PUBLIC COMMENT PERIOD:

DECEMBER 5, 2022- DECEMBER 19,2022

HMGP

COG Allocation

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Streambank Restoration- Stewart Creek

San Jacinto Watershed and Tributary Barrier Flood Mitigation- Lake Creek

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County

MONTGOMERY COUNTY OFFICE OF HOMELAND SECURITY AND EMERGENCY MANAGEMENT

Regional Mitigation Program

Texas General Land Office

Community Development & Revitalization

Montgomery County

2022-100111-RMP

Table of Contents

Regional Mitigation Program Application

General

Applicant Information

Applicant: Montgomery County

County: Montgomery

Program: Regional Mitigation Program: H-GAC HUD MID

COG: Houston-Galveston Area Council (H-GAC)

Phone Number: (936) 523-3915

Address: 9472 Airport Road, Conroe, Texas 77303

Website: mctx.org, mctx.org/recover

Employer Identification Number (EIN): 74-600055

Taxpayer Identification Numbers (TIN): 74-600055

UEI (Unique Entity Identifier): DR3UM2VRE4D7

Data Universal Numbering System (DUNS): 026051276

SAM.gov Registration Expiration Date: 11/15/2023

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? $60,375,000.00

Is the applicant participating in the National Flood Insurance Program? Yes

Fiscal Year End Date (Month): September

Fiscal Year End Date (Day): 30

Application Contacts

Contact Role	Organization	First Name	Last Name	Title	Phone	Email
Engineer	Montgomery County	Brian	Clark	Engineer	(936) 539-7833	brianc.clark@mctx.org
Authorized Representative	MCOHSEM	Jason	Millsaps	Executive Director	(936) 539-7812	jason.millsaps@mctx.org

Contact Role	Organization	First Name	Last Name	Title	Phone	Email
Primary Contact	MCOHSEM	Morgan	Lumbley	Disaster Recovery Manager	(936) 523-3915	morgan.lumbley@mctx.org
Grant Administrator	MCOHSEM	Morgan	Lumbley	Disaster Recovery Manager	(936) 523-3915	morgan.lumbley@mctx.org
Chief Elected Official	Montgomery County	Mark	Keough	County Judge	(936) 539-7812	cojudge@mctx.org

SF-424 Questions

Applicant Type: County

Application Title: Montgomery County Watershed and Tributary Barrier Flood Mitigation

Is the applicant delinquent on any federal debt? Montgomery County Watershed and Tributary Barrier Flood Mitigation

OMB Number: 4040-0004
Expiration Date: 12/31/2022

Application for Federal Assistance SF-424

* 1. Type of Submission:
- [ ] Preapplication
- [x] Application
- [ ] Changed/Corrected Application

* 2. Type of Application:
- [x] New
- [ ] Continuation
- [ ] Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received: 12.01.22

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: Montgomery County Office of Homeland Security & EM MGT

* b. Employer/Taxpayer Identification Number (EIN/TIN): 74-600055

* c. Organizational DUNS: 0260512765555

d. Address:

* Street1: 9472 Airport Road
Street2:
* City: Conroe
County/Parish:
* State: TX: Texas
Province:
* Country: USA: UNITED STATES
* Zip / Postal Code: 77303-4308

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:
* First Name: Jason
Middle Name:
* Last Name: Millsaps
Suffix:

Title: Emergency Management Director

Organizational Affiliation:

* Telephone Number: (936)523-3901
Fax Number:

* Email: Jason.Millsaps@mctx.org

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

B: County Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

U.S. Department of Housing and Urban Development (HUD)

11. Catalog of Federal Domestic Assistance Number:

14.228

CFDA Title:

*** 12. Funding Opportunity Number:**

Federal Register / Vol. 84, No. 169

* Title:

CDBG-MIT- San Jacinto Watershed and Tributary Barrier Flood Mitigation

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachments | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Waterway obstruction removal in 3 project areas (1)Lake Creek (2)Stewart Creek (3) East County that includes four waterways- located throughout Montgomery County to mitigate riverine flooding from high rainfall storm events.

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: 2,8 * b. Program/Project: 2,8

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 04/01/2023 * b. End Date: 3/21/2025

18. Estimated Funding ($):

* a. Federal	$60,374,999.66
* b. Applicant	0.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	$60,374,999.66

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☒ a. This application was made available to the State under the Executive Order 12372 Process for review on 10/28/2020.

☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☐ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name: Jason

Middle Name:

* Last Name: Millsaps

Suffix:

* Title: Emergency Management Director

* Telephone Number: (936)523-3901 Fax Number:

* Email: Jason.millsaps@mctx.org

* Signature of Authorized Representative:  * Date Signed: 12/01/2022

Activities

Activity

DRGR Activity	Planned Budget Amount
Flood and Drainage Facilities	$60,374,999.66

Project

Project: Project Title	Project: Project Type	Environment: What is the current status of the project?	Total Budget
San Jacinto Watershed and Tributary Barrier Flood Mitigation- Lake Creek	Flood and Drainage	Not yet started	$8,994,323.00
San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County	Flood and Drainage	Not yet started	$36,384,322.26
San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek	Flood and Drainage	Not yet started	$14,996,354.40

Budget Line Summary

Total Engineering over Total Construction: 2.59%

Total Admin + Environmental over Total Amount Requested: 5.95%

Allowable Fee Percentage Cap for Admin + Environmental: 6%

Program Budget Code	Planned/Requested Amount
Engineering	$335,465.56
Engineering	$1,000,000.00
Engineering	$100,000.00
Grant Administration	$1,885,800.70
Grant Administration	$465,283.00

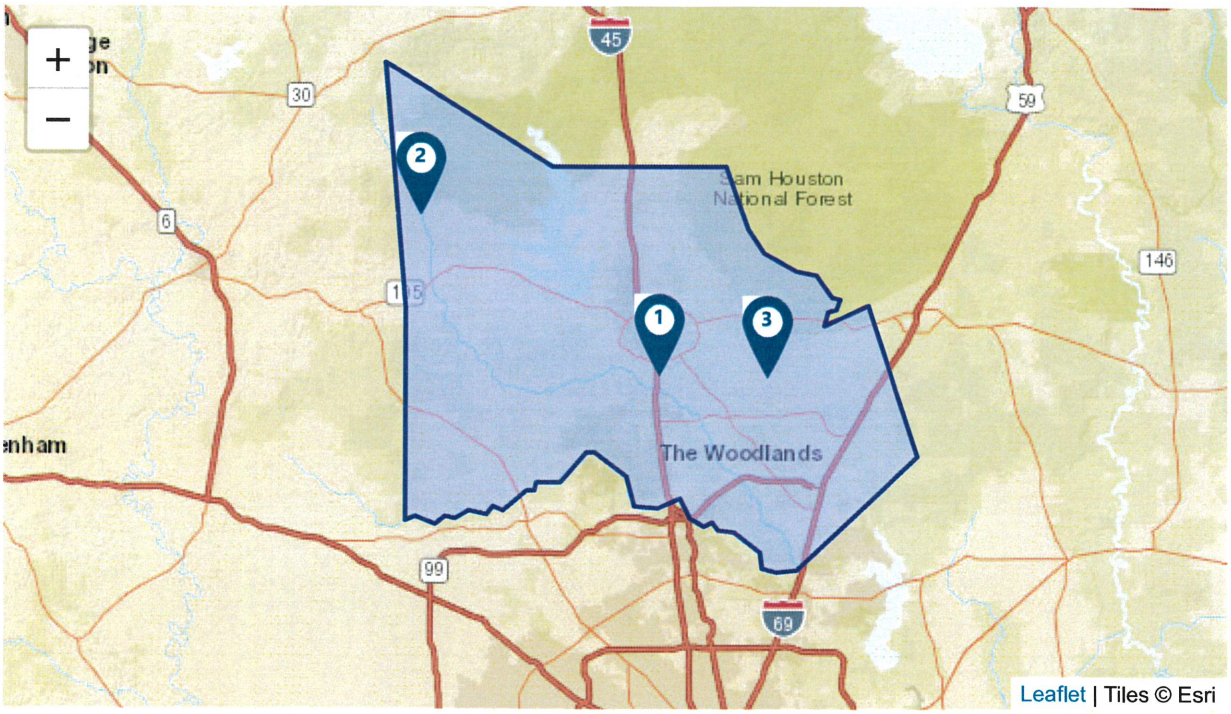
Program Budget Code	Planned/Requested Amount
Grant Administration	$791,954.40
Construction	$34,013,056.00
Special Environmental	$0.00
Environmental	$150,000.00
Acquisition	$0.00
Planning	$0.00
Construction	$13,054,400.00
Special Environmental	$0.00
Environmental	$150,000.00
Acquisition	$0.00
Planning	$0.00
Special Environmental	$0.00
Acquisition	$0.00
Construction	$8,279,040.00
Environmental	$150,000.00
Planning	$0.00

FEMA Benefit-Cost Calculator

V.6.0 (Build 20221028.1600 | Release Notes)

Benefit-Cost Analysis

Project Name: San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County



				Using 7% Discount Rate			Using 3% Discount Rate (For FY22 BRIC and FMA only)		
Map Marker ▲	Mitigation Title	Property Type	Hazard	Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
1	Floodplain and Stream Restoration @ 30.2621410; -95.4529690	•••	DFA - Riverine Flood	$ 28,023,566	$ 16,021,810	1.75	$ 46,506,316	$ 16,698,142	2.79
2	Floodplain and Stream Restoration @ 30.4506930; -95.7809190	•••	DFA - Riverine Flood	$ 19,201,548	$ 10,635,052	1.81	$ 31,865,797	$ 11,717,184	2.72
3	Floodplain and Stream Restoration @ 30.2597200; -95.3025000	•••	DFA - Riverine Flood	$ 37,680,445	$ 43,124,984	0.87	$ 62,532,323	$ 47,570,741	1.31
TOTAL (SELECTED)				**$ 84,905,559**	**$ 69,781,846**	**1.22**	**$ 140,904,436**	**$ 75,986,067**	**1.85**
TOTAL				**$ 84,905,559**	**$ 69,781,846**	**1.22**	**$ 140,904,436**	**$ 75,986,067**	**1.85**

Property Configuration

Property Title:	Floodplain and Stream Restoration @ 30.2621410; -95.4529690
Property Location:	77302, Montgomery, Texas
Property Coordinates:	30.2621410, -95.4529690
Hazard Type:	Riverine Flood
Mitigation Action Type:	Floodplain and Stream Restoration
Property Type:	Other
Analysis Method Type:	Historical Damages

Cost Estimation

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Project Useful Life (years):	35
Project Cost:	$14,996,354
Number of Maintenance Years:	35 Use Default:Yes
Annual Maintenance Cost:	$79,200

Damage Analysis Parameters - Damage Frequency Assessment

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Year of Analysis was Conducted:	2021
Year Property was Built:	0
Analysis Duration:	27 Use Default: *No*

Historical Damages Before Mitigation

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

		OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
Damage Year	Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Buildings & Contents) ($)	Number of Volunteers	Number of Days	Damages ($)	Current Dollars?	Inflated Damages ($)
1994	0	0	0	0	6,808,601.47	0	0	6,808,601	No	15,275,708
1998	0	0	0	0	6,021,238.65	0	0	6,021,239	No	12,340,827
2001	0	0	0	0	1,100,120.64	0	0	1,100,121	No	2,104,388
2002	0	0	0	0	2,125,249.15	0	0	2,125,249	No	3,944,074
2004	0	0	0	0	108,725.53	0	0	108,726	No	185,414
2006	0	0	0	0	215,676.7	0	0	215,677	No	331,770
2015	0	0	0	0	189,498.48	0	0	189,498	No	225,626
2016	0	0	0	0	9,820,917.61	0	0	9,820,918	No	11,350,552
2017	0	0	0	0	18,445,931.97	0	0	18,445,932	No	20,526,698
2019	0	0	0	0	1,099,110.55	0	0	1,099,111	No	1,164,113

Annualized Damages Before Mitigation

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
2.80	185,414	7,069
3.1	225,626	10,087
3.5	331,770	22,195
4	1,164,113	58,277
4.7	2,104,388	98,513
5.60	3,944,074	376,556
8.1	11,835,337	699,568
14	15,275,708	632,415
28	20,526,698	733,094
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	55,593,129	2,637,774

Expected Damages After Mitigation

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Buildings & Contents) ($)	Number of Volunteers	Number of Days	Damages ($)
5	0	0	0	2,367,015.8	0	0	2,367,016

Annualized Damages After Mitigation

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
5	2,367,016	473,403
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	2,367,016	473,403

Standard Benefits - Ecosystem Services

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Total Project Area (acres):	0
Percentage of Urban Green Open Space:	0.00%
Percentage of Rural Green Open Space:	0.00%
Percentage of Riparian:	0.00%
Percentage of Coastal Wetlands:	0.00%
Percentage of Inland Wetlands:	0.00%
Percentage of Forests:	0.00%
Percentage of Coral Reefs:	0.00%
Percentage of Shellfish Reefs:	0.00%
Percentage of Beaches and Dunes:	0.00%
Expected Annual Ecosystem Services Benefits:	$0

Benefits-Costs Summary

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Total Standard Mitigation Benefits:	$28,023,566
Total Social Benefits:	$0
Total Mitigation Project Benefits:	$28,023,566
Total Mitigation Project Cost:	$16,021,810
Benefit Cost Ratio - Standard:	1.75
Benefit Cost Ratio - Standard + Social:	1.75

Property Configuration

Property Title:	Floodplain and Stream Restoration @ 30.4506930; -95.7809190
Property Location:	77356, Montgomery, Texas
Property Coordinates:	30.450693, -95.780919
Hazard Type:	Riverine Flood
Mitigation Action Type:	Floodplain and Stream Restoration
Property Type:	Other
Analysis Method Type:	Historical Damages

Cost Estimation

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Project Useful Life (years):	35
Project Cost:	$8,994,323
Number of Maintenance Years:	35 Use Default:Yes
Annual Maintenance Cost:	$126,720

Damage Analysis Parameters - Damage Frequency Assessment

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Year of Analysis was Conducted:	2021
Year Property was Built:	0
Analysis Duration:	27 Use Default: *No*

Historical Damages Before Mitigation

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

		OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
Damage Year	Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Building & Contents)$)	Number of Volunteers	Number of Days	Damages ($)	Current Dollars?	Inflated Damages ($)
1994	0	0	0	0	3,500	0	0	3,500	No	7,853
1998	0	0	0	0	94,237	0	0	94,237	No	193,143
2002	0	0	0	0	15,741	0	0	15,741	No	29,212
2006	0	0	0	0	13,500	0	0	13,500	No	20,767
2007	0	0	0	0	19,600	0	0	19,600	No	29,398
2015	0	0	0	0	135,323	0	0	135,323	No	161,122
2016	0	0	0	0	529,474	0	0	529,474	No	611,941
2017	0	0	0	0	594,637	0	0	594,637	No	661,714

Annualized Damages Before Mitigation

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
3.5	7,853	456
4	20,767	1,330
5.10	29,305	3,657
7	161,122	6,233
9.3	193,143	24,459
26.48	636,341	24,028
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	1,048,531	60,163

Expected Damages After Mitigation

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Building & Contents)$)	Number of Volunteers	Number of Days	Damages ($)
5	0	0	0	27,966.34	0	0	27,966

Annualized Damages After Mitigation

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
5	27,966	5,593
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	27,966	5,593

Standard Benefits - Ecosystem Services

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Total Project Area (acres):	3,840
Percentage of Urban Green Open Space:	0.00%
Percentage of Rural Green Open Space:	0.00%
Percentage of Riparian:	1.00%
Percentage of Coastal Wetlands:	0.00%
Percentage of Inland Wetlands:	0.00%
Percentage of Forests:	0.00%
Percentage of Coral Reefs:	0.00%
Percentage of Shellfish Reefs:	0.00%
Percentage of Beaches and Dunes:	0.00%
Expected Annual Ecosystem Services Benefits:	$1,428,442

Benefits-Costs Summary

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Total Standard Mitigation Benefits:	$19,201,548
Total Social Benefits:	$0
Total Mitigation Project Benefits:	$19,201,548
Total Mitigation Project Cost:	$10,635,052
Benefit Cost Ratio - Standard:	1.81
Benefit Cost Ratio - Standard + Social:	1.81

Property Configuration

Property Title:	Floodplain and Stream Restoration @ 30.2597200; -95.3025000
Property Location:	77306, Montgomery, Texas
Property Coordinates:	30.2597200, -95.3025000
Hazard Type:	Riverine Flood
Mitigation Action Type:	Floodplain and Stream Restoration
Property Type:	Other
Analysis Method Type:	Historical Damages

Cost Estimation

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Project Useful Life (years):	35
Project Cost:	$36,384,322
Number of Maintenance Years:	35 Use Default:Yes
Annual Maintenance Cost:	$520,608

Damage Analysis Parameters - Damage Frequency Assessment

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Year of Analysis was Conducted:	2021
Year Property was Built:	0
Analysis Duration:	30 Use Default: *No*

Historical Damages Before Mitigation

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Found 1 error(s):

- Damage Years should be within the Analysis Duration from the year when the property was built. Refer to the Help Content for information on the Analysis Duration.

		OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
Damage Year	Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Building & Contents)($)	Number of Volunteers	Number of Days	Damages ($)	Current Dollars?	Inflated Damages ($)
1989	0	0	0	0	1,670,478.44	0	0	1,670,478	No	4,391,868
1994	0	0	0	0	4,494,203.73	0	0	4,494,204	No	10,083,149
1997	0	0	0	0	231,189.79	0	0	231,190	No	481,480
1998	0	0	0	0	3,102,977.2	0	0	3,102,977	No	6,359,706
2001	0	0	0	0	2,690,788.14	0	0	2,690,788	No	5,147,127
2003	0	0	0	0	563,157.23	0	0	563,157	No	1,020,663
2006	0	0	0	0	281,519.21	0	0	281,519	No	433,054
2008	0	0	0	0	1,792,455	0	0	1,792,455	No	2,574,951
2014	0	0	0	0	721,231.56	0	0	721,232	No	878,788
2016	0	0	0	0	6,690,297.77	0	0	6,690,298	No	7,732,330
2017	0	0	0	0	19,623,265.77	0	0	19,623,266	No	21,836,839
2019	0	0	0	0	24,922,485.71	0	0	24,922,486	No	26,396,430

Annualized Damages Before Mitigation

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
2.6	433,054	12,545
2.80	481,480	22,482
3.1	878,788	26,957
3.40	1,020,663	61,130
3.90	2,574,951	97,986
4.4	4,391,868	166,242
5.2	5,147,127	177,462
6.2	6,359,706	232,010
7.80	7,732,330	274,765
10.3	10,083,149	483,312
15.5	21,836,839	833,646
33.56	26,396,430	786,436
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	87,336,386	3,174,973

Expected Damages After Mitigation

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Building & Contents)($)	Number of Volunteers	Number of Days	Damages ($)
7	0	0	0	1,853,344.84	0	0	1,853,345

Annualized Damages After Mitigation

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
7	1,853,345	264,763
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	1,853,345	264,763

Standard Benefits - Ecosystem Services

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Total Project Area (acres):	245,826
Percentage of Urban Green Open Space:	0.00%
Percentage of Rural Green Open Space:	0.00%
Percentage of Riparian:	0.00%
Percentage of Coastal Wetlands:	0.00%
Percentage of Inland Wetlands:	0.00%
Percentage of Forests:	0.00%
Percentage of Coral Reefs:	0.00%
Percentage of Shellfish Reefs:	0.00%
Percentage of Beaches and Dunes:	0.00%
Expected Annual Ecosystem Services Benefits:	$0

Benefits-Costs Summary

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Total Standard Mitigation Benefits:	$37,680,445
Total Social Benefits:	$0
Total Mitigation Project Benefits:	$37,680,445
Total Mitigation Project Cost:	$43,124,984
Benefit Cost Ratio - Standard:	0.87
Benefit Cost Ratio - Standard + Social:	0.87

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? MCOHSEM worked directly with Precinct Commissioners offices in understanding the needs of their constituents in the identified areas. The Precincts staff have worked closely with residents and the groups that support citizens in the communities that would benefit from these projects.

What are the identified protected classes, racially and ethnically concentrated areas, and concentrated areas of poverty that may be impacted by this project? The project scope of work only includes work within the waterways and will not adversely impact any adjacent populations. The Project will positively impact the adjacent LMI populations and those most socially vulnerable by reducing impacts from future disasters increasing public health and safety.

Provide a meaningful analysis that describes how these identified populations may be impacted by this project. Research and analysis identified that the San Jacinto Basin in Montgomery County has experienced social, economic, and environmental damage due to flooding in recent years, where resident's quality of life is continuously deteriorating after each event. This region in Montgomery County is a target of rapid growth in the population of low to moderate income and homelessness (CAPER). The rate of surface water runoff from the watershed exceeds the capacity of the creeks and rivers during extreme rainfall events, which has resulted in repetitive damage to residential neighborhoods, commercial areas, and roads, negatively impacting the County's housing stock.

Future risks to additional riverine flooding in the San Jacinto Bain could devastate access to housing in this region. Hazus--a software provided by the Federal Emergency Management Agency--estimates that 847 homes and commercial structures would be destroyed during a 500 year event, which would cost $1,025 million in direct property damage, and $ 3 million in business interruption loss. Hazus also estimates that 17,938 people would seek temporary shelter and there would be 7,379 displaced households.

Activities under the San Jacinto Watershed and Tributary Barrier Flood Mitigation projects in East County, Lake Creek, and Stewart Creek will directly address these risks by removing tributary barriers, any forms of obstruction to flow to creeks and rivers that are connecte3d to a larger body of water. In doing so, they will significantly reduce future risk of riverine flooding from high rainfall storm events.

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	Establishing a local complain and monitoring process	Completed	8/24/2011	8/24/2011
Fair Housing Activity 2	Adopting and distributing Fair	Completed	12/1/2018	12/1/2018

	Housing practices			
Fair Housing Activity 3	Designating a Fair Housing Month	Completed	8/24/2022	8/24/2022
Fair Housing Activity 4	Publishing the contact information-at the local, state, and federal levels- for reporting a Fair Housing complaint	Completed	8/24/2011	8/24/2011

Procurement

Have services been procured for Engineering, Grant Administration, or Environmental Services? No

Are there any persons/entities with a reportable financial interest to disclose? No

Vendor Type	Procurement Status	Vendor Name	Contact Phone	Contact Email
Grant Administration	Procured Later			
Engineering	Procured Later			
Environmental	Procured Later			

Documents

Document Type	File Attachment (Text)
CDBG Mitigation Viewer Export	Total Population (Male_Female) by Block Group (ACS 5YR 2019).csv
CDBG Mitigation Viewer Export	SoVI MIT 140 by Census Tract.csv
CDBG Mitigation Viewer Export	Racially or Ethnically Concentrated Areas of Poverty (R_ECAPs) ACS 5YR 2013.csv
CDBG Mitigation Viewer Export	Population with a Disability by Tract (ACS 5YR 2019).csv
CDBG Mitigation Viewer Export	Population Age 65 and Over by Block Group (ACS 5YR 2019).csv
CDBG Mitigation Viewer Export	Minority Population by Block Group (ACS 5YR 2019).csv
CDBG Mitigation Viewer Export	LMI FY2021 by Block Group (SMI Waiver Applied).csv
CDBG Mitigation Viewer Export	Limited English Proficiency by Block Group (ACS 5YR 2019) (1).csv
CDBG Mitigation Viewer Export	Familial Status by Block Group (ACS 5YR 2019).csv
CDBG Mitigation Viewer Export	_Population in Poverty by Block Group (ACS 5YR 2019).csv
SF-424 (completed and signed)	SF424 SIGNED.pdf
Maps indicating latitude and longitude for proposed locations	LakeCreek_ProjectAreaMap- UPDATED.pdf
Maps indicating latitude and longitude for proposed locations	FIRM_LakeCreek2.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	Lake Creek Drainage Obstruction Project - Photo Page - Obstructions.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	LakeCreek_RoadBlockSA.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	LakeCreek_RepLossSA.pdf
Cost Benefit Analysis Documentation	FULL APPLICATION BCA.pdf
Cost Benefit Analysis Documentation	LAKE CREEK BCA.pdf
Supporting census tract/block group or other beneficiary data maps	LakeCreek_RoadBlockSA.pdf
Supporting census tract/block group or other beneficiary data maps	LakeCreek_RepLossSA.pdf

Document Type	File Attachment (Text)
Documentation to support Urgent Need Mitigation national objective	Lake Creek Waterway - Urgent Need National Objective.docx
Supporting census tract/block group or other beneficiary data maps	Lake Creek Drainage Obstruction Project - Photo Page - Obstructions.pdf
Supporting census tract/block group or other beneficiary data maps	Lake Creek Benefit Service Area Map.pdf
Supporting census tract/block group or other beneficiary data maps	LakeCreek_BenefitServicetAreaMap LMI.pdf
LMISD data and/or CDBG-MIT Survey documentation	LMISD- Lake Creek.xlsx
Race/Ethnicity/Gender Calculator	R&E All- Lake Creek.xlsx
Race/Ethnicity/Gender Calculator	R&E 6946.xlsx
Race/Ethnicity/Gender Calculator	R&E 6945.xlsx
Race/Ethnicity/Gender Calculator	R&E 6904.01.xlsx
DP05 (ACS 5-year estimate)	6946 ACS19.xlsx
DP05 (ACS 5-year estimate)	6945 ACS19.xlsx
DP05 (ACS 5-year estimate)	6904.01 ACS19.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)	Lake Creek Budget - MIT 22.pdf
Environmental Exempt Form for planning and administrative activities	CAT-EX Planning and Admin. Lake Creek.docx
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)	East County Budget - MIT 22.pdf
Cost Benefit Analysis Documentation	EAST COUNTY BCA.pdf
Environmental Exempt Form for planning and administrative activities	EAST COUNTY CAT EX-signed.pdf
Supporting census tract/block group or other beneficiary data maps	East County Waterway - Low- to Moderate-Income (LMI) East Fork San Jacinto.pdf
Supporting census tract/block group or other beneficiary data maps	EastCounty_RoadBlockSA.pdf
Supporting census tract/block group or other beneficiary data maps	EastCounty_RepLossSA.pdf
Supporting census tract/block group or other beneficiary data maps	East County Project - Beneficiary Service Area Map.pdf
Supporting census tract/block group or other beneficiary data maps	East County Project - Project Area Map.pdf
Race/Ethnicity/Gender Calculator	R&E East County All.xlsx

Document Type	File Attachment (Text)
Race/Ethnicity/Gender Calculator	R&E East County 6942.01.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6941.02.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6941.01.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6940.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6930.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6929.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6928.02.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6928.01.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6927.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6926.02.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6926.01.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6925.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6924.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6923.xlsx
Race/Ethnicity/Gender Calculator	R&E East County 6922.xlsx
LMISD data and/or CDBG-MIT Survey documentation	LMISD- East County.xlsx
DP05 (ACS 5-year estimate)	East County Male-Female Demographics Final.xlsx
DP05 (ACS 5-year estimate)	6942.01 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6941.02 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6941.01 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6940.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6930.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6929 ACS2020.xlsx
DP05 (ACS 5-year estimate)	6928.02 ACS20.xlsx
DP05 (ACS 5-year estimate)	6928.01 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6927.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6926.02 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6926.02 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6926.01 ACS20.xlsx
DP05 (ACS 5-year estimate)	6925.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6924.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6923.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6922.00 ACS2019.xlsx
Cost Benefit Analysis Documentation	Stewart Creek BCA Methodology.docx
Cost Benefit Analysis Documentation	STEWART BCA.pdf

Document Type	File Attachment (Text)
Cost Benefit Analysis Documentation	FULL APPLICATION BCA.pdf
Cost Benefit Analysis Documentation	STEWART BCA.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)	Stewart Creek Budget-Stamped.pdf
Environmental Exempt Form for planning and administrative activities	STEWART CREEK CAT EX-Signed.pdf
Documentation to support Urgent Need Mitigation national objective	Stewart Creek Waterway - Urgent Need National Objective.docx
Supporting census tract/block group or other beneficiary data maps	Stewart Creek benfit service area Road Closures.pdf
Race/Ethnicity/Gender Calculator	Stewart Creek R&E ALL.xlsx
Race/Ethnicity/Gender Calculator	Stewart Creek R&E 6939.xlsx
Race/Ethnicity/Gender Calculator	Stewart Creek R&E 6938.xlsx
Race/Ethnicity/Gender Calculator	Stewart Creek R&E 6935.xlsx
Race/Ethnicity/Gender Calculator	Stewart Creek R&E 6934.xlsx
Race/Ethnicity/Gender Calculator	Stewart Creek R&E 6932.xlsx
Race/Ethnicity/Gender Calculator	Stewart Creek R&E 6931.02.xlsx
Race/Ethnicity/Gender Calculator	Stewart Creek R&E 6931.01.xlsx
Race/Ethnicity/Gender Calculator	Stewart Creek R&E 6930.xlsx
DP05 (ACS 5-year estimate)	Stewart Creek All demographics.xlsx
DP05 (ACS 5-year estimate)	6939.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6938.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6935.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6934.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6932.00 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6931.02 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6931.01 ACS2019.xlsx
DP05 (ACS 5-year estimate)	6930 ACS2019.xlsx
LMISD data and/or CDBG-MIT Survey documentation	LMISD-Stewart Creek.xlsx
Supporting census tract/block group or other beneficiary data maps	Stewart Creek benfit service area with LMI.pdf
Supporting census tract/block group or other beneficiary data maps	Stewart Creek benfit service areawith population.pdf
Supporting census tract/block group or other beneficiary data maps	Stewart Creek benfit service area.pdf
Site photos	Stewart Creek site photos.pdf

Document Type	File Attachment (Text)
Scope of work information, maps, and other applicable documentation for each Local effort identified	East County Maps.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	F. USGS Assessment.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	E. River Gauge Documentation.docx
Scope of work information, maps, and other applicable documentation for each Local effort identified	C. East County Waterway Project - White Oak River Photos.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	B. East County Waterway Project - East Fork San Jacinto River Photos.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	A. East County waterway Project - Caney Creek Photos.pdf
Supporting census tract/block group or other beneficiary data maps	EastCounty_BenefitServicetAreaMap.pdf
Other supporting documentation	Description and Processes of Removal - East County.docx
Other supporting documentation	Barrier Removal Process and Procedures - East County.docx
Other supporting documentation	F. USGS Assessment.pdf
Other supporting documentation	E. River Gauge Documentation.docx
Site photos	C. East County Waterway Project - White Oak River Photos.pdf
Site photos	B. East County Waterway Project - East Fork San Jacinto River Photos.pdf
Site photos	A. East County waterway Project - Caney Creek Photos.pdf
Maps indicating latitude and longitude for proposed locations	Project_Area_Map_EastCounty.pdf
Current Printout of SAM.gov Registration	SAM Info2023.pdf
Other supporting documentation	Description and Processes of Removal - Stewart Creek.docx
Other supporting documentation	Barrier Removal Process and Procedures - Stewart Creek.docx
Scope of work information, maps, and other applicable documentation for each Local effort identified	Stewart Creek benfit service area.pdf

Document Type	File Attachment (Text)
Scope of work information, maps, and other applicable documentation for each Local effort identified	Stewart Creek Magnolia Dr. visual timeline.pdf
Scope of work information, maps, and other applicable documentation for each Local effort identified	Stewart Creek site photos.pdf
Signed Applicant Certifications	SIGNED CERTIFICATIONS.pdf
Single Audit or Annual Financial Statement	2021 Annual Compliance Report.pdf
Maps indicating latitude and longitude for proposed locations	Stewart Creek Maps.pdf
Current Printout of SAM.gov Registration	sam.gov.pdf

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek

Project Info

Project Information

DRGR Activity: Flood and Drainage Facilities

Project Type: Flood and Drainage

Project Title: San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek

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):
Montgomery County relies on a network of creeks and streams for overall stormwater drainage. These tributaries divide the County into different sub-basins all of which drain to the San Jacinto River. Since 2015, Montgomery County has experienced five declared flooding events as follow: April 2015- DR4223, April 2016-DR4269, May 2016-DR4272, August 2017-DR4332, and September 2019-DR4466. These storms caused significant flooding and overwhelmed Montgomery County's natural drainage ways. Due to these repeated events, the County has experienced degradation to the floodplain, floodways, and non-regulated creeks and streams. Specifically, repeated flooding has accelerated erosion along streambanks and flood-borne vegetative/other debris has collected throughout the drainageways, significantly reducing the conveyance capacity of channels, which has further exacerbated flooding events throughout the County. Therefore, Montgomery County's tributaries are not functioning at full capacity and due to sedimentation, erosion, and blockages within stream/creeks, flooding within the County has exceeded Base Flood Elevation (BFEs) and has occurred outside of the mapped floodplain. This project proposes to mitigate future flooding by restoring streams and creeks within Montgomery County to full channel capacity by removal of vegetative/other obstructions from waterways. In addition, where areas of significant erosion are observed, the County will implement Best Management Practices and non-structural controls to stabilize banks in order to mitigate against scour, sedimentation, and additional degradation of the streams/creeks. In additional to mitigation for the overall Stewart Creek sub-basin, this project addresses erosion and streambank failure at Magnolia Drive (shown on the Project Location Maps). This specific location has suffered significant erosion and sedimentation which has caused the eastern bank of the river to fail. At this location, Stewart Creek makes a sharp bend against the toe of slope of Magnolia Drive. At the top of the banks, the street (Magnolia Dive) and a residential neighborhood are threatened by the collapsing stream bank. Historical Aerials are attached to this Scope of Work, which demonstrate how major recent storm events have contributed to degradation of the streambanks at this location. In 2017 Hurricane Harvey caused Stewart Creek to significantly exceed normal water surface elevation at the river bend at Magnolia Drive. Flood water destabilized the eastern streambank at this location and subsequent aerials show that erosion accelerated and caused established vegetation to fall into the channel, further destabilizing the banks. In 2019, Tropical Storm Imelda accelerated this process and erosion caused the eastern bank to collapse. This event caused utilities (stormwater and gas line),

guardrail/shoulder for Magnolia Dr, and an adjacent residential fence to fall into the channel. In addition, Imelda deposited significant quantities of sediment within the floodway. Based on 2021 site inspections and subsequent inspections in 2022 for this location, Montgomery county has identified the roadway, utilities, and the adjacent residential property are at imminent risk of collapsing into the Stewart Creek channel. Based on the current condition of this location and elevated risks to adjacent structures, the County is proposing structural stream bank restoration at this location to immediately stabilize the banks and restore adjacent properties/facilities. This project will specifically address the Stewart Creek sub-basin which includes the Stewart Creek waterway. The project will restore/remediate approximately 79,200 Linear Feet (15 miles) of stream within the San Jacinto watershed.

Work will be performed utilizing a combination of water-based and land-based implementation. Channel obstructions shall be extracted utilizing a barge or other floating vessel, equipped with a grapple bucket and saw, or with the use of other mechanical equipment suitable to accomplish the removal of vegetation and other flood-borne debris. Only dead vegetation will be removed from the channel and banks. Dead vegetation removed from the banks will be cut and the root balls will be left in place to prevent erosion. Obstructions removed from the channel will be transported by barge to the nearest available temporary upland offloading location. From the offload site, vegetation and other items removed from the channel will be transported to a permitted upland location for final disposal. After removal of obstructions including vegetation, the channel banks will be revegetated. Any areas with significant erosion will be addressed through utilizing Best Management Practices for erosion control and non-structural measures to stabilize the slopes. At the Magnolia Dr project location, structural stabilization of the slope is proposed. This would include installation of a cantilever vertical wall with concrete cap at the channel. This structure would serve as a retaining wall for the slope. A cantilever steel wall is proposed because other designs which include buried anchors are susceptible to erosion of floodwaters overtop the wall and expose the tie-back anchors. Above the retaining wall, it is proposed that the slope be backfilled at 3:1 and stabilized with articulated concrete block armor (such as ArmorFlex) from the concrete cap to the top of the slope. This system will ensure that in future flood events if the retaining wall is overtopped by flood waters, the bank will not erode, protecting utilities, Magnolia Drive, and residential structures at the top of the bank.

This project proposes to mitigate this hazard in two phases: Phase 1 would include Hydraulic and Hydrologic (H%H) analysis and engineering/permitting to design for the structural streambank stabilization at Magnolia Drive. Phase 1 will ensure that the proposed design results in a "no-rise" certification for upstream flooding. Phase 1 will also include the portion of the streambank restoration of the watershed. This portion of the project does not require engineering design, therefore, this is included for implementation in Phase 1. Phase 2 will implement results/design from Phase 1 to implement construction of the structural streambank stabilization at Magnolia Drive. This project will specifically address the Stewart Creek sub-basin, Magnolia Drive, and the residential area around Magnolia Drive.

Location:

Magnolia Dr Erosion- LAT: 30.25209 LONG: -95.45168

Stewart Creek Start: LAT: 30.24883 LONG: -95.45309

Stewart Creek End: LAT: 30.38009 LONG: -95.47057

Stewart Creek Reference Points (all reference points are considered approximate)

1 (start) West Fork to RP Drive= 3,951.1 LF

2 RP Drive to Creighton Rd= 5,874.6 LF

3 Creighton Rd to S. Loop 336= 12,191.7 LF

4 S. Loop 336 to Foster Dr= 7364.8 LF

5 Foster Dr to Silverdale= 3148.2 LF

6 Silverdale to E Davis St= 6815.9 LF

7 E. Davis St to E. Dallas St= 4967.5 LF

8 E. Dallas St to N. Loop 336= 9049.4 LF

9 N. Loop 336 to 3083= 9724.6

10 3083 to Wally Wilkerson Pkwy= 11.313

11 (end) Wally Wilkerson Pkwy to Shadow Lake= 5643.4

Site: Project Site Title	Site: Street Address
Stewart Creek Section 11 (End)	Wally Wilkerson PKWY
Stewart Creek Section 10	FM 3083
Stewart Creek Section 9	N. Loop 336
Stewart Creek Section 8	E. Dallas St
Stewart Creek Section 7	E. Davis St
Stewart Creek Section 6	Silverdale
Stewart Creek Section 4	S. Loop 336
Stewart Creek Section 3	Creighton Rd
Stewart Creek Section 2	River Plantation Dr
Stewart Creek Section 1 (Start)	San Jacinto- West Fork
Stewart Creek Section 5	Foster Dr
Magnolia Drive Erosion	Magnolia Drive

Describe a plan for the long-term funding and management of the operations and maintenance of the project: It is estimated that maintenance would be needed approximately every 2-3 years with a projection of $6 per LF. Note that not every mile will require the same level of maintenance. Based on approximate cost and assumption that 50% of the stream will require maintenance, it is estimated that the cost of maintenance will be approximately $237,600 every 3 years or $79,200 annually. The structural stream bank restoration at Magnolia Drive is not expected to require maintenance because the wall is cantilever (no anchoring) and the backfill/embankment will be protected from erosion by articulated block armoring.

Total proposed number of linear feet: 81,044.2

Total number of proposed public facilities:

Project Phase	Start Date	End Date	Length (in months)
Acquisition	12/1/2023	12/1/2023	0
Contract Closeout	12/1/2024	3/1/2025	3
Submit As-Builts/COCC/FWCR	11/1/2024	12/1/2024	1
Construction	3/1/2024	11/1/2024	8
Construction NTP	2/1/2024	3/1/2024	1
Contract Award	2/1/2024	3/1/2024	1
Bid Advertisement	12/1/2023	2/1/2024	2
Environmental Review	5/1/2023	12/1/2023	7
Engineering Design	5/1/2023	12/1/2023	7
Start-Up Documentation	4/1/2023	5/1/2023	1

National Objective

National Objective

Provide Total Number of Beneficiaries: 59,476

Provide number of LMI Beneficiaries 21,210

Percentage of LMI Beneficiaries: 35.66%

Is that applicant a HUD Exception Grantee? No

Census Tract	Block Group List (Text)
6,932	Group 1 ; Group 2 ; Group 3 ; Group 4
6,931	Group 1 ; Group 2
6,931	Group 1 ; Group 2 ; Group 3 ; Group 4
6,934	Group 1
6,930	Group 2
6,935	Group 1 ; Group 4
6,939	Group 1 ; Group 2 ; Group 3 ; Group 4 ; Group 5 ; Group 6
6,938	Group 1

Male: 29,785

Female: 29,691

Total: 59,476

Race	Hispanic Population	Non-Hispanic Population	Total Population
White	22,651	27,543	50,194
Some Other Race	2,312	28	2,340
White and Black/African American	182	154	336
White and Asian	32	27	59
White and American Indian/Alaska Native	73	63	136
Other multi racial	230	197	427

Race	Hispanic Population	Non-Hispanic Population	Total Population
Black/African American	154	4,474	4,628
Asian	9	903	912
American Indian/Alaska Native	323	109	432
Native Hawaiian/Other Pacific Islander	0	12	12
Black/African American and American Indian/Alaska Native	0	0	0

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 census method was used to capture the beneficiary information. The 2019 ACS data supplied by HUD was used to compare to the determined service area. Roadblocks in the County due to riverine flooding sustained during previous flood events were captured to identify the projects service area. This includes roads that were blocked from evacuating the community to the primary evacuation corridor, Interstate Highway 45. Throughout the county there were 260 rescues, 90 reports of high water roads and 77 roads listed as impassable during the April 2016 Floods; there were 400 high water rescues and 150 roads listed as impassable during May 2016 floods, and there were 1,300 rescues and 300 roads listed as impassable during Hurricane Harvey in 2017.

FEMA has identified Community Lifelines that are considered the most fundamental services in the community that when stabilized enable other aspects of society to function. The concept of Community Lifelines can be applied across the entire preparedness cycle. Efforts to protect lifelines, prevent and mitigate potential impacts to them and building back stronger and smarter during recovery will drive overall resilience of the nation.

This projects helps support the community lifeline approach, to our most vulnerable populations, by addressing Safety and Security, Community Safety, as the primary lifeline; with Transportation a a secondary community lifeline and Health and Medical, Medical Care identified as a Tertiary lifeline.

U.S. Congressional District #: 2;8

Texas Representative District #: 3;15;16;18

Texas Senate District #: 4;7;18

GEOID	GEONAME	STUSAB
15000US483396938001	Block Group 1, Census Tract 6938, Montgomery County, Texas	TX
15000US483396939001	Block Group 1, Census Tract 6939, Montgomery County, Texas	TX
15000US483396939002	Block Group 2, Census Tract 6939, Montgomery County, Texas	TX
15000US483396939003	Block Group 3, Census Tract 6939, Montgomery County, Texas	TX
15000US483396939004	Block Group 4, Census Tract 6939, Montgomery County, Texas	TX
15000US483396939005	Block Group 5, Census Tract 6939, Montgomery County, Texas	TX
15000US483396939006	Block Group 6, Census Tract 6939, Montgomery County, Texas	TX
15000US483396935001	Block Group 1, Census Tract 6935, Montgomery County, Texas	TX
15000US483396935004	Block Group 4, Census Tract 6935, Montgomery County, Texas	TX
15000US483396930002	Block Group 2, Census Tract 6930, Montgomery County, Texas	TX
15000US483396934001	Block Group 1, Census Tract 6934, Montgomery County, Texas	TX
15000US483396931011	Block Group 1, Census Tract 6931.01, Montgomery County, Texas	TX
15000US483396931012	Block Group 2, Census Tract 6931.01, Montgomery County, Texas	TX
15000US483396931013	Block Group 3, Census Tract 6931.01, Montgomery County, Texas	TX
15000US483396931014	Block Group 4, Census Tract 6931.01, Montgomery County, Texas	TX
15000US483396931021	Block Group 1, Census Tract 6931.02, Montgomery County, Texas	TX
15000US483396931022	Block Group 2, Census Tract 6931.02, Montgomery County, Texas	TX
15000US483396932001	Block Group 1, Census Tract 6932, Montgomery County, Texas	TX
15000US483396932002	Block Group 2, Census Tract 6932, Montgomery County, Texas	TX
15000US483396932003	Block Group 3, Census Tract 6932, Montgomery County, Texas	TX
15000US483396932004	Block Group 4, Census Tract 6932, Montgomery County, Texas	TX

STATE	COUNTY_NAME	QUALIFY_F	COUNTY	TRACT	BLKGRP	lowmod_pop
48	Montgomery County	NO	339	693800	1	2,750
48	Montgomery County	NO	339	693900	1	935
48	Montgomery County	NO	339	693900	2	1,065
48	Montgomery County	NO	339	693900	3	820
48	Montgomery County	NO	339	693900	4	1,290
48	Montgomery County	NO	339	693900	5	1,330
48	Montgomery County	NO	339	693900	6	1,330
48	Montgomery County	NO	339	693500	1	290
48	Montgomery County	NO	339	693500	4	210
48	Montgomery County	NO	339	693000	2	1,025
48	Montgomery County	NO	339	693400	1	685
48	Montgomery County	NO	339	693101	1	525
48	Montgomery County	NO	339	693101	2	550
48	Montgomery County	NO	339	693101	3	1,910
48	Montgomery County	NO	339	693101	4	1,885
48	Montgomery County	NO	339	693102	1	500
48	Montgomery County	NO	339	693102	2	2,355
48	Montgomery County	NO	339	693200	1	820
48	Montgomery County	NO	339	693200	2	525
48	Montgomery County	NO	339	693200	3	290
48	Montgomery County	NO	339	693200	4	120

21,210

lowmodu_pop	lowmod_pct_P	MOE_LowmodPct
4,770	57.65%	+/-12.56
955	97.91%	+/-58.32
1,355	78.60%	+/-35.13
2,425	33.81%	+/-13.90
1,690	76.33%	+/-36.92
1,790	74.30%	+/-41.51
1,610	82.61%	+/-29.25
940	30.85%	+/-14.15
420	50.00%	+/-30.95
1,565	65.50%	+/-23.32
875	78.29%	+/-33.37
585	89.74%	+/-47.86
750	73.33%	+/-37.47
2,680	71.27%	+/-18.40
1,990	94.72%	+/-35.88
1,805	27.70%	+/-11.63
3,210	73.36%	+/-16.11
2,590	31.66%	+/-21.08
2,155	24.36%	+/-17.77
1,280	22.66%	+/-10.70
1,910	6.28%	+/-7.17
37,350	**59.09%**	

Environmental

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

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? Yes

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

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: Archaeological Assessment- The area of disturbance is approximately .4 acres and the dimensions are approximately 50ft x 350ft. The past use of the area to be disturbed is a streambank, residential yard/fence, and shoulder of street. These areas have all been previously disturbed and the streambank is collapsing. A USGS quadrangle map is included.

National Register of Historic Places- The stream restoration for the watershed is located within the channels to top of bank. Therefore, impacts to adjacent buildings/structures are not anticipated except the impact of reduced risk of flooding. However, prior to work, consultation with the Texas Historical Commission will be performed to ensure compliance with the National Historical Preservation Act. The Magnolia Drive structural streambank stabilization portion of this project is located within 200 feet of residential homes. It is unknown at the time of application when these structures were constructed, however, prior to work, consultation with the Texas Historical Commission will be performed to ensure compliance with the National Historic Preservation Act.

Wetlands- The project includes replacement of eroded soil (fill) at the Magnolia Drive project location. A USGS quad map is included. The National Wetlands Inventory Map is included in the Wetlands and Ground Disturbance Map. Phase 1 of the project scope includes engineering design and permitting for the structural bank stabilization measures at Magnolia Drive. Phase 1 will include consultation with federal, state, and local agencies prior to commencement of work and all required permits will be obtained. The project will conform with all federal, state, and local permit conditions and requirements. Once permit applications are submitted, response

from USACE will be provided. Permits will be obtained during the design process, therefore, any conditions stipulated from the agencies which affect the project will be addressed in the project design prior to Phase II implementation.

Floodplain Management- The project work must be performed in both the floodplain and within wetlands with no expected permanent impacts to these areas. The project includes stream restoration to restore the function and capacity of the channel and is expected to have positive impacts for the floodplain by restoring the floodways. Therefore, this project meets Step 5 of the 8-Step Process under CFR 44 9.6. Minimization of temporary impacts to the floodplain and wetlands include the use of matts where land-based removal of debris/remediation is required to avoid rutting. In addition, the project will specify that no digging into the channel slopes or bottom of the bank while performing work should occur. Water way remediation in navigable channels shall be performed using barges to minimize impacts due to access. Debris shall be transported by barge to upland offload sites for transfer to final disposal in permitted upland location. The project will restore drainage and flood flow patterns to the original function and capacity of the waterways included in the project scope. Removal of accumulated vegetation/other objects within the channel will restore channel capacity and reduce upstream flooding. Structural and/or permanent altercation of the waterways is not proposed, therefore, no H&H study is required for Phase I stream restoration portion of this project. Phase II of this project includes implementation of structural bank stabilization at Magnolia Drive. This activity will alter the floodway. However, the proposed work is intended to restore the floodway to the channel by stabilizing the eroding east bank. Prior to construction, Phase I will include an H&H study to ensure "no-rise" in upstream flooding is caused by the project.

Endangered Species- There are multiple endangered and/or threatened species within the project area. The source for this information is the U.S. Fish and Wildlife Service IPaC report which was obtained on 11/22/21 and is included as an attachment to this application. The project scope includes consultation with federal, state, and local agencies that will be performed prior to commencement of work and all required permits will be obtained. Due to the temporary nature of the proposed project with regards to potential impacts to the waterways, wetlands, and habitat, negative impact to endangered species is not expected and it is anticipated that permits will be issued by regulatory agencies. The project will conform with all permit conditions and requirements once obtained. Once permit applications are submitted, response from USFWS will be provided.

Vegetation: Vegetative debris (branches, fallen trees, etc.) that has been deposited within the channel and floodways will be removed as part of this project. In addition, dead trees on the banks which are affecting the floodway will be removed. During this process, root balls which has been dislodged will be cut off as close to the root ball as possible and put back into the void in the bank in order to reduce risk of scouring and erosion along the banks. The project area is presented in the Project Location Maps. Vegetative debris removal will occur throughout these locations, as necessary. Based on the initial site assessments and for the purposes of budgeting, it is estimated that approximately 26,400 CY of vegetative and/or other debris will be removed from the project area in order to remove obstructions and restore channel capacity

Hazardous site- The areas adjacent to the waterways consist of wooded buffer areas which are surrounded by urban development. There are multiple land use typical of an urban area along the project area. No specific land-uses associated with hazardous materials have been identified.

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- Nationwide Permit (NWP) will be required for project as the activity should qualify under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 that have no more than minimal individual and cumulative adverse environmental effects. This proposed project activity does not involve discharge of dredged or fill material into waters of the United States.

Upon the initial submission of the permit application to USACE, upon review and identification of other regulatory agencies permitting requirements Montgomery County will obtain any necessary permits for the proposed project that may be required by the following:

* Texas Commission on Environmental Quality (TCEQ)

* Texas Natural Resource Conservation Commission (TRNCC)

* United States Army Corps of Engineers (USACE)

* Any other applicable regulatory/environmental entity as identified.

Does the project require any type of ratified, legally binding agreement between the applicant and any other entity to provide continual operation upon completion? No

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:

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
Engineering	$1,000,000.00	$0.00	$1,000,000.00	6.7%
Grant Administration	$791,954.40	$0.00	$791,954.40	5.3%
Construction	$13,054,400.00	$0.00	$13,054,400.00	87.1%
Special Environmental	$0.00	$0.00	$0.00	0%
Environmental	$150,000.00	$0.00	$150,000.00	1%
Acquisition	$0.00	$0.00	$0.00	0%
Planning	$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: As a result of Montgomery County s four recent major federally-declared disasters (DR4269, DR4272, DR4332, and DR4466), it is clear that increasing the capacity of the creeks and rivers is critical to mitigate riverine flooding from extreme rainfall events caused by storms. The County proposes to address this need by removing tributary barriers or other obstructions to the flow to creeks and rivers that drain the County. Stewart Creek is a key component of the County s watershed and serves as a stormwater drainage system outlet. Unfortunately, Stewart Creek regularly exceeds flood stage heights during extreme rainfall events. This has caused local flooding in surrounding areas, endangering public health and safety. The Stewart Creek Project will help minimize damage to residential areas, commercial corridors, infrastructure, and roadways through mitigation measures that will enhance the ability of Stewart Creek and its feeders to handle and manage extreme rates of surface water runoff more efficiently, improve channeling of that water throughout the watershed and help keep the waterway levels low.

This project will improve conditions within the 500-year floodplain and conditions outside of the floodplain. However, there will be residual risk for properties within the 100-year floodplain. Due to obstructions within the channels, during flood events, the channels are not able to properly flow/drain, therefore, flooding has exceeded top of bank and higher than expected staging has occurred upstream of areas with obstructed flow. This has resulted in increased flooding well above the established BFE and outside of the 100-year floodplain. The proposed project will restore the floodplain and reduce risk outside of the 100-year floodplain. However, within the floodplain, while the project should improve conditions by restoring channel capacity there will continue to be flood risk. However, Montgomery County has implemented an acquisition program through FEMA's Flood Mitigation Assistance program and HUD Community Development Block Grant for Disaster Recovery (CDBG-DR) Buyout program to reduce properties within the 100-year floodplain and floodway. Therefore, the combination of this project with the County's other long-term mitigation efforts will further reduce risks. For the Magnolia Dr. location, residual risks include the possibility that floodwater could infiltrate behind the cantilever wall at the northwest corner of the river bend. To mitigate this residual risk, it is proposed that the wall and structural stabilization measures include a section perpendicular to the slope at the northwest location of the river bend.

Provide information about how the proposed mitigation efforts integrate into the community's emergency and resiliency plans: This project enhances both the County s community preparedness outreach and its Hurricane Harvey Buyout and Voluntary Property Acquisition Programs which are funded through CDBG-DR and FEMA Flood Mitigation Assistance (FMA) These programs provide buyout opportunities for citizens with homes located in the floodplain/floodway or that are classified as National Flood Insurance Program (NFIP) Repetitive Loss or Severe Repetitive Loss properties. The buyout properties will be converted to green infrastructure to help manage the stormwater runoff throughout the drainage area during extreme rainfall events, thereby relieving the strain on creeks and rivers during such events. These mitigation efforts will help better manage the flow in the creeks and rivers and will result in a more resilient and reliable stormwater management process throughout the County.

In the space provided, list documentation provided to support the identification of the threat or hazard and how it relates to potential impact: -Stewart Creek Site Photos

-Magnolia Dr. visual timeline

-Benefit Service Area- showing RL/SRL, critical facilities

Provide a brief description of how the proposed project addresses an integrated approach to mitigation: Montgomery County has experienced social, economic, and environmental damage along Stewart Creek due to multiple flooding events in recent years where residents' quality of life is continuously impacted after each event. This region in Montgomery County is an area of rapid population growth with the area now being home to more than 544,000 persons, including 180,785 low and moderate income individuals (CAPR). The communities in the County experience repetitive and severe loss, totaling to 1,629, due to repetitive flood events where the water surface exceeded the flood stage and entered into residential areas, commercial corridors. Additionally, this resulted in public health hazards, disruption of emergency and sanitary sewer services, recurring costly repairs, and deterioration of infrastructure. The disasters exposed that the rate of surface water runoff from watershed exceeds the capacity of the creeks and rivers during an extreme rainfall event. When drainage overflow occurs and the outlet becomes restricted due to flood levels exceeding the height of the pipes located at the creeks and rivers, the resultant flooding not only affects the area surrounding the waterway, but also t he stormwater inlets (located along roads) of the drainage system in urban areas.

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: As a result of Montgomery County's four recent major federally- declared disasters (DR4269, DR4272, DR4332, and DR4466), it is clear that increasing the capacity of the creeks and rivers is critical to mitigate riverine flooding from extreme rainfall events cause by storms. The county proposes to address this need by removing tributary barriers or other obstructions to the flow to creeks and rivers that drain the county. Stewart Creek is a key component of the County's watershed and serves as a stormwater drainage outlet. This has caused local flooding in surrounding areas, endangering public health and safety. The Stewart Creek Project will help minimize damage to residential areas, commercial corridors, infrastructure, and roadways through mitigation measures that will enhance the ability of Stewart Creek and its feeders to handle and manage extreme rates of surface water runoff more efficiently, improve channeling of that water throughout the watershed and help keep the waterway levels low.

The structural stabilization at Magnolia Dr. will allow water to more efficiently move through the area without the addition of erosion and scouring of the stream bank. The future of the homes that line Magnolia Dr. and infrastructure will remain protected from any future collapsing of the stream bank during high level water events.

Describe how the proposed project is consistent with local and regional planning efforts to effect disaster mitigation: The waterway project was adopted from Montgomery County's Hazard Mitigation Action Plan (HMAP) and the mitigation goal is to reduce future risk of riverine flooding from extreme rainfall events and increase the ability to manage stormwater flows such as those seen in recent disasters the have hit Montgomery County. The HMAP adds a flooding risk assessment from a HAZUS report, which evaluates the occurrence, vulnerabilities and impacts of future 500-year floods from historical data recorded. HAZUS estimates that county-

wide in a 500 year event, 847 homes and commercial structures would be destroyed, which would cost $ 1,025 million in direct property damage, and $3 million in business interruption loss. HAZUS also estimates that #17,938 people would seek temporary shelter and there would be 7,379 displaced households.

Was a cost-benefit analysis used in the selection of the proposed project? Yes

Describe how the proposed project impacts vulnerable populations in the local community.: The project benefit area encompasses the entire east watershed and sub-basins of the San Jacinto watershed. The total benefiting area is 24,270 acres. The benefit area includes the waterways/floodplain and surrounding areas served by the waterways for drainage. The benefit service area includes 202 repetitive loss structures and 157 critical facilities (police, fire, childcare centers, etc.) The population impacted reflects the total Stewart Creek benefit service area of approx. 48,793 individuals compared to a total Montgomery County population of approx. 620,443. This is approx. 7.9% of the population affected by this project. This project does not anticipate a negative impact on vulnerable populations. By restoring the channel to its full flow capacity will allow the watershed to drain properly and reduce the risk of impacts to community public health and safety, transportation, and reduce damages to property within the project area.

Describe how the proposed project creates economic opportunities for the local community: Although this project does not create direct economic opportunities for the community, there is an indirect impact for maintaining current economic opportunities as restoring the channel to its full flow capacity that will allow the watershed to drain property and reduce the risk of impact to health and safety, transportation and reduce damages to infrastructure within the project area. With adequate drainage roads can remain clear of high waters allowing for residents to commute freely, and businesses to remain operational.

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: The waterway project was adopted from Montgomery County's Hazard Mitigation Action Plan (HMAP) and the mitigation goal is to reduce future risk of riverine flooding from extreme rainfall events and increase the ability to manage stormwater flows such as those seen in recent disasters the have hit Montgomery County. The HMAP adds a flooding risk assessment from a HAZUS report, which evaluates the occurrence, vulnerabilities and impacts of future 500-year floods from historical data recorded. HAZUS estimates that county-wide in a 500 year event, 847 homes and commercial structures would be destroyed, which would cost $ 1,025 million in direct property damage, and $3 million in business interruption loss. HAZUS also estimates that #17,938 people would seek temporary shelter and there would be 7,379 displaced households.

Describe how the proposed project will contribute to the community's resiliency against future disasters as a result of these projects: This project enhances mitigation by amplifying the impact of building codes adopted in 2014 to protect new structures against floods. Montgomery County has implemented floodplain management codes which require new residential structures to be at least 12 inches above the Base Flood Elevation (BFE), a change which should significantly improve resilience of new development in the western portion of the County.

Additionally, the codes restrict the development of structures in the floodway zone (Montgomery, TX Code of Ordinance)

This project enhances the County's community preparedness program. Conducted through the Office of Homeland Security and Emergency Management, the initiatives provide residents with disaster preparedness, mitigation, and recovery information to ensure they are up to date with all available funding opportunities and proposed projects. Annual community engagement and educational outreach includes:

* Skywarn, which provides over 300 County residents with storm spotter training;

*Shelter training for those interested in participating in shelter operations during emergency situations;

*Extreme Weather Ready Expo, a regional collaborative preparedness effort;

*Community Emergency Response Teams (CERT) courses to provide residents with the skills to prepare and respond to disasters in the community;

*Flood Aware, providing critical information regarding the risks associated with flooding; and,

*Jr. First Responder Camp, a week-long camp for community youth interested in pursuing careers as first responders.

Currently there is outreach to the Stewart Creek service area in regard to Acquisition and Demolition activities (buyouts) funded by FEMA an CDBG-DR. Multiple public meetings have been held in the target area to describe the buyout activities. There are direct communication opportunities for homeowners to speak with the County's Disaster Recovery Manager regarding their specific situation, available options, an best courses of action.

The combination of these existing efforts with the CDBG-MIT watershed tributary barriers and flood mitigation activities represent a coordinated long-range plan to increase storm water capacity, remove barriers to enhance storm water flow and improve the ability to channel the accumulated runoff throughout the watershed. The following completed projects were done to optimize flow throughout the entire drainage system: cleaning out culverts, storm water lines, and storm water ditches, and regrading culverts and storm water ditches to increase capacity of storm and rainwater.

CDBG-MIT: Budget Justification of Retail Costs
(Former Table 2)

Cost Verification Controls must be in place to assure that construction costs are reasonable and consistent with market costs at the time and place of construction.

Applicant/Subrecipient:	Montgomery County
Site/Activity Title:	San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek
Eligible Activity:	Flood Control and Drainage Improvements

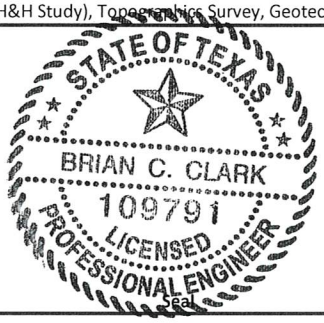
Materials/Facilities/Services	$/Unit	Unit	Quantity	Construction	Acquisition	Total
Stewart Crrek (15 miles) Stream Restoration (includes hydroseeding banks)	$ 160.00	CY	26400	$ 4,224,000.00	$ -	$ 4,224,000.00
Non-structural bank stabilization (additional vegetation restoration)	$ 2.00	LF	79200	$ 158,400.00	$ -	$ 158,400.00
Monitoring/Inspection throughout construction	$ 30.00	CY	26400	$ 792,000.00	$ -	$ 792,000.00
Steel Cantilever Wall with Concrete Cap (40 ft sheet)	$ 5,500.00	LF	1000	$ 5,500,000.00	$ -	$ 5,500,000.00
Armorflex Armoring (or approved equal)	$ 400.00	SY	1400	$ 560,000.00	$ -	$ 560,000.00
Embankment (FINAL) (DENS CONT) (TYC)	$ 50.00	CY	22000	$ 1,100,000.00	$ -	$ 1,100,000.00
Embankment (FINAL) (DENS CONT) (TYE) (CSBE)	$ 80.00	CY	9000	$ 720,000.00	$ -	$ 720,000.00
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
Permitting	$ 150,000.00	LS	1	$ 150,000.00	$ -	$ 150,000.00
Engineering & studies	$ 1,000,000.00	LS	1	$ 1,000,000.00	$ -	$ 1,000,000.00
	$ -		0	$ -	$ -	$ -
Project Delivery (6% of Base Cost)	$ 791,954.40	LS	1	$ 791,954.40	$ -	$ 791,954.40
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
TOTAL	$ 1,948,176.40			$ 14,996,354.40	$ -	$ 14,996,354.40

1. Identify and explain the annual projected operation and maintenance costs associated with the proposed activities.

It is estimated that maintenance would be needed on stream restoration every 2-3 years with a projection of $6 per LF. Note that not every mile will be required to be maintained at the same levels; with this understanding it is estimated that a per 3 year cost of maintenance will be approximately $237,600 (50%) of the calculated milage or $79,200 annually.

2. Identify and explain any special engineering activities.

Hydrologice and Hydraulic (H&H Study), Topographics Survey, Geotechnical Analysis, Drainage Study



Seal

Date:	11/29/2022
Phone Number:	(936)538-5468

Signature of Registered Engineer/Architect Responsible For Budget Justification:

Montgomery County, Texas

Stewarts Creek Benefit Area

2019 LMI Percentage

N

0 0.5 1 1.5 2

Miles

Legend

- Magnolia Drive Erosion
- Start and Stop Location
- Stewarts Creek
- Stewart Creek Benefit Area

2019 LMI %

- Less Than 50%
- Greater Than 50%

Block Group: 6941011
LMI: 79.53%

Block Group: 6938001
LMI: 57.65%

Block Group: 6939003
LMI: 33.81%

Block Group: 6939005
LMI: 74.3%

Block Group: 6939002
LMI: 78.6%

Block Group: 6935002
LMI: 59.36%

Block Group: 6935001
LMI: 30.85%

Block Group: 6939004
LMI: 76.33%

Block Group: 6935004
LMI: 50%

Block Group: 6939006
LMI: 82.61%

Block Group: 6935003
LMI: 72.73%

Block Group: 6939001
LMI: 97.91%

Block Group: 6931011
LMI: 89.74%

Block Group: 6931013
LMI: 71.27%

Block Group: 6934001
LMI: 78.29%

Block Group: 6931012
LMI: 73.33%

Block Group: 6931022
LMI: 73.36%

Block Group: 6931014
LMI: 94.72%

Block Group: 6931021
LMI: 27.7%

Block Group: 6930002
LMI: 65.5%

Stewarts Creek Stop Location 2
LAT: 30.38009
LON: -95.47057

Stewarts Creek Start Location 2
LAT: 30.28313
LON: -95.43967

Stewarts Creek Stop Location 1
LAT: 30.28313
LON: -95.43967

Block Group: 6932001
LMI: 31.66%

Block Group: 6932004
LMI: 6.28%

Magnolia Drive Erosion
LAT: 30.26209
LON: -95.46167

Stewarts Creek Start Location 1
LAT: 30.24883
LON: -95.45809

Block Group: 6932003
LMI: 22.66%

Block Group: 6932002
LMI: 24.36%

Panorama Village

Willis

Conroe

Lone Star Executive Airport

Stewarts Creek

Crystal Creek

West Fork of Crystal Creek

Little Caney Creek

Sandy Branch

White Oak Creek North

Montgomery County, Texas
Geographic Information Systems (GIS)
Maps | Apps | Data
gis.mctx.org

Created: Nov 18, 2022
Data Sources: Block Groups| US Census, 2020
Population Source: US Census 2020
Benefit Area| Montgomery County GIS Department: November 2022

Path: G:\REBOOT\Projects\SR-119575 OHEM Lake Creek Application Map Update2\SR-119575 OHEM Lake Creek Application Map Update2.aprx

Montgomery County, Texas

Stewarts Creek Benefit Area

2020 US Census Blocks with Population Figures

N

0 0.5 1 1.5 2

Miles

Legend

- Magnolia Drive Erosion
- Start and Stop Location
- StewartsCreek
- Stewart Creek Benefit Area
- 2020 Census Block Group

Willis

Panorama Village

Conroe

Block Group: 483396941051
Total Population: 2250

Block Group: 483396938003
Total Population: 805

Stewarts Creek Stop Location 2
LAT: 30.38009
LON: -95.47057

Block Group: 483396938001
Total Population: 2154

Block Group: 483396939013
Total Population: 3100

Block Group: 483396939012
Total Population: 0

Block Group: 483396935021
Total Population: 1761

Block Group: 483396939041
Total Population: 1767

Block Group: 483396939033
Total Population: 1544

Block Group: 483396939032
Total Population: 1178

Block Group: 483396935032
Total Population: 940

Block Group: 483396934011
Total Population: 895

Block Group: 483396931032
Total Population: 1285

Block Group: 483396931033
Total Population: 1207

Block Group: 483396931022
Total Population: 2669

Block Group: 483396939021
Total Population: 1497

Block Group: 483396939031
Total Population: 1146

Block Group: 483396931031
Total Population: 1115

Block Group: 483396931041
Total Population: 2304

Block Group: 483396939022
Total Population: 2566

Block Group: 483396939011
Total Population: 1069

Block Group: 483396931021
Total Population: 3679

Block Group: 483396930022
Total Population: 2311

Stewarts Creek Start Location 2
LAT: 30.28313
LON: -95.43967

Stewarts Creek Stop Location 1
LAT: 30.28313
LON: -95.43967

Block Group: 483396932011
Total Population: 1892

Block Group: 483396932021
Total Population: 1554

Block Group: 483396932012
Total Population: 2117

Magnolia Drive Erosion
LAT: 30.25209
LON: -95.45167

Stewarts Creek Start Location 1
LAT: 30.24883
LON: -95.45309

Block Group: 483396932022
Total Population: 1378

Block Group: 483396932023
Total Population: 1986

Stewarts Creek
Crystal Creek
White Oak Creek North
Little Caney Creek
Sandy Branch

Montgomery County, Texas
Geographic Information Systems (GIS)
Maps | Apps | Data
gis.mctx.org

Created: Nov 18, 2022
Data Sources: Block Groups| US Census, 2020
Population Source: US Census 2020
Benefit Area| Montgomery County GIS Department: November 2022

Path: G:\REBOOT\Projects\SR-119575 OHEM Lake Creek Application Map Update2\SR-119575 OHEM Lake Creek Application Map Update2.aprx

Yard and fence line erosion on property north of proposed structural streambank stabilization

STEWART CREEK FLOOD MITIGATON PROJECT PHOTOS

Streambank failure at residence/yard located north of proposed improvements

STEWART CREEK FLOOD MITIGATON PROJECT PHOTOS

Stewart Creek, vegetative debris within the channel

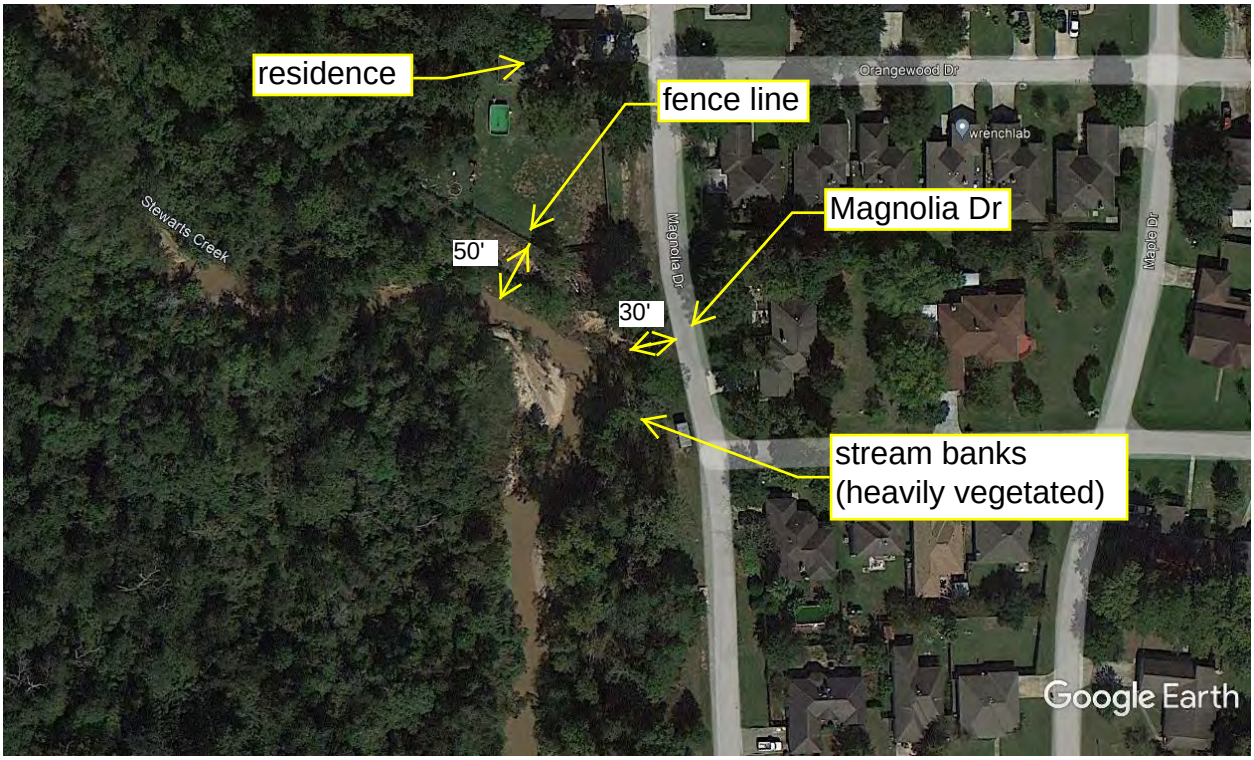
STEWART CREEK FLOOD MITIGATON PROJECT PHOTOS

Stewart Creek vegetative debris within channel and erosion at Magnolia Drive (guardrail, gas line, and stormwater pipes have collapsed with bank

STEWART CREEK FLOOD MITIGATON PROJECT PHOTOS

Stewart Creek vegetative debris within channel and erosion at Magnolia Drive (guardrail, gas line, and stormwater pipes have collapsed with bank

2013

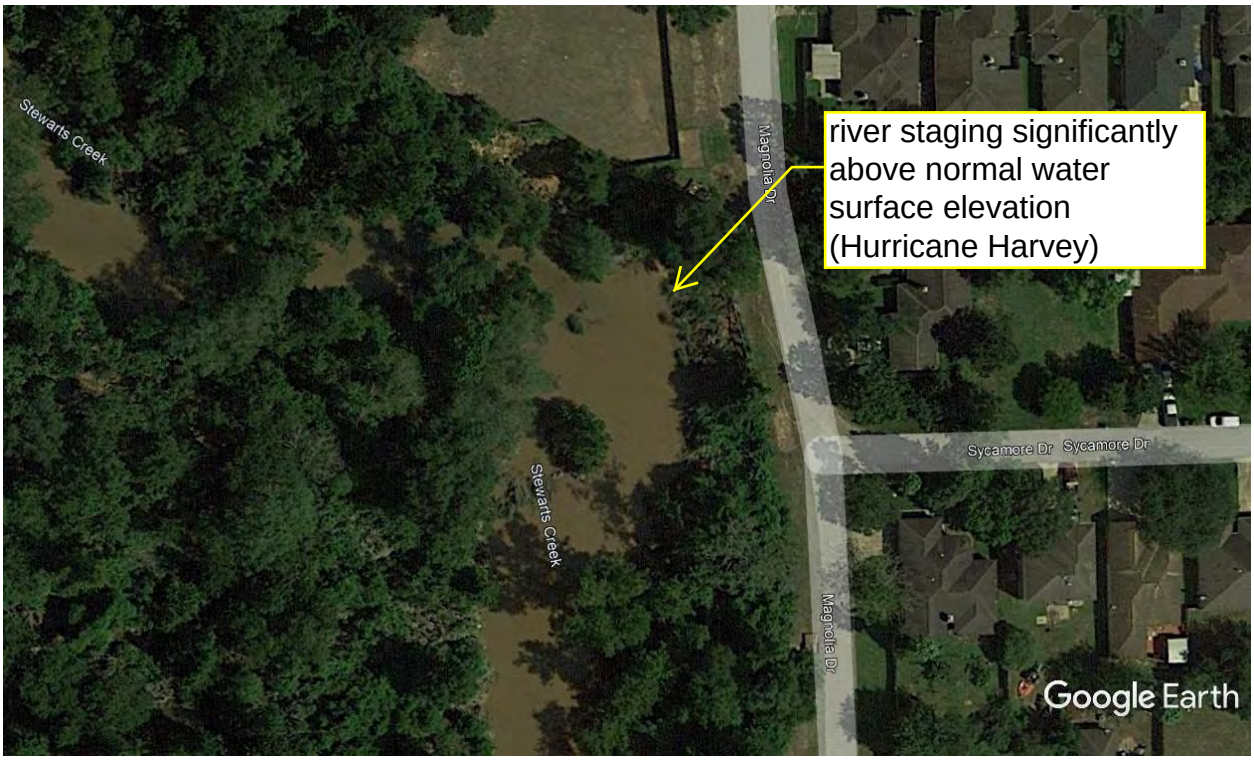

residence
fence line
Magnolia Dr
50'
30'
stream banks
(heavily vegetated)
Orangewood Dr
wrenchlab
Stewarts Creek
Magnolia Dr
Maple Dr
Google Earth

2015


Orangewood Dr
wrenchlab
Stewarts Creek
Magnolia Dr
Maple Dr
Sycamore Dr
Google Earth

2016

2017 during Harvey

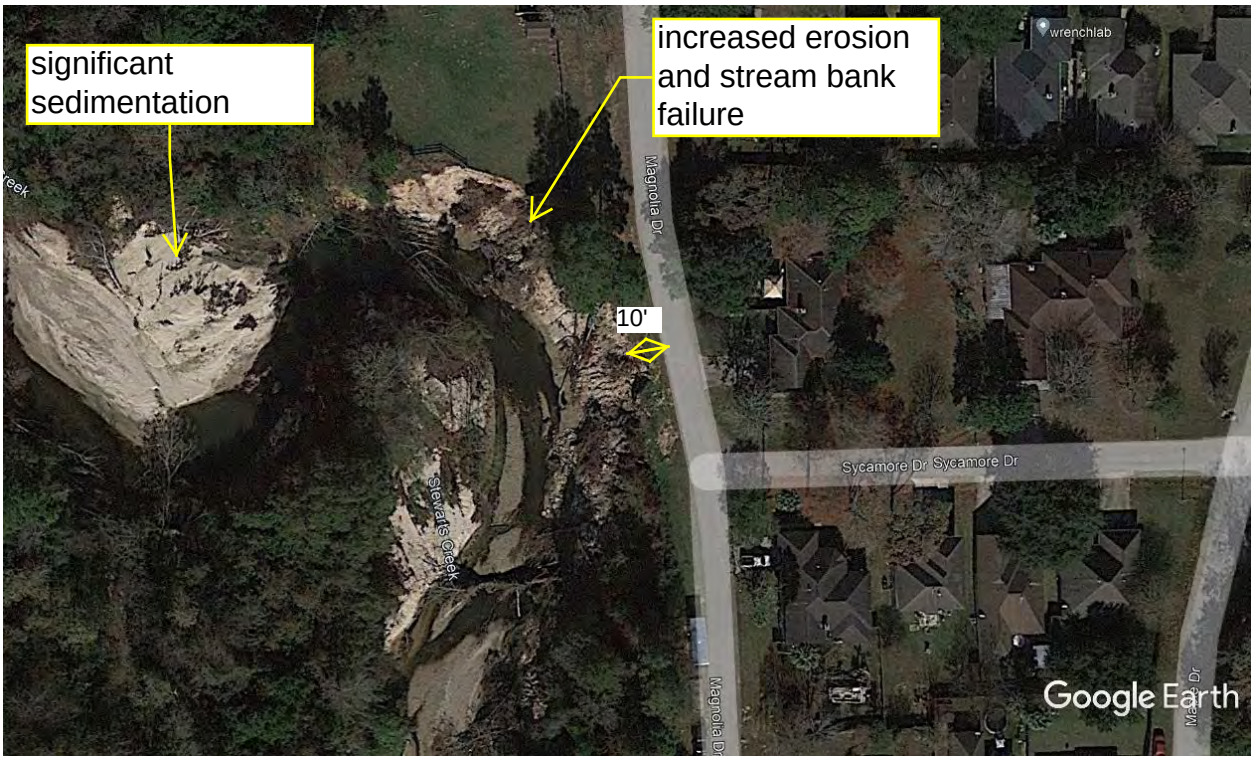


2017 post-Harvey

2017 post-Harvey

2019 pre-Imelda

2019 post-Imelda



2020


wrenchlab
Magnolia Dr
Sycamore Dr Sycamore Dr
Stewarts Creek
Google Earth

2021

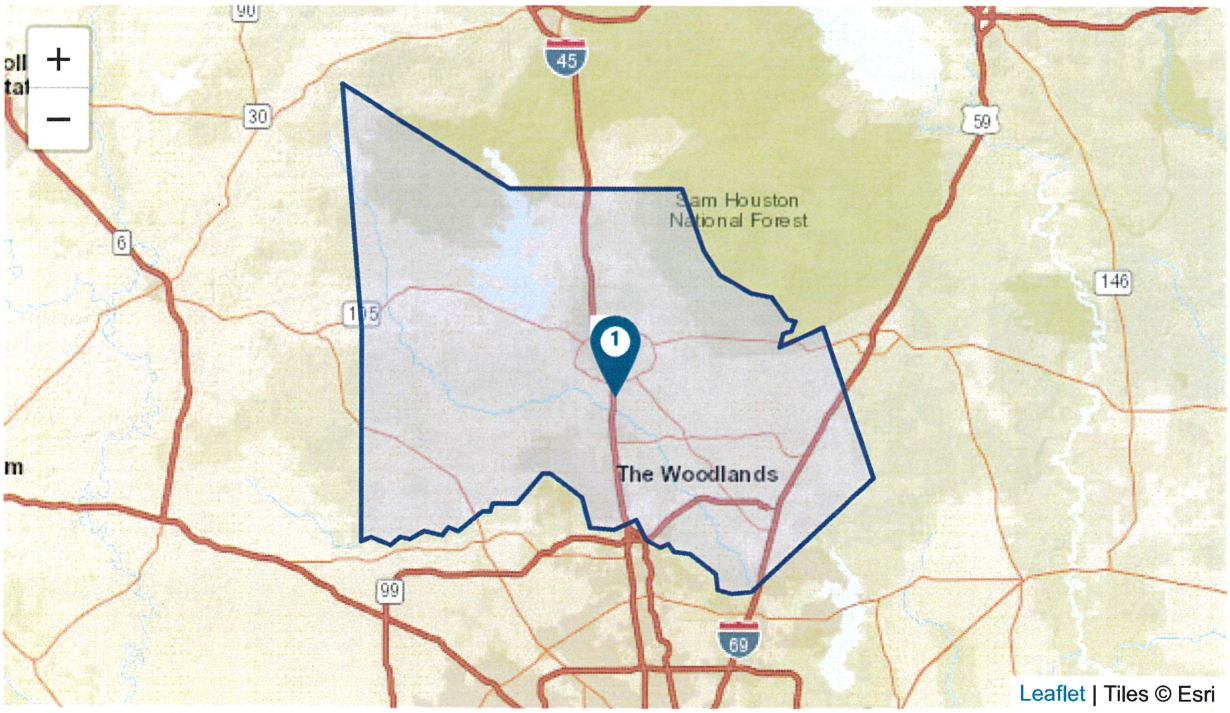

wrenchlab
Magnolia Dr
Sycamore Dr Sycamore Dr
Stewarts Creek
Google Earth

FEMA Benefit-Cost Calculator

V.6.0 (Build 20221028.1600 | Release Notes)

Benefit-Cost Analysis

Project Name: San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County



				Using 7% Discount Rate			Using 3% Discount Rate (For FY22 BRIC and FMA only)		
Map Marker ▲	Mitigation Title	Property Type	Hazard	Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
1	Floodplain and Stream Restoration @ 30.2621410; -95.4529690	•••	DFA - Riverine Flood	$ 28,023,566	$ 16,021,810	1.75	$ 46,506,316	$ 16,698,142	2.79
TOTAL (SELECTED)				**$ 28,023,566**	**$ 16,021,810**	**1.75**	**$ 46,506,316**	**$ 16,698,142**	**2.79**
TOTAL				**$ 28,023,566**	**$ 16,021,810**	**1.75**	**$ 46,506,316**	**$ 16,698,142**	**2.79**

Property Configuration

Property Title:	Floodplain and Stream Restoration @ 30.2621410; -95.4529690
Property Location:	77302, Montgomery, Texas
Property Coordinates:	30.2621410, -95.4529690
Hazard Type:	Riverine Flood
Mitigation Action Type:	Floodplain and Stream Restoration
Property Type:	Other
Analysis Method Type:	Historical Damages

Cost Estimation

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Project Useful Life (years):	35
Project Cost:	$14,996,354
Number of Maintenance Years:	35 Use Default:Yes
Annual Maintenance Cost:	$79,200

Damage Analysis Parameters - Damage Frequency Assessment

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Year of Analysis was Conducted:	2021
Year Property was Built:	0
Analysis Duration:	27 Use Default: *No*

Historical Damages Before Mitigation

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

		OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
Damage Year	Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Buildings & Contents) ($)	Number of Volunteers	Number of Days	Damages ($)	Current Dollars?	Inflated Damages ($)
1994	0	0	0	0	6,808,601.47	0	0	6,808,601	No	15,275,708
1998	0	0	0	0	6,021,238.65	0	0	6,021,239	No	12,340,827
2001	0	0	0	0	1,100,120.64	0	0	1,100,121	No	2,104,388
2002	0	0	0	0	2,125,249.15	0	0	2,125,249	No	3,944,074
2004	0	0	0	0	108,725.53	0	0	108,726	No	185,414
2006	0	0	0	0	215,676.7	0	0	215,677	No	331,770
2015	0	0	0	0	189,498.48	0	0	189,498	No	225,626
2016	0	0	0	0	9,820,917.61	0	0	9,820,918	No	11,350,552
2017	0	0	0	0	18,445,931.97	0	0	18,445,932	No	20,526,698
2019	0	0	0	0	1,099,110.55	0	0	1,099,111	No	1,164,113

Annualized Damages Before Mitigation

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
2.80	185,414	7,069
3.1	225,626	10,087
3.5	331,770	22,195
4	1,164,113	58,277
4.7	2,104,388	98,513
5.60	3,944,074	376,556
8.1	11,835,337	699,568
14	15,275,708	632,415
28	20,526,698	733,094
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	55,593,129	2,637,774

Expected Damages After Mitigation

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Buildings & Contents) ($)	Number of Volunteers	Number of Days	Damages ($)
5	0	0	0	2,367,015.8	0	0	2,367,016

Annualized Damages After Mitigation

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
5	2,367,016	473,403
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	2,367,016	473,403

Standard Benefits - Ecosystem Services

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Total Project Area (acres):	0
Percentage of Urban Green Open Space:	0.00%
Percentage of Rural Green Open Space:	0.00%
Percentage of Riparian:	0.00%
Percentage of Coastal Wetlands:	0.00%
Percentage of Inland Wetlands:	0.00%
Percentage of Forests:	0.00%
Percentage of Coral Reefs:	0.00%
Percentage of Shellfish Reefs:	0.00%
Percentage of Beaches and Dunes:	0.00%
Expected Annual Ecosystem Services Benefits:	$0

Benefits-Costs Summary

Floodplain and Stream Restoration @ 30.2621410; -95.4529690

Total Standard Mitigation Benefits:	$28,023,566
Total Social Benefits:	$0
Total Mitigation Project Benefits:	$28,023,566
Total Mitigation Project Cost:	$16,021,810
Benefit Cost Ratio - Standard:	1.75
Benefit Cost Ratio - Standard + Social:	1.75

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

Environmental Review for Activity/Project that is Exempt or Categorically Excluded Not Subject to Section 58.5

Pursuant to 24 CFR Part 58.34(a) and 58.35(b)

Project Information

Project Name: San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization-Stewart Creek

Responsible Entity: Montgomery County Office of Homeland Security and Emergency Management

Grant Recipient (if different than Responsible Entity): N/A

State/Local Identifier: 74-6000558

Preparer: Morgan Lumbley

Certifying Officer Name and Title: Jason Millsaps, Director MCOHSEM

Consultant (if applicable): N/A

Project Location: Stewart Creek and Magnolia Drive Conroe 77302

Description of the Proposed Project [24 CFR 58.32; 40 CFR 1508.25]**:** Administrative, planning, and project delivery services to assist with the proposed CDBG-MIT infrastructure project: San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization-Stewart Creek

Level of Environmental Review Determination:

☒ Activity/Project is Exempt per 24 CFR 58.34(a): Planning and Administration

☐ Activity/Project is Categorically Excluded Not Subject To §58.5 per 24 CFR 58.35(b):

Funding Information

Grant Number	HUD Program	Funding Amount
	CDBG-MIT MOD Funding	$60,375,000.00

Estimated Total HUD Funded Amount: $60,375,000.00

This project anticipates the use of funds or assistance from another Federal agency in addition to HUD in the form of (if applicable)**: N/A**

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)] Out of the total proposed project costs of $14,996,354.40, an estimated 5 percent or $791,954.40 will be used for Administration, Planning and Project Delivery.

Compliance with 24 CFR §50.4 and §58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR 50.4 and 58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §58.6		
Airport Runway Clear Zones and Accident Potential Zones 24 CFR Part 51 Subpart D	Yes ☐ No ☒	This project does not occur within any airport runway clear zones or military accident potential zones. Please refer to map of attached. It is compliant with the regulation.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	Projects is not located on or connected to CBRA Unit or otherwise protected areas.

Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☐ No ☒	Administrative and management activities do not trigger any additional flood insurance requirements.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure

Preparer Signature: _____ Date: 11.02.22

Name/Title/Organization: Morgan Lumbley- Disaster Recovery Manager MCOHSEM

Responsible Entity Agency Official Signature:

_____ Date: 11.02.22

Name/Title: Jason Millsaps Executive Director MCOHSEM

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

San Jacinto Watershed and Tributary Barrier Flood Mitigation- Lake Creek

Project Info

Project Information

DRGR Activity: Flood and Drainage Facilities

Project Type: Flood and Drainage

Project Title: San Jacinto Watershed and Tributary Barrier Flood Mitigation- Lake Creek

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):
Montgomery County relies on a network of creeks and streams for overall stormwater drainage. These tributaries divide the County into different sub-basins all of which drain to the San Jacinto River. Since 2015, Montgomery County has experienced five declared flooding events as follows: April 2015- DR4223, April 2016- DR4269, May 2016- DR4272, August 2017- DR4332 and September 2019- DR4466. These storms caused significant flooding and overwhelmed Montgomery County's natural drainage ways. Due to these repeated events, the county has experienced degradation to the floodplain, floodways, and non-regulated creeks and streams. Specifically, repeated flooding has accelerated erosion along streambanks and flood-borne vegetative/other debris has collected throughout the drainageways, significantly reducing the conveyance capacity of channels, which has further exacerbated flooding events throughout the County. Therefore, Montgomery County's tributaries are not functioning at full capacity and due to sedimentation, erosion, and blockages within streams/creeks, flooding within the County has exceeded Base Flood Elevations (BFEs) and has occurred outside of the mapped floodplain. This project proposes to mitigate future flooding by restoring streams and creeks within Montgomery County to full channel capacity by removal of vegetative/other obstructions from waterways. In addition, where areas of significant erosion are observed, the County will implement Best Management Practices and non-structural controls to stabilize banks in order to mitigate against scour, sedimentation, and additional degradation of the streams/creeks. This project will specifically address the Lake Creek sub-basin which includes Lake Creek waterway. The project will restore/remediate approximately 24 miles of stream within the San Jacinto Watershed.

Work will be performed utilizing a combination of water-based and land-based implementation. Channel obstructions shall be extracted utilizing a barge or other floating vessel, equipped with a grapple bucket and saw, or with the use of other mechanical equipment suitable to accomplish the removal of vegetation and other flood borne debris. Only dead vegetation will be removed from the channel and banks. Dead vegetation removed from the banks will be cut and the root balls will be left in place to prevent erosion. Obstructions removed from the channel will be transported by barge to the nearest available temporary upland offloading location. From the offload site, vegetation and other items removed from the channel will be transported to a permitted upland location for final disposal. After removal of obstructions including vegetation, the channel banks will be revegetate. Any areas with significant erosion will be addressed

through utilizing Best Management Practices for erosion control and non-structural measures to stabilize the slopes.

Location Start: 30.45069; -95.78092

Location End: 30.25772; -95.56379

Site: Project Site Title	Site: Street Address
Lake Creek Start	N/A

Describe a plan for the long-term funding and management of the operations and maintenance of the project: It is estimated that maintenance would be needed on stream restoration every 2-3 years with a projection of $6 per LF. Note that not every mile will be required to be maintained at the same levels; with this understanding it is estimated that a per 3 year cost of maintenance will be approximately $ 380,160 (50%) of the calculated mileage or $126,720 annually.

Total proposed number of linear feet: 126,720

Total number of proposed public facilities:

Project Phase	Start Date	End Date	Length (in months)
Contract Closeout	12/1/2024	3/1/2025	3
Submit As-Builts/COCC/FWCR	11/1/2024	12/1/2024	1
Construction	3/1/2024	11/1/2024	8
Construction NTP	2/1/2024	3/1/2024	1
Contract Award	2/1/2024	3/1/2024	1
Bid Advertisement	12/1/2023	2/1/2024	2
Acquisition	12/1/2023	12/1/2023	0
Environmental Review	5/1/2023	12/1/2023	7
Engineering Design	5/1/2023	12/1/2023	7
Start-Up Documentation	4/1/2023	5/1/2023	1

National Objective

National Objective

Provide Total Number of Beneficiaries: 30,260

Provide number of LMI Beneficiaries 5,590

Percentage of LMI Beneficiaries: 18.47%

Is that applicant a HUD Exception Grantee? No

Census Tract	Block Group List (Text)
6,946	Group 1 ; Group 2 ; Group 3
6,945	Group 1 ; Group 2
6,904	Group 1 ; Group 2

Male: 15,238

Female: 15,022

Total: 30,260

Race	Hispanic Population	Non-Hispanic Population	Total Population
White and Black/African American	93	13	106
White and Asian	93	13	106
White and American Indian/Alaska Native	83	11	94
White	2,683	23,673	26,356
Some Other Race	220	0	220
Other multi racial	1,652	231	1,883
Native Hawaiian/Other Pacific Islander	0	0	0
Black/African American and American Indian/Alaska Native	0	0	0
Black/African American	13	608	621

Race	Hispanic Population	Non-Hispanic Population	Total Population
Asian	0	700	700
American Indian/Alaska Native	80	94	174

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 (County-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 census method was used to capture the beneficiary information. The LMISD data supplied by HUD was used to to compare to the determined service area, noting that only census tracts where the majority received a benefit were included. Roadblocks totaling 1086 in the county to riverine flooding sustained during Harvey were captured to identified within the service area. This includes roads that were blocked from evacuating the community to the primary evacuation corridor, Interstate Highway 45. Throughout the county there were 260 rescues, 90 reports of high water roads and 77 roads listed as impassable during the April 2016 floods; there were 400 high water rescues and 150 roads listed as impassable during the May 2016 floods; and there were 1,300 rescues and 300 roads listed as impassable during Hurricane Harvey in 2017.

U.S. Congressional District #: 2;8

Texas Representative District #: 3;15;16;18

Texas Senate District #: 4;7;18

GEOID	GEONAME
15000US483396904011	Block Group 1, Census Tract 6904.01, Montgomery County, Texas
15000US483396904012	Block Group 2, Census Tract 6904.01, Montgomery County, Texas
15000US483396945001	Block Group 1, Census Tract 6945, Montgomery County, Texas
15000US483396945002	Block Group 2, Census Tract 6945, Montgomery County, Texas
15000US483396946001	Block Group 1, Census Tract 6946, Montgomery County, Texas
15000US483396946002	Block Group 2, Census Tract 6946, Montgomery County, Texas
15000US483396946003	Block Group 3, Census Tract 6946, Montgomery County, Texas

STUSAB	STATE	COUNTY_NAME	QUALIFY_F	COUNTY	TRACT	BLKGRP	lowmod_p
TX	48	Montgomery County	NO	339	690401	1	1,175
TX	48	Montgomery County	NO	339	690401	2	140
TX	48	Montgomery County	NO	339	694500	1	465
TX	48	Montgomery County	NO	339	694500	2	1,055
TX	48	Montgomery County	NO	339	694600	1	795
TX	48	Montgomery County	NO	339	694600	2	1,470
TX	48	Montgomery County	NO	339	694600	3	490
							5,590

lowmodu_p	lowmod_pct	MOE_LowmodPct
4,850	24.23%	+/-9.24
1,690	8.28%	+/-7.87
1,525	30.49%	+/-14.30
6,770	15.58%	+/-6.00
2,365	33.62%	+/-11.75
3,605	40.78%	+/-23.05
1,315	37.26%	+/-23.57
22,120	**27.18%**	

Environmental

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

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? Yes

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

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: Archaeological Assessment/ National Register of Historic Places- The proposed project is located within the channels to top of the bank. The scope of work does not include ground disturbance. Therefore, impacts to adjacent buildings/structures are not anticipate except the impact of reduced risk of flooding. However, prior to work, consultation with the Texas Historical Commission will be performed to ensure compliance with the Nation Historic Preservation Act.

Wetlands- Work will be performed in the following bodies of water: Lake Creek (approximately 24 miles of stream restoration). No changes changes to the bottom of the channel or banks is expected as part of this project. Work will be limited to removing obstructions within the channel such as vegetative debris and revegetation of the banks. Therefore, the project is expected to have a positive impact by restoring channel capacity and proving bank stabilization to minimize erosion and sedimentation.

Floodplain Management- The project work must be performed in both the floodplain and within wetlands with no expected permanent impacts to these areas. The project includes stream restoration to restore the function an capacity of the channel and is expected to have positive impacts for the floodplain by restoring the floodways. Therefore, this project meets Step 5 of the 8-Step Process under CFR 44 9.6. Minimization of temporary impacts to the floodplain an wetlands include the use of matts where land-based removal of debris/remediation is required to avoid rutting. In addition, the project will specify that no digging into the channel slopes or bottom of the bank while performing work should occur. Water way remediation in navigable channels shall be performed using barges to minimize impacts due to access. Debris shall be

transported by barge to upland offload sites for transfer to final disposal in permitted upland location. Removal of accumulated vegetation/other objects within the channel will restore channel capacity and reduce upstream flooding. Structural and/or permanent altercations of the waterways is not proposed, therefore, no H&H study is required.

Endangered Species- There are multiple endangered and/or threatened species within the project area. The source for this information is the U.S. Fish & Wildlife Service IPaC report which was obtained on 11/22/21 and is include as an attachment to this application. The project scope includes consultation with federal, state, and local agencies will be performed prior to commencement of work an all required permits will be obtained. Due to the temporary nature of the proposed project with regards to potential impacts to the waterways, wetlands, and habitat, negative impacts to endangered species is not expected and it is anticipate that permits will be issued by regulatory agencies. The project will conform with all permit conditions and requirements once obtained. Once permit applications are submitted, response from USFWS will be provided.

Vegetation- Vegetative debris (branches, fallen trees, etc.) that has been deposited within the channel and floodways will be removed as part of this project. In addition, dead trees on the banks which are affecting the floodway will be removed. During this process, root balls which has been dislodged will be cut off as close to the root ball as possible and put back into the void in the bank in order to reduce risk of scouring and erosion along the banks. The project area is presented in the Project Location Maps. Vegetative debris removal will occur throughout these locations, as necessary. Based on the initial site assessments and for the purposes of budgeting, it is estimated that approximately 42,240 CY of vegetative and/or other debris will be removed from the project area in order to remove obstructions and restore channel capacity.

Hazardous Site- The areas adjacent to the waterways consist of wooded buffer areas which are surrounded by urban development. There are multiple land uses typical of an urban area along the project area. No specific land-uses associated with hazardous materials have been identified.

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- Nationwide Permit (NWP) will be required for project as the activity should qualify under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 that have no more than minimal individual and cumulative adverse environmental effects. This proposed project activity does not involve discharge of dredged or fill material into waters of the United States.

Upon the initial submission of the permit application to USACE, upon review and identification of other regulatory agencies permitting requirements Montgomery County will obtain any necessary permits for the proposed project that may be required by the following:

* Texas Commission on Environmental Quality (TCEQ)

* Texas Natural Resource Conservation Commission (TRNCC)

* United States Army Corps of Engineers (USACE)

* Any other applicable regulatory/environmental entity as identified.

Does the project require any type of ratified, legally binding agreement between the applicant and any other entity to provide continual operation upon completion? No

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:

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
Engineering	$100,000.00	$0.00	$100,000.00	1.1%
Grant Administration	$465,283.00	$0.00	$465,283.00	5.2%
Special Environmental	$0.00	$0.00	$0.00	0%
Acquisition	$0.00	$0.00	$0.00	0%
Construction	$8,279,040.00	$0.00	$8,279,040.00	92%
Environmental	$150,000.00	$0.00	$150,000.00	1.7%
Planning	$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: As a result of Montgomery County s four recent major federally-declared disasters (DR4269, DR4272, DR4332, and DR4466), it is clear that increasing the capacity of the creeks and rivers is critical to mitigate riverine flooding from extreme rainfall events caused by storms. The County proposes to address this need by removing tributary barriers or other obstructions to the flow to creeks and rivers that drain the County. Lake Creek is a key component of the County s watershed and serves as a stormwater drainage system outlet. Unfortunately, Lake Creek regularly exceeds flood stage heights during extreme rainfall events. This has caused local flooding in surrounding areas, endangering public health and safety. The Lake Creek Project will help minimize damage to residential areas, commercial corridors, infrastructure, and roadways through mitigation measures that will enhance the ability of Lake Creek and its feeders to handle and manage extreme rates of surface water runoff more efficiently, improve channeling of that water throughout the watershed and help keep the waterway levels low.

This project will improve conditions within the 500-year floodplain and conditions outside of the floodplain. However, there will be residual risk for properties within the 100-year floodplain. Due to obstructions within the channels, during flood events, the channels are not able to properly flow/drain, therefore, flooding has exceeded top of bank and higher than expected staging has occurred upstream of areas with obstructed flow. This has resulted in increased flooding well above the established BFE and outside of the 100-year floodplain. The proposed project will restore the floodplain and reduce risk outside of the 100-year floodplain. However, within the floodplain, while the project should improve conditions by restoring channel capacity there will continue to be flood risk. However, Montgomery County has implemented an acquisition program through FEMA's Flood Mitigation Assistance program and HUD Community Development Block Grant for Disaster Recovery (CDBG-DR) Buyout program to reduce properties within the 100-year floodplain and floodway. Therefore, the combination of this project with the County's other long-term mitigation efforts will further reduce risks.

Provide information about how the proposed mitigation efforts integrate into the community's emergency and resiliency plans: This project enhances both the County s community preparedness outreach and its Hurricane Harvey Buyout and Voluntary Property Acquisition Programs which are funded through CDBG-DR and FEMA Flood Mitigation Assistance (FMA) These programs provide buyout opportunities for citizens with homes located in the floodplain/floodway or that are classified as National Flood Insurance Program (NFIP) Repetitive Loss or Severe Repetitive Loss properties. The buyout properties will be converted to green infrastructure to help manage the stormwater runoff throughout the drainage area during extreme rainfall events, thereby relieving the strain on creeks and rivers during such events. These mitigation efforts will help better manage the flow in the creeks and rivers and will result in a more resilient and reliable stormwater management process throughout the County.

In the space provided, list documentation provided to support the identification of the threat or hazard and how it relates to potential impact: - Lake Creek Site Photos

- Benefit Service Area- showing RL/SRL, critical facilities.

Provide a brief description of how the proposed project addresses an integrated approach to mitigation: Montgomery County has experienced social, economic, and environmental damage along Stewart Creek due to multiple flooding events in recent years where residents' quality of life is continuously impacted after each event. This region in Montgomery County is an area of rapid population growth with the area now being home to more than 544,000 persons, including 180,785 low and moderate income individuals (CAPR). The communities in the County experience repetitive and severe loss, totaling to 1,629, due to repetitive flood events where the water surface exceeded the flood stage and entered into residential areas, commercial corridors. Additionally, this resulted in public health hazards, disruption of emergency and sanitary sewer services, recurring costly repairs, and deterioration of infrastructure. The disasters exposed that the rate of surface water runoff from watershed exceeds the capacity of the creeks and rivers during an extreme rainfall event. When drainage overflow occurs and the outlet becomes restricted due to flood levels exceeding the height of the pipes located at the creeks and rivers, the resultant flooding not only affects the area surrounding the waterway, but also t he stormwater inlets (located along roads) of the drainage system in urban areas.

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: As a result of Montgomery County's four recent major federally- declared disasters (DR4269, DR4272, DR4332, and DR4466), it is clear that increasing the capacity of the creeks and rivers is critical to mitigate riverine flooding from extreme rainfall events cause by storms. The county proposes to address this need by removing tributary barriers or other obstructions to the flow to creeks and rivers that drain the county. Lake Creek is a key component of the County's watershed and serves as a stormwater drainage outlet. This has caused local flooding in surrounding areas, endangering public health and safety. The Lake Creek Project will help minimize damage to residential areas, commercial corridors, infrastructure, and roadways through mitigation measures that will enhance the ability of Lake Creek and its feeders to handle and manage extreme rates of surface water runoff more efficiently, improve channeling of that water throughout the watershed and help keep the waterway levels low.

Describe how the proposed project is consistent with local and regional planning efforts to effect disaster mitigation: The waterway project was adopted from Montgomery County's Hazard Mitigation Action Plan (HMAP) and the mitigation goal is to reduce future risk of riverine flooding from extreme rainfall events and increase the ability to manage stormwater flows such as those seen in recent disasters the have hit Montgomery County. The HMAP adds a flooding risk assessment from a HAZUS report, which evaluates the occurrence, vulnerabilities and impacts of future 500-year floods from historical data recorded. HAZUS estimates that county-wide in a 500 year event, 847 homes and commercial structures would be destroyed, which would cost $ 1,025 million in direct property damage, and $3 million in business interruption loss. HAZUS also estimates that #17,938 people would seek temporary shelter and there would be 7,379 displaced households.

Was a cost-benefit analysis used in the selection of the proposed project? Yes

Describe how the proposed project impacts vulnerable populations in the local community.: The areas adjacent to the wateways consist of wooded buffer areas which are surrounded by urban development. The project scope of work only includes work within the waterways and will

not adversely impact any adjacent populations. the project will positively impact the adjacent LMI populations by reducing impacts from future disasters increasing public health and safety.

Describe how the proposed project creates economic opportunities for the local community: Although this project does not create direct economic opportunities for the community, there is an indirect impact for maintaining current economic opportunities as restoring the channel to its full flow capacity that will allow the watershed to drain property and reduce the risk of impact to health and safety, transportation and reduce damages to infrastructure within the project area. With adequate drainage roads can remain clear of high waters allowing for residents to commute freely, and businesses to remain operational.

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: The waterway project was adopted from Montgomery County's Hazard Mitigation Action Plan (HMAP) and the mitigation goal is to reduce future risk of riverine flooding from extreme rainfall events and increase the ability to manage stormwater flows such as those seen in recent disasters the have hit Montgomery County. The HMAP adds a flooding risk assessment from a HAZUS report, which evaluates the occurrence, vulnerabilities and impacts of future 500-year floods from historical data recorded. HAZUS estimates that county-wide in a 500 year event, 847 homes and commercial structures would be destroyed, which would cost $ 1,025 million in direct property damage, and $3 million in business interruption loss. HAZUS also estimates that #17,938 people would seek temporary shelter and there would be 7,379 displaced households.

Describe how the proposed project will contribute to the community's resiliency against future disasters as a result of these projects: This project enhances mitigation by amplifying the impact of building codes adopted in 2014 to protect new structures against floods. Montgomery County has implemented floodplain management codes which require new residential structures to be at least 12 inches above the Base Flood Elevation (BFE), a change which should significantly improve resilience of new development in the western portion of the County. Additionally, the codes restrict the development of structures in the floodway zone (Montgomery, TX Code of Ordinance)

This project enhances the County's community preparedness program. Conducted through the Office of Homeland Security and Emergency Management, the initiatives provide residents with disaster preparedness, mitigation, and recovery information to ensure they are up to date with all available funding opportunities and proposed projects. Annual community engagement and educational outreach includes:

* Skywarn, which provides over 300 County residents with storm spotter training;

*Shelter training for those interested in participating in shelter operations during emergency situations;

*Extreme Weather Ready Expo, a regional collaborative preparedness effort;

*Community Emergency Response Teams (CERT) courses to provide residents with the skills to prepare and respond to disasters in the community;

*Flood Aware, providing critical information regarding the risks associated with flooding; and,

*Jr. First Responder Camp, a week-long camp for community youth interested in pursuing careers as first responders.

Currently there is outreach to the Lake Creek service area in regard to Acquisition and Demolition activities (buyouts) funded by FEMA an CDBG-DR. Multiple public meetings have been held in the target area to describe the buyout activities. There are direct communication opportunities for homeowners to speak with the County's Disaster Recovery Manager regarding their specific situation, available options, an best courses of action.

The combination of these existing efforts with the CDBG-MIT watershed tributary barriers and flood mitigation activities represent a coordinated long-range plan to increase storm water capacity, remove barriers to enhance storm water flow and improve the ability to channel the accumulated runoff throughout the watershed. The following completed projects were done to optimize flow throughout the entire drainage system: cleaning out culverts, storm water lines, and storm water ditches, and regrading culverts and storm water ditches to increase capacity of storm and rainwater.

CDBG-MIT: Budget Justification of Retail Costs
(Former Table 2)

Cost Verification Controls must be in place to assure that construction costs are reasonable and consistent with market costs at the time and place of construction.

Applicant/Subrecipient:	Montgomery County Texas
Site/Activity Title:	San Jacinto Watershed and Tributary Barrier Flood Mitigation-Lake Creek
Eligible Activity:	Flood Control and Drainage Improvements

Materials/Facilities/Services	$/Unit	Unit	Quantity	Construction	Acquisition	Total
Lake Creek (24 miles) Stream Restoration	$ 160.00	CY	42240	$ 6,758,400.00	$ -	$ 6,758,400.00
Non-Structural bank stabilization (additional vegetation restoration)	$ 2.00	LF	126720	$ 253,440.00	$ -	$ 253,440.00
Monitoring/Inspection throughout construction	$ 30.00	CY	42240	$ 1,267,200.00	$ -	$ 1,267,200.00
	$ -		0	$ -	$ -	$ -
Studies	$ 100,000.00	LS	1	$ 100,000.00	$	$ 100,000.00
Permitting	$ 150,000.00	LS	1	$ 150,000.00	$ -	$ 150,000.00
Project Delivery (6% Base Cost)	$ 465,283.00	LS	1	$ 465,283.00	$ -	$ 465,283.00
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
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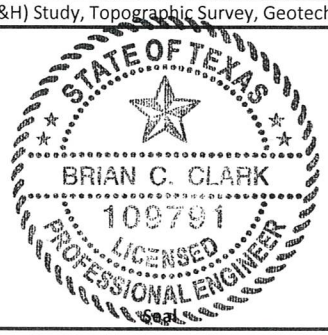
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
TOTAL	$ 715,475.00			$ 8,994,323.00	$ -	$ 8,994,323.00

1. Identify and explain the annual projected operation and maintenance costs associated with the proposed activities.

It is estimated that maintenance would be needed on stream restoration every 2-3 years with a projection of $6 per LF. Note that not every mile will be required to be maintained at the same levels; with this understanding it is estimated that a per 3 year cost of maintenance will be approximately $380,160 (50%) of the calculated mileage or $126,720 annually.

2. Identify and explain any special engineering activities.

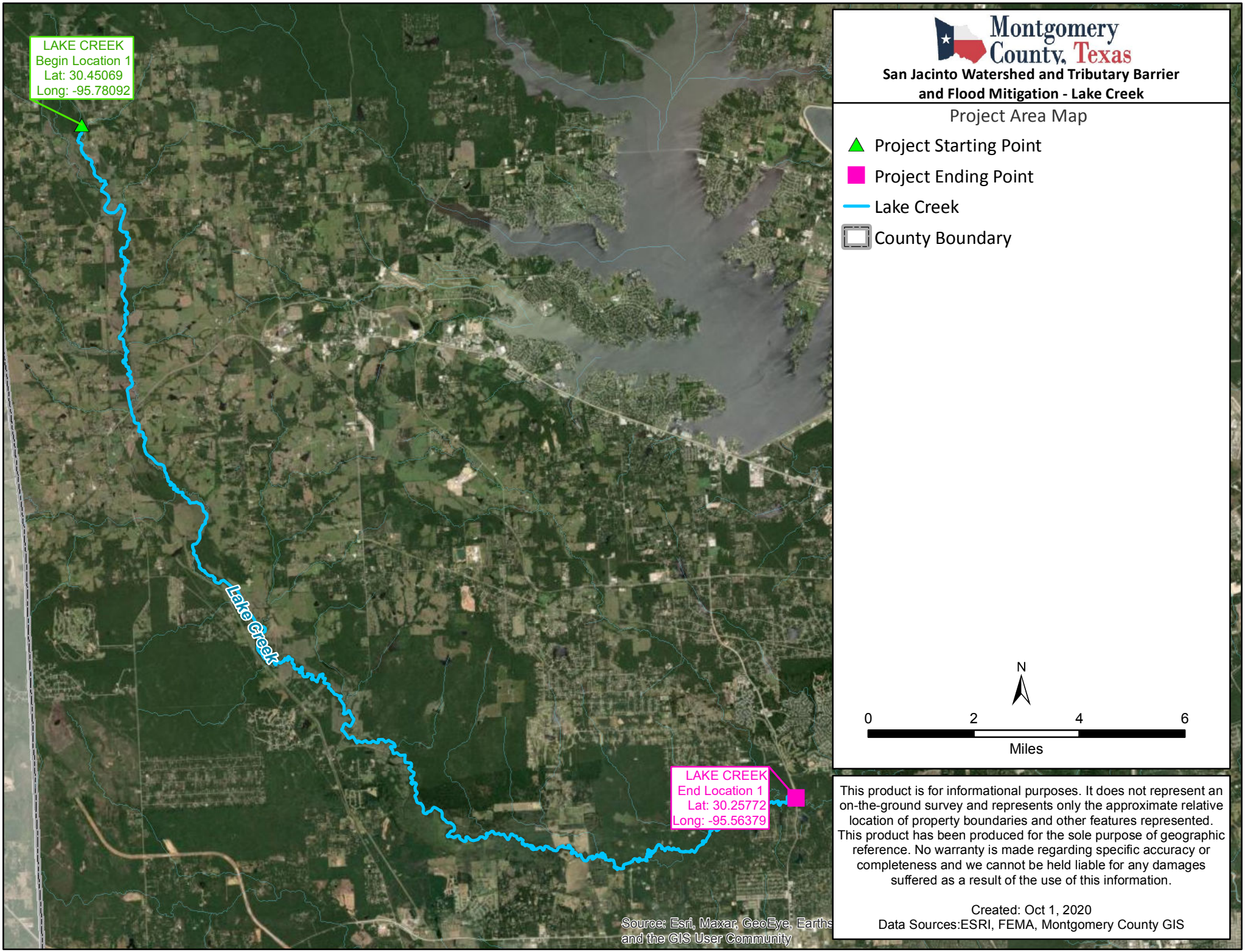
Hydrologic and Hydrolic (H&H) Study, Topographic Survey, Geotechnical Analysis, Drainage Study



Seal

Date:	11/29/2022
Phone Number:	(936)538-5468

Signature of Registered Engineer/Architect Responsible For Budget Justification:



Montgomery County, Texas

San Jacinto Watershed and Tributary Barrier and Flood Mitigation - Lake Creek

Project Area Map

- Project Starting Point
- Project Ending Point
- Lake Creek
- County Boundary

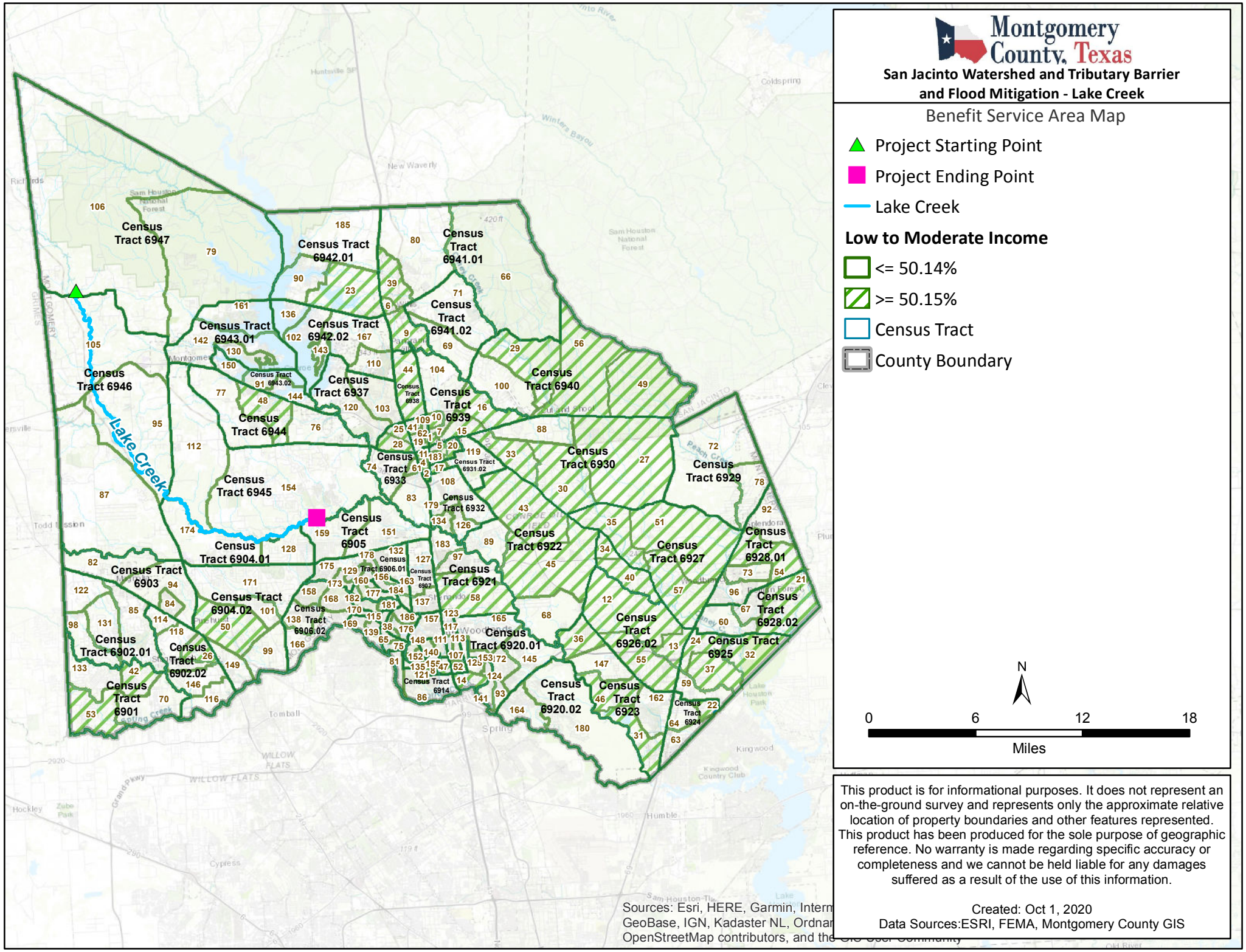
N

0 2 4 6

Miles

This product is for informational purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries and other features represented. This product has been produced for the sole purpose of geographic reference. No warranty is made regarding specific accuracy or completeness and we cannot be held liable for any damages suffered as a result of the use of this information.

Created: Oct 1, 2020
Data Sources:ESRI, FEMA, Montgomery County GIS



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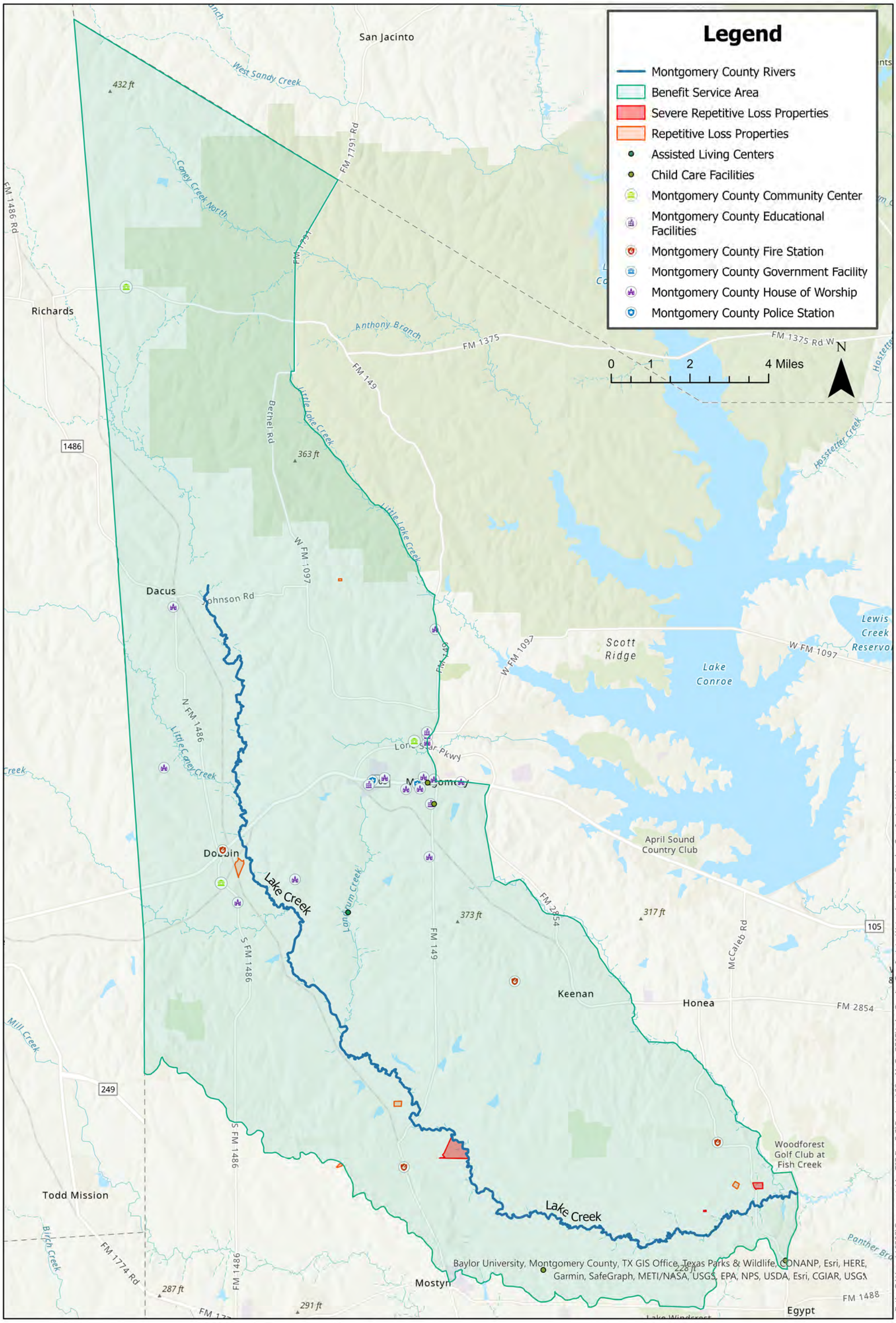
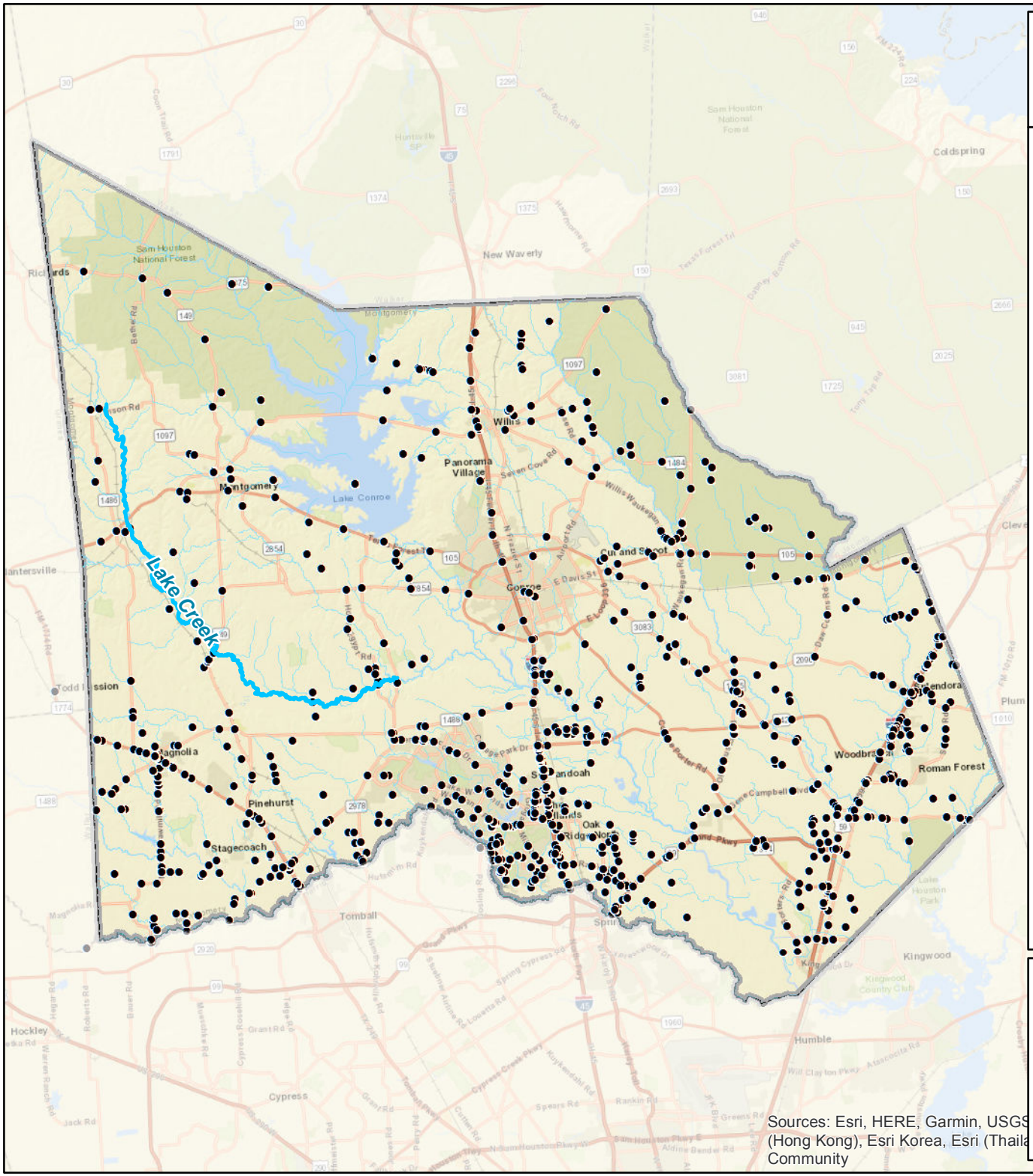


BENEFIT SERVICE AREA MAP
LAKE CREEK
MONTGOMERY COUNTY, TEXAS
SAN JACINTO WATERSHED AND TRIBUTARY BARRIER AND FLOOD MITIGATION

Montgomery County, Texas



Montgomery County, Texas

San Jacinto Watershed and Tributary Barrier and Flood Mitigation - Lake Creek

Flood Related Road Closures in Service Area

- Road Block Points (1,086)
- Lake Creek
- County Boundary

N

0 6 12 18

Miles

Sources: Esri, HERE, Garmin, USGS (Hong Kong), Esri Korea, Esri (Thail Community

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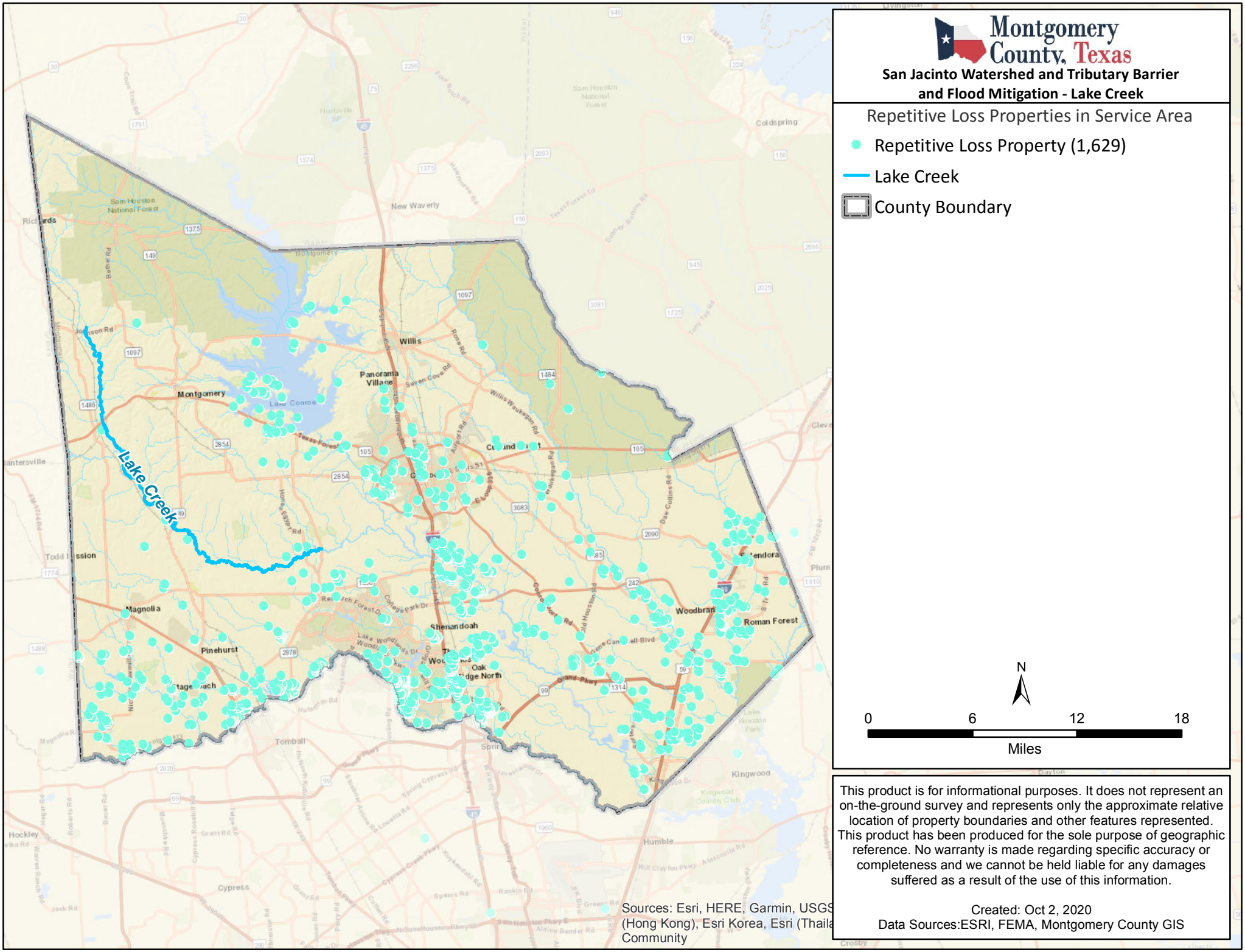
Created: Oct 2, 2020
Data Sources:ESRI, FEMA, Montgomery County GIS



This product is for informational purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries and other features represented. This product has been produced for the sole purpose of geographic reference. No warranty is made regarding specific accuracy or completeness and we cannot be held liable for any damages suffered as a result of the use of this information.

Created: Oct 2, 2020
Data Sources:ESRI, FEMA, Montgomery County GIS

Lake Creek Stormwater and Rainwater Mitigation Drainage Improvements
Lake Creek Obstructions

Photo # 1:	Lake Creek Obstruction: tree obstruction	**Photo # 2:**	Lake Creek Obstruction: tree obstruction

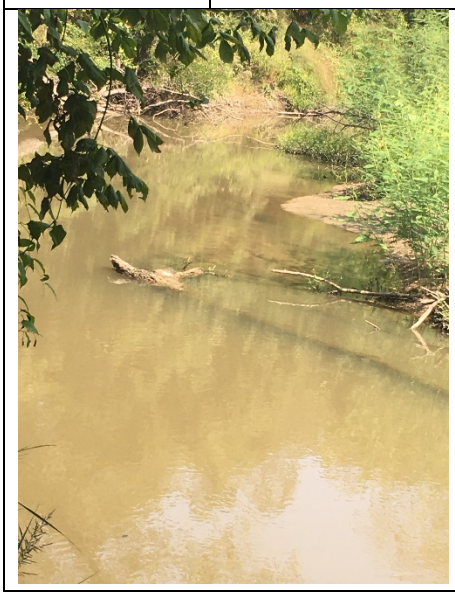



Photo # 3:	Lake Creek Obstruction: vegetative and tree obstruction	**Photo # 4:**	Lake Creek Obstruction: tree obstruction
			

Montgomery County Office of Homeland Security and Emergency Management
9472 Airport Road Conroe, Texas 77303
Phone: 936.523.3900 | Fax: 936.523.3910
www.mctxoem.org

Photo # 5:	Lake Creek Obstruction: tree obstruction	**Photo # 6:**	Lake Creek Obstruction: tree obstruction

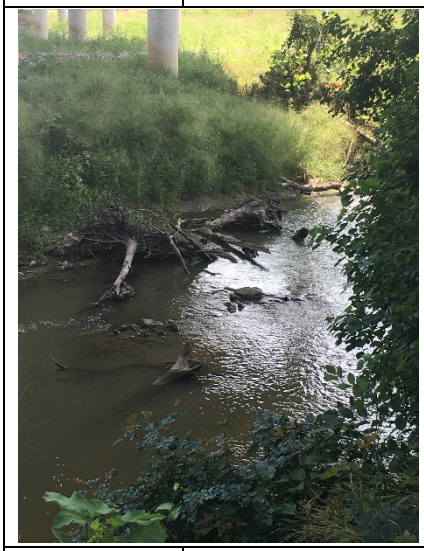



Photo # 7:	Lake Creek Obstruction: tree obstruction	**Photo # 8:**	Lake Creek Obstruction: tree obstruction
			

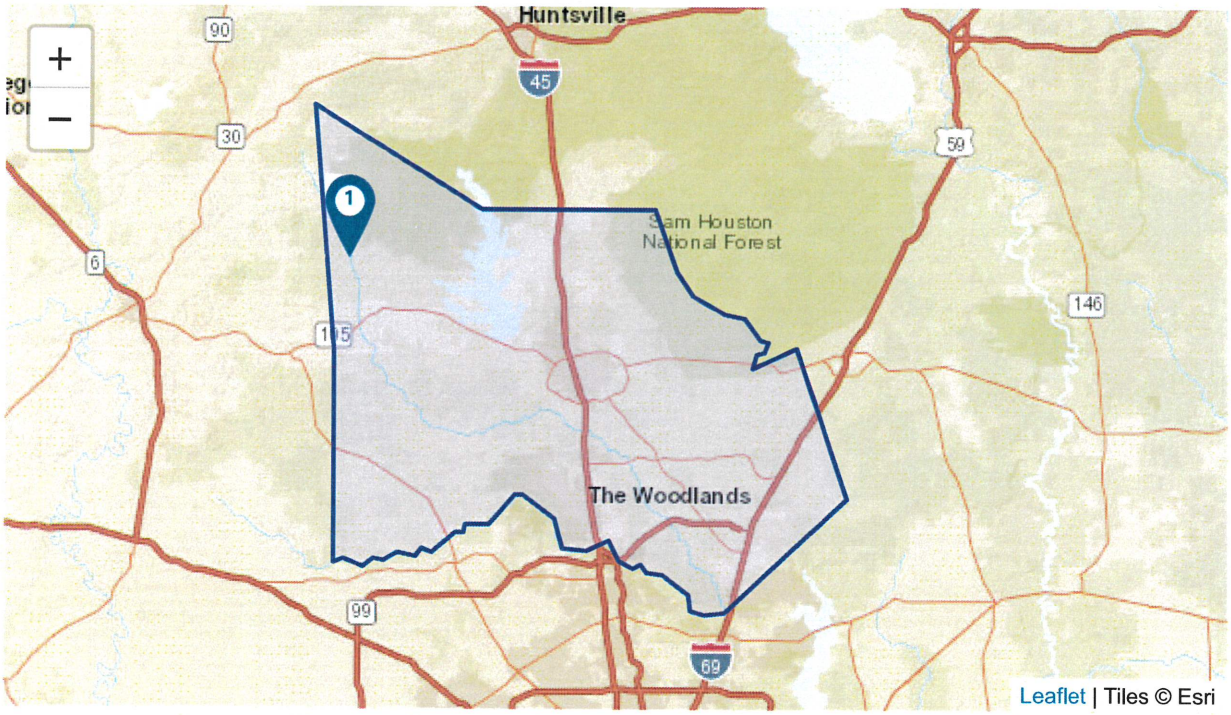
Photo # 8:	Lake Creek Obstruction: tree obstruction	**Photo # 9:**	Lake Creek Obstruction: tree obstruction
			
Photo # 10:	Lake Creek Obstruction: tree obstruction	**Photo # 11:**	Lake Creek Obstruction: vegetative and tree obstruction
			

FEMA Benefit-Cost Calculator

V.6.0 (Build 20221028.1600 | Release Notes)

Benefit-Cost Analysis

Project Name: San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County



				Using 7% Discount Rate			Using 3% Discount Rate (For FY22 BRIC and FMA only)		
Map Marker ▲	Mitigation Title	Property Type	Hazard	Benefits (B)	Costs (C)	BCR (B/C)	Benefits (B)	Costs (C)	BCR (B/C)
1	Floodplain and Stream Restoration @ 30.4506930; -95.7809190	•••	DFA - Riverine Flood	$ 19,201,548	$ 10,635,052	1.81	$ 31,865,797	$ 11,717,184	2.72
TOTAL (SELECTED)				**$ 19,201,548**	**$ 10,635,052**	**1.81**	**$ 31,865,797**	**$ 11,717,184**	**2.72**
TOTAL				**$ 19,201,548**	**$ 10,635,052**	**1.81**	**$ 31,865,797**	**$ 11,717,184**	**2.72**

Property Configuration

Property Title:	Floodplain and Stream Restoration @ 30.4506930; -95.7809190
Property Location:	77356, Montgomery, Texas
Property Coordinates:	30.450693, -95.780919
Hazard Type:	Riverine Flood
Mitigation Action Type:	Floodplain and Stream Restoration
Property Type:	Other
Analysis Method Type:	Historical Damages

Cost Estimation

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Project Useful Life (years):	35
Project Cost:	$8,994,323
Number of Maintenance Years:	35 Use Default:Yes
Annual Maintenance Cost:	$126,720

Damage Analysis Parameters - Damage Frequency Assessment

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Year of Analysis was Conducted:	2021
Year Property was Built:	0
Analysis Duration:	27 Use Default: *No*

Historical Damages Before Mitigation

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

		OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
Damage Year	Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Building & Contents)$)	Number of Volunteers	Number of Days	Damages ($)	Current Dollars?	Inflated Damages ($)
1994	0	0	0	0	3,500	0	0	3,500	No	7,853
1998	0	0	0	0	94,237	0	0	94,237	No	193,143
2002	0	0	0	0	15,741	0	0	15,741	No	29,212
2006	0	0	0	0	13,500	0	0	13,500	No	20,767
2007	0	0	0	0	19,600	0	0	19,600	No	29,398
2015	0	0	0	0	135,323	0	0	135,323	No	161,122
2016	0	0	0	0	529,474	0	0	529,474	No	611,941
2017	0	0	0	0	594,637	0	0	594,637	No	661,714

Annualized Damages Before Mitigation

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
3.5	7,853	456
4	20,767	1,330
5.10	29,305	3,657
7	161,122	6,233
9.3	193,143	24,459
26.48	636,341	24,028
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	1,048,531	60,163

Expected Damages After Mitigation

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Building & Contents)$)	Number of Volunteers	Number of Days	Damages ($)
5	0	0	0	27,966.34	0	0	27,966

Annualized Damages After Mitigation

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
5	27,966	5,593
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	27,966	5,593

Standard Benefits - Ecosystem Services

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Total Project Area (acres):	3,840
Percentage of Urban Green Open Space:	0.00%
Percentage of Rural Green Open Space:	0.00%
Percentage of Riparian:	1.00%
Percentage of Coastal Wetlands:	0.00%
Percentage of Inland Wetlands:	0.00%
Percentage of Forests:	0.00%
Percentage of Coral Reefs:	0.00%
Percentage of Shellfish Reefs:	0.00%
Percentage of Beaches and Dunes:	0.00%
Expected Annual Ecosystem Services Benefits:	$1,428,442

Benefits-Costs Summary

Floodplain and Stream Restoration @ 30.4506930; -95.7809190

Total Standard Mitigation Benefits:	$19,201,548
Total Social Benefits:	$0
Total Mitigation Project Benefits:	$19,201,548
Total Mitigation Project Cost:	$10,635,052
Benefit Cost Ratio - Standard:	1.81
Benefit Cost Ratio - Standard + Social:	1.81

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

Environmental Review for Activity/Project that is Exempt or Categorically Excluded Not Subject to Section 58.5

Pursuant to 24 CFR Part 58.34(a) and 58.35(b)

Project Information

Project Name: San Jacinto Watershed and Tributary Barrier Flood Mitigation -Lake Creek

Responsible Entity: Montgomery County Office of Homeland Security and Emergency Management

Grant Recipient (if different than Responsible Entity): N/A

State/Local Identifier: 74-6000558

Preparer: Morgan Lumbley

Certifying Officer Name and Title: Jason Millsaps, Director MCOHSEM

Consultant (if applicable): N/A

Project Location: Lake Creek Start: 30.45069; -95.78092 End: 30.257515; -95.563992

Description of the Proposed Project [24 CFR 58.32; 40 CFR 1508.25]**:** Administrative, planning, and project delivery services to assist with the proposed CDBG-MIT infrastructure project: San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization-Lake Creek

Level of Environmental Review Determination:

☒ Activity/Project is Exempt per 24 CFR 58.34(a): Planning and Administration

☐ Activity/Project is Categorically Excluded Not Subject To §58.5 per 24 CFR 58.35(b):

_____

Funding Information

Grant Number	HUD Program	Funding Amount
	CDBG-MIT MOD Funding	$60,375,000.00

Estimated Total HUD Funded Amount: $60,375,000.00

This project anticipates the use of funds or assistance from another Federal agency in addition to HUD in the form of (if applicable)**: N/A**

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)] Out of the total proposed project costs of $8,994,323.00, an estimated 6 percent or $615,283.00 will be used for Administration, Planning and Project Delivery.

Compliance with 24 CFR §50.4 and §58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR 50.4 and 58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §58.6		
Airport Runway Clear Zones and Accident Potential Zones 24 CFR Part 51 Subpart D	Yes ☐ No ☒	This project does not occur within any airport runway clear zones or military accident potential zones. Please refer to map of attached. It is compliant with the regulation.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	Projects is not located on or connected to CBRA Unit or otherwise protected areas.
Flood Insurance Flood Disaster Protection Act of 1973 and National Flood	Yes ☐ No ☒	Administrative and management activities do not trigger any additional flood insurance requirements.

Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]		

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure

Preparer Signature: _____ Date: 11.02.22

Name/Title/Organization: Morgan Lumbley- Disaster Recovery Manager MCOHSEM

Responsible Entity Agency Official Signature:

_____ Date: 11.02.22

Name/Title: Jason Millsaps Executive Director MCOHSEM

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County

Project Info

Project Information

DRGR Activity: Flood and Drainage Facilities

Project Type: Flood and Drainage

Project Title: San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County

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):
Montgomery County relies on a network of creeks and streams for overall stormwater drainage. These tributaries divide the County into different sub-basins all of which drain to the San Jacinto River. Since 2015, Montgomery County has experienced five declared flooding events as follows: April 2015-DR4223, April 2016-DR4269, May 2016-DR4272, August 2017-DR4332, and September 2019-DR4466. These storms caused significant flooding and overwhelmed Montgomery County's natural drainage ways. Due to these repeated events, the County has experienced degradation to the floodplain, floodways, and non-regulated creeks and streams. Specifically, repeated flooding has accelerated erosion along streambanks and flood-borne vegetative/other debris has collected throughout the drainageways, significantly reducing the conveyance capacity of channels, which has further exacerbated flooding events throughout the County. Therefore, Montgomery County's tributaries are not functioning at full capacity and due to sedimentation, erosion, and blockages within stream/creeks, flooding within the County has exceeded Base Flood Elevations (BFE's) and has occurred outside of the mapped floodplain. These project proposes to mitigate future flooding by restoring streams and creeks within Montgomery County to full channel capacity by removal of vegetative/other obstructions from waterways. In addition, where areas of significant erosion are observed, the County will implement Best Management Practices and non-structural controls to stabilize banks in order to mitigate against scour, sedimentation, an additional degradation of the streams/creeks. This project will specifically address the East County sub-basin which includes Caney Creek, Peach Creek, East Fork of the San Jacinto River, and White Oak Creek waterway. The project will restore/remediate approximately 98 miles of stream within the San Jacinto watershed.

Work will be performed utilizing a combination of water-based and land-based implementation. Channel obstructions shall be extracted utilizing a barge or other floating vessel, equipped with a grapple bucket and saw, or with the use of other mechanical equipment suitable to accomplish the removal of vegetation and other flood-borne debris. Only dead vegetation will be removed from the channel and banks. Dead vegetation removed from the banks will be cut and the root balls will be left in place to prevent erosion. Obstructions removed from the channel will be transported by barge to the nearest available temporary upland offloading location. From the offload site, vegetation and other items removed from the channel will be transported to a permitted upland location for final disposal. After removal of obstructions including vegetation, the channel banks will be revegetated. Any areas with significant erosion will be addressed

through utilizing Best Management Practices for erosion control nd non-structural measures to stabilize the slopes.

The county has identified each area of the East County Project in which the awarded Contractor, with the use of one or more barges (or identified adequate machinery), will operate and remove the tributary barriers identified below via latitude and longitude coordinates. The East County Project will be divided by project sites (Locations) along the waterways. Attached to this application are the Project Site and Beneficiary Maps depicting the overall servicer area and representing waterways to be addressed through the East County Project. The particular waterway and corresponding locations of the project are as follows:

Caney Creek. Begins at Location Number 1 (North County Boundary Line) approximate geographic coordinate of 30.50882, -95.42608, and traverses downstream to end at Location Number 7 (Harris County Line) approximate geographic coordinate of 30.106050, -95.173276. This is roughly 44 miles in distance. (232,320 LF)

Peach Creek. Begins at Location Number 1 (North Walker Rd.) approximate geographic coordinate of 3.50892, -95.36187, and traverses downstream to end at Location Number 5 (Harris County Line) approximate geographic coordinate of 30.106180, -95.173422. This is roughly 40 miles in distance. (211,200 LF)

White Oak Creek. Begins at Location Number 1, (Gene Campbell) approximate geographic coordinate of 30.1648829, -95.3036171, and traverses downstream to end at approximate geographic coordinates of 30.086296,-95.164541. This is roughly 10 miles in distance. (52,800 LF)

San Jacinto River-East Fork. Begins at Location Number 1 (Harris County Line at FM 1485) approximate geographic coordinate of 30.1443353, -95.1256958, and traverses upstream to end at Location Number 1 (Liberty County Line South of FM 2090) approximate geographic coordinate of 30.186128, -95.104365. This is roughly 4.6 miles (24,288 LF)

Site: Project Site Title	Site: Street Address
San Jacinto River- East Fork Location Number 1	Harris County Line
White Oak Creek Location Number 3	Hwy 59
White Oak Creek Location Number 2	Grand Parkway
White Oak Creek Location Number 1	Gene Campbell
Peach Creek Location Number 5	Hwy 1485
Peach Creek Location Number 4	Hwy 59
Peach Creek Location Number 3	Hwy 2090
Peach Creek Location Number 2	Old Hwy 105
Peach Creek Location Number 1	North County Boundary Line
Caney Creek Location Number 6	Hwy 59
Caney Creek Location Number 5	Hwy 242
Caney Creek Location Number 4	Hwy 2090
Caney Creek Location Number 3	Hwy 105

Site: Project Site Title	Site: Street Address
Caney Creek Location Number 2	Millmac Rd.
Caney Creek Location Number 1	North County Boundary Line

Describe a plan for the long-term funding and management of the operations and maintenance of the project: It is estimated that maintenance would be needed on stream restoration every 2-3 years with a projection of $6 per LF. Note that not every mile will be required to be maintained at the same levels; with this understanding it is estimated that a per 3 year cost of maintenance will be approximately $1,561,824 (50% of the calculated mileage or $520,608 annually.

Total proposed number of linear feet: 521,136

Total number of proposed public facilities:

Project Phase	Start Date	End Date	Length (in months)
Contract Closeout	12/1/2024	3/1/2025	3
Submit As-Builts/COCC/FWCR	11/1/2024	12/1/2024	1
Construction	3/1/2024	11/1/2024	8
Construction NTP	2/1/2024	3/1/2024	1
Contract Award	2/1/2024	3/1/2024	1
Bid Advertisement	12/1/2023	2/1/2024	2
Acquisition	12/1/2023	12/1/2023	0
Environmental Review	5/1/2023	12/1/2023	7
Engineering Design	5/1/2023	12/1/2023	7
Start-Up Documentation	4/1/2023	5/1/2023	1

National Objective

National Objective

Provide Total Number of Beneficiaries: 150,806

Provide number of LMI Beneficiaries 62,205

Percentage of LMI Beneficiaries: 41.25%

Is that applicant a HUD Exception Grantee? No

Census Tract	Block Group List (Text)
6,923	Group 1 ; Group 2 ; Group 3
6,942	Group 1 ; Group 2
6,929	Group 1 ; Group 2
6,930	Group 3 ; Group 4
6,925	Group 1 ; Group 2 ; Group 3 ; Group 4
6,926	Group 1 ; Group 2
6,941	Group 1 ; Group 2
6,940	Group 1 ; Group 2 ; Group 3 ; Group 4
6,928	Group 1 ; Group 2 ; Group 3 ; Group 4
6,941	Group 1 ; Group 2 ; Group 3 ; Group 4 ; Group 5
6,922	Group 1 ; Group 3 ; Group 4
6,924	Group 1 ; Group 2 ; Group 3
6,928	Group 1 ; Group 2 ; Group 3
6,926	Group 1 ; Group 2 ; Group 3
6,927	Group 1 ; Group 2 ; Group 3

Male: 75,207

Female: 75,599

Total: 150,806

Race	Hispanic Population	Non-Hispanic Population	Total Population
White and Black/African American	441	590	1,031

Race	Hispanic Population	Non-Hispanic Population	Total Population
White and Asian	330	442	772
White and American Indian/Alaska Native	615	823	1,438
White	50,076	84,428	134,504
Some Other Race	4,399	19	4,418
Other multi racial	1,176	1,573	2,749
Native Hawaiian/Other Pacific Islander	0	0	0
Black/African American and American Indian/Alaska Native	3	3	6
Black/African American	391	3,222	3,613
Asian	0	1,702	1,702
American Indian/Alaska Native	206	367	573

Which HUD national objective does the project meet? LMI

Describe activities that benefit low- and moderate-income people: The communities along the waterways have experienced social, economic, and environmental loss due to repetitive flood events where the surface water exceeded the flood stage and entered into residential and commercial infrastructure while impeding roadways; this outcome resulted in public health concerns, disruption of emergency and sanitary sewer services, recurring costly repairs, and deterioration of infrastructure. The East County project was designed to include service areas that maximize the number of Low to Moderate Income (LMI) beneficiaries served. The sub-basin watershed for the eastern portion of Montgomery County were capture using HUC-8 data from the United States Geographical Survey Agency (USGS) to identify the project's service area. Using the LMISD data, the total population benefitting from the project is 113,335 which includes a population of 62,205 of LMI individuals. This results in a calculated percentage of LMI beneficiaries amount to 55.17%, a percentage which exceeds Montgomery County's CDBG upper quartile percentage, and demonstrates that the project meets the CDBG-MIT national objective of providing benefit to LMI populations on an area benefit basis;. It should be noted that the service area of the East County project will benefit communities across the income spectrum as the maximum and minimum percentages for block groups in this area were 88.67% and 2.46%.

The multiple disasters exposed the fact that the rate of surface water runoff from the watershed exceeds the capacity of the creeks and rivers during an extreme rainfall event. Drainage overflow, where outlets are overwhelmed due to flood levels exceeding the height of the pipes located at the creeks and rivers, not only affects the area surrounding watereways, but also the stormwater inlets of the drainage system in the urban area. The mitigation measures proposed

to minimize the damage to residential areas, commercial corridors, and infrastructure include removing tributary barriers to increase stormwater capacity enhancing the ability of creeks and rivers to handle and manage extreme rates of surface water runoff more efficiently.

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: LMISD data provided by the GLO is broken down by Tracts and block groups which identifies a LMI population of 62,205 against a population of 113,335 which equals approx 55.17% identified as LMI. (Referenced in LMISD-East County spreadsheet attached) Guidance provides that the most recent ACS 5-year estimate (DP05) should be used for Race/Gender/Ethnicity determination. Some data was not available at a block group level, therefore tracts were identified instead of blocks. Additionally, to maintain alignment with guidance, there is a variance in how Census tracts were used between 2019 ACS 5 year estimates and 2020 ACS 5 year Estimates .

To address using full tracts instead of block groups, all block groups were pulled within the LMISD data (as referenced in LMISD-East County spreadsheet attached). This method identifies a LMI population of 67,125 against a population of 126,990 which equal approx. 54.22% identified as LMI. Due to the project area covering such a large geographic the disparities in the tract and block group information available for LMISD and the ACS 5 year estimates exist. However, even with these disparities, the project as a whole would meet the HUD National Objective of serving LMI Area Benefit.

The East County project was designed to include service areas that maximize the number of Low to Moderate Income (LMI) beneficiaries served. The sub-basin watershed for the eastern portion of Montgomery County were capture using HUC-8 data from the United States Geographical Survey Agency (USGS) to identify the project's service area. Using the LMISD data, the total population benefitting from the project is 113,335 which includes a population of 62,205 of LMI individuals. This results in a calculated percentage of LMI beneficiaries amount to 55.17%, a percentage which exceeds Montgomery County's CDBG upper quartile percentage, and demonstrates that the project meets the CDBG-MIT national objective of providing benefit to LMI populations on an area benefit basis;. It should be noted that the service area of the East County project will benefit communities across the income spectrum as the maximum and minimum percentages for block groups in this area were 88.67% and 2.46%.

U.S. Congressional District #: 2;8

Texas Representative District #: 3;15;16;18

Texas Senate District #: 4;7;18

GEOID	GEONAME
15000US483396922001	Block Group 1, Census Tract 6922, Montgomery County, Texas
15000US483396922003	Block Group 3, Census Tract 6922, Montgomery County, Texas
15000US483396922004	Block Group 4, Census Tract 6922, Montgomery County, Texas
15000US483396923001	Block Group 1, Census Tract 6923, Montgomery County, Texas
15000US483396923002	Block Group 2, Census Tract 6923, Montgomery County, Texas
15000US483396923003	Block Group 3, Census Tract 6923, Montgomery County, Texas
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15000US483396926012	Block Group 2, Census Tract 6926.01, Montgomery County, Texas
15000US483396926021	Block Group 1, Census Tract 6926.02, Montgomery County, Texas
15000US483396926022	Block Group 2, Census Tract 6926.02, Montgomery County, Texas
15000US483396926023	Block Group 3, Census Tract 6926.02, Montgomery County, Texas
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15000US483396942012	Block Group 2, Census Tract 6942.01, Montgomery County, Texas
15000US483396942013	Block Group 3, Census Tract 6942.01, Montgomery County, Texas

STUSAB	STATE	COUNTY_NAME	QUALIFY_F	COUNTY	TRACT	BLKGRP
TX	48	Montgomery County	NO	339	692200	1
TX	48	Montgomery County	NO	339	692200	3
TX	48	Montgomery County	NO	339	692200	4
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TX	48	Montgomery County	NO	339	692300	2
TX	48	Montgomery County	NO	339	692300	3
TX	48	Montgomery County	NO	339	692400	1
TX	48	Montgomery County	NO	339	692400	2
TX	48	Montgomery County	NO	339	692400	3
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TX	48	Montgomery County	NO	339	692500	2
TX	48	Montgomery County	NO	339	692500	3
TX	48	Montgomery County	NO	339	692500	4
TX	48	Montgomery County	NO	339	692601	1
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TX	48	Montgomery County	NO	339	692602	1
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TX	48	Montgomery County	NO	339	694201	1
TX	48	Montgomery County	NO	339	694201	2
TX	48	Montgomery County	NO	339	694201	3

lowmod_pop	lowmodu_pop	lowmod_pct_PC	MOE_LowmodPct
615	1,060	58.02%	+/-29.91
3,340	5,795	57.64%	+/-15.17
570	1,175	48.51%	+/-30.21
2,165	3,845	56.31%	+/-27.05
1,035	1,620	63.89%	+/-29.51
280	1,670	16.77%	+/-14.97
1,150	2,330	49.36%	+/-20.86
1,090	1,575	69.21%	+/-36.89
2,620	5,300	49.43%	+/-15.38
680	1,030	66.02%	+/-41.65
1,290	1,890	68.25%	+/-34.44
1,080	1,715	62.97%	+/-32.83
2,175	4,345	50.06%	+/-18.62
1,700	2,820	60.28%	+/-19.50
1,145	1,755	65.24%	+/-34.87
1,840	2,360	77.97%	+/-31.57
3,405	6,460	52.71%	+/-14.54
1,935	2,490	77.71%	+/-32.85
1,740	2,705	64.33%	+/-23.62
980	1,830	53.55%	+/-38.14
1,350	2,685	50.28%	+/-27.08
940	2,695	34.88%	+/-12.73
1,330	2,520	52.78%	+/-20.56
535	1,380	38.77%	+/-29.49
1,295	2,770	46.75%	+/-15.34
805	1,610	50.00%	+/-20.62
1,400	1,965	71.25%	+/-30.38
835	1,720	48.55%	+/-23.84
970	2,180	44.50%	+/-20.32
1,360	2,875	47.30%	+/-15.44
1,195	1,800	66.39%	+/-30.22
3,485	5,200	67.02%	+/-19.06
955	2,795	34.17%	+/-18.21
1,150	1,730	66.47%	+/-23.01
1,720	3,280	52.44%	+/-23.96
1,305	2,395	54.49%	+/-28.35
1,710	2,150	79.53%	+/-38.23
1,380	2,825	48.85%	+/-23.61
665	750	88.67%	+/-58.27
1,480	2,425	61.03%	+/-29.86
1,310	2,995	43.74%	+/-27.71
1,930	4,060	47.54%	+/-15.37
760	1,580	48.10%	+/-28.92
1,480	2,165	68.36%	+/-19.77
25	1,015	2.46%	+/-3.65

62,205 113,335 55.17%

615	1,060	58.02%	+/-29.91
325	820	39.63%	+/-39.88
3,340	5,795	57.64%	+/-15.17
570	1,175	48.51%	+/-30.21
2,165	3,845	56.31%	+/-27.05
1,035	1,620	63.89%	+/-29.51
280	1,670	16.77%	+/-14.97
1,780	2,685	66.29%	+/-21.42
715	6,265	11.41%	+/-7.17
1,150	2,330	49.36%	+/-20.86
1,090	1,575	69.21%	+/-36.89
2,620	5,300	49.43%	+/-15.38
680	1,030	66.02%	+/-41.65
1,290	1,890	68.25%	+/-34.44
1,080	1,715	62.97%	+/-32.83
2,175	4,345	50.06%	+/-18.62
1,700	2,820	60.28%	+/-19.50
1,145	1,755	65.24%	+/-34.87
1,840	2,360	77.97%	+/-31.57
3,405	6,460	52.71%	+/-14.54
1,935	2,490	77.71%	+/-32.85
1,740	2,705	64.33%	+/-23.62
980	1,830	53.55%	+/-38.14
1,350	2,685	50.28%	+/-27.08
940	2,695	34.88%	+/-12.73
1,330	2,520	52.78%	+/-20.56
535	1,380	38.77%	+/-29.49
1,295	2,770	46.75%	+/-15.34
805	1,610	50.00%	+/-20.62
1,400	1,965	71.25%	+/-30.38
835	1,720	48.55%	+/-23.84
970	2,180	44.50%	+/-20.32
1,360	2,875	47.30%	+/-15.44
665	1,655	40.18%	+/-25.62
1,025	1,565	65.50%	+/-23.32
1,195	1,800	66.39%	+/-30.22
3,485	5,200	67.02%	+/-19.06
1,150	1,730	66.47%	+/-23.01
1,720	3,280	52.44%	+/-23.96
1,305	2,395	54.49%	+/-28.35
1,710	2,150	79.53%	+/-38.23

1,380	2,825	48.85%	+/-23.61
665	750	88.67%	+/-58.27
1,480	2,425	61.03%	+/-29.86
1,310	2,995	43.74%	+/-27.71
1,930	4,060	47.54%	+/-15.37
760	1,580	48.10%	+/-28.92
1,480	2,165	68.36%	+/-19.77
25	1,015	2.46%	+/-3.65
1,365	3,460	39.45%	+/-21.36
67,125	**126,990**	**54.22%**	

Environmental

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

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? Yes

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

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: Archaeological Assessment/ National Register of Historic Places- The proposed project is located within the channels to top of the bank. The scope of work does not include ground disturbance. Therefore, impacts to adjacent buildings/structures are not anticipate except the impact of reduced risk of flooding. However, prior to work, consultation with the Texas Historical Commission will be performed to ensure compliance with the Nation Historic Preservation Act.

Wetlands- Work will be performed in the following bodies of water: Caney Creek (approximately 44 miles of stream restoration), Peach Creek (approximately 40 miles of stream restoration), White Oak Creek (approximately 10 miles of stream restoration), and San Jacinto River- East Fork (approximately 4.6 miles of stream restoration) . No changes changes to the bottom of the channel or banks is expected as part of this project. Work will be limited to removing obstructions within the channel such as vegetative debris and revegetation of the banks. Therefore, the project is expected to have a positive impact by restoring channel capacity and proving bank stabilization to minimize erosion and sedimentation.

Floodplain Management- The project work must be performed in both the floodplain and within wetlands with no expected permanent impacts to these areas. The project includes stream restoration to restore the function an capacity of the channel and is expected to have positive impacts for the floodplain by restoring the floodways. Therefore, this project meets Step 5 of the 8-Step Process under CFR 44 9.6. Minimization of temporary impacts to the floodplain an wetlands include the use of matts where land-based removal of debris/remediation is required to avoid rutting. In addition, the project will specify that no digging into the channel slopes or

bottom of the bank while performing work should occur. Water way remediation in navigable channels shall be performed using barges to minimize impacts due to access. Debris shall be transported by barge to upland offload sites for transfer to final disposal in permitted upland location. Removal of accumulated vegetation/other objects within the channel will restore channel capacity and reduce upstream flooding. Structural and/or permanent altercations of the waterways is not proposed, therefore, no H&H study is required.

Endangered Species- There are multiple endangered and/or threatened species within the project area. The source for this information is the U.S. Fish & Wildlife Service IPaC report which was obtained on 11/22/21 and is include as an attachment to this application. The project scope includes consultation with federal, state, and local agencies will be performed prior to commencement of work an all required permits will be obtained. Due to the temporary nature of the proposed project with regards to potential impacts to the waterways, wetlands, and habitat, negative impacts to endangered species is not expected and it is anticipate that permits will be issued by regulatory agencies. The project will conform with all permit conditions and requirements once obtained. Once permit applications are submitted, response from USFWS will be provided.

Vegetation- Vegetative debris (branches, fallen trees, etc.) that has been deposited within the channel and floodways will be removed as part of this project. In addition, dead trees on the banks which are affecting the floodway will be removed. During this process, root balls which has been dislodged will be cut off as close to the root ball as possible and put back into the void in the bank in order to reduce risk of scouring and erosion along the banks. The project area is presented in the Project Location Maps. Vegetative debris removal will occur throughout these locations, as necessary. Based on the initial site assessments and for the purposes of budgeting, it is estimated that approximately 173,536 CY of vegetative and/or other debris will be removed from the project area in order to remove obstructions and restore channel capacity.

Hazardous Site- The areas adjacent to the waterways consist of wooded buffer areas which are surrounded by urban development. There are multiple land uses typical of an urban area along the project area. No specific land-uses associated with hazardous materials have been identified.

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- Nationwide Permit (NWP) will be required for project as the activity should qualify under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899 that have no more than minimal individual and cumulative adverse environmental effects. This proposed project activity does not involve discharge of dredged or fill material into waters of the United States.

Upon the initial submission of the permit application to USACE, upon review and identification of other regulatory agencies permitting requirements Montgomery County will obtain any necessary permits for the proposed project that may be required by the following:

* Texas Commission on Environmental Quality (TCEQ)

* Texas Natural Resource Conservation Commission (TRNCC)

* United States Army Corps of Engineers (USACE)

* Any other applicable regulatory/environmental entity as identified.

Does the project require any type of ratified, legally binding agreement between the applicant and any other entity to provide continual operation upon completion? No

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:

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
Engineering	$335,465.56	$0.00	$335,465.56	0.9%
Grant Administration	$1,885,800.70	$0.00	$1,885,800.70	5.2%
Construction	$34,013,056.00	$0.00	$34,013,056.00	93.5%
Special Environmental	$0.00	$0.00	$0.00	0%
Environmental	$150,000.00	$0.00	$150,000.00	0.4%
Acquisition	$0.00	$0.00	$0.00	0%
Planning	$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: As a result of Montgomery County's four previous major federally-declared disaster DR4269, DR4279, DR4332, and DR4466), it is clear that increasing capacity of the creeks and rivers is necessary to mitigate riverine flooding from extreme rainfall events cause by hurricanes and tropical storms. This goal can be achieved by removing tributary barriers, any form of obstruction to flow to creeks and rivers that are connected to a larger body of water, within the 4 waterways, listed in the scope of work. The waterways serve as the stormwater drainage system outlet and regularly exceed food stage heights during extreme rainfall events. This has caused local flooding in those areas, endangering public health and safety. The East County Projects mitigation measures would enhance the ability of creeks and rivers to accommodate extreme rates of surface water runoff more efficiently throughout the watershed and minimize damage to residential areas, commercial corridors, infrastructure, and roadways. These collective efforts will benefit the entire East County drainage system by mitigating the flow in the creeks and river and helping to establish a resilient and reliable outlet.

This project will improve conditions within the 500-year floodplain and conditions outside of the floodplain. However, there will be residual risk for properties within the 100-year floodplain. Due to obstructions within the channels, during flood events, the channels are not able to properly flow/drain, therefore, flooding has exceeded top of bank and higher than expected staging has occurred upstream of areas with obstructed flow. This has resulted in increased flooding well above the established BFE and outside of the 100-year floodplain. The proposed project will restore the floodplain and reduce risk outside of the 100-year floodplain. However, within the floodplain, while the project should improve conditions by restoring channel capacity there will continue to be flood risk. However, Montgomery County has implemented an acquisition program through FEMA's Flood Mitigation Assistance program and HUD Community Development Block Grant for Disaster Recovery (CDBG-DR) Buyout program to reduce properties within the 100-year floodplain and floodway. Therefore, the combination of this project with the County's other long-term mitigation efforts will further reduce risks.

Provide information about how the proposed mitigation efforts integrate into the community's emergency and resiliency plans: This project enhances both the County s community preparedness outreach and its Hurricane Harvey Buyout and Voluntary Property Acquisition Programs which are funded through CDBG-DR and FEMA Flood Mitigation Assistance (FMA) These programs provide buyout opportunities for citizens with homes located in the floodplain/floodway or that are classified as National Flood Insurance Program (NFIP) Repetitive Loss or Severe Repetitive Loss properties. The buyout properties will be converted to green infrastructure to help manage the stormwater runoff throughout the drainage area during extreme rainfall events, thereby relieving the strain on creeks and rivers during such events. These mitigation efforts will help better manage the flow in the creeks and rivers and will result in a more resilient and reliable stormwater management process throughout the County.

In the space provided, list documentation provided to support the identification of the threat or hazard and how it relates to potential impact: Site photos- Caney Creek, East Fork, White Oak

River Gauge Documentation

USGS Assessment

Benefit Service Area- RL/SRL properties, Critical Facilities

Provide a brief description of how the proposed project addresses an integrated approach to mitigation: Montgomery County has experienced social, economic, and environmental damage along Peach Creek, Caney Creek, White Oak Creek and the East Fork of the San Jacinto River due to multiple flooding events in recent years where residents' quality of life is continuously impacted after each event. This region in Montgomery County is an area of rapid population growth with the area now being home to more than 544,000 persons, including 180,785 low and moderate income individuals (CAPR). The communities in the County experience repetitive and severe loss, totaling to 1,629, due to repetitive flood events where the water surface exceeded the flood stage and entered into residential areas, commercial corridors. Additionally, this resulted in public health hazards, disruption of emergency and sanitary sewer services, recurring costly repairs, and deterioration of infrastructure. The disasters exposed that the rate of surface water runoff from watershed exceeds the capacity of the creeks and rivers during an extreme rainfall event. When drainage overflow occurs and the outlet becomes restricted due to flood levels exceeding the height of the pipes located at the creeks and rivers, the resultant flooding not only affects the area surrounding the waterway, but also t he stormwater inlets (located along roads) of the drainage system in urban areas.

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: As a result of Montgomery County's four recent major federally- declared disasters (DR4269, DR4272, DR4332, and DR4466), it is clear that increasing the capacity of the creeks and rivers is critical to mitigate riverine flooding from extreme rainfall events cause by storms. The county proposes to address this need by removing tributary barriers or other obstructions to the flow to creeks and rivers that drain the county. The East County watershed is a key component of the County's watershed and serves as a stormwater drainage outlet. This has caused local flooding in surrounding areas, endangering public health and safety. The East County Project will help minimize damage to residential areas, commercial corridors, infrastructure, and roadways through mitigation measures that will enhance the ability of Peach Creek, Caney Creek, White Oak Creek, and the East Fork of the San Jacinto along with it's feeders to handle and manage extreme rates of surface water runoff more efficiently, improve channeling of that water throughout the watershed and help keep the waterway levels low.

Describe how the proposed project is consistent with local and regional planning efforts to effect disaster mitigation: The waterway project was adopted from Montgomery County's Hazard Mitigation Action Plan (HMAP) and the mitigation goal is to reduce future risk of riverine flooding from extreme rainfall events and increase the ability to manage stormwater flows such as those seen in recent disasters the have hit Montgomery County. The HMAP adds a flooding risk assessment from a HAZUS report, which evaluates the occurrence, vulnerabilities and impacts of future 500-year floods from historical data recorded. HAZUS estimates that county-wide in a 500 year event, 847 homes and commercial structures would be destroyed, which would cost $ 1,025 million in direct property damage, and $3 million in business interruption loss. HAZUS also estimates that #17,938 people would seek temporary shelter and there would be 7,379 displaced households.

Was a cost-benefit analysis used in the selection of the proposed project? Yes

Describe how the proposed project impacts vulnerable populations in the local community.: The project benefit area encompasses the entire east watershed and sub-basins of the San Jacinto watershed and also holds the most significant low to moderate income (LMI) population within the county. The area also contains significant proportions of the County's Access and Functional Needs (AFN) and has experienced social, economic, and environmental damage due to flooding in recent years where residents quality of life is continuously impacted after each event. The total benefitting area is 245,826 acres. The benefit area includes the waterways/floodplain and surrounding areas served by the waterways for drainage. These are areas of localized flooding caused by the reduced channel capacity within the identified waterways as described in the scope of work. The benefit service area includes 516 repetitive loss structures and 240 critical facilities (police, fire, childcare centers, etc.) The population impacted reflects the to total East County benefit service area of approximately 113,335 individuals compared to a total Montgomery County population of approximately 620,443. This is approximately 18% of the population affected by this project. This project does not anticipate a negative impact on vulnerable populations. By restoring the channel to its full flow capacity will allow the watershed to drain properly and reduce the risk of impacts to community public health and safety, transportation, and reduce damages to property within the project area.

Describe how the proposed project creates economic opportunities for the local community: Although this project does not create direct economic opportunities for the community, there is an indirect impact for maintaining current economic opportunities as restoring the channel to its full flow capacity that will allow the watershed to drain property and reduce the risk of impact to health and safety, transportation and reduce damages to infrastructure within the project area. With adequate drainage roads can remain clear of high waters allowing for residents to commute freely, and businesses to remain operational.

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: The waterway project was adopted from Montgomery County's Hazard Mitigation Action Plan (HMAP) and the mitigation goal is to reduce future risk of riverine flooding from extreme rainfall events and increase the ability to manage stormwater flows such as those seen in recent disasters the have hit Montgomery County. The HMAP adds a flooding risk assessment from a HAZUS report, which evaluates the occurrence, vulnerabilities and impacts of future 500-year floods from historical data recorded. HAZUS estimates that county-wide in a 500 year event, 847 homes and commercial structures would be destroyed, which would cost $ 1,025 million in direct property damage, and $3 million in business interruption loss. HAZUS also estimates that #17,938 people would seek temporary shelter and there would be 7,379 displaced households.

Describe how the proposed project will contribute to the community's resiliency against future disasters as a result of these projects: This project enhances mitigation by amplifying the impact of building codes adopted in 2014 to protect new structures against floods. Montgomery County has implemented floodplain management codes which require new residential structures to be at least 12 inches above the Base Flood Elevation (BFE), a change which should significantly improve resilience of new development in the western portion of the County.

Additionally, the codes restrict the development of structures in the floodway zone (Montgomery, TX Code of Ordinance)

This project enhances the County's community preparedness program. Conducted through the Office of Homeland Security and Emergency Management, the initiatives provide residents with disaster preparedness, mitigation, and recovery information to ensure they are up to date with all available funding opportunities and proposed projects. Annual community engagement and educational outreach includes:

* Skywarn, which provides over 300 County residents with storm spotter training;

*Shelter training for those interested in participating in shelter operations during emergency situations;

*Extreme Weather Ready Expo, a regional collaborative preparedness effort;

*Community Emergency Response Teams (CERT) courses to provide residents with the skills to prepare and respond to disasters in the community;

*Flood Aware, providing critical information regarding the risks associated with flooding; and,

*Jr. First Responder Camp, a week-long camp for community youth interested in pursuing careers as first responders.

Currently there is outreach to the entire East County service area in regard to Acquisition and Demolition activities (buyouts) funded by FEMA an CDBG-DR. Multiple public meetings have been held in the target area to describe the buyout activities. There are direct communication opportunities for homeowners to speak with the County's Disaster Recovery Manager regarding their specific situation, available options, an best courses of action.

The combination of these existing efforts with the CDBG-MIT watershed tributary barriers and flood mitigation activities represent a coordinated long-range plan to increase storm water capacity, remove barriers to enhance storm water flow and improve the ability to channel the accumulated runoff throughout the watershed. The following completed projects were done to optimize flow throughout the entire drainage system: cleaning out culverts, storm water lines, and storm water ditches, and regrading culverts and storm water ditches to increase capacity of storm and rainwater.

CDBG-MIT: Budget Justification of Retail Costs
(Former Table 2)

Cost Verification Controls must be in place to assure that construction costs are reasonable and consistent with market costs at the time and place of construction.

Applicant/Subrecipient:	Montgomery County Texas
Site/Activity Title:	San Jacinto Watershed and Tributary Barrier Flood Mitigation-East County
Eligible Activity:	Flood Control and Drainage Improvements

Materials/Facilities/Services	$/Unit	Unit	Quantity	Construction	Acquisition	Total
Caney Creek (44 miles) Stream Restoration	$ 160.00	CY	77440	$ 12,390,400.00	$ -	$ 12,390,400.00
Peach Creek (40 miles) Stream Restoration	$ 160.00	CY	70400	$ 11,264,000.00		$ 11,264,000.00
White Oak Creek (10 miles) Stream Restoration	$ 160.00	CY	17600	$ 2,816,000.00		$ 2,816,000.00
San Jacinto River- East Fork (4.6 miles) Stream Restoration	$ 160.00	CY	8096	$ 1,295,360.00		$ 1,295,360.00
Non-Structural bank stabilization (additional vegetation restoration)	$ 2.00	LF	520608	$ 1,041,216.00	$ -	$ 1,041,216.00
Monitoring/Inspection throughout construction	$ 30.00	CY	173536	$ 5,206,080.00	$ -	$ 5,206,080.00
Studies	$ 335,465.56	LS	1	$ 335,465.56	$ -	$ 335,465.56
Permitting	$ 150,000.00	LS	1	$ 150,000.00	$ -	$ 150,000.00
Project Delivery (6% Base Cost)	$ 1,885,800.70	LS	1	$ 1,885,800.70	$ -	$ 1,885,800.70
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
	$ -		0	$ -	$ -	$ -
TOTAL	$ 2,371,938.26			$ 36,384,322.26	$ -	$ 36,384,322.26

1. Identify and explain the annual projected operation and maintenance costs associated with the proposed activities.

It is estimated that maintenance would be needed on stream restoration every 2-3 years with a projection of $6 per LF. Note that not every mile will be required to be maintained at the same levels; with this understanding it is estimated that a per 3 year cost of maintenance will be approximately $1,561,824(50%) of the calculated mileage or $520,608 annually.

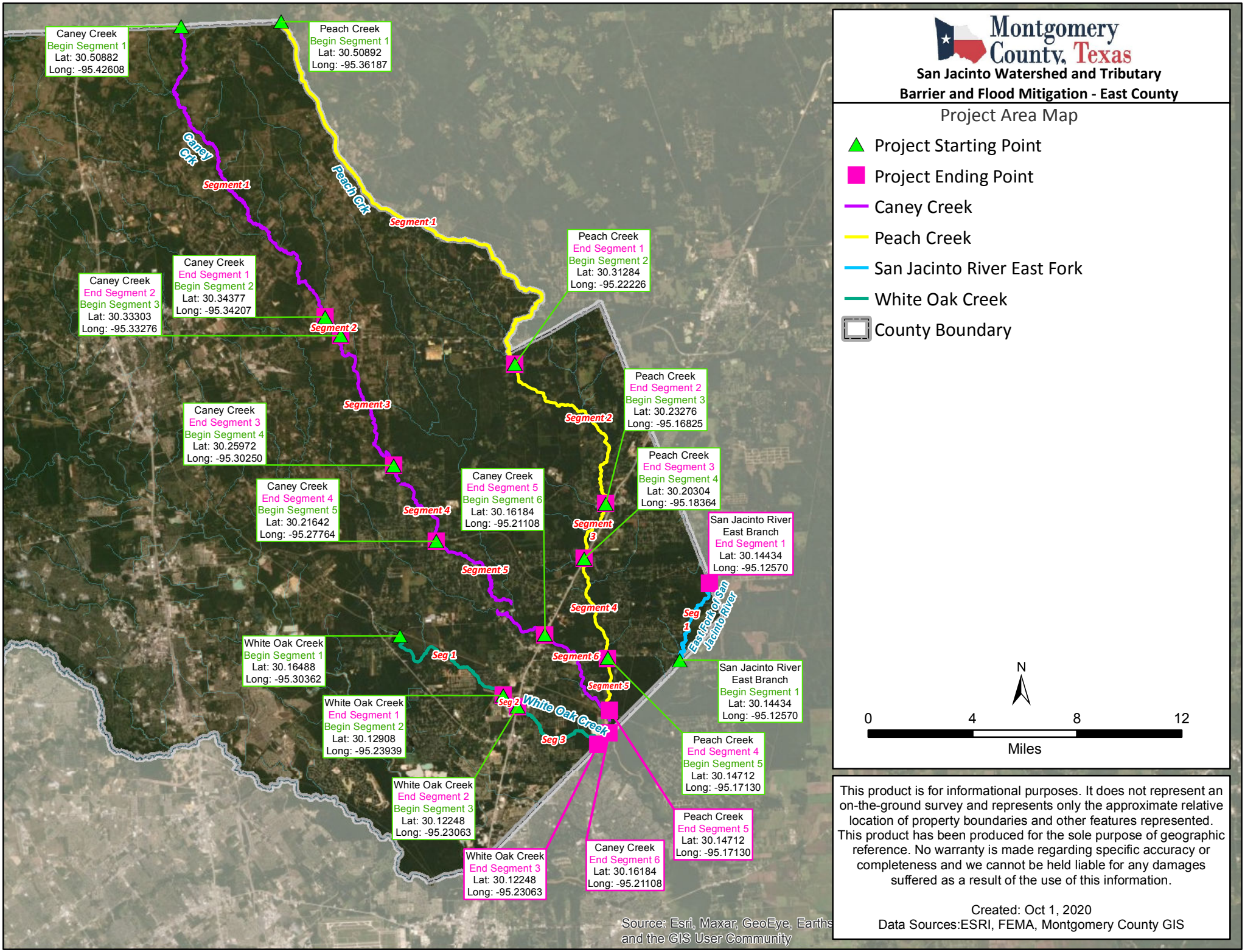
2. Identify and explain any special engineering activities.

Hydrologic and Hydrolic (H&H) Study, Topographic Survey, Geotechnical Analysis, Drainage Study

Seal

Date:	11/29/2022
Phone Number:	(936)538-5468

Signature of Registered Engineer/Architect Responsible For Budget Justification:



Montgomery County, Texas

San Jacinto Watershed and Tributary
Barrier and Flood Mitigation - East County

Project Area Map

- Project Starting Point
- Project Ending Point
- Caney Creek
- Peach Creek
- San Jacinto River East Fork
- White Oak Creek
- County Boundary

N

0 4 8 12

Miles

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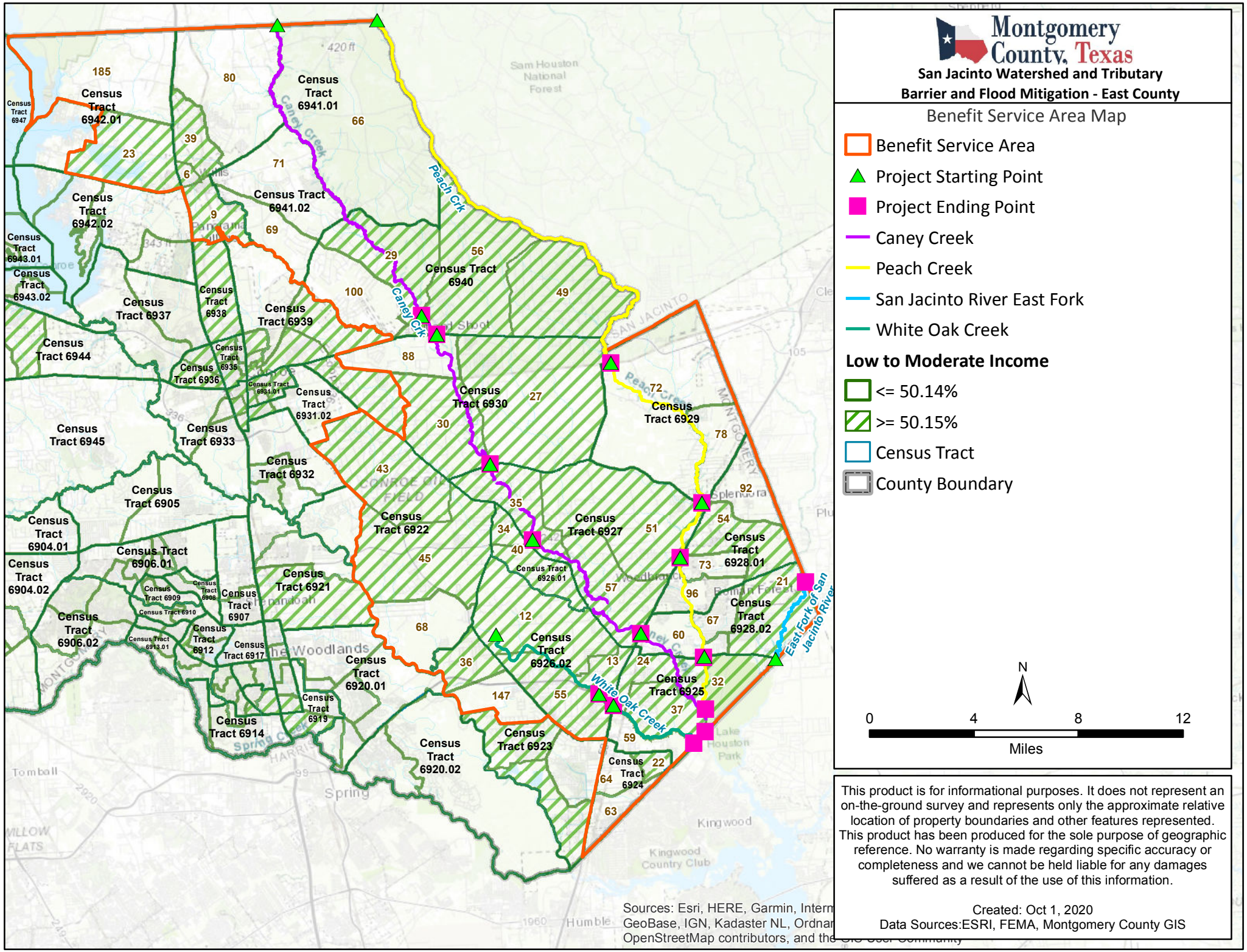
Created: Oct 1, 2020
Data Sources:ESRI, FEMA, Montgomery County GIS



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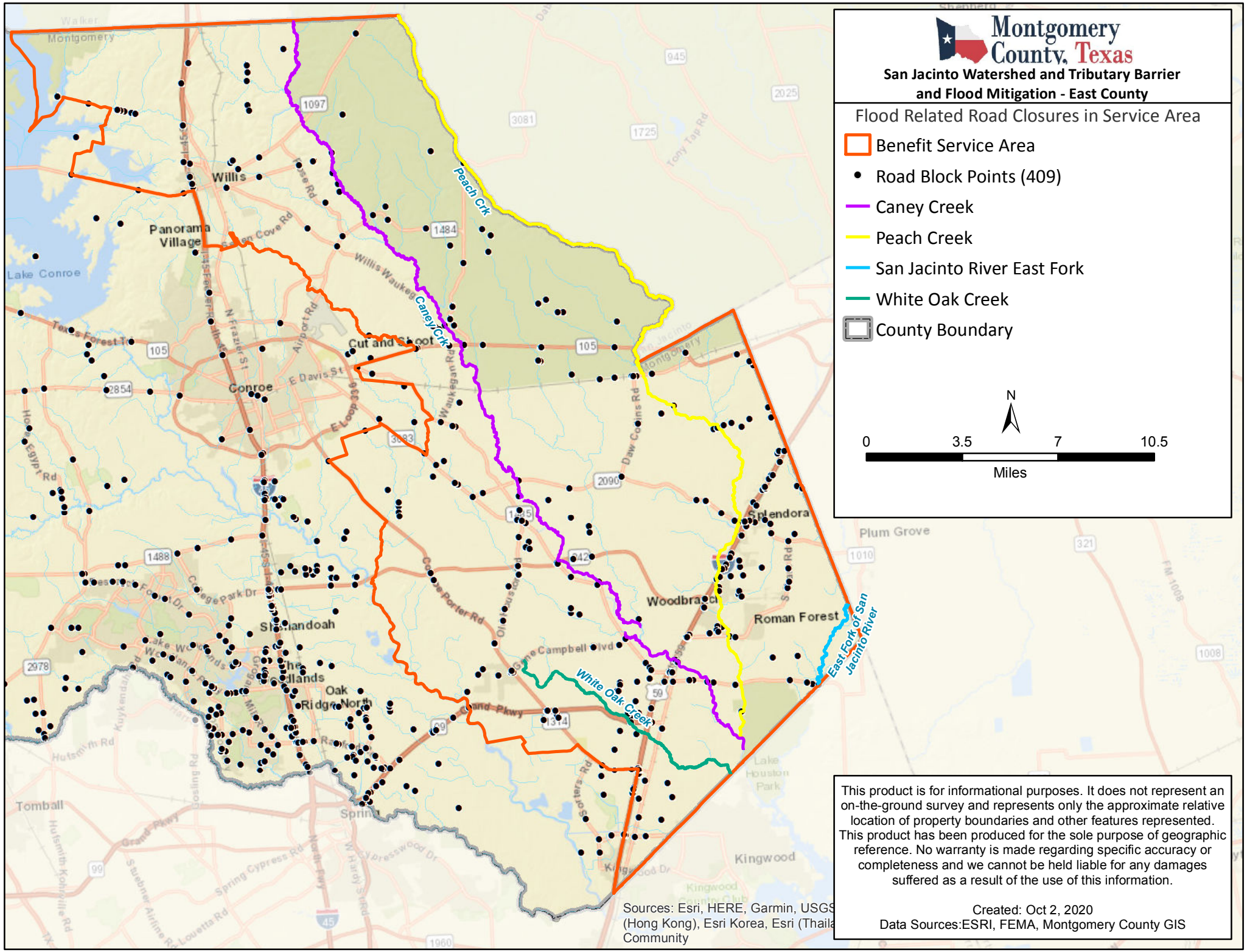
Montgomery County, Texas
San Jacinto Watershed and Tributary Barrier and Flood Mitigation - East County
Flood Related Road Closures in Service Area
Benefit Service Area
Road Block Points (409)
Caney Creek
Peach Creek
San Jacinto River East Fork
White Oak Creek
County Boundary
N
0
3.5
7
10.5
Miles
Peach Crk
Caney Crk
White Oak Creek
East Fork of San Jacinto River
Willis
Panorama Village
Lake Conroe
Conroe
Cut and Shoot
Shenandoah
Oak Ridge North
The Woodlands
Splendora
Woodbranch
Roman Forest
Plum Grove
Tomball
Spring
Kingwood
Lake Houston Park
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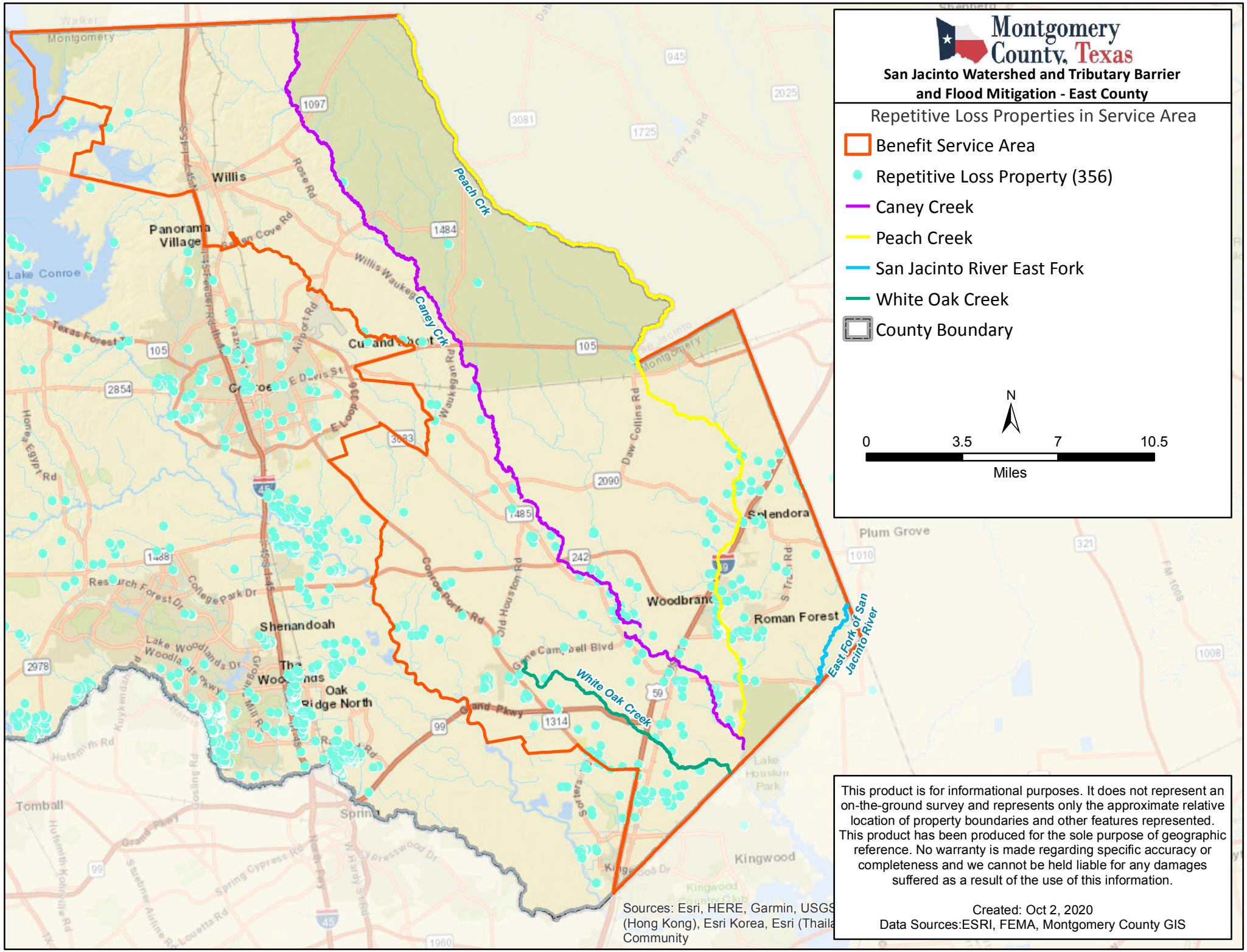
Created: Oct 2, 2020
Data Sources:ESRI, FEMA, Montgomery County GIS
Sources: Esri, HERE, Garmin, USGS
(Hong Kong), Esri Korea, Esri (Thail
Community


Montgomery County, Texas
San Jacinto Watershed and Tributary Barrier and Flood Mitigation - East County
Repetitive Loss Properties in Service Area
Benefit Service Area
Repetitive Loss Property (356)
Caney Creek
Peach Creek
San Jacinto River East Fork
White Oak Creek
County Boundary
N
0
3.5
7
10.5
Miles
Peach Crk
Caney Crk
White Oak Creek
East Fork of San Jacinto River
Willis
Panorama Village
Lake Conroe
Shenandoah
Oak Ridge North
Woodbranch
Roman Forest
Splendora
Plum Grove
Tomball
Kingwood
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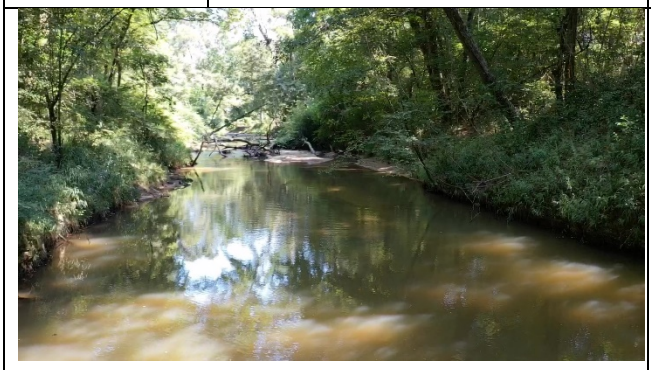
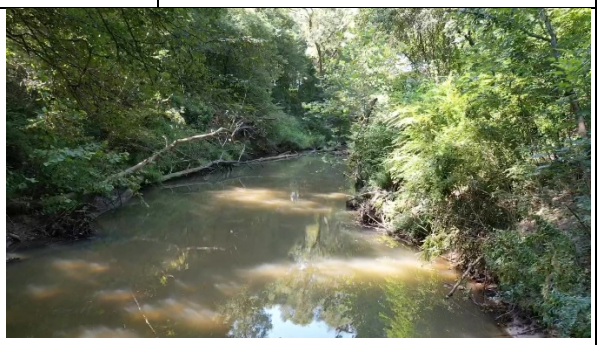
Created: Oct 2, 2020
Data Sources:ESRI, FEMA, Montgomery County GIS
Sources: Esri, HERE, Garmin, USGS
(Hong Kong), Esri Korea, Esri (Thail
Community

San Jacinto Watershed and Tributary Barrier and Flood Mitigation
Project Site Photos – Caney Creek

Photo # 1:	Tributary Barrier obstructing flow.	**Photo # 2:**	Tributary Barrier obstructing flow.
			
Photo # 3:	Tributary Barrier obstructing flow.	**Photo # 4:**	Tributary Barrier obstructing flow.
			

Montgomery County Office of Homeland Security and Emergency Management
9472 Airport Road Conroe, Texas 77303
Phone: 936.523.3900 | Fax: 936.523.3910
www.mctxoem.org

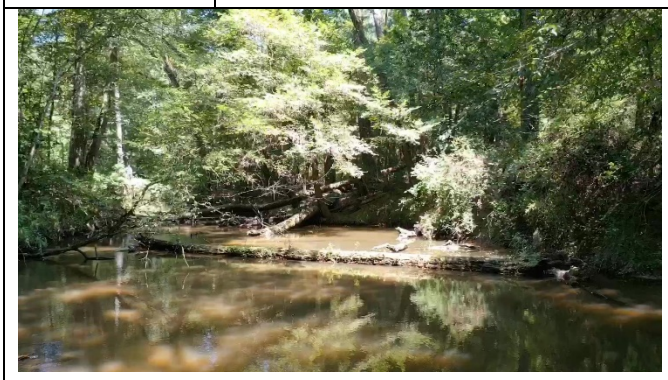
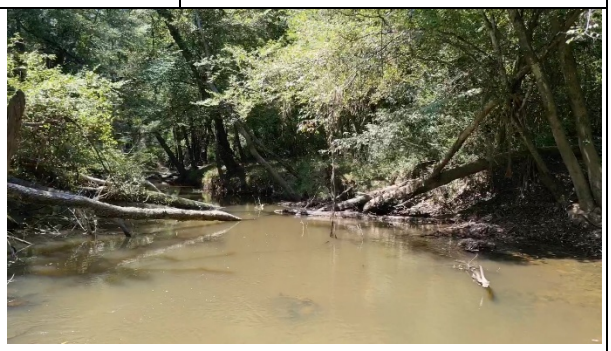
Photo # 5:	Tributary Barrier obstructing flow.	**Photo # 6:**	Tributary Barrier obstructing flow.
			
Photo # 7:	Tributary Barrier obstructing flow.	**Photo # 8:**	Tributary Barrier obstructing flow.
			

Photo # 9:	Tributary Barrier obstructing flow.	**Photo # 10:**	Tributary Barrier obstructing flow.
			
Photo # 11:	Tributary Barrier obstructing flow.	**Photo # 12:**	Tributary Barrier obstructing flow.
			

San Jacinto Watershed and Tributary Barrier and Flood Mitigation
East Fork San Jacinto River Photos

Photo # 1:	Potential Tributary Barriers obstructing flow.	**Photo # 2:**	Potential Tributary Barriers obstructing flow.
			
Photo # 3:	Potential Tributary Barriers obstructing flow.	**Photo # 4:**	Tributary Barriers obstructing flow.
			

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San Jacinto Watershed and Tributary Barrier and Flood Mitigation
White Oak Creek Photos

Photo # 1:	Tributary Barriers obstructing flow.	**Photo # 2:**	Tributary Barriers obstructing flow.
			
Photo # 3:	Tributary Barriers obstructing flow.	**Photo # 4:**	Tributary Barriers obstructing flow.
			

Montgomery County Office of Homeland Security and Emergency Management
9472 Airport Road Conroe, Texas 77303
Phone: 936.523.3900 | Fax: 936.523.3910
www.mctxoem.org

San Jacinto Watershed and Tributary Barrier and Flood Mitigation
East Fork San Jacinto Low- to Moderate- Income – Trailers

Photo # 1:	LMI Montgomery County residents close to the East Fork Jacinto project site.	**Photo # 2:**	LMI Montgomery County residents close to the East Fork Jacinto project site.
			

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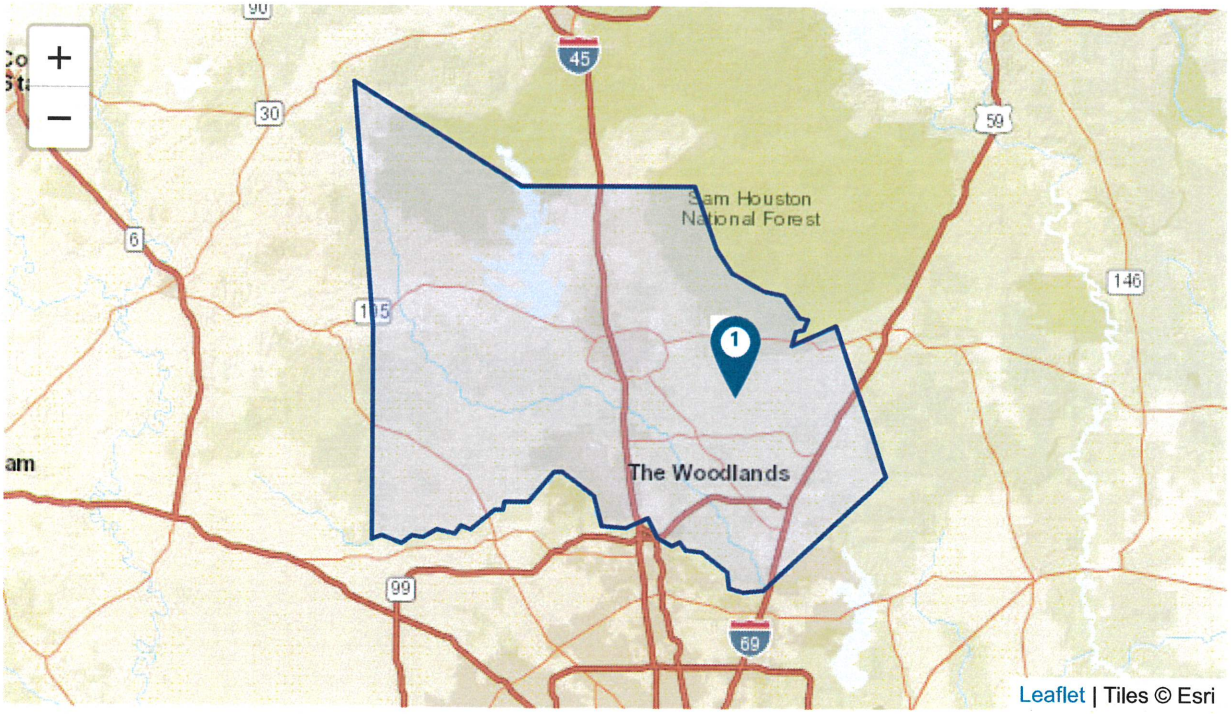
FEMA Benefit-Cost Calculator

V.6.0 (Build 20221028.1600 | Release Notes)

Benefit-Cost Analysis

Project Name: San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County



Map Marker ▲	Mitigation Title	Property Type	Hazard	Using 7% Discount Rate Benefits (B)	Costs (C)	BCR (B/C)	Using 3% Discount Rate (For FY22 BRIC and FMA only) Benefits (B)	Costs (C)	BCR (B/C)
1	Floodplain and Stream Restoration @ 30.2597200; -95.3025000	•••	DFA - Riverine Flood	$ 37,680,445	$ 43,124,984	0.87	$ 62,532,323	$ 47,570,741	1.31
TOTAL (SELECTED)				**$ 37,680,445**	**$ 43,124,984**	**0.87**	**$ 62,532,323**	**$ 47,570,741**	**1.31**
TOTAL				**$ 37,680,445**	**$ 43,124,984**	**0.87**	**$ 62,532,323**	**$ 47,570,741**	**1.31**

Property Configuration

Property Title:	Floodplain and Stream Restoration @ 30.2597200; -95.3025000
Property Location:	77306, Montgomery, Texas
Property Coordinates:	30.2597200, -95.3025000
Hazard Type:	Riverine Flood
Mitigation Action Type:	Floodplain and Stream Restoration
Property Type:	Other
Analysis Method Type:	Historical Damages

Cost Estimation

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Project Useful Life (years):	35
Project Cost:	$36,384,322
Number of Maintenance Years:	35 Use Default:Yes
Annual Maintenance Cost:	$520,608

Damage Analysis Parameters - Damage Frequency Assessment

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Year of Analysis was Conducted:	2021
Year Property was Built:	0
Analysis Duration:	30 Use Default: *No*

Historical Damages Before Mitigation

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Found 1 error(s):

- Damage Years should be within the Analysis Duration from the year when the property was built. Refer to the Help Content for information on the Analysis Duration.

		OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL		
Damage Year	Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Building & Contents)($)	Number of Volunteers	Number of Days	Damages ($)	Current Dollars?	Inflated Damages ($)
1989	0	0	0	0	1,670,478.44	0	0	1,670,478	No	4,391,868
1994	0	0	0	0	4,494,203.73	0	0	4,494,204	No	10,083,149
1997	0	0	0	0	231,189.79	0	0	231,190	No	481,480
1998	0	0	0	0	3,102,977.2	0	0	3,102,977	No	6,359,706
2001	0	0	0	0	2,690,788.14	0	0	2,690,788	No	5,147,127
2003	0	0	0	0	563,157.23	0	0	563,157	No	1,020,663
2006	0	0	0	0	281,519.21	0	0	281,519	No	433,054
2008	0	0	0	0	1,792,455	0	0	1,792,455	No	2,574,951
2014	0	0	0	0	721,231.56	0	0	721,232	No	878,788
2016	0	0	0	0	6,690,297.77	0	0	6,690,298	No	7,732,330
2017	0	0	0	0	19,623,265.77	0	0	19,623,266	No	21,836,839
2019	0	0	0	0	24,922,485.71	0	0	24,922,486	No	26,396,430

Annualized Damages Before Mitigation

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
2.6	433,054	12,545
2.80	481,480	22,482
3.1	878,788	26,957
3.40	1,020,663	61,130
3.90	2,574,951	97,986
4.4	4,391,868	166,242
5.2	5,147,127	177,462
6.2	6,359,706	232,010
7.80	7,732,330	274,765
10.3	10,083,149	483,312
15.5	21,836,839	833,646
33.56	26,396,430	786,436
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	87,336,386	3,174,973

Expected Damages After Mitigation

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

	OTHER	OPTIONAL DAMAGES			VOLUNTEER COSTS		TOTAL
Recurrence Interval (years)	Damages ($)	Category 1 ($)	Category 2 ($)	Repetitive Losses (Building & Contents)($)	Number of Volunteers	Number of Days	Damages ($)
7	0	0	0	1,853,344.84	0	0	1,853,345

Annualized Damages After Mitigation

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Annualized Recurrence Interval (years)	Damages and Losses ($)	Annualized Damages and Losses ($)
7	1,853,345	264,763
	Sum Damages and Losses ($)	Sum Annualized Damages and Losses ($)
	1,853,345	264,763

Standard Benefits - Ecosystem Services

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Total Project Area (acres):	245,826
Percentage of Urban Green Open Space:	0.00%
Percentage of Rural Green Open Space:	0.00%
Percentage of Riparian:	0.00%
Percentage of Coastal Wetlands:	0.00%
Percentage of Inland Wetlands:	0.00%
Percentage of Forests:	0.00%
Percentage of Coral Reefs:	0.00%
Percentage of Shellfish Reefs:	0.00%
Percentage of Beaches and Dunes:	0.00%
Expected Annual Ecosystem Services Benefits:	$0

Benefits-Costs Summary

Floodplain and Stream Restoration @ 30.2597200; -95.3025000

Total Standard Mitigation Benefits:	$37,680,445
Total Social Benefits:	$0
Total Mitigation Project Benefits:	$37,680,445
Total Mitigation Project Cost:	$43,124,984
Benefit Cost Ratio - Standard:	0.87
Benefit Cost Ratio - Standard + Social:	0.87

U.S. Department of Housing and Urban Development
451 Seventh Street, SW
Washington, DC 20410
www.hud.gov

espanol.hud.gov

Environmental Review for Activity/Project that is Exempt or Categorically Excluded Not Subject to Section 58.5

Pursuant to 24 CFR Part 58.34(a) and 58.35(b)

Project Information

Project Name: San Jacinto Watershed and Tributary Barrier Flood Mitigation –San Jacinto River, East Fork

Responsible Entity: Montgomery County Office of Homeland Security and Emergency Management

Grant Recipient (if different than Responsible Entity): N/A

State/Local Identifier: 74-6000558

Preparer: Morgan Lumbley

Certifying Officer Name and Title: Jason Millsaps, Director MCOHSEM

Consultant (if applicable): N/A

Project Location: Caney Creek- Start 30.50882,-95.42608 End 30.106050,-95.173276 (44 miles), Peach Creek- Start 30.50892,-95.36187 End 30.106180,-95.17422 (40 miles), White Oak Creek- Start 30.1648829, -95.3036171 End 30.086296, -95.164541 (10 miles), San Jacinto River East Fork- Start 30.1443353, -95.1256958 End 30.186128, -95.104365 (4.6 miles)

Description of the Proposed Project [24 CFR 58.32; 40 CFR 1508.25]**:** Administrative, planning, and project delivery services to assist with the proposed CDBG-MIT infrastructure project: San Jacinto Watershed and Tributary Barrier Flood Mitigation-San Jacinto River, East Fork.

Level of Environmental Review Determination:

☒ Activity/Project is Exempt per 24 CFR 58.34(a): Planning and Administration

☐ Activity/Project is Categorically Excluded Not Subject To §58.5 per 24 CFR 58.35(b):

Funding Information

Grant Number	HUD Program	Funding Amount
	CDBG-MIT MOD Funding	$60,375,000.00

Estimated Total HUD Funded Amount: $60,375,000.00

This project anticipates the use of funds or assistance from another Federal agency in addition to HUD in the form of (if applicable)**: N/A**

Estimated Total Project Cost (HUD and non-HUD funds) [24 CFR 58.32(d)] Out of the total proposed project costs of $36,384,32.26, an estimated 6 percent or $2,221,266.26 will be used for Administration, Planning and Project Delivery.

Compliance with 24 CFR §50.4 and §58.6 Laws and Authorities

Record below the compliance or conformance determinations for each statute, executive order, or regulation. Provide credible, traceable, and supportive source documentation for each authority. Where applicable, complete the necessary reviews or consultations and obtain or note applicable permits of approvals. Clearly note citations, dates/names/titles of contacts, and page references. Attach additional documentation as appropriate.

Compliance Factors: Statutes, Executive Orders, and Regulations listed at 24 CFR 50.4 and 58.6	Are formal compliance steps or mitigation required?	Compliance determinations
STATUTES, EXECUTIVE ORDERS, AND REGULATIONS LISTED AT 24 CFR §58.6		
Airport Runway Clear Zones and Accident Potential Zones 24 CFR Part 51 Subpart D	Yes ☐ No ☒	This project does not occur within any airport runway clear zones or military accident potential zones. Please refer to map of attached. It is compliant with the regulation.
Coastal Barrier Resources Coastal Barrier Resources Act, as amended by the Coastal Barrier Improvement Act of 1990 [16 USC 3501]	Yes ☐ No ☒	Projects is not located on or connected to CBRA Unit or otherwise protected areas.

Flood Insurance Flood Disaster Protection Act of 1973 and National Flood Insurance Reform Act of 1994 [42 USC 4001-4128 and 42 USC 5154a]	Yes ☐ No ☒	Administrative and management activities do not trigger any additional flood insurance requirements.

Mitigation Measures and Conditions [40 CFR 1505.2(c)]

Summarize below all mitigation measures adopted by the Responsible Entity to reduce, avoid, or eliminate adverse environmental impacts and to avoid non-compliance or non-conformance with the above-listed authorities and factors. These measures/conditions must be incorporated into project contracts, development agreements, and other relevant documents. The staff responsible for implementing and monitoring mitigation measures should be clearly identified in the mitigation plan.

Law, Authority, or Factor	Mitigation Measure

Preparer Signature: _____ Date: 11.02.22

Name/Title/Organization: Morgan Lumbley- Disaster Recovery Manager MCOHSEM

Responsible Entity Agency Official Signature:

_____ Date: 11.02.22

Name/Title: Jason Millsaps Executive Director MCOHSEM

This original, signed document and related supporting material must be retained on file by the Responsible Entity in an Environmental Review Record (ERR) for the activity/project (ref: 24 CFR Part 58.38) and in accordance with recordkeeping requirements for the HUD program(s).

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Magnolia Drive Erosion

Project Site

Project Site

Project Site Title: Magnolia Drive Erosion

Street Address: Magnolia Drive

Street Limits on Street: Magnolia Drive

From Street: Magnolia Drive

To Street: Magnolia Drive

Zip Code: 77302

City: Conroe

County: Montgomery

State: Texas

Latitude: 30.25209

Longitude: -95.45168

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 1,000

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 1 (Start)

Project Site

Project Site

Project Site Title: Stewart Creek Section 1 (Start)

Street Address: San Jacinto- West Fork

Street Limits on Street: San Jacinto River- West Fork

From Street: San Jacinto River-West Fork

To Street: River Plantation Dr

Zip Code: 77302

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 3,951.1

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 2

Project Site

Project Site

Project Site Title: Stewart Creek Section 2

Street Address: River Plantation Dr

Street Limits on Street: River Plantation Dr

From Street: River Plantation Dr

To Street: Creighton Rd

Zip Code: 77302

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 5,874.6

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 3

Project Site

Project Site

Project Site Title: Stewart Creek Section 3

Street Address: Creighton Rd

Street Limits on Street: Creighton Rd

From Street: Creighton Rd

To Street: S. Loop 336

Zip Code: 77301

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 12,191.7

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 4

Project Site

Project Site

Project Site Title: Stewart Creek Section 4

Street Address: S. Loop 336

Street Limits on Street: S. Loop 336

From Street: S. Loop 336

To Street: Foster Dr

Zip Code: 77301

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 7,364.8

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 5

Project Site

Project Site

Project Site Title: Stewart Creek Section 5

Street Address: Foster Dr

Street Limits on Street: Foster Dr

From Street: Foster Dr

To Street: Silverdale

Zip Code: 77301

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 3,148.2

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 6

Project Site

Project Site

Project Site Title: Stewart Creek Section 6

Street Address: Silverdale

Street Limits on Street: Silverdale

From Street: Silverdale

To Street: E. Davis St

Zip Code: 77301

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 6,815.9

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 7

Project Site

Project Site

Project Site Title: Stewart Creek Section 7

Street Address: E. Davis St

Street Limits on Street: E Davis St

From Street: E. Davis St

To Street: E. Dallas St.

Zip Code: 77301

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 4,967.5

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 8

Project Site

Project Site

Project Site Title: Stewart Creek Section 8

Street Address: E. Dallas St

Street Limits on Street: E. Dallas St

From Street: E. Dallas St

To Street: N. Loop 336

Zip Code: 77301

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 9,049.4

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 9

Project Site

Project Site

Project Site Title: Stewart Creek Section 9

Street Address: N. Loop 336

Street Limits on Street: N. Loop 336

From Street: N. Loop 336

To Street: FM 3083

Zip Code: 77303

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 9,724.6

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 10

Project Site

Project Site

Project Site Title: Stewart Creek Section 10

Street Address: FM 3083

Street Limits on Street: FM 3083

From Street: FM 3083

To Street: Wally Wilkerson Pkwy

Zip Code: 77303

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 11,313

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation and Bank Stabilization- Stewart Creek - Stewart Creek Section 11 (End)

Project Site

Project Site

Project Site Title: Stewart Creek Section 11 (End)

Street Address: Wally Wilkerson PKWY

Street Limits on Street: Wally Wilkerson Pkwy

From Street: Wally Wilkerson Pkwy

To Street: Shadow Lake

Zip Code: 77303

City: Conroe

County: Montgomery

State: Texas

Latitude:

Longitude:

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 5,643.4

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- Lake Creek - Lake Creek Start

Project Site

Project Site

Project Site Title: Lake Creek Start

Street Address: N/A

Street Limits on Street: Beginning Location 1

From Street: Beginning Location 1

To Street: End Location 1

Zip Code: 77302

City: Conroe

County: Montgomery

State: Texas

Latitude: 30.45069

Longitude: -95.78092

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 126,720

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Caney Creek Location Number 1

Project Site

Project Site

Project Site Title: Caney Creek Location Number 1

Street Address: North County Boundary Line

Street Limits on Street: North County Boundary Line

From Street: North County Boundary Line

To Street: Millmac Rd

Zip Code: 77303

City: Willis

County: Montgomery

State: Texas

Latitude: 30.50882

Longitude: -95.42608

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 93,984

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Caney Creek Location Number 2

Project Site

Project Site

Project Site Title: Caney Creek Location Number 2

Street Address: Millmac Rd.

Street Limits on Street: Millmac Rd

From Street: Millmac Rd.

To Street: Hwy 105

Zip Code: 77306

City: Cut and Shoot

County: Montgomery

State: Texas

Latitude: 30.343765

Longitude: -95.342066

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 5,808

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Caney Creek Location Number 3

Project Site

Project Site

Project Site Title: Caney Creek Location Number 3

Street Address: Hwy 105

Street Limits on Street: Hwy 105

From Street: Hwy 105

To Street: Hwy 2090

Zip Code: 77306

City: Conroe

County: Montgomery

State: Texas

Latitude: 30.333027

Longitude: -95.332755

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 38,544

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Caney Creek Location Number 4

Project Site

Project Site

Project Site Title: Caney Creek Location Number 4

Street Address: Hwy 2090

Street Limits on Street: Hwy 2090

From Street: Hwy 2090

To Street: Hwy 242

Zip Code: 77306

City: Conroe

County: Montgomery

State: Texas

Latitude: 30.259725

Longitude: -95.302501

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 23,232

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Caney Creek Location Number 5

Project Site

Project Site

Project Site Title: Caney Creek Location Number 5

Street Address: Hwy 242

Street Limits on Street: Hwy 242

From Street: Hwy 242

To Street: Hwy 59

Zip Code: 77357

City: New Caney

County: M

State: Texas

Latitude: 30.21642

Longitude: -95.277636

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 43,296

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Caney Creek Location Number 6

Project Site

Project Site

Project Site Title: Caney Creek Location Number 6

Street Address: Hwy 59

Street Limits on Street: Hwy 59

From Street: Hwy 59

To Street: Harris County Line

Zip Code: 77357

City: New Caney

County: Montgomery

State: Texas

Latitude: 30.16184

Longitude: -95.211082

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 27,456

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Peach Creek Location Number 1

Project Site

Project Site

Project Site Title: Peach Creek Location Number 1

Street Address: North County Boundary Line

Street Limits on Street: North County Boundary Line

From Street: North County Boundary Line

To Street: Old Hwy 105

Zip Code: 77328

City: Cleveland

County: Montgomery

State: Texas

Latitude: 30.50892

Longitude: -95.36187

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 116,160

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Peach Creek Location Number 2

Project Site

Project Site

Project Site Title: Peach Creek Location Number 2

Street Address: Old Hwy 105

Street Limits on Street: Old Hwy 105

From Street: Old Hwy 105

To Street: Hwy 2090

Zip Code: 77372

City: Splendora

County: Montgomery

State: Texas

Latitude: 30.312844

Longitude: -95.222263

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 45,408

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Peach Creek Location Number 3

Project Site

Project Site

Project Site Title: Peach Creek Location Number 3

Street Address: Hwy 2090

Street Limits on Street: Hwy 2090

From Street: Hwy 2090

To Street: Hwy 59

Zip Code: 77372

City: Patton Village

County: Montgomery

State: Texas

Latitude: 30.232761

Longitude: -95.168254

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 14,256

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Peach Creek Location Number 4

Project Site

Project Site

Project Site Title: Peach Creek Location Number 4

Street Address: Hwy 59

Street Limits on Street: Hwy 59

From Street: Hwy 59

To Street: Hwy 1485

Zip Code: 77357

City: New Caney

County: Montgomery

State: Texas

Latitude: 30.203038

Longitude: -95.183639

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 23,760

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - Peach Creek Location Number 5

Project Site

Project Site

Project Site Title: Peach Creek Location Number 5

Street Address: Hwy 1485

Street Limits on Street: Hwy 1485

From Street: Hwy 1485

To Street: Harris County Line

Zip Code: 77357

City: New Caney

County: Montgomery

State: Texas

Latitude: 30.1471273

Longitude: -95.171297

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 12,144

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - White Oak Creek Location Number 1

Project Site

Project Site

Project Site Title: White Oak Creek Location Number 1

Street Address: Gene Campbell

Street Limits on Street: Gene Campbell

From Street: Gene Campbell

To Street: Grand Parkway

Zip Code: 77365

City: New Caney

County: Montgomery

State: Texas

Latitude: 30.1648829

Longitude: -95.3036171

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 24,288

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - White Oak Creek Location Number 2

Project Site

Project Site

Project Site Title: White Oak Creek Location Number 2

Street Address: Grand Parkway

Street Limits on Street: Grand Parkway

From Street: Grand Parkway

To Street: Hwy 59

Zip Code: 77365

City: New Caney

County: Montgomery

State: Texas

Latitude: 30.1290746

Longitude: -95.2393923

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 5,280

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - White Oak Creek Location Number 3

Project Site

Project Site

Project Site Title: White Oak Creek Location Number 3

Street Address: Hwy 59

Street Limits on Street: Hwy 59

From Street: Hwy 59

To Street: Harris County Line

Zip Code: 77365

City: New Caney

County: Montgomery

State: Texas

Latitude: 30.1224841

Longitude: -95.2306355

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 23,232

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?

San Jacinto Watershed and Tributary Barrier Flood Mitigation- East County - San Jacinto River- East Fork Location Number 1

Project Site

Project Site

Project Site Title: San Jacinto River- East Fork Location Number 1

Street Address: Harris County Line

Street Limits on Street: Harris County Line @ 1485

From Street: Harris County Line @ 1485

To Street: Liberty County Line South FM 2090

Zip Code: 77357

City: New Caney

County: Montgomery

State: Texas

Latitude: 30.1443353

Longitude: -95.1256958

Performance Measures: Linear Feet

Provide the proposed number of linear feet: 24,288

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?