

# Update from Consultant Team


## Neches Regional Flood Planning Group

May 26, 2022

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## Agenda

- Task 9 – Flood Infrastructure Funding Analysis
- Draft Regional Flood Plan Chapters
  - Chapter 1 – Planning Area Description
  - Chapter 3 – Floodplain Management Practices, Flood Mitigation and Flood Management Goals
- TWDB Informal Comments on the Technical Memo
- Task 8 – Administrative, Regulatory, and Legislative Recommendations
- Task 11 – Additional Outreach and Data Collection
- Task 4B Update
  - Overview of Additional FMXs obtained
  - Analysis Components
  - FME/FMS One Page Summaries
- Task 5 Discussion
  - FME/FMS Recommendation Discussion



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## Task 9: Flood Infrastructure Financing Analysis 5

**Goals:**

- Indicate how Sponsors propose to finance recommended FMEs, FMSs, and FMPs
- Describe what role the RFPG proposes for the State in financing recommended FMEs, FMSs, and FMPs

Table 19: FMS, FMP, FME funding survey template format (with illustrative examples)

RFPG Number	Sponsor Entity Name	FMS or FMP or FME	FMS FMP FME - Name	Regional plan's unique FMS/FMP/FME identification number	Target year of full implementation	Estimated costs in plan			Sponsor Funding			TOTAL (auto) sum must = 100%
						Non-construction costs	Construction-related costs	Total estimated cost	ANTICIPATED SOURCE of Sponsor funding (e.g., taxes; general revenue; dedicated revenue incl. fees)	FUNDING TO BE FINANCED BY SPONSOR (including local, county, or regional mechanisms available but not yet fully utilized)	Other Funding Needed (including state, federal and/or other funding)	
21	City of Howdy	FMP	Widen main downtown channel	2003	2028	\$3,484,000	\$8,129,000	\$11,613,000	stormwater fees	75%	25%	100%
21	Major River Authority	FMP	Levee improvements	3001	2030	\$37,544,000	\$212,754,000	\$250,298,000	fees	50%	50%	100%

*Exhibit C Technical Guidelines for Regional Flood Planning (April 2021), Table 19*

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## Common Sources of Flood Project Funding (Federal) 5

Source	Federal Agency	State Agency	Program Name	Grant (G)	Loan (L)	Post-Disaster (D)
Federal	FEMA	TDEM	Hazard Mitigation Grant Program (HMGP)	G		D
	FEMA	TWDB	Flood Mitigation Assistance Grant Program (FMA)	G		
	FEMA	TDEM	Building Resilient Infrastructure and Communities (BRIC)	G		
	FEMA	TCEQ	Rehabilitation of High Hazard Potential Dam Grant Program	G		
	HUD	GLO	Community Development Block Grant – Mitigation (CDBG-MIT)	G		
	HUD	GLO	Community Development Block Grant Disaster Recovery Funds (CDBG-DR)	G		D
	HUD	TDA	Community Development Block Grant (TxCDBG) Program for Rural Texas	G		
	FEMA	TBD	Safeguarding Tomorrow through Ongoing Risk Mitigation (STORM)		L	
	USACE		Continuing Authorities Program (CAP)	G		
	FEMA	TDEM	Public Assistance (PA)	G		D
	EPA	TWDB	Clean Water State Revolving Fund (CWSRF)	G*	L	
	NRCS	TSSWCB	Structural Dam Repair Grant Program	G		

\*The CWSRF program offers principal forgiveness, which is similar to grant funding

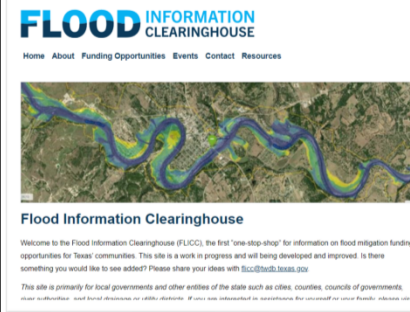
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## Common Sources of Flood Project Funding (State and Local) 5

Source	State Agency	Program Name	Grant (G)	Loan (L)	Post-Disaster (D)
State	TWDB	Flood Infrastructure Fund (FIF)	G	L	
	TWDB	Texas Water Development Fund (Dfund)		L	
	TSSWCB	Operation and Maintenance (O&M) Grant Program	G		
	TSSWCB	Flood Control Dam Infrastructure Projects - Supplemental Funding	G		
Local		General fund			
		Bonds			
		Drainage utility fee			
		Stormwater utility fee			

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## NEW “One-Stop-Shop” for Flood Mitigation Funding Opportunities for Texas Communities 5



- Communities are encouraged to submit a Request for Information form for review by the Flood Information Clearinghouse Committee (FLICC) to get feedback on what program could be the best fit for the community’s needs.
- Six state agencies represented on committee: TDEM, GLO, TWDB, TSSWCB, TDA, TCEQ

[www.texasfloodclearinghouse.org](http://www.texasfloodclearinghouse.org)

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## Challenges in accessing funding 5

- High demand: More need than available funding.
- Local funds: Flood projects don’t typically generate revenue and many communities do not have steady revenue streams to fund flood projects. Communities struggle to generate funds for local match requirements or loan repayment.
- Complex or burdensome application or program requirements and prolonged timelines of funding programs.

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## Suggestions for competitive funding applications 5

- Certain funding programs have minimum requirements for eligible applicants, such as NFIP participation, building code adoption, approved Hazard Mitigation Plan, etc.
- Larger scale projects can better compete for funding, demonstrating a higher level of benefits. Consider combining several smaller projects into one regional approach.
- Some programs give extra points for “Construction-Ready” projects.
- Prepare early by looking at prior notices of funding opportunities and successful projects. Make sure to understand program goals and scoring criteria.
- Watch for and understand procurement rules.
- Identify match requirements and source of match before applying.
- On Federal grants, consider professional grant management services to avoid issues leading to funds recapture.

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## Informal Tech Memo Comments

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- Comments received April 18 and March 16
- Summary of April 18<sup>th</sup> Comments
  - GIS updates to be consistent with report tables
    - Provide information for required fields
  - Identify studies and models available within the region
  - Where appropriate, consider including baseline data for goals
    - Increase NFIP participation from 90 percent to 95 percent of communication in the region.
  - Update Process to Identify Potential FMSs and FMPs
    - Inadequate inundation mapping
    - Emergency Need definition
    - Implementation Issues (FMSs and FMPs)
    - Impacts and benefits to environment, agriculture, recreational resources, navigation, water quality (FMSs and FMPs)

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## Informal Tech Memo Comments

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- Summary of March 16 Comments
  - GIS updates
    - Provide information for required fields
  - Considering adding natural gas pipelines and electric power transmission lines to exposure analysis
  - GIS Coverage Maps
    - Distinguish between types of flooding (riverine, coastal, etc.)
    - Additional maps to depicts exposure features as appropriate (buildings, roadways, road segments, agricultural land)
    - Depict all exposed features with high SVI (over 0.75), not sure critical facilities.

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## Task 8 – Legislative, Administrative, and Regulatory Recommendations

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RFPGS must develop and include in their Flood Plans

1. Legislative recommendations that they consider necessary to facilitate floodplain management and flood mitigation planning and implementation
2. Other regulatory or administrative recommendations that they consider necessary to facilitate floodplain management and flood mitigation planning and implementation;
3. Any other recommendations that the RFPG believes are needed and desirable to achieve its regional flood mitigation and floodplain management goals; and
4. Recommendations regarding potential, new revenue-raising opportunities, including potential new municipal drainage utilities or regional flood authorities, that could fund the development, operation, and maintenance of floodplain management or flood mitigation activities in the region.

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## Task 8 – Legislative Recommendations

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- Recurring biennial appropriations to Flood Infrastructure Fund project/study implementation
- Increase state funding for technical assistance to develop accurate watershed models and floodplain maps
- Provide counties legislative authority
  - Establish drainage utilities and assess fees
  - Manage new development to reduce future flood risk and benefit water supply
- Incentivize jurisdictions to work together to provide regional flood mitigation.

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## Task 8 – Legislative Recommendations

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- Incentivize buy-out programs to convert frequently flooded properties/neighborhoods into parkland
- Incentivize conservation easements for land in the 100-year floodplains
- Establish grant programs for the ongoing operations and maintenance (O&M) of existing flood mitigation and other drainage infrastructure.

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## Task 8 – Regulatory or Administrative Recommendations

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- Develop model floodplain management standards and ordinances.
- Provide support for ongoing education/training for floodplain managers.
- Provide technical assistance to smaller jurisdictions (assist w/applications, funding for rural communities to complete studies, etc.).
- Provide funding mechanisms for smaller communities to acquire fund for studies to identify FMEs, FMSs, and FMPs.
- Increase public education efforts.
- Promote nature-based projects.

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## Task 8 – Regulatory or Administrative Recommendations

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- Revisit scoring criteria for funding stormwater and flood-related projects to assure equitable distribution to rural, less populated areas of the state.
- Establish alternatives to traditional method of project evaluation
  - Expand consideration for projects that do not provide 1% flood level of service
- Establish a process to take BLE data to regulatory information
- Establish a process to utilize BLE data for evaluation of FMPs
- Review and Update TxDOT design criteria

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## Task 8 – Other Recommendations

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- Utilize alternative statewide Social Vulnerability Index (SVI) than the one developed by the CDC.
- Updated the SOW, guidance, rules, checklists based on clarifications, interpretations, and adjustments made during the first planning cycle.
- Reassess requirements for potentially feasibility Flood Mitigation Projects (FMP) that present challenges for inclusion of FMPS in regional flood plans.
- Develop publicly available, statewide database of all the GIS deliverables associated with the development of the State Flood Plan.

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## Task 11 – Additional Outreach

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- City of Beaumont Meeting on 04/18/2022
  - Update Master Drainage Plan with Atlas 14 Rainfall
  - Coordinating on additional FMXs
- Hardin County Meeting on 05/11/22
  - FMEs – 32
  - FMSs – 32
- Jefferson County DD6
  - FMEs – 2
  - FMPs - 5
- Jefferson County DD7
  - FMEs – 35
- GLO East Region Coordination
  - Reviewing Community Risk Assessments
- Angelina County Meeting on 05/23/22
- A total of **107** new FMXs identified!



Hardin County

Elevate existing roadways and bridges prone to inundation from flooding

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## Task 4B – Analysis Components

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- Continued coordination with stakeholders in the region to obtain necessary information
- For all Flood Mitigation Actions (FMEs, FMSs, and FMPs):
  - Compile **Project Information** including **Flood Exposure Data**
  - Develop planning-level **Cost Estimates**
  - Identify a willing **Project Sponsor**
  - Identify **Funding Sources**
- For FMPs (and some FMSs):
  - Perform **Benefit-Cost Analysis**
  - Provide **No Negative Impact Certification**

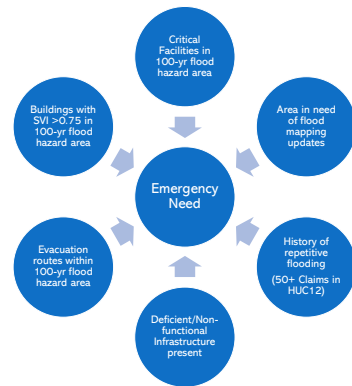
### Flood Exposure Data (100-yr Flood)

- Structures
- Population
- Critical Facilities
- Low Water Crossings
- Agricultural Areas
- Roads

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## Region 5 Emergency Need Definition

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Only one requirement needs to be met for Emergency Need to be satisfied.

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## Flood Management Evaluations

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- 95 FMEs identified
- Cost estimates range from \$25,000 to \$92,500,000
- Estimates developed based on past project scopes and fees, FEMA blue book unit prices, and existing project estimates

FME Type	FME Description	Number of Evaluations	Total Cost
Watershed Planning	Flood Mapping Updates	22	\$35,793,000
	Master Drainage Plan	34	\$54,253,500
Project Planning	Feasibility Assessments	7	\$4,518,000
	Project Design Development	24	\$252,529,244
Other	GIS development, dam evaluations, data collection systems	8	\$5,827,000
<b>Total</b>		<b>95</b>	<b>\$352,920,744</b>

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## Review FME One Page Summaries

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## Flood Management Strategies

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- 122 FMSs identified
- Cost estimates range from \$1,000 to \$31,000,000
- Estimates developed based on past project scopes and fees and costs from HMAPs

FMS Type	Description	Number of Strategies	Total Cost
Education and Outreach	Public education programs	28	\$667,285
Flood Measurement and Warning	Warning systems and gages	19	\$8,822,000
Property Acquisition and Structural Elevation	Acquiring properties and creating regulation to raise future structures	14	\$13,465,800
Regulatory and Guidance	NFIP participation, CRS, stormwater utility fee development	24	\$671,500
Infrastructure Projects	Gates at low water crossings, Amarillo capital improvements list	35	\$63,617,000
Other	Maintenance	2	\$157,000
<b>Total</b>		<b>122</b>	<b>\$87,400,585</b>

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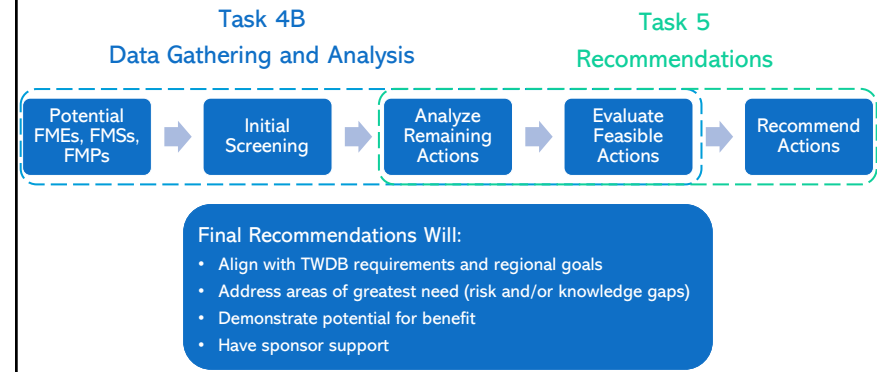
## Review FMS One Page Summaries

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## Task 4B & Task 5 Relationship

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