Task 13 - Sponsor Requested FMEs (County)

Batch	Page	New Action Number	Old Action Number (To be removed)	Type	Sponsor	Project	Notes	TC Rec (Y/N)	Tech Committee Rec Date	RFPG Rec (Y/N)	RFPG Rec Date
3	2	101000221		FME	Burnet County	Burnet County Lower Water Crossings	New FME				
3	3	101000222		FME	Burnet County	Burnet County Modeling and Mapping Update	New FME				
3	4	101000223		FME	Caldwell County	Caldwell County Flood Early Warning System	New FME				
3	5	101000224		FME	Caldwell County	Lytton Springs Creek Near CR 174	New FME				
3	6	101000225		FME	Caldwell County	CR175 @ Cedar Creek Trib 1	New FME				
3	7	101000228		FME	Lee County	Cummins Creek WS SCS Site 1 Dam Flood Management Evaluation	New FME				
3	8	101000240		FME	Wharton County	Town of Boling Drainage Master Plan	New FME				
3	9	101000241		FME	Wharton County	Louise Drainage Master Plan	New FME				
3	10	101000243		FME	Matagorda County Conservation Reclamation District	Colorado River Levee Gate Structure Improvements	New FME				
3	11	101000244		FME	Wharton County	El Lobo Neighborhood Drainage Improvements	New FME				
3	12	101000245		FME	Wharton County	Pecan Valley Phase 2 Preliminary Engineering Report	New FME				

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

Title: Burnet County Lower Water Crossing Assessment | ID#: 101000221

Sponsor (note if City or County): Burnet (County) | Commitment: ☐ Yes ☐ No

Study Type

☑ Emergency preparedness ☑ Floodplain modeling, mapping and risk assessment ☐ Feasibility study ☐ Preliminary project engineering

☐ Other

Problem Area

City: NA | County: Burnet

Watershed name(s): Austin-Travis Lakes, Buchanan-Lyndon B. Johnson Lakes

Pedernales

Tributary(ies): Multiple Tributaries

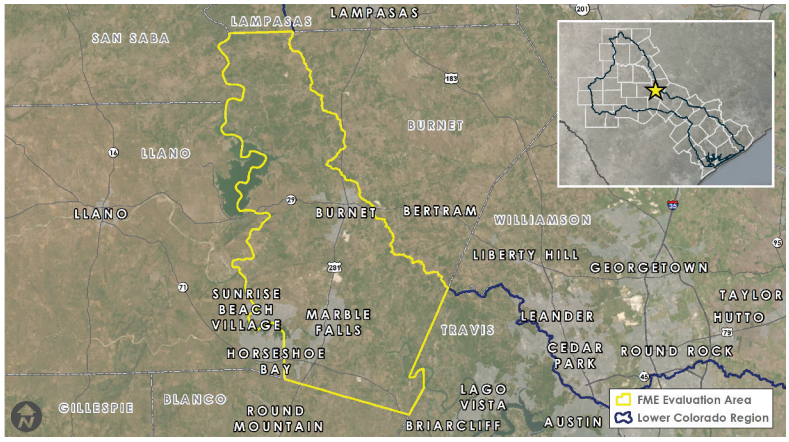
HUC#(s): 12090205, 12090201, 1209020 | Stream miles (est.): 1,450

Drainage area: square miles, est: 536 | or acreage, est:

Social Vulnerability Index (SVI): 0.3172 (average)

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other



Flood Risk Description

Burnet County is located in flash flood alley and is fairly rural in nature. In the Lower Colorado-Lavaca planning region, there are 59 low water crossings in Burnet County, however evaluation of all stream crossings likely results in a higher number of designated lower water crossings. This assessment should be conducted after the updated modeling and mapping utilizing Atlas 14 rainfall data is conducted in this portion of the County.

Population at risk: 7,236 | Structures at risk: 4,552 | Critical facilities at risk (number): 5

Farm/Ranch land impacted (acres): 18,932 | Roadway(s) impacted (miles): 46.79

Scope of Study

The assessment of low water crossings includes the evaluation of existing condition level of service, average daily traffic, and emergency access routes to understand risk of each crossing. Following the assessment, low water crossings can be prioritized to support future implementation of improvements.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost: $150,000 | Potential funding source(s): Federal/state grants and/or local funds

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

Title: Burnet County Modeling and Mapping Update | ID#: 101000222

Sponsor (note if City or County): Burnet (County) | Commitment: ☐ Yes ☐ No

Study Type

☑ Emergency preparedness ☑ Floodplain modeling, mapping and risk assessment ☐ Feasibility study ☐ Preliminary project engineering

☐ Other

Problem Area

City: NA | County: Burnet

Watershed name(s): Austin-Travis Lakes, Buchanan-Lyndon B. Johnson Lakes

Pedernales

Tributary(ies): Multiple Tributaries

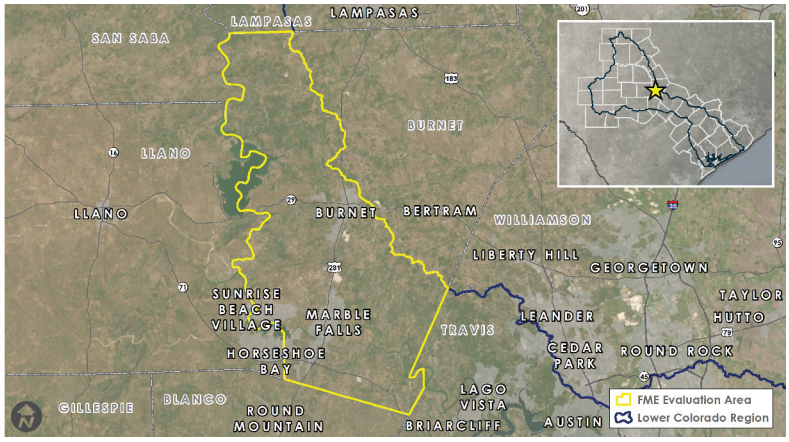
HUC#(s): 12090205, 12090201, 1209020 | Stream miles (est.): 1,450

Drainage area: square miles, est: 536 | or acreage, est:

Social Vulnerability Index (SVI): 0.3172 (average)

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other



Flood Risk Description

Burnet County is located in flash flood alley and is fairly rural in nature. In the Lower Colorado-Lavaca planning region, there are approximately 1,450 riverine stream miles that need updated analysis utilizing the best available science (software, Atlas 14 rainfall) and data (topography) to identify flood exposure.

Population at risk: 7,236 | Structures at risk: 4,552 | Critical facilities at risk (number): 5

Farm/Ranch land impacted (acres): 18,932 | Roadway(s) impacted (miles): 46.79

Scope of Study

The study should include the development of updated hydrologic and hydraulic models utilizing the best available science and data. Updated floodplain maps can then be used for regulation and update of outdated FEMA maps in this portion of Burnet County.

Related Goal(s)

3.2 Increase the number of entities that have evaluated priority flood risk areas. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

Estimated Study Cost

Cost: $4,000,000 | Potential funding source(s): Federal/state grants and/or local funds

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

Title: Caldwell County Flood Early Warning System ID#: 101000223

Sponsor (note if City or County): Caldwell County Commitment: ☐ Yes ☐ No

Study Type

☑ Emergency preparedness ☐ Floodplain modeling, mapping and risk assessment ☐ Feasibility study ☐ Preliminary project engineering

☐ Other

Problem Area

City: County: Caldwell

Watershed name(s): Walnut Creek-Cedar Creek, Plum Creek, Upper San Marcos River, and Lower San Marcos River

Tributary(ies):

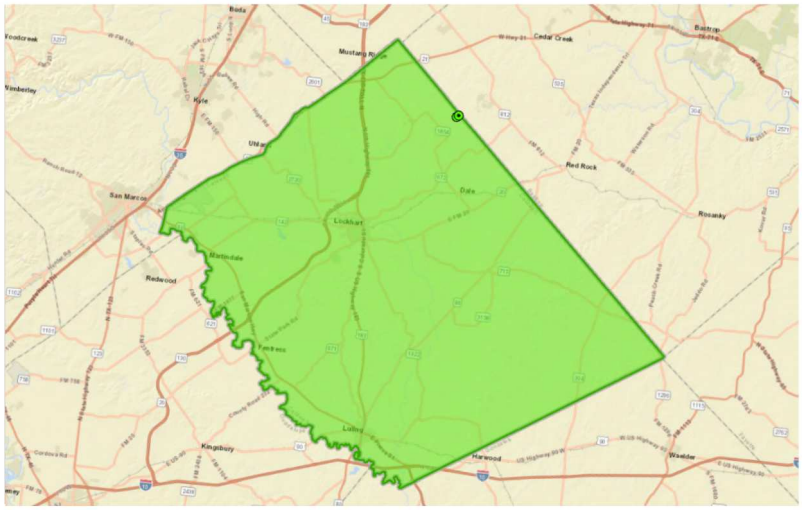
HUC#(s): Stream miles (est.):

Drainage area: square miles, est: or acreage, est:

Social Vulnerability Index (SVI): 0.834

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other:



Flood Risk Description

Caldwell County and other local participating entities should review existing flood early warning system equipment, procedures, and training to ensure that emergency responders can meet residents' needs in an efficient, safe, and timely manner during a flood event.

Population at risk: Structures at risk: Critical facilities at risk (number):

Farm/Ranch land impacted (acres): Roadway(s) impacted (miles):

Scope of Study

Review of existing gages and flood early warning system equipment. Evaluate software and hardware required to develop and/or improve flood early warning system effectiveness. Coordinate with local participating communities to develop a set of flood early warning system development/improvement goals. Develop a budget to develop/upgrade the flood early warning system. Develop a budget and strategy to ensure long term future funding of the flood early warning system.

Related Goal(s)

2.1 Increase the number of communities with warning and emergency response capabilities, or which participate in regional flood warning systems (e.g., LCRA Hydromet, City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impendin

Estimated Study Cost

Cost: $50,000 Potential funding source(s): TWDB Flood Infrastructure Fund

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

Title: Lytton Springs Creek Near CR 174 ID#: 101000224

Sponsor (note if City or County): Caldwell County Commitment: ☐ Yes ☐ No

Study Type

☐ Emergency preparedness ☐ Floodplain modeling, mapping and risk assessment ☐ Feasibility study ☑ Preliminary project engineering

☐ Other

Problem Area

City: Dale County: Caldwell

Watershed name(s): Lytton Springs Creek

Tributary(ies):

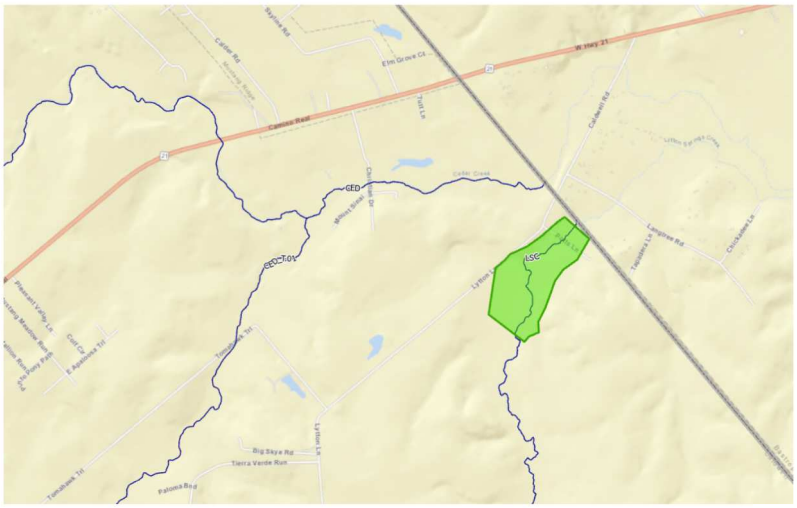
HUC#(s): 1209030103 Stream miles (est.): 1.1

Drainage area: square miles, est: 3.4 or acreage, est:

Social Vulnerability Index (SVI): 0.834

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other:



Flood Risk Description

Based on hydraulic modeling of existing conditions, approximately 14 residential and agricultural structures lie within the 1% AEP floodplain on the south side of CR 174 at the downstream end of Lytton Springs Creek.

Population at risk: 42 Structures at risk: 14 Critical facilities at risk (number): 0

Farm/Ranch land impacted (acres): 17.6 Roadway(s) impacted (miles): 0.15

Scope of Study

Conduct a study to evaluate upsizing the existing culvert crossing. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

Related Goal(s)

6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways (e.g., low-water crossings, irrigation canals).

Estimated Study Cost

Cost: $40,000 Potential funding source(s): TWDB Flood Infrastructure Fund

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

Title: CR 175 @ Cedar Creek Tributary 1 ID#: 101000225

Sponsor (note if City or County): Caldwell County Commitment: ☐ Yes ☐ No

Study Type

☐ Emergency preparedness ☐ Floodplain modeling, mapping and risk assessment ☐ Feasibility study ☑ Preliminary project engineering

☐ Other

Problem Area

City: Dale County: Caldwell

Watershed name(s): Cedar Creek

Tributary(ies): Cedar Creek Tributary 1

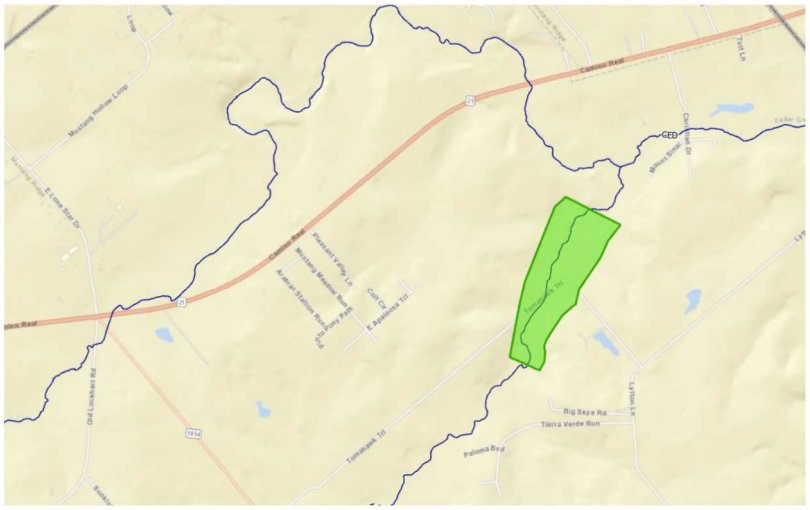
HUC#(s): 1209030103 Stream miles (est.): 0.81

Drainage area: square miles, est: 3.4 or acreage, est:

Social Vulnerability Index (SVI): 0.834

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other:



Flood Risk Description

CR 175 (Tomahawk Trail) has been identified by Caldwell County as a priority crossing in need of upgrade. The crossing remained closed for 2 days during Hurricane Harvey and is inundated by the 1% AEP storm event. Existing risk factors are based on available data and will be better defined as part of the study. Study results will include detailed assessments of the potential risk and potential flood risk reduction to be used in evaluating the project.

Population at risk: 0 Structures at risk: 0 Critical facilities at risk (number): 0

Farm/Ranch land impacted (acres): 44 Roadway(s) impacted (miles): 0.24

Scope of Study

Conduct a study to evaluate upsizing the existing culvert crossing. Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

Related Goal(s)

6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways (e.g., low-water crossings, irrigation canals).

Estimated Study Cost

Cost: $40,000 Potential funding source(s): TWDB Flood Infrastructure Fund

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

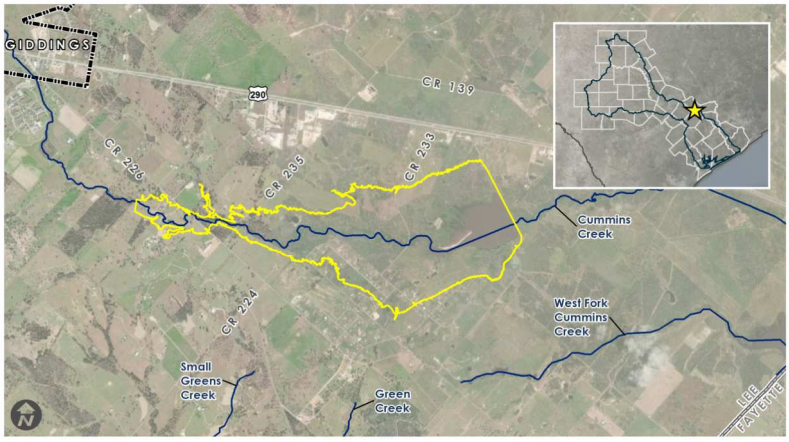
Title: Cummins Creek WS SCS Site 1 Dam Flood Management Evaluation
ID#: 101000228
Sponsor (note if City or County): Lee (County)
Commitment: ✓ Yes ☐ No

Study Type

☐ Emergency preparedness ✓ Floodplain modeling, mapping and risk assessment ✓ Feasibility study ☐ Preliminary project engineering
☐ Other

Problem Area

City:
County: Lee
Watershed name(s): Clear Creek-Cummins Creek
Tributary(ies):
HUC#(s): 1209030106
Stream miles (est.): 4.26
Drainage area: square miles, est: 8.59
or acreage, est: 137
Social Vulnerability Index (SVI): 0.3556, 0.7907
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)
Other:



Flood Risk Description

During major flood events on Cummins Creek the backwater created by the subject dam floods approximately 25 to 50 homes. The backwater flooding also cuts access to the area due to inundation of County Roads 233 and 226. Backwater flooding in this area is also likely aggravated by sedimentation behind the dam. The most extreme of these recent flood events was Hurricane Harvey in 2017, but the area also flooded in 2015 and 2016. Prior flooding has led to implementation of two separate buyout programs, one for the 2016 floods and a separate one for Hurricane Harvey. The flood risk area is currently the focus of several ongoing grants and other efforts to improve the situation, including an effort to raise the elevation of CR 226 and construct a new bridge to allow evacuation of residents. One potential flood risk reduction effort that has not previously been evaluated is to reduce the backwater area by lowering the elevation of the dam spillway or other modifications.

Population at risk: 44
Structures at risk: 50
Critical facilities at risk (number): 0
Farm/Ranch land impacted (acres): 601
Roadway(s) impacted (miles): 1.21

Scope of Study

The scope of the study would include: 1) hydrology and hydraulic modeling to confirm and further assess and quantify flood risk and exposure; 2) a preliminary assessment of the technical feasibility of modifying the dam; 3) development of preliminary construction and O&M costs to modify the dam; 4) conduct of a cost/benefit analysis; 5) evaluation of potential constraints to implementation of alternatives (e.g., environmental, water rights, regulatory, dam safety, constructability; and 6) comparative analysis of other flood reduction measures (e.g., additional property buyouts, raise elevation of affected roadways). The results of the study will be documented in a report with recommendations.

Related Goal(s)

6.1 Reduce the number of structures that are at high risk of repetitive loss through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways (e.g., low-water crossings, irrigation canals).

Estimated Study Cost

Cost: $100,000
Potential funding source(s): Federal/state grants and/or local funds

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

Title: Town of Boling Drainage Master Plan | ID#: 101000240

Sponsor (note if City or County): Wharton County | Commitment: ✓ Yes ☐ No

Study Type

☐ Emergency preparedness ✓ Floodplain modeling, mapping and risk assessment ✓ Feasibility study ✓ Preliminary project engineering

☐ Other

Problem Area

City: Boling | County: Wharton

Watershed name(s): Caney Creek

Tributary(ies):

HUC#(s): 120090402 | Stream miles (est.):

Drainage area: square miles, est: 0.94 | or acreage, est:

Social Vulnerability Index (SVI): 0.76

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other

Flood Risk Description

Town of Boling floods frequently due to poor existing drainage infrastructure. Known concerns include undersized roadside ditch sizes, and an undersized storm drain system. Exis based on available data and will be better defined as part of the study. Study results will include detailed assessments of the potential risk and potential flood risk reduction to be used in project.

Population at risk: 2,078 | Structures at risk: 410 | Critical facilities at risk (number): 12

Farm/Ranch land impacted (acres): 0 | Roadway(s) impacted (miles): 7.46

Scope of Study

The flood study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) to identify priority flood risk areas, preliminary design of improvements, risk reduction analy adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and c will include InfoWorks ICM and RAS 2D analysis of the urban center of Boling. It will also include a regional evaluation of flooding from Caney Creek.

Related Goal(s)

6.1 Reduce the number of structures and critical facilities that are at high risk of repetitive loss through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways (e.g., low-water crossings, irrigation canals).

Estimated Study Cost

Cost: 150,000 | Potential funding source(s): TWDB-FIF, CDBG, TWDB-FMA, TXDEM-BRIC

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

Title: Louise Drainage Master Plan | ID#: 101000241

Sponsor (note if City or County): Wharton County | Commitment: ✓ Yes ☐ No

Study Type

☐ Emergency preparedness ✓ Floodplain modeling, mapping and risk assessment ✓ Feasibility study ✓ Preliminary project engineering

☐ Other

Problem Area

City: Louise | County: Wharton

Watershed name(s): East Mustang Ck and Middle Mustang Ck

Tributary(ies):

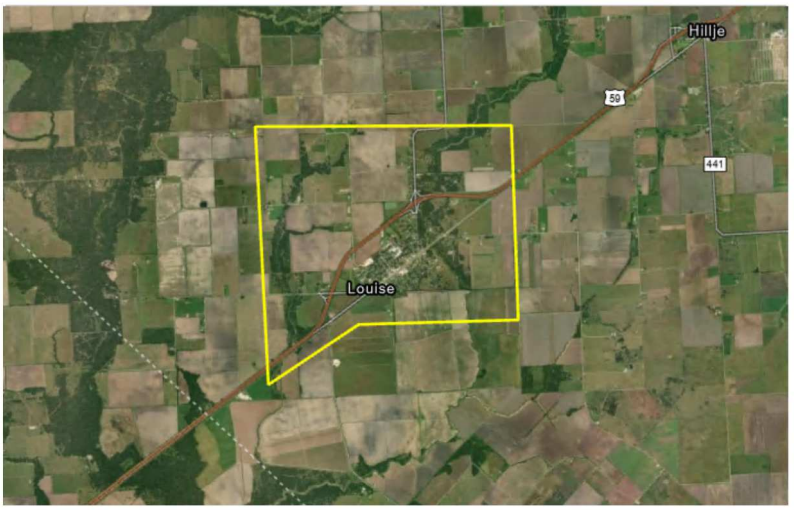
HUC#(s): 12100102 | Stream miles (est.):

Drainage area: square miles, est: 8.3 | or acreage, est:

Social Vulnerability Index (SVI): 0.49

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other



Flood Risk Description

Flood Risk from Middle Mustang Creek and East Mustang Creek. Local drainage flood risk.

Population at risk: 935 | Structures at risk: 524 | Critical facilities at risk (number): 3

Farm/Ranch land impacted (acres): 0 | Roadway(s) impacted (miles): 25.1

Scope of Study

The flood study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) to identify priority flood risk areas, preliminary design of improvements, risk reduction analy adverse impacts, preparation of cost estimates and a benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and c

Related Goal(s)

6.1 Reduce the number of structures and critical facilities that are at high risk of repetitive loss through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways (e.g., low-water crossings, irrigation canals).

Estimated Study Cost

Cost: 150,000 | Potential funding source(s): TWDB-FIF, CDBG, TWDB-FMA, TXDEM-BRIC

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

Title: Colorado River Levee Gate Structure Improvements
ID#: 101000243
Sponsor (note if City or County): Matagorda County Conservation Reclamation Dist
Commitment: ✓ Yes ☐ No

Study Type

☐ Emergency preparedness ✓ Floodplain modeling, mapping and risk assessment ✓ Feasibility study ✓ Preliminary project engineering
☐ Other

Problem Area

City: Bay City
County: Matagorda County
Watershed name(s): Caney Creek
Tributary(ies):
HUC#(s): 12090302
Stream miles (est.):
Drainage area: square miles, est:
or acreage, est:
Social Vulnerability Index (SVI): 0.82
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)
Other:

Flood Risk Description

City of Bay City is protected by the Colorado River East Levee. Many of the culverts under this levee have need of a gate structure or improved gate structure to protect the City from an extreme flood along the Colorado River.

Population at risk: 18,000
Structures at risk: 1,404
Critical facilities at risk (number): 8
Farm/Ranch land impacted (acres): 0
Roadway(s) impacted (miles): 11.1

Scope of Study

Conduct a study to evaluate benefit-costs and define construction cost for new gate structures along the Eastern Colorado River Levee near Bay City, TX. Study will include hydro modeling (with Atlas 14 rainfall), preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructibility).

Related Goal(s)

6.1 Reduce the number of structures and critical facilities that are at high risk of repetitive loss through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways (e.g., low-water crossings, irrigation canals).

Estimated Study Cost

Cost: 100,000
Potential funding source(s): TWDB-FIF, CDBG, TWDB-FMA, TXDEM-BRIC

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

Title: El Lobo Neighborhood Drainage Improvements ID#: 101000244

Sponsor (note if City or County): Wharton County Commitment: ✓ Yes ☐ No

Study Type

☐ Emergency preparedness ✓ Floodplain modeling, mapping and risk assessment ✓ Feasibility study ✓ Preliminary project engineering

☐ Other

Problem Area

City: County: Wharton

Watershed name(s): San Bernard River

Tributary(ies):

HUC#(s): 12090401 Stream miles (est.):

Drainage area: square miles, est: 2 or acreage, est:

Social Vulnerability Index (SVI): 0.81

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other:

Flood Risk Description

Flood risk from the San Bernard River exceeds local drainage capacity resulting in localized flooding in the El Lobo subdivision. Unsafe conditions limit neighborhood ingress/egre risk factors are based on available data and will be better defined as part of the study. Study results will include detailed assessments of the potential risk and potential flood risk reductio evaluating the project.

Population at risk: 592 Structures at risk: 148 Critical facilities at risk (number): 0

Farm/Ranch land impacted (acres): 0 Roadway(s) impacted (miles): 8.1

Scope of Study

Conduct a study to evaluate benefit-cost and define construction cost for levee improvements, channel improvements, and drainage improvements. Study will include hydrologic (with Atlas 14 rainfall), preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis potential constraints (environmental, utility conflicts, right-of-way needs, and constructibility).

Related Goal(s)

6.1 Reduce the number of structures and critical facilities that are at high risk of repetitive loss through the implementation of structural flood mitigation projects. 6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways (e.g., low-water crossings, irrigation canals).

Estimated Study Cost

Cost: 50,000 Potential funding source(s): TWDB-FIF, CDBG, TWDB-FMA, TXDEM-BRIC

Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca
REGIONAL FLOOD PLANNING GROUP
REGION 10

Title: Pecan Valley Phase 2 Preliminary Engineering Report ID#: 101000245

Sponsor (note if City or County): Wharton County Commitment: ✓ Yes ☐ No

Study Type

☐ Emergency preparedness ✓ Floodplain modeling, mapping and risk assessment ✓ Feasibility study ✓ Preliminary project engineering

☐ Other

Problem Area

City: County: Wharton

Watershed name(s): Colorado River

Tributary(ies):

HUC#(s): 12090302 Stream miles (est.):

Drainage area: square miles, est: 2.3 or acreage, est:

Social Vulnerability Index (SVI): 0.79

(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other:

Flood Risk Description

Flood Risk from local drainage as well as overflows from the Colorado River inundate county roads causing unsafe conditions for motorists using the roads for neighborhood ingre factors are based on available data and will be better defined as part of the study. Study results will include detailed assessments of the potential risk and potential flood risk reduction to evaluating the project.

Population at risk: 392 Structures at risk: 98 Critical facilities at risk (number): 0

Farm/Ranch land impacted (acres): 0 Roadway(s) impacted (miles): 2.9

Scope of Study

Conduct a study to evaluate benefit-cost and define construction cost for levee improvements, channel improvements, and drainage improvements. Study will include hydrologic (with Atlas 14 rainfall), preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimates and a benefit-cost-analysis potential constraints (environmental, utility conflicts, right-of-way needs, and constructibility).

Related Goal(s)

6.1 Reduce the number of structures and critical facilities that are at high risk of repetitive loss through the implementation of structural flood mitigation projects.

Estimated Study Cost

Cost: 100,000 Potential funding source(s): TWDB-FIF, CDBG, TWDB-FMA, TXDEM-BRIC