

Lower Colorado-Lavaca
**REGIONAL FLOOD
PLANNING GROUP**

REGION 10

September 15, 2022

Region 10 Lower Colorado-Lavaca RFPG

- 1. Call to Order**
- 2. Welcome**
- 3. Approval of minutes from the previous meeting**

Region 10 Lower Colorado-Lavaca Flood Planning Group Meeting
July 18, 2022
9:30 AM
Hybrid Meeting

Roll call:

Voting Member	Interest Category	Present (x) / Absent () Alternate Present (*)
Terry Been	<i>Agricultural interests</i>	
Phillip Spenrath	<i>Counties</i>	X
Jason Ludwig	<i>Electric generating utilities</i>	X
Kirby Brown	<i>Environmental interests</i>	X
G. Nicholas "Nick" Textor	<i>Flood districts</i>	
Brandon Klenzendorf	<i>Industries</i>	X
Matt Hollon	<i>Municipalities</i>	X
Frances Acuna	<i>Public</i>	X
Patrick Brzozowski	<i>River authorities</i>	X
Kelly Payne	<i>River authorities</i>	X
Ann Yakimovicz	<i>Small business</i>	X
Vacant	<i>Water districts</i>	
Hank Smith	<i>Water utilities</i>	X

Non-voting Member	Agency	Present (x) / Absent () Alternate Present (*)
Charles "CW" Schneider	<i>Texas Commission on Environmental Quality</i>	X
Lauren Mayes	<i>Texas Department of Agriculture</i>	
Hollie Hischer	<i>Texas Division of Emergency Management</i>	*joined at 9:59am
Shonda Mace	<i>Texas General Land Office</i>	X
Beth Bendik	<i>Texas Parks and Wildlife Department</i>	X
Allen Nash	<i>Texas State Soil and Water Conservation Board</i>	X
Tressa Olsen	<i>Texas Water Development Board</i>	*Megan Ingram
Mark Vogler	<i>Region 8 – Lower Brazos Liaison</i>	*Brian Fambrough
Chuck Brown	<i>Region 9 – Upper Colorado Liaison</i>	
Ronald G. Fieseler	<i>Region 11 – Guadalupe Liaison</i>	
Cara Tackett	<i>Region 12 – San Antonio Liaison</i>	

Quorum:

Quorum: **Yes**

Number of voting members or alternates representing voting members present: **10**

Number required for quorum per current voting membership of 12: **7**

Other Meeting Attendees: **

**Meeting attendee names were gathered from those who entered information for joining the Zoom meeting or signed in at the meeting location.

Megan Ingram – TWDB
 Cindy Engelhardt – Halff Associates, Inc.
 Mike Personett – Halff Associates, Inc.
 Jay Scanlon - Freese & Nichols
 Cris Parker - HDR
 Karen Ford – WaterPR

Nick Arnold – LCRA
 Jennifer Bassett – LCRA
 Lauren Graber – LCRA
 Annette Keaveny – LCRA
 Juston McMahon - LCRA
 Rene Ogando – LCRA

Steven Dean
Bob F.
Domingo Gonzalez
Lisa McCracken Mairs - USACE

Mieko Mahi
Stephen Rockwood
Melissa Rushing
Elizabeth Williams

All meeting materials are available for the public at: www.lowercoloradolavacafood.org/meetings

Agenda:

1) Call to Order

Chair Spenrath called the meeting to order at 9:31 AM CDT. A roll call of the planning group members was taken to record attendance and a quorum was established prior to calling the meeting to order.

2) Welcome

Chair Spenrath welcomed members and other attendees to the meeting.

3) Approval of minutes from the previous meeting

Kirby Brown moved to approve the minutes, seconded by Jason Ludwig. The motion passed by a vote of 10-0.

4) Public comments – limit 3 minutes per person

Chair Spenrath called for public comments.

No public comments were given.

5) TWDB Update

Megan Ingram sat in for Tressa Olsen. She indicated that the TWDB had no updates to deliver to the RFPG.

6) Update from RFPG liaisons

Kirby Brown reported that San Antonio Region 12 will hold their public outreach meeting on September 15, 2022.

7) Update from the Planning Group Sponsor

Lauren Graber gave an update on the following items:

- Approval to submit the draft regional flood plan to TWDB is on the agenda today.
- The RFPG is still accepting nominations for the vacant position. Lauren reminded the RFPG that they can nominate someone, and that the deadline is 5PM Friday, July 29th. The RFPG Executive Committee will meet on August 24th to discuss which candidate to recommend to the full group.
- Lauren stated that we are required to have a quorum during our September 15th meeting where we will seek public input on the draft regional flood plan. We are also having other in-person open houses in the region to seek input on the draft plan. The planning group cannot have a quorum at the open houses.

8) Discussion and potential action to approve mileage expenses for reimbursement

Lauren Graber presented the latest voting member mileage expenses for reimbursement. The mileage rate has increased to \$0.625/mile. Kelly Payne moved to approve the mileage expenses from the July 7th meeting, seconded by Kirby Brown. The motion passed by a vote of 10-0.

9) Update from the Technical Committee

Kelly Payne reported that since the last RFPG meeting, the Technical Committee met on Monday, July 11th. The Technical Committee members and our technical consultants worked through one FME (study) that we are bringing to the RFPG for consideration today. In addition, the Technical Committee reviewed and added to the list of potential FMEs that our consultant may further to FMP (project) status. This is part of the Task 12 assigned to our planning group by the TWDB during the allocation of the second tranche of funding for regional flood planning. Once the preliminary list is approved by the RFPG, our consultant will work out scopes of work for the studies on the list, including estimates of costs to complete each, and come back to the RFPG with a final list they propose to work on (based on the effort to complete and the funds available in Task 12).

The Technical Committee recommends that the RFPG consider one additional FME for inclusion in the Regional Flood Plan. Additionally, the Technical Committee recommends that the RFPG consider approving a preliminary list of FMEs to be furthered to FMP status by our technical consultant. The RFPG will take these up and vote later in the agenda.

The next Technical Committee Hybrid Meeting will be held September 6th at 2:00PM CDT.

10) Technical Consultant presentations and discussions related to regional flood planning

a) Look-ahead calendar

b) Project status

- i. Public and stakeholder engagement strategies update**
- ii. Updates on regional flood plan tasks 1-10 including review and discussion of the Draft Regional Flood Plan**
- iii. Task 5 – Review and discuss draft summaries for Flood Management Strategies, Flood Management Evaluations, and Flood Mitigation Projects**
- iv. Task 12 – Review and discuss performing draft Flood Management Evaluations for additional Flood Mitigation Projects**
- v. Next Steps**

Mike Personett (Halff Associates, Inc.), Karen Ford (Water PR), and Jay Scanlon (FNI) provided updates, briefings, and discussion on the project status and look-ahead.

Planning group members asked questions and made comments during the presentation. Highlights of the discussion include:

- Public outreach meetings on the Draft Regional Flood Plan
 - 9/13/22 Lavaca River Basin: LNRA headquarters office 5:30-7:00pm
 - 9/15/22 RFPG hybrid public meeting: LCRA 9:30am
 - 9/21/22 Lower Basin: Wharton County Courthouse 5:30-7:00pm
 - TBD Upper Basin: Llano

- Hard copies of the Draft Regional Flood Plan to be distributed to approximately 17 locations throughout the basin. This exceeds the requirement of at least 3 locations.
- Mike Personett provided an overview and update on development of the draft plan.
- Mike Personett discussed FMX Batch 7 which includes one new FME to take a basin wide look or a significant look at socially vulnerable areas within the floodplain quilt.
- Matt Hollon mentioned that during the last Technical Committee meeting, Brandon Klenzendorf requested the figure on the FME to be replaced with Figure 2.25. Mike assured that additional polishing will take place before submitting the final draft plan to TWDB.
- Mike Personett stated the objectives, requirements, and timeline of Task 12.
- Beth Bendik noted that most of the FMEs on the list of studies to potentially be furthered into FMPs (as part of Task 12) are low water crossings. Beth reiterated TPWD's desire to attempt to minimize stream and aquatic resource impacts on projects making sure the crossing designs allow for sediment transport and passage of aquatic organisms.

11) Discussion and potential action on recommendations regarding Task 5 - Flood Management Strategies, Flood Management Evaluations, and Flood Mitigation Projects

After discussion, Kelly Payne moved to recommend one additional FME for inclusion in Chapter 5, as recommended by the Technical Committee, subject to non-substantive changes and refinements. The motion was seconded by Matt Hollon. A roll call vote was taken and the motion passed by a vote of 10-0. RFPG members Terry Been and Nick Textor were absent.

12) Discussion and potential action to adopt the draft Regional Flood Plan and approve submittal of the draft Regional Flood Plan to the Texas Water Development Board on or before August 1, 2022

After discussion, Kelly Payne moved to recommend adoption of the Draft Regional Flood Plan and to approve submittal of the Draft Regional Flood Plan to the Texas Water Development Board on or before August 1, 2022, subject to non-substantive changes and refinements. The motion was seconded by Matt Hollon. A roll call vote was taken, and the motion passed by a vote of 10-0. RFPG members Terry Been and Nick Textor were absent.

The consultant will continue to work on the draft plan and finalize next week. Matt Hollon suggested non-substantive edits for consideration. Kirby Brown commended the consultant on the quality of the executive summary.

13) Discussion and potential action on recommendations regarding Task 12 – Perform Identified Flood Management Evaluations, Identify, Evaluate, and Recommend Additional Flood Mitigation Projects

After discussion, Kelly Payne made a motion to approve the initial list of 13 FMEs recommended by the Technical Committee for the consultants to evaluate further to determine which studies may be good candidates to be performed and further developed into an FMP/Project. The motion was seconded by Kirby Brown and passed by a vote of 10-0.

14) Public comments – limit 3 minutes per person

Chair Spenrath called for public comments.

No public comments were given.

15) Consider date and agenda items for next meeting

After general discussion, Chair Phillip Spenrath concluded that the next meeting will be held on Thursday, September 15 at 9:30AM CDT.

The next Executive Committee Meeting will be held August 24 at 9AM CDT.

The next Technical Committee Meeting will be held September 6 at 2:00PM CDT.

16) Adjourn

Kelly Payne made a motion to adjourn, seconded by Kirby Brown. The motion passed 10-0 and the meeting was adjourned at 10:25 AM CDT by Chair Phillip Spenrath.

*Approved by the Lower Colorado-Lavaca RFPG at a meeting held on **DATE**.*

Kelly Payne, SECRETARY

Phillip Spenrath, CHAIR

Region 10 Lower Colorado-Lavaca RFPG

- 4. Public comments – limit 3 minutes per person**
- 5. TWDB Update**
- 6. Update from RFPG liaisons**
- 7. Update from the Planning Group Sponsor**

Region 10 Lower Colorado-Lavaca RFPG

8. Presentation and discussion related to the Draft Region 10 Regional Flood Plan



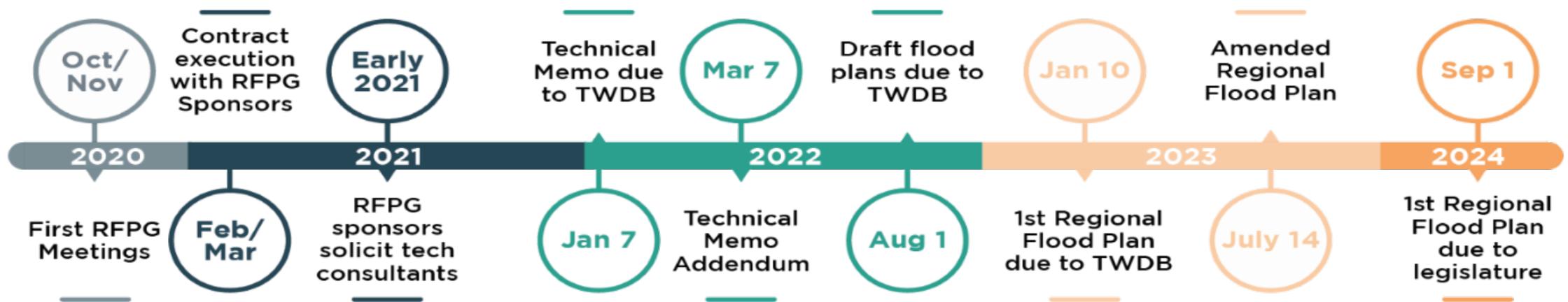
LOWER COLORADO – LAVACA
REGIONAL FLOOD PLAN
A TEXAS INITIATIVE

EXECUTIVE SUMMARY OVERVIEW | SEPTEMBER 2022



REGIONAL FLOOD PLANNING PROCESS

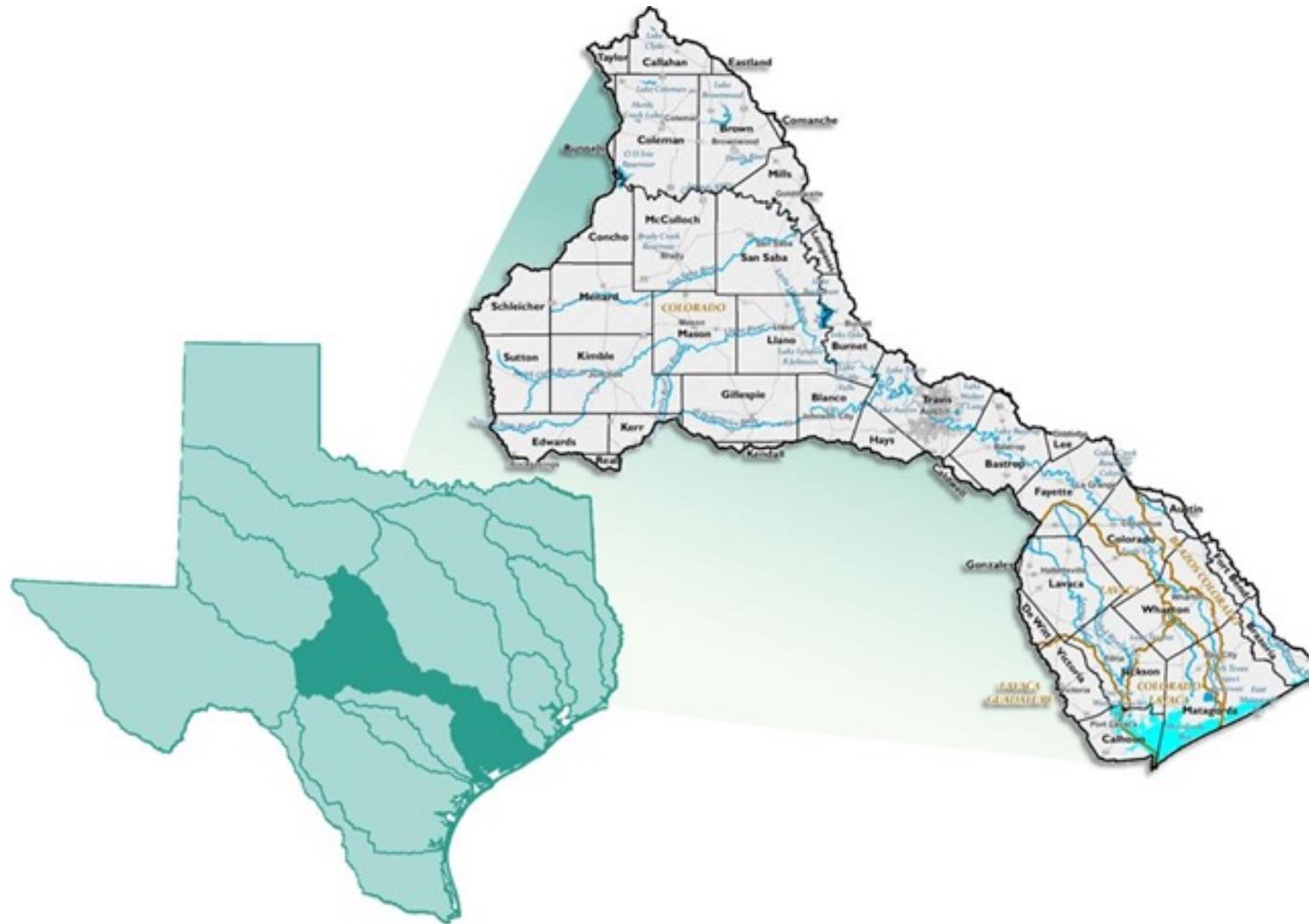
- Texas Senate Bill 8 (2019) directed the creation of a State Flood Plan to:
 - Provide for orderly preparation for and response to flood conditions to protect against the loss of life and property
 - Guide state and local flood control policy
 - Contribute to water development, where possible
- State Flood Plan to be prepared by the Texas Water Development Board (TWDB) based on Regional Flood Plans
- Similar “bottom-up” approach used in State water supply planning for more than 20 years



WHO IS PREPARING THE REGIONAL FLOOD PLANS?

- 15 flood planning regions as designated by TWDB
- Each region has appointed Regional Flood Planning Group (RFPG)
- RFPG members represent 11 interest categories:
 - Agriculture
 - Counties
 - Electric generation utilities
 - Environmental interests
 - Industry
 - Municipalities
 - Public
 - River Authorities
 - Small business
 - Water districts
 - Water utilities
- Each region has a designated administrative sponsor
- Each region has contracted a Technical Consultant

LOWER COLORADO-LAVACA FLOOD PLANNING REGION (10)



- Three river basins:
 - Lower Colorado
 - Lavaca
 - San Bernard
- 24,380 square miles
- 55,550 stream miles
- All or portions of 43 counties
- 92 municipalities
- 1.9 million people

REGIONAL FLOOD PLANNING TASKS

Task	Description
1	Planning Area Description
2	Existing and Future Condition Flood Risk Analysis
3	Floodplain Management Practices and Flood Mitigation and Floodplain Management Goals
4	Flood Mitigation Needs Analysis and Identification and Evaluation of Potential Flood Management Evaluations (FMEs), Potentially Feasible Flood Management Strategies (FMSs), and Flood Mitigation Projects (FMPs)
5	Recommendation of FMEs and FMSs and Associated FMPs
6	Impacts of Regional Flood Plan and Contributions to and Impacts on Water Supply Development and the State Water Plan
7	Flood Response Information and Activities
8	Administrative, Regulatory, and Legislative Recommendations
9	Flood Infrastructure Financing Analyses
10	Public Participation and Plan Adoption
11	Outreach and Data Collection to Support Tasks 1 – 9
12	Identified Flood Management Evaluations, Identify, Evaluate, and Recommend Additional Flood Mitigation Projects
13	Preparation and Adoption of an Amended Regional Flood Plan

TASK 10 – PUBLIC OUTREACH AND ENGAGEMENT

Essential to the Planning Process from Start to Finish

- RFPG meetings:
 - Monthly if needed
 - Follows requirements of the Texas Open Meetings Act and Public Information Act
 - Two opportunities for public comment at each meeting
 - RFPG committees: Executive and Technical
- RFPG website: www.lowercoloradolavacaflood.org
 - Information about flood planning
 - Meeting notices
 - Portal for questions and comments from the public
- Outreach activities:
 - Online survey
 - Email blasts to contact list
 - Press releases
 - Direct outreach to key stakeholders

TASK 2 – EXISTING AND FUTURE FLOOD RISK ANALYSIS

Flood Risk Analysis Framework

Perform existing and future condition **flood hazard analyses** to determine the location and magnitude of both the 1% annual chance (100-year) and 0.2% annual chance (500-year) flood events



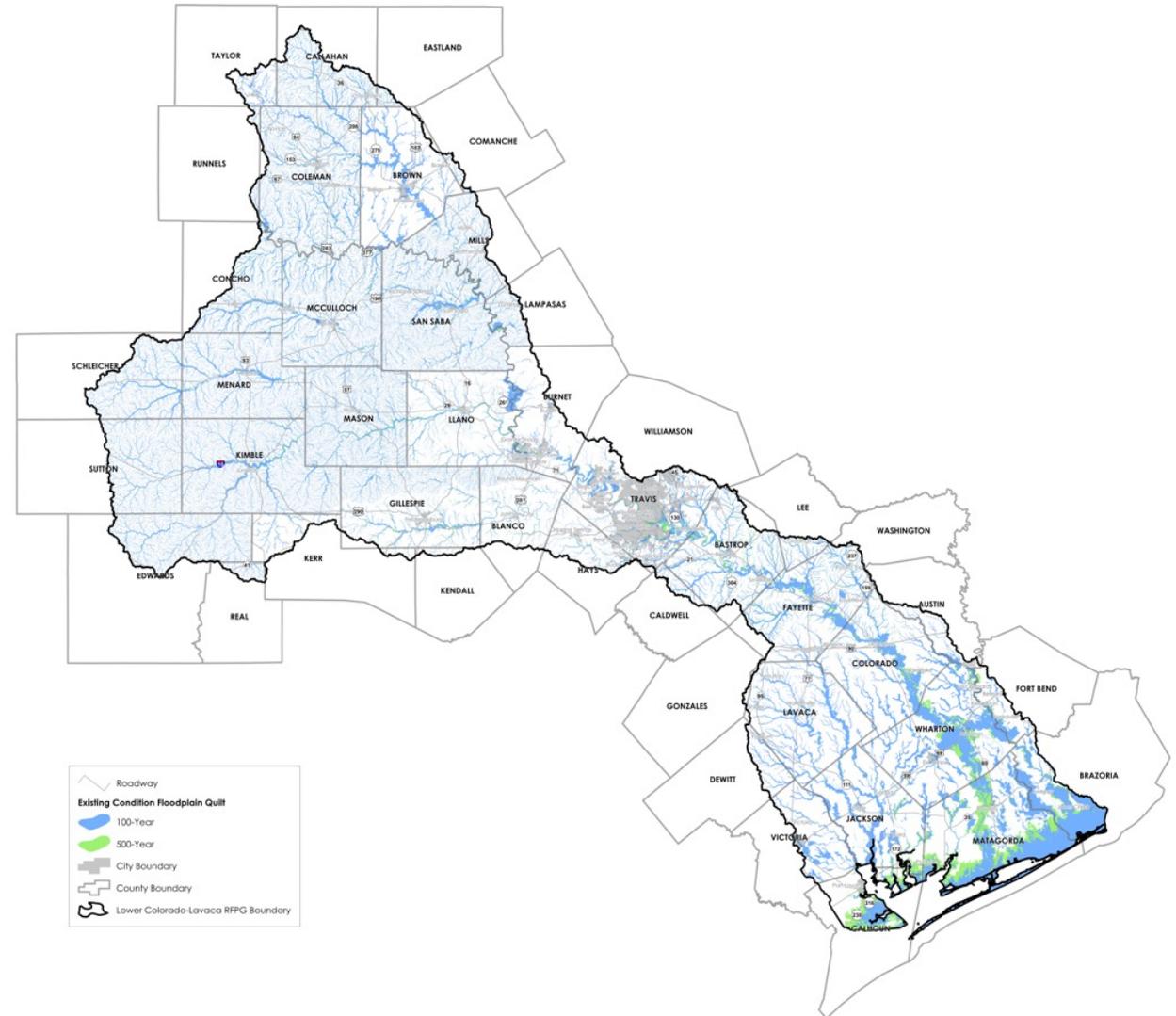
Develop existing and future condition **flood exposure analyses** to identify who and what might be harmed by both 1% annual chance (100-year) and 0.2% annual chance (500-year) flood events

Perform existing and future condition vulnerability analyses to identify vulnerability of communities and critical facilities

TASK 2A – EXISTING CONDITION FLOOD RISK ANALYSIS

Flood Hazard Map – Floodplain Quilt

- “Stitched” together from various data sources:
 - Local studies
 - FEMA National Flood Hazard Layer:
 - Preliminary and pending data
 - Effective data for detailed and approximate study areas
 - FEMA Base Level Engineering
 - TWDB Fathom data



TASK 2A – EXISTING CONDITION FLOOD RISK ANALYSIS

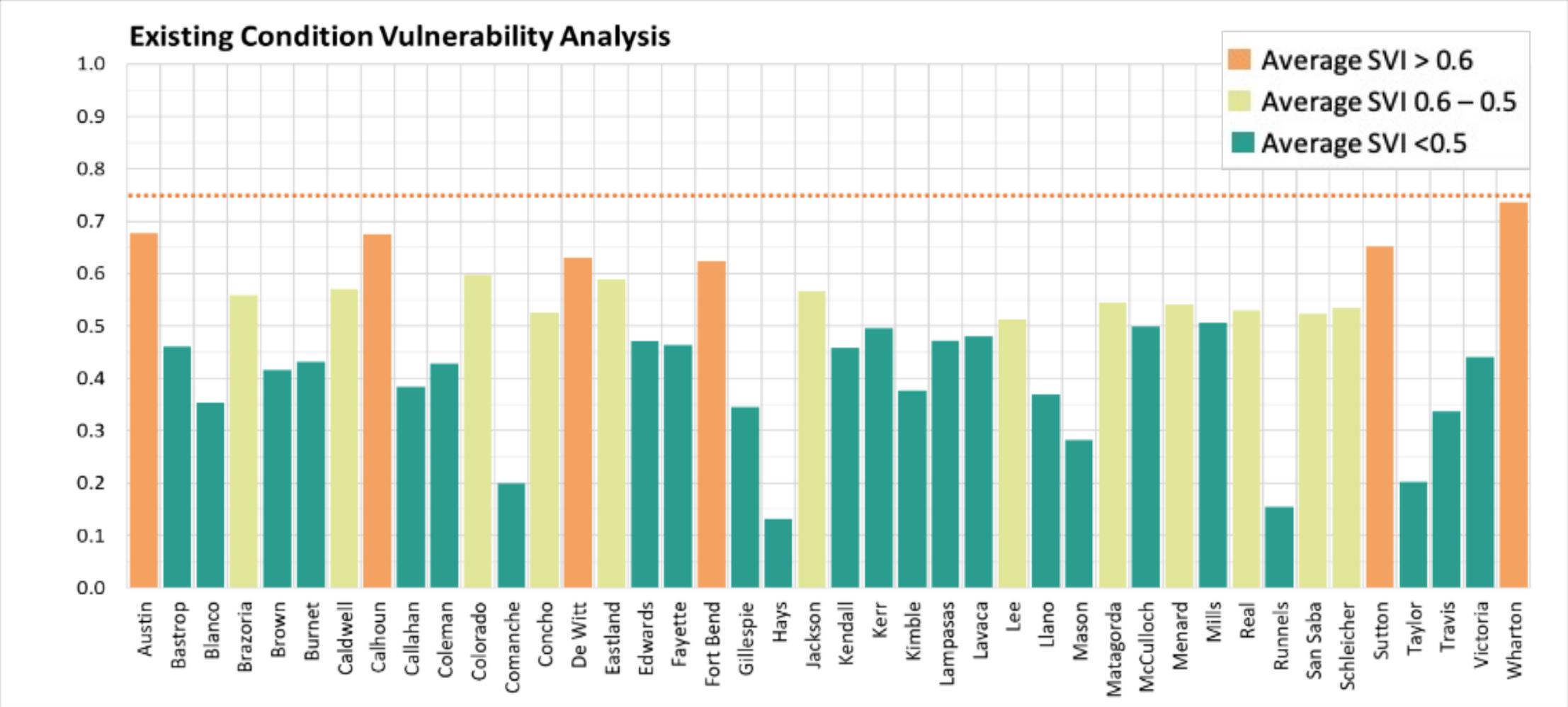
Flood Exposure Analysis

Exposure Category	1% (100-year) Floodplain	0.2% (500-year) Floodplain	Difference
Floodplain Area (square miles)	4,526	5,252	+726
Buildings	67,824	102,301	+34,477
<i>Residential Structures</i>	45,799	71,243	+25,444
<i>Non-Residential Structures</i>	22,025	31,058	+9,033
Population (All Buildings)	149,830	244,664	+94,834
Critical Facilities	118	205	+87
<i>Industrial and Power Generating Facilities</i>	13	18	+5
Roadway Low Water Crossings	1,109	1,132	+23
Roadway Segments (miles)	2,374	3,285	+911
Area of Agriculture (square miles)	3,545	4,155	+610

Note - The number of buildings and associated population exposure to flood hazards are likely less than estimated. The estimated exposure identified building footprints and associated populations located within floodplain boundaries regardless of building elevations

TASK 2A – EXISTING CONDITION FLOOD RISK ANALYSIS

Social Vulnerability Index



TASK 3A – FLOODPLAIN MANAGEMENT PRACTICES

Current Practices

- Current state of floodplain management in the Region is “excellent”
- All but 2 of 43 counties and 11 of 92 cities in the Region are participating in the NFIP
- NFIP participation requires adoption and enforcement of at least minimum floodplain standards and regulations
- Approximately 90 percent of the land area of the region and virtually 100 percent of the population are within areas with at least minimum standards and regulations
- Many communities have adopted higher or enhanced standards and regulations

TASK 3A – FLOODPLAIN MANAGEMENT PRACTICES

Recommended Practices

- Counties and cities are encouraged to:
 - Participate in the NFIP
 - Adopt higher or enhanced floodplain standards and regulations
 - Consider participation in the FEMA Community Rating System (CRS)
- Updated floodplain maps and models are a priority, particularly in areas with increased or extreme rainfall rates
- Within the limits of their authority, cities and counties should consider flood hazards, floodplain management, and stream corridor protection in their comprehensive land-use plans and associated land-use regulations

TASK 3B – MITIGATION & MANAGEMENT GOALS

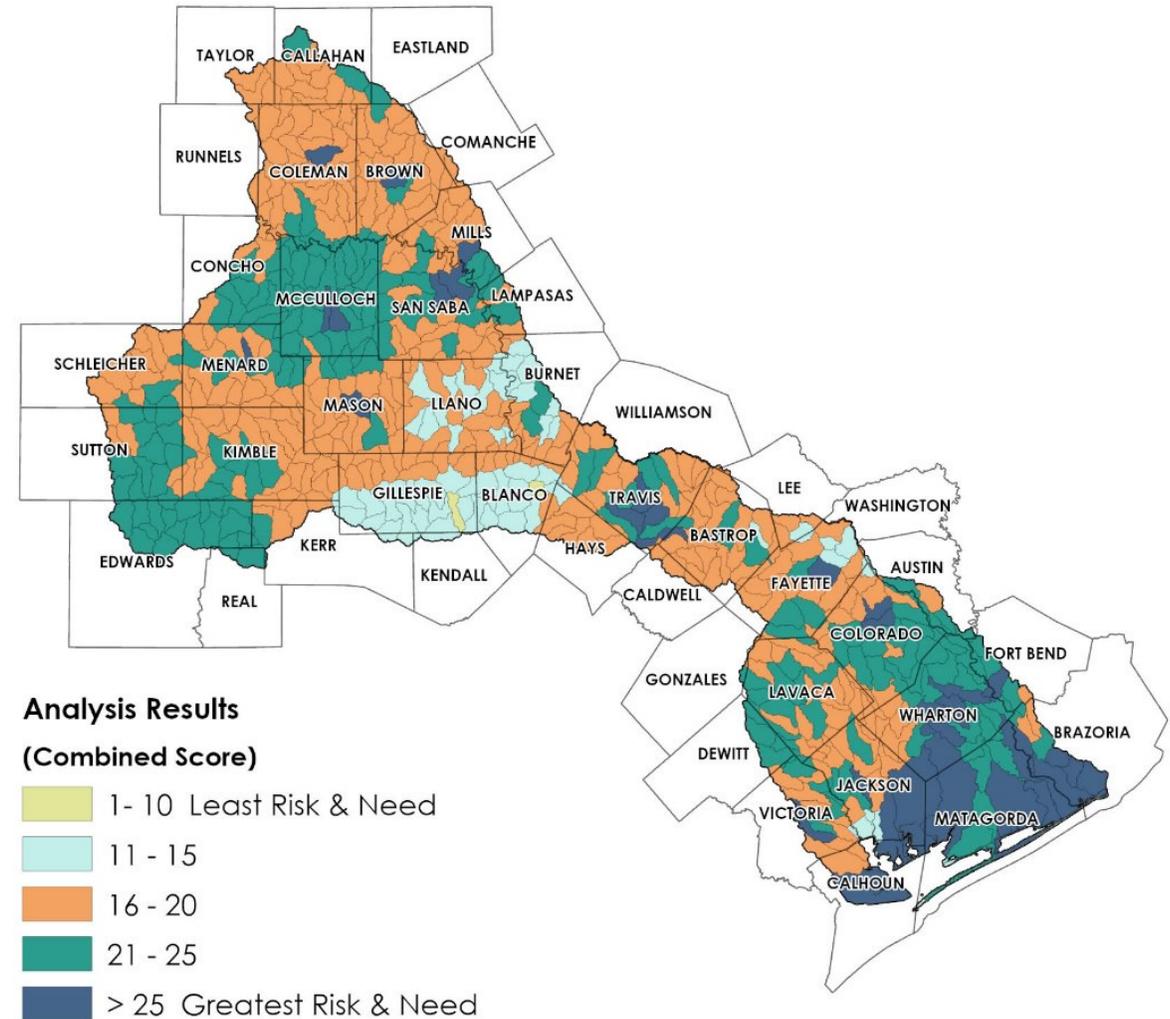
Adopted Goals

- RFPGs are required to adopt flood mitigation goals to guide the flood planning process
- One or more goals must be addressed by each recommended Flood Management Evaluation (FME) and Strategy (FMS) and Flood Mitigation Project (FMP)
- Region 10 RFPG adopted 14 goals in six focus areas:
 - Education and outreach – 1 goal
 - Flood warning and readiness – 1 goal
 - Flood studies and analysis – 3 goals
 - Flood prevention – 5 goals
 - Non-structural flood infrastructure projects – 2 goals
 - Structural flood infrastructure projects – 2 goals

TASK 4A – FLOOD MITIGATION NEEDS ANALYSIS

Greatest Flood Risk

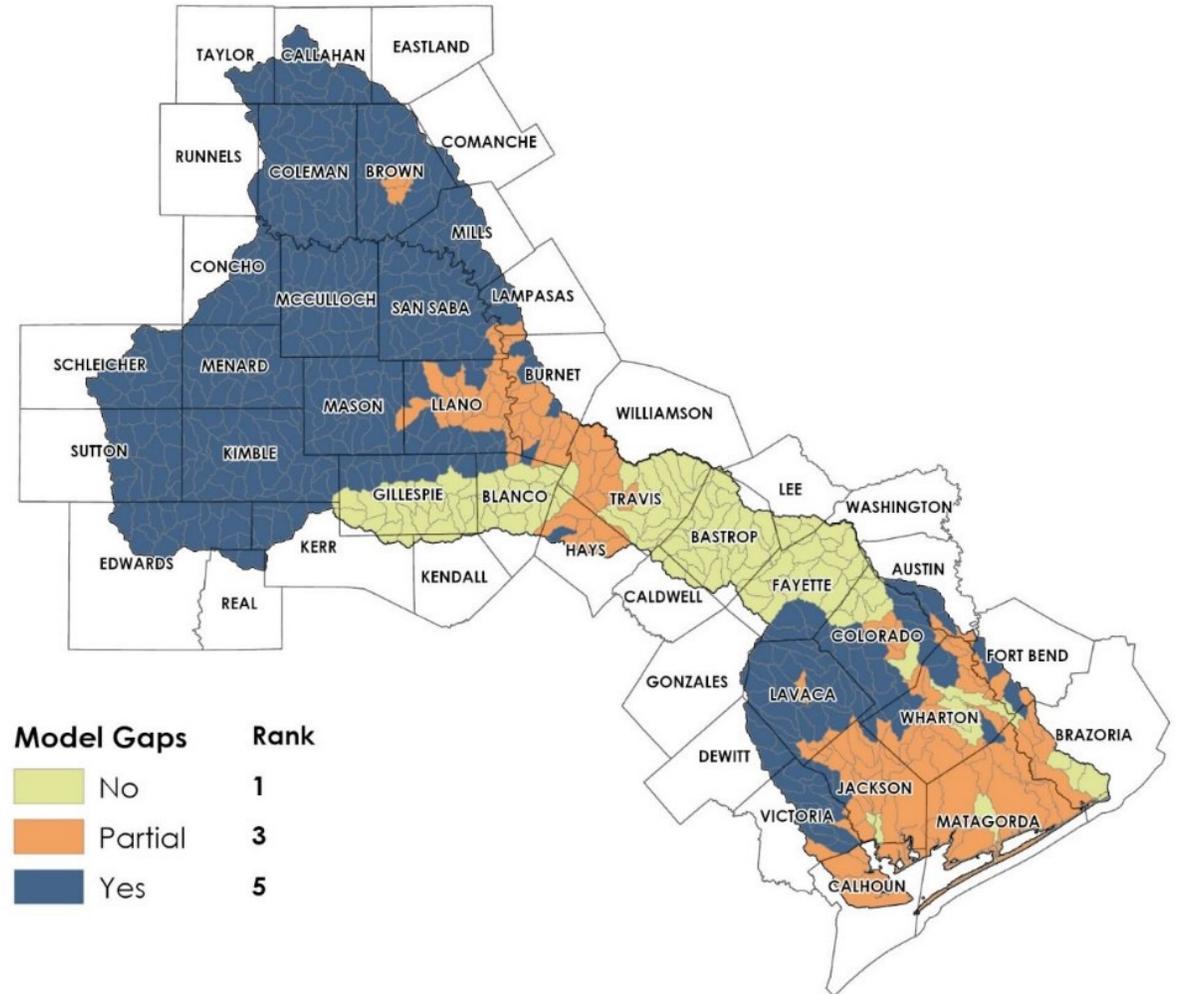
- Based on geospatial analysis for 10 categories
 - Exposed Buildings
 - Exposed Critical Facilities
 - Exposed Low Water Crossings
 - Inundated Roadways
 - Inundated Agricultural Areas
 - NFIP Participation
 - Mapping Gaps
 - Model Gaps
 - Emergency Needs
 - Social Vulnerability
- 1 to 5 score assigned for each category
- High combined score equals greatest risk and mitigation needs



TASK 4A – FLOOD MITIGATION NEEDS ANALYSIS

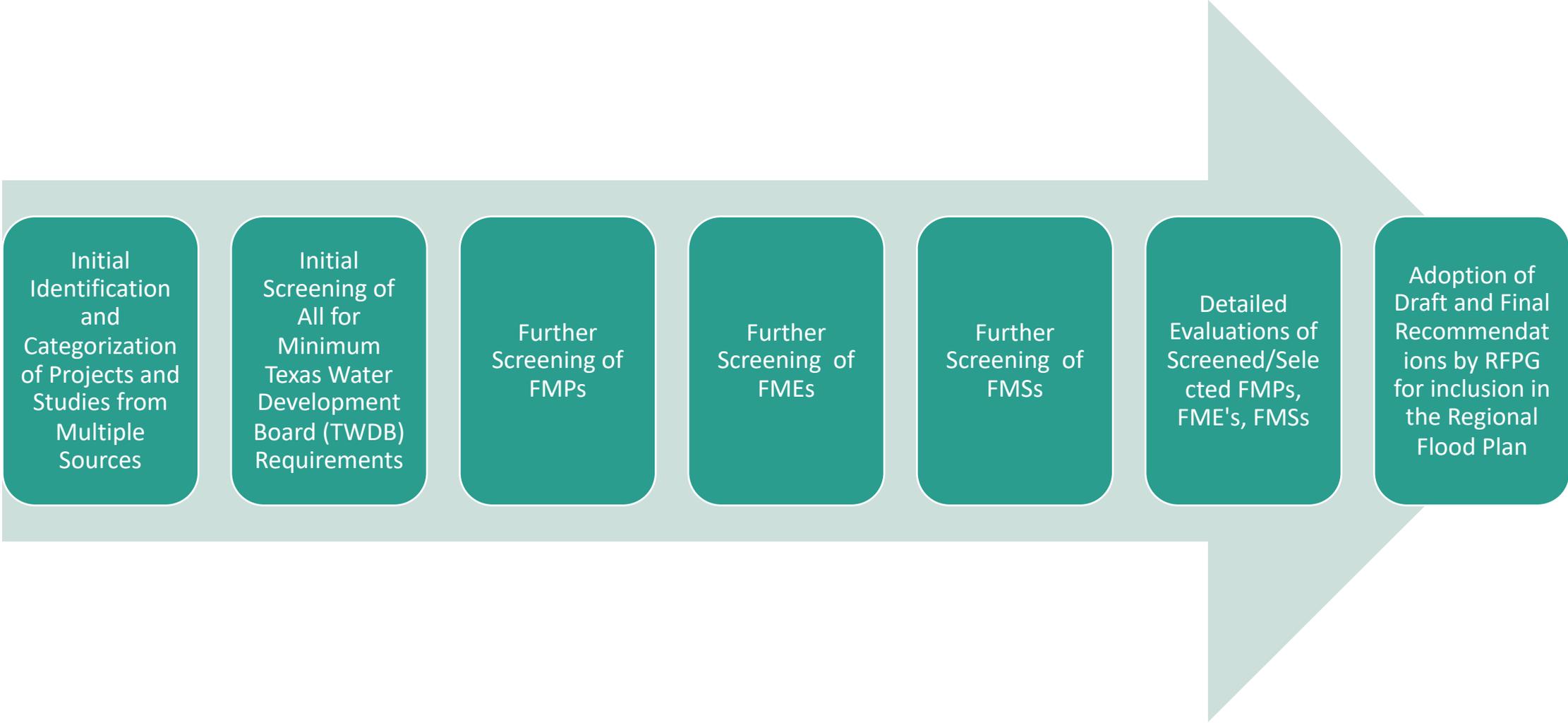
Greatest Study Needs

- Score based on whether an area has total, partial, or no model coverage
- Large areas, mostly rural, lack models
- Many of the most populated areas have good model coverage
- Many models require update to reflect greater extreme rainfall per Atlas 14



TASK 4B/5 – POTENTIAL STUDIES, STRATEGIES, AND PROJECTS

Evaluation Process Overview



TASK 5 – RECOMMENDED PROJECTS, STUDIES, STRATEGIES

Overview

5

FLOOD MANAGEMENT STRATEGIES (FMS)

- Area-wide Low Water Crossing Improvement Programs
- Property Acquisition Programs
- Education and Outreach Initiatives
- Area-wide Flood Warning Measures
- Strengthen Regulations

151

FLOOD MANAGEMENT STUDIES (FME)

16

Flood Preparedness Study

21

Floodplain Modeling and Mapping / Risk Identification

84

Flood Mitigation Alternatives Analysis / Feasibility Assessment

30

Flood Mitigation Project Preliminary Engineering (30% design)

54

FLOOD MITIGATION PROJECTS (FMP)

21

Structural

Advanced Analysis / Design (30–100% design)

- Bridge/culvert
- Channel modifications
- Storm drain
- Flood diversion

33

Non-Structural

Project Implementation

- Property/Easement Acquisition
- Floodproofing/Elevation of Structures
- Flood Warning Systems, Gauges
- Flood Readiness and Resilience

TASK 5 – RECOMMENDED PROJECTS, STUDIES, STRATEGIES

151 Recommended Flood Management Evaluations (FMEs) – Recommended Studies

FME Type		Description	Number of FMEs
Watershed Planning	Drainage Master Plans, Other Community-Scale Plans	Supports the development and analysis of hydrologic and hydraulic models to evaluate flood risk within a given jurisdiction, evaluate potential alternatives to mitigate flood risk, and develop a capital improvement plan; Planning is often at a community scale.	7
	Floodplain Modeling, Mapping, and Risk Assessment Studies	Studies to quantify flood risk in areas where significant flood risk is thought to exist but lacks flood risk data or has insufficient or outdated flood risk data. An example of this type of FME is a floodplain modeling and mapping study of a chronic flood-prone area with a certain population at risk that has not been previously. Often floodplain map products are approved and adopted at NFIP Flood Insurance Rate Maps (FIRMs).	14
Project Planning	Feasibility Studies	Studies typically employ flood hazard and flood risk/exposure data for a known flood problem area to evaluate structural and non-structural flood mitigation alternatives or FMP -types to provide the greatest flood risk reduction benefit for the least capital cost, taking into account adverse impacts and other factors. These FMEs typically include benefit-cost analysis and evaluations of other factors such as ongoing O&M costs, environmental constraints permitting requirements, land acquisition and utility relocation requirements, constructability, and public input and social factors	84
	Preliminary Engineering	Detailed evaluation of a preferred flood risk reduction solution(s) to verify feasibility (e.g., technical, economic, environmental) often includes a full engineering assessment and engineering design up to 30 percent	30
Preparedness	Flood Emergency Preparedness Studies and Planning	Studies need to develop flood emergency action plans such as hurricane evacuation plans, flood emergency response and recovery plans, and dam breach emergency action plans.	16

TASK 5 – RECOMMENDED PROJECTS, STUDIES, STRATEGIES

54 Recommended Flood Mitigation Projects (FMPs)

FMP Type	Description	Number of FMPs
Stormwater Infrastructure Improvements	Improvements to stormwater infrastructure, including channels, ditches, ponds, stormwater pipes, etc.	9
Roadway Drainage Improvements	Improvements to roadway drainage infrastructure, including side ditches, culvert crossings, bridge crossings, etc.	12
Regional Detention Facilities	Runoff control and management via detention facilities	0
Property Acquisition	Voluntary acquisition of flood-prone structures	12
Flood Warning Systems	Install gauges, sensors, or barricades to monitor streams and low water crossings for potential flooding and support emergency response	10
Emergency Generators	Purchase and install emergency generators at critical facilities	11

TASK 5 – RECOMMENDED PROJECTS, STUDIES, STRATEGIES

5 Recommended Flood Management Strategies (FMSs)

Strategy Name	Description
Floodplain Management and Regulation	This strategy will consist of education, outreach, and direct technical assistance to cities and counties throughout the Lower Colorado-Lavaca Region, with a particular focus on providing targeted assistance to cities that are eligible but not currently participating in the NFIP; and other communities with the identification, evaluation, adoption, and implementation of enhanced floodplain management practices and regulations and land development, land use, and comprehensive drainage regulations.
Flood Awareness and Preparation Education and Outreach	This strategy includes the Lower Colorado-Lavaca RFPG continuing its public outreach and engagement efforts through ongoing TWBD funding. This would include periodic e-mail news blasts, additional public meetings to present the initial Regional Flood Plan, and continuing outreach to key stakeholders (e.g., state and local elected officials, floodplain administrators, and emergency coordinators).
Low Water Crossing Assessment, Prioritization, and Mitigation	There are an estimated 1,352 low-water roadway crossings within the Lower Colorado-Lavaca Region. Many of these crossings experience frequent flooding but may have relatively minor flood risk in terms of public safety and/or the integrity of the roadway. This strategy is for the Lower Colorado-Lavaca RFPG to provide technical assistance to communities assessing flood risk at low water crossings.
Stream Corridor Protection and Restoration	This strategy is focused on encouraging public/private partnerships to enhance the protection and restoration of stream corridors. The essence of this strategy is open space acquisition, either through fee simple purchases of property within stream corridors or through voluntary agreements (i.e., conservation easements) between governmental and/or non-governmental organizations and private landowners.
Watershed Modeling and Floodplain Mapping	This strategy is intended to address the need for immediate region-wide effort and funding to update watershed models, floodplain mapping, and associated geospatial products needed to understand flood risk and exposure; provide effective floodplain management; identify and evaluate flood risk reduction solutions and enhance flood emergency preparedness and response.

TASK 5 – RECOMMENDED PROJECTS, STUDIES, STRATEGIES

Estimated Cost to Implement Regional Flood Plan

Recommended Flood Risk Reduction Actions	Number of Actions	Estimated Implementation Costs
Flood Management Evaluations	151	\$32,905,000
Flood Mitigation Projects	54	\$382,899,000
Flood Management Strategies	5	<i>TBD</i>
Totals	210	\$415,804,000

TASK 6 – IMPACTS OF REGIONAL FLOOD PLAN

Reduction in Existing Flood Impacted Areas

Annual Chance Event Flood Risk	Area in Floodplain (square miles)	Reduction of Floodplain after Implementation (square miles)
1% (100-year)	4,526	7.05
0.2% (500-year)	726	2.30
Totals	5,252	9.35

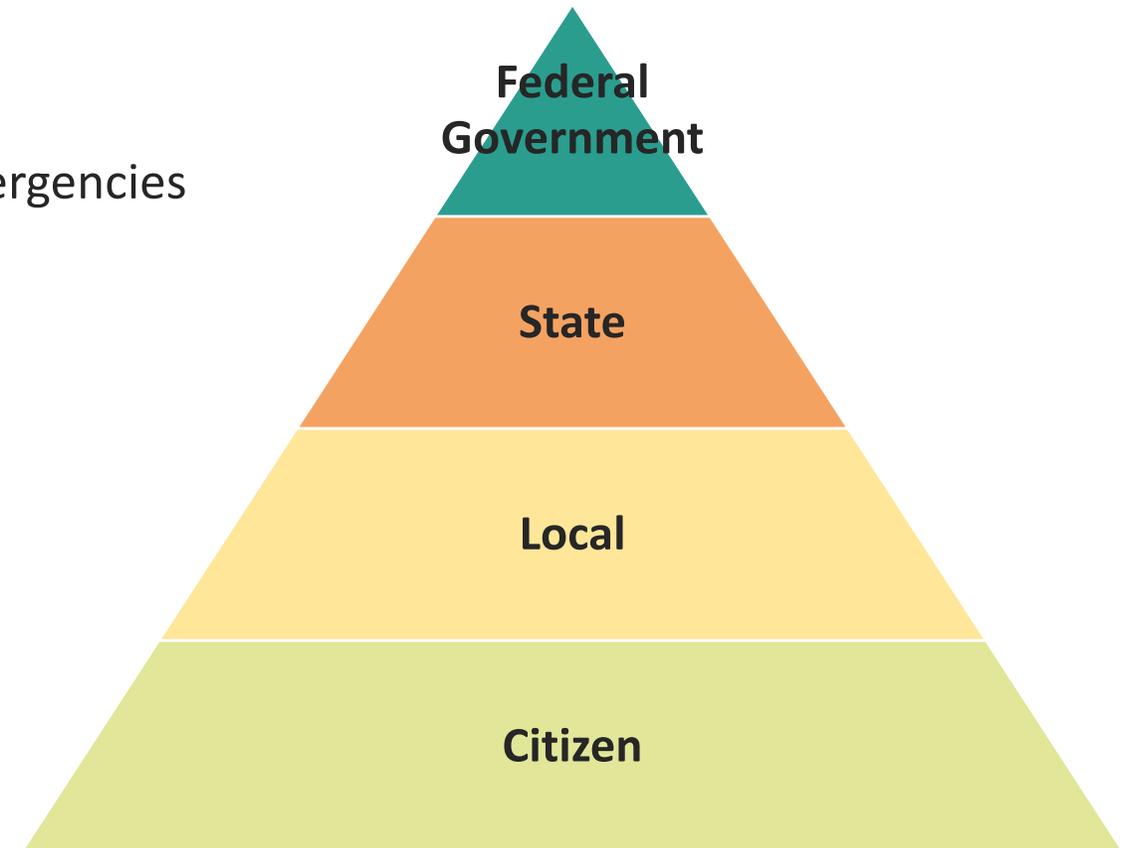
- Implementing of recommended FMPs will not negatively or adversely affect other areas
- No measurable impacts, beneficial or adverse, from implementing the recommended FMPs on water supply, water availability, or projects in the State Water Plan.

TASK 7 – FLOOD RESPONSE INFORMATION AND ACTIVITIES

Flood Preparedness

- Bottom-up national framework
- Region is relatively well-prepared for flood emergencies
- The most populated areas have:
 - Good understanding of flood risk
 - Real-time data and forecasts
 - Notification and warning systems
 - Ongoing flood awareness and education

Emergency Management Support



Source: Emergency Management Institute, Are You Ready?

TASK 8 – ADMINISTRATIVE, REGULATORY, AND LEGISLATIVE RECOMMENDATIONS

RFPG adopted 26 policy recommendations:

- 8 legislative
- 9 regulatory and administrative
- 9 flood planning

Key legislative recommendations:

- Provide authority for counties to establish drainage utilities in unincorporated areas
- Address legal impediments to the use of local government funds for the elevation and/or floodproofing of privately-owned structures
- Provide ongoing grant funding for RFPGs functions and initiative between planning cycles
- Increase state funding and technical assistance for watershed modeling and floodplain mapping
- Establish a state program to assist counties and cities with assessment and flood risk mitigation of high-risk low water crossings

TASK 9 – FLOOD INFRASTRUCTURE FINANCING ANALYSES

State Role in Flood Infrastructure Finance

RFPG supports:

- An expanded state role in financing flood-related activities, programs, and flood mitigation infrastructure
- Increase state funding and technical assistance through existing programs administered by the TWDB and the Texas State Soil and Water Conservation Board

Opportunities for Public Comment

View Plan Digitally and Comment

- <https://www.lowercoloradolavacaflood.org/>

Hard Copy Plans Available in 16 Locations

- Upper Basin (5): Llano County Public Libraries at Llano and Kingsland locations, Mason County Library, Brownwood Public Library, Gillespie County Courthouse
- Mid-Basin (7): LCRA Redbud Center, Austin Public Library, Ruiz Branch Public Library, Southeast Branch Public Library, Manchaca Road Branch Public Library, East Travis Gateway Library, Bastrop Public Library
- Lower & Lavaca Basins (4): Wharton County Courthouse, Bay City Public Library, Lavaca Navidad River Authority offices, French Simpson Memorial Library in Hallettsville

Open House Schedule (in-person)

- 9/9/22, Thursday, 5:30–7pm, Llano, TX
 - Llano County Public Library, 102 E. Haynie St.
- 9/13/22, Tuesday, 5:30 – 7pm, Edna, TX
 - Lavaca Navidad River Authority, 4631 FM 3131
- 9/21/22, Wednesday, 5:30 – 7pm, Wharton, TX
 - Wharton County Courtroom Annex, 309 Milam St.

Hybrid Public Meeting

- 9/15/22, Thursday, 9:30am, Austin, TX
 - LCRA Redbud Center Room 108, 3601 Lake Austin Blvd.

Region 10 Lower Colorado-Lavaca RFPG

- 9. Accept public input related to the Draft Regional Flood Plan as required per Texas Water Code §16.062(f) and 31 Texas Administrative Code §361.21(h)(3)**

Region 10 Lower Colorado-Lavaca RFPG

10. Discussion and potential action to approve mileage expenses for reimbursement

Date of Meeting	Description	Total Mileage	Per Mile Rate	Total
July 18, 2022	Region 10 RFPG Meeting – Spenrath	295	\$0.625	\$184.38
Approved Budget	Travel Cost Previously Approved	Cumulative Travel Cost	Balance	
\$16,000.00	\$1,037.94	\$1,222.32	\$14,777.69	

Region 10 Lower Colorado-Lavaca RFPG

- 11. Discuss and consider action to fill the vacant voting RFPG member seat representing water districts**
 - a. Public Comments (Public comments limited to 3 minutes per speaker)**
 - b. Consider Executive Committee's recommendation, discussion and consider taking action to fill the water district interest category position for a term commensurate with the initial voting members**

Region 10 Lower Colorado-Lavaca RFPG

12. Update from the Technical Committee

13. Technical Consultant presentations and discussions related to regional flood planning

a. Project status

b. Look-ahead calendar

c. Task 12 – Review and discuss performing draft Flood Management Evaluations for additional Flood Mitigation Projects

d. Next Steps



LOWER COLORADO – LAVACA
REGIONAL FLOOD PLAN
A TEXAS INITIATIVE

REGIONAL FLOOD PLANNING GROUP MEETING | SEPTEMBER 15, 2022



AGENDA

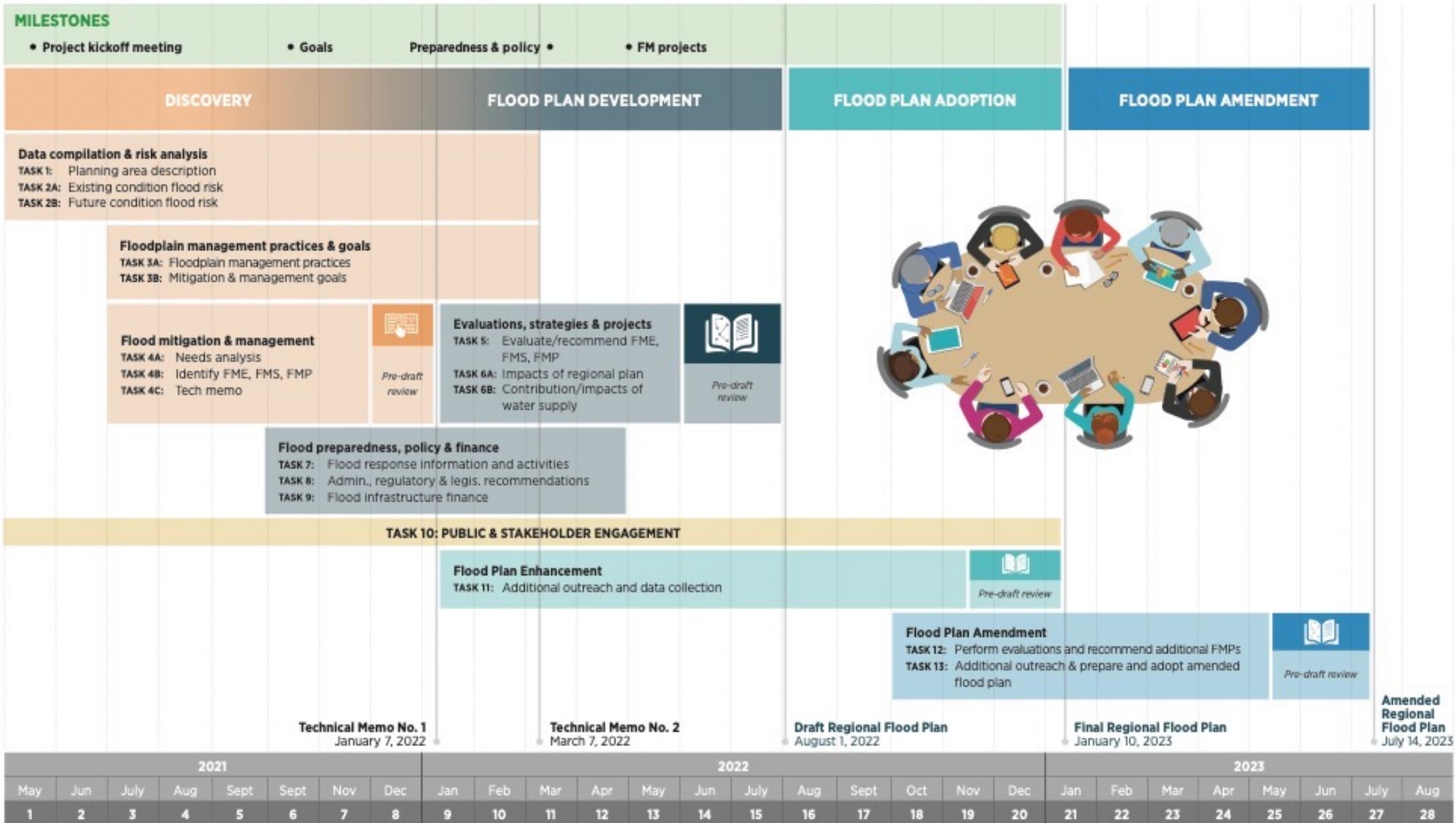
Look-Ahead

Project Status

- Task 10: Public and Stakeholder Engagement
- Task 12 - Discussion of final Technical Consultant recommendations regarding FMEs to be further evaluated to meet criteria for reclassification as FMPs



Look-Ahead



RFPG MEETINGS THROUGH JANUARY 2023

September

- 9/15/22 RFPG meeting:
 - Required public meeting to accept comments on the draft Regional Flood Plan
 - Approve final recommendations for Flood Management Evaluations to be performed

October 6, 2022

- No meeting

November 7, 2022

- Review and discuss public comments on the draft Regional Flood Plan
- Review and discuss TWDB comments on the draft Regional Flood Plan

December 1, 2022

- Review and discuss recommended revisions to the draft Regional Flood Plan in response to public and TWDB comments

January 5, 2023

- **Approve final Regional Flood Plan for submittal to TWDB on or before January 10, 2023!**



Public Outreach and Engagement

TASK 10 – PUBLIC OUTREACH & ENGAGEMENT

PLAN for PUBLIC COMMENT PERIOD on DRAFT Regional Flood Plan (RFP)



Open House Schedule (in-person)

- 9/8/22, Thursday, 5:30–7pm, Llano, TX
 - Llano County Public Library, Meeting Room
- 9/13/22, Tuesday, 5:30 – 7pm, Edna, TX
 - Lavaca Navidad River Authority, 4631 FM 3131
- 9/21/22, Wednesday, 5:30 – 7pm, Wharton, TX
 - Wharton County Courthouse Annex, 309 Milam St.

Open House Format

- Come and go; one-on-one meet and greet, answer questions, help attendees provide comments
- Attending: Technical consultant, sponsoring organization, RFPG members (no quorum)
- Materials: Comment form, RFP summary handout, hard copy of RFP, large format maps

Opportunities for Public Comment

- Verbal comments at 9/15 meeting
- Written comments through website portal, email, comment form at Open Houses

ATTEND UPCOMING EVENTS
To learn about the first-ever draft Regional Flood Plan for the Lower Colorado, Lavaca, and San Bernard River Basins!

Lower Colorado-Lavaca Regional Flood Planning Group (RFPG)
Invites you to attend one of three upcoming Open House events and one hybrid public meeting. (Details at right)

The three open house events will be conducted in a come-and-go format with RFPG representatives and Technical Consultants on hand with maps and other materials to explain the planning process and answer questions about the draft Regional Flood Plan.

The hybrid public meeting on September 15 will serve as another opportunity for the public to provide comments on the draft Regional Flood Plan to the full membership of the RFPG. Verbal comments may be provided by zoom webinar or in person during the meeting.

Online: Review the Draft Regional Flood Plan and submit comments at lowercoloradolavacaflood.org.

Submit comments by email LowerColoradoLavacaFlood@lcrca.org or by mail:
Lower Colorado River Authority
Attn: Lauren Graber
P.O. Box 220
Austin, TX 78767

Public comments must be received by Monday, October 17, 2022.

Lower Colorado-Lavaca Regional Flood Planning Group

Upper Basin Open House
Thursday, Sept. 8, 2022, 5:30-7pm
Llano County Public Library Meeting Room, 102 E. Haynie St., Llano, TX

Lavaca Basin Open House
Tuesday, Sept. 13, 2022, 5:30-7pm
Lavaca Navidad River Authority, 4631 FM 3131, Edna, TX

Lower Basin Open House
Wed., Sept. 21, 2022, 5:30-7pm
Wharton County Courthouse Annex, 309 Milam St., Wharton, TX

Hybrid Public Meeting
Thursday, Sept. 15, 2022, 9:30am
Lower Colorado-Lavaca Regional Flood Planning Group
Agenda, Location and Login information at: www.lowercoloradolavacaflood.org/meetings

Hard copies of the draft Regional Flood Plan for Region 10 are available for public review at the following locations:

LOWER BASIN
Wharton County Courthouse, Law Library, 300 S. Fulton St., Wharton, TX
Bay City Public Library, 800 7th St., Bay City, TX
Southwest Branch Public Library, 5803 Nueces Crossing Rd., Austin, TX
Searcy-Rice Branch, Austin Public Library, 5500 Menzies Rd., Austin, TX
East Travis Gateway Library District, 1812 FM 602, Del Valle, TX
Bastrop Public Library, 900 Church St., Bastrop, TX

LAVACA BASIN
Lavaca Navidad River Authority, 4631 FM 3131, Edna, TX
Finch Simpson Memorial Library, 705 E. 4th St., Hallettsville, TX

MID BASIN
LCRA, Natural Center, 3005 Lake Austin Blvd., Austin, TX
Austin Public Library, 710 W. César Chávez St., Austin, TX
Rauz Branch Public Library, 1600 Grove Blvd., Austin, TX

UPPER BASIN
Llano County Public Library, 102 E. Haynie St., Llano, TX
Whipstock Public Library, 227 Park St., Kingsland, TX
Mason County Library, 480 Post Hill Rd., Mason, TX
Brenwood Public Library, 400 Carnegie Rd., Brenwood, TX
Gillespie County Courthouse, 401 W. Main St., Pecos, TX, Pecos Public Library, 1000 Main St., Pecos, TX

Learn more: LowerColoradoLavacaFlood.org



Task 12

Perform FMEs

TASK 12 – PERFORM FMEs FOR ADDITIONAL FMPs

TWDB Requirements

Objective:

- “Perform” identified FMEs to recommended additional FMPs
 - Evaluate flood risks in areas with limited data
 - Evaluate flood risk reduction solutions
 - Preliminary engineering

Requirements:

- RFPG must approve list of FMEs to be performed and any additional FMPs to be evaluated and recommended
- Must adhere to Task 4B/5 requirements
- Revise and re-submit relevant data deliverables and RFP chapters
- Results/recommendations to be included in the Amended Regional Flood Plan (due 7/14/23)

TASK 12 – PERFORM FMEs FOR ADDITIONAL FMPs

Criteria and Considerations for FME Selection

- FME categorized as “Preliminary Engineering”
- H&H models available if needed (e.g., analysis of potential adverse impact)
- Structures/populations at risk
- High risk/exposure low-water-crossings (e.g., depth of inundation, traffic count)
- Critical facilities at risk
- Level-of-effort (cost) to perform FME relative to available budget
- Sponsor concurrence

TASK 12 – PERFORM FMEs FOR ADDITIONAL FMPs

Criteria and Considerations for FME Selection

Potential Scope of Work for Selected FMEs:

- Data Collection / Site visits
- Update hydrologic and hydraulic modeling (e.g., Atlas 14 rainfall, LiDAR)
- Update alternatives analysis and/or preliminary design of improvements
- Analyze flood risk reduction benefits
- Verify no adverse impacts
- Develop/update cost estimates
- Conduct cost-benefit analysis
- Evaluate potential constraints (environmental, utility conflicts, right-of-way needs, and constructability)
- Prepare documentation of RFPG action and for inclusion in Amended Regional Flood Plan

NEXT STEPS

- **Today, September 15 RFPG meeting** – Receive input from Technical Committee
- **Today, September 15 RFPG meeting** – Present, discuss, and request approval of recommended list of FMEs to be performed
- Amend sub-subconsultant contracts
- Initiate work
- Report progress at future RFPG and Technical Committee meetings
- RFPG consideration/approval of recommendations
- Incorporate results and recommendations into the Amended Regional Flood Plan – Spring 2023

TASK 12 – PERFORM FMEs FOR ADDITIONAL FMPs

Preliminary List Approved by RFPG July 18, 2022

FME ID Number	FME Title	County	Sponsor
101000043	Edison & Creek Street	Gillespie	Fredericksburg
101000051	Bob White Trail	Gillespie	Fredericksburg
101000053	North Edison Low Water Crossing	Gillespie	Fredericksburg
101000054	Schubert Low Water Crossing	Gillespie	Fredericksburg
101000116	Whitman Branch Bypass; Oak Ridge Drive Creek	Burnet	Marble Falls
101000165	Whitman Branch Regional Detention Pond	Burnet	Marble Falls
101000166	Ave J Bridge Replacement	Burnet	Marble Falls
101000167	Broadway Street at Whitman Branch Low Water Crossing	Burnet	Marble Falls
101000027	FM 812 at Little Alum Creek	Bastrop	Bastrop Co.
101000028	FM 812 at Alum Creek South	Bastrop	Bastrop Co.
101000102	Piney Creek Benching	Bastrop	Bastrop Co.
101000125	Alum Creek - Tributary 8, Bowie Drive	Bastrop	Bastrop Co.
101000189	Wastewater Treatment Plant Floodproofing	Jackson	Edna

TASK 12 – PERFORM FMEs FOR ADDITIONAL FMPs

Recommended FMEs to be Performed

FME ID Number	FME Title	County	Sponsor	Estimated Study Cost	Recommended (Yes/No)	Recommended Study Cost
101000043	Edison & Creek Street	Gillespie	Fredericksburg	\$49,000	Yes	\$49,000
101000051	Bob White Trail	Gillespie	Fredericksburg	\$49,000		
101000053	North Edison Low Water Crossing	Gillespie	Fredericksburg	\$60,000		
101000054	Schubert Low Water Crossing	Gillespie	Fredericksburg	\$57,000		
 101000035 (FMP)	Creek Street at Barons Creek	Gillespie	Fredericksburg	\$60,000	Yes	\$60,000
101000116 & 101000165	Whitman Branch Bypass; Oak Ridge Dr Creek, including Detention	Burnet	Marble Falls	\$89,000	Yes	\$89,000
101000166	Ave J Bridge Replacement	Burnet	Marble Falls	\$61,000		
101000167	Broadway Street at Whitman Branch Low Water Crossing	Burnet	Marble Falls	\$62,000	Yes	\$62,000
101000027	FM 812 at Little Alum Creek	Bastrop	Bastrop Co.	\$86,000	Yes	\$86,000
101000028	FM 812 at Alum Creek South	Bastrop	Bastrop Co.	\$86,000		
101000102	Piney Creek Benching	Bastrop	Bastrop Co.	\$88,000	Yes	\$88,000
101000125	Alum Creek Tributary 8, Bowie Drive	Bastrop	Bastrop Co.			
101000189	Wastewater Treatment Plant Floodproofing	Jackson	Edna	\$66,000	Yes	\$66,000
Totals				\$813,000		\$500,000



Wrap Up

Region 10 Lower Colorado-Lavaca RFPG

- 14. Discussion and potential action on recommendations regarding Task 12 – Perform Flood Management Evaluations, Identify, Evaluate, and Recommend Additional Flood Mitigation Projects**

Region 10 Lower Colorado-Lavaca RFPG

15. Public comments – limit 3 minutes per person

16. Consider date and agenda items for next meeting

17. Adjourn