

# **APPENDIX C**

## **Fact Sheets**

### **Flood Management Evaluations**

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

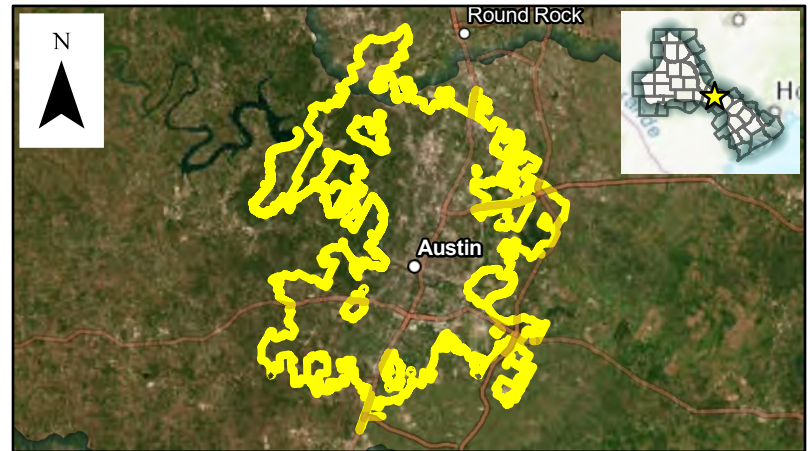
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

1D and 2D models are needed for the entire City to evaluate and design upgrades to the existing storm drain systems. The study will update existing 1D models based on new drainage criteria and data, perform QA/QC on previously completed storm drain models, develop new 1D storm drain models for previously unstudied systems, develop 2D system models for unstudied watersheds, and update 2D system models for previously completed 2D model studies.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

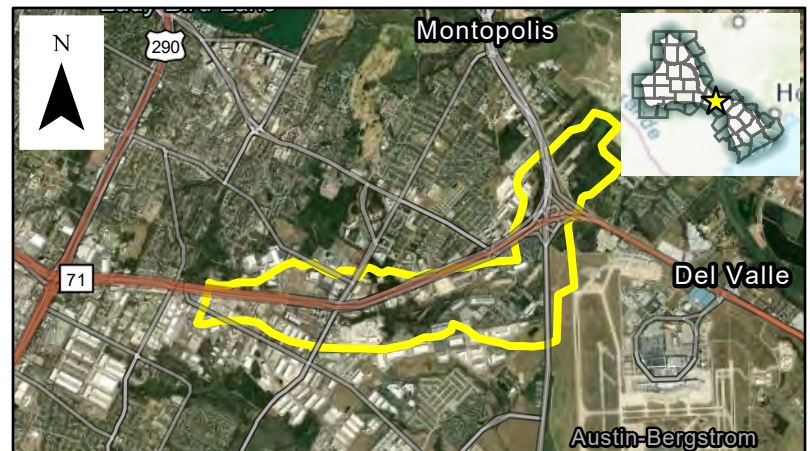
Title Dalton Lane Crossing Improvements Project ID# 101000202  
Sponsor (name of entity) Austin (Municipality) Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City Austin County Travis  
Watershed Carson Creek  
name(s)  
Tributary(ies) Carson Creek and Tributary 4  
HUC# 12090205 Stream miles (est.) 0.50  
Drainage area: square miles, est. 2.29 or acreage, est. 1,468  
Social vulnerability index 0.15  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The Carson Creek and Tributary 4 crossings at Dalton Lane near Hawkins Lane and Sherman Road are inundated by small, frequent storm events (less than 2-year event) leading to unsafe conditions for motorists. 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 57 Structures at risk 31 Critical facilities at risk 0  
Farm/Ranch land impacted (acres) 73 Roadway(s) impacted (miles) 3.13

### Scope of Study

Update existing study to evaluate the replacement of two low water crossings with two 3-span 150-foot long bridges, channel improvements upstream and downstream, and associated land acquisition to improve public safety and reduce road closures during small, frequent storm events. Study will update existing hydrologic and hydraulic models (with Atlas 14 rainfall) as needed to refine preliminary design and provide additional information including verifying no adverse impacts, updating the cost estimate, providing a benefit-cost-analysis, and verifying there are no potential constraints (environmental, utility conflicts, right-of-way needs, and constructability) that will prevent implementation. Preliminary flood risk reduction benefits identified include satisfying roadway compliance with City of Austin drainage criteria, reduction in Atlas 14 100-yr flood depths by up to 1-foot, reduction in inundated area by up to 8 acres upstream of the roadway, and removal of two structures from Atlas 14 100-yr flood through acquisition.

### 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 \$1,950,000 Potential funding source(s) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

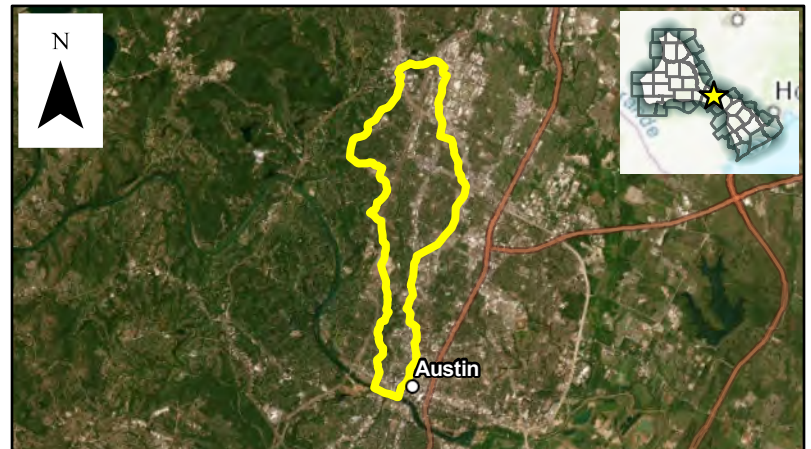
Title Shoal Creek - Nueces St Flood Risk Reduction Project ID# 101000204  
Sponsor (name of entity) Austin (Municipality) Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City Austin County Travis  
Watershed Town Lake  
name(s)  
Tributary(ies) Shoal Creek  
HUC# 12090205 Stream miles (est.) 0.00  
Drainage area: square miles, est 13.22 or acreage, est. 8,460  
Social vulnerability index 0.15  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

Shoal Creek has a history of flooding including the 1981 Memorial Day Flood that killed 13 people. More recently, the 2015 Memorial Day flood resulted in widespread flooding that impacted commercial and residential structures, and local street flooding. Residents have formally requested service from the City to address 25 locations of reported house flooding, 11 locations of reported yard flooding, and 11 locations of reported street flooding. 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 20,785 Structures at risk 653 Critical facilities at risk 1  
Farm/Ranch land impacted (acres) 52 Roadway(s) impacted (miles) 13.96

### Scope of Study

Update existing study to evaluate the construction of approximately 16,000 feet of upgraded storm drain pipe and numerous new storm drain inlets throughout the area, including a large tunnel which will extend along Nueces St from Martin Luther King Jr St to 4th St. The existing study includes hydrologic and hydraulic models (with Atlas 14 rainfall), verifying no adverse impacts, preparation of cost estimate and verifying there are no potential constraints (environmental, utility conflicts, right-of-way needs, and constructability) that will prevent implementation. The study will be updated to include the required benefit-cost-analysis.

### 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.

### Estimated Study Cost

Cost \$100,000 Potential funding source(s) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title **Waller Creek - Guadalupe St Flood Risk Reduction Project** ID# **101000205**  
Sponsor (name of entity) **Austin (Municipality)** Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City **N/A** County **Travis**  
Watershed **Town Lake**  
name(s)  
Tributary(ies) **Waller Creek**  
HUC# **12090205** Stream miles (est.) **0.00**  
Drainage area: square miles, est. **2.71** or acreage, est. **1,733**  
Social vulnerability index **0.15**  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

When the area of interest was developed, it appears an existing creek was covered/diverted to a small storm drain. The area has been identified as high priority due to street, yard, and structural flooding including the 2015 Memorial Day and 2015 Halloween floods. The City has logged flooding complaints for 30 residences and 14 streets in the Hyde Park neighborhood. Analysis of the project drainage area indicates there are a significant number of structures that experience flooding that have not reported flood complaints. 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 **1,532** Structures at risk **207** Critical facilities at risk **0**  
Farm/Ranch land impacted (acres) **0** Roadway(s) impacted (miles) **2.58**

### Scope of Study

Update existing study to evaluate the construction of approximately 28,000 linear feet of subsurface stormwater drains east of Guadalupe Street and west of Avenue G, between 33rd and 46th streets. The project also includes three new surface-level detention ponds near the Baker Center and in Adams-Hemphill Park with green stormwater infrastructure for water quality treatment; stream restoration using natural channel design for Waller Creek downstream of detention pond; underground stormwater detention structures around the former Baker Center; improvements to the outfall structures at Central Park Pond and Triangle Pond just west of Guadalupe Street; and related utility relocations throughout. The existing study includes hydrologic and hydraulic models (with Atlas 14 rainfall), verifying no adverse impacts, preparation of cost estimate and verifying there are no potential constraints (environmental, utility conflicts, right-of-way needs, and constructability) that will prevent implementation. The study will be updated to include the required benefit-cost-analysis.

### 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.

### Estimated Study Cost

Cost **\$150,000** Potential funding source(s) **TBD**

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a multi-box (2) culvert. The proposed improvements include an upgrade to the subject crossing. The existing road is a 2-lane road with an average daily traffic count of 917.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a corrugated metal pipe crossing. The proposed improvements include a multi-box (2) culvert. The existing road is a 2-lane road with an average daily traffic count of 341.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

There are multiple low water crossings that are undersized. The proposed improvements include installing multiple box culverts at each crossing. The existing road is a 2-lane road with an average daily traffic count of 115. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The road is a low water crossing with no method of conveyance other than over topping at this location. The proposed improvements include a box culvert-bridge. The existing road is a 2-lane road with an average daily traffic count of 841.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate the proposed 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

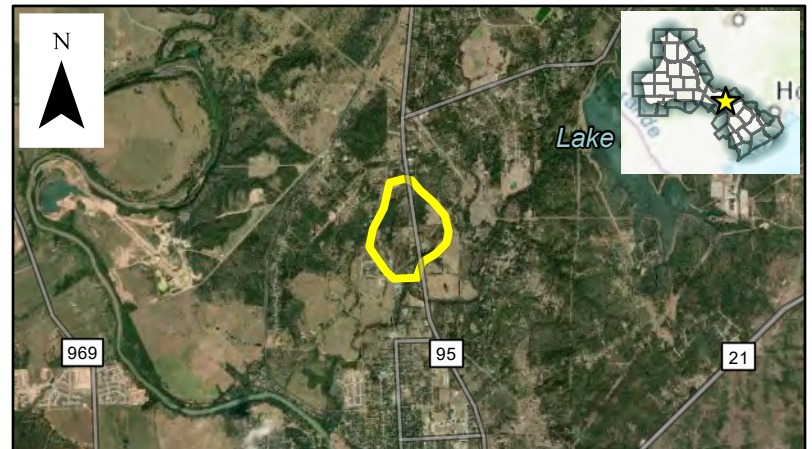
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a corrugated metal pipe. The proposed improvements include a box culvert replacement. The existing road is a 2-lane road with an average daily traffic count of 942.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

Clear Springs Lake is impounded by an earthen embankment dam with an earthen spillway. The spillway is eroding threatening downstream houses and potential breach. The dam does not appear to be regulated by the TCEQ due to size and volume and the existing flood risk is not well defined. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title Pecan Shores Subdivision ID# 101000009  
Sponsor (name of entity) Bastrop (County) Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City N/A County Bastrop  
Watershed Willow Creek - Colorado River  
name(s)  
Tributary(ies) Unnamed Tributary  
HUC# 12090301 Stream miles (est.) TBD  
Drainage area: square miles, est. 0.05 or acreage, est. 29  
Social vulnerability index 0.61  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other Voluntary buyout of homes in 100-year FP (48 homes)



### Flood Risk Description

There are up to 48 flood prone properties on/near Pecan Shores Drive that are within the 100-year floodplain and subject to repetitive loss.

Population at risk 31 Structures at risk 12 Critical facilities at risk 0  
Farm/Ranch land impacted (acres) 18 Roadway(s) impacted (miles) 0.43

### Scope of Study

The study will include hydrologic and hydraulic modeling (with Atlas 14) to identify/verify eligible property owners.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost \$150,000 Potential funding source(s) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

There are up to 22 flood prone properties on/near Hidden Shores Loop that are within the 100-year floodplain and subject to repetitive loss.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study will include hydrologic and hydraulic modeling (with Atlas 14) to identify/verify eligible property owners.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

There are up to 12 flood prone properties on/near Waters Edge Terrace Drive that are within the 100-year floodplain and subject to repetitive loss.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study will include hydrologic and hydraulic modeling (with Atlas 14) to identify/verify eligible property owners.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a multiple box culvert. The proposed improvements include upgrades to the existing crossing. The existing road is a 2-lane road with an average daily traffic count of 115.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a corrugated metal pipe crossing. The proposed improvements include a multi-box (2) culvert. The existing road is a 2-lane road with an average daily traffic count of 24.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. There does not appear to be an existing culvert or bridge. The proposed improvements include upgrades to the subject crossing. The existing road is a 2-lane road with an average daily traffic count of 65.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a corrugated metal pipe crossing. The proposed improvements include a multi-box (2) culvert. The existing road is a 2-lane road with an average daily traffic count of 230.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a multiple box culvert. The proposed improvements include an upgrade of the subject crossing. The existing road is a 2-lane road with an average daily traffic count of 11.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a single box culvert. The proposed improvements include a multi-box (3) culvert. The existing road is a 2-lane road with an average daily traffic count of 38.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a wooden bridge. The proposed improvements include a multi-box (2) culvert. The existing road is a 2-lane road with an average daily traffic count of 39.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing bridge. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a corrugated metal pipe. The proposed improvements include a multi-box (2) culvert. The existing road is a 2-lane road with an average daily traffic count of 398.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

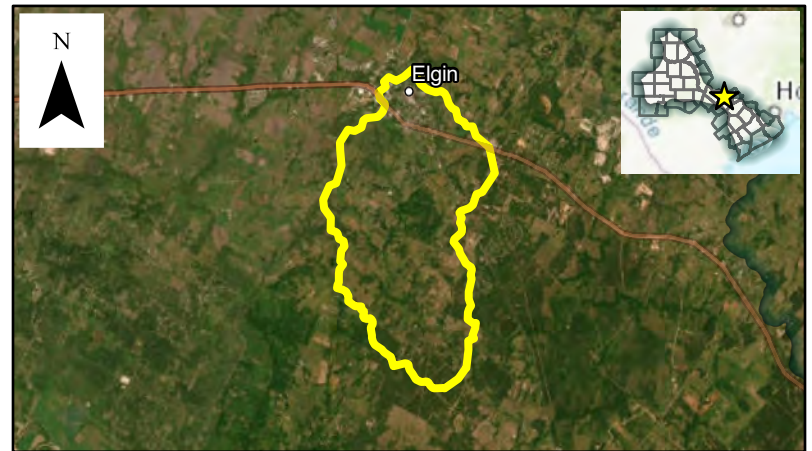
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a corrugated metal pipe. The proposed improvements include a multi-box (2) culvert-bridge. The existing road is a 2-lane road with an average daily traffic count of 251.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a corrugated metal pipe. The proposed improvements include a multi-box (2) culvert. The existing road is a 2-lane road with an average daily traffic count of 411.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title **FM 812 at Little Alum Creek** ID# **101000027**  
Sponsor (name of entity) **Bastrop (County)** Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City **N/A** County **Bastrop**  
Watershed **Alum Creek - Walnut Creek**  
name(s)  
Tributary(ies) **Little Alum Creek**  
HUC# **12090301** Stream miles (est.) **TBD**  
Drainage area: square miles, est. **1.88** or acreage, est. **1,201**  
Social vulnerability index **0.61**  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other **Roadway/Crossing Improvements & Channel Improvements**



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a bridge. The proposed improvements include construction of a 200 foot bridge and 2,200 feet of channel modifications. The existing main stem road is a 2-lane road with an average daily traffic count of 9,088. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk **69** Structures at risk **25** Critical facilities at risk **0**  
Farm/Ranch land impacted (acres) **60** Roadway(s) impacted (miles) **0.31**

### Scope of Study

Conduct a study to evaluate upsizing the existing low water crossings and channel modifications. 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)

6.1 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) **TBD**

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title **FM 812 at Alum Creek South** ID# **101000028**  
Sponsor (name of entity) **Bastrop (County)** Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City **N/A** County **Bastrop**  
Watershed **Alum Creek - Walnut Creek**  
name(s)  
Tributary(ies) **Alum Creek**  
HUC# **12090301** Stream miles (est.) **TBD**  
Drainage area: square miles, est. **1.21** or acreage, est. **772**  
Social vulnerability index **0.61**  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other **Roadway/Crossing Improvements & Channel Improvements**



### Flood Risk Description

The existing crossings are undersized and overtop. The existing crossing is a bridge. The proposed improvements include construction of a 100 foot bridge and 1,700 feet of channel modifications. The existing main stem road is a 2-lane road with an average daily traffic count of 9,088. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk **2** Structures at risk **1** Critical facilities at risk **0**  
Farm/Ranch land impacted (acres) **28** Roadway(s) impacted (miles) **0.08**

### Scope of Study

Conduct a study to evaluate upsizing the existing low water crossings and channel modifications. 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 **\$100,000** Potential funding source(s) **TBD**

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing channel from upstream of HWY 95 to the Colorado River is undersized threatening multiple road crossings as well as houses on Magnolia Street, Mesquite street, and in the Bastrop Estates Mobile Home Park. The city has identified channel benching (approx. 4,430 feet) to increase conveyance as a potential solution. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood-risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

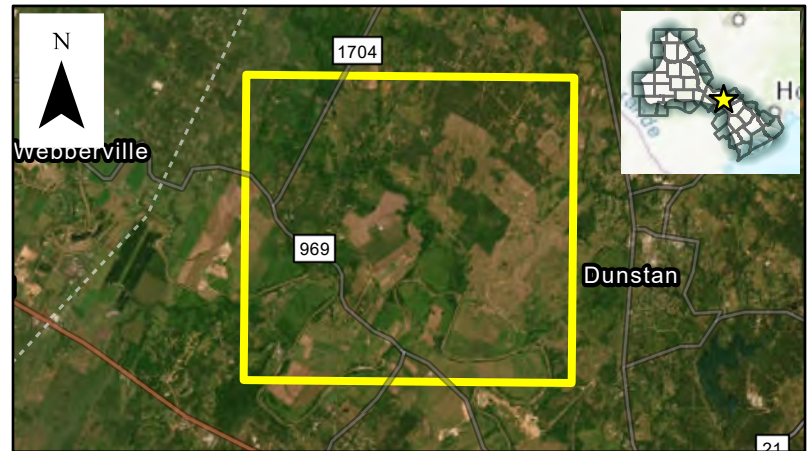
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

Additions to the watershed would require improvements to the existing undersized drainage system in the JC Madison Addition. The sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title Alum Creek - Tributary 8, Bowie Drive ID# 101000125  
Sponsor (name of entity) Bastrop (County) Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City N/A County Bastrop  
Watershed Alum Creek  
name(s)  
Tributary(ies) Price Creek  
HUC# 12090301 Stream miles (est.) TBD  
Drainage area: square miles, est. 0.67 or acreage, est. 428  
Social vulnerability index 0.61  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other Roadway/Crossing Improvements



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing consists of multiple corrugated metal pipes. The proposed improvements include replacing the pipes with a larger multi-box culvert. The existing road is a 2-lane road with an average daily traffic count of 320. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk 0 Structures at risk 0 Critical facilities at risk 0  
Farm/Ranch land impacted (acres) 6 Roadway(s) impacted (miles) 0.02

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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 \$100,000 Potential funding source(s) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

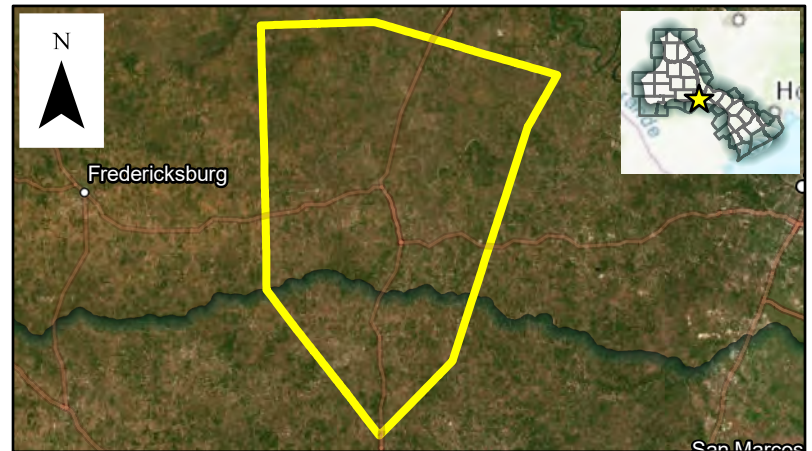
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The City has identified the need to develop/update an evacuation plan for the safety of the community.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Evaluate the type of flood early warnings system (flashers, barricades, signage) and communication systems requirements for the installation and long-term maintenance of the system. Include hydrologic and hydraulic modeling (if needed) including depth, duration and frequency of flooding, daily traffic counts, and length of detour (minutes).

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

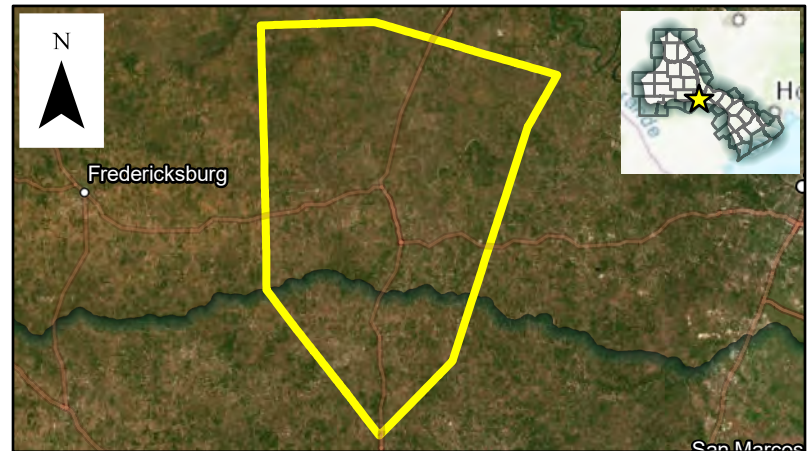
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The Sponsor has indicated there are multiple low water crossings throughout the County that are undersized and overtop. Proposed improvements include upsizing the culverts. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water crossings. 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing bridge is undersized and overtops. The proposed improvements will upgrade the bridge based on the Texas Department of Transportation Hydraulic Design Manual. The existing road is a 2-lane road with an average daily traffic count of 175. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate the 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing roadside ditch and culvert are undersized resulting in localized flooding and roadway overtopping. Proposed improvements include improvements to the ditch and culvert. The existing main stem road is a 2-lane road with an average daily traffic count of 5,804. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

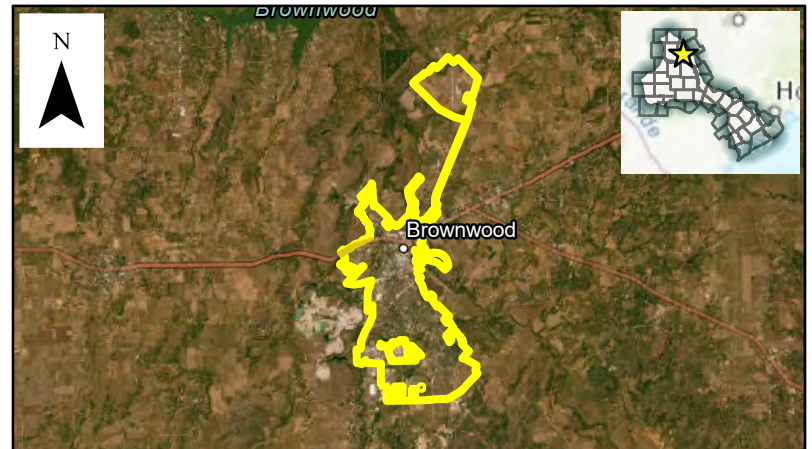
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing floodplain maps are outdated and do not reflect current flood risk.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) and will develop new floodplain maps that reflect current flood risk.

### Related Goal(s)

3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data. 3.3 Increase the number of entities that have digital flood insurance rate maps (DFIRMs) that reflect current conditions.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The area of concern along Willis Creek has insufficient channel capacity and undersized bridge/culvert crossings. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study will build upon and update previously conducted flood risk reduction studies. Study will include hydrologic and hydraulic modeling, 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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

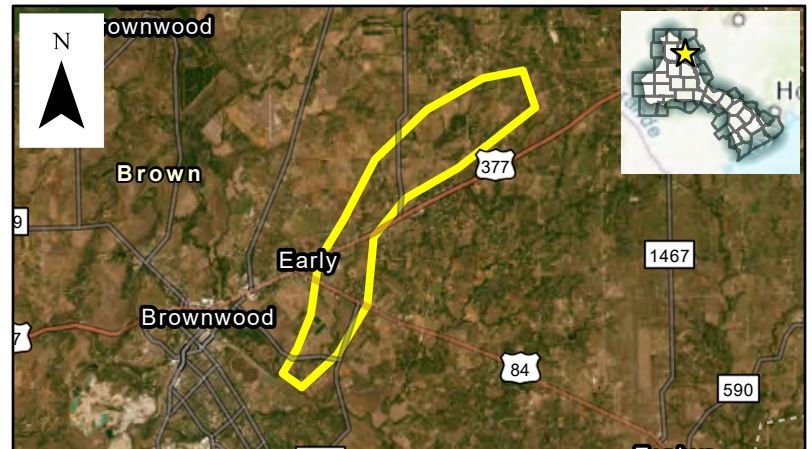
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The area has multiple local drainage problems and portions of the region are at risk of flooding. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

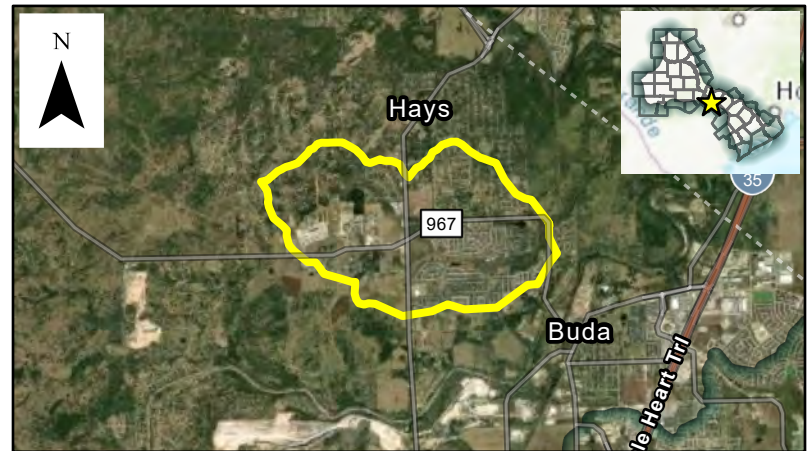
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing culvert on RM967 near Garlic Creek is undersized and the roadway overtops. The existing box culvert was not upgraded when the road was reconstructed. The study will evaluate the crossing for possible upsizing of the culvert. The existing road is a 2-lane road with an average daily traffic count of 17,400. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing culvert crossings. 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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

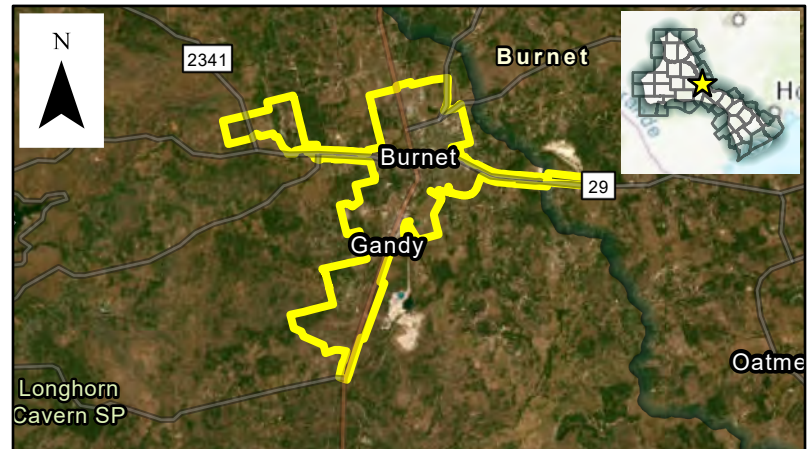
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)  
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor has identified the need to develop/update an emergency action plan for the safety of the community.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Evaluate the type of flood early warnings system (flashers, barricades, signage) and communication systems requirements for the installation and long-term maintenance of the system. Include hydrologic and hydraulic modeling (if needed) including depth, duration and frequency of flooding, daily traffic counts, and length of detour (minutes).

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The plant is located within, and may be impacted by, the 100-year floodplain of Hamilton Creek and/or Headwaters of Hamilton Creek. The area has existing local drainage problems and has experienced excessive flow depth and velocity. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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 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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

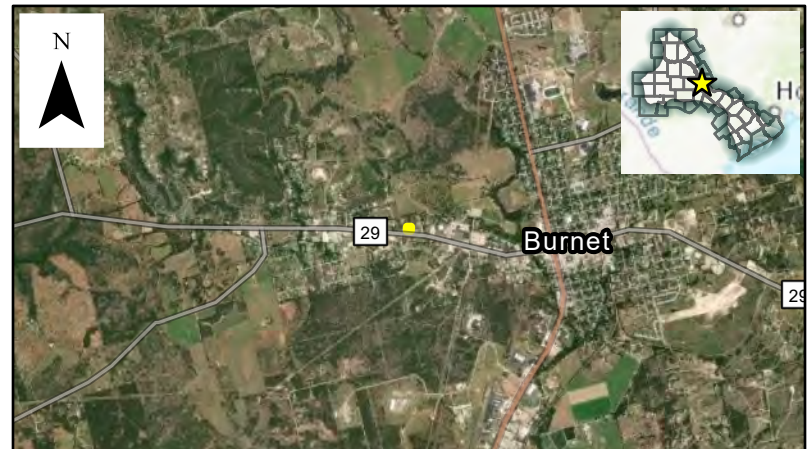
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The area has local drainage problems and is at risk of flooding. The building is located adjacent to the 100-year floodplain and has experienced flooding. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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 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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

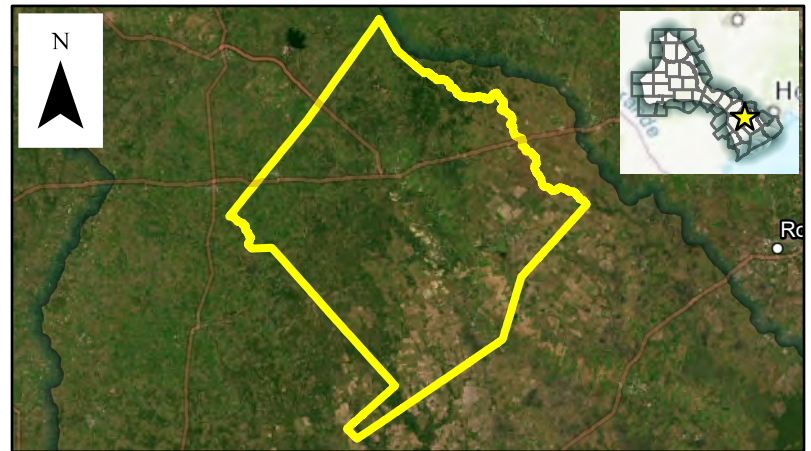
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The subdivision has multiple local drainage problems and portions of the subdivision are at risk of flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) to identify priority flood risk areas, 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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

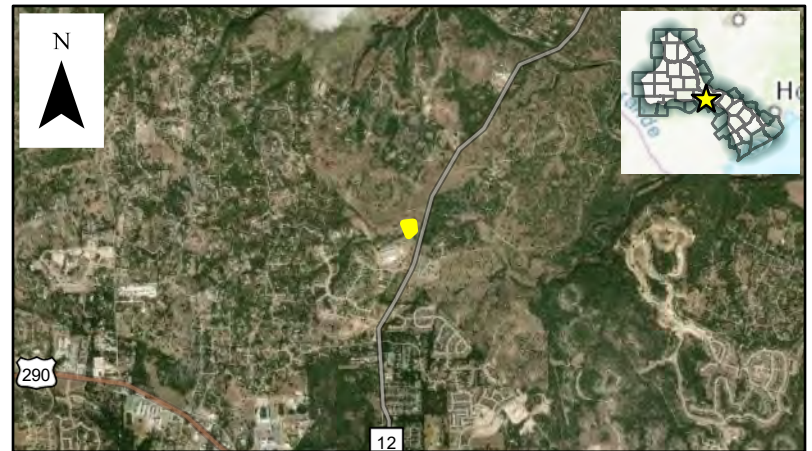
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

Dripping Springs Park Dam is a small earthen embankment dam with earthen spillway upstream of HWY 12. The dam does not appear to be regulated by the TCEQ due to size and volume and the existing flood risk is not well defined. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles. The Sponsor has identified the need to work with FEMA to evaluate and remediate the dam.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

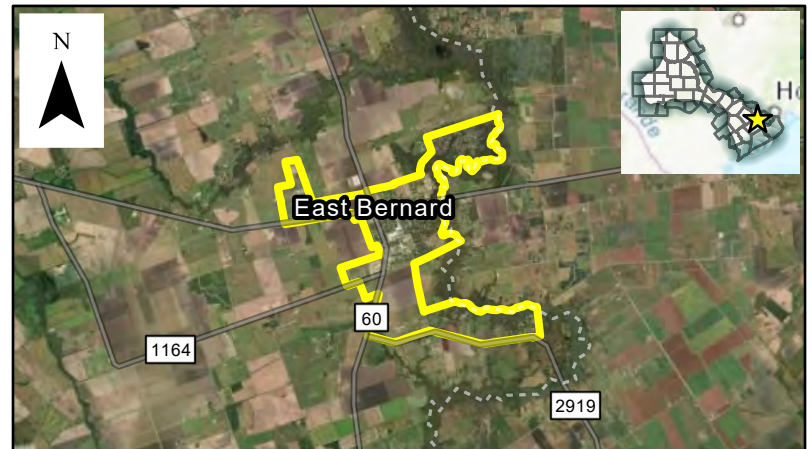
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing floodplain maps are outdated and do not reflect current flood risk.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The Citywide flood study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) and will develop new floodplain maps that reflect current flood risk.

### Related Goal(s)

3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data. 3.3 Increase the number of entities that have digital flood insurance rate maps (DFIRMs) that reflect current conditions.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing/bridge class structure is a multi-box (2) culvert-bridge. The proposed improvements include upgrades to the subject crossing. The existing road is a 2-lane road with an average daily traffic count of 152.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing culvert-bridge. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles. Sponsor has indicated targeted buyouts area also a potential outcome.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title **Wastewater Treatment Plant Floodproofing** ID# **101000127**  
Sponsor (name of entity) **Edna (Municipality)** Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City **Edna** County **Jackson**  
Watershed **Post Oak Branch - Dry Creek**  
name(s)  
Tributary(ies) **Dry Creek, Post Oak Branch**  
HUC# **12100101,12100102** Stream miles (est.) **TBD**  
Drainage area: square miles, est. **4.06** or acreage, est. **2,601**  
Social vulnerability index **0.51**  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other **Local Plans & Regulations**



### Flood Risk Description

The wastewater treatment plant experiences flooding during low frequency rain events. The Sponsor has identified the need to floodproof the existing wastewater treatment plant. Study results will provide a more detailed assessment of existing flood and potential flood risk. Study will determine if flood proofing will provide mitigation required or if structural mitigation will be required.

Population at risk **2,863** Structures at risk **1,223** Critical facilities at risk **2**  
Farm/Ranch land impacted (acres) **137** Roadway(s) impacted (miles) **26.26**

### Scope of Study

If structural flood mitigation, other than flood proofing, is required then the 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost **\$200,000** Potential funding source(s) **TBD**

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed   
name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The area has multiple local drainage problems and portions of the region are at risk of flooding. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### 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 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The plant is located within, and may be impacted by, the 100-year floodplain of Post Oak Branch. The area has existing local drainage problems and has experienced excessive flow depth and velocity. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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 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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. There are numerous structures in the 100-year floodplain, particularly in the northeast and southwest sections of the city. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate potential detention alternatives. 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The City has identified the need to generate digital maps to overlay and display all known hazards for the purpose of notifying and informing residents.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Collect known hazard maps and create a digital map (geographic information system map) for the purpose of education. The study will include evaluating options for sharing the maps publicly and developing an ongoing maintenance/update cycle.

### Related Goal(s)

1.1 Increase the number of public outreach and educational communications and activities conducted by the RFPG to improve awareness of flood hazards and benefits of flood planning in the flood planning region.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

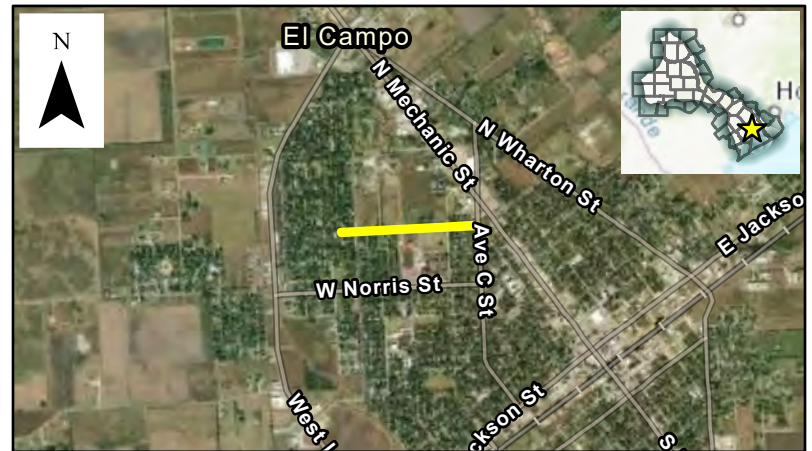
Title Pecan Street ID# 101000100  
Sponsor (name of entity) El Campo (Municipality) Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City El Campo County Wharton  
Watershed Tres Palacios River - Frontal Tres Palacios Bay  
name(s)  
Tributary(ies) Unnamed Tributary  
HUC# 12100401 Stream miles (est.) TBD  
Drainage area: square miles, est. 0.00 or acreage, est. 3  
Social vulnerability index 0.81  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other Drainage System Improvements



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street and local flooding. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk 0 Structures at risk 0 Critical facilities at risk 0  
Farm/Ranch land impacted (acres) 0 Roadway(s) impacted (miles) 0.00

### Scope of Study

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)

6.1 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) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street and local flooding. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

El Campo was flooded severely in 2004 and the city of El Campo has been working to resolve issues. US 59 By-Pass acts like a dam holding flood waters back into town. The area has multiple local drainage problems including local street floods with excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

The master plan completed for the City of El Campo in 2004 and needs to be updated. Study will include a drainage master plan for the urban center of El Campo using InfoWorks ICM and a restudy of upper Blue Creek using HEC RAS 1D/2D. This also includes Tres Palacios Tributary 6 Channel improvements and Regional Detention. Study scope will include hydrologic and hydraulic modeling (with Atlas14 rainfall), preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimate and benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The sponsor has indicated the existing stormwater infrastructure in the study area (northeastern part of the City) is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate the study area. 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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title Storm Water Detention at Morris Park ID# 101000156

Sponsor (name of entity) Elgin (Municipality) Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City Elgin County Bastrop

Watershed Little Sandy Creek  
name(s)

Tributary(ies) Unnamed Tributary

HUC# 12090301 Stream miles (est.) TBD

Drainage area: square miles, est 0.17 or acreage, est. 107

Social vulnerability index 0.61

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

Other Regional Detention



### Flood Risk Description

The City has identified the need for additional stormwater storage to reduce the flood risk to the surrounding areas. The sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk 0 Structures at risk 0 Critical facilities at risk 0

Farm/Ranch land impacted (acres) 0 Roadway(s) impacted (miles) 0.00

### Scope of Study

Conduct a study to evaluate the area. 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)

6.1 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 \$150,000 Potential funding source(s) TBD



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

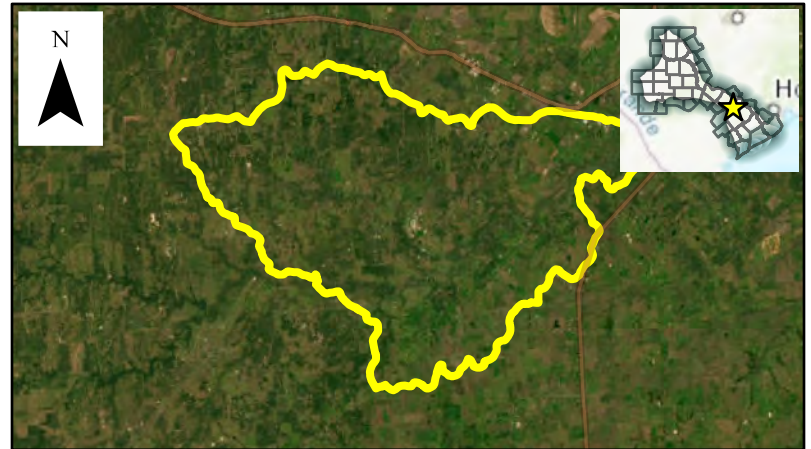
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

There are multiple flood prone properties that are within the 100-year floodplain may be subject to repetitive loss.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Study will include hydrologic and hydraulic modeling (with Atlas 14) to identify/verify eligible property owners and if the properties should be elevated or removed.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The wastewater treatment plant experiences flooding during low frequency rain events. The Sponsor has identified the need to floodproof the existing wastewater treatment plant. Study results will provide a more detailed assessment of existing flood and potential flood risk. Study will determine if flood proofing will provide mitigation required or if structural mitigation will be required.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

If structural flood mitigation, other than flood proofing, is required then the 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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed  name(s)

Tributary(ies)

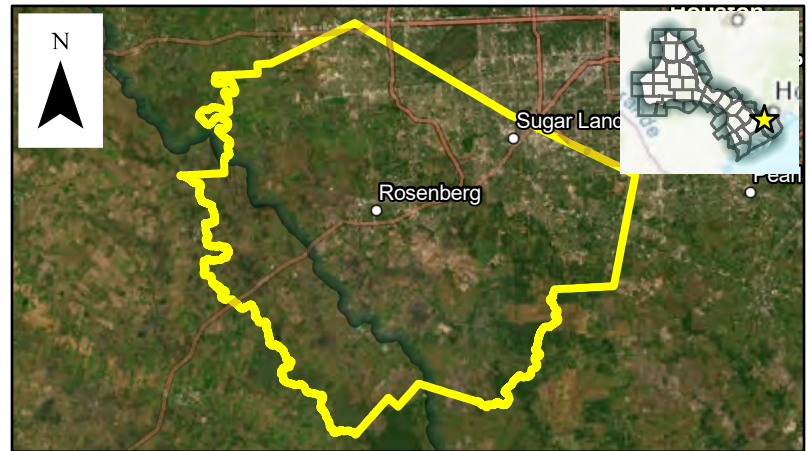
HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The city has identified multiple roadway crossings that overtop and where structural improvements are not feasible. Proposed study will identify priority crossings to receive flood warning systems or other safety improvements.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Evaluate the type of flood early warnings system (flashers, barricades, signage) and communication systems requirements for the installation and long-term maintenance of the system. Include hydrologic and hydraulic modeling (if needed) including depth, duration and frequency of flooding, daily traffic counts, and length of detour (minutes).

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a multi-box (2) crossing. The proposed improvements include channels and drop structures. The existing road is a 2-lane road with an average daily traffic count of 510. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

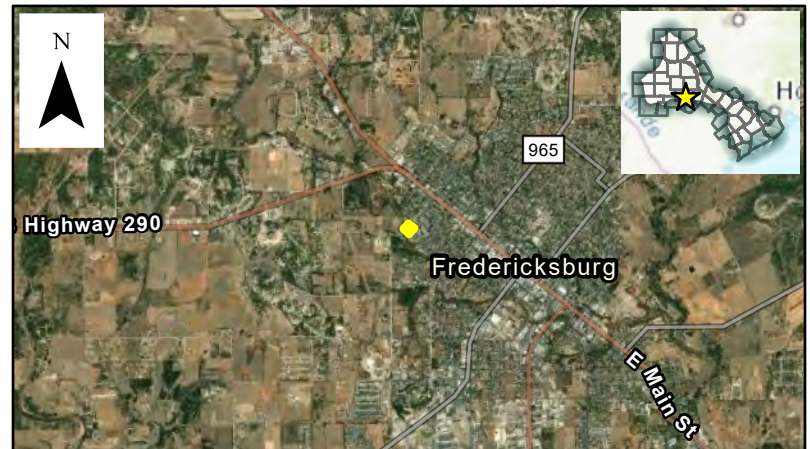
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

There is a lack of conveyance from Acorn Street to Barons Creek. Stormwater runs off public right-of-way through private property and is creating local flooding issues as well as eroding the left bank of the Creek. The existing risk indicators are based on available data and will be better defined as part of the study. Study results would provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The storm sewer system and curb inlets need to be upgraded to include two 36" RCs. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

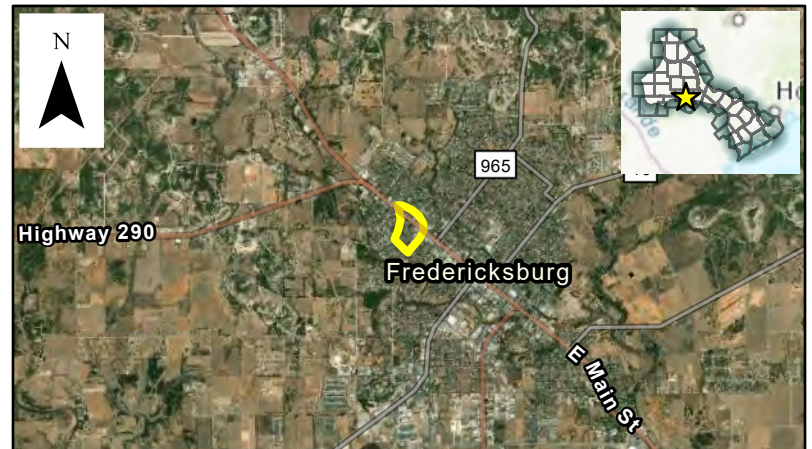
Title Edison & Creek Street ID# 101000043  
Sponsor (name of entity) Fredericksburg (Municipality) Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City Fredericksburg County Gillespie  
Watershed Pedernales  
name(s)  
Tributary(ies) Unnamed Tributary  
HUC# 12090206 Stream miles (est.) 0.25  
Drainage area: square miles, est. 0.05 or acreage, est. 32  
Social vulnerability index 0.1  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other Roadway/Crossing Improvements



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a multi-box (2) culvert. The proposed improvements include upgrades to the subject crossing. The existing road is a 2-lane road with an average daily traffic count of 117.

Population at risk 0 Structures at risk 0 Critical facilities at risk 0  
Farm/Ranch land impacted (acres) 0 Roadway(s) impacted (miles) 0.00

### 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)

6.1 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) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

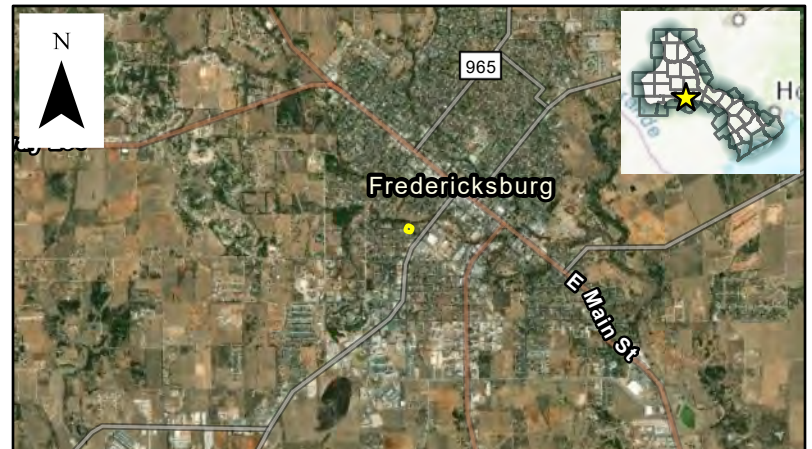
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

There is a lack of conveyance from Park Street to Barons Creek. Stormwater runs off public right-of-way through private property and is creating local flooding issues as well as eroding the left bank of the Creek. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

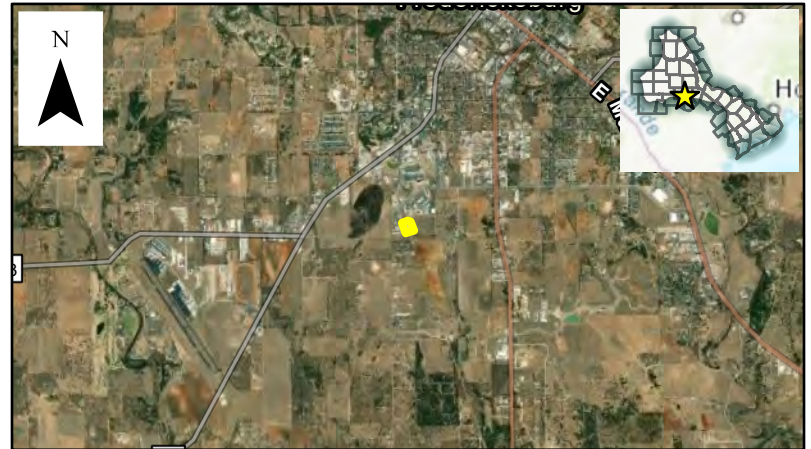
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

There is existing erosion along the Pedernales River Tributary 2 near the City's Emergency Management System building that is threatening utilities servicing the building and nearby residential structures. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a corrugated metal pipe crossing. The proposed improvements include a multi-pipe (2) culvert. The existing road is a 2-lane road with an average daily traffic count of 265. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

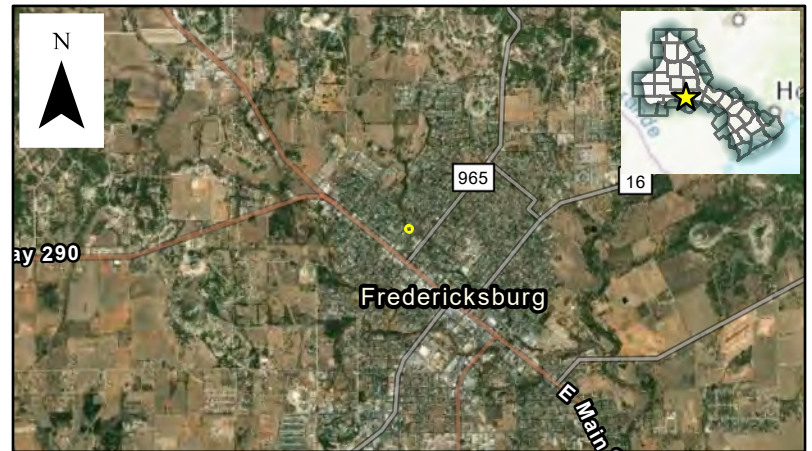
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing is a single pipe culvert. The proposed improvements include redesigning the intersection and installing FEWS. The existing road is a 2-lane road with an average daily traffic count of 265. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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)

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

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title Schubert Low Water Crossing ID# 101000054  
Sponsor (name of entity) Fredericksburg (Municipality) Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City Fredericksburg County Gillespie  
Watershed Barons Creek  
name(s)  
Tributary(ies) Unnamed Tributary  
HUC# 12090206 Stream miles (est.) TBD  
Drainage area: square miles, est. 2.43 or acreage, est. 1,556  
Social vulnerability index 0.1  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other Roadway/Crossing Improvements & Channel Improvements



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing consists of a single pipe culvert. The proposed improvements include lowering the channel and adding drop structures and installing five 9'x5' box culverts. The existing road is a 2-lane road with an average daily traffic count of 269. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk 68 Structures at risk 44 Critical facilities at risk 0  
Farm/Ranch land impacted (acres) 112 Roadway(s) impacted (miles) 0.00

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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 \$50,000 Potential funding source(s) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

Town Creek is eroding on the downstream side of Orange Street. Localized scour is occurring at the outfall and along this steeper section of the channel threatening existing utilities. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The storm sewer system needs to be created to capture flow with curb/drop inlets to mitigate flows. The Sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

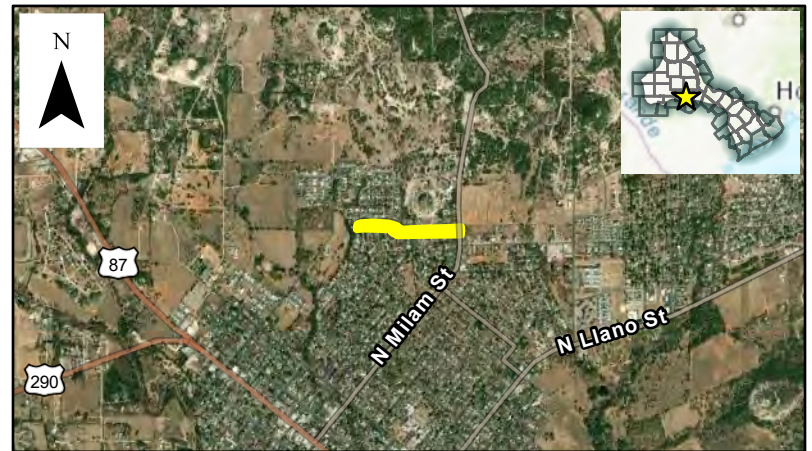
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

Drainage system along Cross Mountain West is undersized and the Sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The area of concern lacks a storm drain system and stormwater is conveyed via streets. The area is subject to localized flooding and channel erosion. The city has identified local drainage improvements including adding curbs, constructing a new channel, increasing the capacity of an existing pond, and replacing the pond outlet structure. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The proposed improvements include improving the channel, raising the road, and adding multi-box (6) culvert. The existing road is a 2-lane road with an average daily traffic count of 265. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate the area. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

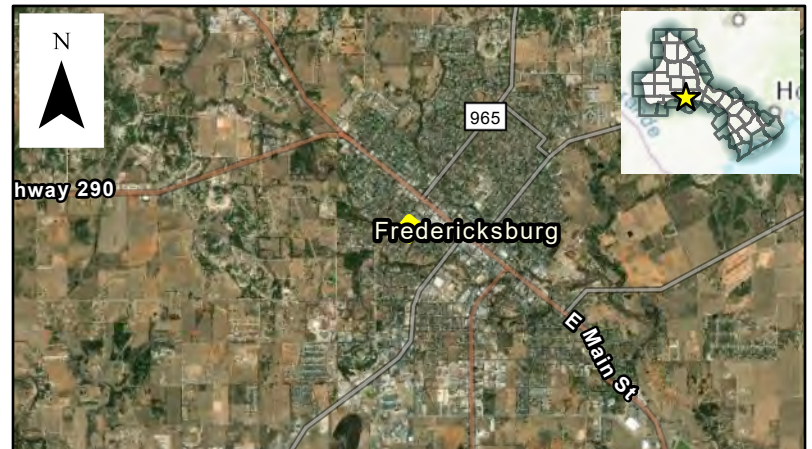
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

Creek Street overtops by approximately 11 feet during the 100-year event leading to unsafe conditions for motorists and potential local flood risk.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate replacing/upgrading the existing crossing repairing an existing road 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing road is a 2-lane road with an average daily traffic count of 9,535.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate replacing/upgrading the existing crossing repairing an existing road 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The current facility is located within the 100-year floodplain. The study will investigate possible sites and cost for relocation and may include the need to extend floodplain models upstream to verify the new location is outside the floodplain.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study will include hydrologic and hydraulic modeling (with Atlas 14) to identify/verify the most appropriate location for this development.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The current facility is located adjacent to the 100-year floodplain. The study will investigate the cost level of effort for hardening and the addition of a safe room.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

2.1 Increase the number of communities with warning and emergency response capabilities, or which participate in regional flood warning systems (e.g., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger. 5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

REGION 10

### Study Type

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

### Problem Area

City  County

Watershed   
name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The area of concern along Devers Creek has insufficient channel capacity and undersized bridge/culvert crossings. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Conduct a study to evaluate the area. 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)

6.1 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The area has multiple local drainage problems and portions of the region are at risk of flooding. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

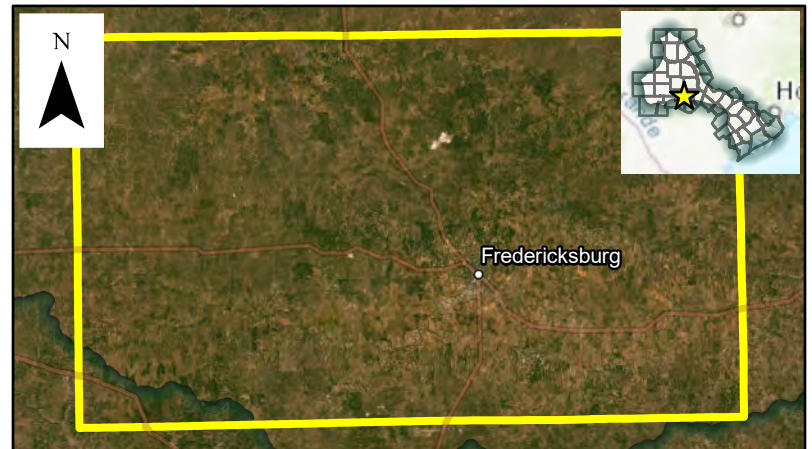
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing floodplain maps are outdated and do not reflect current flood risk.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The flood study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) and will develop new floodplain maps that reflect current flood risk.

### Related Goal(s)

3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data. 3.3 Increase the number of entities that have digital flood insurance rate maps (DFIRMs) that reflect current conditions.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

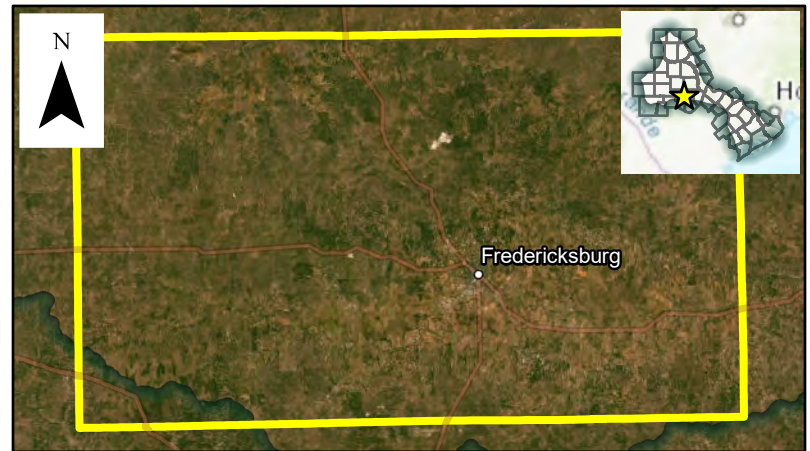
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing 4 crossings are undersized and overtop. The proposed improvements include replacing the low water crossing with bridges. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate the area. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

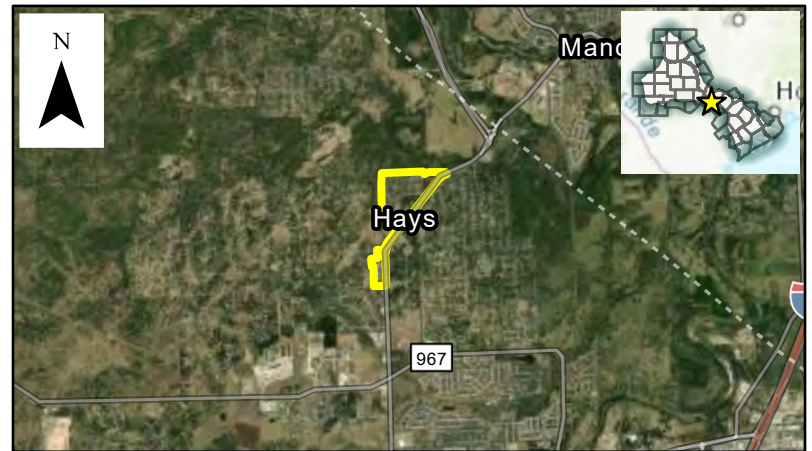
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The tributary to Bear Creek runs through the southern and northern limits of the City and there are multiple houses adjacent to the 100-year floodplain that may be at risk of flooding. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The flood study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) and may develop new floodplain maps that reflect current flood risk.

### Related Goal(s)

3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data. 3.3 Increase the number of entities that have digital flood insurance rate maps (DFIRMs) that reflect current conditions.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

There are at least 38 flood prone properties that are within the 100-year floodplain that may be subject to repetitive loss.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study will include hydrologic and hydraulic modeling (with Atlas 14) to identify/verify eligible property owners and if the properties should be elevated or removed.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 5.2 Increase the acreage of publicly protected open space to reduce future impacts of flooding.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The southern portion of the study area is located in the 100-year floodplain of Dry Creek and multiple structures are at risk. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall), and may include 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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

CR480 runs parallel to Matagorda Bay and is threatened by erosion. The road serves as one of the primary means of ingress/egress to several residential areas in southern Jackson County. The proposed improvements include construction of a wall to protect and strengthen the roadway. The existing road is a 2-lane road with an average daily traffic count of 36. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

Lake Texana is a large earthen embankment dam with a multiple-gate concrete spillway that is traversed by FM 3131. The dam has limited ability to quickly deploy/install stop-logs in front of the gates in an emergency and has identified the need to develop an emergency stop log deployment system. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) to determine how stop log installation could impact dam operations, 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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

There is an existing erosion control structure that is failing. Loss of the structure would result in a threat to existing infrastructure and negative environmental impacts due to erosion. 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  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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

### 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.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

There is an existing erosion control structure that is failing. Loss of the structure would result in a threat to existing infrastructure and negative environmental impacts due to erosion. 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  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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

### 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.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

There is an existing erosion control structure that is failing. Loss of the structure would result in a threat to existing infrastructure and negative environmental impacts due to erosion. 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  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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

### 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.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed   
name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

There is an existing erosion control structure that is failing. Loss of the structure would result in a threat to existing infrastructure and negative environmental impacts due to erosion. 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  Structures at risk  Critical facilities at risk

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

### Scope of Study

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

### 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.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title Jackson County Phase 2 DMP ID# 101000209

Sponsor (name of entity) Jackson (County) Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City N/A County Jackson

Watershed Navidad, Central Matagorda Bay, West Matagorda Bay  
name(s)

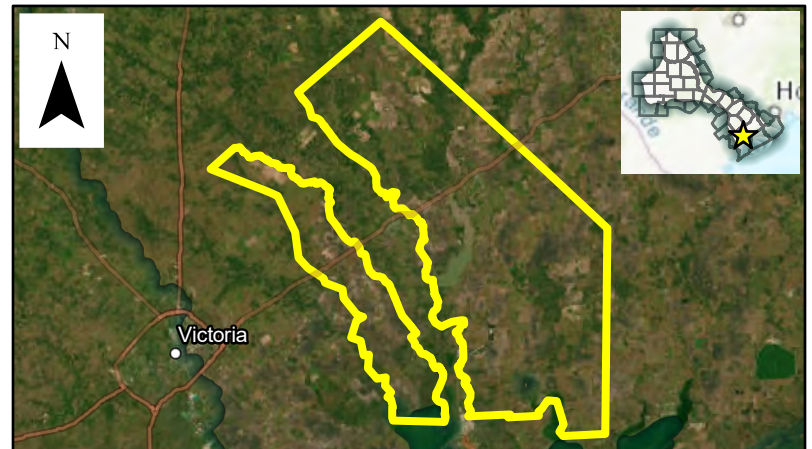
Tributary(ies) Brushy Creek, Cox Creek, Devers Creek, Dry Creek East

HUC# 12100402,12100101 Stream miles (est.) 318.00

Drainage area: square miles, est 700.14 or acreage, est. 448,087

Social vulnerability index 0.599  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other



### Flood Risk Description

The county has suffered extreme flooding from recent events such as the floods of 1998, 2004, and 2021 floods. The area has multiple local drainage problems and portions of the region are at risk of flooding. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk 1,317 Structures at risk 717 Critical facilities at risk 1

Farm/Ranch land impacted (acres) 58,759 Roadway(s) impacted (miles) 58.84

### Scope of Study

This study would include all FEMA streams east and west of the Lavaca watershed. Study scope will include hydrologic and hydraulic modeling (with Atlas14 rainfall). If potential projects are identified the study may include preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimate and benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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 \$4,000,000 Potential funding source(s) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

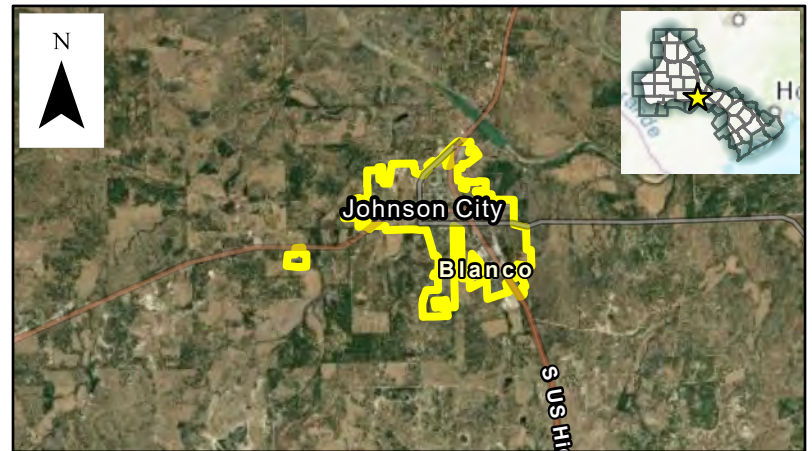
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The City has multiple local drainage problems and portions of the City are at risk of flooding from the Pedernales River, Flat Creek, Town Creek, and Deer Creek. The sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The Citywide study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) to identify priority flood risk areas, 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

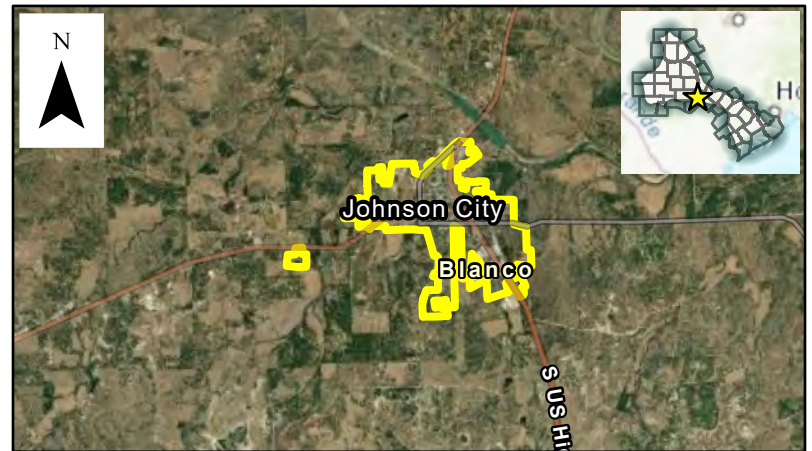
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing floodplain maps are outdated and do not reflect current flood risk.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) and will develop new floodplain maps that reflect current flood risk.

### Related Goal(s)

3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data. 3.3 Increase the number of entities that have digital flood insurance rate maps (DFIRMs) that reflect current conditions.

### Estimated Study Cost

Cost  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossings are undersized and overtop. The proposed improvements include widening roadside ditches and upsizing the existing cross culverts. The existing road is a 4-lane highway with an average daily traffic count of 18,407. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing culvert crossings. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

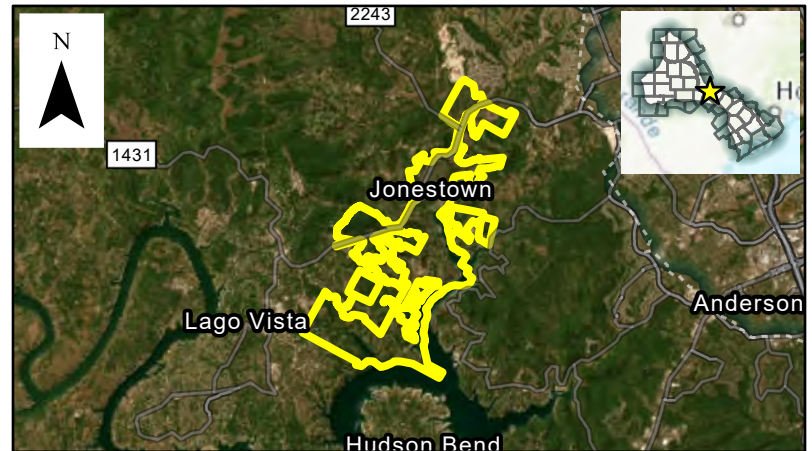
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor's evacuation plan(s) are out of date and need to be updated to assist with emergency coordination during a flood event.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Coordinate with agencies and local governments as necessary to develop/update the evacuation plan.

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

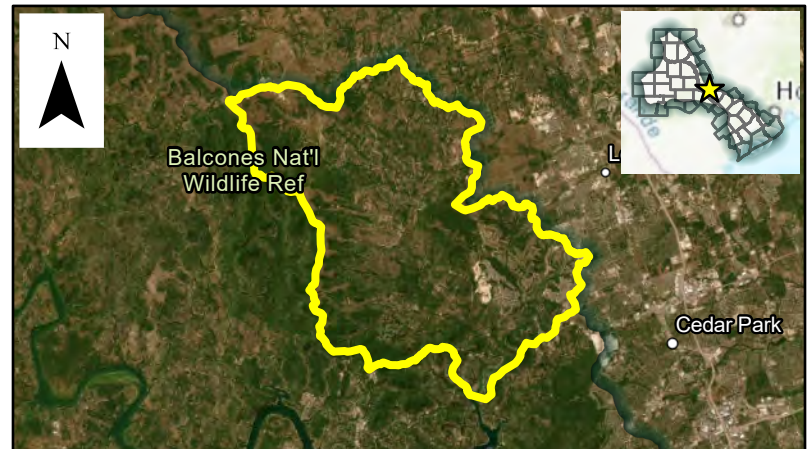
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk during large storm events. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles. Sponsor has indicated targeted buyouts are also a potential outcome.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed   
name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The existing crossing is undersized and overtops. There are multiple houses upstream of the crossing that appear to be impacted by backwater flooding. The existing crossing consists of multiple corrugated metal pipes. The proposed improvements include upsizing the crossing with a bridge. The existing road is a 2-lane road with an average daily traffic count of 504. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

There is at least one flood prone property located within the 100-year floodplain of Lake Travis in the Cross Street Area that is subject to repetitive loss. The City would like to conduct an analysis to quantify the total number of structures in the 100-year floodplain that may be subject to repetitive loss.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study will include hydrologic and hydraulic modeling (with Atlas 14) to identify/verify eligible property owners and if the properties should be elevated or removed.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 5.2 Increase the acreage of publicly protected open space to reduce future impacts of flooding.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The City has identified the need to dredge Lake Jackson to improve hydraulics and increase storage capacity. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

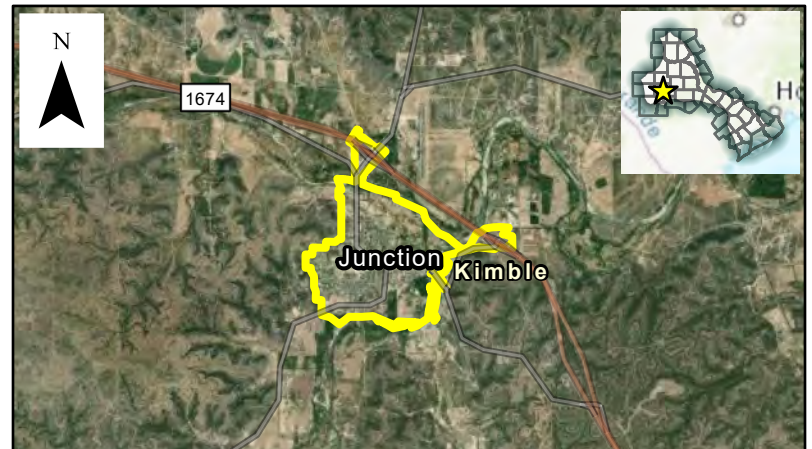
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The City has identified numerous erosion locations along the Llano River impacting Lake Junction and will undertake a study to develop and implement projects to prevent erosion. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Study will include hydrologic and hydraulic modeling, 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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed name(s)

Tributary(ies)

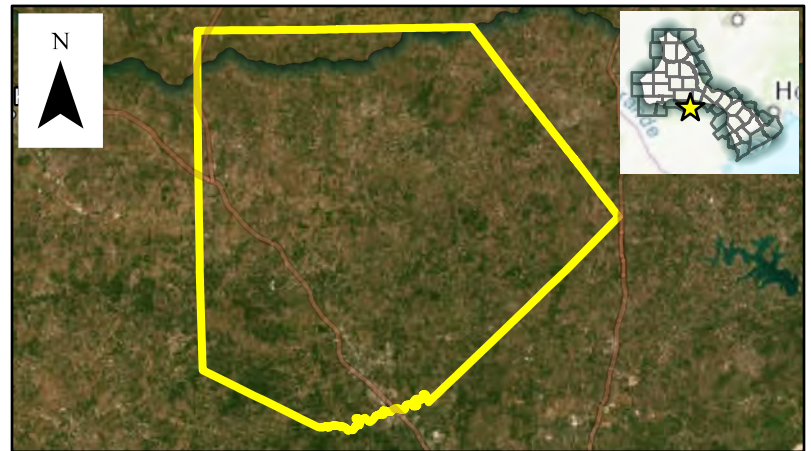
HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The county has identified multiple roadway/crossings that overtop and where structural improvements are not feasible. Proposed study will identify priority crossings to receive flood warning systems or other safety improvements.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Evaluate the type of flood early warnings system (flashers, barricades, signage) and communication systems requirements for the installation and long-term maintenance of the system. Include hydrologic and hydraulic modeling (if needed) including depth, duration and frequency of flooding, daily traffic counts, and length of detour (minutes),

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger. 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title Lum Rd, Hilltop Rd, FM 2919 N ID# 101000034  
Sponsor (name of entity) Kendleton (Municipality) Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City Kendleton County Fort Bend  
Watershed Boone Branch - San Bernard River  
name(s)  
Tributary(ies) Brooks Branch  
HUC# 12090401 Stream miles (est.) TBD  
Drainage area: square miles, est. 1.41 or acreage, est. 905  
Social vulnerability index 0.1  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other Roadway/Crossing Improvements



### Flood Risk Description

The existing crossings are undersized and overtop. The proposed improvements include upsizing the existing crossings. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood risk and assess potential future projects.

Population at risk 21 Structures at risk 11 Critical facilities at risk 0  
Farm/Ranch land impacted (acres) 69 Roadway(s) impacted (miles) 0.85

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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 \$100,000 Potential funding source(s) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor has indicated the existing outlet/right-of-way stormwater infrastructure is undersized and the area is at risk of localized flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed  name(s)

Tributary(ies)

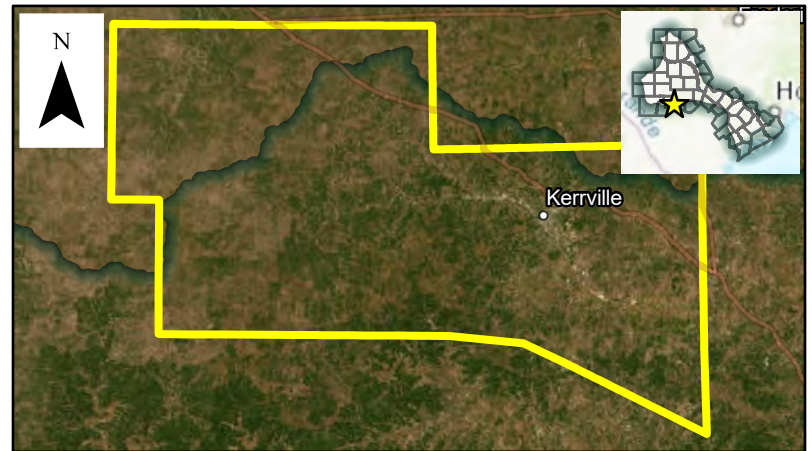
HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The County has identified multiple roadway/crossing that overtop and where structural improvements are not feasible. Proposed study will identify priority crossings to receive flood warning systems or other safety improvements.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Evaluate the type of flood early warnings system (flashers, barricades, signage) and communication systems requirements for the installation and long-term maintenance of the system. Include hydrologic and hydraulic modeling (if needed) including depth, duration and frequency of flooding, daily traffic counts, and length of detour (minutes),

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The area has multiple local drainage problems and portions of the region are at risk of flooding. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

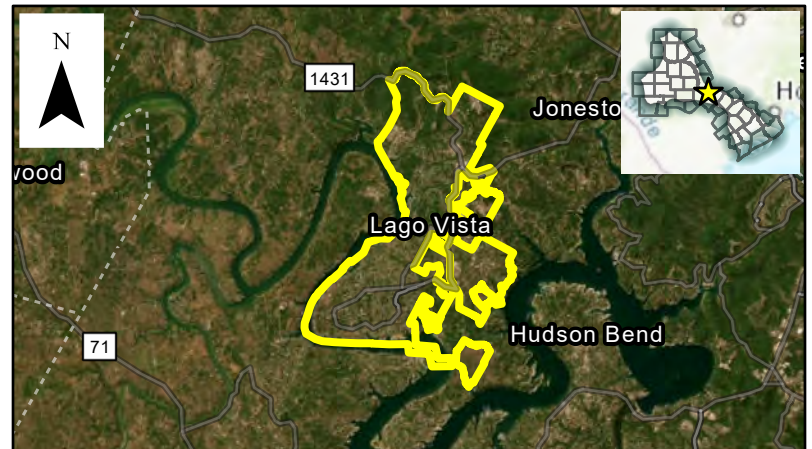
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The City has multiple local drainage problems and portions of the City are at risk of flooding. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The Citywide study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) to identify priority flood risk areas, 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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

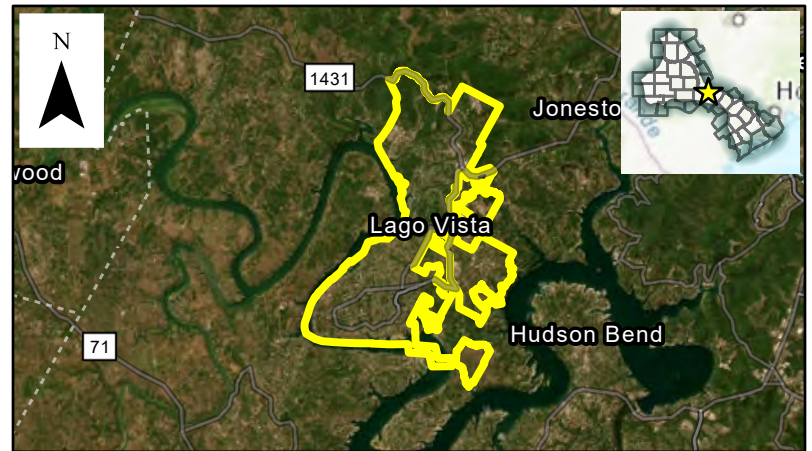
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The City has identified the need to develop/update an evacuation plan for the safety of the community.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Coordinate with agencies and local governments as necessary to develop/update the evacuation plan.

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

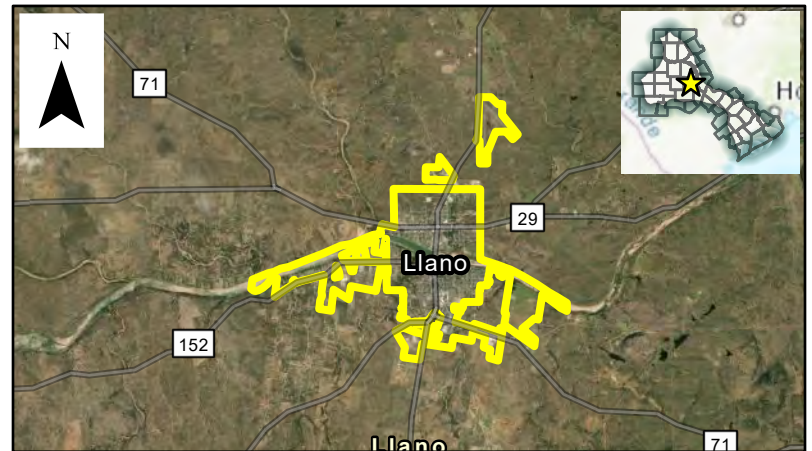
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The City has identified numerous maintenance issues in the Johnson Creek, Pecan Creek, Oatman Creek, and Wrights Creek watersheds as well as potential channel modifications/stabilization needs to prevent erosion and mitigate local flooding. The proposed study will evaluate the need for structural infrastructure improvements and develop a more detailed assessment of existing flood and potential flood risk reduction (if appropriate) that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Study will include hydrologic and hydraulic modeling of preliminary design of improvements (if needed) 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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

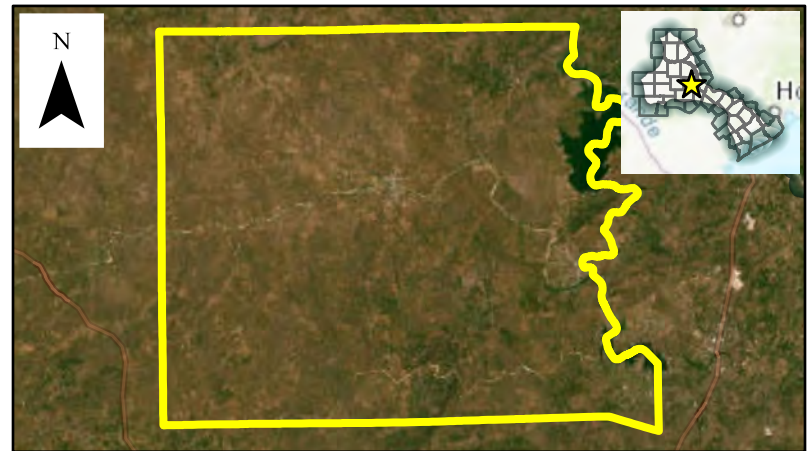
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor's evacuation plan(s) are out of date and need to be updated to assist with emergency coordination during a flood event.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Coordinate with agencies and local governments as necessary to develop/update the evacuation plan.

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger.

### Estimated Study Cost

Cost  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

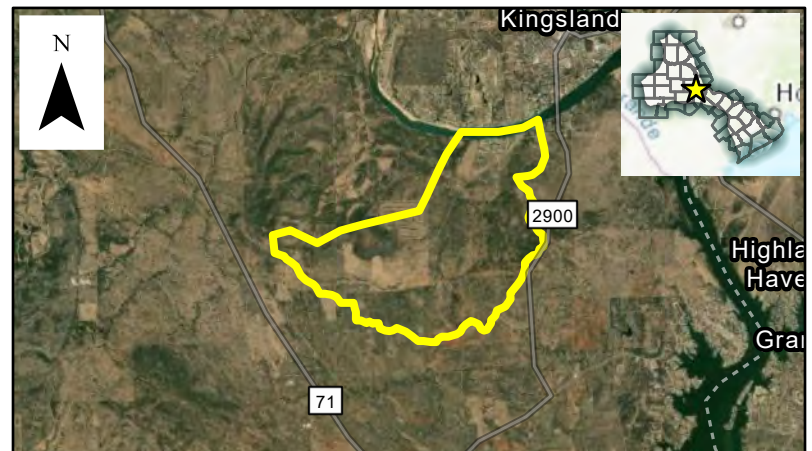
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The subdivision has multiple local drainage problems and portions of the subdivision are at risk of flooding including a risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

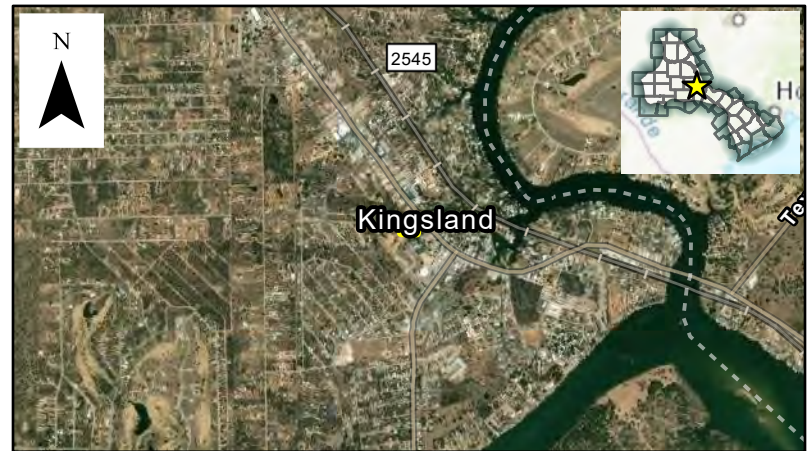
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Kingsland Volunteer Fire Department is located within the 100-year floodplain. The study will investigate possible sites and cost for relocation and may include the need to extend floodplain models upstream to verify the new location is outside the floodplain.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The siting study will focus on finding a suitable location for the new facility. Depending on the location the study may 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title Identify and Assess Flood Risk and Potential Mitigation Solutions for Low ID# 101000194

Sponsor (name of entity) Lower Colorado River Authority Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City Multiple County TBD

Watershed Multiple Watersheds name(s)

Tributary(ies) TBD

HUC# TBD Stream miles (est.) TBD

Drainage area: square miles, est. 24,288.76 or acreage, est. 15,544,805

Social vulnerability index 0.75  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other Watershed Study



### Flood Risk Description

The Lower Colorado-Lavaca Regional Flood Planning Area has a large number of structures mapped to be at risk. Some of these areas are in socially vulnerable communities, which are disproportionately affected by flood impacts. Those with limited means are much more challenged to recover from flood losses and often cannot afford flood insurance to mitigate these losses. For a number of reasons, the residents of these communities may be less likely to notify their local authorities of the flooding problems and losses they have suffered. This means that many of these flood problem areas are under-reported and/or entirely unknown to their respective municipal and county governments. This combination of deeper vulnerability and lack of attention calls for an effort to proactively seek out these communities to more fully assess and document their flood risk, consider potential solutions, and lay out a path to implement feasible and appropriate solutions. Other RFPG goals (no room yet in Related Goals box below): 5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 6.1 Reduce the number of structures and critical facilities that are at high risk of repetitive loss through the implementation structural flood mitigation projects.

Population at risk 220,871 Structures at risk 67,825 Critical facilities at risk 94

Farm/Ranch land impacted (acres) 2,268,492 Roadway(s) impacted (miles) 2,373.86

### Scope of Study

This FME will conduct a technical study to identify high-priority flood problem areas in high social vulnerability index (SVI) locations throughout the Lower Colorado-Lavaca Regional Flood Planning Area (Region 10). Potential study areas will be identified using available data, assessing flood risk, exposure, and vulnerability. Available data includes the "floodplain quilt" developed for this Regional Flood Plan along with other available geospatial data (e.g., building footprints and Social Vulnerability Index). The study would rank the resulting flood problem areas by severity and develop feasibility-level solutions for the highest priority areas, generally those with a combination of the greatest flood risk/exposure and solution feasibility. This information would be shared with the corresponding municipal and county governments to consider sponsor solution implementation. TWDB funds are scored on a needs-based scale, which would help these projects secure grant or low-interest loan funding, thus making the projects more feasible and this helping these vulnerable populations

### Related Goal(s)

Regional and State Flood Plan Guidance Principles ask that regional and state flood plans "focus on: identifying both current and future flood risks, including hazard, exposure, vulnerability and residual risks" and that they "consider protection of vulnerable populations." 5.1 Reduce the number of structures and critical

### Estimated Study Cost

Cost \$150,000 Potential funding source(s) FEMA Cooperating Technical Partners (CTP) Program, TWDB FIF, local funds

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

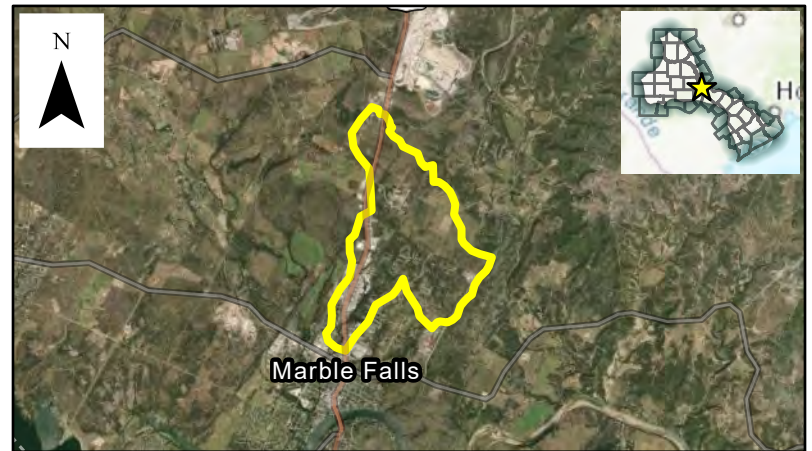
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The proposed improvements include building a multi-span bridge crossing. The existing main stem road is a 2-lane road with an average daily traffic count of 265. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops, potentially impacting surrounding structures. The proposed improvements include installing a 50 foot wide bypass channel. The existing road is a 2-lane road with an average daily traffic count of 265. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate the area. 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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The area of concern along Whitman Branch has insufficient channel capacity and undersized bridge/culvert crossings. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study will build upon and update previously conducted flood risk reduction studies. Study will include hydrologic and hydraulic modeling, 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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

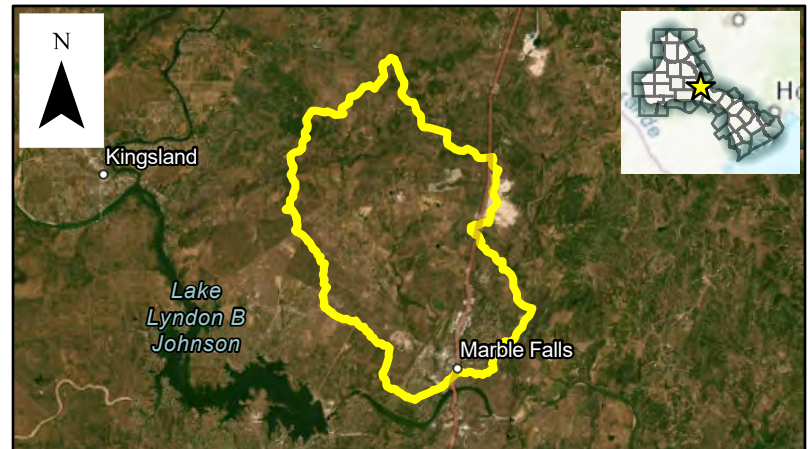
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing bridge overtops. The proposed improvements include improvements/replacement of the existing bridge. The existing bridge is a 2-lane road with an average daily traffic count of 2,447. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing culvert crossing is undersized and overtops. The proposed improvements include enlarging the existing culverts. The existing road is a 2-lane road with an average daily traffic count of 2,220. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title 1431/281 Detention ID# 101000168

Sponsor (name of entity) Marble Falls (Municipality) Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City Marble Falls County Burnet

Watershed Backbone Creek  
name(s)

Tributary(ies) Unnamed Tributary

HUC# 12090205 Stream miles (est.) TBD

Drainage area: square miles, est. 1.20 or acreage, est. 768

Social vulnerability index 0.19

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

Other Regional Detention



### Flood Risk Description

The area of concern between Whitman Branch and Hamilton Creek has insufficient channel capacity and undersized bridge/culvert crossings. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk 18 Structures at risk 5 Critical facilities at risk 0

Farm/Ranch land impacted (acres) 23 Roadway(s) impacted (miles) 0.12

### Scope of Study

Conduct a study to evaluate the area. 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)

6.1 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 \$150,000 Potential funding source(s) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

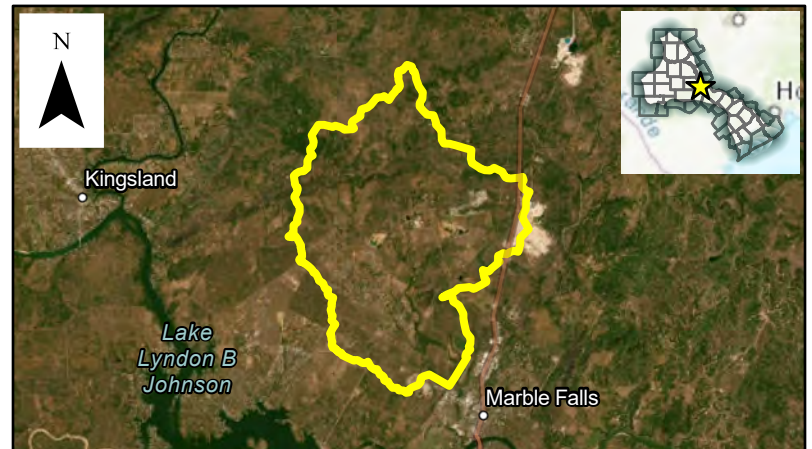
Title Backbone Branch Detention Pond ID# 101000169  
Sponsor (name of entity) Marble Falls (Municipality) Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City Marble Falls County Burnet  
Watershed Backbone Creek  
name(s)  
Tributary(ies) Unnamed Tributary  
HUC# 12090201,12090205 Stream miles (est.) TBD  
Drainage area: square miles, est. 30.04 or acreage, est. 19,228  
Social vulnerability index 0.19  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other Regional Detention



### Flood Risk Description

The area of concern along Backbone Creek has insufficient channel capacity and undersized bridge/culvert crossings. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk 279 Structures at risk 172 Critical facilities at risk 0  
Farm/Ranch land impacted (acres) 1,647 Roadway(s) impacted (miles) 4.11

### Scope of Study

Conduct a study to evaluate the area. 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)

6.1 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 \$150,000 Potential funding source(s) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

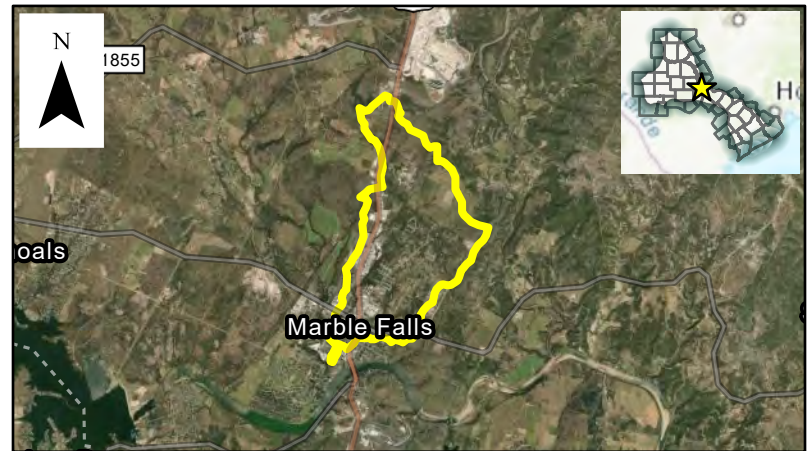
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing pedestrian access ways/trails overtop. The proposed improvements include upgrading the low water crossing, and channel modifications. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate the area. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

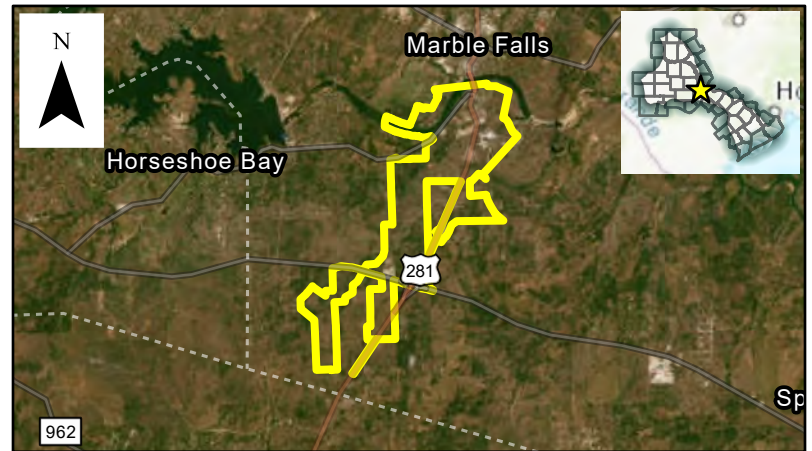
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)  
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing floodplain maps are outdated and do not reflect current flood risk.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) and will develop new floodplain maps that reflect current flood risk.

### Related Goal(s)

3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data. 3.3 Increase the number of entities that have digital flood insurance rate maps (DFIRMs) that reflect current conditions.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed   
name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The existing crossing is undersized and overtops. The crossing floods during smaller rainfall events and is an emergency vehicle response route. The existing crossing consists of four (4) reinforced concrete pipes. The proposed improvements include upsizing the crossing. The existing road is a 2-lane road with an average daily traffic count of 3,263. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing bridge overtops. The proposed improvements include improvements/replacement of the existing bridge. The existing bridge is a 2-lane road with an average daily traffic count of 668. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing culvert crossing is undersized and overtops. The proposed improvements include enlarging the existing culverts. The existing road is a 2-lane road with an average daily traffic count of 2,220. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The county has identified multiple roadway/crossings on the Tres Palacios River that overtop and where structural improvements are not feasible. The proposed study will identify priority crossings to receive flood warning systems or other safety improvements.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Evaluate the type of flood early warnings system (flashers, barricades, signage) and communication systems requirements for the installation and long-term maintenance of the system. Include hydrologic and hydraulic modeling (if needed) including depth, duration and frequency of flooding, daily traffic counts, and length of detour (minutes),

### 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., , City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger. 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

Lower Colorado-Lavaca  
**REGIONAL FLOOD  
PLANNING GROUP**

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

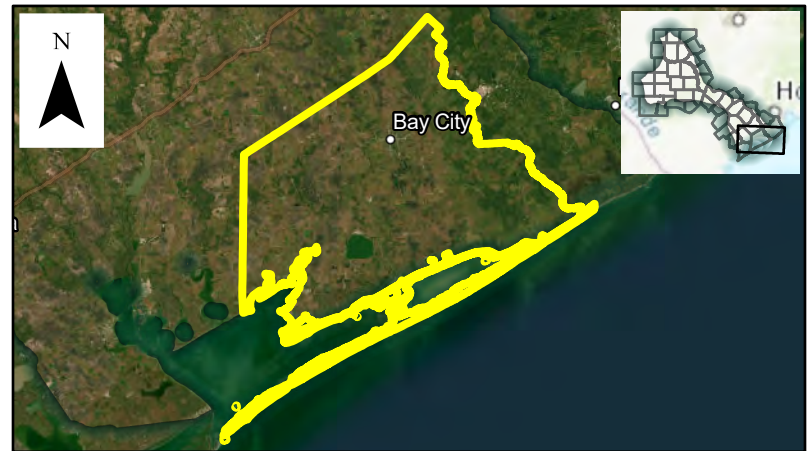
**REGION 10**

## Study Type

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

## Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



## Flood Risk Description

The existing floodplain maps are outdated and do not reflect current flood risk.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

## Scope of Study

The flood study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) and will develop new floodplain maps that reflect current flood risk.

## Related Goal(s)

3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data. 3.3 Increase the number of entities that have digital flood insurance rate maps (DFIRMs) that reflect current conditions.

## Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

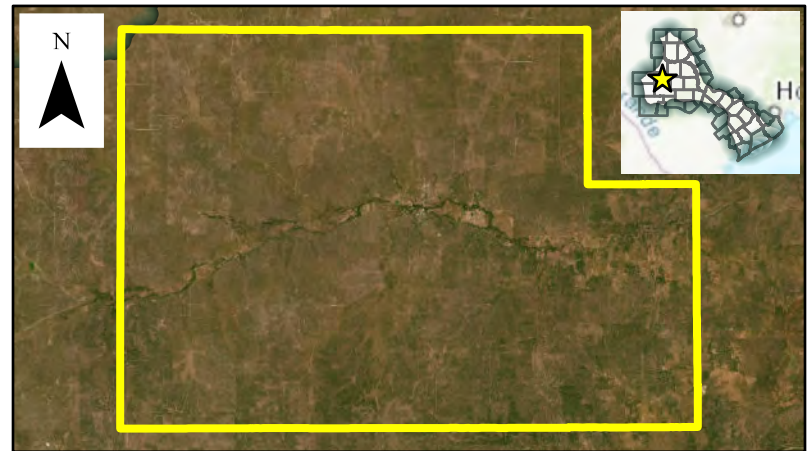
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing floodplain maps are outdated and do not reflect the current flood risk.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The flood study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) and will develop new floodplain maps that reflect current flood risk.

### Related Goal(s)

3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data. 3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 3.3 Increase the number of entities that have digital flood insurance rate maps (DFIRMs) that reflect current conditions.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title **Harris Hollow Neighborhood Flooding** ID# **101000181**  
Sponsor (name of entity) **Menard (Municipality)** Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City **Menard** County **Menard**  
Watershed **Menard Irrigation Company Canal - San Saba River**  
name(s)  
Tributary(ies) **Unnamed Tributary**  
HUC# **12090109** Stream miles (est.) **TBD**  
Drainage area: square miles, est. **0.13** or acreage, est. **83**  
Social vulnerability index **0.36**  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other **Drainage System Improvements**



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure in the study area and numerous houses are located in the 100-year floodplain. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk **161** Structures at risk **107** Critical facilities at risk **1**  
Farm/Ranch land impacted (acres) **25** Roadway(s) impacted (miles) **0.00**

### Scope of Study

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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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) **TBD**

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor's evacuation plan(s) are out of date and need to be updated to assist with emergency coordination during a flood event.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Coordinate with agencies and local governments as necessary to develop/update the evacuation plan.

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The project area is adjacent to the 100-year floodplain and contains multiple repetitive loss structures. The Sponsor has identified the need to flood proof repetitive loss structures (unspecified number and type) to prevent additional/future flood loss.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Study will develop project costs and repetitive loss structures. The study will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The proposed improvements include installation of culverts. The existing road is a 2-lane road with an average daily traffic count of 321. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate the proposed 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)  
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The city has identified the need to construct an emergency operation center for the safety of the community. The study will investigate possible sites and cost for the location and may include the need to extend floodplain models upstream to verify the location is outside the floodplain.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study will include hydrologic and hydraulic modeling (with Atlas 14) to identify/verify the most appropriate location for this development.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed  name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The airport is located within the 100-year floodplain of Tres Palacios Bay and has local drainage problems with portions of the area at risk of flooding. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### 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 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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The police station is located within the 100-year floodplain. The study will investigate possible sites and cost for relocation and addition of a safe room and may include the need to extend floodplain models upstream to verify the new location is outside the floodplain.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The siting study will focus on finding a suitable location for the new facility. Depending on the location the study may 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)  
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor's evacuation plan(s) are out of date and need to be updated to assist with emergency coordination during a flood event.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Coordinate with agencies and local governments as necessary to develop/update the evacuation plan.

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The City has multiple local drainage problems and portions of the City are at risk of flooding. The existing risk indicators are based on available data and will be better defined as part of the study. Study will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The Citywide study will include hydrologic and hydraulic modeling (with Atlas 14 rainfall) to identify priority flood risk areas, 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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure in the study area and numerous houses are located in the 100-year floodplain. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### 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 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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The sponsor has indicated the existing stormwater infrastructure in the study area is undersized (less than 25-year capacity) and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

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Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed   
name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

Sponsor has indicated the desire to expand and improve the shelter-in-place capability of the Center.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Evaluate the existing building and determine feasibility and costs associated with providing expanded capacity.

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

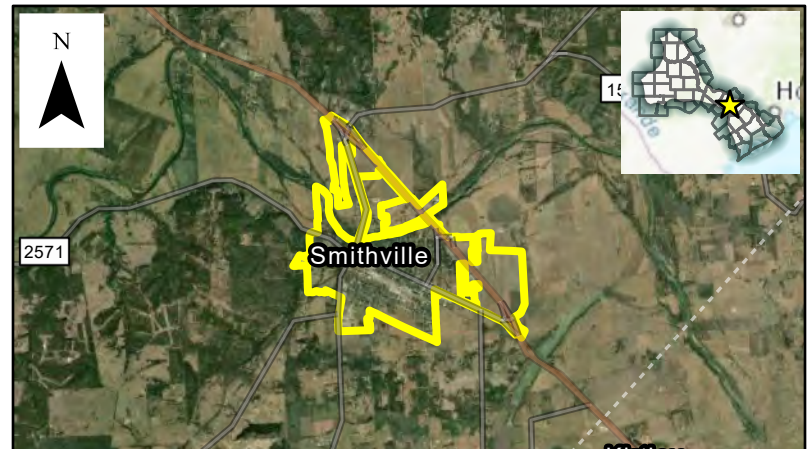
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

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Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The City has identified a number of drainage channels that need to be maintained as well as improved to provide additional conveyance to prevent erosion and mitigate local flooding. The proposed improvements will include channel modifications and develop a more detailed assessment of existing flood and potential flood risk reduction (where appropriate) that will used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

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Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing consists of two (2) corrugated metal pipes. The proposed improvements include upsizing the pipes. The average daily traffic count is unknown. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

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Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing is undersized and overtops. The existing crossing consists of two (2) corrugated metal pipes. The proposed improvements include upsizing the pipes. The average daily traffic count is unknown. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

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Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The Sponsor has indicated the existing stormwater infrastructure on CR322 is undersized. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

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)

6.1 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed name(s)

Tributary(ies)

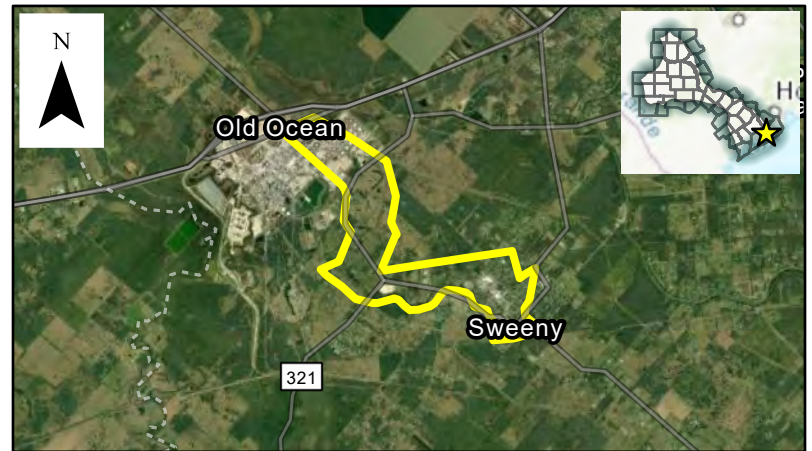
HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The Sponsor has indicated there are multiple low water crossings in Stevenson Slough that are undersized and overtop. Proposed improvements include upsizing the culverts. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Conduct a study to evaluate upsizing the existing culverts. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

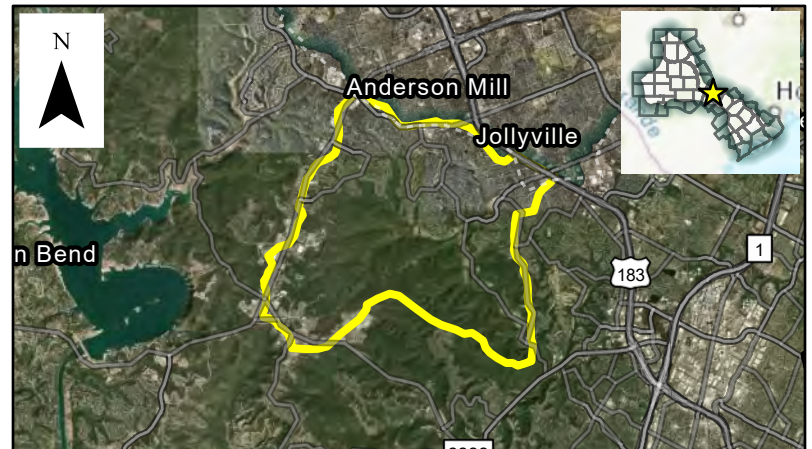
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing crossing consists of small pipe culverts and the roadway is overtopped in small, frequent, storm events (less than 5-yr). Road closures limit ingress/egress to several surrounding neighborhoods. The existing road is a 2-lane road with an average daily traffic count of 1,979.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct (or enhance existing study) to evaluate the replacement of the low water crossing with a 200 foot bridge. Study will update existing hydrologic and hydraulic models (with Atlas 14 rainfall) as needed to refine preliminary design and provide additional information needed to meet TWDB requirements for a flood mitigation project including verifying no adverse impacts, updating the cost estimate and providing a benefit-cost-analysis, and updating/verifying there are no potential constraints (environmental, utility conflicts, right-of-way needs, and constructability) that will prevent implementation.

### 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

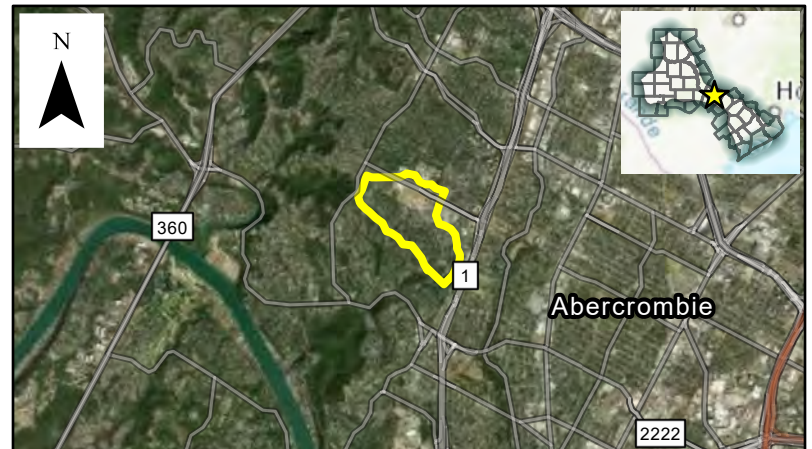
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The Highland Hills crossing is inundated by small, frequent, storm events (less than 2-year event) leading to unsafe conditions for motorists who need to use this roadway for neighborhood ingress/egress. 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  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Update existing study to evaluate upgrading the hydraulic capacity of the crossing to reduce the frequency and depth of inundation and improve public safety. Study will update existing hydrologic and hydraulic models (with Atlas 14 rainfall) as needed to refine preliminary design and provide additional information needed to meet TWDB requirements for a flood mitigation project including verifying no adverse impacts, updating the cost estimate and providing a benefit-cost-analysis, and updating/verifying there are no potential constraints (environmental, utility conflicts, right-of-way needs, and constructability) that will prevent implementation.

### 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed   
name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The Sponsor has indicated there are multiple low water crossings that are undersized and overtop. Proposed improvements include upsizing the culverts. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Conduct a study to evaluate upsizing the existing low water 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

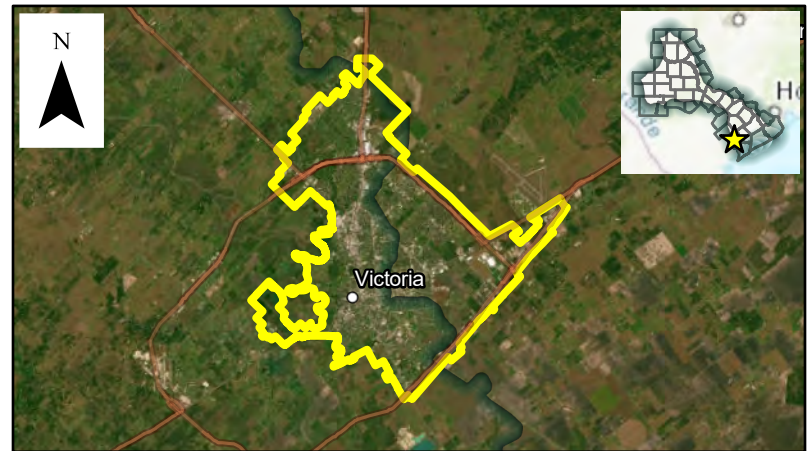
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)  
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

Numerous city buildings and other critical infrastructure are at risk due to flood damage. The purpose of the study will be to evaluate the existing infrastructure and determine feasibility and costs for increasing resiliency. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Perform a feasibility study to determine if some or all of the city infrastructure should be hardened or flood proofed, establish costs, and prioritize improvements.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

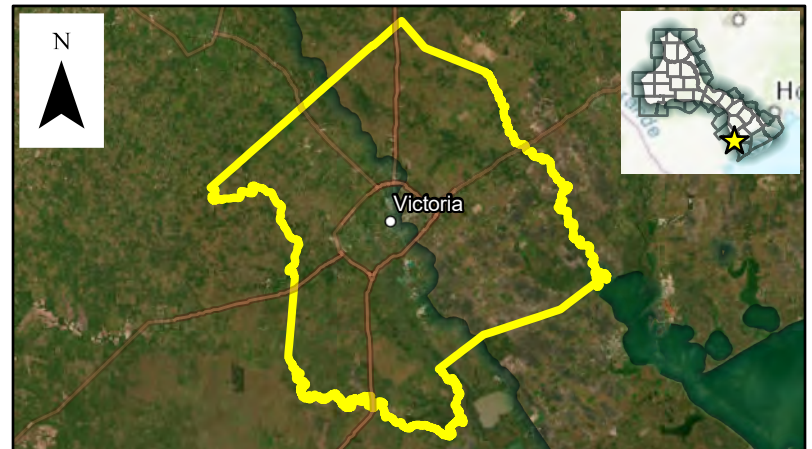
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The sponsor has indicated the existing stormwater infrastructure in the study area is undersized and the area is at risk of street flooding, property flooding, and potential structural flooding. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering). 5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

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Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed  name(s)

Tributary(ies)

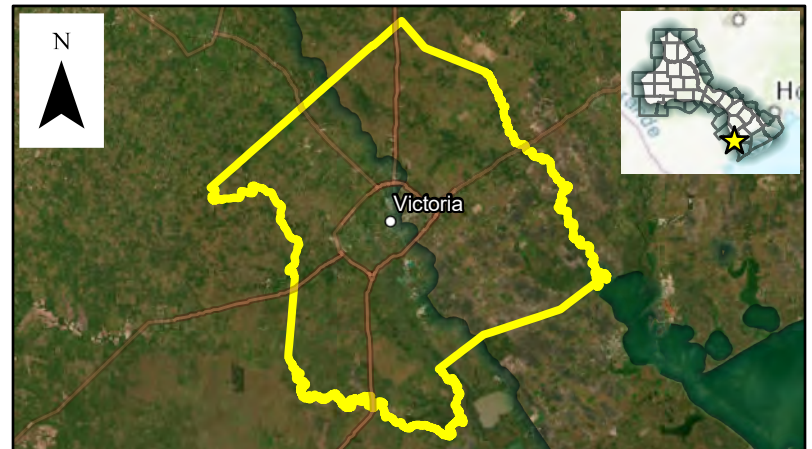
HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The Sponsor has indicated there are multiple low water crossings that are undersized and overtop. They have also identified that a number of bridges do not have sufficient hydraulic capacity and should be raised above the base flood elevation. Proposed improvements include upsizing the culverts and elevating bridges. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Conduct a study to evaluate upsizing the existing low water crossings and bridges. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

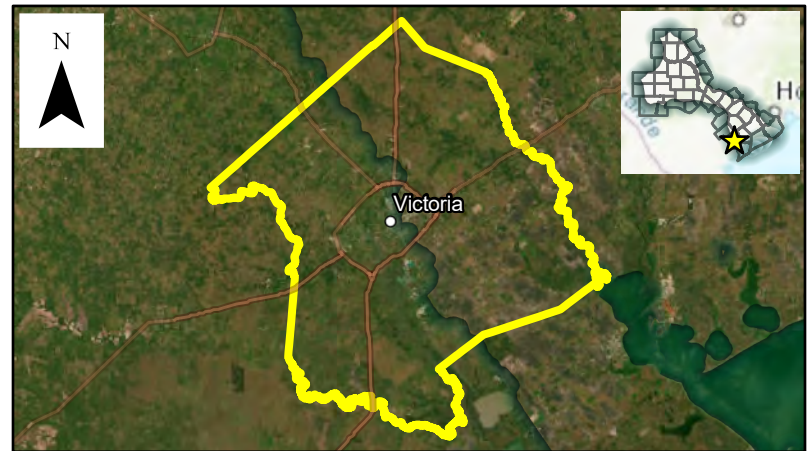
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

There are multiple flood prone properties that are within the County that are within the 100-year floodplain and subject to repetitive loss. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate voluntary buyouts for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Perform a feasibility study to determine if some or all of the houses should be elevated or removed.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title Harden county buildings, critical infrastructure, and government ID# 101000096

Sponsor (name of entity) Victoria (County) Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City N/A County Victoria

Watershed Multiple Watersheds  
name(s)

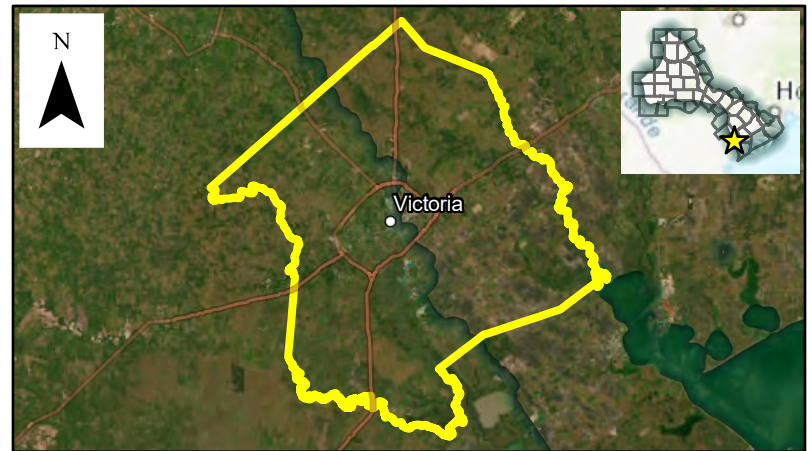
Tributary(ies) Unnamed Tributary

HUC# 12100204,12100402 Stream miles (est.) TBD

Drainage area: square miles, est 885.81 or acreage, est. 566,920

Social vulnerability index 0.62  
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)

Other Local Plans & Regulations



### Flood Risk Description

Numerous County buildings and other critical infrastructure are at risk due to flood damage. The purpose of the study will be to evaluate the existing infrastructure and determine the feasibility and costs for increasing resiliency. The existing risk indicators are based on available data and will be better defined as part of the study. Study results will include detailed assessments of existing flood risk and potential flood risk reduction to be used in evaluating projects for future funding cycles.

Population at risk 3,478 Structures at risk 776 Critical facilities at risk 3

Farm/Ranch land impacted (acres) 37,406 Roadway(s) impacted (miles) 0.10

### Scope of Study

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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.

### Estimated Study Cost

Cost \$100,000 Potential funding source(s) TBD

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)  
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The city is located on the banks of Lake Travis and has numerous houses located in, or adjacent to, the 100-year floodplain. The purpose of this study is to review the city's floodplain management plan.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

The study would review the existing floodplain management plan and regulations, and make recommendations for improvements such as adopting higher standards and establish an annual review cycle.

### Related Goal(s)

3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data. 3.3 Increase the number of entities that have digital flood insurance rate maps (DFIRMs) that reflect current conditions.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

REGION 10

### Study Type

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

### Problem Area

City  County

Watershed  name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*

Other



### Flood Risk Description

The Sponsor's evacuation plan(s) are out of date and need to be updated to assist with emergency coordination during a flood event.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Coordinate with agencies and local governments as necessary to develop/update the evacuation plan.

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger.

### Estimated Study Cost

Cost  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

Other

### Problem Area

City  County

Watershed  name(s)

Tributary(ies)

HUC#  Stream miles (est.)

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

Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*

Other



### Flood Risk Description

The Region 10 Flood Planning Group draft plan notes the WBDD#11 area as SEVERE for current and future risk as well as the location of CRITICAL infrastructure. The location of the WBDD#11 has direct connection to Wharton and Fort Bend Counties, resulting in the need for improvements within the WBDD#11 to assist these neighboring counties. The purpose and goal of the MDP is to conduct a comprehensive evaluation of the existing drainage conditions throughout the district, develop an accurate and current understanding of the drainage infrastructure, and make recommendations on future projects and infrastructure. The assessment will include an inventory of the existing data, hydrologic and hydraulics watershed model, flooding problem area identification, and flood mitigation solutions. A drainage Capital Improvement Plan (CIP), including costs, will be developed to address flooding issues. As part of the MDP scope a web based project management tool will be developed to assist the District with monitoring maintenance activities and construction improvements.

Population at risk  Structures at risk  Critical facilities at risk

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

### Scope of Study

Collect and review existing reports, studies, gage data, etc, verify watershed boundaries, examine flooded structures and NFIP claims data. Develop base conditions models for different storm conditions using Atlas 14 rainfall events, determine level of service for the main stem and tributaries and create HEC-RAS 2D models to determine sheet flow issues. Identify problem areas, areas for future development, and constraints affecting the watershed. Perform desktop environmental studies and document baseline conditions, identify alternatives and perform hydraulic analysis to solve future flooding issues. Develop Watershed Strategy via hierarchy of alternatives considering opportunities to team with other agencies, damage reduction, costs, priority areas to be worked and score each of the alternatives, issue a technical note providing documentation on the process of developing the strategy. Create a comprehensive Watershed Plan including a summary of projects and timeline for implementation, and exhibits.

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

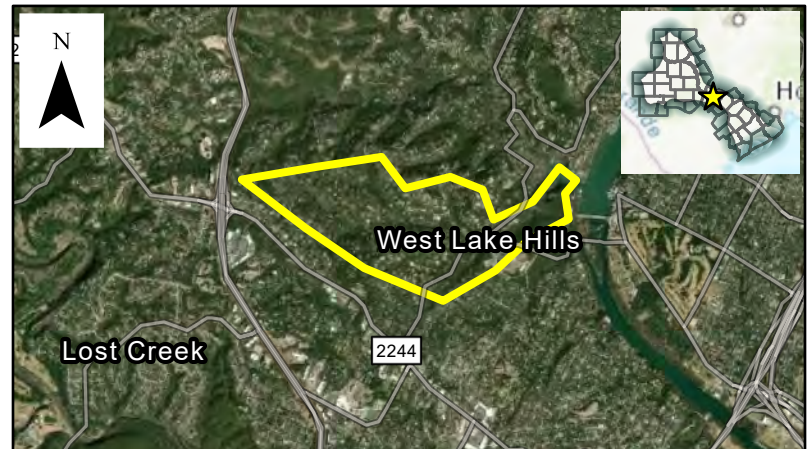
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

The existing channel and road crossings are undersized resulting in localized erosion as well as flood risk to houses along Yaupon Valley Road and Laurel Valley Road. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

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)

6.1 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  Potential funding source(s)



# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

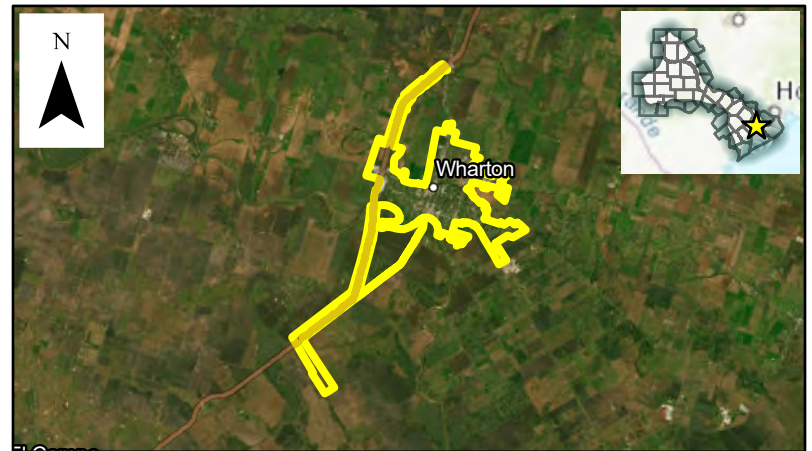
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The county has identified multiple roadway/crossings that overtop and where structural improvements are not feasible. Proposed study will identify priority crossings to receive flood warning systems or other safety improvements.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Evaluate the type of flood early warnings system (flashers, barricades, signage) and communication systems requirements for the installation and long-term maintenance of the system. Include hydrologic and hydraulic modeling (if needed) including depth, duration and frequency of flooding, daily traffic counts, and length of detour (minutes),

### 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., City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#

Sponsor (name of entity)  Commitment  Yes  No

Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County

Watershed  name(s)

Tributary(ies)

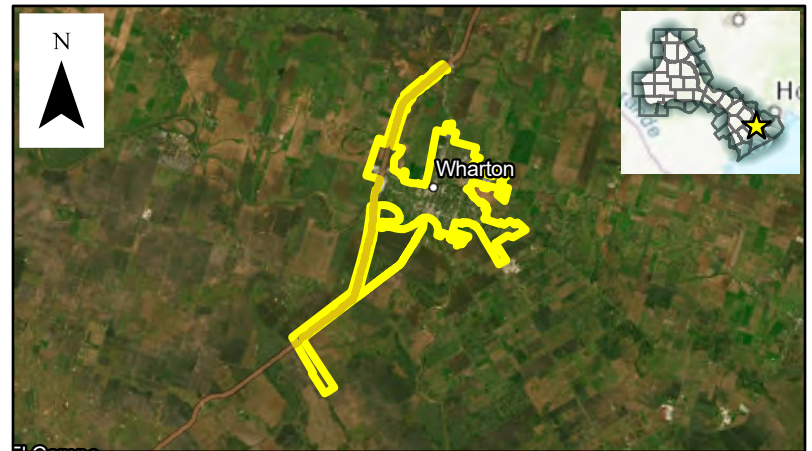
HUC#  Stream miles (est.)

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

Social vulnerability index

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

Other



### Flood Risk Description

The area has multiple local drainage problems and portions of the region are at risk of flooding. The area has experienced excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk

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

### 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 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)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

There is a need to evaluate flood risk within the Glen Flora area. Glen Flora flooded severely during Harvey and a levee could benefit both Glen Flora and Wharton County. Local flooding is also an issue and roadside ditches, culverts, and stormsewer should be upgraded to contain the 10-yr Atlas 14 flow.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Study will include InfoWorks ICM and HEC RAS 2D analysis of the urban center of Glen Flora. It will also include a regional evaluation of expanding the USACE levee along FM 102. Study scope will include hydrologic and hydraulic modeling (with Atlas14 rainfall), preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimate and benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed  name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

In recent years, there have been flooding problems along Jarvis Creek, heavy vegetation issues, and the need for improvements to bridges, culverts, and a wider overall channel configuration. Jarvis Creek is a major flood relief channel for the City of Wharton and should be designed based on a future conditions scenario for the City of Wharton.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

This study includes a 1D/2D HEC RAS model for Jarvis Creek and development of channel improvements and regional detention solutions to mitigate the 25-yr flood risk areas. Study scope will include hydrologic and hydraulic modeling (with Atlas14 rainfall), preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimate and benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
name(s)   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)  
Other



### Flood Risk Description

Rain events in November 2004 caused severe flooding and flood damage. In addition, the 2010 Wharton County drainage master plan revealed a significant flood risk, including structures and roadway crossings, as East Mustang Creek overflows into Middle Mustang Creek.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

Conduct a study that will include an InfoWorks ICM 1D/2D surface and subsurface drainage analysis and flood reduction recommendations. Study scope will include hydrologic and hydraulic modeling (with Atlas14 rainfall), preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimate and benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)

# Flood Management Evaluation (FME) STUDY

## Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

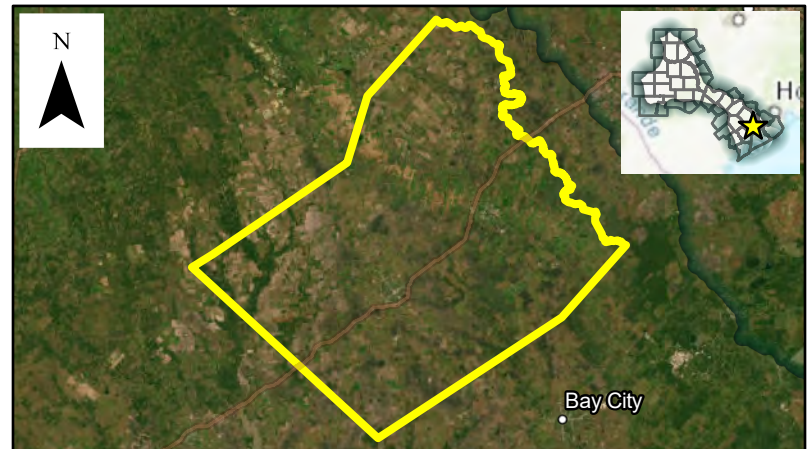
Title  ID#   
Sponsor (name of entity)  Commitment  Yes  No  
Technical committee recommend  Yes  No RFPG recommend  Yes  No

### Study Type

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

### Problem Area

City  County   
Watershed   
Tributary(ies)   
HUC#  Stream miles (est.)   
Drainage area: square miles, est.  or acreage, est.   
Social vulnerability index   
*(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)*  
Other



### Flood Risk Description

The county has suffered extreme flooding from recent events such as the floods of 1998, 2004, 2016, 2019 and Hurricane Harvey. The area has multiple local drainage problems including local street floods with excessive flow depth and velocity, has structures at risk, historical flood damages, and channel erosion. The existing flood risk is not well defined, and the risk indicators are based on the study area. Study results will provide a more detailed assessment of existing flood and potential flood risk reduction that will be used to evaluate projects for future planning cycles.

Population at risk  Structures at risk  Critical facilities at risk   
Farm/Ranch land impacted (acres)  Roadway(s) impacted (miles)

### Scope of Study

An update to the Wharton County Drainage Master Plan (circa 2008) is needed to include new Atlas 14 1D/2D HEC RAS models for the entire county. This study would include all FEMA Streams except Colorado River, San Bernard River, West Bernard River, Lower Caney Creek, and Jarvis Creek. Study scope will include hydrologic and hydraulic modeling, preliminary design of improvements, risk reduction analysis, verification of no adverse impacts, preparation of cost estimate and benefit-cost-analysis, and an evaluation of potential constraints (environmental, utility conflicts, right-of-way needs, and constructability).

### Related Goal(s)

5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation. 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  Potential funding source(s)