

Bryan McMath  
Executive Administrator  
Texas Water Development Board  
1700 Congress Avenue  
Austin, Texas 78701

**Re: Amendment to the 2023 Region 8 Regional Flood Plan**

Dear Mr. McMath,

The Region 8 Flood Planning Group (RFPG) has reviewed, considered, and approved an amendment to the 2023 Region 8 Regional Flood Plan to incorporate additional flood risk reduction solutions to be considered by the Texas Water Development Board during the 2026-2027 cycle of Flood Infrastructure Funding.

On August 15, 2024, the Lower Brazos RFPG voted to provide an opportunity for communities to incorporate additional flood mitigation and management needs into the Lower Brazos 2023 Regional Flood Plan through an amendment in order to give communities the opportunity to make these additional needs eligible for 2026 FIF funding. Due to time and budget limitations associated to complete the amendment, the RFPG chose not to accept any new Flood Mitigation Projects (FMPs) into the amendment. Instead, the RFPG only allowed for FMPs already on the non-recommended list to be moved to the recommended list if they met minimum requirements. The RFPG also allowed communities to submit new FMEs and FMSs. Outreach was performed to notify communities of the opportunity and provide them with assistance in identifying and developing needs for incorporation into the amendment.

The amendment consists of the addition of 98 new FMEs and FMSs, and revisions to 15 existing FMEs, FMSs, and FMPs – including the recommendation of ten (10) existing FMEs, FMSs, and FMPs and changes to the names, descriptions, and/or costs of five (5) FMEs and FMPs that were already recommended within the existing plan. These additions and revisions represent 31 communities (23 cities and 8 counties) throughout the Lower Brazos basin.

The Amended Region 8 2023 Regional Flood Plan as approved and adopted by the RFPG on **February 20, 2025**. The Region 8 Regional Flood Plan was developed in conformance with the guidance principles established in Title 31 TAC §362.3. The recommendations included in this amendment will not negatively impact neighboring areas and would adequately provide for the preservation of life and property.

The Region 8 Flood Planning Group complied with the Texas Open Meetings Act and Public Information Act requirements, in accordance with 31 TAC §357 while developing the Amended Regional Flood Plan. A public meeting was held **February 20, 2025** to present and approve the amendment document. Notice of the meeting was posted and a public comment period was initiated 14 days prior to the meeting in accordance with Title 31 TAC §361.21. **XX public comment were received during the comment period.**

The following documentation includes a Summary of Changes, a detailed Amendment Document, and 3 Attachments that contain all information relevant to the second amendment of the 2023 Region 8 Regional Flood Plan that was approved by the RFPG.

Sincerely,

Alysha Girard, PE, CFM

LB RFPG Chair

cc: Ryan Londeen, Halff  
Tressa Olson, TWDB

**DRAFT**

DRAFT

REGION



Lower Brazos  
Regional Flood Planning Group



**2023 Region 8  
Lower Brazos Regional Flood Plan  
Amendment No. 2 (2025)**

**DRAFT**

**AMENDMENT TO THE 2023 LOWER BRAZOS  
(REGION 8) REGIONAL FLOOD PLAN**

**Prepared for:**

Region 8 Regional Flood Planning Group and  
Texas Water Development Board

**Prepared by:**

Half Associates, Inc.  
TBPELS Firm #312

**FEBRUARY 2025**

## Summary of Changes 2023 Regional Flood Plan Amendment #2

The summary of changes provides an overview of adjustments made to each chapter and appendix of the Region 8 Flood Plan to account for changes made during the amendment process. A detailed account of each change made is provided in the full amendment document.

### **Executive Summary**

The Executive Summary was updated to reflect changes made throughout the document to various chapters and appendices effected by the amendment. Changes include adjustments to the count of identified, evaluated, and recommended flood management and mitigation actions, impacts of the recommended actions, flood infrastructure financing, and plan adoption sections. These adjustments account for the additional flood mitigation and management actions incorporated into the Regional Flood Plan through the amendment process.

### **Chapters 1 – 4A**

No changes were made to the following chapters:

- Chapter 1: Lower Brazos Planning Area Description
- Chapter 2: Flood Risk Analyses
- Chapter 3: Floodplain Management Practices and Flood Protection Goals
- Chapter 4A: Flood Mitigation Needs Analysis

### **Chapter 4B: Identification and Evaluation of Potential Flood Management Evaluations and Potentially Feasible Flood Management Strategies and Flood Mitigation Projects**

The changes that were made to Chapter 4B included describing the additional flood management evaluations (FMEs) and flood management strategies (FMSs) that were identified and evaluated during the amendment process.

### **Chapter 5: Recommendation of Flood Management Evaluations and Flood Management Strategies and Associated Flood Mitigation Projects**

Updates were made to Chapter 5 to reflect the addition of 98 new FMEs and FMSs, and recommendation of ten (10) existing FMEs, FMSs, and flood mitigation projects (FMPs). Some revisions were also made to FMEs, FMSs, and FMPs that were already recommended within the existing plan, including adjustments to names, descriptions, and costs. Changes made to the chapter to account for this include changes to the overall costs associated with the needs, the geographical distribution of needs within the region, the number of active sponsors within the region, and other summary data. The table below shows the updates to the total number of recommended FMEs, FMSs, and FMPs within the plan.

Type	Previous Recommendation Count	Amendment Recommendation Count
FME	97	181
FMS	10	31
FMP	49	52

### **Chapter 6A: Impacts of Regional Flood Plan**

Updated the impacts of plan implementation based on the change in recommended FMEs, FMSs, and FMPs.

### **Chapters 6B – 8**

No changes made to the following chapters:

- Chapter 6B: Contributions to and Impacts on Water Supply
- Chapter 7: Flood Response Information and Activities
- Chapter 8: Administrative, Regulatory, and Legislative Recommendations

### **Chapter 9: Flood Infrastructure Financing Analysis**

The financial analysis was updated to include the additional recommended FMEs, FMSs, and FMPs.

### **Chapter 10: Public Participation and Plan Adoption**

Changes were made to describe RFPG meetings held to develop amendment, public outreach efforts performed in support of the amendment, and the adoption process for the Amendment of the Region 8 Flood Plan.

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- Attachment 1: Exhibit C Tables
- Attachment 2: TWDB Maps
- Attachment 3: Geodatabase Change Log
- Attachment 4: Summary of Outreach

## **A.1 Introduction and Planning Group Action**

### **A.1.1 Summary of Amendment**

The Texas Water Development Board (TWDB) has recently advertised their intent to solicit applications for the 2026 Flood Infrastructure Funding (FIF) cycle to be awarded in 2027. Only flood mitigation and management actions listed within the 2024 State Flood Plan are eligible for funding through the 2026 FIF and future FIF funding cycles. Within the Lower Brazos Flood Planning Region (Region 8), many communities have expressed interest in providing additional flood mitigation needs for incorporation into the 2024 State Flood Plan, so that they are eligible for upcoming FIF cycles.

On August 15, 2024, the Lower Brazos RFPG voted to provide an opportunity for communities to incorporate additional flood mitigation and management needs into the Lower Brazos 2023 Regional Flood Plan through an amendment in order to give communities the opportunity to make these additional needs eligible for 2026 FIF funding. Due to time and budget limitations, the RFPG chose not to accept any new Flood Mitigation Projects (FMPs) into the amendment. Instead, the RFPG only allowed for FMPs already on the non-recommended list to be moved to the recommended list if they met minimum requirements. The RFPG also allowed communities to submit new FMEs and FMSs.

Following the August RFPG meeting, a data collection window was opened to allow communities to submit FMEs, FMSs, and revisions to FMPs for inclusion in the amendment. The data collection period ended on October 18, 2024. Requests received during this period of time were evaluated by the technical consultant team and brought to the RFPG for review on December 12, 2024. After receiving feedback on the potentially feasible FMEs and FMSs and revised FMPs, they were incorporated into this amendment and all effected data was updated. The Lower Brazos 2023 Regional Flood Plan Amendment was then brought to the RFPG on February 20, 2025. The RFPG voted to approve and adopt the amendment, to be submitted to the TWDB on or before the April 1, 2025, deadline.

## **A.2 Consistency with Rules and Statute**

The Lower Brazos 2023 Regional Flood Plan Amendment was developed in conformance with all relevant administrative rules and statute. In particular, the amendment was adopted by the RFPG in accordance with 31 TAC §361.21 notice requirements and adheres to the requirements and guidance principles for regional flood plans as described in TWC §16.062(h)(1). The recommendations included in this amendment will not negatively impact neighboring areas and would adequately provide for the preservation of life and property.

## A.3 Modifications and Additions to the 2023 Regional Flood Plan Report

### A.3.2 Changes to the Executive Summary

The Executive Summary was updated to reflect changes made throughout the document to various chapters and appendices affected by the amendment. Changes include adjustments to the descriptions of public engagement and participation, adjustments to the counts of identified, evaluated, and recommended flood management and mitigation actions, and adjustments to descriptions of the plan implementation impact and funding.

ES.2 - Public Participation – *Additional statement describing outreach efforts performed for the amendment, to follow existing text.*

“An additional opportunity for public input and engagement was provided through the development of the 2023 Lower Brazos Regional Flood Plan Amendment. A flyer was emailed to key officials to notify them of the amendment effort, guidelines, and schedule. Follow up phone calls and meetings were conducted to ensure entities were aware of the amendment and had the opportunity to provide information for their community.”

ES.5 - Identification, Evaluation, and Recommendation of Flood Management and Mitigation Actions – *Modifications to values associated with FMEs, FMSs, and FMPs.*

Pg ES-8: “Over **680 785** potential FMEs, FMPs, and FMSs were identified through the public outreach survey, roadshow workshops, research of publicly available documents, and flood exposure analysis. However, the list of potential flood mitigation actions was not exhaustive for the Lower Brazos Planning region.”

Pg ES-9: “After an extensive screening and evaluation process, the RFPG recommended **49 52** FMPs, **40 31** FMSs, and **97 181** FMEs for inclusion in the Lower Brazos Regional Flood Plan.”

Pg ES-9: “The estimated budget (2020 dollars) for the recommended FMEs, FMSs, and FMPs, is ~~\$4.7 billion~~ **\$4.8 billion**. The estimated cost for non-recommended FMEs, FMSs, and FMPs is ~~\$256 million~~ **\$238 million**.”

Pg ES-9: Table ES.4: Summary of Recommended FMPs

FMP Type	Number of Identified FMPs	Number of Recommended FMPs	Cost of Recommended FMPs
Low Water Crossings or Bridge Improvements	17	40 <b>13</b>	\$28,272,000 <b>\$42,371,000</b>
Regional Channel Improvements	26	25	\$3,603,269,000
Regional Detention	1	1	\$8,699,000
Storm Drainage Improvements	4	4	\$9,419,000
Comprehensive Drainage Improvements	8	8	\$643,007,000
Property Acquisition	1	0	\$600,000
<b>Total</b>	<b>57</b>	<b>49</b> <b>52</b>	<b>\$4,293,265,000</b> <b>\$4,307,365,000</b>

Pg ES-10: Table ES.5: Summary of Recommended FMSs

FMS Type	Number of Identified FMSs	Number of Recommended FMSs	Cost of Recommended FMSs
Education Outreach	4 2	0 1	\$0 \$500,000
Flood Measurement and Warning	15 20	2 7	\$1,000,000 \$3,050,000
Infrastructure Projects	27 31	2 6	\$360,500,000 \$363,550,000
Property Acquisition and Structural Elevation	17 19	2 5	\$1,900,000 \$5,400,000
Regulatory and Guidance	28 35	1 8	\$500,000 \$2,600,000
Other	54 52	3 4	\$2,000,000 \$2,500,000
<b>Total</b>	<b>139</b> <b>159</b>	<b>10</b> <b>31</b>	<b>\$365,900,000</b> <b>\$377,600,000</b>

~~†Not enough information was available to determine an accurate cost estimate to implement.~~

Pg ES-10: Table ES.6: Summary of Recommended FMEs

FME Type	Number of Identified FMEs	Number of Recommended FMEs	Cost of Recommended FMEs
Regional Watershed Studies	60 77	15 32	\$5,343,000 \$19,534,000
Studies on Flood Preparedness	29 30	2 5	\$1,000,000 \$3,755,000
Drainage Master Plans	125 147	5 29	\$1,774,000 \$18,781,000
Feasibility Assessments	32 47	13 28	\$4,850,000 \$12,460,000
Preliminary Engineering	132 151	42 63	\$13,058,000 \$17,422,000
H&H Analysis	45 49	20 24	\$3,954,000 \$4,415,000
<b>Total</b>	<b>423</b> <b>501</b>	<b>97</b> <b>181</b>	<b>\$29,979,000</b> <b>\$76,367,000</b>

ES.6 – Impacts of the Recommended Flood Management and Mitigation Actions – Modifications to the quantification of benefits associated with the implementation of the recommended flood management and mitigation actions.

Pg ES-10: “**In the near term, implementation of all recommended FMEs in the Lower Brazos Regional Flood Plan would result in a decrease in the percentage of the region with inadequate mapping from 33 percent to 28 percent 26 percent.** Implementing all recommended FMPs in the Lower Brazos Regional Flood Plan, ~~confined to Fort Bend County in this cycle,~~ would result in a ~~23.8 percent reduction in the Fort Bend County~~ 8.6% reduction in population exposed to the 1 percent ACE storm ~~throughout the Lower Brazos Region.~~ Other benefits of plan implementation listed below are more qualitative.”

ES.7 – Impacts of the Recommended Flood Management and Mitigation Actions – Modifications to the number of flood mitigation and management actions and their associated costs.

Pg ES-11: “The Lower Brazos RFPG recommended ~~456 264~~ flood mitigation actions to address flood risk across the planning region. Combined, these flood mitigation actions are anticipated to cost ~~\$4.7 billion~~ 4.8 billion to implement. The RFPG developed a comprehensive assessment of funding opportunities to help the legislature with future funding and grant needs to address flood risk in the region and, ultimately, the state.”

Pg ES-12: “Overall, an estimated ~~\$4.7 billion~~ \$4.8 billion of funding is needed to implement the recommended FMEs, FMSs, and FMPs in the Lower Brazos Regional Flood Plan beyond what is anticipated to be funded by local sponsors.”

### A.3.3 Changes to Chapter 4

Chapter 4 was updated to describe the additional FMEs and FMSs that were identified and evaluated during the amendment process. Values related to the number of identified actions, as well as qualitative descriptions of the identified needs were modified as applicable.

4B.3.d Regional Flood Plan Amendment – Description of work performed during amendment process, to follow existing text within the section.

Pg. 4-19: ~~In September 2024 the Lower Brazos RFPG initiated a second amendment to the Lower Brazos Regional Flood Plan. This amendment provided communities with an additional opportunity to submit flood mitigation and management needs for inclusion in the plan, to become eligible for Flood Infrastructure Funding.~~

~~Outreach was performed to inform communities of the opportunity. Within the data collection window 98 new flood mitigation evaluations and flood management strategies were received, along with 15 requests for adjustments to existing flood mitigation and management needs.~~

4B.3.f Final List of FMEs, FMPs and FMSs – *Modifications to Table 4.9.*

Pg 4-19: **Table 4.9: Final Number of Identified FMEs, FMPs, and FMSs**

Need Type	Number
Flood Mitigation Evaluations	<del>423</del> 501
Flood Mitigation Projects	57
Flood Management Strategies	<del>139</del> 159
Infeasible Flood Mitigation Projects	68
<b>Total</b>	<b><del>687</del> 785</b>

4B.4.b Critical Assessment Information – *Modifications to Table 4.10.*

Pg 4-23: **Table 4.10: FME Types**

FME Type	FME Sub-Type	Description	Number of FMEs Identified
Watershed Planning	Drainage Master Plan	An assessment of a watershed or community to estimate flood risk and recommend flood management and flood mitigation needs with a focus on potential flood mitigation projects.	<del>125</del> 147
Watershed Planning	Regional Watershed Studies	An assessment of a watershed with the intent to develop better flood risk information that can include both regulatory and non-regulatory flood risk mapping.	<del>60</del> 77
Engineering Project Planning	Feasibility Assessment	Develop flood mitigation project alternatives for a discrete high flood risk area, estimate construction costs for the alternatives, and determine flood reduction benefits for the alternatives. Evaluation will require the creation of H&H modeling.	<del>32</del> 47
Engineering Project Planning	Preliminary Engineering	Further evaluation of an identified potential flood mitigation project, validate construction costs, and determine flood reduction benefits for the project. Evaluation will require the creation of H&H modeling.	<del>132</del> 151
Engineering Project Planning	Update H&H Modeling	Updates or refinement of previously created models that support a potential flood mitigation project to include the best available data.	<del>45</del> 49
Studies on Flood Preparedness		Analysis to determine community risk and preparedness in infrastructure failure or severe storm events.	<del>29</del> 30
		Total	<del>423</del> 501

4B.5.b FMS Types and Overview – Modifications to Table 4.12.

Pg 4-27: **Table 4.13: FMS Types**

FMS Type	Description	Number of FMSs Identified
Education & Outreach	Programs or initiatives aiming to educate the public on the hazards and risks of flooding.	4 <del>2</del>
Flood Measurement & Warning	Programs and initiatives to ensure entities are aware of current flood risk and conditions, such as installation of flood risk signage, programs to ensure regulation compliance, and creation of databases to consolidate flood risk data.	45 <del>20</del>
Infrastructure Projects	Big picture ideas for extensive flood infrastructure improvements throughout a community.	27 <del>31</del>
Property Acquisition & Structural Elevation	Buyouts of elevation of all structures with designated hazard levels such as one percent annual chance storm event floodplain, repetitive loss structures, or structures downstream of dams.	47 <del>19</del>
Regulatory & Guidance	Updates or creation of new ordinances, development codes, design standards, maintenance codes, etc. to prevent the creation of new flood risk or mitigate current flood risk.	28 <del>35</del>
Other	Other initiatives or big picture ideas for specific flood mitigation or management strategies.	54 <del>52</del>
<b>Total</b>		<b>139</b> <del><b>159</b></del>

Pg 4-30: Of the ~~139 FMSs~~ 139 FMSs, 10 were identified as including a nature-based solution to flooding. Within this set of strategies, eight involve preservation and creation of open space, and two involve stabilizing erosion through planting and supporting natural vegetation.

Pg 4-31: Similarly, a significant portion of FMSs can also be determined to have no negative impact on neighboring areas without a detailed supporting analysis due to being non-structural in nature. These types of FMSs are listed below:

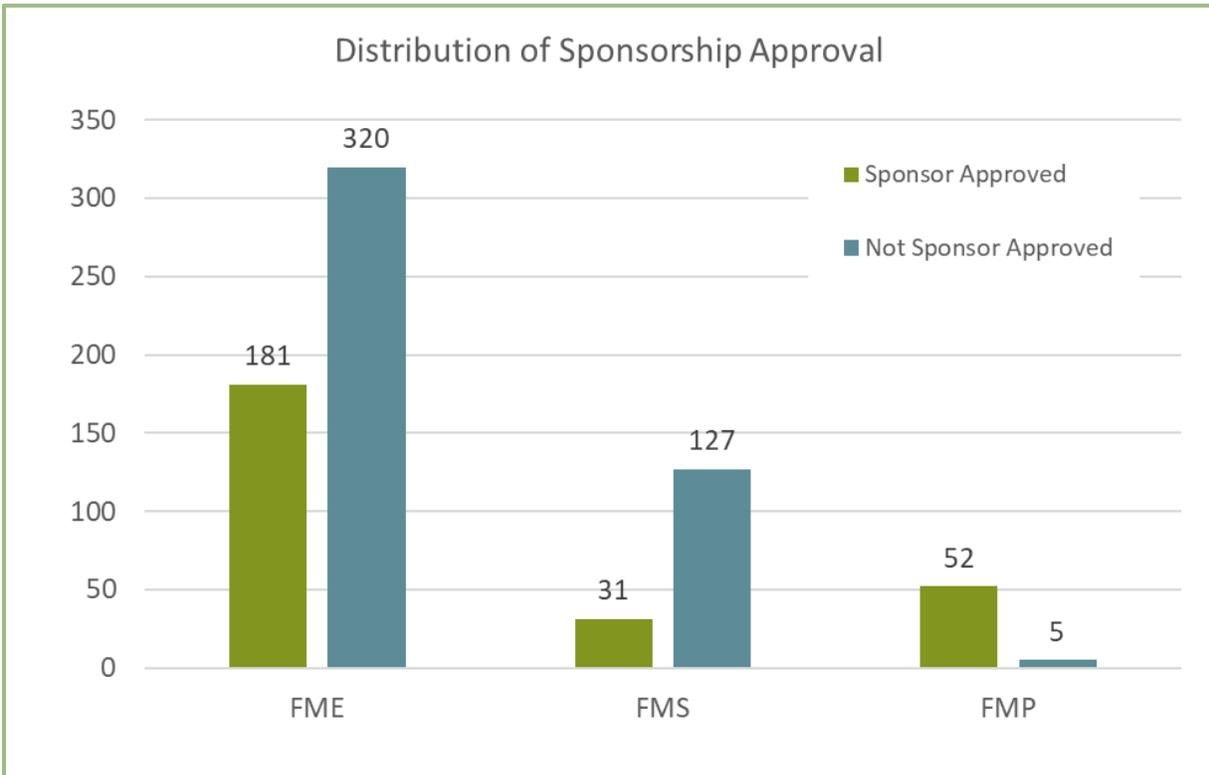
- Education and outreach (~~4~~) (2)
- Early flood warning systems (~~45~~) (20)
- Property acquisition and structural elevation (~~47~~) (19)
- Regulatory and guidance (~~28~~) (35)
- Others include maintenance, restoration, land use policies, sign installation, etc. (51)  
(~~52~~)

### A.3.4 Changes to Chapter 5

Chapter 5 was updated to reflect the addition of new, recommended FMEs and FMSs, as well as the revision of 3 existing flood mitigation projects (FMPs) that were recommended as part of the amendment. Values related to the number of recommended actions, as well as qualitative descriptions of the recommended needs were modified as applicable.

#### 5.1.3.b. Lower Brazos Planning Region’s Sponsorship Requirements – *Modifications to Figure 5.1.*

Pg 5-4: Updated “**Figure 5.1 Sponsorship Summary**” to reflect additional entries provided and approved by sponsors during the amendment.



#### 5.1.4. Lower Brazos Planning Region’s Sponsorship Requirements – *Description of work performed during amendment process, to follow existing text within the section.*

Pg 5-6: “During the amendment process, several additional flood mitigation and management needs were identified and recommended. The RFPG considered the additional FMEs, FMSs, and FMPs on May 25th, 2023, bringing the total number of recommended needs to 145 of 619 collected needs.

A second amendment process was initiated in September 2024. Additional FMEs and FMSs accepted, evaluated, and recommended. The RFPG voted to adopt the amended Regional Flood Plan, including the additional FMEs and FMSs on February 20<sup>th</sup>, 2025, bringing the total number of recommended needs to 264 of 717 collected needs.”

5.2.1 FME Recommendation Approach – Modified quantification of identified FMEs.

Pg 5-6: “The RFPG identified and evaluated ~~423~~ **501** potential FMEs as described in Chapter 4.”

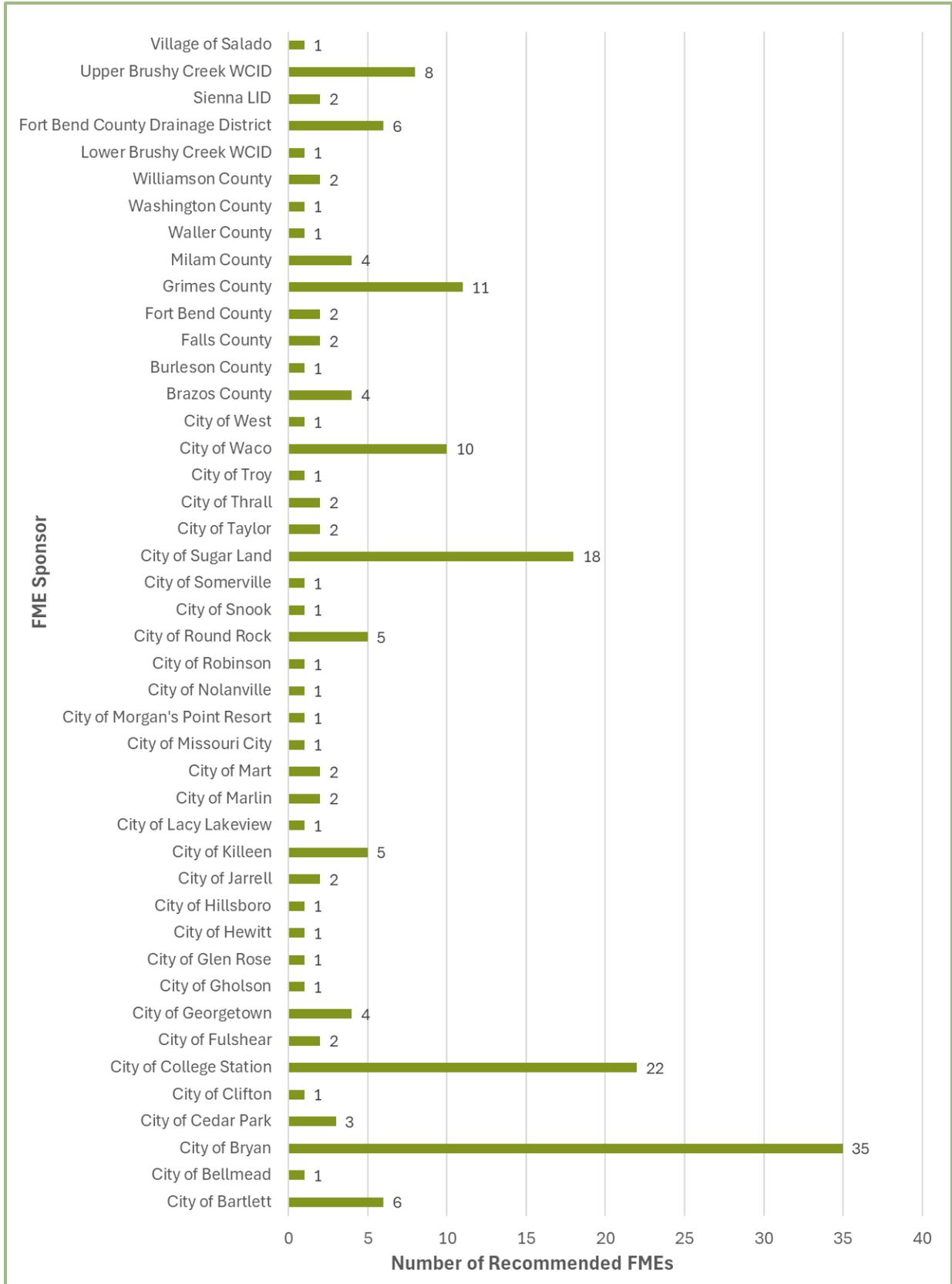
5.2.2 Summary of Recommended FMEs – Modified quantifications of FME related data, FME tables, and FME figures to account for additional entries and modifications to existing entries.

Pg 5-6: “In total, ~~423~~ **501** potential FMEs were presented to the RFPG for recommendation. Of these, ~~156~~ **181** were recommended by the Lower Brazos RFPG. Almost ~~\$30 million~~ **\$80 million** in flood mitigation and management needs and ~~49 locations~~ **44 communities** are represented by these recommended evaluations.”

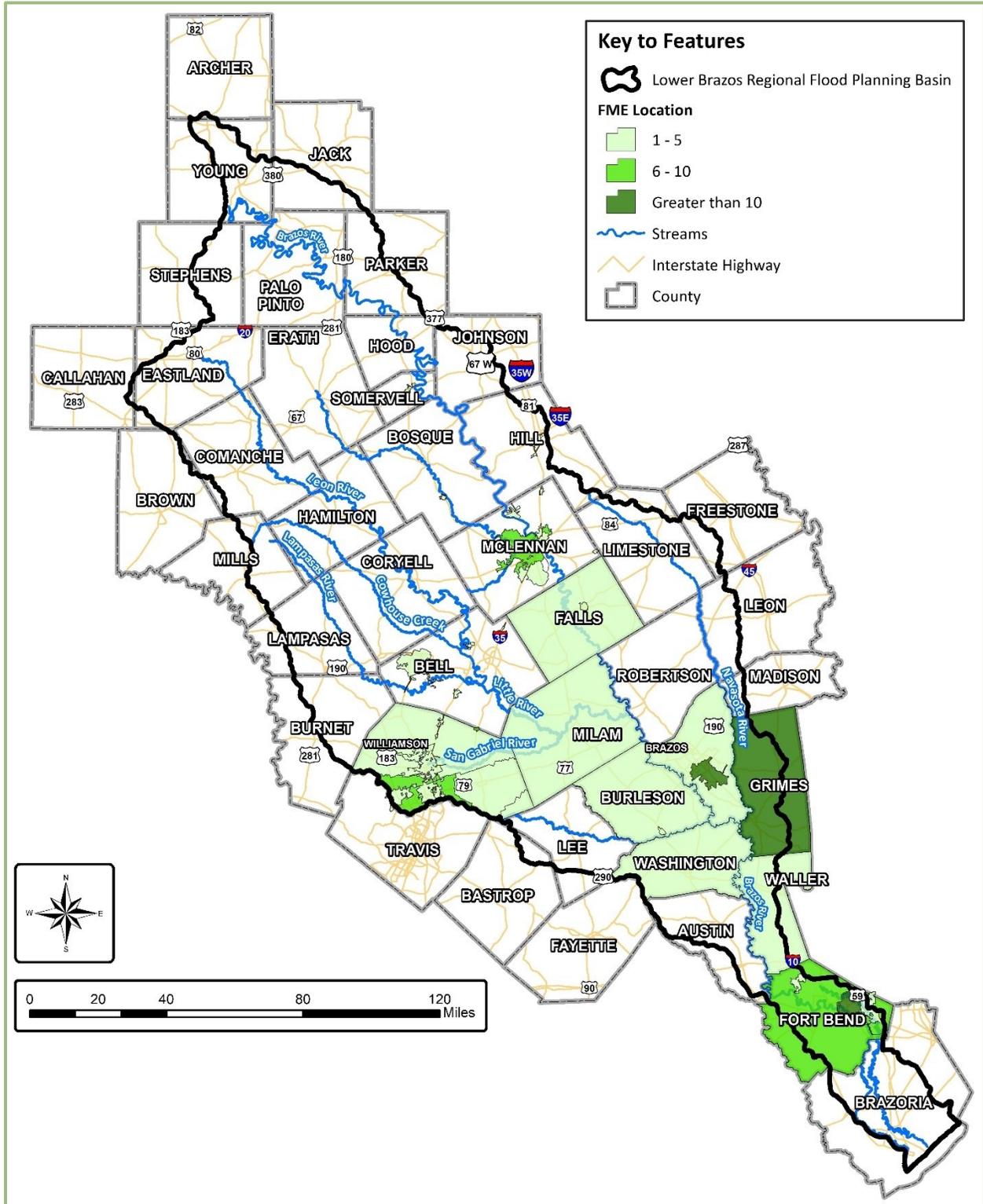
Pg 5-7: **Table 5.2: Summary of Recommended FMEs**

FME Type	Number of Identified FMEs	Number of Recommended FMEs	Cost of Recommended FMEs
Regional Watershed Studies	60	15	\$5,343,000
	<del>60</del> <b>77</b>	<del>15</del> <b>32</b>	<del>\$5,343,000</del> <b>\$19,534,000</b>
Studies on Flood Preparedness	29	2	\$1,000,000
	<del>29</del> <b>30</b>	<del>2</del> <b>5</b>	<del>\$1,000,000</del> <b>\$3,755,000</b>
Drainage Master Plans	125	5	\$1,774,000
	<del>125</del> <b>147</b>	<del>5</del> <b>29</b>	<del>\$1,774,000</del> <b>\$18,781,000</b>
Feasibility Assessments	32	13	\$4,850,000
	<del>32</del> <b>47</b>	<del>13</del> <b>28</b>	<del>\$4,850,000</del> <b>\$12,460,000</b>
Preliminary Engineering	132	42	\$13,058,000
	<del>132</del> <b>151</b>	<del>42</del> <b>63</b>	<del>\$13,058,000</del> <b>\$17,422,000</b>
H&H Analysis	45	20	\$3,954,000
	<del>45</del> <b>49</b>	<del>20</del> <b>24</b>	<del>\$3,954,000</del> <b>\$4,415,000</b>
<b>Total</b>	<del>423</del> <b>501</b>	<del>97</del> <b>181</b>	<del>\$29,979,000</del> <b>\$76,367,000</b>

Pg 5-8: Updated “**Figure 5.2 Sponsorship of Recommended FMEs**” to include additional entities and update FME totals representing sponsorship approval of recommended FMEs for the amendment.



Pg 5-9: Updated “**Figure 5.3 Distribution of Recommended FMEs**” to include additional FME locations and updated counts of FMEs per location.



Section 5.3.2 Summary of Recommended FMSs - Modified quantifications of FMS related data, FMS tables, and FMS figures to account for additional entries and modifications to existing entries.

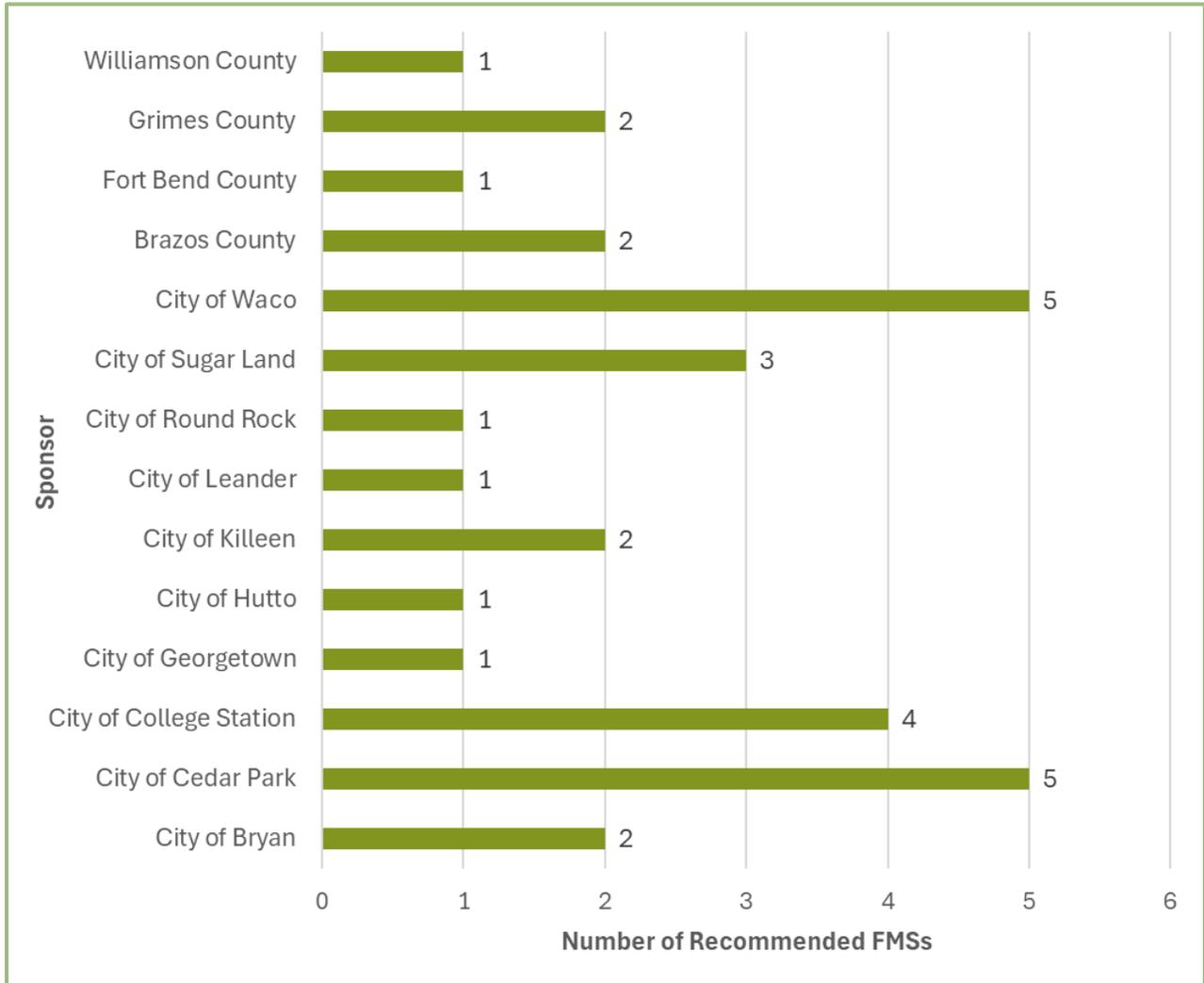
Pg. 5-10: “In total, ~~139~~ 159 FMSs were collected through outreach to interested parties and the examination of publicly available documentation. Of these, ~~ten~~ 31 were recommended by the Lower Brazos RFBPG. Around ~~\$365 million~~ \$375 million is estimated to be needed for the recommended FMSs. Of this, \$360 million is related to erosion projects in Fort Bend County, and an additional \$14 million is estimated for the City of Waco property acquisitions. The remaining FMSs do not have estimated costs at this time.”

Pg 5-11: **Table 5-3: Summary of Recommended FMSs**

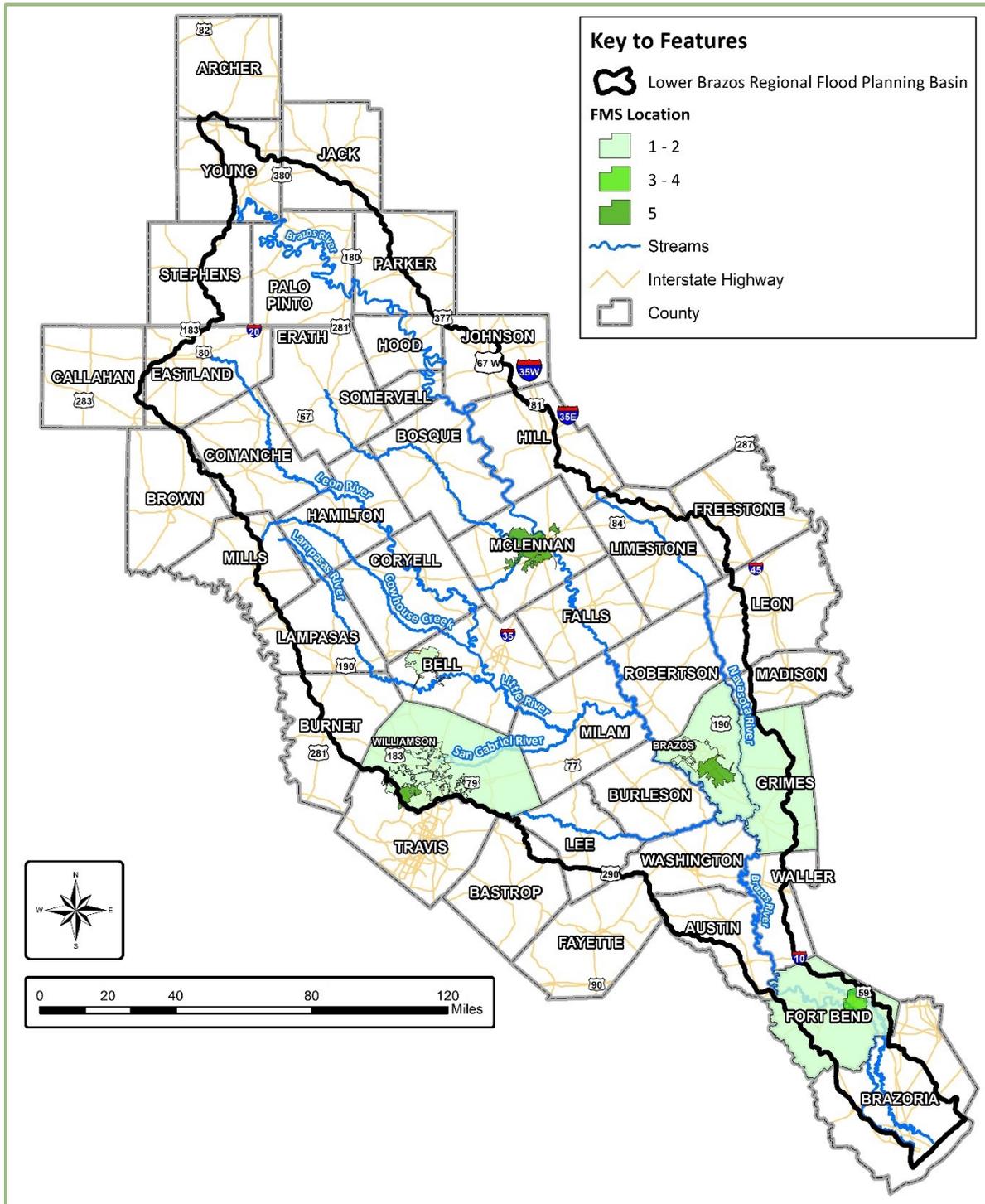
FMS Type	Number of Identified FMSs	Number of Recommended FMSs	Cost of Recommended FMSs
Education Outreach	4	0	\$0
	2	1	\$500,000
Flood Measurement and Warning	45	2	\$1,000,000
	20	7	\$3,050,000
Infrastructure Projects	27	2	\$360,500,000
	31	6	\$363,550,000
Property Acquisition and Structural Elevation	47	2	\$1,900,000
	19	5	\$4,900,000
Regulatory and Guidance	28	1	\$500,000
	35	8	\$2,600,000
Other	54	3	\$2,000,000
	52	4	\$2,500,000
<b>Total</b>	<b>139</b>	<b>10</b>	<b>\$365,900,000</b>
	<b>159</b>	<b>31</b>	<b>\$377,100,000</b>

~~†Not enough information was available to determine an accurate cost estimate to implement.~~

Pg 5-11: Updated “**Figure 5.4 Sponsorship of Recommended FMSs**” to include additional entities and update FMS totals representing sponsorship approval of recommended FMSs for the amendment.



Pg 5-12: Updated “**Figure 5.5 Recommended FMS Distribution**” to include additional FMS locations and updated counts of FMSs per location.



Section 5.4.2 – Summary of Recommended FMPs – Modified quantifications of FMP related data, FMS tables, and FMS figures to account for modifications to existing entries.

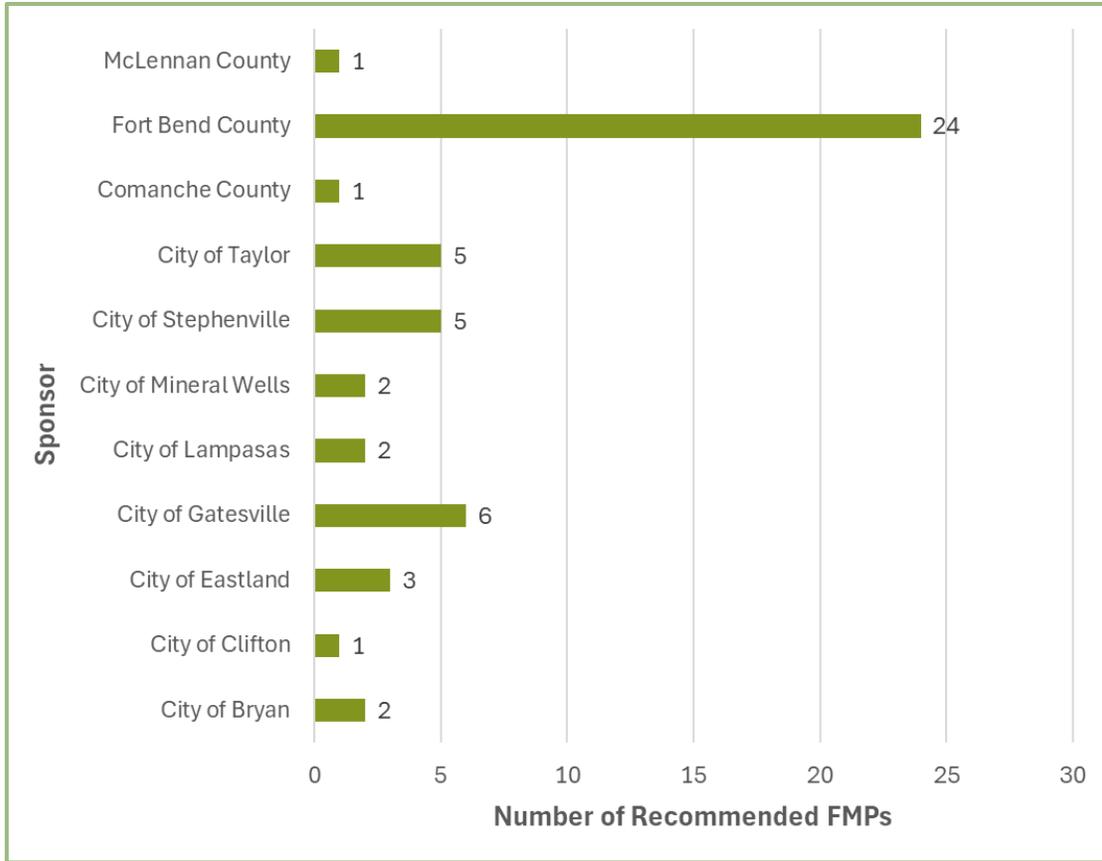
Pg 5-14: In total, 57 FMPs were collected through outreach to interested parties, examination of publicly available documentation, and the development of FMPs by the Technical Consultant Team during the amendment process. Of these, ~~49~~ **52** were recommended by the Lower Brazos RFPG. One proposed FMP was not recommended due to having a drainage area of less than 1 square mile and not meeting any of the additional guidance principles outlined by the RFPG. A total of ~~7~~ **4** FMPs were not recommended due to a lack of local sponsor support.

The recommended FMPs are scattered throughout the Lower Brazos Region, representing ~~9~~ **11** locations and over \$4 billion in funding needs.

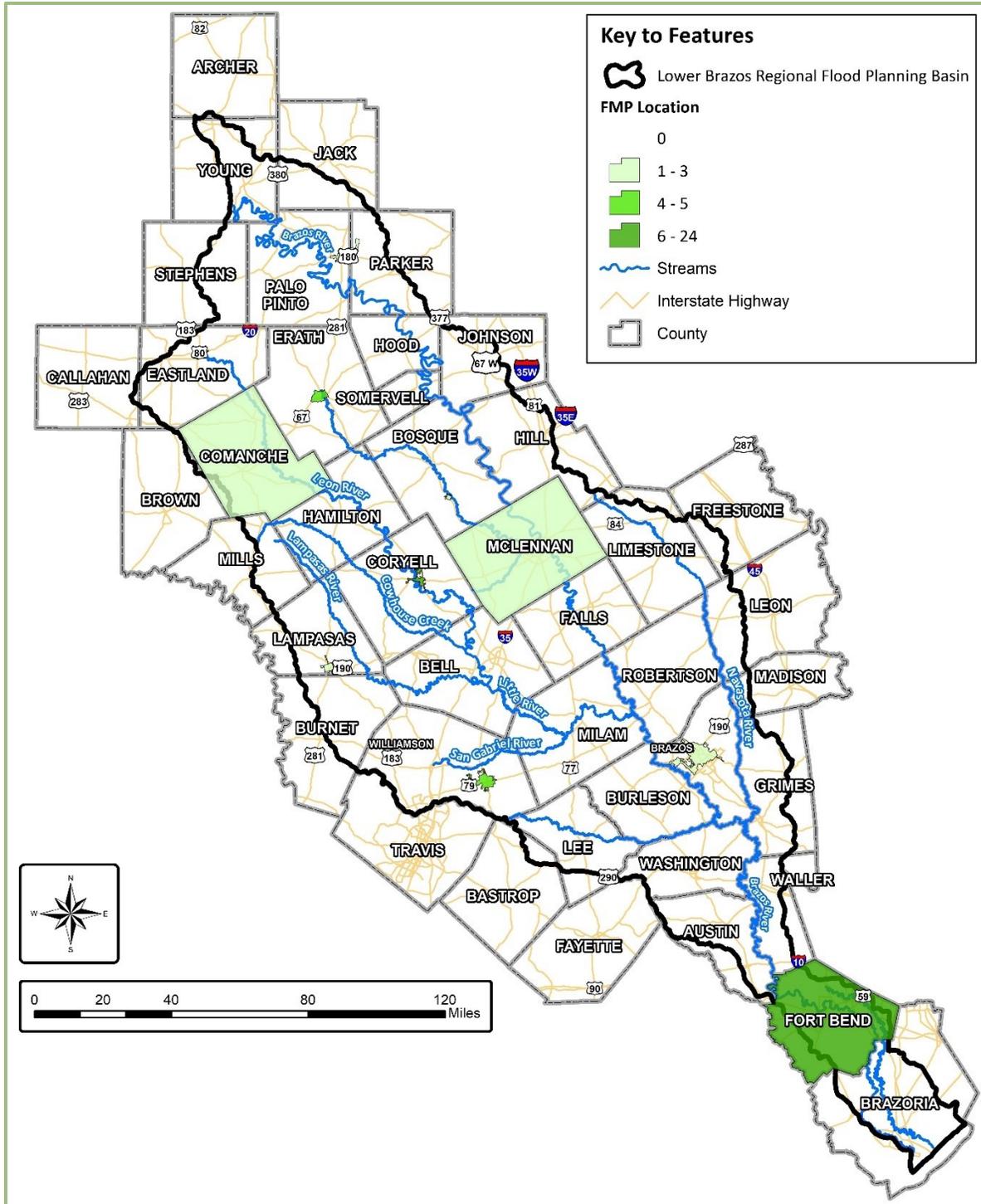
**Pg 5-14: Table 5.4: Summary of Recommended FMPs**

FMP Type	Number of Identified FMPs	Number of Recommended FMPs	Cost of Recommended FMPs
Low Water Crossings or Bridge Improvements	17	<del>10</del> <b>13</b>	<del>\$28,272,000</del> <b>\$42,371,000</b>
Regional Channel Improvements	26	25	\$3,603,269,000
Regional Detention	1	1	\$8,699,000
Storm Drainage Improvements	4	4	\$9,419,000
Comprehensive Drainage Improvements	8	8	\$643,006,000
Property Acquisition	1	0	\$600,000
<b>Total</b>	<b>57</b>	<del>49</del> <b>52</b>	<del>\$4,293,265,000</del> <b>\$4,307,364,000</b>

Pg 5-15: Updated “**Figure 5.6: Sponsors of Recommended FMPs**” to include additional entities and update FMP totals representing sponsorship approval of recommended FMPs for the amendment.



Pg 5-16: Updated "**Figure 5.7 Recommended FMP Distribution**" to include additional FMPs recommended by reh RFPG during the amendment.



Section 5.5 – Not Recommended FMEs, FMSs, and FMPs – Modified quantification of not recommended FMEs, FMSs, and FMPs to account for revisions made during the amendment.

Pg 5-17: **Table 5-5: Summary of Not Recommended FMEs, FMSs, and FMPs**

Classification	Number Not Recommended	Reason for Recommendation Status*	Associated Costs
FME	<del>294</del> 288	No official sponsor approval was obtained.	<del>\$218,690,000</del> \$221,603,000
FME	32	The study area is less than 1 square mile.	\$3,850,000
FMS	<del>129</del> 128	No official sponsor approval was obtained.	Not enough information was available to determine the extent of these FMSs and to develop an estimated cost to implement
FMP	1	The project drainage area is less than one square mile and does not meet guidance principles.	\$669,000
FMP	<del>7</del> 4	No official sponsor approval was obtained.	<del>\$22,510,000</del> \$8,411,000
<b>Total</b>	<del>463</del> 453		<del>\$238,632,000</del> \$221,620,000

\*Some flood mitigation and management needs may have multiple reasons for not being recommended.

Pg. 5-18: “In total, ~~463~~ 453 flood mitigation and management needs were identified but not recommended as part of the Lower Brazos Regional Flood Plan. Of these, ~~430~~ 420 were not recommended due to insufficient explicit sponsorship approval.”

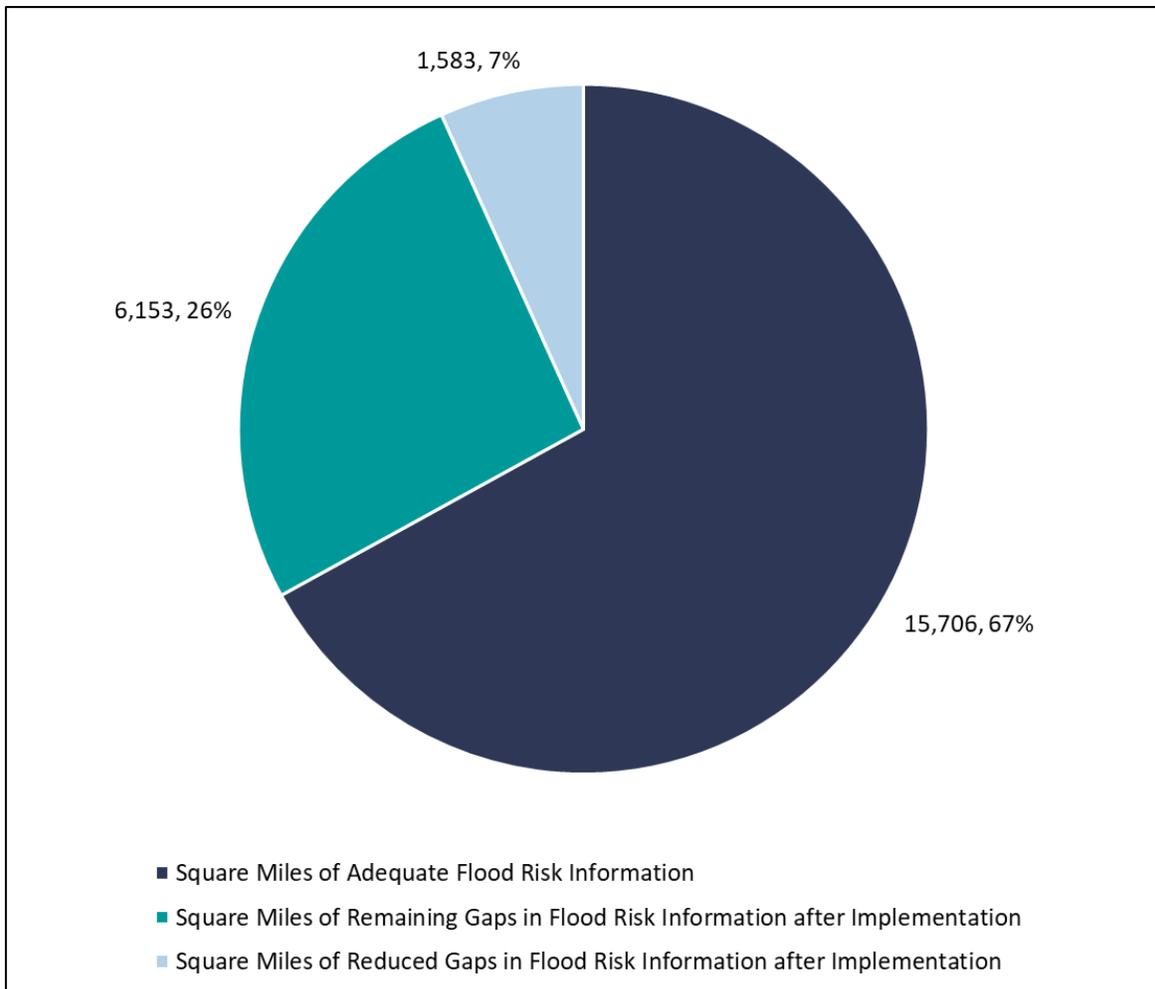
### A.3.5 Changes to Chapter 6

Chapter 6 was updated to reflect the impacts of plan implementation based on the newly recommended FMEs, FMSs, and FMPs.

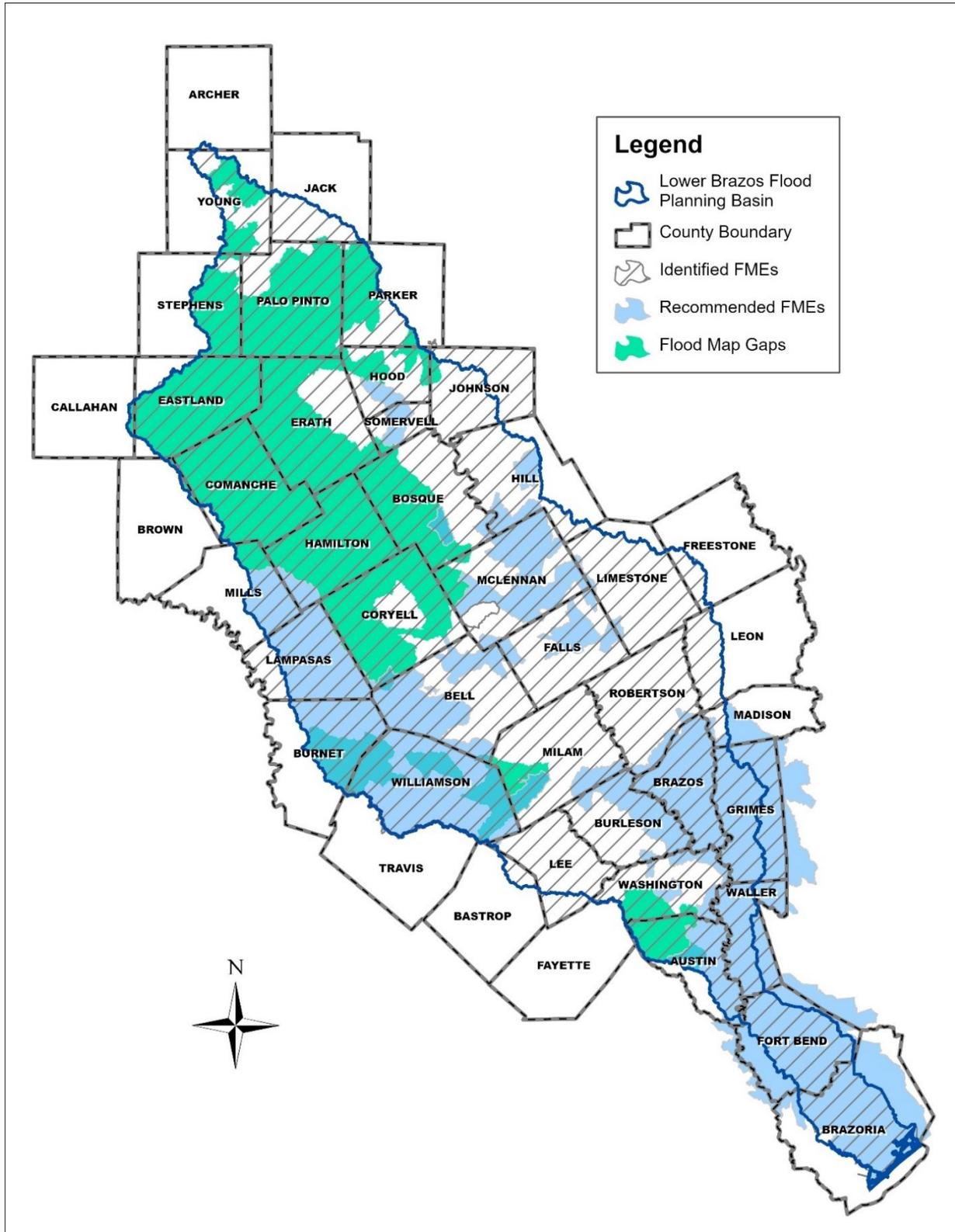
6A.1.a. Reduction in Flood Risk Identification needs – *Modified quantification of information gaps that would be filled by implementation of the recommended FMEs to account for additional entries and recommendation of existing entries.*

Pg 6-2: “After the completion of recommended FMEs, ~~28 percent~~ 26 percent of the region area will need flood risk identification, a reduction of ~~1,172 square miles (5 percent)~~ 1,583 square miles (7 percent).”

Pg 6-2: Update **Figure 6.1: Gaps in Flood Risk Information after Implementation of Regional Flood Plan** to reflect the additional reductions in flood risk information gaps that would be associated with the additional recommended FMEs.



Pg 6-3: Update **Figure 6.2: Impact of Plan on Flood Risk Information Gaps** to include representation of additional recommended FMEs that would help reduce the information gaps.



6A.1.b Reduction in Flood Risk Exposure – *Modified quantification flood risk benefits that would be provided through the implementation of the proposed FMPs to account for recommendation of existing FMPs.*

Pg 6-4: “The Lower Brazos RFPG recommended ~~49 FMPs~~ **52 FMPs** for implementation, and these projects consist of crossing improvements, regional channel improvements, and comprehensive drainage improvements, among others.

**Pg 6-4: Table 6.1: Summary of Impact on People and Property After Implementation of Recommended FMPs**

Flood Exposure Region-Wide	Existing Conditions 1% ACE*	After Implementation 1% ACE	Reduction in Exposure 1% ACE
Total Structures	63,056	<del>59,074</del> <b>59,069</b>	<del>3,982</del> <b>3,987</b>
Residential Structures	42,646	39,263	3,383
Critical Facilities	187	168	19
Population	129,888	<del>118,803</del> <b>118,772</b>	<del>11,085</del> <b>11,116</b>
Low Water Crossings	7,500	7,495	5

6A.2.b. Recreational Impacts – *Modified text to include additional entities represented by new FMS entries.*

Pg 6-5: “Additionally, the list of recommended FMSs includes developing a property acquisition program in **Grimes County and in the cities of Bryan, Cedar Park, College Station, and Hutto, and Killeen.**”

6A.2.d. Agricultural Impacts – *Modified to clarify that FMPs throughout the region contribute to the potential reductions in flood risk to farming and agricultural land.*

Pg 6-6: “After the implementation of the Regional Flood Plan, 54 square miles of farming or ranching agricultural land is anticipated to be removed from the 1 percent annual chance flood hazard area as a result of recommended FMPs ~~in Fort Bend County~~ **throughout the Lower Brazos region**, which will reduce the risk of damage to cropland and excessive transport of fertilizers.

6A.3.a Floodplain Management Policy Future Impacts – *Modified to describe entities represented by additional FMSs related to management criteria.*

Pg 6-7 to 6-8: “While many FMSs related to updated floodplain management criteria were identified, ~~none~~ **only eight (8)** were recommended by the RFPG due to a lack of sponsor response. **The recommended regulatory and guidance updates represent seven (7) communities spread across the Lower Brazos Region: Brazos County, City of Cedar Park, City of College Station, City of Sugarland, City of Round Rock, City of Waco (2 recommended regulatory and guidance FMSs), and Williamson County. While the RFPG does not recommend these FMSs there are many more non-recommended regulatory and guidance FMSs due to**

lack of sponsor response, documentation of the strategies in HMPs implies the potential for their recommendation in subsequent ~~amendments or~~ cycles of the plan.”

### A.3.6 Changes to Chapter 9

Chapter 9 was updated to include the additional recommended FMEs, FMSs, and FMPs in the financial analysis.

9.2.2 Flood Infrastructure Financing Survey Results – *Modified total estimated cost of FMEs, FMSs, and FMPs to include additional entries and revisions to existing entries.*

Pg 9-13: “Overall, there is an estimated ~~\$4.7 billion~~ \$4.8 billion in state and federal funding projected to be needed to implement the recommended evaluations, strategies, and projects in the Lower Brazos Regional Flood Plan.”

### A.3.7 Changes to Chapter 10

Chapter 10 was updated to describe the public outreach and engagement performed as part of the amendment. These revisions included additional sections describing data collection efforts, RFPG monthly meetings, and guidance and principle adherence in the development of the amendment document.

10.1.1 New Regional Website and Email Address – *Added statement regarding email address used for amendment outreach.*

Pg 10-2: “In addition, the planning group’s Sponsor created a regional email address (LBFlood@brazos.org) to simplify the process for the public contacting them and/or submitting questions to the Lower Brazos RFPG. ~~For technical questions and submittal of data, the technical consulting team also provided an email contact (region8@halff.com).~~”

10.2.2 Additional Data Collection Efforts – *Added statement on data collection efforts performed for the amendment to follow existing text. **Attachment 4** provides a detailed summary of the outreach performed to support the amendment.*

Pg 10-9: “~~In September 2024, the Lower Brazos RFPG initiated an amendment of the Regional Flood Plan to include additional flood mitigation and management needs. Email notifications were sent to community officials throughout the region to inform communities of the amendment opportunity, schedule, and data submittal requirements. To supplement the flyer provided through the email notifications, the Technical Consultant team called all entities who had expressed interest in the planning process between the adoption of the Lower Brazos Regional Flood Plan and the initiation of the amendment process. Personalized emails were also sent to county officials and municipalities with populations greater than 50,000. As communities showed interest, in person and virtual meetings were scheduled to provide specific guidance and ensure all community needs were captured within the plan.~~”

10.3.2 Monthly RFPG Meetings – Modified Table 10.2.

Pg 10-10 – 10-12: **Table 10.2: Summary of Lower Brazos RFPG Meetings**

Meeting Date	Key Discussion Items	Voting Items
June 24, 2021	Timeline and tasks planned for public outreach and data collection. Discussion of flooding concerns with each interest category.	N/A
July 22, 2021	Introduction and overview of Tasks 1, 2, and 3. Update on public outreach and data collection efforts.	N/A
August 26, 2021	Updates on the development of Tasks 1 and 2A. Discussion on Task 2B approach as it relates to developing future conditions. Discussion of potential public meeting locations and dates. Discussion of draft goals and standards as related to Task 3.	N/A
September 23, 2021	Discussion of adoption vs. recommendation in the development of Task 3A standards. Discussion of draft Task 3B goals. Update on Task 2B as related to the previous discussion. Introduction to Task 4B.	N/A
October 28, 2021	Discussion of the evaluation process, sources, and benefit areas related to Task 4B. Updates on Tasks 1, 2, and 10.	Approval of Task 3A Standards and 3B Goals.
November 16, 2021	Updates on Tasks 1, 2, 3, 4A, and 4C.	Approval of Task 4B Identification and Evaluation Process.
December 14, 2021	Discussion on public outreach meeting locations and dates. Discussion on existing conditions analyses as related to Task 2A. Agreement with Task 2B approach provided.	Approval of Technical Memorandum for submittal.

Meeting Date	Key Discussion Items	Voting Items
January 27, 2022	Introduction and overview of Task 5. Discussion of meeting materials, dates, attendees, and locations for public meetings. Updates on Task 2A and emergency need definition as related to Task 4B. Discussion of Water Supply and Flood Control interactions as related to Task 6.	N/A
February 24, 2022	Discussion of Technical Memorandum Addendum and related Task 2. Discussion of emergency needs definition as related to Task 4B. Updates and introductions of Tasks 1, 6, 7, 8, and 10.	Approval of Technical Memorandum Addendum for submittal.
March 24, 2022	Discussion of Task 3 report. Discussion of Task 5 evaluation and recommendation process. Updates on Tasks 6, 7, 8, and 10.	N/A
April 28, 2022	Public Roadshow Meetings recap and review of Task 2 report. Discussion of Task 5 evaluation and recommendation process. Presentation and discussion of preliminary Task 4A results.	N/A
May 26, 2022	Update on Tasks 4A, 8, and 9. Discussion of Flood Control and Water Supply interaction as related to Task 6.	Approval of Task 5 Flood Management Evaluation (FME), Flood Management Strategy (FMS), and Flood Mitigation Project (FMP) Recommendations.
June 23, 2022	Comments on chapters 1 through 10 of the Regional Flood Plan. Discussion on Task 8 recommendations.	N/A
July 21, 2022	Draft Regional Flood Plan.	Approval of the Draft Regional Flood Plan.
September 22, 2022	Opportunity for public to provide comments on the Draft Plan. Discussion of potential uses of Amendment Tasks (12 and 13).	N/A

Meeting Date	Key Discussion Items	Voting Items
October 28, 2022	Discussion of comments received on Draft Regional Flood Plan. Discussion of potential uses of Amendment Tasks (12 and 13).	Approval of Task 4 and 5 FME, FMS, and FMP lists to include changes due to public comment. Approval of FMEs to be carried out under Task 12.
December 13, 2022	Discussion of comments received on Draft Regional Flood Plan and major resulting changes. Update on Tasks 12 and 13 progress.	Approval of Task 4 and 5 FME, FMS, and FMP lists to include changes due to public and TWDB comments. Approval of budget adjustments. Adoption of Lower Brazos Regional Flood Plan.
January 26, 2023	Discussion of submittal of Final Lower Brazos Regional Flood Plan to TWDB. Update on Tasks 12 and 13 progress.	Approval of Carl Burch as voting member of RFPG representing Electric Generating Utilities. Nominations and approvals of RFPG member positions.
March 23, 2023	Updates on Tasks 12 and 13 progress. Discussion of 1 square mile FMP restriction.	N/A
April 27, 2023	Discussion of comments received from TWDB on Final Lower Brazos Regional Flood Plan. Discussion of formation of a Technical Committee.	N/A
May 4, 2023	Discussion on additional criteria to evaluate and recommend FMPs with drainage areas less than 1 square mile.	N/A
May 25, 2023	Discussion and acceptance of Technical Committee recommendations. Discussion of Task 12 and 13 preliminary results.	Approval of FMS, FME, and FMP lists to include additional entries based on Task 12 efforts and submittals received from public.
June 22, 2023	Discussion of Amended Lower Brazos Regional Flood Plan.	Adoption of Amended Lower Brazos Regional Flood Plan.
August 22, 2024	Discussion of possible amendment to the 2023 Lower Brazos Regional Flood Plan.	Approval of amendment schedule and guidelines.
October 24, 2024	Discussion of amendment outreach efforts and response.	N/A

Meeting Date	Key Discussion Items	Voting Items
December 12, 2024	Presentation of flood mitigation and management needs received during amendment data collection period.	N/A
February 20, 2025	Discussion of Amendment Document and supporting data.	Adoption of Lower Brazos Regional Flood Plan Amendment.

10.8 – Plan Adoption – *Added statement regarding adoption of the Lower Brazos Regional Flood Plan Amendment Document, to follow existing text.*

Pg 10-17: “On February 20, 2025, the Lower Brazos RFPG adopted the Lower Brazos Regional Flood Plan Amendment Document and directed the Brazos River Authority and Technical Consultant Team to submit the Amendment Document and supporting data to the TWDB on or before April 1, 2025.”

## A.4 Modifications and Additions to the 2023 Regional Flood Plan Appendices

### A.4.8 Changes to Exhibit C Tables

The Lower Brazos Regional Flood Plan includes many deliverable components that support the narrative in the report. The TWDB prescribed Exhibit C Tables are one of these components. Several of the tables were updated to reflect the new FMEs and FMSs and revisions to existing FMEs, FMSs, and FMPs made during the amendment process. These updated tables are provided as **Attachment 1**, highlighted rows indicate new FMEs and FMSs added to the plan during the amendment while red text indicates revisions to existing entries. Summaries of the changes are provided in the subsequent sections.

Table 12: Potential Flood Management Evaluations

Table 12 was revised to include the 78 additional FMEs incorporated into the Lower Brazos Regional Flood Plan as part of the amendment. The table was also updated to reflect revisions to 15 existing FMEs.

Table 13: Potentially Feasible Flood Mitigation Projects

Table 13 was revised to reflect revisions to four existing FMPs.

Table 14: Potentially Feasible Flood Mitigation Strategies

Table 14 was revised to include the 20 additional FMSs incorporated into the Lower Brazos Regional Flood Plan as part of the amendment. The Table was also updated to reflect one revision to an existing FMS.

Table 15: Recommended Flood Management Evaluations

Table 12 was revised to include the 78 additional FMEs incorporated into the Lower Brazos Regional Flood Plan as part of the amendment. The table was also updated to reflect revisions to 15 existing FMEs.

Table 16: Recommended Flood Mitigation Projects

Table 16 was revised to reflect revisions to four existing FMPs.

No Negative Impact Table

No Negative Impact table was revised to include negative impact analysis description for three additional recommended FMPs.

Project Details Table

The Project Details Table was revised to include project details for three additional recommended FMPs.

## A.4.9 Changes to Maps

Several maps were developed in accordance with TWDB guidance in support of the Lower Brazos Regional Flood Plan. Relevant maps were updated to reflect the new FMEs and FMSs and revisions to existing FMEs, FMSs, and FMPs made during the amendment process. These updated maps are provided as **Attachment 2**; summaries of the changes are provided in the subsequent sections.

Map 16: Extent of Potential FMEs and Existing Mapping Needs

Map 16 was updated to show the additional 78 FMEs incorporated into the Lower Brazos Regional Flood Plan as part of the amendment.

Map 18: Extent of Potential FMSs

Map 18 was updated to show the 20 additional FMSs incorporated into the Lower Brazos Regional Flood Plan as part of the amendment.

Map 19: Recommended FMEs

Map 19 was updated to show the 78 new FMEs and the 6 additional FMEs recommended from the existing list that were incorporated into the Lower Brazos Regional Flood Plan as part of the amendment.

Map 20: Recommended FMPs

Map 20 was updated to show three additional FMPs recommended from the existing list that were incorporated into the Lower Brazos Regional Flood Plan as part of the amendment.

Map 21: Recommended FMSs

Map 21 was updated to show the 20 new FMSs and the one additional FMS recommended from the existing list that were incorporated into the Lower Brazos Regional Flood Plan as part of the amendment.

## A.4.10 Other Changes

Substantial outreach was performed to engage communities throughout the region and provide them with an opportunity to submit their FMEs, FMSs, and FMPs. **Attachment 4** includes documentation of the amendment flyer sent to entity representatives throughout the Lower Brazos Region, a list of entities contacted through email, and a list of entities personally contacted by members of the Technical Consultant Team.

## A.5 Modifications and Additions to the Geodatabase

The Lower Brazos Regional Flood Plan is accompanied by a geodatabase containing the data discussed in the report, tables, and displayed on the maps. Relevant feature classes within the geodatabase were updated to reflect the additional FMEs and FMSs and revisions to FMEs,

FMSs, and FMPs incorporated during the amendment. A detailed log of changes is provided in **Attachment 3**, and the geodatabase is provided as a supplementary dataset to this amendment document. Below is a summary list of the feature classes and data tables updated as part of the amendment effort:

- **FME:** Updated to include 78 new FMEs and revisions to 15 existing FMEs.
- **FMS:** Updated to include 20 new FMSs and revisions to one existing FMS.
- **FMP:** Updated to include revisions to four existing FMPs.
- **Project Details:** Updated to include entries for three FMPs recommended as part of the amendment.