

Region 3 Trinity Flood Planning Group Meeting Wednesday, March 12, 2025 1:00 p.m.

The Region 3 Trinity Flood Planning Group (R3TRFPG) will hold a public meeting in-person pursuant to Texas Government Code, Section 551.127. This meeting will be conducted in a hybrid format.

In-person: City of Huntsville 448 State Hwy. 75 North Huntsville, Texas 77320

Virtually:

Via WebEx videoconference at:

https://bit.ly/4h7vyPj

or via phone at 1-408-418-9388 access code 2498 157 2264 Webinar password: 23669979

Members of the public may attend, participate and/or address the RFPG in-person, or they may virtually access the meeting using the videoconference link or teleconference information provided above. Members of the public wishing to address the Trinity RFPG during the meeting are encouraged to follow the registration and comment procedures found below.

MEETING AGENDA

- 1. Call to order
- 2. Roll call
- * Approval of minutes from the previous meeting
- 4. Acknowledgement of written public comments received
- 5. Receive registered public comments on specific agenda items limit 3 minutes per person
- 6. TWDB Update
- 7. Update from the Policy Subcommittee
- 8. Update from the Nominating Committee
- 9. Update from Region 3 Technical Consultant
 - a. Amendment requests for 2023 Region 3 Trinity Regional Flood Plan
 - Assessment and findings of requests received
 - ii. *Consider approval of amendment to submit to TWDB by April 1, 2025.

Trinity Regional Flood Planning Group March 12, 2025 Meeting Notice and Agenda, continued

- b. *Consider authorizing the TRA to amend its contract with TWDB and with Halff to accommodate TWDB's proposed modified schedule
- c. 2028 Regional Flood Plan Update
 - i. Task 1 Planning Area Description Update
 - ii. Update on participation in Data Collection Tool
 - iii. Task 2 Existing (Task 2A) and Future (Task 2B) Conditions Flood Risk Analyses Update
 - iv. Introduction to criteria and emergency need (Task 3B)
 - v. Determine approach for soliciting FMXs (Task 4A)
 - vi. Determine approach for selecting FMEs to upgrade to FMPs (Task 4A)
 - vii. *Consider establishing Technical Subcommittee to review FMXs
 - viii. Outreach update
- d. Project schedule
- 10. Updates from liaisons for adjoining coastal regions
 - a. Region 5 Neches RFPG
 - b. Region 6 San Jacinto RFPG
- 11. Updates from Planning Group Sponsor
 - a. Member terms
- 12. Receive registered general public comments limit 3 minutes per person
- 13. Announcements
- 14. Confirm meeting date for next meeting
- 15. Consider agenda items for next meeting
- 16. Adjourn

ORAL PUBLIC COMMENTS

If you wish to provide oral public comments at the meeting, you are encouraged to register in advance by emailing info@trinityrfpg.org no later than 12:00 p.m. on March 12, 2025, providing your name, phone number, email address and who are you representing, and indicating if you wish to comment on a specific agenda item or provide general comments. During the meeting, those who have registered to speak, either in-person or virtually, will be called upon by the Chair during the appropriate comment period. At the discretion of the Chair, unregistered attendees who wish to speak may also have the opportunity to provide oral comments during the public comment periods of the agenda.

- Those participating by videoconference will be asked to use the "raise hand" function, visible by hovering the cursor over the attendee's name onscreen, to indicate their interest in speaking during the appropriate public comment period.
- Those participating by teleconference will be asked to enter *3 to indicate their interest in speaking and to be placed into the queue in order to be called upon during the appropriate public comment period.

WRITTEN PUBLIC COMMENTS

^{*} Denotes Action Item

Trinity Regional Flood Planning Group March 12, 2025 Meeting Notice and Agenda, continued

If you wish to provide written comments prior to or after the meeting, please email your comments to info@trinityrfpg.org and include "Region 3 Trinity Flood Planning Group Meeting" in the subject line of the email.

Additional information may be obtained from:

Alexis Long at: (817) 467-4343 or by email at: longas@trinityra.org Physical location: 5300 South Collins Street, Arlington, TX 76018



March 12, 2025



1. Call to order

2. Roll call

3. Approval of minutes

Region 3 Trinity Flood Planning Group Meeting Wednesday, December 11, 2024 9:00 a m

The Region 3 Trinity Flood Planning Group convened a public meeting, in person as well as virtual, on Wednesday, December 11, 2024, 9:00 a.m.

Chairman Glenn Clingenpeel opened the meeting at 9:02 a.m.

Voting Members Present:

Chad Ballard (absent)
Sano Blocker (absent)
Melissa Bookhout
Glenn Clingenpeel
Rachel Ickert
Craig Ottman, alternate for Rachel Ickert
Scott Harris
Andrew Isbell (absent)
Jordan Macha
Galen Roberts
Matt Robinson
Lissa Shepard
Sarah Standifer (absent)

7 voting members were present at the time of roll call, constituting a quorum.

Ex Officio Members Present:

Susan Alvarez, arrived after roll call Steve Bednarz John Blount (absent) Justin Bower Todd Burrer (absent) Humberto (Bert) Galvan Diane Howe (absent) Lonnie Hunt Risa King Neely Kirkland Manuel Martinez Katie Koslan Andrea Sanders (absent) Matthew Lepinski Lisa McCracken (absent) Greg Waller (absent) Adam Whisenant

Amanda Young (absent)

Approval of the Minutes of the October 4, 2024, Meeting

Motion: Rachel Ickert moved to approve the minutes as presented; Second: Galen Roberts; Action: Minutes were unanimously approved.

Acknowledgement of written public comments received

No written public comments were received.

Receive registered public comments on specific agenda items

No registered public comments were received.

TWDB Update – Katie Koslan, TWDB

There were no significant updates. Ms. Koslan acknowledged R3RFPG progress on the amendments. The TWDB 2nd Cycle Contract Kickoff webinar had been held the previous month, and the slides and recorded session were posted on the website. A webinar on payment requests was scheduled for Thursday, January 9, 2025, and will be presented by Katie Koslan. Plans were also underway for an RFPG Chairs conference call to discuss lessons learned from community outreach in 2025, though the date had not yet been determined.

Craig Ottman, TRWD, requested an update on the 2024-2025 Flood Infrastructure Fund (FIF) cycle applications. Ms. Koslan stated that TWDB was working on finalizing the rankings for FMEs and FMPs internally and they should post them for public comments soon.

Update from the Policy Subcommittee – Rachel Ickert, TRWD

No updates were provided.

Updates from Region 3 Technical Consultant – Stephanie Griffin, Halff

Stephanie Griffin, Halff, provided a review of the agenda, starting with the 2023 plan amendment request. It was noted that the meeting slides had been updated from the version posted online due to revisions made after reviewing the submitted information. Some data had been miscategorized, with FMSs included among FMEs, necessitating adjustments. The revised slides would be posted after the meeting to ensure attendees had the most current information before taking any action. The agenda also included a review of Chapter 1, an update on Chapter 2 and public outreach activities, and a status update on the project schedule.

- a. Amendment requests for 2023 Region 3 Trinity Regional Flood Plan Stephanie Griffin, Halff
 - i. Requests received:

Following the October 2024 RFPG meeting, the opportunity for amendment requests was open until December 1, 2024. A total of nine FME requests, 38 FMP requests, and six FMS requests were submitted. Notably, the FMS submissions were new and had been initially miscategorized within other data. As a result, FMP numbers decreased while FMS numbers increased.

The submitted projects were being reviewed to determine their correct classifications. Revised slides were planned for the next meeting to provide updated information. It was noted that the amendment submission to TWDB was due on April 1, 2025, with internal deadlines set for early March to ensure timely preparation.

The FMPs required the most effort due to updates needed for tables, maps, and related documentation. Submissions included FMXs from various cities and counties, with notable contributions from Chambers County, Liberty County, and Highland Park. Several recategorization efforts were discussed, such as reassigning certain projects to align with sponsor eligibility.

The RFPG acknowledged the significant response from diverse regions and expressed satisfaction with consultant engagement. It was emphasized that the amendment window had closed, and future submissions would be considered in the next phase. A motion was proposed to approve the submitted FMXs for further review and consideration in the 2023 amendment process.

There was considerable discussion about future amendments. The contract with TWDB allowed for two amendments to the original regional flood plan. Although a second amendment was technically possible, the timeline presented challenges. Discussions also addressed downstream considerations for FIF funding and the next FIF cycle's timeline, which was still under development. While details remained uncertain, it was understood that submissions for the 2028 RFP might overlap with ongoing 2023 RFP amendments. These efforts aimed to align with the timeline for the 2026-2027 FIF cycle and beyond, ensuring eligibility for future funding cycles. It was acknowledged that the 2023 RFP amendment and 2028 RFP planning process would need to remain dynamic to reflect progress and integrate new projects, fostering a continually evolving and effective flood mitigation strategy.

There was discussion on the feasibility of the Technical Consultants meeting the TWDB amendment submission deadline. The Technical Consultants expressed confidence in completing the necessary updates by March, despite acknowledging limited flexibility. It was noted that some FMPs might need to be disqualified if essential information was not submitted on time. In cases where data was missing or inaccessible but

already produced, efforts would be made to address the issue. However, entities failing to provide the required information would have their FMPs reclassified. Communication with these entities was ongoing to clarify the sponsors intended submissions and address deficiencies. The process aimed to ensure that all submissions were appropriately categorized.

ii. *Consider approval of FMX amendment requests for further review

Chairman Glenn Clingenpeel called for a motion to approve the list of FMXs for further review and consideration for the 2023 RFP amendment.

Motion: Scott Harris moved to approve the list of FMXs for further review and consideration for the 2023 RFP amendment; Second: Jordan Macha; Action: Motion passed unanimously.

- b. 2028 Regional Flood Plan Update Audrey Giesler Klump, Halff
 - i. Task 1 Planning Area Description Update:

Audrey Giesler Klump, Halff, provided an update on Chapter 1. The presentation was relatively straightforward, with updated graphics reflecting slightly newer information from the previous cycle. The project schedule was outlined, emphasizing the TWDB's deadline of September 19 for the Technical Memorandum. The focus until that deadline would primarily be on tasks 1 through 4B, with some tasks initiated earlier as necessary.

The chapter provided familiar data on the Trinity region, which covers 38 counties and approximately 18,000 square miles, including 27% of the area subject to a 1% annual chance flood event. Updated statistics highlighted over 5,800 flood claims and \$426.5 million in claims paid through 2024. Population growth was projected to increase by 20% by 2050, with significant changes in flood risks due to urbanization, particularly in the Dallas-Fort Worth metroplex and other growing counties.

Sub-regions within the Trinity basin and their unique flood risks were discussed. Updated participation in the National Flood Insurance Program (NFIP) showed 77% community involvement, with efforts ongoing to involve more communities.

Questions addressed included data coverage, NFIP participation, and the impact of population growth on flood risks. Mrs. Giesler Klump concluded with an overview of agricultural and natural resource management trends. Key trends included the decline of working lands by nearly 496,000 acres since 1997, likely due to urbanization.

ii. *Consider approval of use of Data Collection Tool

Mrs. Giesler Klump provided an update on the <u>Data Collection Tool</u>. Over the past few months, significant efforts were made to improve the data collection tool based on feedback from its previous iteration. Key changes included simplifying the login process, refining the survey to 23 questions (down from over 170), and an updated interactive map that integrated base-level data from the <u>State Flood Plan Viewer</u>.

For community representatives, the process now involves self-creating passwords and providing essential information like city, title, and contact details, addressing confusion from the prior cycle. The tool's enhancements aim to foster clear communication, avoid overwhelming users, and focus on actionable data. Additionally, sensitive data submission concerns were addressed by encouraging direct conversations rather than anonymous uploads. The revised tool is set to launch on December 12, with a soft deadline for data submission by February 11. Data submitted prior to February 11 was guaranteed to be included in the 2028 Regional Flood Plan. The tool will remain open after February 11 until a hard deadline is determined. Further testing by external stakeholders and regional representatives was recommended by the RFPG members to refine usability.

Chairman Glenn Clingenpeel called for a motion to approve the Data Collection Tool as presented.

Motion: Galen Roberts moved to approve the Data Collection Tool as presented;

Second: Lissa Shepard; Action: Motion passed unanimously.

iii. Task 2 Existing and Future Conditions Flood Risk Analyses Update – Samuel Amoako-Atta, Halff

Samuel Amoako-Atta, Halff, provided an update on Chapter 2. He emphasized the need for data from the TWDB and outlined the goal of assessing flood risks, including mapping extents, depths, exposures, and vulnerabilities for the Trinity Basin.

The presentation covered existing conditions, focusing on riverine, pluvial, and coastal flooding, and the data sources used in the first flood planning cycle, such as FEMA and USGS. Plans for the second cycle included integrating updated data sets, adding ten-year flood maps, and assessing social and agricultural impacts using new tools and datasets, like the TWDB Texas Flood Social Vulnerability Index (TX F-SVI).

Future conditions mapping was also presented, with considerations for climate variability, sea level rise, and land-use changes. TWDB funded Future Conditions Mapping, a flood quilt, through 2060 by Fathom, Aqua Strategies, and AECOM. The Technical Consultants and RFPG members highlighted challenges in ensuring the accuracy of future flood predictions, expressing concerns about uncertainties and the potential

real-world consequences of imprecise data. They discussed the possibility of forming a subcommittee that includes voting and nonvoting RFPG members as well as Technical Consultants, to evaluate technical details of the forthcoming future condition datasets.

iv. Outreach update – Dorothy White, Cooksey Communications

Dorothy White, Cooksey Communications provided an update. A detailed e-blast that provided instructions for updated data collection needs was distributed to stakeholders. A <u>PDF flyer</u> outlining data collection procedures was also created, linked in the e-blast, and hosted on the website. Information was posted on X, formerly known as Twitter, and a media advisory was issued to raise public awareness.

RFPG members were encouraged to share the information on their individual LinkedIn accounts since the Trinity RFPG lacked a LinkedIn presence. The team considered establishing an organizational LinkedIn page to reach professionals. Meanwhile, X, remained the primary social media channel due to its broad reach and media usage.

The Cooksey Team continued to maintain the website, update the stakeholder list, and acknowledge public comments. The Team planned to use e-notifications to announce key milestones and share updates via public meetings, postings, and media advisories. Additionally, the potential of reviving an old LinkedIn account was discussed to further enhance outreach.

c. Project schedule – Stephanie Griffin, Halff

Stephanie Griffin, Halff provided an overview of the project schedule. The schedule outlined aimed to meet the deadlines for two significant TWDB deliverables. April 1 for the 2023 RFP amendment request and September 18 for the Technical Memorandum submission.

Proposed meeting dates were suggested, but scheduling conflicts arose. It was agreed to use a polling platform to finalize meeting dates due to potential scheduling difficulties.

<u>Updates from liaisons for adjoining coastal regions</u>

- a. Region 5 Neches RFPG: Katie Koslan, TWDB, provided an update. Region 5 is currently in the planning stage.
- b. Region 6 San Jacinto RFPG: Scott Harris, Gulf Coast Authority, provided an update. Region 6 is currently in the planning stage.

Update from Planning Group Sponsor – Chairman Glenn Clingenpeel, TRA

a. Member terms

Chairman Glenn Clingenpeel provided an update regarding member terms and participation issues, which had been discussed at previous RFPG meetings. A letter was sent to a member who had missed a sufficient number of meetings to be out of compliance with the RFPG bylaws. Based on the RFPG's prior direction, the letter was unambiguously worded to state that a vacancy would be created for the member's position. No response had been received to date.

The RFPG decided to address the matter at a later meeting, incorporating it into the next full group session. Additionally, the establishment and convening of a nominating committee were identified as the next steps. Scott Harris, who chaired the committee previously, was asked to lead it again, pending the RFPG's approval.

b. *Establish Nominating Committee

A proposal was made by Chairman Glenn Clingenpeel to maintain the same slate of members as the previous term for the Nominating Committee, while allowing any member to opt out if they choose. The Nominating Committee Members confirmed were Lissa Shepard, Jordan Macha, Rachel Ickert, Matt Robinson, and Scott Harris. Scott Harris was confirmed as Chairman of the Nominating Committee.

The group should review RFPG member attendance records to determine compliance with bylaws and continued eligibility. Further, they should review the attendance of members whose term limits are set to expire in July 2025. Members with expiring terms will need to convey their willingness to continue serving. Outreach, potentially via email, will be necessary to engage these members and confirm their interest in continued participation. Formal action on this matter will be required in July 2025.

RFPG Member and Term Selected as of June 2023:

Jordan Macha, 5-year Lissa Shepard, 2-year Scott Harris, 5-year Chad Ballard, 5-year Melissa Bookhout, 2-year Glenn Clingenpeel, 2-year Matt Robinson, 5-year Sarah Standifer, 5-year Rachel Ickert, 5-year Galen Roberts, 2-year Sano Blocker, 2-year Andrew Isbell, 2-year

Chairman Glenn Clingenpeel provided an update on invoices. Katie Koslan, TWDB, acknowledged that when invoices are received, they will aim to process payment requests promptly. TWDB noted no RFPGs have submitted a payment request yet. Additionally, the recent resignation of the TWDB Contracts

Specialists manager, responsible for contract reviews and payments, was highlighted as a factor potentially causing delays in future payment requests. The RFPG expressed concerns about past delays in contractor payments, emphasizing the need for improvement to avoid similar issues.

Katie Koslan reassured the RFPG that key individuals at TWDB were informed, and, given the lack of recent payment requests, they hoped delays would not affect the start of the second cycle. They acknowledged ongoing challenges with TWDB Contract Specialist staff turnover, which had contributed to payment delays. Chairman Glenn Clingenpeel noted that the R3RFPG first payment request had already been reviewed by the TRA finance team, with questions addressed, and was expected to be submitted to the TWDB soon.

Receive registered public comments – limit 3 minutes per person

No registered public comments were received.

Announcements

There was considerable discussion on weather conditions. The RFPG noted that apart from spring flooding, the season had been relatively quiet. It was mentioned that ERCOT announced a high probability of rolling blackouts, possibly due to plant maintenance schedules and the transition between El Niño and La Niña weather patterns. However, the National Weather Service's forecasts conflicted with ERCOT's assessment, suggesting uncertainty.

Regarding seasonal observations, it was noted that October, typically the second wettest month, was unusually dry, leading to extended foliage activity in trees. The legislative update indicated no significant developments yet, though TFMA, ASC, and TWA government relations committees were monitoring any developments. It was anticipated that future discussions might involve funding for water initiatives, especially if triggered by extreme weather events. Additionally, federal progress on a related initiative was mentioned as positive news.

Confirm meeting date for next meeting

Wednesday, March 12, 1:00 pm at the City of Huntsville Service Center 448 State Hwy. 75 North, Huntsville, Texas 77320.

Consider agenda for next meeting

 Create a subcommittee to review the Future Conditions Mapping dataset produced by Fathom and funded by TWDB

Adjourn

10:33 a.m. adjourned

THE ABOVE AND FOREGOING ARE CERT OF THE REGULAR MEETING OF THE REG HELD DECEMBER 11, 2024.	IFIED TO BE TRUE AND CORRECT MINUTES ION 3 TRINITY FLOOD PLANNING GROUP
SCOTT HARRIS, Secretary REGION 3 TRINITY FLOOD PLANNING GR	Date
GLENN CLINGENPEEL, Chair REGION 3 TRINITY FLOOD PLANNING GR	

4. Acknowledgement of written comments received

5. Public comments on agenda items

6. TWDB update

7. Policy Subcommittee Update

8. Nominating Committee Update

9. Consultant update

Agenda

CONSULTANT UPDATE

- 2023 Flood Plan amendment
- TWDB schedule modification
- Chapter 1 update
 - Significant progress
 - Data collection tool update
- Chapter 2 update
- Chapter 3 introduction
 - Criteria and emergency need update
- Chapter 4 introduction
 - Approach to identify FMXs
 - Approach to select FMEs to advance to FMPs
- Public outreach updates
- Project schedule

2023 Flood Plan amendment requests

Amendment Requests - Summary



8 FMEs 8 Entities Submitting



31 FMPs 8 Entities Submitting



6 FMSs 2 Entities Submitting

- Received items have been reviewed. Final counts are as shown.
- Projects have been compiled and formatted for TWDB submittal.
- Models will be sent to MS2 and amendment will be submitted to TWDB, pending RFPG approval.

Amendment Requests - FMEs

- 031000524 City of Buffalo Master Drainage Plan
- 031000525 City of Centerville Master Drainage Plan
- 031000526 City of Crowley Drainage Master Plan
- 031000527 City of Sansom Park Drainage Master Plan
- 031000528 NCTCOG with The Nature Conservancy Upper Trinity Basin Nature-Based Solutions Project Identification and Prioritization
- 031000529 City of Arlington Johnson Creek JC-2 Floodplain Buyout
- 031000530 Liberty County WCID #5 Master Drainage Plan
- 031000531 City of Liberty Master Drainage Plan

Amendment Requests - FMPs

- City of Arlington (2 new, 2 updates)
 - 033000087 Johnson Creek Pioneer Pkwy and Arkansas Ln Buyouts
 - 033000089 Johnson Creek Collins & Division St Buyouts
 - 033000136 Johnson Creek JC-12 Buyouts
 - 033000137 Johnson Creek JC-10 Buyouts
- City of Everman (3 new)
 - 033000113 Barron Ave & Porter St Drainage Improvements
 - 033000114 E Enon Ave & Forest Hill Improvements
 - 033000115 Race St & Christie Ave Drainage Improvements
- City of Forest Hill (1 new)
 - 033000124 Forest Hill Regional Detention
- Liberty WCID #5 (2 updates)
 - 033000068 Main A Pump Station Improvements
 - 033000078 Main B Pump Station Improvements

Amendment Requests - FMPs

- Chambers County (4 new, 5 updated)
 - 033000125 Tri City Cutoff Gully Improvements
 - 033000126 Frazier Gully culvert improvements
 - 033000127 Spring Branch drainage improvements
 - 033000128 Hankamer drainage improvements
 - 033000129 Spring Creek Gully detention
 - 033000130 Hackberry-Gully Channel improvements
 - 033000131 FM 3180 improvements
 - 033000132 Skylane Gully improvements
 - 033000133 Old River/Cove Channel improvements
- Tarrant Regional Water District (2 new)
 - 033000111 Fort Worth Central City Flood Control Project
 - 033000112 Mary's Creek Flood Control Reservoir Project

Amendment Requests - FMPs

- City of Highland Park (8 new)
 - 033000116 W Potomac Drainage Improvements
 - 033000117 Dartmouth Drainage Improvements
 - 033000118 Airline Drainage Improvements
 - 033000119 E Potomac Drainage Improvements
 - 033000120 Lomo Alto Drainage Improvements
 - 033000121 Douglas & Beverly Drainage Improvements
 - 033000122 Wycliff Transportation Project
 - 033000123 Hackberry Creek Phase 1
- City of Dayton (2 new)
 - 033000134 Sunset Heights Neighborhood and Downtown Dayton Improvements
 - 033000135 Lawrence Street improvements

Amendment Requests - FMSs

- Chambers County (5 new)
 - 032000148 SE Texas R.A.I.N Gage Network Improvements
 - 032000149 Community Rating System
 - 032000150 Flood Model and Map Management System
 - 032000151 Chambers County Property Acquisition Program
 - 032000152 Chambers County Drainage Criteria Manual Update
- Liberty County WCID #5 (1 new)
 - 032000153 Liberty County WCID #5 Drainage Criteria Manual Update

Consider approval of amendment to 2023 Regional Flood Plan

TWDB Modified Schedule

TWDB Modified Schedule

Fall 2024

RFPGs
selected
technical
consultants

Sept. 19, 2025 Jan 7, 2026 Technical Memos due

Feb 26, 2027 May 26, 2027 Draft plans due













April 1, 2025
Amendment requests due to TWDB

Jan 26, 2026
March 26, 2026
List of FMEs to be performed by TWDB

Jan 10, 2028 Final plans due

Consider approval of TWDB's proposed modified schedule

Chapter 1 Update

Planning Area Description



Chapter 1: Planning Area Description

Figure 1.1: Image of Flooded Gas Station in Grand Prairie, TX in 1976

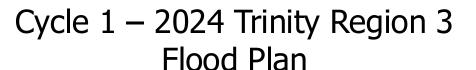


Source: United States Army Corps of Engineers (USACE)

Origins of the State Flood Planning Process

In Texas, the billion-dollar flood disaster is becoming a regular occurrence (see *Figure 1.1*). Between 2015 and 2017, flooding alone caused nearly \$5 billion in damages to Texas communities. When considered in conjunction with the impact of Hurricane Harvey, the total cost in 2017 approached \$200 billion in financial losses (NOAA, 2021) and nearly 100 deaths. As the state grappled with how to better manage flood risk and reduce loss of life and property from future disasters, the Texas Water Development Board (TWDB) prepared the first ever statewide flood assessment which described Texas' flood risks, provided an overview of roles and responsibilities, included an estimate of potential flood mitigation costs, and summarized entities' views on the future of flood planning. This plan was prepared because:

- Flood risks, impacts, and mitigation costs had never been assessed at a statewide level
- Flood risks pose a serious threat to lives and livelihoods
- Much of Texas is unmapped or uses out-of-date maps (Peter M. Lake, 2019)

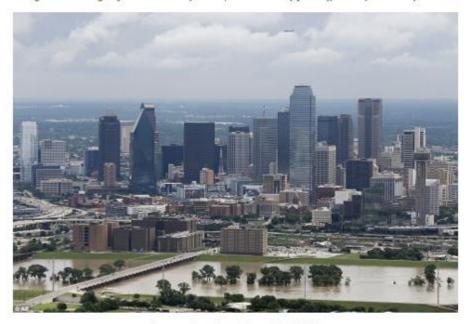






Chapter 1: Planning Area Description

Figure 1.1: Image of Swollen Trinity River (Memorial Day floods), Dallas, TX in May 2015



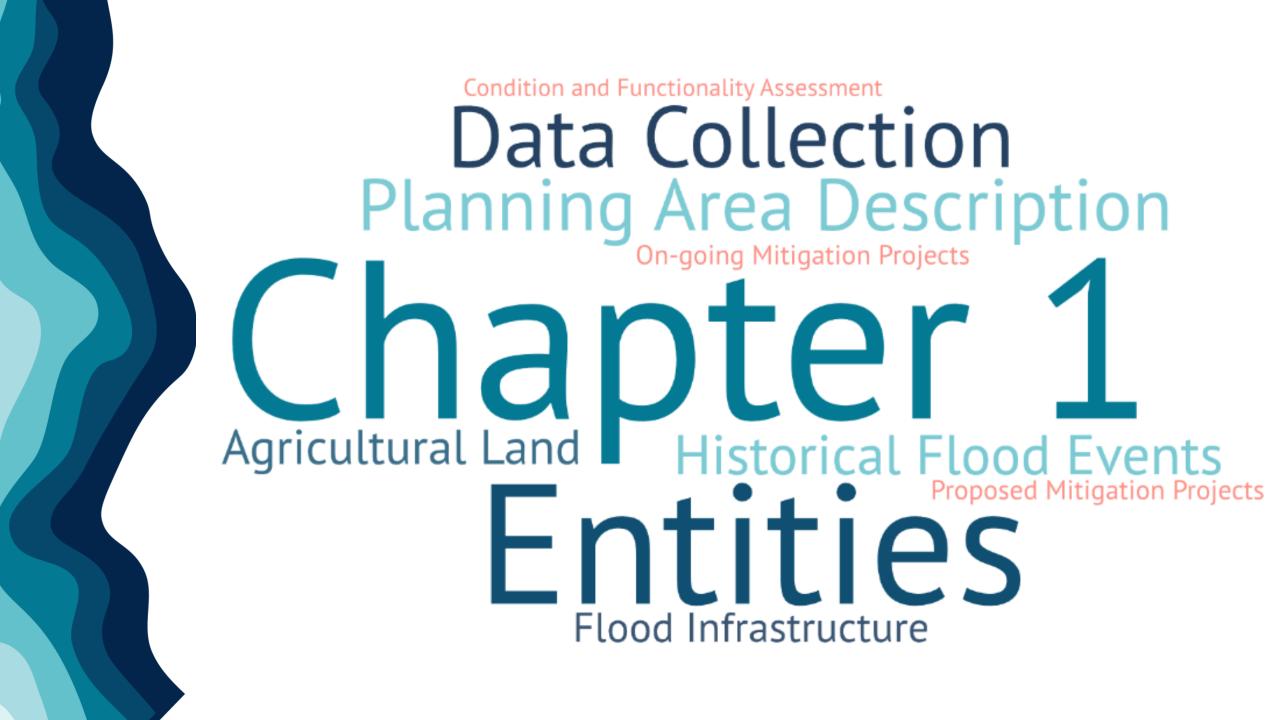
Source: Associated Press (AP, 2015)

Origins of the State Flood Planning Process

In Texas, the billion-dollar flood disaster is becoming a regular occurrence (see *Figure 1.1*). Between 2015 and 2017, flooding alone caused nearly \$5 billion in damages to Texas communities. When considered in conjunction with the impact of Hurricane Harvey, the total cost in 2017 approached \$200 billion in financial losses (NOAA, 2021) and nearly 100 deaths. As the state grappled with how to better manage flood risk and reduce loss of life and property from future disasters, the Texas Water Development Board (TWDB) prepared the first ever statewide flood assessment which described Texas' flood risks, provided an overview of roles and responsibilities, included an estimate of potential flood mitigation costs, and summarized entities' views on the future of flood planning.

The TWDB presented its findings to the 86th Texas legislative session in 2019. Later that year, the Legislature adopted changes to Texas Water Code §16.061 which established a regional and

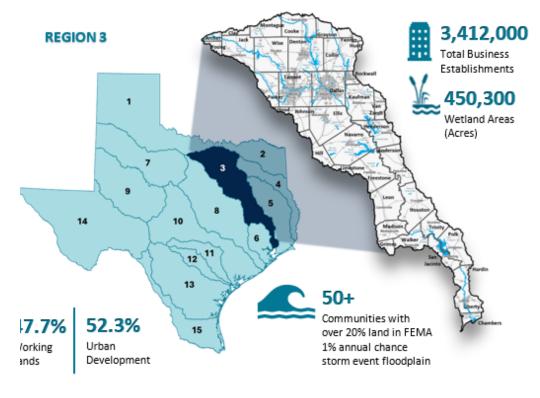






COMMUNITY PROFILE OVERVIEW

The Trinity Region, stretching from Gainesville to Anahuac, covers a diverse range of landscapes and communities, and includes approximately 15,855 stream miles and a total drainage area of about 17,900 square miles. One of the state's most populated flood planning areas, the Trinity region is expected to have 64 communities with populations over 25,000 by 2060. The area experiences a variety of flood risks due to its mix of arid, subtropical, agricultural, and urban environments.



PRIMARY INDUSTRIES Retail Trade By Revenue Professional, Scientific Trade By Revenue Professional, Scientific Retail Frade By # of Establishments & Payroll Professional

Summary

Infographics





FLOOD RISK IN THE TRINITY REGION

This region is bordered by the Red River Basin to the north, the Sabine and Neches River Basins to the east, and the Brazos and San Jacinto River Basins to the west and south.

In a major flood event, there are often losses incurred. From 1996 to 2024 there were 70 losses of life, and 11 injuries reported as being direct results of a storm event in the Trinity Region. During that timeframe the region also experienced \$6.9 billion in property damage with the largest losses found in densely populated metropolitan areas that are prone to flash flooding, and in coastal areas that are subject to tropical storms and hurricanes.



200+

Major Disaster and Emergency Declarations (1996-2024)



288

NFIP Participants (Month, Year)



457 (25%)

High Hazard Dams (Month, Year)



~20%

and in FEMA 1% Floodplain

FLOOD MITIGATION PROJECTS

There are XX structural and non-structural flood mitigation projects in progress in the Trinity Region, with XX planned for the future.



200+

Structural Flood Mitigation Projects (Currently under construction)



200+

Non-Structural Flood Mitigation Projects (Currently being implemented)

Flood Mitigation Projects (Funding Allocated)						
Project One	Year					
Project Two	Year					
Project Three	Year					
Project Four	Year					
Project Five	Year					
Project Six	Year					

FLOOD INFRASTRUCTURE REPORT CARD



Dams Description





Levees
Description





Chapter 1 Updates - Coming

Flood Infrastructure Assessment

Classification Guidance & Toolkit Overview

FEBRUARY 2025



Chapter 1 Updates - Coming



New Structural Flood Mitigation Projects currently under construction

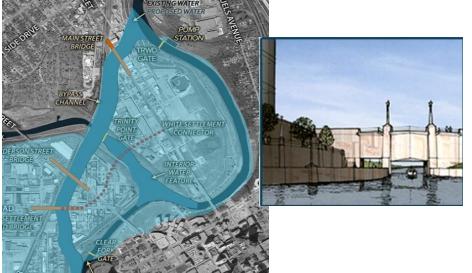


Non-Structural Flood Mitigation Projects currently being implemented



Structural and Non-Structural Flood Mitigation Projects with dedicated funding to construct and expected year of completion





Flood Exposure and Vulnerability Data Updates

- Data Delivery (Spring 2025)
- Data Review
- Data Revisions and Enhancements



Texas Flood Social Vulnerability Index (TX F-SVI)

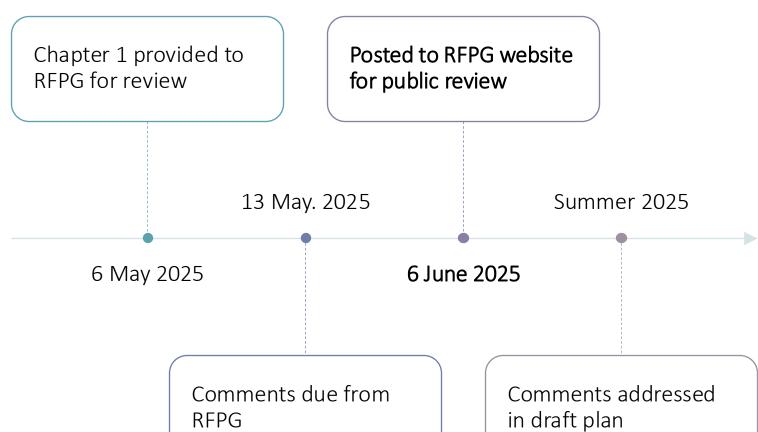
• Flood-Specific SVI for Texas



Building Footprints

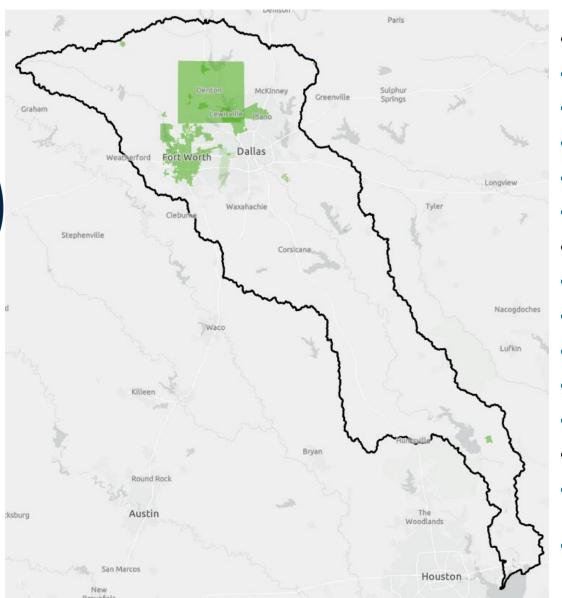
- Population
- SVI

Chapter 1 Review Schedule



DATA COLLECTION

Responsive Communities



- Argyle
- Aurora
- Bowie
- Caney City
- Carrollton
- Colleyville
- Combine
- Denton County
- Dish
- Enchanted Oaks
- Farmers Branch
- Forest Hill
- Grand Prairie
- Grand Prairie MURD
- Haslet

- Keller
- Lake Worth
- Leonard
- Lewisville
- Livingston
- Oak Leaf
- Plano
- Ponder
- Richland Hills
- Sanger
- Tarrant Regional Water District
- Trinity River Authority (not shown)

Current Efforts

- Phone calls
- Person-to-person emails

Previous Deadlines

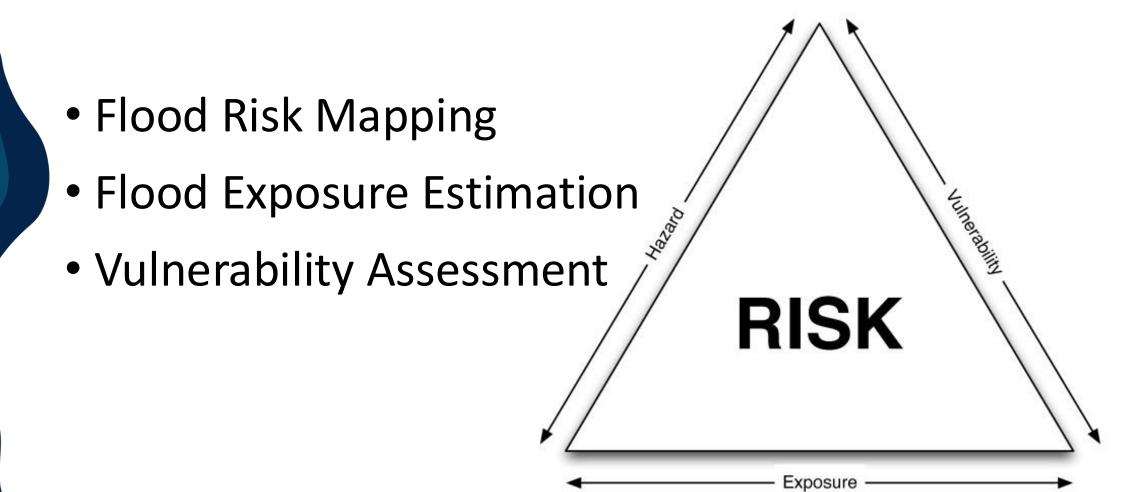
• Tech Memo: September 19, 2025 (Proposed) New Deadlines

Tech Memo: January 7, 2026

Chapter 2 Update

Flood Risk Analysis

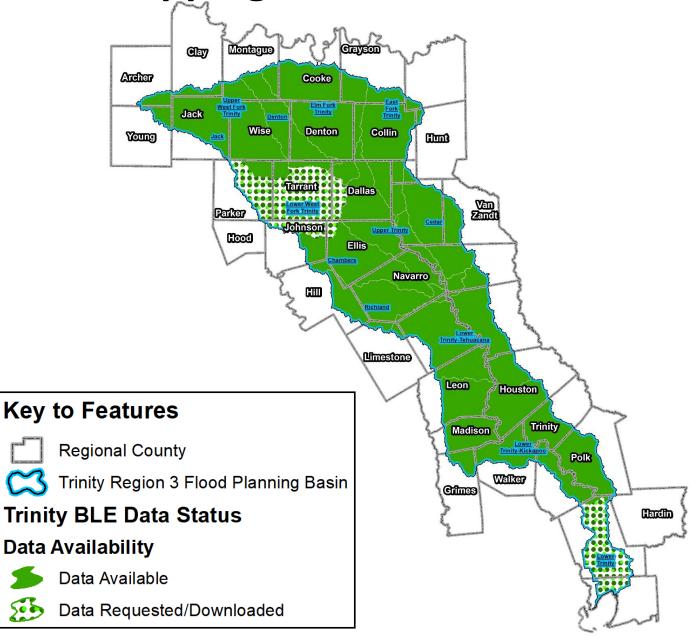
Task 2 - Purpose



CHAPTER 2 Existing Conditions Approach

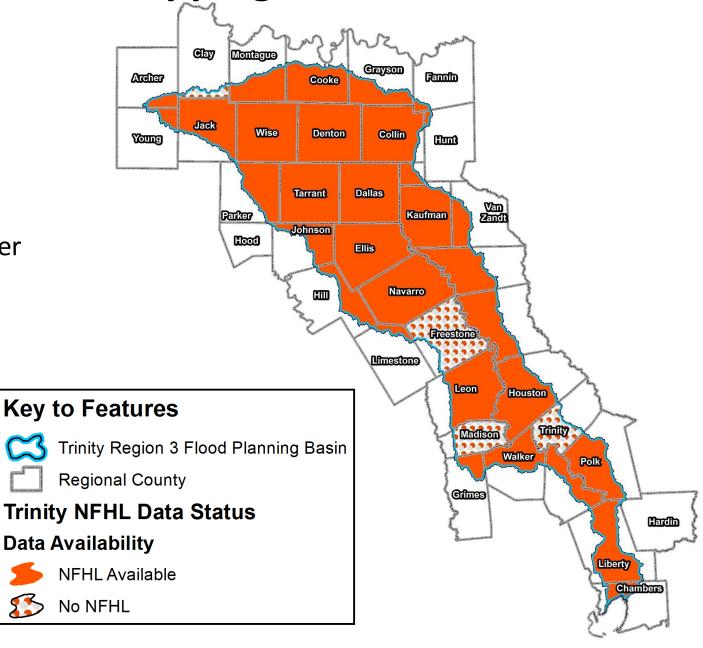
Task 2A — Flood Mapping Data Sources

BASE LEVEL ENGINEETING (BLE Data)



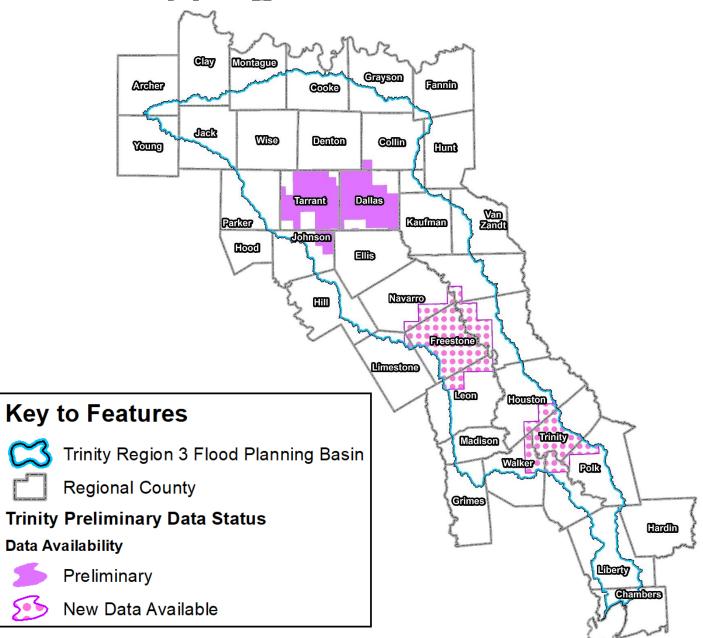
Task 2A — Flood Mapping Data Sources

National Flood Hazard Layer (NFHL Data)



Task 2A — Flood Mapping Data Sources

Preliminary Flood
Data



Task 2A — Flood Mapping Data Sources and Prioritization

Data Prioritization

		Pending Data						
1	National Flood Hazard Layer	Preliminary Data						
		Effective Data						
2	Base Level Engineering Data							
3	NFHL (Approximate Study Areas)							
4	First American Flood Data Services (FAFDS)							
		Fathom						
5	Other Detential Data Courses	USACE of Federal Data						
	Other Potential Data Sources	Regioal Data						
		Local Data						

Task 2A — Existing Conditions Flood Risk Assessment

FLOOD TYPE

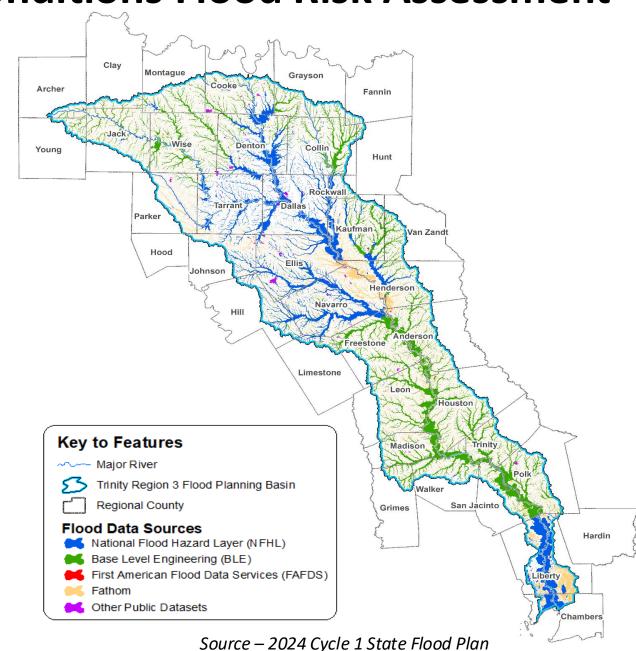
- Riverine
- Coastal
- Pluvial including Urban flooding

FLOOD EVENT TYPES

- 10-Year
- 100-Year
- 500-Year
- Other

DATA SOURCES

- TWDB Flood Quilt
- FEMA
- Regional/Community Data
- FATHOM



Task 2A — Critical Facilities











A critical facility provides services and functions essential to a community, especially during and after a disaster (FEMA)









Task 2A — Critical Facilities













Critical facilities includes all public or private assets, systems, and functions vital to the security, governance, public health and safety, economy, or morale of the state or the nation(TWDB)







Task 2A — Critical Facilities

- 1. Schools (K through 12th)
- 2. Hospitals
- 3. Fire Stations
- 4. Police Stations
- 5. Emergency Medical Facilities
- 6. Storage of Critical Records
- 7. Water and Wastewater Treatment Plants
- 8. Power Generating Facilities
- 9. Electric Transmission Lines
- 10. Assisted living facilities
- 11.Shelters
- 12.Airports
- 13. Military Installations
- 14.Bridges
- 15. Communication Facilities



Consider the list of Critical Facility categories to be used in in the Trinity Region 3 Basin.

CHAPTER 2 Future Conditions Approach

Task 2B — Future Conditions Flood Risk Mapping

Cycle 2 Approach

- TWDB funded Future Conditions Mapping (Year 2060) by Fathom, Aqua Strategies, and AECOM.
- Approach will future climate variability and associated rainfall patterns, sea level rise, land subsidence and land use change, etc.

Climate Variability and Rainfall Patterns



Land Use Change



Task 2B — Future Conditions Flood Risk Mapping

- Data Delivery (Spring 2025)
- Data Review
- Data Incorporation where Applicable



Quality Assurance & Quality Control



Chapter 3 Introduction

Task 3B Criteria and Emergency Need

- 1. Most prone to flooding that threatens life and property
 - 1. Buildings and critical facilities within 100-year floodplain
 - 2. Low water crossings (LWCs)

2 Agricultural and ranching areas in 100 year floodalain

Score (points)	0	1	2	3	4	5
Number of Buildings	0	1-50	51-250	251-500	501-750	751+
Number of LWCs	0	1-5	6-10	11-15	16-20	21+
Total Agricultural Area (square miles)	0	0.01-0.35	0.36-2.00	2.01-3.00	3.01-5.50	5.51+
Number of Critical Facilities	0	1-5	5-10	11-25	26-50	51+
Number of Locations where Roads Flood	0	1	2	3	4	5+

- 2. Locations, extent, and performance of current floodplain management and land use policies and infrastructure
 - 1. Communities not participating in National Flood Insurance Program (NFIP)
 - 2. Disadvantaged/underserved communities
 - 3. City/county design manuals
 - 4. Land use policies
 - 5. Floodplain ordinance(s)

Score (points)	0	1	2	3	4	5
Community	NFIP					Non-NFIP
	Participant					Participant

- 3. Inadequate inundation mapping
 - 1. No mapping
 - 2. Presence of Fathom/base level engineering (BLE)/Federal Emergency Management Agency (FEMA) Zone A flood risk data
 - 3. Detailed FEMA models older than 10 years
- 4. Lack of hydrologic and hydraulic (H&H) models
 - 1. Communities with zero or limited models

Score (points)	0	1	2	3	4	5
% Inadequate	0	0.01-20%	21-50%	51-75%	76-90%	90%+

- 5. Emergency need
 - 1. Damaged or failing infrastructure
 - 2. Other emergency conditions

New definition

The need for projects and actions to address a flood hazard that is expected to cause the loss of function of critical facilities or to alleviate immediate threat to life and property from flooding such as imminent anticipated failure of infrastructure.

Exhibit C Technical Guidelines for Regional Flood Planning, February 2025

- 6. Existing modeling analyses and flood risk mitigation plans
 - 1. Exclude FMPs already in implementation
 - 2. Leverage existing models, analyses, and flood risk mitigation plans

- 7. Previously identified and evaluated flood mitigation projects
 - 1. Exclude FMPs already in implementation
 - 2. Leverage existing FMPs

- 8. Historic flooding events
 - 1. Disaster declarations
 - 2. Flood insurance claim information
 - 3. Areas with a history of flooding according to survey responses
 - 4. Other significant local events

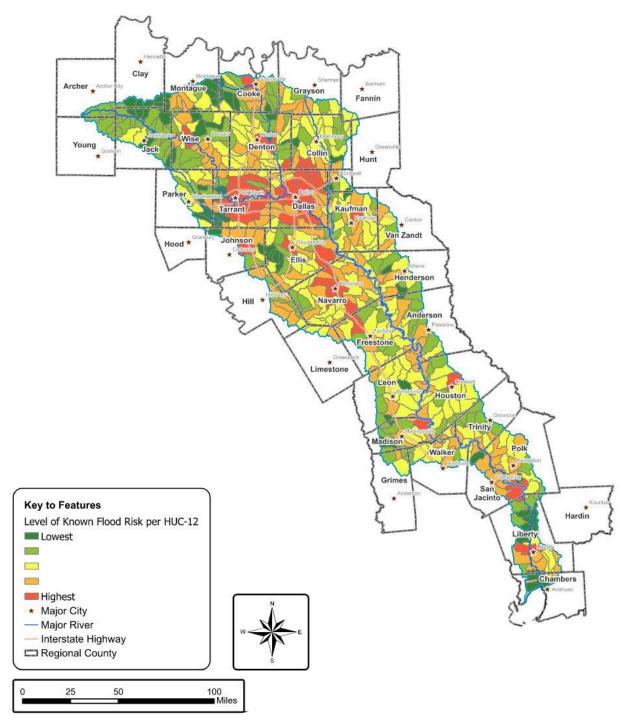
Score (points)	0	1	2	3	4	5
Number of Flood Concerns	0	1	2	3	4	5+
Number of FEMA Claims	0	1-5	6-10	11-30	31-50	51+
Number of Historic Storms Events	0	1-2	3-4	5-6	7-8	9+
Property Damages (\$)*	0	1- 10,000	10,001- 30,000	30,001- 100,000	100,001- 500,000	500,000+
Number of Areas with History of Flooding or need Mitigation	0	1	2	3	4	5+

- 9. Previously implemented FMPs
 - 1. Exclude areas where FMPs have already been implemented unless significant residual risk remains
- 10.Additional other factors deemed relevant by the Trinity RFPG
 - 1. Alignment with Trinity RFPG goals
 - 2. Alignment with TWDB guidance principles
 - 3. Social Vulnerability Index (SVI)

Table 4.6: Task 4A Scoring Ranges: Social Vulnerability Index Ratings

Score (points)	1	2	3	4	5
SVI rating	0.01-0.16	0.17-0.33	0.34-0.50	0.51-0.67	0.67+

Areas of Greatest Known Flood Risk



Flood Mitigation Needs Analysis Previous

- 1. Most prone to flooding that threatens life and property
- 2. Locations, extent, and performance of current floodplain management and land use policies and infrastructure
- 3. Inadequate inundation mapping
- 4. Lack of hydrologic and hydraulic (H&H) models
- 5. Emergency need
- 6. Existing modeling analyses and flood risk mitigation plans
- 7. Previously identified and evaluated flood mitigation projects
- 8. Historic flooding events
- 9. Previously implemented FMPs
- 10. Additional other factors deemed relevant by the Trinity RFPG

Chapter 4 Introduction

Task 4A FMXs

Identification of FMXs

Sources of FMXs: Previous Cycle

- Cycle 1 FME Data Sources
 - Previous flood studies
 - Capital Improvement Plans
 - Drainage Master Plans
 - FEMA Flood Insurance Studies
 - Hazard Mitigation Plans
 - FIF Applications
 - Trinity RFPG Input
 - Community Submissions
 - Applied to all FMX categories, with some FMPs falling into FME status due to lack of data.

Sources of FMXs: Previous Cycle

- Cycle 1 FMP & FMS Data Sources
 - Review of Existing Studies
 - FIF Applications
 - Trinity RFPG Input
 - Community Submissions
 - Almost all identified FMPs were a result of community input
 - This occurred through the survey, conversations with the Trinity Technical Consultant Team members, or a consultant reaching out on behalf of an entity.

Sources of FMXs: Current Cycle

- Previously-used Data Sources
 - Updates may be scarce
- Mitigation Needs Analysis (Task 3B)
 - Performed in advance this time
- Community Submissions
 - 10 FMPs expected in the amendment; 31 received.
- FIF Applications
 - Information updated during the FIF application process being resubmitted as an update to an existing FMP.
- What does TWDB say?

Sources of FMXs: TWDB Guidance

From Exhibit C, Task 4A

Additional guidance:

Flood management evaluations (FMEs)

Based on other work performed in Task 3 and 4, this task is intended to identify areas that require technical studies such as H&H modeling to better quantify flood risk or to update outdated flood risk information. FMEs may include hydrologic and hydraulic modeling and mapping for identification and/or update of flood risk. The FMEs may also include feasibility studies and alternative analyses to consider potentially feasible solutions (e.g., FMSs or FMPs) that could be implemented and/or recommended in the next regional flood plan, for example.

Not every conceivable FME will be recommended. The RFPG and their technical consultant must decide which identified potential FMEs will be recommended in their regional plan to ensure that the recommended FMEs are sensible so that limited resources can be directed efficiently and accordingly to implement those studies. The RFPGs are encouraged to consider social vulnerability when identifying and recommending FMEs in the regional flood plans.

Sources of FMXs: TWDB Guidance

From Exhibit C, Task 4A – FMPs

The RFPG shall identify and evaluate potential FMEs and potentially feasible FMSs and FMPs, including nature-based solutions, some of which may have already been identified by previous evaluations and analyses by others. If no potentially feasible FMSs are identified or recommended for an identified need, then the RFPG shall document the reason. An FME may eventually result in detailed hydrologic and hydraulic analyses and identification of projects or strategies that could be amended into a Regional Flood Plan as FMSs or FMPs.

• Based on previous experience, the FMPs are required to have H&H modeling support, hence, community submissions are heavily relied on for FMP identification.

Sources of FMXs: TWDB Guidance

• From Exhibit C, Task 4A - FMSs

Flood management strategies (FMSs)

(See associated rule and scope language at top of this guidance section)

Flood Management Strategy is defined in 31 TAC §361.10(m) as, "A proposed plan to reduce flood risk or mitigate flood hazards to life or property. A flood management strategy may or may not require associated Flood Mitigation Projects to be implemented." The RFPGs have some flexibility on how they choose to utilize FMSs in the regional flood planning process. For example, RFPGs could choose not to recommend any FMSs. At a minimum, RFPGs should include as FMSs any proposed action that the group would like to identify, evaluate, and recommend that does not qualify as either a FME or FMP. For example, if the RFPG wanted to call attention to the need for increased public awareness of flood risk, the RFPG could identify, evaluate, and recommend increased public awareness efforts as an FMS in the regional flood plan. Due to the flexibility and varying nature of RFPG's potential utilization of FMSs, Table 14 has many optional fields that may or may not be applicable to certain types of FMSs. These fields are only required to be populated as applicable.

Sources of FMXs: Current Cycle

- Community Submissions drive FMX inclusion in plan
 - 10 FMPs expected in the amendment; 31 received.
- Requests already received to "open" FMX submittal window for 2028 Plan.

FMX Window Opens Guaranteed Inclusion in Plan Date FMX Window Closes

Review of Submittals

Approach to Select FMEs to upgrade to FMPs

FME to FMP Conversion: First Cycle

- Task 12
 - Addendum to original contract
 - Specifically for the purpose of including more FMXs in the plan.
- Tiered System
 - Based primarily on quality & quantity of data submitted
 - · Based secondarily on community's prior inclusion in the Plan.
- Trinity Specifics
 - No modeling all production based on required BCA, tables, NNI, etc.
 - Additional 165 FMEs and 49 FMPs recommended by the RFPG

FME to FMP Conversion: Second Cycle

- Included within Tasks 4 and 5
 - Intention to involve, interest more communities & provide support
 - Indication to favor rural, small communities
- Modelers, Start Your Engines...
 - Technical consultant AND TWDB to perform FME to FMP upgrades
 - Modeling inherent... unless otherwise voted.
- Selection Approach
 - Previously-developed tier system or something new
 - Technical Subcommittee?
 - Decision: Needed at next RFPG Meeting (first week of June)

FME to FMP Conversion: Selection

- What does TWDB say?
 - Excerpt from Exhibit C, Task 4C:

Additional guidance:

While the RFPGs have flexibility in determining which identified FMEs should be performed under Task 4C, they should follow all requirements outlined under Tasks 4A and 5A, respectively. RFPGs may choose to consider emergency need, social vulnerability, available RFPG resources, and the likelihood of identifying feasible FMPs in the regional flood plan. Any identified FMEs performed under this task should not also be identified as "recommended" in tables or the geodatabase. Instead, the RFPGs shall mark the Recommended field as "No"; mark the RFPG Performed field as "Yes"; populate the Planning Cycle field and associated FMP and FMS fields, as appropriate.

A summary of the RFPG process for identifying potential FMEs and potentially feasible FMSs and FMPs shall be established and included in the draft and final adopted Regional Flood Plan.

Consider establishing Technical Subcommittee to review FMXs

Chapter 10 Outreach Update

Public Outreach & Engagement

Stakeholder Outreach

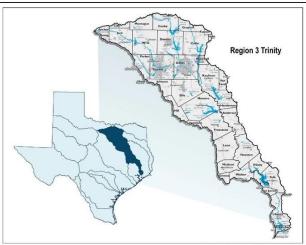
- Updated database of "interested parties" who receive e-notifications
 - Website sign-ups
 - o Email sign-ups
 - Meeting attendees/commenters
- Developed, distributed e-blasts regarding Data Collection process and timeline
 - Approximately 1,200 contacts
 - 47.4% open rate (+6.85% above average email open rate of 40.55% for government emails)
 - 12.2% click rate (+7.62% above average click rate for government-related email marketing campaigns

Media Outreach

- Updated media list
- Developed, distributed media advisory re: Data Collection process and timeline
- Conducted media follow-up

Public Outreach & Engagement

The Kaufman Herald



The Trinity Regional Flood Planning Group's planning region (Trinity River Basin or Region Three) spans almost 18,000 square miles across 38 counties

Flood planning group requests public input

Herald Staff Report

The Region Three Trinity Regional Flood Planning Group urges anyone affected by floods to participate in its online data collection survey and interactive web map. Responses must be submitted by Feb. 11 to be considered in the 2028 Trinity Regional

Representatives from cities and other entities are encouraged to participate and must register by providing an email address and creating a password. Once logged in, fewer than 25 questions and an interactive map prompt a review of flood history, storm drainage systems, and critical infrastructure.

Anyone withrelevant documents or data to submit, or additional questions about the Participation from the general public and data collection process, is encouraged to groups with flood-related responsibilities contact Stephanie Griffin, project manager will strengthen the Regional Flood Plan- with Halff Associates. Her email address is

Trinity Regional Flood Planning Group urges public to submit vital data for 38-county flood planning effort with deadline only one by trinty Heatonal Flood Planning Group Tenax Trinity Hiver Sasin - Jan. 13, 2025 - The Region 3 Trinity Regional Flood Planning Group (Trinity REPG) urges arryone affected by Rood-related bouse to participate in its recently launched online data collection survey and trianactive web map. The survey and map are available at https://tnreby.halff.com/and firough the Public Comment page, which is opin now through fluesday, Feb. 11, 2025, for consideration in the 2028 Finally Regional Flood Plan. Participation from the general public and groups with flood-related responsibilities will sivengihan the HTPG's ability to update and maintain a flood plan that represents local Soot planning resources, flood-related risks, flood militation resets and polential solutions. Individuals or organizations that participated during the Initial cycle of Regional Flood Planning are still encouraged to review the updated interactive web map and submit updated information to keep planning efforts current and address any rare fluoding concerns.

When visiting the data collection website, representatives from other and other

entities must register by providing an ernelf and creating a password. Once logged

North Texas e-News The Tindicator

Trinity RFPG asks public to share flood data

Celeste Denova

The Region 3 Trinity Regional Flood Planning Group, Trinity RFPG, is asking residents of Chambers

County affected by flood-related issues to share information on areas prone to flooding through an online survey to assist in creating the 2028 Trinity Regional Flood Plan.

Participating in the survey will help Trinity RFPG to update the flood plan to represent local flood planning resources, flood-related risks, flood mitigation needs and potential solutions.

Those who have already participated are encouraged to review the updated interactive map online and submit updated information to keep the data current and to address new flooding concerns.

This effort will help identify, and make eligibility for funding, flood reduction solutions that can protect property and potentially save lives.

The Trinity RFPG's planning region has an estimated population of 8 million and spans about 18,000

The group is one of 15 regional flood planning groups, first designated in April 2020 by the Texas Water Development Board, TWDB, as a result of Senate Bill 8, passed in the 86th Texas Legislative Session.

The bill created a new regional and state flood planning process. Each flood planning group will update their plans every five years.

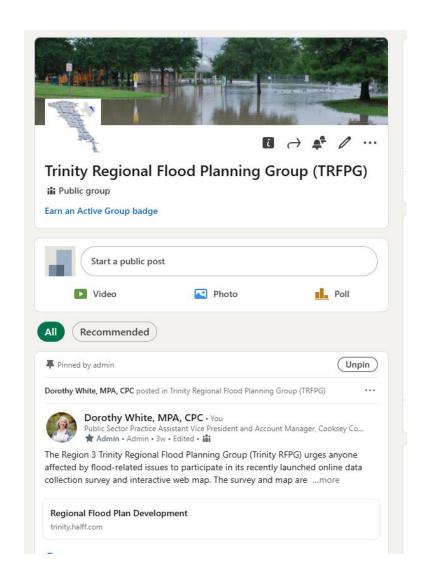
The legislative session also created a new financial assistance fund and gave TWDB the responsibility of administering the fund. The Flood Infrastructure Fund, FIF, requires studies, projects and strategies recommended in the State Flood Plan in order to be eligible to apply for the fund.

The first Trinity Regional Flood Plan was adopted in 2023 and is part of the 2024 State Flood Plan. T includes 56 recommended FMPs, 507 recommended FMFs and 138 recommended FMSs.

Public Outreach & Engagement

Website & Social Media

- Updated website with information about and links to Data Collection portal
- Updated Region 3 boundaries on website
- Posted updates to X (Twitter)
- Activated a new LinkedIn Group and began inviting stakeholders to join
- Posted update to LinkedIn Group



LOOK-AHEAD

April 1, 2025

Consultant sends amendment request to TWDB

June 3, 2025

- Approval of Chapter 1 (Task 1)
- Approach to identify FMXs (subcommittee report)
- Approval of needs analysis approach (Task 3B)
- RFPG and Officer Elections!!!

August 2025



- Existing exposure analysis results (Task 2A)
- Floodplain management practices (Task 3A)
- Update on goals and residual risks (Task 3C)
- Update on potentially feasible FMXs (Task 4A)

October 2025

- Future exposure analysis results (Task 2B)
- Approval of Chapter 2
- Results of Tasks 3A, 3B, 3C
- Approval of Chapter 3
- Approach to select FMEs to perform (Task 4C)
- Approach to select FMEs for TWDB to perform (Task 5B)

December 2025

- Approval of Task 4A
- Approval of Tech Memo (Task 4B)
- Update on FMEs being performed (Task 4C)
- Update on FMEs for TWDB to perform (Task 5B)

January 10, 2026

Consultant sends Tech Memo to TWDB

Notes: (6) indicates target date.

Yellow highlight indicates hard deadline.

10. Updates from adjoining coastal regions

11. Updates from Planning Group Sponsor

12. Receive registered general public comments

Limit 3 minutes per person

13. Announcements

14. Consider meeting date for next meeting

Determined during Look-Ahead discussion.

15. Consider agenda items for next meeting

16. Adjourn