

New FMXs (Added to Final Plan)

12/1/2022

Action Number	Type	Action Name	Sponsor	County	Page Number	Tech Committee Rec (Y/N)	Tech Committee Rec Date	RFPG Rec (Y/N)	RFPG Rec Date	Cost	Notes
101000214	FME	West Brazoria County Drainage District 11 - Master Drainage Plan	WBCDD #11	Brazoria	2					\$ 990,000	New FME from Sponsor
101000209	FME	Jackson County Phase 2 DMP	Jackson County	Jackson	3					\$ 4,000,000	New FME from Sponsor
101000208	FME	Glen Flora Drainage Master Plan and Levee Project	Wharton County	Wharton	4					\$ 300,000	New FME from Sponsor
101000210	FME	City of El Campo Drainage Master Plan Update	El Campo	Wharton	5					\$ 612,500	New FME from Sponsor
101000211	FME	Jarvis Creek Channel Widening and Regional Detention Project	Wharton County	Wharton	6					\$ 150,000	New FME from Sponsor
101000212	FME	Louise Internal Drainage Master Plan	Wharton County	Wharton	7					\$ 400,000	New FME from Sponsor
101000213	FME	Wharton County Drainage Master Plan Update	Wharton County	Wharton	8					\$ 4,000,000	New FME from Sponsor
										\$ 10,452,500	

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 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 of 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 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 prepare a technical memorandum on baseline conditions, identify alternatives to solve existing flooding issues, 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, including

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

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)

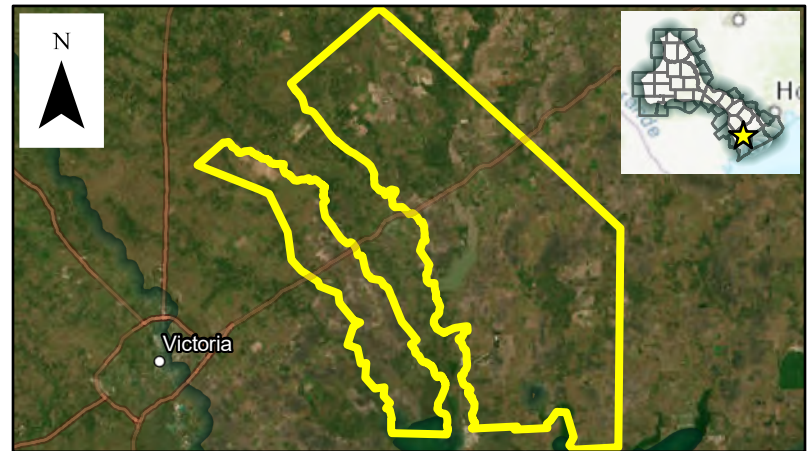
HUC# Stream miles (est.)

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 county has suffered extreme flooding from recent events such as the floods of 1998, 2004, and 2021 floods.

Population at risk Structures at risk Critical facilities at risk

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

Scope of Study

This study would include all FEMA streams east and west of the Lavaca watershed.

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

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

There is a need to evaluate flood risk within the Glen Flora area. Glen Flora flooded severely during Harvey and a levee here 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.

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

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
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. Local Street flooding is also an issue.

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 widening and Regional Detention which is a known flooding issue and should be considered in connection with the recent Tres Palacios Channel 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

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)

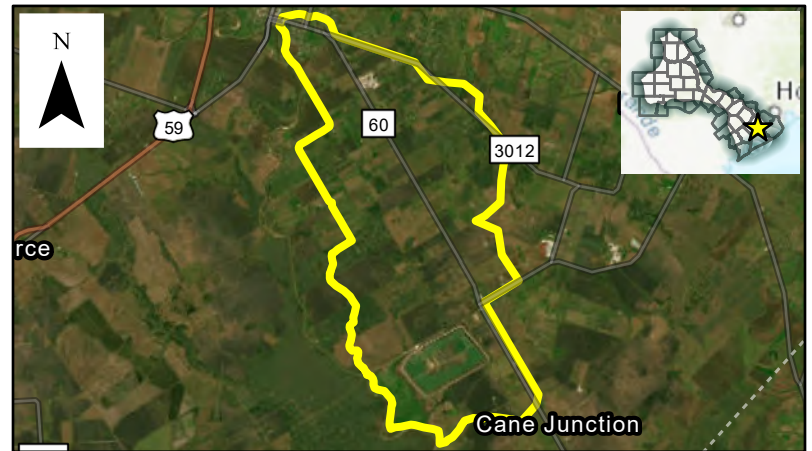
HUC# Stream miles (est.)

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

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 widening and regional detention solutions to mitigate the 25-yr flood risk areas.

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

Title **Louise Internal Drainage Master Plan** ID# **101000212**
Sponsor (name of entity) **Wharton (County)** 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 **N/A** County **Wharton**
Watershed **Navidad**
name(s)
Tributary(ies) **East Mustang Creek and Middle Mustand Creek**
HUC# **12100102** Stream miles (est.) **0.60**
Drainage area: square miles, est. **0.82** or acreage, est. **526**
Social vulnerability index **0.38**
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)
Other



Flood Risk Description

Rain events in November 2004 caused severe flooding. In addition, the 2010 Wharton County drainage master plan revealed a significant flood risk for the area, as East Mustang Creek overflows into Middle Mustang Creek.

Population at risk **26** Structures at risk **20** Critical facilities at risk **0**
Farm/Ranch land impacted (acres) **16** Roadway(s) impacted (miles) **0.09**

Scope of Study

Conduct a study that will include an InfoWorks ICM 1D/2D surface and subsurface drainage analysis and flood reduction recommendations

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 **\$400,000** Potential funding source(s) **TBD**

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

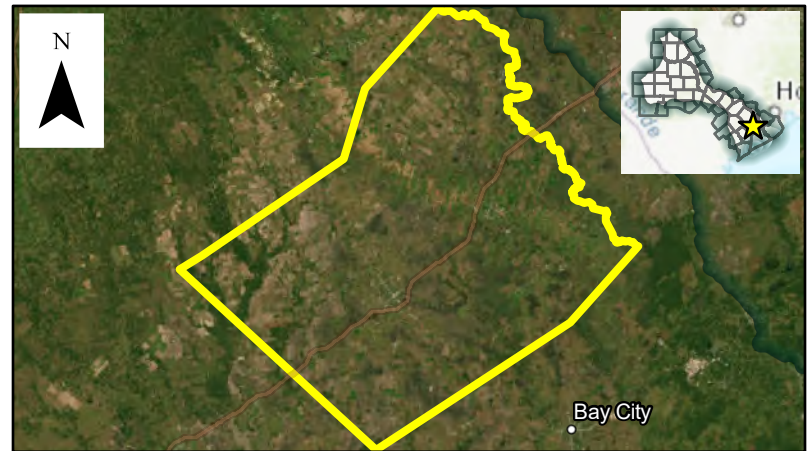
REGION 10

Study Type

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

Problem Area

City County
Watershed
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.

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

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)