeds up recovery.

In the space provided, list documentation provided to support the identification of the threat or hazard and how it relates to potential impact: Surfside Beach identified the threat based on prior experience in storm events, and evaluated alternatives in prior assessments, including the attached "Village of Surfside Beach Vacuum Collection System Evaluation".

Provide a brief description of how the proposed project addresses an integrated approach to mitigation: Continued reliable wastewater service is necessary to preserve residential quality of life, support economic growth, and enable community recovery from disaster events. Although increasing system resilience is the primary focus of the project, it will also help address other, integrated concerns like environmental impacts (including SSOs), and help ensure economic viability of the system as a whole.

Considering the local evaluation of hazard risks, responsible floodplain management, future extreme weather/natural disaster events, and long-term risks, describe how the proposed project promotes sustainable community resilience: The replacement of the vacuum system and pits with a gravity wastewater line will decrease downtime and increase community resilience in storm events, reduce the overall burden to the rest of the system, reduce SSOs and public health concerns, better handle peak tourist loads, and reduce city expenditure allowing for investment in other aspects of system resilience.

Describe how the proposed project is consistent with local and regional planning efforts to effect disaster mitigation: The improvement of utility and other infrastructure is a goal of the broader Brazoria County Hazard Mitigation Plan, as well as City of Surfside Beach efforts to improve community resilience as a coastal city.

Was a cost-benefit analysis used in the selection of the proposed project? No

Describe how the proposed project impacts vulnerable populations in the local community.: Vulnerable communities are first and disproportionately impacted by lack of basic services,

especially when they may not have equal access to transport to move to areas of service. Improving system resilience benefits all community members, but especially those who are most impacted by the mitigated threat of loss of continuity of service.

Describe how the proposed project creates economic opportunities for the local community: The direct impact of the project will be short term localized economic benefit of construction. However, long term economic growth and development rely on availability and confidence in basic utilities. The project will better support long term growth in this capacity.

Does this project disproportionately impact vulnerable populations in the local community? No

Does the proposed project align with investments from other state or local capital improvements and infrastructure development efforts? Yes

Does the proposed project employ adaptable and reliable technology to guard against premature obsolescence? Yes

Describe the applicant's overall mitigation plan and how the project addressed in this application furthers that plan: The Houston-Galveston Area Council's Application for priority flood mitigation projects is intended to support regionally significant and urgently needed local projects across our 13-county area. Projects were identified by a Committee of local representatives from the region, and were selected and prioritized based on their potential impact. Projects like the Surfside Beach project, in which infrastructure is imminently in danger from flooding, the loss of which would be catastrophic to the community without feasible alternative, are prioritized in the approach. This project is a Tier 1 project.

Describe how the proposed project will contribute to the community's resiliency against future disasters as a result of these projects: Continuity of utility service is essential for disaster resilience, and recovery. More broadly speaking, removing the wastewater treatment vacuum system from the project area, and replacing it with a less vulnerable gravity based system will increase likelihood of continuity of service or decease downtime.

Fort Bend County - Brazos River Erosion at Simonton Pinch Point - Simonton Pinch Point - North

Project Site

Project Site

Project Site Title: Simonton Pinch Point - North

Street Address: Fort Bend County

Street Limits on Street: On the Brazos RIver

From Street: From Coordinates: 29.68241,-9602449

To Street: To Coordinates: 29.68437, -96.01430

Zip Code: 77476

City: Simonton

County: Fort Bend

State: Texas

Latitude: 29.68437

Longitude: -96.01886

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 5,500

Acquisition/Uniform Relocation Assistance

Does the project require acquisition of property, purchase of easements, relocation, or any other activity requiring compliance with URA outside the listed waived activities? Yes

Has acquisition of the project site(s) been completed, in progress, or will need to be acquired? To be Acquired

Describe the type and purpose of all acquisitions (easements, real property, etc.) associated with the proposed project. For acquisitions "Previously Acquired" or "Acquisition in Progress," include the date of acquisition, detailed information and supporting documentation to ensure compliance with all URA, 42 U.S.C. 4601 et seq., and environmental review processes: Property will be acquired to support the construction of the project as well as the long-term maintenance.

What is the planned number of parcels to be acquired? 4

What is the associated cost amount for this acquisition? $500,000.00

Fort Bend County - Brazos River Erosion at Simonton Pinch Point - Simonton Pinch Point - South

Project Site

Project Site

Project Site Title: Simonton Pinch Point - South

Street Address: Fort Bend County

Street Limits on Street: On Brazos River

From Street: From Coordinates: 29.67551, -96.03254

To Street: To Coordinates: 29.6144, -96.02026

Zip Code: 77476

City: Simonton

County: Fort Bend

State: Texas

Latitude: 29.67601

Longitude: -96.02543

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 4,700

Acquisition/Uniform Relocation Assistance

Does the project require acquisition of property, purchase of easements, relocation, or any other activity requiring compliance with URA outside the listed waived activities? Yes

Has acquisition of the project site(s) been completed, in progress, or will need to be acquired? To be Acquired

Describe the type and purpose of all acquisitions (easements, real property, etc.) associated with the proposed project. For acquisitions "Previously Acquired" or "Acquisition in Progress," include the date of acquisition, detailed information and supporting documentation to ensure compliance with all URA, 42 U.S.C. 4601 et seq., and environmental review processes: Property will be acquired to support the construction of the project as well as the long-term maintenance.

What is the planned number of parcels to be acquired? 4

What is the associated cost amount for this acquisition? $500,000.00

City of Columbus Wastewater Treatment Plant - New Wastewater Plant Site

Project Site

Project Site

Project Site Title: New Wastewater Plant Site

Street Address: 4128 State Highway 71

Street Limits on Street: Hwy 71

From Street: Hwy 71

To Street: Hwy 71

Zip Code: 78934

City: Columbus

County: Colorado

State: Texas

Latitude: 29.683872847344

Longitude: -96.538041292345

Performance Measures: Public Facilities

Provide the proposed number of linear feet:

Acquisition/Uniform Relocation Assistance

Does the project require acquisition of property, purchase of easements, relocation, or any other activity requiring compliance with URA outside the listed waived activities? No

Has acquisition of the project site(s) been completed, in progress, or will need to be acquired? To be Acquired

Describe the type and purpose of all acquisitions (easements, real property, etc.) associated with the proposed project. For acquisitions "Previously Acquired" or "Acquisition in Progress," include the date of acquisition, detailed information and supporting documentation to ensure compliance with all URA, 42 U.S.C. 4601 et seq., and environmental review processes: Currently Farmland

What is the planned number of parcels to be acquired?

What is the associated cost amount for this acquisition? $100,000.00

City of Columbus Wastewater Treatment Plant - Old Wastewater Plant

Project Site

Project Site

Project Site Title: Old Wastewater Plant

Street Address: Tait Street, Columbus Texas

Street Limits on Street: Tait Street

From Street: Tait Street

To Street: Tait Street

Zip Code: 78934

City: Columbus

County: Colorado County

State: Texas

Latitude: 29.69743989164

Longitude: -96.535346601522

Performance Measures: Public Facilities

Provide the proposed number of linear feet:

Acquisition/Uniform Relocation Assistance

Does the project require acquisition of property, purchase of easements, relocation, or any other activity requiring compliance with URA outside the listed waived activities? No

Has acquisition of the project site(s) been completed, in progress, or will need to be acquired?

Describe the type and purpose of all acquisitions (easements, real property, etc.) associated with the proposed project. For acquisitions "Previously Acquired" or "Acquisition in Progress," include the date of acquisition, detailed information and supporting documentation to ensure compliance with all URA, 42 U.S.C. 4601 et seq., and environmental review processes:

What is the planned number of parcels to be acquired?

What is the associated cost amount for this acquisition?

City of Surfside Wastewater Improvements - Seashell Line Replacement

Project Site

Project Site

Project Site Title: Seashell Line Replacement

Street Address: multiple

Street Limits on Street: Surf Drive and other parallel streets

From Street: State Highway 332

To Street: Surfside Jetty Park

Zip Code: 77541

City: Surfside Beach

County: Brazoria

State: Texas

Latitude: 28.945305779351

Longitude: -95.29032629828

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 12,600

Acquisition/Uniform Relocation Assistance

Does the project require acquisition of property, purchase of easements, relocation, or any other activity requiring compliance with URA outside the listed waived activities? No

Has acquisition of the project site(s) been completed, in progress, or will need to be acquired?

Describe the type and purpose of all acquisitions (easements, real property, etc.) associated with the proposed project. For acquisitions "Previously Acquired" or "Acquisition in Progress," include the date of acquisition, detailed information and supporting documentation to ensure compliance with all URA, 42 U.S.C. 4601 et seq., and environmental review processes:

What is the planned number of parcels to be acquired?

What is the associated cost amount for this acquisition?

Crosby-Eastgate Mitigation Bank - Crosby-Eastgate Mitigation Bank - Project Site

Project Site

Project Site

Project Site Title: Crosby-Eastgate Mitigation Bank - Project Site

Street Address: Crosby Eastgate Road

Street Limits on Street: Crosby Eastgate Rd

From Street: Cedar Bayou

To Street: Felscher Ln

Zip Code: 77532

City: Crosby

County: Harris

State: Texas

Latitude: 29.991695

Longitude: -95.021966

Performance Measures: Public Facilities

Provide the proposed number of linear feet:

Acquisition/Uniform Relocation Assistance

Does the project require acquisition of property, purchase of easements, relocation, or any other activity requiring compliance with URA outside the listed waived activities? Yes

Has acquisition of the project site(s) been completed, in progress, or will need to be acquired? Acquisition in Progress

Describe the type and purpose of all acquisitions (easements, real property, etc.) associated with the proposed project. For acquisitions "Previously Acquired" or "Acquisition in Progress," include the date of acquisition, detailed information and supporting documentation to ensure compliance with all URA, 42 U.S.C. 4601 et seq., and environmental review processes: Property was donated from Harris County on June 8, 2021 for the development and long term management of the mitigation bank. Additional easement abandonment of XTO Energy drill pad and Easton Energy pipeline relocation (dry pipe) are necessary for success of the project and a conservation easement will need to be executed with Bayou Land Conservancy per USACE requirements.

What is the planned number of parcels to be acquired? 2

What is the associated cost amount for this acquisition? $5,000.00