

## Update from Consultant Team


Neches Regional Flood Planning Group

August 18, 2022

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## Agenda


- Updates on Draft Regional Flood Plan
- Overview of Public Comment Period
  - [September 9, 2022 Public Meeting](#)
- Overview of Task 12- Perform Identified Flood Management Evaluations, Identify, Evaluate, and Recommend Additional Flood Mitigation Projects



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## Draft Regional Flood Plan

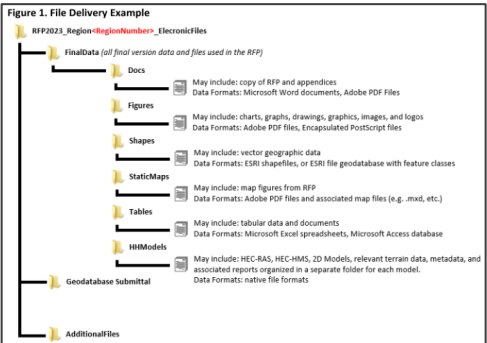
- Draft Regional Flood Plan Submitted to TWDB August 1, 2022
  - Deemed administratively complete by TWDB on August 8th
  - TWDB performing detailed technical review
  - Comments due to RFIG within 120 calendar days (November 29, 2022)
    - [Level 1](#) comments are directly linked to statute, rule, and/or contract requirements and **must** be addressed in Final Regional Flood Plan
    - [Level 2](#) comments suggested changes to improve the plan document.



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## Submittal of Draft Plan

- In addition to volumes 1 & 2 of the Draft RFP, submittal also included:
  - GIS Data; metadata
  - Supporting figures
  - Supporting map documents
  - Supporting excel tables
  - Packaged HH Models
  - 2 printed copies



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## Input on Draft RFP 5

### Public Meeting

DRAFT OF THE NECHES REGIONAL FLOOD PLAN


**CHAIR:** Judge Jeff Branick  
**LOCATION:** Lamar University  
 CICE Building, Room 113  
 5091 Rolfe Christopher Drive  
 Beaumont, TX 77710  
**TIME:** 2:00 - 4:00 p.m.  
**DATE:** September 9, 2022


The meeting will be led by Judge Branick and other members of the Neches Regional Flood Planning Group (NRFPG) and its technical consultants from Freese and Nichols.

**AGENDA**

- 2:00 - 2:15 p.m.: presentation
- 2:15 - 3:00 p.m.: discussion/input
- 3:00 - 3:15 p.m.: repeat presentation
- 3:15 - 4:00 p.m.: discussion/input

Additional information on the NRFPG can be found at [neches/floodplanning.org](http://neches/floodplanning.org)




**CENTER FOR RESILIENCY**  
**LAMAR UNIVERSITY**

**Resilience & Recovery Academy**

- Notification of Meeting
  - Eblast sent to xx recipients
  - The Examiner Newspaper Article
  - Utilize local news stations to notify public
  - Leverage RFPG contacts
  - Letters sent to adjacent RFPGs chair and technical consultant
    - San Jacinto
    - Trinity
    - Sabine

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## Input on Draft RFP 5

- Draft RFP must be available 30 days prior to first meeting for public comment and 30 days after
- Physical Copies for Public Inspection
  - Lower Neches Valley Authority Office (Beaumont)
  - Port Arthur Public Library (Port Arthur)
  - Angelina County Floodplain Office (Lufkin)
  - City of Tyler Development Services Office (Tyler)

### REGION 5 NECHES REGIONAL FLOOD PLANNING GROUP

#### Neches Draft 2023 Regional Flood Plan

The Region 5 Neches Regional Flood Planning Group (RFPG) is requesting public review and comment of the Neches Draft 2023 Regional Flood Plan (RFP). Public comments can be submitted electronically to [NechesRFPG@freese.com](mailto:NechesRFPG@freese.com). The RFPG will accept written comment until October 9, 2022. Written comment should be mailed to:

Risa Barber, Neches RFPG  
 Lower Neches Valley Authority  
 7850 Eastex Freeway  
 Beaumont, Texas 77708

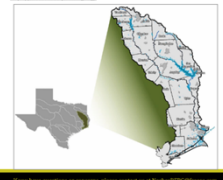
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#### What is Regional Flood Planning?

In the wake of historic flood in Texas, the 2019 Texas Legislature passed legislation to create Texas' first-ever regional and state flood planning process. The legislation expanded state flood planning framework and charged the Texas Water Development Board (TWDB) with creating flood planning regions based on river basins and with implementing the ongoing work of flood planning.

The Neches Regional Flood Planning Group (RFPG) is one of the 15 Regional Flood Planning Groups (RFPGs). The Neches Flood Planning Region includes all or parts of 24 counties and extends from offshore in the north and Sea Zarah in the south.

More information regarding the Neches Flood Planning Region is available here: <https://www.twdb.com/about/regions/rfp>



If you have questions or concerns, please contact us at [NechesRFPG@freese.com](mailto:NechesRFPG@freese.com).

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## Input on Draft RFP 5



**In Person**

Public Meeting on September 9, 2022 @ 2:00 PM  
 Lamar University CICE Building, Room 113  
 5091 Rolfe Christopher Drive  
 Beaumont, Texas 77708



**Via E-Mail**

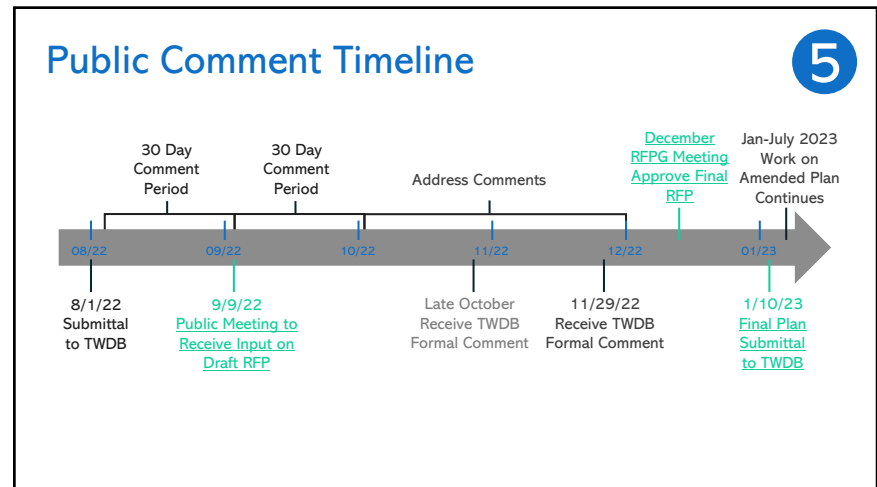
[NechesRFPG@freese.com](mailto:NechesRFPG@freese.com)



**Via Mail**

Risa Barber/ Neches RFPG  
 Lower Neches Valley Authority  
 7850 Eastex Freeway  
 Beaumont, Texas 77708

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## Amended Plan Task 11- Task 13

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### Task 11 – Outreach & Data Collection to Support Tasks 1 - 9

- Enhance Chapters 1 – 9
- Improve Data through additional data collection
- Expand Stakeholder Coordination and Representation in the Plan

### Task 12 – Perform FMEs; Identify, Evaluate, and Recommend FMPs

- Perform FMEs in order to develop additional FMPs
- The RFPG must approve the list of FMEs to be performed under Task 12
- The RFPG must approve the additional FMPs to be identified, evaluated, and recommended

### Task 13 – Preparation & Adoption of the Amended RF

- Update and revise Chapters 1-10 based on effort under Task 12

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## Task 12 – Perform FMEs Objective

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- To perform, within the RFPG's resources and the time available, a portion of currently recommended FMEs to identify additional FMPs for inclusion in the amended regional flood plan due July 14, 2023. Implementing these select FMEs includes the following:
  - Evaluate flood risks in areas with currently limited flood risk data
  - Evaluate flood risk reduction solutions, including feasibility studies
  - Preliminary engineering needed to identify, evaluate, and recommend additional potentially feasible FMPs
- The primary function of each recommended FMP must be flood risk reduction to life and property, and they must include quantifiable flood risk reduction benefits.
- Budget allocated - \$385,860

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## Task 12 – Perform FMEs Requirements

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- RFPGs Must
  - Vote to approve the list of FMEs to be performed using Task 12 funds
  - Evaluate and vote to recommend additional FMPs in the amended regional flood plan
  - Adhere to Task 4B and 5 requirements, as well as applicable requirements in the TWDB Flood Planning guidance documents
  - Revise and re-submit all data deliverables
    - GIS files, maps, project details worksheet, etc.
    - Update Regional Flood Plan chapters to reflect additional work performed

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## Task 12 – Approach & Timeline

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- Establish decision process for selecting FMEs
- Refine cost estimates for selected FMEs
- Coordinate with FME sponsors
- Vote on Task 12 FMEs at September meeting
- Complete FMEs by Spring 2023
- Amended plan due July 2023

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## Task 12 – Decision Process Approach

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- The RFPG ultimately directs the work conducted under Task 12
  - The Technical Consultant team can help craft criteria to balance the desired outcomes of Task 12
- Informed by results of Task 2, Task 4, and RFPG input
- Considerations for FME Selection Criteria
  - Focus on FMEs most likely to generate FMPs
  - Maximize number of FMPs
  - Maximize flood risk reduction (Task 2)
    - Structures and population at risk
    - Critical facilities at risk
  - FME requiring only a Benefit/Cost Ratio (BCR) to be an FMP
  - Level-of-effort (cost) to perform FME relative to available budget

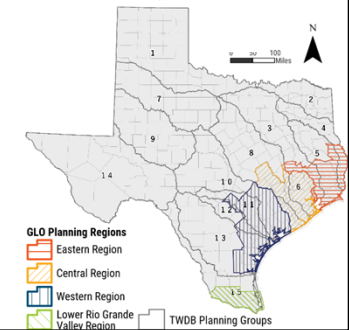
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## Task 12 – Decision Process Approach

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- Leverage ongoing/previous studies expected to elevate FMEs and generate FMPs
  - Master Drainage Plans
  - JCDD6 FIF Study
  - Chambers County FIF Study
  - Upper and Lower Sabine FIF Study
  - GLO Combined River Basin Flood Study

**Flood Planning Areas**  
Texas General Land Office and Texas Water Development Board

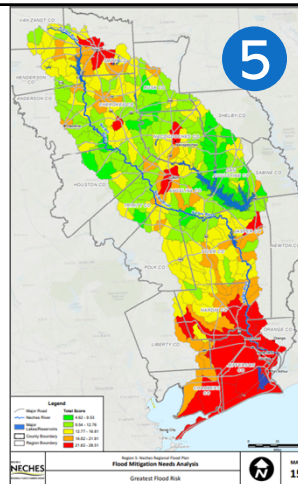


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## Task 12 – Decision Process Approach

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- Utilize Task 4A Needs Assessment as initial ranking
- Potential secondary criteria/priorities to consider:
  - Rural areas who do not have funding
  - Highest development potential
  - Regional benefit (multiple sponsors)
  - Sponsor involvement
  - Regional goals



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## Task 12 – Review of FMEs

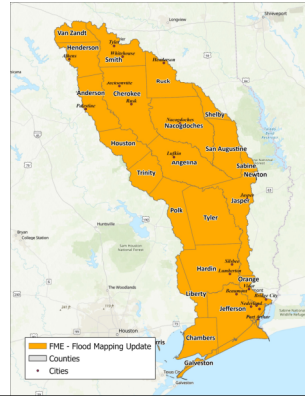
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FME Type	Description	Count	Cost
<b>Flood Mapping Updates</b>	Updates to floodplain mapping to include new hydrologic and hydraulic modeling for defining flood hazard areas.	22	\$57,760,000
<b>Master Drainage Plan</b>	An assessment of a watershed or community to estimate flood risk and recommend flood management and flood mitigation projects.	37	\$35,680,000
<b>Project Planning</b>	Evaluate identified potential flood mitigation projects to define costs, quantify flood reduction benefits, demonstrate no adverse impacts, and evaluate design alternatives. Evaluation may require the creation or updating of hydrologic and hydraulic models.	90	\$24,632,500
<b>Feasibility</b>	Develop flood mitigation project alternatives for a discrete high flood risk area, estimate construction costs for alternatives, and determine flood reduction benefit for alternatives. Evaluation may require creation of H&H modeling.	7	\$1,130,000
<b>TOTAL</b>		<b>156</b>	<b>\$119,202,500</b>

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### Review of FMEs – Flood Mapping Updates 5

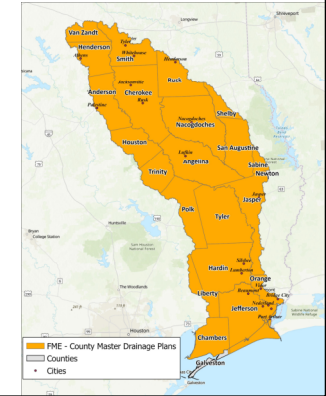
- 22 FMEs identified
- Cost estimates range from \$760,000 to \$5,000,000
  - Total Cost \$61,710,000



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### Review of FMEs – County Master Drainage Plans 5

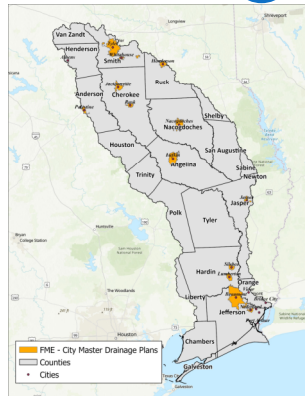
- 21 FMEs identified
- Cost estimates range from \$310,000 to \$1,900,000
  - Total Cost \$25,615,000



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### Review of FMEs – City Master Drainage Plans 5

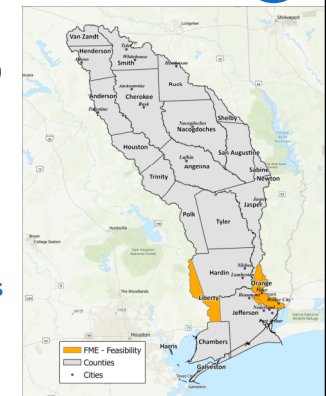
- 16 FMEs identified
- Cost estimates range from \$150,000 to \$2,200,000
  - Total Cost \$10,590,000



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### Review of FMEs – Feasibility Assessments 5

- 7 FMEs identified
- Cost estimates range from \$100,000 to \$325,000
  - Total Cost \$1,130,000
- Types of Feasibility Assessments
  - Recanalization
  - Increase culvert capacity
  - Widening and deepening of channels
  - Regional detention



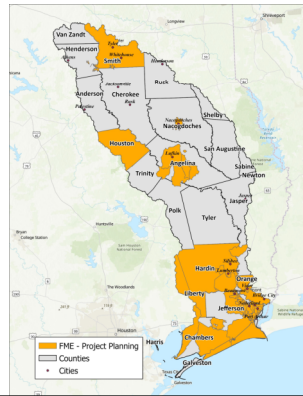
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## Review of FMEs – Project Planning

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- 90 FMEs identified
- Cost estimates range from \$20,000 to \$200,000,000
  - Total Cost \$323,632,500
- Types of Projects
  - Bridge improvements
  - Detention (local and regional)
  - Channel improvements
  - Roadway drainage improvements
  - Pump stations

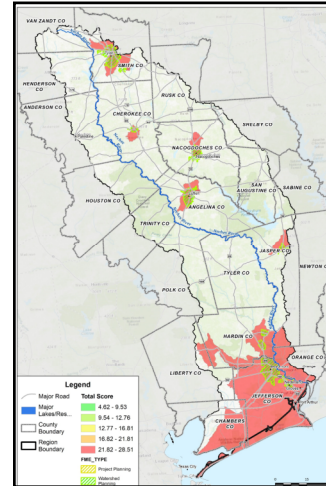


## FME and Needs Analysis Intersection

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### Watershed Planning

- City of Nacogdoches Update Flood Control Study
- City of Tyler Master Drainage Plan
- City of Rusk Master Drainage Plan
- City of Whitehouse Master Drainage Plan
- City of Nederland Master Drainage Plan
- City of Jasper Master Drainage Plan
- City of Silsbee Master Drainage Plan
- City of Lumberton Master Drainage Plan
- City of Lufkin Master Drainage Plan
- City of Beaumont Master Drainage Plan
- Liberty County Culvert Replacement Project



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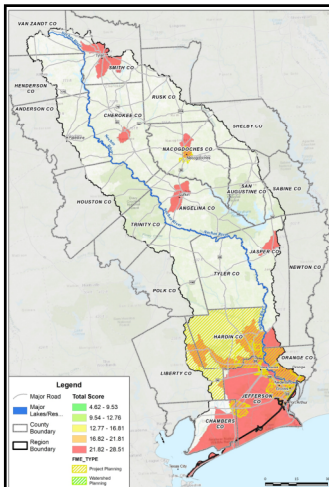
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## FME and Needs Analysis Intersection

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### Project Planning

- Feasibility Assessment for Increase in Size of Culverts and Railroad Trestles on Major Drainage Structures Throughout Orange County
- Feasibility Assessment of the Capacity of Drainage Ditches and Channels that Convey Stormwater from Neighborhoods Located Within Orange County
- City of Daisetta Drainage Projects
- Liberty County Recanalization Feasibility Study
- Orange County DD Harvey Repairs
- Orange County DD SW Detention/Retention Facilities
- JCDD7 Hurricane Flood Protection Levee Study
- Hardin County Municipal Storm Drain Project
- Houston Upgrade Pumping Equipment
- Upper Johns Gulley Upgrade Drainage Channel
- Main A Channel Improvements
- Rodair Lateral 5 Detention Pond Excavation
- Tevis Diversion
- Crane Bayou Channel Improvements
- South Park Diversion
- Blanchette Diversion
- Central - Upgrade Pumping Equipment and Structure

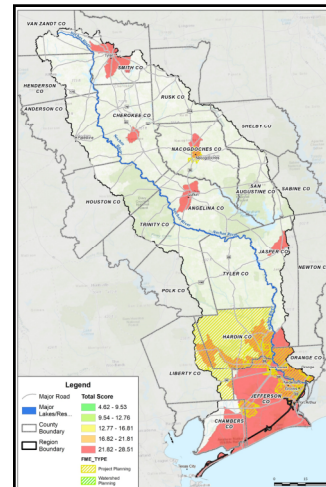


## FME and Needs Analysis Intersection

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### Project Planning

- Crane Bayou Additional Pumping
- Lakeview Additional Pumping
- Stadium Upgrade Pumping Equipment
- Delmar Upgrade Pumping Equipment
- DeQueen Additional Pumping Equipment
- Shreveport Additional Pumping Equipment
- Mayhaw Lateral Improvements
- Delaware Diversion
- City of Lumberton Adler Ditch Drainage Improvements
- City of Lumberton East Village Creek Parkway Drainage Improvements
- City of Lumberton Drainage Chance Cut Off Concrete Lining
- City of Lumberton Greens Branch Ditch Western Extension
- City of Nacogdoches Flood Mitigation Project
- City of Vidor Schoolhouse Ditch Alternative B
- Hardin County South Area Drainage System
- Hardin County SE Area Drainage System
- City of Vidor Schoolhouse Ditch Alternative C
- Hardin County Cooks Lake Road Bridge Elevation
- Hardin County Coon Marsh Gully Drainage Improvements
- Bridge City Drainage Outfall Improvement Project



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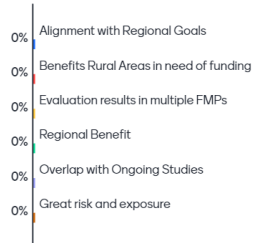
## Task 12 – RFPG FME Weighting Factors

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Go to [www.menti.com](http://www.menti.com) and use the code 3844 3252

Which factors are Most Important When Selecting an FME to perform?

Mentimeter



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## Planning Schedule

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### August

- Discuss current FMEs and discuss approach for identifying FMEs that should be performed in Task 12

### September

- Vote to approve the list of FMEs to be performed using Task 12 funds
- Hold Public Comment Meeting on Draft RFP
- Perform Task 12

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