#### Task 13 - Sponsor Requested FMPs

Batch	Page	New Action Number	Old Action Number (To be removed)	Туре	Sponsor	Project	Notes	TC Rec (Y/N)	Tech Committee Rec Date	RFPG Rec (Y/N)	RFPG Rec Date
4	2	103000055	101000202	FMP	Austin (Municipality)	Dalton Lane Low water Crossing Improvements	FME to FMP				
4	3	103000056	101000205	FMP	Austin (Municipality)	Waller Creek – Guadalupe St. Flood Risk Reduction	FME to FMP				
4	4	103000057		FMP	Bastrop (Municipality)	Detention Pond at Hunters Crossing (DMP SB-01)	New FMP				
		103000058		NA	Bastrop (Municipality)	Riverwood Drive Improvements at Piney Creek (DMP PC-02)	See FME 101000246 above				
4	5	103000059		FMP	Bastrop (Municipality)	SH-95 at Gills Branch (DMP GB-01)	New FMP				
4	6	103000062		FMP	Caldwell County	Cedar Creek Channel Improvements Near Christian Drive	New FMP				
4	7	103000063		FMP	Caldwell County	CR 170 Low Water Crossing Improvements @ Lytton Creek	New FMP				
4	8	103000064		FMP	Caldwell County	CR 172 Low Water Crossing Improvements @ Lytton Creek	New FMP				
4	9	103000068		FMP	Pflugerville (Municipality)	Immanuel Road/Pecan Park at Upper Gilleland Creek (DMP GC- 05)	New FMP				
		103000069		NA	Pflugerville (Municipality)		See FME 101000239 above				
4	10	103000070		FMP	Wharton County	Peach Creek Channel Improvements	New FMP				

Flood Mitigation	Project (FMP)		Lower Colorado-Lavaca REGIONAL FLOOD
Title Dalton Lane Low Water Crossing	Improvements	ID# 103000055	PLANNING GROUP
Sponsor (note if City or County) Austin (	Municipality)	Commitment 🖌 Yes 📃 No	REGION 10
Technical committee recommend	s No RFPG recommend	Yes No	
Project Type			
STRUCTURAL			
Detention 🖌 Channel modification	🖌 Bridge/culvert 📃 Storm dr	ain Levee/floodwall	
Other			
NON-STRUCTURAL			
Property buyouts Floodproofing	Flood readiness/resilience	Flood warning system/gauges	
Other			
Problem Area			
City Austin	County Travis	N AND AND	Montopolis 💦 🔍
Watershed name(s) Carson Creek			

HUC#(s) 12090205

Other

Tributary(ies) Carson Creek and Tributary 4

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

Drainage area: square miles, est 2.29

Social Vulnerability Index (SVI) 0.15

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. These crossings provide access to City maintenance facilities that need to be available during emergencies.

Proposed level-of-service 100-yr

Status Preliminary engineering complete

Stream miles (est.) 0.50 or acreage, est 1,468

Atlas 14 rainfall used Yes

## **Project Description**

Project replaces culverts of 2 existing low water crossings (LWC) with new bridges. The LWC flood in the 2-year storm and the project will prevent the LWCs from overtopping in the 100-year storm. Creek restoration downstream of the crossings to prevent erosion.

## 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 Project Cost**

 Capital cost
 \$19,200,000
 Ongoing O&M costs
 0
 Cost/benefit analysis
 TBD

 Potential funding source(s)
 City Funds (partial), Other TBD
 Cost/benefit analysis
 TBD

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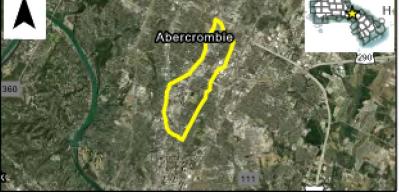
#### Lower Colorado-Lavaca Flood Mitigation Project (FMP) **REGIONAL FLOOD** ANNING GROUP Title Waller Creek - Guadalupe St Flood Risk Reduction Project ID# 103000056 Sponsor (note if City or County) Austin (Municipality) Commitment 🖌 Yes 📃 No Technical committee recommend Yes No RFPG recommend Yes No **Project Type** STRUCTURAL ✓ Detention ✓ Channel modification Bridge/culvert ✓ Storm drain Levee/floodwall Other NON-STRUCTURAL Property buyouts Floodproofing Flood readiness/resilience Flood warning system/gauges Other **Problem Area** County Travis City Austin Watershed name(s) Town Lake Abercrombie Tributary(ies) Waller Creek HUC#(s) 12090205 Stream miles (est.) 0 or acreage, est 1,733 Drainage area: square miles, est 2.71

Social Vulnerability Index (SVI) 0.15

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

Other

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#### 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. Project will eliminate 100-yr risk for 68 residential structures, reduce risk for over 120 structures, and will eliminate more than 1-mile of roadway flood risk.

Proposed level-of-service	Proposed level-of	f-service	10
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Status 60% Design

Atlas 14 rainfall used Yes

## **Project Description**

Construct 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 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 the 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. There are no adverse impacts or insurmountable constraints (environmental, utility conflicts, right-of-way needs, and constructability) that will prevent implementation.

## 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 Project Cost**

 Capital cost
 \$72,072,000
 Ongoing O&M costs
 TBD
 Cost/benefit analysis
 TBD

 Potential funding source(s)
 TBD
 TBD
 TBD
 TBD
 TBD

Flood Mitigation Project (FMP)	Lower Colorado-Lavac REGIONAL FLOO	
Title Detention Pond at Hunters Crossing (DMP SB-01)	ID# 103000057	PLANNING GROUP
Sponsor (note if City or County) Bastrop (Municipality)	Commitment Yes No	REGION 10
Technical committee recommend Yes No RFPG recommend	Yes No	
Project Type		
STRUCTURAL         ✓ Detention       Channel modification         Bridge/culvert       Storm dr	ain Levee/floodwall	
Other Outlet Weir Structure, Berm Improvements		
NON-STRUCTURAL Property buyouts Floodproofing Flood readiness/resilience	Flood warning system/gauges	
Other		
Problem Area		

City Bastrop	County Bastrop						
Watershed name(s) Piney Creek-Colorado River							
Tributary(ies) Spring Branch							
HUC#(s) 1209030102 Stream miles (est.) 0.14							
Drainage area: square miles, est <sup>1</sup> or acreage, est							
Social Vulnerability Index (SVI) 0.3992							
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)							
Other							



Hunters Crossing becomes flooded by Spring Branch during the 4% ACE storm event and overflows into Hunters Crossing Park.

Proposed level-of-service 100-year

Status Preliminary Engineering

Atlas 14 rainfall used Yes

## **Project Description**

Proposed improvements include a redesigned outlet weir structure for the existing detention pond, a new 170 foot long 0.5 ft tall berm bordering Hunters Crossing Park, and 120 feet of existing berm improvements along Hunters Crossing. The proposed improvements alleviate flooding in the park and provide 100-year level of service for Hunters Crossing.

## Related Goal(s)

6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

## **Estimated Project Cost**

Capital cost \$708,000

Ongoing O&M costs TBD

Cost/benefit analysis 0.03

Potential funding source(s) Federal/state grants and/or local funds

Flood Mitigation	Lower Colorado-Lavaca		
Title SH-95 Improvements at Gills Branch (DM	1P GB-01)	ID# 103000059	PLANNING GROUP
Sponsor (note if City or County) Bastrop (	<i>l</i> unicipality)	Commitment Yes No	REGION 10
Technical committee recommend	No RFPG recommen	d Yes No	
Project Type			
STRUCTURAL Detention Channel modification	✓ Bridge/culvert Storm	n drain 📕 Levee/floodwall	
Other			
NON-STRUCTURAL			
Property buyouts Floodproofing	Flood readiness/resilience	Flood warning system/gauges	
Other			
Problem Area			
City Bastrop	County Bastrop		
Watershed name(s) Piney Creek-Colorado R	iver	HAWTHORNE ST. *	
Tributary(ies) Gills Branch		N N N N N N N N N N N N N N N N N N N	A for and a second

Drainage area: square miles, est 1

Social Vulnerability Index (SVI) 0.5979

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

HUC#(s) 1209030102

Other

State Highway 95 (SH-95) becomes flooded by Gills Branch during the 10% ACE storm event. The proposed improvements prevent SH-95 from overtopping during the 4% ACE storm event and reduces, but does not eliminate, overtopping during the 1% ACE storm event. If the project is implemented along with the FMP Gills Branch Flood Mitigation Improvements, the proposed improvements provide a 1% ACE level of service.

Proposed level-of-service 25-year

Status Preliminary Engineering

Stream miles (est.) 0.19

or acreage, est

Atlas 14 rainfall used Yes

## **Project Description**

The proposed improvements include the addition of two (2) 8'x 8' culverts to improve conveyance along with the existing three (3) 8'x 8' culverts.

Ongoing O&M costs TBD

## **Related Goal(s)**

6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways.

## **Estimated Project Cost**

Capital cost \$687,600

Potential funding source(s) Federal/state grants and/or local funds

Cost/benefit analysis 0.2

Proposed Improve FMP Project Area

Flood Mitigation Project (FMP)	Lower Colorado-Lavaca REGIONAL FLOOD
Title         Cedar Creek Channel Improvements Near Christian Drive         ID#	103000062 PLANNING GROUP
Sponsor (note if City or County) Caldwell County Commitment	Yes No REGION 10
Technical committee recommend Yes No RFPG recommend Yes No	
Project Type	
STRUCTURAL	
Detention 🖌 Channel modification 📕 Bridge/culvert 📕 Storm drain 📕 Levee/flo	oodwall
Other	
NON-STRUCTURAL Property buyouts Floodproofing Flood readiness/resilience Flood warning s	ystem/gauges
Other	
Problem Area	
City Dale County Caldwell	
Watershed name(s) Cedar Creek	
11/10/10/10/10/10/10/10/10/10/10/10/10/1	ALL IN BAL
Tributary(ies)	A Real
HUC#(s) 1209030103 Stream miles (est.) 1.1	Charles and a second
Drainage area: square miles, est 19.66 or acreage, est	
Social Vulnerability Index (SVI) 0.834	
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)	1 miles
Other	the second of th

Nine residential structures lie within the existing conditions 1% AEP floodplain. Flooding depths at these structures range from 4" to 48" under existing conditions.

Proposed level-of-service 1% AEP

Status

Atlas 14 rainfall used Yes

## **Project Description**

The proposed project includes approximately 4,100 LF of channel improvements, with a 300 ft bottom width and 4:1 side slopes. No improvements to the existing drainage structure at Christian Drive are proposed with this project. Based on the results of preliminary 2D hydraulic modeling, the proposed channel improvements allowed for the removal of all nine residential structures from the 1% AEP floodplain, and no negative impacts were observed. Project will likely require environmental permitting, including, but not limited to, Clean Water Act Section 404, endangered species, cultural resources, etc.

## Related Goal(s)

## **Estimated Project Cost**

Capital cost \$10,330,000

Ongoing O&M costs \$1,000

Cost/benefit analysis 0.1

Potential funding source(s) TWDB Flood Infrastructure Fund

Flood Mitigation Project (FMP)	Lower Colorado-Lavaca REGIONAL FLOOD
Title CR 170 Low Water Crossing Improvements @ Lytton Creek	ID# 103000063 PLANNING GROUP
Sponsor (note if City or County) Caldwell County	Commitment 🖌 Yes 📃 No REGION 10
Technical committee recommend 🧧 Yes 📕 No 👘 RFPG recommend	Yes No
Project Type	
STRUCTURAL	
■ Detention ✔ Channel modification ✔ Bridge/culvert ■ Storm dra	in 📕 Levee/floodwall
Other	
NON-STRUCTURAL	
Property buyouts Floodproofing Flood readiness/resilience	Flood warning system/gauges
Other	
Destations Area	
Problem Area	
City Dale County Caldwell	
Watershed name(s) Lytton Creek	
Tributary(ies)	~ / ~
HUC#(s) 1209030103 Stream miles (est.) 1.4	
Drainage area: square miles, est 3.5 or acreage, est	WAT CROSSING®
Social Vulnerability Index (SVI) 0.834 (SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)	Creament WEST ROSSING
Other	Constanting Constanting Port

Two existing low-water crossings on CR 170 are flooded during the 1% AEP storm event. The western crossing lies on the Lytton Creek mainstem, and the flooding depth is 71 inches. The eastern crossing lies on a small unnamed tributary to Lytton Creek, and the flooding depth is 48 inches.

Proposed level-of-service 1% AEP Status

Atlas 14 rainfall used Yes

## **Project Description**

The proposed project includes upgrading both existing low water crossings to include multiple box culverts, a total of approximately 1,130 LF of channel improvements (100 ft bottom width), and roadway elevation. Based on the results of preliminary 2D modeling, 1% AEP flooding depths were reduced to 16 inches at the western crossing and 5 inches at the eastern crossing. Localized water surface elevation rises up to 0.40 feet were observed immediately upstream of the western crossing. However, we believe these minor impacts will be resolved during final design. Project will likely require environmental permitting, including, but not limited to, Clean Water Act Section 404, endangered species, cultural resources, etc.

## **Related Goal(s)**

## **Estimated Project Cost**

Capital cost \$3,037,000

Ongoing O&M costs \$1,000

Cost/benefit analysis 0.0

Potential funding source(s) TWDB Flood Infrastructure Fund

Flood Mitigation Project (FMF	REGIONAL FLOOD
Title CR 172 Low Water Crossing Improvements @ Lytton Creek	ID# 103000064 PLANNING GROUP
Sponsor (note if City or County) Caldwell County	Commitment 🖌 Yes No REGION 10
Technical committee recommend Yes No RFPG recommen	nd Yes No
Project Type	
STRUCTURAL	
Detention I Channel modification I Bridge/culvert Storr	n drain 📕 Levee/floodwall
Other	
NON-STRUCTURAL	
Property buyouts Floodproofing Flood readiness/resilience	Flood warning system/gauges
Other	
Problem Area	
City Dale County Caldwell	5
Watershed name(s) Lytton Creek	
Tributary(ies)	- CO
HUC#(s) 1209030103 Stream miles (est.) 0.56	
Drainage area: square miles, est 1.0 or acreage, est	$\lambda $
Social Vulnerability Index (SVI) 0.834	
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)	
Other	
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The existing low water crossing on CR 172 at Lytton Creek is flooded to a depth of approximately 64 inches during the 1% AEP storm event.

Proposed level-of-service 1% AEP Status Atlas 14 rainfall used Yes

## **Project Description**

The proposed project includes upgrading the existing low water crossing with multiple box culverts and approximately 680 LF of channel improvements (200 ft bottom width). Based on preliminary 2D modeling, flooding depths were reduced from 64 inches to 6 inches during the 1% AEP storm event, and no negative impacts were observed. Project will likely require environmental permitting, including, but not limited to, Clean Water Act Section 404, endangered species, cultural resources, etc.

#### Related Goal(s)

## **Estimated Project Cost**

Capital cost \$2,859,000

Ongoing O&M costs \$1,000

Cost/benefit analysis 0.2

Potential funding source(s) TWDB Flood Infrastructure Fund

#### Flood Mitigation Project (FMP) Lower Colorado-Lavaca **REGIONAL FLOOD** ANNING GROUP Title Immanuel Road/Pecan Park at Upper Gilleland Creek (DMP GC-05) ID# 103000068 Sponsor (note if City or County) Pflugerville (Municipality) **REGION 10** Commitment Yes No Technical committee recommend Yes No RFPG recommend Yes No **Project Type** STRUCTURAL Detention 🖌 Channel modification 🚽 Bridge/culvert Storm drain 🖌 Levee/floodwall Other NON-STRUCTURAL Property buyouts Floodproofing Flood readiness/resilience Flood warning system/gauges Other **Problem Area** City Pflugerville County Travis Wilbarger Creek-Colorado River

Flood Risk Description

Drainage area: square miles, est 8.62

Social Vulnerability Index (SVI) 0.2555, 0.787, 0.0012

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

Tributary(ies) Gilleland Creek

HUC#(s) 1209030101

Other

Multiple streets and residential areas experience flooding from Gilleland Creek. The level of service for Immanuel Road is less than a 5-year storm event. The 100-year floodplain downstream of Immanuel Road extends into the neighborhood south of Gilleland Creek, inundating approximately 20 homes. The 100-year floodplain also floods East Pecan Street to the north of Gilleland Creek making the road impassible for motorists.

Proposed level-of-service 10-year

Status Preliminary Engineering

Stream miles (est.) 0.58

or acreage, est

Atlas 14 rainfall used Yes

# **Project Description**

Proposed improvements include 2,200 ft of channel improvements and a 515 ft embankment to protect East Pecan Street from flooding. The proposed improvements allow Immanuel Road to pass the 10-year storm event, reduces flood risk for approximately 20 homes and relieves flooding on the East Pecan Street.

# Related Goal(s)

6.1 Reduce the number of structures and critical facilities that are at high risk 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 Project Cost**

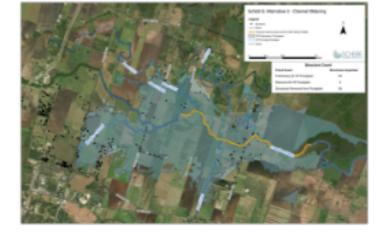
Capital cost \$4,863,100	Ongoing O&M costs	TBD	Cost/benefit analysis	1.5
Potential funding source(s)	Roadway bond, federal/state grants and/or local funds			



#### Flood Mitigation Project (FMP) Lower Colorado-Lavaca **REGIONAL FLOOD** ANNING GROUP Title Peach Creek Channel Improvement Project ID# 103000070 Sponsor (note if City or County) Wharton County Commitment Yes No Technical committee recommend Yes No Yes No RFPG recommend **Project Type** STRUCTURAL Detention 🗸 Channel modification 🔤 Bridge/culvert 🔤 Storm drain 🔤 Levee/floodwall Other NON-STRUCTURAL Floodproofing Flood readiness/resilience Flood warning system/gauges Property buyouts Other

#### **Problem Area**

City					C	County	Wharton	
Watershed name(s) Peach Cree								
Tributary	(ies)	Main	Channel					
HUC#(s)	Midd	le San	Bernard River		Str	eam mi	iles (est.)	4.4
Drainage area: square miles, est 60 or acreage, est								
Social Vulnerability Index (SVI) 0.81								
(SVI score 0.0 indicates least vulnerable; 1.0 indicates most vulnerable.)								
Other								



## **Flood Risk Description**

To be provided by Sponsor Technical Consultant

Proposed level-of-service 100-year

Status Preliminary Engineering Complete

Atlas 14 rainfall used Yes

## **Project Description**

Proposed mitigation improvements include approximately 22,900 feet of channel benching starting approximately 5,000 feet downstream of the Peach Creek crossing of CR 129 and doing downstream toward the confluence with the San Bernard River. This project will include easement acquisition, channel benching above the OHWM by 40-ft, revegetation, construction of maintenance access points, and channel stabilization measures. The County will need outside funding to construct this project.

## 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 and waterways.

## **Estimated Project Cost**

Capital cost \$2,100,000 Ongoing O&M costs \$10,000/Yr Cost/benefit analysis 2.2
Potential funding source(s) TBD