# LOWER RIO GRANDE REGIONAL FLOOD PLANNING GROUP

Public Meeting – Existing Flood Risk

September 10, 2025



HELP SHAPE THE LOWER RIO GRANDE REGIONAL FLOOD PLAN

SEPTEMBER 10, 2025 4:00 PM TO 6:00 PM



UTRGV Center for Innovation and Commercialization 307 E. Railroad St. WCIC 118 Weslaco, Texas 78596

RSVP & Questions: evelyn@texaspathfinder.com



### **AGENDA**

- ☐ Regional Flood Planning Process
- Overview of Region 15
- ☐ FMX Submittal Process and Requirements
- ☐ Existing Flood Risk Data





## Regional Flood Planning

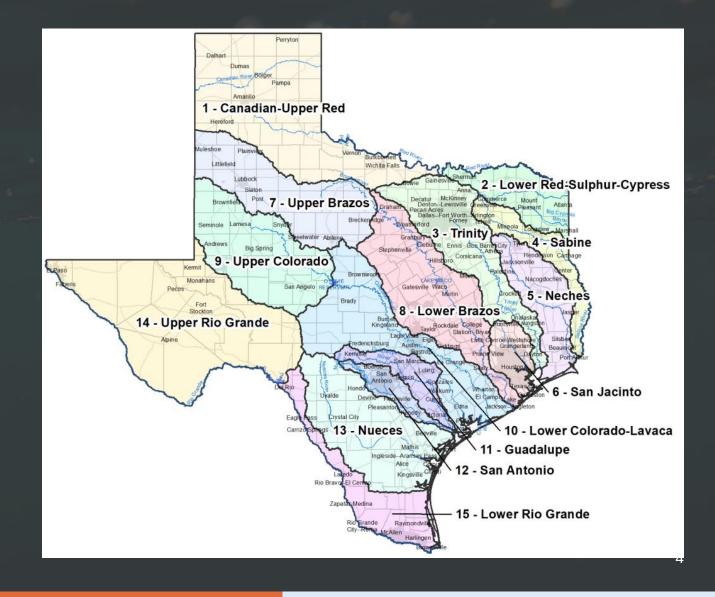
Background, Process, and Resources





## REGIONAL FLOOD PLANNING OVERVIEW

- In 2019, the 86th Texas
   Legislature passed Senate
   Bill 8
- SB8 provides a process for statewide flood planning
- Texas Water Development Board (TWDB) charged with implementing SB8
- Only Flood Mitigation Actions that are included in the State Flood Plan are eligible for state funding assistance through the FIF







### **Technical Consultant Team**

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Kristina Leal, PE, CFM
Project Manager



**Anne Whitko, CFM**Deputy Project Manager



**Elmer Hinojosa, PE**Project Engineer



## SUB-CONSULTANT TEAM









## REGIONAL FLOOD PLANNING OVERVIEW

#### **Community Input**

- Flood Risk Information
- Flood Management Practices
- Flood Mitigation Needs

#### **Public Data**

- Flood Risk
- o Growth Trends
- Other

#### **Technical Consultant**

- Informs RFPG Decision-Making
- Process & Analyze Data
- Perform Select Flood Management Evaluations
- Develop flood planning documents, maps & GIS data
- Assist with public engagement

## Flood Planning Group (RFPG)

- Coordinate with Public and Communities
- Make Flood Planning Decisions

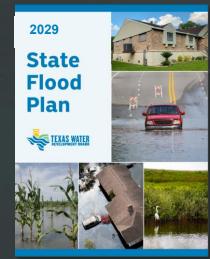
#### **Regional Flood Plan**

- Regional Flood Risk
- Regional Flood Management
- Regional Flood Mitigation Needs









We are here (Tasks 1-4)





## REGIONAL FLOOD PLANNING **RESOURCES**



Q Search site

Connect with us: 👔 🔉 in 🕞 🔞 🔀









Home Board Financial Assistance Water Planning Groundwater Surface Water Flood Drought Conservation Innovative Water Data & Apps

#### Region 15 Lower Rio Grande Flood Planning Region

Go to Region 15 Lower Rio Grande RFPG External Host Website

This region begins at International Amistad Reservoir in Val Verde County, which separates the Upper and Lower Rio Grande regions, and extends to the Rio Grande Valley region near the Gulf of Mexico. It contains six major lakes/reservoirs, including two that border the U.S. and Mexico.

For a detailed map of Region 15, please visit the Texas Geographic Information Office (TxGIO)

Flood Planning Regions Map Collection.



Learn About Flooding

State Flood Plan

#### Regional Flood Planning

- 2023 Regional Flood Plans
- Flood Planning Group Meeting Schedule
- 2nd Planning Cycle Documents (2024-2028)

- · Frequently Asked Questions



- Planning Group Information
- Flood Planning Data
- New Members Resources

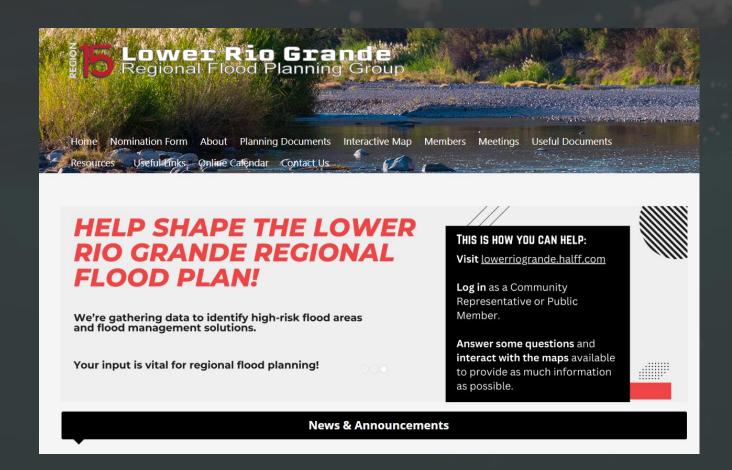


https://www.twdb.Texas.gov/flood /planning/regions/15/index.asp





## REGIONAL FLOOD PLANNING RESOURCES



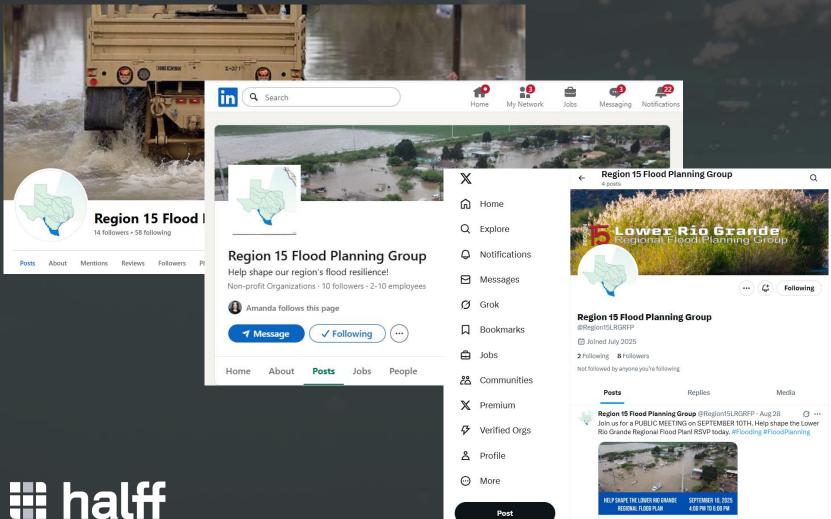


www.region15lrg.org





## REGIONAL FLOOD PLANNING - SOCIAL MEDIA PRESENCE



### FIND US ON **SOCIAL MEDIA!!!!**

- Facebook
- LinkedIn
- X (formerly Twitter)



## **Overview of Region 15**

**Composition and Key Statistics** 





## REGION 15 OVERVIEW

#### **Counties Represented:**

Brooks\* Kinney\*

Cameron Maverick\*

Dimmit\* Starr

Edwards\* Val Verde

Hidalgo Webb\*

Jim Hogg\* Willacy

Kenedy\* Zapata

\* denotes partially included



## Population Estimate (2019):

2019: 1,776,732

2030: 1,939,505

2050: 2,120,563

#### Approx. Area:

~12,420 Sq. Miles

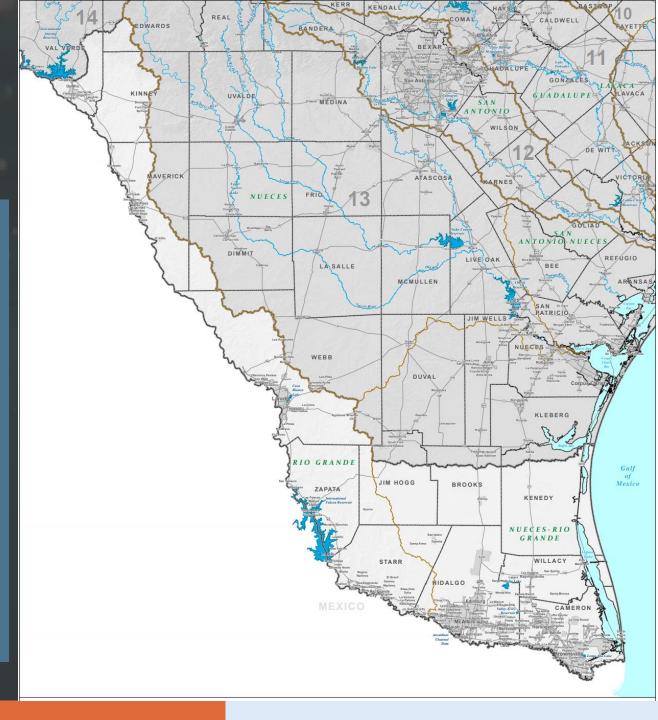
**Approx. Stream Miles:** 

5,300

#### **FEMA Flood Claims:**

\$180.5 Million (from

2004 - 2024)



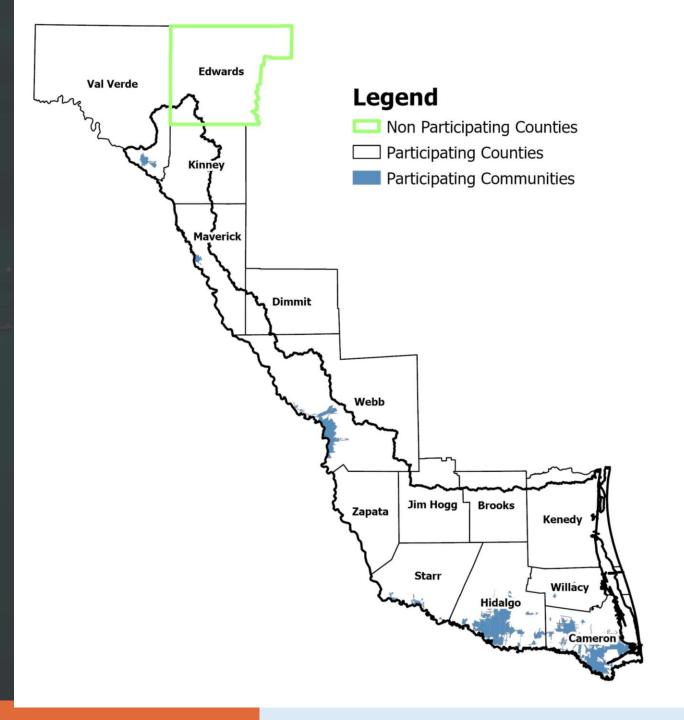


## REGION 15 OVERVIEW

#### **NFIP Participation**

- 91 percent of eligible entities
  - 49 of 54 municipalities
  - 13 of 14 counties
- The Texas Water Code §16.315 requires NFIP participants to:
  - Adopt a floodplain management ordinance
  - Designate a floodplain administrator
    - Interpret local floodplain management regulations and review for compliance with NFIP standards.







# FMX Submittal Process and Requirements

What are FMXs and what are the submittal requirements?





### WHAT IS AN FMX?

#### **FME**

Flood Management Evaluation



FMEs are flood studies and evaluations performed to characterize flood risk, identify potential risk solutions and develop projects into FMPs.

#### Potential FMEs Include:

- Project Design (up to 30%)
- Project Feasibility Study
- · Watershed Planning Study
- Flood Risk Analysis

#### **FMS**

Flood Mitigation Strategy



FMSs are big-picture strategies. This category can serve as a "catch-all" for flood management and mitigation efforts that do not align with either FMPs or FMEs.

#### Potential FMSs Include:

- · Property Acquisition or Elevation
- Drainage Criteria Development
- · Flood Warning Systems
- Outreach and Educational Programs

#### **FMP**

Flood Mitigation Project



FMPs are fully developed, constructable, flood mitigation projects.

#### Potential FMPs Include:

- Channel Improvements
- Road Crossing Improvements
- Detention Projects
- Gauge Installation Projects





# WHAT INFORMATION DO I NEED TO SUBMIT TO INCLUDE MY FMX IN THE REGIONAL FLOOD PLAN?



#### **FME**

Flood Management Evaluation

- Project Sponsor
- GIS or Google Earth file of benefit area
- Brief project description
- Cost estimate to perform the planned study



#### **FMS**

Flood Management Strategy

- Project Sponsor
- GIS or Google Earth file of benefit area
- Brief project description
- Cost estimate of proposed improvement



#### FMP

Flood Mitigation Project

- All Requirements from FME/FMS, AND:
- Brief project description or a study report that describes the proposed project
- H&H models of existing and proposed conditions
- Benefit-Cost Analysis (BCA)
- Certification of No Negative Impacts





## FMX SUBMITTAL DEADLINE

- Call for FMXs for 2028 Regional Flood Plan posted to Region 15 website
- FMXs included in 2028 Regional Flood Plan will be aligned with FY 2028-2029 FIF
- FMX Submittals Due September 19, 2025
  - Extended to October 3, 2025







## Existing Conditions Flood Risk

Data Sources

Map Review and Public Comments



# EXISTING CONDITIONS FLOOD RISK ANALYSIS

- Purpose
  - Flood Risk Identification and Mapping
  - Flood Exposure Estimation
  - Vulnerability Assessment







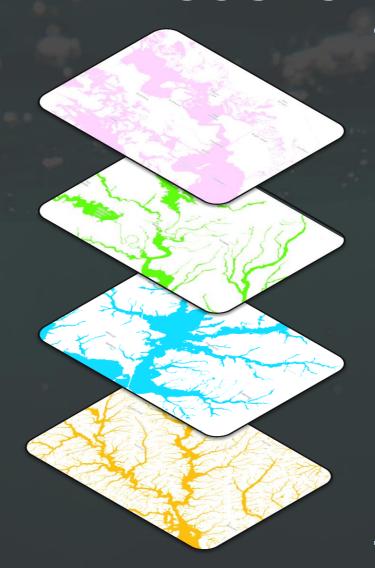
## EXISTING CONDITIONS FLOOD RISK ANALYSIS - DATA SOURCES

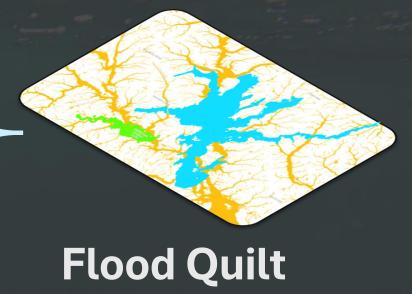
FEMA Flood Hazard (NFHL)

Community Models / Maps

Base Level Engineering (BLE)

**Fathom Layer** 









# EXISTING CONDITIONS FLOOD RISK MAP

#### **FLOOD TYPE**

- Riverine
- Coastal
- Pluvial including Urban flooding

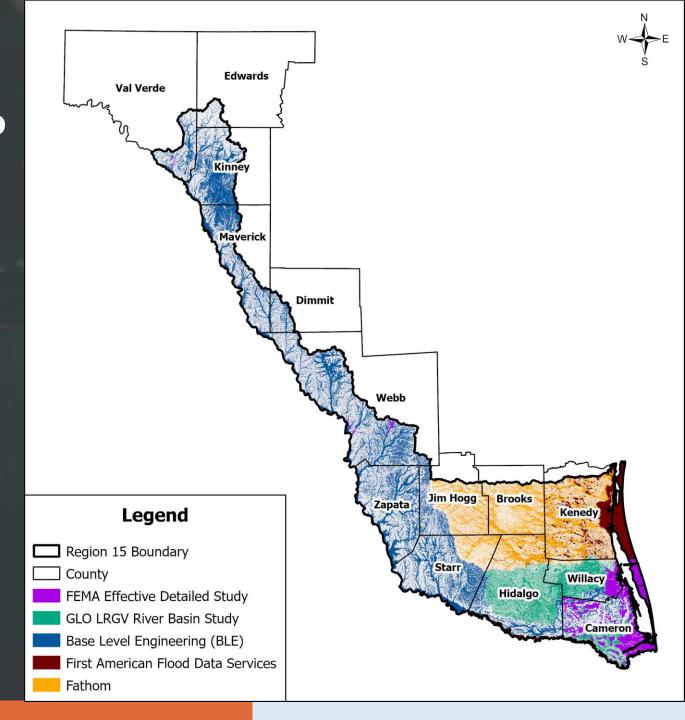
#### **FLOOD EVENT TYPES**

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

#### **DATA SOURCES**

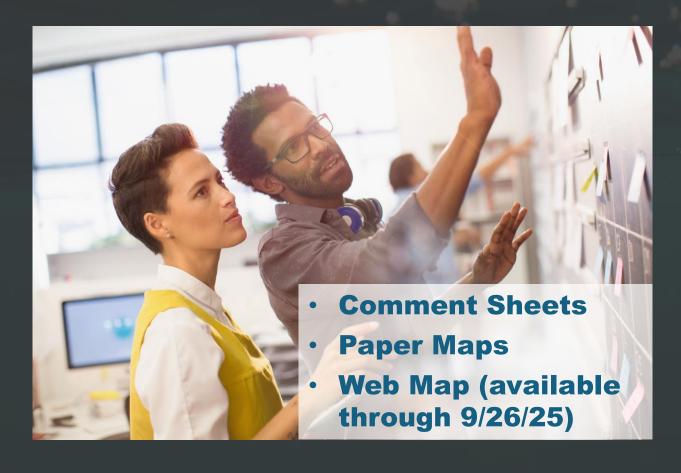
- TWDB Flood Quilt
- FEMA
- Regional/Community Data
- FATHOM







## GIVE US YOUR INPUT



QR Code for Web Map



https://gisportalenter.halff.com/firebird/apps/webappviewer/index.html?id=e2304941c04f44659153ad04d03e3d7c

