



**2023 REGIONAL FLOOD PLAN
REGION 4 SABINE
Amendment #2**

PREPARED FOR THE
REGION 4 SABINE REGIONAL FLOOD PLANNING GROUP

2023 AMENDED SABINE REGIONAL FLOOD PLAN AMENDMENT #2

PREPARED BY:

Region 4 Sabine Regional Flood Planning Group

WITH ASSISTANCE FROM:

Freese and Nichols, Inc.

TBPE Reg No. F-2144

SUMMARY OF CHANGES

2023 REGIONAL FLOOD PLAN AMENDMENT #2

The following summary of changes to the Region 4 2023 Amended Sabine Regional Flood Plan which was signed and sealed on December 26, 2023 and will be referred to throughout this document as “2023 Sabine RFP”. The first amendment occurred in 2023 leading to the above-mentioned document; thus, this is Amendment #2 to the 2023 Sabine Regional Flood Plan. Revisions were completed in March 2025 in response to the need to recommend additional flood risk reduction solutions to be considered by TWDB during the 2026 - 2027 cycle of the Flood Infrastructure Fund (FIF). Items in **bold blue** text denote the changes made to the 2023 RFP.

Executive Summary

Executive summary tables and descriptions were updated to reflect the changes to chapters and appendices described below. This may include changes to recommended flood risk reduction solutions, associated impacts and contributions to the Regional Flood Plan, flood infrastructure financing, outreach and public engagement.

Chapters 1-3

No changes were made.

Chapters 4: Assessment and Identification of Flood Mitigation Needs

Within this amendment, an additional 47 FMEs, 6 FMSs, and 14 FMPs were identified as potentially feasible. Of the 14 FMPs identified, 5 FMPs were previously recommended by the Sabine RFPG as FMEs.

Chapter 5: Recommendations of Potential Flood Management Evaluations and Flood Management Strategies and Associated Flood Mitigation Projects

The Sabine RFPG performed an analysis of 223 FMEs, where 216 were recommended to be added and the other 7 were no longer recommended as they have been elevated to FMPs. The total recommended FME count increased from 176 to 216. The original count of total recommended FMPs were 33. An additional 12 recommended FMPs are proposed bringing the total count of FMPs to 45. One FMP is not recommended based on the need to analyze additional alignment alternatives as the Lower Sabine FIF project is currently ongoing. One other FMP is not recommended due to implementation concerns. Finally, no previously recommended FMSs were removed and 6 additional FMSs were added to the 2023 Sabine RFP. The total number of recommended FMSs increased from 59 to 65.

Chapter 6: Impact and Contribution of the Regional Flood Plan

The table summarizing total reduction in flood risk exposure due to recommended FMPs was updated to include flood risk exposure reduction of the additional 12 FMPs recommended.

Chapter 7-8

No changes were made.

Chapter 9: Flood Infrastructure Financing Analysis

From the total implementation cost of \$4.084B for the regional flood plan, it is projected that \$2.813B in state and federal funding is needed.

Chapter 10: Public Outreach and Engagement

No changes were made.

Modifications and Additions to the Geodatabase

Summary of revised Geodatabase table is located on page 29.

Modifications and Additions to the Appendices

Appendix A: Revised Maps

Appendix B: Revised Tables

Appendix C: Additional Data

DRAFT
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INTRODUCTION AND PLANNING GROUP ACTION

Summary of amendments and associated evaluations

In May 2024, TWDB Regional Flood Planning Grant Scope of Work document for the second cycle of the RFP, the scope was updated to include up to two amendments for the 2023 RFP with grant funding. The Sabine Regional Flood Planning Group (RFPG) chose to go forward with an amendment to the 2023 Sabine Regional Flood Plan (RFP) to support various stakeholders and entities in order to add or modify FMXs. Many sponsors expressed interest in updating and proposing new FMXs in order to pursue Flood Infrastructure Fund (FIF) funding.

The Region 4 RFPG’s Technical Consultant created an outreach flyer to solicit interest in providing additional flood risk reduction solutions to be considered by TWDB during the 2026-2027 cycle of the Flood Infrastructure Fund. The flyer is shown in **Figure 1** below. The flyer was emailed directly to community officials and other key stakeholders in the region. These community officials were also contacted by the technical consultant and encouraged to participate.

FLOOD RISK REDUCTION SOLUTIONS

HOW TO SUBMIT FOR STATE FUNDING ELIGIBILITY

Introduction to Regional Flood Planning

In 2019, the Texas Legislature tasked the Texas Water Development Board (TWDB) initiating the regional and state flood planning processes. Region 4 is one of 15 Regional Flood Planning Groups (RFPG) across the State tasked with developing a regional flood plan. In 2024, TWDB adopted the inaugural State Flood Plan, which incorporated the findings of the 15 Regional Flood Plans. Regional and state flood planning activities are beginning for the next planning and funding cycle.

Flood Infrastructure Fund

The TWDB’s Flood Infrastructure Fund (FIF) is a funding program that provides financial assistance for drainage and flood risk reduction planning/studies and the design and construction of flood risk reduction solutions. Funding includes grants and low or no interest loans to eligible political subdivisions. To be eligible for FIF funding, your flood risk reduction solution(s) **must** be included in the State Flood Plan. A complete list of currently eligible flood risk reduction solutions is available in the 2024 State Flood Plan Documents at <https://www.texasstatefloodplan.org/>.

The next FIF funding cycle is anticipated to open in 2026. To increase the number of eligible projects and studies, the TWDB is providing an opportunity to incorporate new flood risk reduction solutions or studies, or change a previously adopted project’s type (ie. FME to FMP) into the 2024 State Flood Plan through an amendment process.

TWDB has established an April 1, 2025 submittal deadline. The RFPG must take action prior to submittal for the amendment; therefore, the RFPG is requesting a Notice of Intent (NOI) from communities in the Sabine River basin considering joining the amendment process. The NOI should be submitted by December 13, 2024, with a full submittal deadline of January 17, 2025. Beyond the amendment process, additional flood risk reduction solutions can be incorporated into the 2028 Regional Flood Plan and could become eligible for future funding cycles. Anticipated timelines to qualify for FY 2026-2027 FIF funding and future funding cycles are included below.

TIMELINE

Anticipated FY 2026-2027 FIF Funding Cycle



Future Funding Cycles



REGION 4 SABINE

TYPES OF ELIGIBLE SOLUTIONS

Flood risk reduction solutions are classified into 3 categories, Flood Management Evaluation (FME), Flood Management Strategy (FMS), and Flood Mitigation Projects (FMP).

FLOOD MANAGEMENT EVALUATION	FLOOD MANAGEMENT STRATEGY	FLOOD MITIGATION PROJECT
<p>Studies to Assess Flood Risk or Identify Potential Projects</p> <p>Examples:</p> <ul style="list-style-type: none"> Watershed Planning Study Project Feasibility Study Dam Evaluations Flood Mitigation Project Identification 	<p>Policy Changes, Education & Awareness</p> <p>Examples:</p> <ul style="list-style-type: none"> Outreach & Education Programs Flood Warning Systems Drainage Criteria Development Property Acquisition or Elevation 	<p>Structural Project to Reduce Flood Risk</p> <p>Examples:</p> <ul style="list-style-type: none"> Open Channel Projects Road Crossing Improvements Storm Drain Projects Detention Projects

For inclusion in the 2024 Plan Amendment, all proposed FMEs, FMSs, and FMPs received must be reviewed for completeness, alignment with RFPG-adopted flood mitigation and floodplain management goals and recommended by the RFPG. The submittal checklist below identifies key requirements of each flood risk solution type.

FME	FMS	FMP	Requirements
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Notice of Intent by December 13, 2024
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Project/Study Name
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Scope Description
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Shapefile (Study area or Project Area)*
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Estimated Study Cost (Non-Construction)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Estimated Construction Cost
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hydrologic & Hydraulic Models
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pre- & Post-Project 100yr Floodplains
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Benefit Cost Analysis
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	No Negative Impacts Certification
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pre- & Post-Project Flood Risk Exposure*



<https://forms.office.com/r/GisBBAaick>

GET INVOLVED

If interested in submitting a FME, FMS, or FMP in the 2024 Flood Plan Amendment, please reach out to the Sabine Technical Consultant at Matt.Leclair@tweed.com or 713-600-5877 or complete the Notice of Intent form linked above. For information on the RFPG, please visit <https://www.sabine-rfpw.org/>. Meeting attendance is available online or in person. To learn more about the 2023 Regional Flood Plan visit our [Region 4 StoryMap](#).

REGION 4 SABINE

FIGURE 1: AMENDMENT #2 OUTREACH FLYER

This second amendment brought engagement from 9 sponsors and over 30 Notice of Intents received for various FMXs by December 6, 2024. Due to the amount of intake and analysis needed for each FMX, sponsors had until January 17, 2025 to submit all necessary documents and files to be considered for this second amendment to the 2023 Sabine Regional Flood Plan. The technical consultant coordinated with FIF Category 1 studies the Sabine Region, listed below, to identify additional FMXs.

- TWDB ID 40058 – Upper Sabine Flood Protection Planning Study
- TWDB ID 40045 – Lower Sabine Flood Protection Planning Study
- TWDB ID 40019 – Sabine River Relief Ditch and Expansion

CONSISTENCY WITH RULES AND STATUE

As required by 31 TAC §361, in particular §361.21, the Sabine RFPG conducts all business in meetings posted and held in accordance with the Texas Open Meetings Act, Texas Government Code Chapter 551, with a copy of all materials presented or discussed available for public inspection prior to and following public meetings via the Sabine RFPG website (<https://www.sabine-rfpg.org/>). Additional notice requirements referenced in 31 TAC §361.21 were followed, when applicable. The plan was developed in accordance with 31 TAC §361.50 and §361.50-.61 the flood planning Guidance Principles 31 TAC §361.20 (31 TAC §362.3) and includes an explanation of how the plan satisfies each of the guidance principles including that the plan will not negatively affect a neighboring area. The overarching goal of all RFPs must be “to protect against the loss of life and property” as set forth in the Guidance Principles, 31 TAC §362.3. This includes the need to: 1. Identify and reduce the risk and impact to life and property that already exists, and 2. Avoid increasing or creating new flood risk by addressing future development within the areas known to have existing or future flood risk. After the considerations of public comments and the RFP is adopted by the Sabine RFPG, the Water Development Board will decide if the revised plan satisfies all requirements and aforementioned codes per TWC §16.062(h).

MODIFICATIONS AND ADDITIONS TO THE 2023 REGIONAL FLOOD PLAN

Changes made to the Executive Summary

The following tables were updated from the Executive Summary

- Table ES-10: Recommended FME by Evaluation Type
- Table ES-11: Recommended FMS by Strategy Type
- Table ES-12: Recommended Flood Mitigation Projects by Sponsor
- Table ES-13: Reduction in Flood Risk Exposure due to Recommended FMPs

FMEs were recommended to clearly identify what additional studies, and funds to support them, are needed to adequately evaluate all flood prone areas within a region. FMEs are studies that are required to identify and determine what FMPs can be recommended. FMSs and FMPs were recommended based upon the identification, analysis, and comparison of alternatives that the RFPG determined to provide measurable reductions in flood impacts in support of the RFPG's specific flood mitigation and floodplain management goals. In total, 216 FMEs were recommended in the Sabine basin. **Table 1** below highlights the changes to Table ES-10 from the 2023 Sabine RFP.

TABLE 1: RECOMMENED FME BY EVALUATION TYPE

FME Type	Description	Count	Est. Cost
Watershed Planning	Floodplain mapping update includes hydrologic and hydraulic modeling to determine flood hazard areas.	19	\$40,895,500
	Drainage master plan includes hydrologic and hydraulic modeling to determine potential flood mitigation alternatives for a county or city.	33	\$16,350,000
Project Planning	Feasibility assessments and impact analyses of potential future flood mitigation projects.	162	\$39,020,152
Other	Floodplain mapping for dam failure hydrologic and hydraulic modeling to determine flood hazard areas in the event of a dam breach.	2	\$530,000
Total		216	\$96,795,652

There were 176 FMEs recommended in the 2023 RFP. The new FME total of 216 adds 47 new FMEs while 7 FMEs are no longer recommended as they have been converted to FMPs.

FMSs and FMPs were recommended based upon the identification, analysis, and comparison of alternatives that the RFPG determined to provide measurable reductions in flood impacts in support of the RFPG's specific flood mitigation and floodplain management goals. The RFPG used criteria (listed

below) to determine which identified potential items would be recommended in regional plan in order to ensure that the recommended FMSs are sensible so that resources can be directed efficiently and accordingly for implementation. **Table 2** highlights the changes to Table ES-11 from the 2023 Sabine RFP. New FMSs were added increasing the total count to 65 while previous FMSs which had 0 cost from the 2023 Sabine RFP now include a cost which increased the estimated cost in the Education and Outreach FMS Type.

- No Adverse Impact
- High Existing Flood Need
- Quantifiable Flood Risk Reduction Benefits
- Regional Benefit (1.0 square mile)
- Existing Flood Risk to Critical Facilities

TABLE 2: RECOMMENDED FMS BY STRATEGY TYPE

FMS Type	Description	Count	Est. Cost
Education and Outreach	Implementation of program to educate the public on the hazards and risks of flooding and the ecological and societal benefits of flooding.	16	\$324,475
Flood Measurement and Warning	Installation and operation of stream gauges, monitoring stations, alert systems to provide flood hazard information.	9	\$1,980,300
Property Acquisition and Structural Elevation	Administration of program to acquisition and demolition structures and conversion of the land to open space to mitigate flooding.	6	\$67,601,367
Infrastructure Projects	Improvements to or construction of channels, ditches, stormwater pipes, or any other hydraulic structures to mitigate flooding.	3	\$47,100,000
Regulatory and Guidance	Development of ordinances, development criteria, building codes, design standard to prevent new flood risk.	21	\$1,252,000
Other	Maintenance and inspection of flood infrastructure to ensure it is design level of service in maintained.	10	\$541,000
Total		65	\$118,799,142

For consideration as an FMP, a project must be defined in a sufficient level of detail to meet the technical requirements of the regional flood planning project Scope of Work and the associated Technical Guidelines developed by the TWDB. All potentially feasible FMPs that had the necessary data and detailed H&H modeling results available to populate these technical requirements were considered for recommendation by the RFPG, summarized in **Table 3** and the highlights denote the changes to Table ES-12 in the 2023 Sabine RFP.

TABLE 3: RECOMMENDED FLOOD MITIGATION PROJECTS BY SPONSOR

Sponsor	FMP Type	Count	Total Cost
Hunt County	LWC Upgrade	5	\$40,409,652
Kaufman County	LWC Upgrade	1	\$2,141,682
City of Kilgore	Storm Drain	1	\$2,238,252
	Property Acquisition	1	\$56,159,648
	LWC Upgrade	3	\$86,718,151
City of Longview	Property Acquisition	1	\$10,000,000
	Channel	2	\$60,412,341
	Detention Pond	1	\$25,270,808
	LWC Upgrade	3	\$68,139,000
City of Marshall	Channel	5	\$21,245,546
	Detention Pond	1	\$5,047,893
Orange County	Property Acquisition	1	\$10,000,000
	Property Elevation	1	\$10,000,000
	Detention Pond	1	\$96,833,693
Orange County Drainage District	Detention Pond	9	\$610,089,572
	LWC Upgrade	1	\$986,215
	Channel	2	\$175,193,000
	Comprehensive	3	\$300,965,623
Sabine River Authority	Flood Measurement and Warning	1	\$737,148
USACE, Gulf Coast Protection District	Flood Walls and Levees	1	\$2,270,099,968
City of Kirbyville	Comprehensive	1	\$15,613,452
	TOTAL	45	\$3,868,301,644

The RFPG has recommended an additional 45 FMP in this Amended plan. **Table 4** summarizes the estimated reduction in flood risk exposure to structures, population, and lower water crossings (LWCs) in 1% and 0.2% annual chance floodplains if the regional flood plan is implemented as recommended and updates Table ES-13 from the 2023 Sabine RFP.

TABLE 4: REDUCTION IN FLOOD RISK EXPOSURE DUE TO AMENDED RECOMMENED FMPS

Flood Exposure Region-wide	Existing Conditions	After Implementation	Reduction in Exposure
Total Structures 1% ACE	34,592	21,888	12,704 (-37%)
Total Structures 0.2% ACE	48,703	41,344	7,359 (-15%)
Residential Structures	24,066	17,980	6,086 (-25%)
Critical Facilities	401	265	136 (-34%)
Population	65,006	45,501	19,505 (-30%)
Low Water Crossings	107	81	26 (-24%)
Road Length (Miles)	1,518	1,489	29 (-2%)
Agricultural Land (sq. mi.)	325	317	8 (-3%)

Overall, there is an estimated **\$4,083,896,438** in total funding and **\$2,812,977,927** in state and federal funding projected to be needed to implement the recommended FMEs, FMSs, and FMPs in this regional flood plan.

Changes Made to Chapter 4

The following information in **bold blue** text below denotes the changes within the 2023 Sabine RFP Chapter 4 text.

- Section 4.B.4.a: “Table 4-11 below lists the **47** FMPs which met all the FMP criteria as outlined by TWDB.”
- Section 4.B.4.a: “Table 4-12 summarizes the **65** potentially feasible FMSs by type.”
- Section 4.B.4.a: “Table 4-13 summarizes the **223** potentially feasible FMSs by type.”

The following tables within the 2023 Sabine RFP are updated with the new FMEs, FMSs, and FMPs. Bold blue text in the following tables denote the changes. The entire table is not shown in this amendment document, but rather only the lines with changed data or information.

- Items within Table 4-11: List of Potentially Feasible FMPs, were updated as shown in **Table 5** below. 14 items were appended to the bottom of the table.
- Items within Table 4-13: List of Potentially Feasible FMSs, were updated as shown in **Table 6**. 6 new FMSs were appended to the bottom of the table. The extents of potential flood management strategies are included in **Map 18** in **Appendix 4-A**.
- Items within Table 4-15: Potential FMEs, were updated as shown in **Table 7**. Some FMEs were appended to the table based on ongoing studies in the Lower Sabine basin. Some existing FME descriptions were updated to be more comprehensive

TABLE 5: LIST OF POTENTIALLY FEASIBLE FMPS

FMP ID	FMP Name	Description	Sponsor	Estimated Cost
043000036	Sabine River Relief Ditch Alt 2	Proposed channel expansions of the existing Sabine River Relief Ditch from upstream of Adams Bayou to Sabine River outfall. Alt 2 includes channel widening to a 25-ft bottom width and optimizing flowline depth at critical structures.	Orange County Drainage District	\$64,818,300
043000037	Sabine River Relief Ditch Alt 11	Proposed channel expansions of the existing Sabine River Relief Ditch from SH 62 to the Sabine River, with variable widths from SH 62 to Cow Bayou, a 50-ft width expansion from Cow Bayou to Adams Bayou, and a 25-ft width expansion to the Sabine River.	Orange County Drainage District	\$110,374,700
043000039	Jasper County Dam	Proposed dam located in Jasper County targeting reducing the 25-yr WSE to the 5-yr WSE along the upstream of Cow Bayou. The dam outlet has an overflow weir, with 2~72-in RCPs at the outlet for low flow events, and the berm height is sized for the 500-yr.	Jasper County	\$115,575,467
043000040	Upper Terry Gully Improvements	Proposed channel improvements extending upstream of SH 12 to downstream of I-10. The improvements are split into four sections consisting of grass-lined and concrete lined channel expansions in Terry Gully and a 137-ac detention pond with a control weir.	Orange County Drainage District	\$100,928,701
043000041	Middle Adams Bayou Diversion	Proposed 17200 LF channel diversion with 170-ft BW from upstream of MLK Jr Dr to Sabine Lake. Improvements also include a bridge expansion at MLK Jr Dr, proposed bridges at Meeks Dr, SH 87, and railroad, and a gated weir at the outfall to Sabine Lake.	Orange County Drainage District	\$88,209,794
043000042	Cow Bayou Diversion	Proposed channel diversion from Cow Bayou to Sabine Lake with 100-ft BW. Proposed 24600 LF of channel improvements with 100-ft bottom width from upstream of I-10 to upstream of the Railroad.	Orange County Drainage District	\$185,802,913
043000043	Little Cypress Bayou Improvements	Proposed bridge improvements to Bear Path Dr, SH 87, and FM 3247. Proposed improvements requires 18 structures to be elevated near Sabine Lake.	Orange County Drainage District	\$14,234,009
043000044	Pin Oak Improvements	Proposed 3,200 LF of 80-ft bottom width channel improvements along Pin Oak Creek from downstream of 2nd Ave to Margaret Ave. The Margaret Ave bridge will also be improved.	City of Kirbyville	\$15,613,452
043000045	High Street Underpass Improvements	Perform PER and construct improvements to the storm sewer draining the underpass and storm sewer trunkline along Cotton Street with small detention pond at existing outfall.	City of Longview	\$6,604,000
043000046	Green Street/Mobberly Ave. Underpass Improvements	Perform PER and construct improvements to storm sewer draining underpasses and storm sewer trunkline, with channel improvements at existing Green Street outfall and detention pond at existing Mobberly Avenue outfall with 65 cfs pump station.	City of Longview	\$32,020,000
043000047	Lower Wade Creek Improvements	Perform PER of the proposed stormwater network in surrounding neighborhood, and widening nearby drainage ditch, and adding an additional 150-foot opening to Loop 281.	City of Longview	\$29,515,000
043000048	Kilgore SH135 Underpass	Perform PER of the addition of inlets and a bypass storm sewer to a pump station. Construct storm sewer improvements and pump station connecting to channel improvements and detention pond.	City of Kilgore	\$10,414,000
043000049	Bighead Creek Flooding - Roadway Improvements to Dudley Road	Perform PER and construct channel improvements along Bighead Creek and Turkey Creek including construction of bridge improvements to Stone Road (FM 2204) and Dudley Road (FM 1249).	City of Kilgore	\$18,756,000
043000050	Elm Branch Improvements	Perform PER and construct improvements to Elm Branch between Judson Road and Ray Creek with widening and benching of the channel including improvements to Irving Street, Ralph Street, and Miles Street.	City of Longview	\$6,520,000

TABLE 6: LIST OF POTENTIALLY FEASIBLE FMS

FMS ID	FMS Name	Description	Sponsor	Estimated Study Cost
042000036	Longview Flood Mitigation Floodplain Development Regulations	Improve the long-range management and use of flood-prone areas by the adoption and enforcement of local ordinances to regulate new development within the floodplain. Review and revise ordinances, when needed.	Longview	\$50,000
042000037	City of Longview Online Flood Awareness Program	Place links on local websites to free FEMA training for independent study via the internet, such as 15-271 "Anticipating Hazardous Weather and Community Risk."	Longview	\$10,000
042000038	City of Longview Regulatory Flood Hazard Map Program	Work with state and federal agencies to maintain current flood maps.	Longview	\$100,000
042000050	City of Cumby Flood Awareness Program	Develop and implement the "Turn Around, Don't Drown Program"	Cumby	\$10,000
042000063	West Orange Property Acquisition	Acquisition and demolition of structures for flood prevention activities.	City of West Orange	\$1,000,000
042000064	West Orange Drainage Improvements	Regrading, reshaping of ditches, replacement of culverts, and concrete lining of channels throughout the city.	City of West Orange	\$3,000,000
042000065	Coopers Gulley FMA Acquisition	Administer program to acquire flood prone/repetitive loss properties and convert to open space, parks, boating access, trails, agricultural projects, and/or as a general community asset.	City of Orange	\$100,000
042000066	City of Bridge City Flood Management Strategy	Identifying and implementing a set of measures that aim to reduce the overall risk of flooding within City of Bridge City.	City of Bridge City	\$50,000
042000067	City of Orange Updates to Flood-Related Ordinances and Criteria	Improve the long-range management and use of flood-prone areas by the adoption and enforcement of local ordinances to regulate new development within the floodplain. Review and revise ordinances, when needed.	City of Orange	\$100,000
042000068	West Orange Safe Room	Safe room construction for displaced citizens during flood events.	City of West Orange	\$2,000,000

TABLE 7: POTENTIAL FMES

FME ID	FME Name	Description	Sponsor	Estimated Study Cost
041000004	Smith County Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Smith County	\$1,900,000
041000007	Upshur County Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Upshur County	\$200,000
041000009	Sabine County Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Sabine County	\$460,000
041000011	San Augustine County Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	San Augustine County	\$50,000
041000015	Panola County Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Panola County	\$1,700,000
041000017	Rains County Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Rains County	\$600,000
041000020	Vidor Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Vidor	\$1,200,000
041000021	City of Fate Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Fate	\$450,000
041000022	Nevada Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Nevada	\$100,000
041000023	City of Newton Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Newton	\$100,000
041000024	Newton Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Newton County	\$400,000
041000025	Longview Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Longview	\$1,100,000

FME ID	FME Name	Description	Sponsor	Estimated Study Cost
041000026	Josephine Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Josephine	\$100,000
041000027	Kirbyville Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Kirbyville	\$600,000
041000028	Marshall Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Marshall	\$500,000
041000029	Scottsville Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Scottsville	\$300,000
041000031	City of Edgewood Stormwater Detention Study	Feasibility study to increase drainage capacity; add stormwater detention and / or retention basins as deemed necessary to reduce flood risk upstream of Edgewood City Dam.	City of Edgewood	\$100,000
041000039	City of Longview Critical Facilities Flood Protection Study	Ensure that critical facilities owned by the jurisdiction are protected from flood. Develop flood mitigation. alternatives.	City of Longview	\$85,000
041000041	Kirbyville Drainage Improvement Study	Study to coordinate and improve storm water drainage throughout the county; encourage new development to balance impervious surfaces with adjacent green space. Develop flood mitigation alternatives.	City of Kirbyville	\$100,000
041000042	Feasibility Assessment and Conceptual Design of Dredging of Segments of Adams Bayou	H&H Study and Modeling for Feasibility Assessment of Dredging of Segments of Adams Bayou. Develop flood mitigation alternatives.	Orange County Drainage District	\$2,000,000
041000043	Feasibility Assessment and Conceptual Design of Dredging of Segments of Cow Bayou	H&H Study and Modeling for Feasibility Assessment of Dredging of Segments of Cow Bayou. Develop flood mitigation alternatives.	Orange County Drainage District	\$600,000
041000044	Feasibility Assessment and Conceptual Design of Dredging of Segments of Little Cypress Bayou	H&H Study and Modeling for Feasibility Assessment of Dredging of Segments of Little Cypress Bayou. Develop flood mitigation alternatives.	Orange County Drainage District	\$1,000,000
041000045	Feasibility Assessment and Conceptual Design of Constructing a Stormwater Detention Pond Adjacent to Cow Bayou near Claiborne Park	H&H Study and Modeling for Feasibility Assessment of Construction of a Stormwater Detention Pond Adjacent to Cow Bayou near Claiborne Park. Develop flood mitigation alternatives.	Orange County Drainage District	\$600,000
041000055	North Airport Retention Pond	Feasibility Study of North Airport Retention Pond. Develop flood mitigation alternatives.	City of Greenville	\$640,000
041000056	Parker Creek Detention Pond	Feasibility Study of Parker Creek Detention Pond. Develop flood mitigation alternatives.	City of Marshall	\$380,000
041000057	Terry Gully Detention Ponds Study	Flood Protection Planning Study Cow Bayou & Adams Bayou Alternative. Develop flood mitigation alternatives.	Orange County Drainage District	\$600,000
041000063	Diversion Channel Cow Bayou Feasibility Study	Diversion Channel Cow Bayou Feasibility Study. Develop flood mitigation alternatives.	Orange County Drainage District	\$5,209,500
041000079	Van Zandt County Master Drainage Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Van Zandt County	\$935,000
041000080	Smith County Drainage Capacity Upgrades	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes. Develop flood mitigation alternatives.	Smith County	\$225,000
041000081	Rusk County Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Rusk County	\$750,000
041000082	Shelby County Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Shelby County	\$150,000
041000083	Jasper County Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Jasper County	\$280,000
041000085	Orange County Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	Orange County	\$675,000

FME ID	FME Name	Description	Sponsor	Estimated Study Cost
041000095	City of Emory Drainage Master Plan	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Emory	\$100,000
041000152	Higginbotham Road Neighborhood Flooding	Perform H&H modeling to identify and define higher detailed flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives.	City of Kilgore	\$75,000
041000178	Orange County Drainage District Restricted Crossings Evaluation and Study	Detailed evaluation of 18 selective areas of restrictive crossings identified within Orange County Drainage District, based on sensitivity modeling and outlined / summarized in the Sabine River Relief Ditch report.	Orange County Drainage District	\$500,000
041000179	Hidden Meadows Outfall Improvement Evaluation and Study	Future outfall channel improvement evaluations to C-8 & C-8N Relief Ditch from Hidden Meadows neighborhood to the Sabine Relief Ditch, including backflow prevention at the upsized outfalls. Additional work will include internal collection improvements.	Orange County Drainage District	\$300,000
041000180	Regional Detention Study Adams Bayou Study	Study and evaluation of one or more regional detention ponds located adjacent to Adams Bayou, within Orange County and north of Interstate 10.	Orange County Drainage District	\$300,000
041000181	Regional Detention Study Cow Bayou Study	Study and evaluation of one or more regional detention ponds located adjacent to Cow Bayou, within Orange County and north of Interstate 10.	Orange County Drainage District	\$300,000
041000182	Regional Detention Study Little Cypress Bayou Study	Study and evaluation of one or more regional detention ponds located adjacent to Little Cypress Bayou, within Orange County and north of Interstate 10.	Orange County Drainage District	\$300,000
041000183	Regional Detention Study Cole Creek Study	Study and evaluation of one or more regional detention ponds located adjacent to Cole Creek, within Orange County and north of Interstate 10.	Orange County Drainage District	\$300,000
041000184	Adams Bayou Conveyance Improvement Study	Study and evaluation of widening and deepening various segments of Adams Bayou located within Orange County.	Orange County Drainage District	\$300,000
041000185	Cow Bayou Conveyance Improvement Study	Study and evaluation of widening and deepening various segments of Cow Bayou located within Orange County.	Orange County Drainage District	\$300,000
041000186	Colony Estates Ditch Regrading and Culvert Improvement	Evaluation of the regrading, reshaping of ditches and replacement of culverts throughout the study area.	Orange County	\$300,000
041000187	Kinard Estates Ditch Regrading and Culvert Improvement	Evaluation of the regrading, reshaping of ditches and replacement of culverts throughout the study area.	Orange County	\$300,000
041000188	Forest Heights Ditch Regrading and Culvert Improvement	Evaluation of the regrading, reshaping of ditches and replacement of culverts throughout the study area.	Orange County	\$300,000
041000189	City of Orange Master Drainage Study	Comprehensive review of current CIP, evaluation of local drainage, development of alternatives and costs to reduce flood risk, recommend flood mitigation strategies and projects to include in future CIP, and documentation of the Master Drainage Plan	City of Orange	\$500,000
041000190	South Ave. Drainage Improvement Project	Perform H&H modeling to identify and develop conceptual alternatives to reduce flood risk around South Avenue.	City of West Orange	\$242,273
041000191	Galveston St. Drainage Improvement Project	Perform H&H modeling to identify and develop conceptual alternatives to reduce flood risk around Galveston Street.	City of West Orange	\$55,062
041000192	Western Avenue Drainage Improvement project	Perform H&H modeling to identify and develop conceptual alternatives to reduce flood risk around Western Avenue.	City of West Orange	\$333,883
041000193	Stacy Street Drainage Improvement project	Perform H&H modeling to identify and develop conceptual alternatives to reduce flood risk around Stacy Street.	City of West Orange	\$19,663
041000194	Channel improvement Project - Holly Ln to Adams Bayou	Perform H&H modeling to identify and develop conceptual alternatives to reduce flood risk between Holly Ln and Adams Bayou	City of West Orange	\$151,620
041000195	West Orange Channels and Ditches Improvements	Regrading, reshaping of ditches, replacement of culverts, and concrete lining of channels throughout the study area.	City of West Orange	\$2,000,000
041000196	Quincy St Drainage Improvements	Quincy St Drainage Improvement project - Regrading and concrete lining of channels throughout the study area.	City of West Orange	\$1,436,400
041000197	Channel Improvement Project - Quincy to Flint Street	Perform H&H modeling to identify and develop conceptual alternatives to reduce flood risk from Quincy to Flint Street.	City of West Orange	\$86,822
041000198	Channel Improvement Project - Wynnona Park	Perform H&H modeling to identify and develop conceptual alternatives to improve flow at Wynnona Park collection ditch.	City of West Orange	\$219,929

FME ID	FME Name	Description	Sponsor	Estimated Study Cost
041000199	Drainage, detention, and road crossing improvements.	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives.	City of Pinehurst	\$100,000
041000200	Pinehurst Watershed Planning Study - Tributary	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	City of Pinehurst	\$300,000
041000201	City of Bridge City Watershed Planning and Project Feasibility Study	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	City of Bridge City	\$300,000
041000202	Detailed Storm Sewer Assessment	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	City of Marshall	\$800,000
041000203	Parker Creek Tributary Evaluations	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	City of Marshall	\$400,000
041000204	Woodland Ridge Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County	\$300,000
041000205	Sandy Creek Tributary Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000206	Sandy Creek Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000207	Trout Creek Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Newton County	\$300,000
041000208	Lower Adams Bayou Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000209	Little Cypress Creek Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000210	International Paper Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County	\$300,000
041000211	Gum Gully Tributary Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000212	Gum Gully Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000213	FM 1442 Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000214	Deweyville and Ruliff Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Newton County	\$300,000
041000215	Cow Bayou Lateral Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000216	Cow Bayou Improvements - South of I-10E	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000217	Coon Tributary Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000218	Coon Creek Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000219	Cole Creek Tributary Improvements - North of I-10W	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000220	Cole Creek Improvements - North of I-10W and West of FM 1136	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
041000221	Cow Bayou Tributary Improvements - North of I-10E	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000

FME ID	FME Name	Description	Sponsor	Estimated Study Cost
04100222	Adams Bayou Lateral Improvements - Between Cole Creek and Upper Adams Bayou	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
04100223	Adams 0303 Tributary Improvements - North of I-10W along 62N	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	Orange County Drainage District	\$300,000
04100224	Terry Gully Detention Pond at W. Circuit Dr	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	City of Vidor	\$300,000

Table 8 (replacing Table 4-12 in the 2023 Sabine RFP) summarizes the 65 potentially feasible FMSs by type. Only items in **bold blue** text are being updated in this table.

TABLE 8: POTENTIALLY FEASIBLE FMS TYPE DISTRIBUTION

FMS Type	Description	Count
Education and Outreach	Implementation of program to educate the public on the hazards and risks of flooding and the ecological and societal benefits of flooding.	16
Flood Measurement and Warning	Installation and operation of stream gauges, monitoring stations, alert systems to provide flood hazard information.	9
Property Acquisition and Structural Elevation	Administration of program to acquisition and demolition structures and conversion of the land to open space to mitigate flooding.	6
Infrastructure Projects	Improvements to or construction of channels, ditches, stormwater pipes, or any other hydraulic structures to mitigate flooding.	3
Regulatory and Guidance	Development of ordinances, development criteria, building codes, design standard to prevent new flood risk.	21
Other	Maintenance and inspection of flood infrastructure to ensure it is design level of service in maintained.	10
	Total	65

Table 9 summarizes the 223 potentially feasible FMEs by type. The complete list of potential FMEs considered by the Sabine RFPG is included in **Table 7** above which is appended onto Table 4-14 in the 2023 Sabine RFP. Changes Made to Chapter 5 section details the process taken by the RFPG to recommend FMPs, FMS, and FMEs. The extent of potential flood management evaluations and existing mapping needs are included in **Map 16** in **Appendix 4-A**.

TABLE 9: POTENTIALLY FEASIBLE FME TYPE DISTRIBUTION

FME Type	Description	Count
Watershed Planning	Floodplain mapping update includes hydrologic and hydraulic modeling to determine flood hazard areas.	19
	Drainage master plan includes hydrologic and hydraulic modeling to determine potential flood mitigation alternatives for a county or city.	33
Project Planning	Feasibility assessments and impact analyses of potential future flood mitigation projects.	169
Other	Floodplain mapping for dam failure hydrologic and hydraulic modeling to determine flood hazard areas in the event of a dam breach.	2
Total		223

- **Table 10** summarizes the FMXs as part of the original 2023 Sabine RFP as well as the changes as part of this amendment. Items in bold blue replace items within Table 4-19 in the 2023 Sabine RFP in section 4.B.4.f of the report.

TABLE 10: FMPS, FMSS, FMES IN AREAS WITH EMERGENCY NEED

Type	Actions in Areas with Emergency Need	Actions in Areas without Emergency Need	Total Actions
FME	105	118	223
FMS	16	49	65
FMP	15	32	47

Changes Made to Chapter 5

Of the 223 FMEs identified in **Chapter 4** as potentially feasible, 216 FMEs are recommended as part of the 2023 Sabine RFP and this amendment. **Table 11** lists the 7 FMEs that are not recommended since they are FMEs that have been completed and resulted in FMPs. Rather than deleting an FME from the table and geodatabase and leaving gaps in the numbering system, the FMEs were left in the table and simply listed as “Not Recommended” The following information in **bold blue** text below denotes the changes within the 2023 Sabine RFP Chapter 5 text.

- Section 5.A.2: The sentence “All of the 176 FMEs identified in Chapter 4 as potentially feasible were recommended by the RFPG” has change to **“Of the 223 FMEs identified in Chapter 4, 216 of them are recommended by the RFPG. 7 of the FMEs have been categorized as not recommended as they have recently been converted from FMEs to FMPs.”**

TABLE 11: FMES NOT RECOMMENDED

FME ID	FME Name	Description	Sponsor
041000061	Elevation of Feeder Road Bridge Along IH-10 at Cole Creek Feasibility Study	Elevation of Feeder Road Bridge Along IH-10 at Cole Creek Feasibility Study	Orange County Drainage District
041000062	Lawrence Road Detention Pond Feasibility Study	Lawrence Road Detention Pond Feasibility Study	Orange County Drainage District
041000099	Longview Underpass Flooding	Perform PER of the area for flood mitigation solution based on H&H analysis from Upper Sabine FIF study.	City of Longview
041000101	Lower Wade Creek Flooding	Perform PER of the area for flood mitigation solution based on H&H analysis from Upper Sabine FIF study.	City of Longview
041000103	Elm Branch Improvements	Perform PER of the area for flood mitigation solution based on H&H analysis from Upper Sabine FIF study.	City of Longview
041000112	SH 135 Underpass Flooding	Perform H&H modeling to identify and define higher detailed flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives.	City of Kilgore
041000177	Bighead Creek Flooding - Roadway Improvements to Dudley Road	Perform H&H modeling to identify and define higher detailed flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives.	City of Kilgore

- Section 5.B.1: “A total of **65** FMSs were gathered through publicly available documents from counties and municipalities as well as stakeholder outreach done in 2023 **and late 2024.**”

- Section 5.B.2: “All of the **65** FMSs identified in Chapter 4 as potentially feasible were recommended by the RFPG.”
- Section 5.C.2: “**45 of the 47** FMPs identified in Chapter 4 as potentially feasible were recommended by the RFPG.”

Table 5-1 is updated with new information about the recommended FMEs. These updates are shown in **Table 12**. The updated list of recommended FMEs is included in **Table 15** in **Appendix 5-B**. The extent of the recommended FMEs is shown in **Map 19** in **Appendix 5-A**. Additionally, one-page summaries for each new recommended FME were created, a high-level cost was estimated, and GIS metrics were populated based on FME boundaries created. These one-page summaries are included in **Appendix 5-C**.

TABLE 12: RECOMMENED FME BY EVALUATION TYPE

FME Type	Description	Count	Est. Cost
Watershed Planning	Floodplain mapping update includes hydrologic and hydraulic modeling to determine flood hazard areas.	19	\$40,895,500
	Drainage master plan includes hydrologic and hydraulic modeling to determine potential flood mitigation alternatives for a county or city.	33	\$16,350,000
Project Planning	Feasibility assessments and impact analyses of potential future flood mitigation projects.	162	\$39,020,152
Other	Floodplain mapping for dam failure hydrologic and hydraulic modeling to determine flood hazard areas in the event of a dam breach.	2	\$530,000
Total		216	\$96,795,652

The list of recommended FMSs is included in **Table 17** in **Appendix 5-B**. The extent of the recommended FMEs is shown in the updated **Map 21** in **Appendix 5-A**. Additionally, one-page summaries for each recommended FMS were created and delivered to each member of the Sabine RFPG for ease in review of the benefit area, overview of the project, and high-level cost estimate and potentially affected structures. These summaries are included in **Appendix 5-C**. **Table 13** shows the different types of FMSs which replaces Table 5-2 in the 2023 Sabine RFP.

TABLE 13: RECOMMENDED FMSS BY STRATEGY TYPE

FMS Type	Description	Count	Est. Cost
Education and Outreach	Implementation of program to educate the public on the hazards and risks of flooding and the ecological and societal benefits of flooding.	16	\$324,475
Flood Measurement and Warning	Installation and operation of stream gauges, monitoring stations, alert systems to provide flood hazard information.	9	\$1,980,300
Property Acquisition and Structural Elevation	Administration of program to acquisition and demolition structures and conversion of the land to open space to mitigate flooding.	6	\$67,601,367
Infrastructure Projects	Improvements to or construction of channels, ditches, stormwater pipes, or any other hydraulic structures to mitigate flooding.	3	\$47,100,000
Regulatory and Guidance	Development of ordinances, development criteria, building codes, design standard to prevent new flood risk.	21	\$1,252,000
Other	Maintenance and inspection of flood infrastructure to ensure it is design level of service in maintained.	10	\$541,000
Total		65	\$118,799,142

45 of the 47 FMPs identified in Chapter 4 as potentially feasible are recommended by the RFPG. Middle Adams Bayou Diversion (043000041) was not recommended based on the need to analyze additional alignment alternatives as the Lower Sabine FIF project is currently ongoing. Jasper County Dam (043000039) was not recommended based on implementation concerns.

The list of recommended FMPs is included in Table 16 in Appendix 5-B. The extent of the recommended FMPs is shown in Map 20 in Appendix 5-A. Additionally, one-page summaries for each new recommended FMX were created for review of the benefit area, overview of the project, and high-level cost estimate and potentially affected structures. These summaries are included in Appendix 5-C. Table 14 in this document lists the amended flood mitigation projects (FMP) recommended by the Sabine RFPG as well as the total estimated cost for its implementation and items in bold blue text denote the changes from the 2023 Sabine RFP. These are appended to the bottom of Table 5-3 in the 2023 Sabine RFP.

TABLE 14: RECOMMENDED FMP

FMP ID	FMP Name	No Negative Impact Determination	Basis of No Negative Impact Determination	Sponsor	Cost
043000036	Sabine River Relief Ditch Alt 2	Yes	Model	Orange County Drainage District	\$64,818,300
043000037	Sabine River Relief Ditch Alt 11	Yes	Model	Orange County Drainage District	\$110,374,700
043000040	Upper Terry Gully Improvements	Yes	Model	Orange County Drainage District	\$100,928,701
043000042	Cow Bayou Diversion	Yes	Model	Orange County Drainage District	\$185,802,913
043000043	Little Cypress Bayou Improvements	Yes	Model	Orange County Drainage District	\$14,234,009
043000044	Pin Oak Improvements	Yes	Model	City of Kirbyville	\$15,613,452
043000045	High Street Underpass Improvements	Yes	Model	City of Longview	\$6,604,000
043000046	Green Street/Mobberly Ave. Underpass Improvements	Yes	Model	City of Longview	\$32,020,000
043000047	Lower Wade Creek Improvements	Yes	Model	City of Longview	\$29,515,000
043000048	Kilgore SH135 Underpass	Yes	Model	City of Kilgore	\$10,414,000
043000049	Bighead Creek Flooding - Roadway Improvements to Dudley Road	Yes	Model	City of Kilgore	\$18,756,000
043000050	Elm Branch Improvements	Yes	Model	City of Longview	\$6,520,000

Changes Made to Chapter 6

The RFPG has recommended an additional 12 FMP in this Amended plan. **Table 15** below summarizes the estimated reduction in flood risk exposure to structures, population, and lower water crossings (LWCs) in 1% and 0.2% annual% floodplains if the regional flood plan is implemented as recommended.

TABLE 15: REDUCTION IN FLOOD RISK EXPOSURE DUE TO AMENDED RECOMMENED FMPS

Flood Exposure Region-wide	Existing Conditions	After Implementation	Reduction in Exposure
Total Structures 1% ACE	34,592	21,888	12,704 (-37%)
Total Structures 0.2% ACE	48,703	41,344	7,359 (-15%)
Residential Structures	24,066	17,980	6,086 (-25%)
Critical Facilities	401	265	136 (-34%)
Population	65,006	45,501	19,505 (-30%)
Low Water Crossings	107	81	26 (-24%)
Road Length (Miles)	1,518	1,489	29 (-2%)
Agricultural Land (sq. mi.)	325	317	8 (-3%)

All remaining flood risk exposure is considered to be a residual risk of the Regional Flood Plan. As shown in the reduction column, after the implementation of the Regional Flood Plan there is significant residual risk suggesting there is significant work and funding that is needed in the Sabine basin to identify, study, and construct more flood mitigation projects help further reduce exposure.

Changes Made to Chapter 9

Overall, there is an estimated **\$4,083,896,438** in total funding and **\$2,812,977,927** in state and federal funding projected to be needed to implement the recommended FMEs, FMSs, and FMPs in this regional flood plan. It is noted that the vast majority of the total funding noted above is tied to the Sabine to Galveston levee project in Orange County. This number does not represent the amount of funding needed to mitigate all risks in the region and solve flooding problems in their totality. This number simply represents the funding needs for the specific, identified studies, strategies, and projects in this cycle of regional flood planning. Future cycles of regional flood planning will continue to identify more projects and studies needed to further flood mitigation efforts in the Sabine region. Funding needed to implement the Sabine Regional Flood Plan is summarized in **Table 16** and replaces Table 9-4 in the 2023 Sabine RFP.

TABLE 16: FLOOD INFRASTRUCTURE FINANCING SURVEY SUMMARY

Flood Mitigation Action	Other Funding Needed (State/Federal)	Potential Funding to be Financed by Local Sponsor	Total Flood Mitigation Action Cost
FME	\$92,924,527	\$3,871,125	\$96,795,652
FMS	\$118,684,142	\$115,000	\$118,799,142
FMP	\$2,601,369,258	\$1,266,932,386	\$3,868,301,644
Total	\$2,812,977,927	\$1,270,918,511	\$4,083,896,438

MODIFICATIONS AND ADDITIONS TO GEODATABASE

A complete geodatabase has been provided in the digital submittal. A summary of revisions is included below and is documented in the Geodatabase log.

File #	Item Name	Feature Class Name	Revision
1	Entities	Entities	No Change
2	Watersheds	Watersheds	No Change
3	Existing Infrastructure	ExFldInfraPol	No Change
4		ExFldInfraLn	No Change
5		ExFldInfraPt	No Change
6	Proposed or Ongoing Flood Mitigation Projects	ExFldProjs	No Change
7	Existing Flood Hazard	ExFldHazard	No Change
8	Flood Mapping Gaps	Ex_Map_Gaps	No Change
9		Fut_Map_Gaps	No Change
10	Model Coverage	ModelCoverage*	2 New Features
11	Existing Exposure	ExFldExpPol	No Change
12		ExFldExpLn	No Change
13		ExFldExpPt	No Change
14		ExFldExpAll	No Change
15	Future Flood Hazard	FutFldHazard	No Change
16	Future Exposure	FutFldExpPol	No Change
17		FutFldExpLn	No Change
18		FutFldExpPt	No Change
19		FutFldExpAll	No Change
20	Existing Floodplain Management Practices	ExFpMP - Table	No Change
21	Goals	Goals - Table	No Change
22	Streams	Streams	No Change
23	Flood Management Evaluations	FME*	47 New Features, 37 Updated Features
24	Flood Mitigation Projects	FMP*	14 New Features
25	Post Project Hazard	FMP_HazPost*	17 New Features
26	Project Details	FMP_Details*	14 New Features
27	Flood Management Strategies	FMS*	6 New Features, 4 Updated Features

*Revised from Amended RFP

MODIFICATIONS AND ADDITIONS TO APPENDICES

Revised Maps

The following Appendix Maps have been updated based on the new data:

Map 16: Extent of Potential Flood Management Evaluations and Existing Mapping Needs

Map 17: Extent of Potential Flood Mitigation Projects

Map 18: Extent of Potential Flood Mitigation Strategies

Map 19: Extent of Recommended Flood Management Evaluations

Map 20: Extent of Recommended Flood Mitigation Projects

Map 21: Extent of Recommended Flood Mitigation Strategies

Map 22: Model Coverage

Revised Tables

The following Appendix Tables have been updated based on the new data:

Table 12: Potential Flood Management Evaluations Identified by RFPG

Table 13: Potential Flood Mitigation Projects Identified by RFPG

Table 14: Potential Flood Mitigation Strategies Identified by RFPG

Table 15: Recommended Flood Management Evaluations Identified by RFPG

Table 16: Recommended Flood Mitigation Projects Identified by RFPG

Table 17: Recommended Flood Mitigation Strategies Identified by RFPG

Table 19: Funding Survey Results

Table 5B-1: Model Coverage

HH Model List

No Negative Impact Determination

Additional Data

Sabine Amendment Outreach Flyer

FMP One Page Summary Sheets