

BUDGET TABLE:

Project Title:		Total Benes	LMI Benes	LMI %	CDBG-DR Construction	CDBG-DR Engineering	CDBG-DR Acquisition	CDBG-DR Environmental	CDBG-DR Admin	Total CDBG-DR Request	Other Funds	Activity Total	+
#	03i Gills Branch Drainage	3,905	2,495	63.89%	\$5,675,211.3	\$1,244,344.7	\$2,620,420.0	\$30,000.00	\$733,198.08	10,303,174.1	\$103,032.00	10,406,206.1	X
SUMMARY TOTALS:		3,905	2,495	63.89%	\$5,675,211.3	\$1,244,344.7	\$2,620,420.0	\$30,000.00	\$733,198.08	10,303,174.1	\$103,032.00	10,406,206.1	

Beneficiary Identification Method(s) Per Project:

03i Project Title: Gills branch Drainage

HUD National Objective: Benefiting low- and moderate- (L/M) income persons

Select One Benefit Type: City-wide Benefit ☐ County-wide Benefit ☐ Area Benefit ☒ Direct Benefit ☐

Select Beneficiary Identification Method:

☐ SURVEY: An approved TxCDBG survey was used to identify the beneficiaries for this activity.

☒ HUD LMISD information was used to identify the beneficiaries for this activity.

☐ The required Census or Texas State Data Center map has been provided.

Provide the number of beneficiaries identified through each of the following methods for this activity:

TxCDBG Survey: 0 HUD LMISD: 3,905 Area Benefit: 0 Housing Activity: 0 Limited Clientele: 0

Race	# Non-Hispanic Beneficiaries	# Hispanic Beneficiaries	Total Activity Beneficiaries	+
White	2,586	668	3,254	X
Black African American	371	34	405	X
American Indian/Alaskan native	28	0	28	X
Asian	76	0	76	X
Native Hawaiian / Other Pacific Islander	0	0	0	X
Black African American/White	0	0	0	X
American Indian/Alaskan Native/White	7	10	17	X

Asian/White ▾	3	4	7	X
Other Multi-Racial ▾	8	110	118	X
	3,079	826	3,905	
Gender	Total Males	Total Females	Total Benes	
	17910	17580	35490	

<u>REQUIRED</u> - Census Geographic Area Data Identify the census tract and block group(s) in which the project will take place										County Code		+
										021		
<u>Census Tract (6-digit)</u>	01	02	03	04	05	06	07	08	09	10	X	
9504.00	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		

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

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

Applicant/Subrecipient:						
Site/Activity Title:						
Eligible Activity:						
Materials/Facilities/Services	S/Unit	Unit	Quantity	Construction	Acquisition	Total
PREPARING ROW	\$ 1.94	SY	99,220	\$ 192,700.00	\$ -	\$ 192,700.00
PREPARING ROW TREE(12" TO 24" DIA)	\$ 500.00	EA	231	\$ 115,500.00	\$ -	\$ 115,500.00
TREE PROTECTION	\$ 15.00	LS	15	\$ 9,750.00	\$ -	\$ 9,750.00
REMOVING CONC (CURB OR CURB & GUTTER)	\$ 24.00	LF	2,600	\$ 62,400.00	\$ -	\$ 62,400.00
REMOVING CONC (RIPRAP)	\$ 65.00	SY	201	\$ 4,020.00	\$ -	\$ 4,020.00
REMOV STR (BOX CULVERT)	\$ 60.00	LF	360	\$ 21,600.00	\$ -	\$ 21,600.00
REMOV STR (HEADWALL)	\$ 2,000.00	EA	7	\$ 14,000.00	\$ -	\$ 14,000.00
REMOV STR (WINGWALL)	\$ 1,500.00	EA	8	\$ 12,000.00	\$ -	\$ 12,000.00
REMOV STR (RAIL)	\$ 200.00	LF	176	\$ 35,200.00	\$ -	\$ 35,200.00
REMOV STR (PIPE)	\$ 18.00	LF	189	\$ 3,396.00	\$ -	\$ 3,396.00
REMOV STR (SMALL FENCE)	\$ 5.00	LF	1,147	\$ 5,735.00	\$ -	\$ 5,735.00
REMOVING STAB BASE & ASPH PAV (8" -10")	\$ 125.00	SY	9875	\$ 1,234,375.00	\$ -	\$ 1,234,375.00
EXCAVATION (CHANNEL)	\$ 14.00	CY	89,988	\$ 1,259,834.10	\$ -	\$ 1,259,834.10
EMBANKMENT (FINAL)(ORD COMPLYT B)	\$ 10.00	CY	1,441	\$ 14,410.00	\$ -	\$ 14,410.00
HEADWALL	\$ 7,000.00	EA	3	\$ 21,000.00	\$ -	\$ 21,000.00
WINGWALL	\$ 7,000.00	EA	3	\$ 21,000.00	\$ -	\$ 21,000.00
RETAINING WALL (FACE)	\$ 450.00	SY	300	\$ 135,000.00	\$ -	\$ 135,000.00
BRIDGE CONSTRUCTION	\$ 1,170.00	SY	964	\$ 1,127,751.30	\$ -	\$ 1,127,751.30
ROADWAY RECONSTRUCTION	\$ 110.00	SY	456	\$ 50,111.11	\$ -	\$ 50,111.11
PARKING LOT REPAIR	\$ 40.00	SY	2,519	\$ 100,740.74	\$ -	\$ 100,740.74
FURNISHING AND LACING TOPSOIL (4")	\$ 1.50	SY	50,514	\$ 75,771.00	\$ -	\$ 75,771.00
SOIL RETENTION BLANKETS (CL 1) (TV B)	\$ 2.00	SY	50,514	\$ 101,028.00	\$ -	\$ 101,028.00
BROADCAST SEED (PERM) (RURAL) (SANDY)	\$ 1.00	SY	50,514	\$ 50,514.00	\$ -	\$ 50,514.00
VEGETATIVE WATERING	\$ 1.00	SY	50,514	\$ 50,514.00	\$ -	\$ 50,514.00
PLANT MAINTENANCE	\$ 60,000.00	LS	1	\$ 60,000.00	\$ -	\$ 60,000.00
TEMPORARY EROSION CONTROL (3%)	\$ -	LS	1	\$ 112,574.53	\$ -	\$ 112,574.53
MOBILIZATION	\$ -	LS	1	\$ 300,198.74	\$ -	\$ 300,198.74
BARRICADES, SIGNS AND TRAFFIC HANDLING	\$ 60,000.00	LS	1	\$ 60,000.00	\$ -	\$ 60,000.00
LAND ACQUISITION						
TOTAL	\$ 140,795.44			\$ 4,165,257.52	\$ -	\$ 4,165,257.52

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

2. Identify and explain any special engineering activities.

	Date:	
	Phone Number:	
		Signature of Registered Engineer/Architect Responsible For Budget Justification:
Seal		

From 30% Cost Estimate

	Item	Unit	Quantity	Unit Price	
Removal	PREPARING ROW	BS	20.5	9400	
	PREPARING ROWTREE(112" TO 24" DIA)	EA	231	500	
	TREE PROTECTION	EA	15	650	
	REMOVING CONC (CURB OR CURB & GUTTER)	LF	2600	24	
	REMOVING CONC (RIPRAP)	SY	2001	20	
	REMOV STR (BOX CULVERT)	LF	360	60	
	REMOV STR (HEADWALL)	EA	7	2000	
	REMOV STR (WINGWALL)	EA	8	1500	
	REMOVE STR (RAIL)	LF	176	200	
	REMOVE STR (PIPE)	LF	189	20	
	REMOV STR (SMALL FENCE)	LF	1147	5	
	REMOVING STAB BASE & ASPH PAV (8"-10")	SY	9875	15	
Channel Imp	EXCAVATION (CHANNEL)	CU	89988	14	
	EMBANKMENT [FINAL](ORD COMP)(TY B)	CY	1441	10	
	HEADWALL	EA	3	7000	
	WINGWALL	EA	3	7000	
	RETAINING WALL (FACE)	SF	2700	50	
	BRIDGE CONSTRUCTION	SF	8675	130	
	ROADWAY RECONSTRUCTION	SY	455	5500	
	PARKING LOT REPAIR	SY	2518	5185	
	EC	FURNISHING AND PLACING TOPSOIL (4")	SY	50514	1.5
		SOIL RETENTION BLANKETS (CL 1) (TY B)	SY	50514	2
		BROADCAST SEED (PERM) (RURAL) (SANDY)	SY	50514	1
		VEGETATIVE WATERING	SY	50514	1
PLANT MAINTENANCE		MO	12	5000	
TEMPORARY EROSION CONTROL (3%)		LS	1	1	

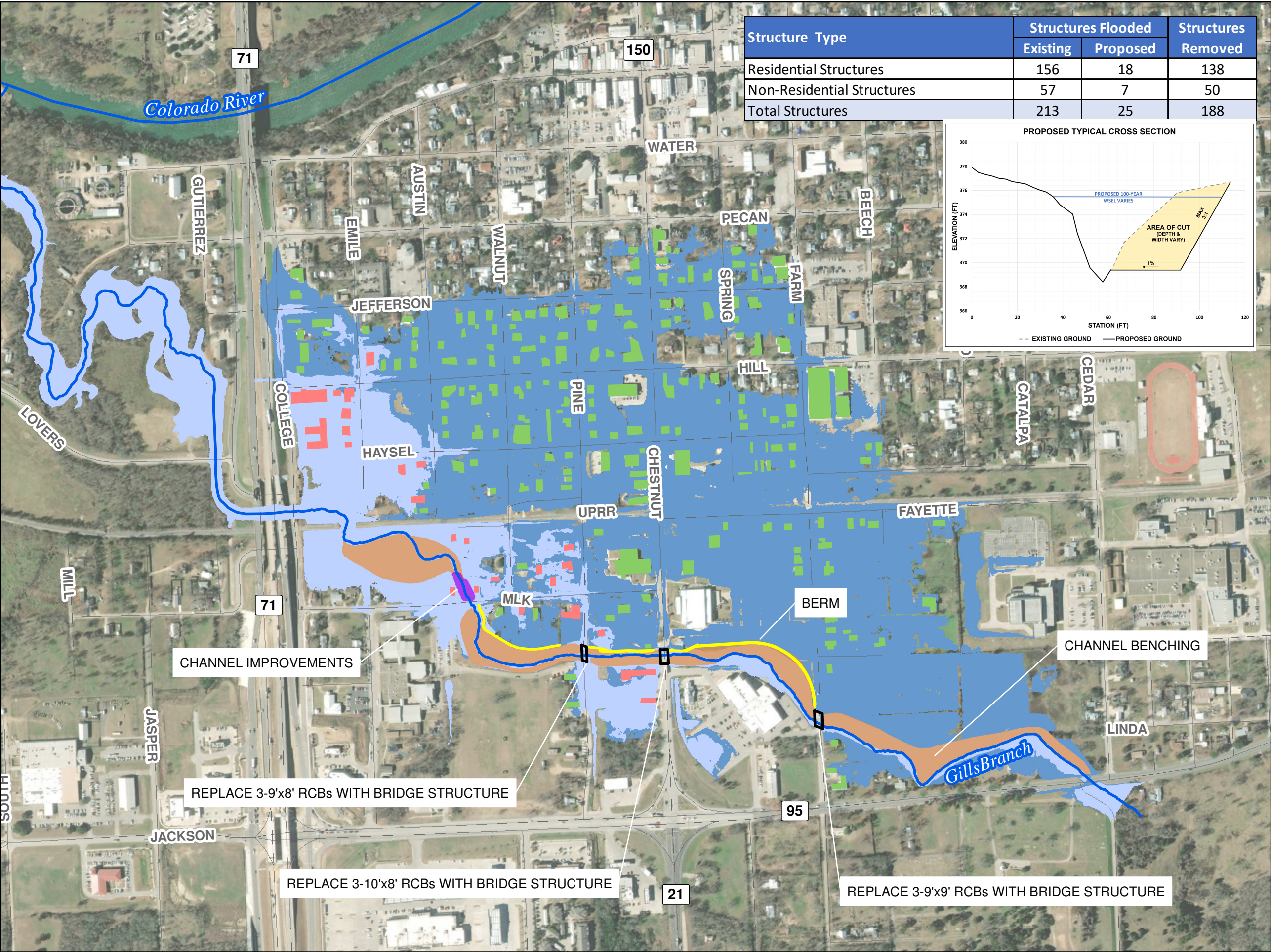
Does not include contingency.

*MOWING/DEBRY/TRASH CLEAN UP
MAINTENANCE OF EROSION

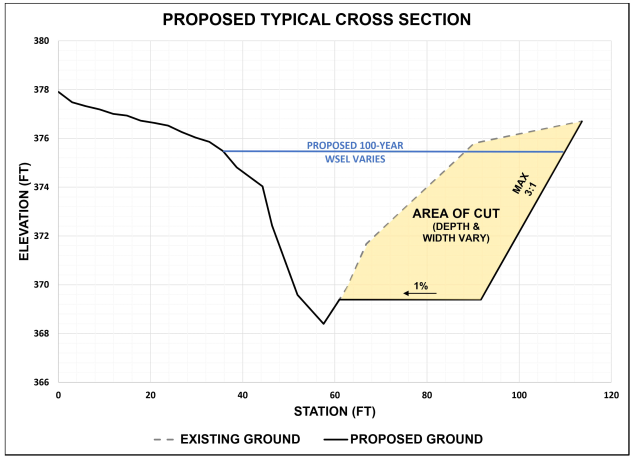
LAND ACQUISITION

SY

conversion		Unit Conversions		
ac	sy	SY	Unit cost	Cost
1	4840	99220	\$ 1.94	\$ 192,700.00
				192700
sf	sy	SY		
9	1	300	\$ 450.00	\$ 135,000.00
9	1	963.8889	\$ 1,170.00	\$ 1,127,750.00
MO	LS			
12	1	60000	\$ 60,000.00	
24	1	60000	\$ 60,000.00	

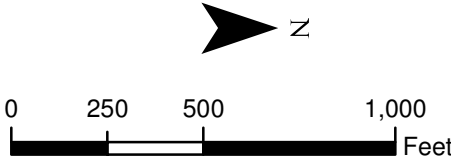


Structure Type	Structures Flooded		Structures Removed
	Existing	Proposed	
Residential Structures	156	18	138
Non-Residential Structures	57	7	50
Total Structures	213	25	188



Gills Branch Flood Mitigation Improvements

- Legend**
- Stream Centerline
 - Proposed Improvements**
 - Proposed Berm
 - Proposed Culvert Replacement
 - Channel Improvements
 - Channel Benching
 - Results**
 - Structures Flooded in Proposed
 - Structures Flooded in Existing
 - Proposed 1% ACE Floodplain
 - Existing 1% ACE Floodplain



CITY OF BASTROP - GILLS BRANCH FLOOD MITIGATION IMPROVEMENTS

PROJECT DESCRIPTION

The City of Bastrop is home to the Colorado Tributary of Gills Branch. Gills Branch has a contributing drainage area of 2.8 square miles that encompasses the downtown area with the headwaters extending approximately a half mile northeast of the City limits. Gills Branch meanders through the historic downtown flowing southwest through the City until it confluent with the Colorado River, just downstream of Texas State Highway (SH) 71.

The City of Bastrop has historically experienced flooding along Gills Branch during heavy rainfall storm events. The City observed significant flooding during the most recent flood event in 2015 Memorial Day weekend. Since 2016, Gills Branch has been extensively studied in order to fully understand the hydrologic and hydraulic characteristics of the watershed. Initially the City of Bastrop participated in the Bastrop County Flood Protection Planning (FFP) study resulting in a detailed hydrologic and 1-dimensional (1D) hydraulic analysis of the Gills Branch watershed. The FFP hydraulic analysis of Gills Branch extended 2.0 miles from SH 95 to the confluence at the Colorado River.

The 1D study established the existing channel is substantially undersized, with approximately 1,850 CFS overflowing along the western bank along Gills Branch during a 1% annual chance of exceedance (ACE) (100-year storm event). Majority of the overflow occurs between SH 95 and the Union Pacific Railroad (UPRR) crossing. Although the model indicated that overflow from Gills Branch occurred, the overland drainage patterns through the downtown neighborhoods were not well defined. This led to the development of a 2-Dimensional (2D) Analysis to properly evaluate the true nature of the overflow. The analysis indicated that the overflow from the western bank of Gills Branch continues westward until it overtops the UPRR and continues to flow through the residential and commercial downtown area until the flood waters are conveyed through a cross culvert under SH 71 and returned to the downstream reach of Gills Branch just upstream of the confluence. The results of the 2D analysis properly represented the flooding that the City witnessed during the 2015 Memorial Day Flood event. Conceptual flood mitigation solutions were evaluated in order to explore solutions to minimize the channel overflow along Gills Branch. An exhibit is included with this project description defining the extents of the existing floodplain and the anticipated results of the proposed design discussed in the following paragraph.

The City of Bastrop is currently in the design phase of the Gills Branch Flood Mitigation Improvement project and has contracted Halff Associates, Inc. to prepare final plans, specifications, and construction costs estimates. The design objective is to minimize the overflow that is impacting 213 structures in the downtown area of Bastrop, 156 of which are residential structures. The proposed design is supported with a 2D model, demonstrating the impacts of the design solutions along Gills Branch. The mitigation improvements include 1,050 linear feet of channel benching between SH 95 and the UPRR to increase the capacity along the channel to convey the anticipated NOAA Atlas 14 1% fully developed flows to the extent possible. In addition to the channel benching, three roadway culverts at Farm Street, Chestnut Street, and Pine Street will be replaced with three slab bridges. The proposed design results in removing a total of 188 structures from the floodplain, mitigating 138 residential homes. All of the proposed flood mitigation improvements are completely located within the City of Bastrop jurisdiction.

The design phase deliverables will include design plans, specifications, and probable construction cost estimate. Other supporting data and documentation include design ground survey, subsurface utility engineering, refined detailed hydrology and hydraulic analysis, environmental permitting, cultural resources investigation, attendance of public workshops, and preparation of an Engineering Design Report. The City of Bastrop is requesting \$5.7 million in funding for the construction phase of the Gills Branch Flood Mitigation Improvement project.

Operation and maintenance funding will be allocated from the City of Bastrop general fund to maintain the flood mitigation improvements. Anticipated O&M include debris removal, mowing, and repair of areas that experience creek erosion to ensure efficient channel conveyance during heavy rainfall events.