Lower Colorado-Lavaca REGIONAL FLOOD PLANNING GROUP

REGION 10

November 15, 2021

1. Call to Order

2. Welcome

3. Approval of minutes from the previous meeting

Meeting Minutes Region 10 Lower Colorado-Lavaca Flood Planning Group Meeting October 18, 2021 9:30 AM Hybrid Meeting

Roll Call:

Non Can.			
Voting Member	Interest Category	Present (x) /Absent () Alternate Present (*)	
Terry Been	Agricultural interests	X	
Phillip Spenrath	Counties	X	
Jason Ludwig	Electric generating utilities	X	
Kirby Brown	Environmental interests	X	
G. Nicholas "Nick" Textor	Flood districts	X	
Brandon Klenzendorf	Industries	X	
Matt Hollon	Municipalities	X	
Frances Acuña	Public	X (left meeting after item 13)	
Patrick Brzozowski	River authorities	X	
Ann Yakimovicz	Small business	* Brenda Sies	
Kacey Cubine Paul	Water districts	X	
Hank Smith	Water utilities	Χ	
Kelly Payne	River authorities	X	

Non-voting Member	Agency	Present(x)/Absent()/ Alternate Present (*)
Shonda Mace	General Land Office	* Sarah Douglas
Charles "CW" Schneider	Texas Commission on Environmental Quality	
Lauren Mayes	Texas Department of Agriculture	X
James Guin	Texas Division of Emergency Management	X
Beth Bendik	Texas Parks and Wildlife Department	X
Allen Nash	Texas State Soil and Water Conservation Board	X
Morgan White	Texas Water Development Board	X
Ronald G. Fieseler	Region 11 – Guadalupe Liaison	
Mark Vogler	Region 8 – Lower Brazos Liaison	* Brian Fambrough
Cara Tackett	Region 12 – San Antonio Liaison	X (joined during item 11)
Chuck Brown	Region 9 – Upper Colorado Liaison	

Quorum: Yes

Number of voting members or alternates representing voting members present: 13

Number required for quorum per current voting membership of 13: 7

Other Meeting Attendees: **

James Bronikowski - TWDB Tressa Olsen – TWDB

Cindy Englehardt – Halff Associates, Inc. Matt Bucchin – Halff Associates, Inc. Mike Personett – Halff Associates, Inc. Augusto Villalon – Freese and Nichols

Cris Parker – HDR, Inc. Karen Ford – WaterPR Lauren Graber – LCRA Annette Keaveny – LCRA Marcin Tyszka – LCRA

Eric Scheibe - Scheibe Consulting LLC

Mitchell Cameron Fabiola de Carvalho Anthony Groves
Amber Hielscher
Kathryn Johansen
Rebecca Katzke
Nick Kincaid
Rachael Lindsey
Cyrus Reed
Chuck Rogers
Meiko Mahi
Valerie Miller
Carol Olewin
Anna Pittala
Judge Ty Prause

**Meeting attendee names were gathered from those who entered information for joining the Zoom meeting.

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

Agenda:

1. Call to Order

Chair Phillip Spenrath called the meeting to order at 9:32 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 Phillip Spenrath welcomed members and other attendees to the meeting.

3. Approval of minutes from the previous meeting

The draft meeting minutes were reviewed, and no corrections or additions were made. Kelly Payne moved to approve the minutes, seconded by Kirby Brown. The motion passed by a vote of 13-0.

4. Public comments – limit 3 minutes per person

Chair Phillip Spenrath called for public comments.

Cyrus Reed with the Sierra Club commented on enforcement of building codes for flood safety.

5. TWDB Update

Morgan White from the Texas Water Development Board (TWDB) introduced Tressa Olsen, who will serve as the new Region 10 RFPG liaison for TWDB going forward.

They spoke to additional funding for the State Flood Plan and work on draft amendments.

6. Update from RFPG liaisons

No updates given.

7. Update from the Planning Group Sponsor

Lauren Graber reported that agenda items 8, 9, and 10 are voting items that will be discussed and voted upon individually.

8. Discussion and potential action to authorize the Planning Group Sponsor to negotiate and execute an amendment to the Regional Flood Planning Grant contract with the TWDB, to incorporate additional funding for the first cycle of regional flood planning, including necessary revisions to the contract scope of work and budget

Lauren Graber reported that TWDB voted to add \$793,800 in funding for Region 10's flood planning efforts and is seeking RFPG authorization to amend the TWDB/LCRA grant contract. Kirby Brown moved to approve the action, seconded by Kacey Paul. The action passed by a vote of 13-0.

9. Discussion and potential action to authorize the Planning Group Sponsor to negotiate and execute an amendment to the Regional Flood Planning Grant subcontract with the technical consultant, Halff Associates, Inc., to incorporate additional funding for the first cycle of regional flood planning, including necessary revisions to the contract scope of work and budget

Lauren Graber reported that due to the additional funding discussed in Agenda item 8, the technical consultant's subcontract with LCRA must also be amended after authorization from the RFPG. Kacey Paul moved to approve the action, seconded by Kirby Brown. The action passed by a vote of 13-0.

10. Discussion and potential action regarding administrative expenses to be submitted to the Texas Water Development Board for reimbursement

Lauren Graber brought forth an action to reimburse administrative expenses for the Sponsor. Jason Ludwig moved to approve the action, seconded by Kacey Paul. The action passed by a vote of 13-0.

11. Presentation: Wharton County Flood Warning Project and Matagorda County Levees by Eric Scheibe of Scheibe Consulting LLC

Eric Scheibe gave a presentation as entitled above.

Planning Group members asked about automation of the real-time forecasting system; availability of maps to community residents for emergency response information; whether bathymetric mapping has to be redone after major flood events to recalibrate the model; and technical questions about modeling data and assumptions.

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

Karen Ford (WaterPR), Matt Bucchin, Mike Personett, and Cindy Englehardt (all Halff Associates, Inc.) provided updates, briefings, and discussion on the following:

- a. Project status
- b. Public and stakeholder engagement strategies update
- c. Task 1 Planning Area Description: Review and discussion of preliminary draft Chapter 1
- d. Task 2A/B Existing and Future Conditions: Status and outlook
- e. Task 3A Floodplain Management Practices: Review and discussion of preliminary draft Chapter 3
- f. Task 4A Flood Mitigation Needs Analysis: Status and outlook
- g. Task 4B Identification/Evaluation of Studies, Strategies, and Projects
- h. Task 8 Administrative, Regulatory, and Legislative Recommendations: Suggested topics/issues
- i. Task 4C Technical Memorandum: Discuss organization, content, and schedule
- j. Look-ahead November and December RFPG meetings

Planning Group members asked whether public input meetings could be held in counties to hear from people in person; if ways could be considered to reach low-economic communities who do not have access to computer-based outreach; and whether the technical consultant was conferring with other Regional Planning Groups to consider other goals.

13. Discuss and accept public comments regarding flood mitigation and floodplain management goals

Mike Personett and Matt Bucchin gave an update on flood mitigation and floodplain management goals and called for RFPG member comments.

Planning Group members commented on:

- Goal attainability and affordability;
- Achievable vs. aspirational goals;
- Future funding levels on options such as easement acquisition;
- Informing low-income communities so they can advocate for solutions;
- That not all communities can afford to address the proposed goals;
- That goals should be aspirational to help communities identify needs and funding;
- That flood insurance costs were rising and that a monthly payment option needs to be offered for people not able to afford a lump-sum payment.

Planning Group members also made specific comments and recommendations on the draft goals and whether they should be reworded, combined, or eliminated.

Chair Phillip Spenrath called for public comments.

Carol Olewin commented that floodproofing is very important for individual homeowners and supported including it in the goals.

Mieko Mahi said that new development should not be built in flood hazard areas but that not all people are aware of these risks when they buy properties, and that education is therefore very important. She recommended public engagement be done in County meetings.

14. Discuss and accept public comments regarding the process to be used by the RFPG to identify and select FMEs, FMSs, and FMPs

Cris Parker (HDR) presented an overview of the proposed process for selecting FMEs, FMSs, and FMPs.

Matt Hollon asked about inclusion of potential flood mitigation projects to provide flood protection for the City of Austin's South Austin Regional Wastewater Treatment Plant and Sand Hill Energy Center (power plant). Lauren Graber said that the Chair could add such an item for future discussion.

Chair Phillip Spenrath called for public comments.

No comments were given.

15. Public comments- limit 3 minutes per person

Chair Phillip Spenrath called for public comments.

No comments were given.

16. Consider date and agenda items for next meeting

Chair Phillip Spenrath opened discussion to consider the date and agenda items for the next meeting.

After general discussion, Chair Phillip Spenrath concluded that the next meeting will be held on Monday, November 15, 2021, 9:30AM.

The December meeting will be held Thursday, December 16, 2021, 9:30AM.

The January meeting will be held Thursday, January 20, 2022, 9:30AM.

17. Adjourn

Kelly Payne made a motion to adjourn, seconded by Patrick Brzozowski. The motion passed 12-0 and the meeting adjourned at 12:45 PM CDT by Chair Phillip Spenrath.

Approved by the Lower Colorado-La	ovaca RFPG at a meeting held on DATE.
Matt Hollon, SECRETARY	
Phillip Spenrath, CHAIR	

- 4. Public comments limit 3 minutes per person
- 5. TWDB Update
- 6. Update from RFPG liaisons

7. Update from the Planning Group Sponsor

a. Discussion regarding draft amended Regional Flood Planning Grant contract scope of work and budget

Task 11 – Outreach and Data Collection to Support Tasks 1 – 9

Task 12 – Perform Identified Flood Management Evaluations, Identify, Evaluate, and Recommend Additional Flood Mitigation Projects

Task 13 – Preparation and Adoption of the Amended Regional Flood Plan

8. Discussion of RFPG Roles and Responsibilities

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

- a. Project status
- b. Public and stakeholder engagement strategies update
- c. Task 4C Review draft Technical Memorandum
- d. Look-ahead December and January RFPG meetings



LOWER COLORADO – LAVACA REGIONAL FLOOD PLAN A TEXAS INITIATIVE

REGIONAL FLOOD PLANNING GROUP MEETING NOVEMBER 15, 2021



AGENDA

Project Status

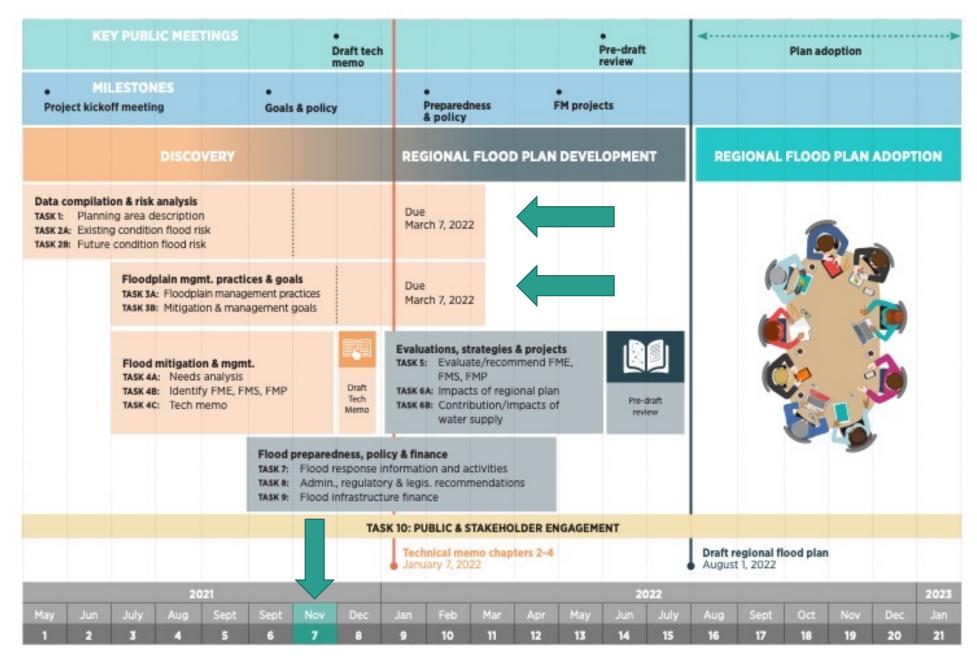
- Review Workflow Chart
- Public and Stakeholder Engagement
- Task 2A/B Existing and Future Conditions
- Task 4A Flood Mitigation Needs
- Task 4B Identification and Evaluation of Potential Studies, Strategies and Projects
- Task 4C Review draft Technical Memorandum

Look-ahead Calendar

- December
 - Preliminary results of Task 4A Preliminary review of areas of greatest risk and mitigation needs
 - APPROVE Technical Memorandum No. 1
- January
- February



Project Status



PUBLIC OUTREACH AND ENGAGEMENT

Karen Ford – WaterPR

Ongoing Strategies to Reach Audiences

Email Blasts to Community & Public Stakeholders (453)

- Public comment opportunity: goals & process (10/13, 15, 18)
- Public comment: DRAFT Goals & Process; Nov Meeting (11/4, 8, 12)
- Schedule and progress update

Website

- Update documents for Public Review page + comments
- Preparing roles, responsibilities, process document

Media

- Press Release re Process, Public Comment, Nov Meeting (11/4)
- Social media posts: news, meeting
- Support Ms. Acuna in outreach messages through local social groups



Monday Nov. 15, 2021 9:30am to Noon Lower Colorado-Lavaca
REGIONAL FLOOD
PLANNING GROUP
REGION 10

Virtual

Agenda & Link at:
LowerColoradoLavacaFlood.org



Task 2A/B Existing & Future Conditions

TASK 2A/B – EXISTING AND FUTURE CONDITION FLOOD RISK

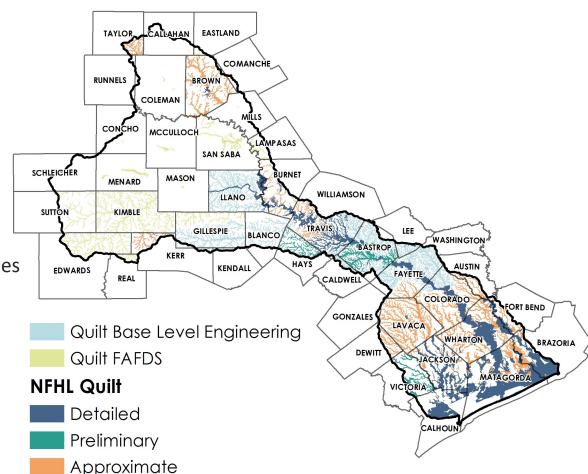
Status and Outlook

TWDB Floodplain Quilt - Late October 2021

- Fathom dataset is critical to Task 2 provides more accurate floodplain data where:
 - Data is missing (gaps)
 - Data is outdated/unreliable
- Advancing Tasks 2 to extent possible
 - Collecting and integrating best available floodplains / studies
 - Evaluating future condition assumptions and process

Draft Task 2A/2B - January 20, 2021

Incorporate in Tech Memo No. 2 due March 7, 2022





Task 4A Flood Mitigation Needs

TASK 4A – FLOOD MITIGATION NEEDS ANALYSIS

Status and Outlook

COLLECT



ANALYZE



IDENTIFY

Region Activities

- Collected Studies / Plans
- Known and Researched Studies/ Plans

Historical Events

 Documentation of past flooding events

Grant Applications

 TWDB, General Land Office, Texas of Emergency Management Division, etc.

Assess Collected Data

- Flood Prone Areas
- Data Gaps and Study Needs
- Mitigation Needs

Initial Classifications

FMEs, FMSs, and FMPs

Greatest Risk and Need

- Infrastructure: Buildings, Roadways, etc.
- Land Cover
- Populations and Resilience

Study Needs

FMEs

Mitigation Needs

FMSs and FMPs



Task 4B Identification and Evaluation of Potential Studies, Strategies and Projects

TASK 4B – POTENTIAL FMEs, FMSs AND FMPs

Overview

FLOOD MANAGEMENT STRATEGIES (FMSs)

- Infrastructure Projects
- Property/Easement Acquisition
- Elevation of Structures

- Education and Outreach
- Flood Warning and Measurement
- Regulatory and Guidance

FLOOD MANAGEMENT EVALUATIONS (FMEs)

Studies

Risk Reduction Analysis

Flood Preparedness Study Modeling and Mapping / Risk
Identification

Alternatives
Analysis /
Feasibility
Assessment

Preliminary Engineering (30% design)

FLOOD MITIGATION PROJECTS (FMPs)

Structural Infrastructure

Advanced Analysis / Design / Construction (30 - 100% design)

Non-Structural

Project Implementation

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



Task 4C Technical Memorandum

TASK 4C – TECHNICAL MEMORANDUM #1

Content and Schedule

Status Overview Text

- Brief Introduction of Regional Planning Process
- Summary of Activities through November 2021
 - Public Outreach and Engagement and Tasks 1, 2, 3, 4 and 8
- Approach to Produce Initial Draft Regional Flood Plan by August 1, 2022
- Introductory Text for Technical Memorandum Deliverables

Task 4C Attachments (excluding Items 1c-e)

- List of existing political subdivisions with flood-related authority/responsibility
- List of previous flood studies and models considered relevant for the plan
- Adopted flood mitigation and floodplain management goals
- Process used to identify potentially feasible FMSs and FMPs
- List of potential FMEs and potentially feasible FMSs and FMPs
- List of infeasible FMSs and FMPs with reason of exclusion
- Associated geospatial database

DRAFT MEMO #1 November 15, 2021

DUE TO TWDB January 7, 2022

TASK 4C – TECHNICAL MEMORANDUM #2

Content and Schedule

Status Overview Text

- Summary of Activities November 2021 January 2022
 - Public Outreach and Engagement and Tasks 1, 2, 3, 4 and 8
- Introductory Text for Technical Memorandum Deliverables

Task 4C Attachments (Items 1c-e)

- Tables, Maps, and Geospatial Database
 - Existing and Future Condition Flood Risk
 - Flood Mapping Gaps
 - Hydrologic and Hydraulic Model Availability

DRAFT MEMO #2
January 2022

DUE TO TWDB March 7, 2022



Look-Ahead

DECEMBER 2021 – JANUARY 2022 RFPG MEETINGS

December 16, 2021

- Preliminary results of Task 4A Flood mitigation needs analysis
- APPROVE submittal of Technical Memorandum No. 1 (due 1/7/22)
- Consider formation of a subcommittee to assist with recommendations for studies, strategies and projects

January 20, 2022 (date tbd)

- Review proposed look-ahead calendar for RFPG meetings through July 2022
- Consider Technical Consultant recommendations re: identification of areas that have the greatest flood mitigation and flood risk study need
- Preliminary results of Task 4B Identification and evaluation of potential flood management STUDIES, potentially feasible STRATEGIES, and potentially feasible flood mitigation PROJECTS



Wrap Up

10. Discussion and potential action to approve draft flood mitigation and floodplain management goals



LOWER COLORADO – LAVACA REGIONAL FLOOD PLAN A TEXAS INITIATIVE

REGIONAL FLOOD PLANNING GROUP MEETING NOVEMBER 15, 2021





Task 3B Flood Mitigation and Floodplain Management Goals

Matt Bucchin – HALFF

Goals and Framework & Statements

- Explored values June
- Overviewed framework July
- Homework July
- Refinements / Discussion August
- Homework September
- Refinements / Discussion October
- Public comment October



TASK 3: FLOODPLAIN MANGEMENT PRACTICES AND FLOOD PROTECTION GOALS

Benefits

The adopted goal statements were developed in a manner to set the stage for specific actions that can be quantified and measured through subsequent state flood plan processes, including future discovery data collection processes, or through implementation of evaluations, strategies, and/or projects, rather than high-level goal statements associated with outcomes (e.g., reducing fatalities). Implementation of the goals will demonstrate progress towards the overall purpose and intent of the regional flood planning process and will provide various benefits to individuals, communities, and the region as a whole. The types of benefits to be realized with implementation of the Lower Colorado-Lavaca Regional Flood Plan are presented below.

Table 3.X, Lower Colorado-Lavaca Region Flood Planning Goal Focus Areas and Benefits

Benefits / Overarching Goals	Focus Area 1 Flood Education and Outreach	Focus Area 2 Flood Warning and Readiness	Focus Area 3 Flood Studies and Analysis	Focus Area 4 Flood Prevention	Focus Area 5 Non-Structural Flood Infrastructure Projects	Focus Area 6 Structural Flood Infrastructure Projects
	0	•	0	•	•	•
Protect infrastructure	•		0	•	•	•
	•	•	•	•	•	•
Protect the environment	0		0	•	•	•
Protect/enhance water supply				•	•	0
Sustain the economy	0	•		•	•	•
Achieve co-benefits*				•	•	0
Increase public awareness	•	•	•	•	•	
Build community support			•	•		



Direct benefit

* co-benefits which could be achieved through flood protection include improved water supply, increased public recreation opportunities, etc.

16

LOWER COLORADO-LAVACA REGIONAL FLOOD PLAN



November 15, 2021 HALFF Presentation

Proposed Goals

Category 1 – Education and Outreach

Sta	atus	Goal	Short Term (2033)	Long Term (2053)	Metric
	٧	1.1 Increase the number of public outreach and educational communications and activities conducted by the RFPG to improve awareness of flood hazards and benefits of flood planning in the flood planning region.	TBD	TBD	Number of public communications (emails, social media, news blasts, public service announcements, educational packets, etc.)

Proposed Goals

Category 2 – Flood Warning and Readiness

Status	Goal	Short Term (2033)	Long Term (2053)	Metric
\checkmark	2.1 Increase the number of communities with warning and emergency response capabilities, or which participate in regional flood warning systems (e.g., LCRA Hydromet, City of Austin Flood Early Warning System) that can detect flood threats in real time and provide timely warning of impending flood danger.	TBD	TBD	Number of communities with warning and emergency response capabilities (e.g., real-time, flood-gauge monitoring)

Proposed Goals

Category 3 – Flood Management Evaluations (aka Studies)

Status	Goal	Short Term (2033)	Long Term (2053)	Metric
√	3.1 Increase the number of entities that have updated watershed models and floodplain maps to reflect current conditions, including as applicable Atlas 14 (Volume 11) revised rainfall data.	TBD%	TBD%	Number of entities that have updated watershed models and floodplain maps
\checkmark	3.2 Increase the number of entities that have evaluated priority flood risk areas and flood risk reduction measures (e.g., alternatives analysis and preliminary engineering).	TBD	TBD	Number of entities that identify risk reduction measures
√	3.3 Increase the number of entities that have digital flood insurance rate maps (DFIRMs) that reflect current conditions.	TBD	TBD	Number of entities that have digital flood insurance rate maps (DFIRMS)

Proposed Goals

Category 4 – Flood Prevention

Status	Goal	Short Term (2033)	Long Term (2053)	Metric
\checkmark	4.1 Increase the number of eligible entities that are participating in the National Flood Insurance Program (NFIP).	100% participation by eligible entities	Maintain	Number of eligible entities that are participating in the NFIP
\checkmark	4.2 Increase the number of entities that have adopted higher standards over and above NFIP minimum standards, including regulating to one or more feet above the Base Flood Elevation (BFE) for existing 1% annual chance event (100-year) conditions.	TBD	TBD	Number of entities that regulate with higher standards (e.g., regulating to Base Flood Elevation (BFE) + 1 as part of regulatory framework)
√	4.3 Increase the number of entities that have adopted regulations to reduce the risk from localized flooding.	TBD (establish Baseline)	TBD (improve numbers)	Number of entities that have local drainage protection requirements in their development code

TASK 3B FLOODPLAIN MANAGEMENT GOALS

Proposed Goals

Category 4 – Flood Prevention (Continued)

Status	Goal	Short Term (2033)	Long Term (2053)	Metric
\checkmark	4.4 Increase the number of entities which provide alternate compliance options that allow or incentivize nature-based solutions to reduce future flood risk.	TBD (establish baseline)	TBD (improve numbers)	Number of entities that allow/incentivize nature-based solutions as part of alternate compliance
\checkmark	4.5 Increase the number of entities in the flood planning region that consider the 1% annual chance (100-year) floodplain on the entity's future land use plans and development regulations.	TBD (establish baseline)	TBD (improve numbers)	Number of entities consider 100- year floodplains on land use maps and in development regulations

TASK 3B FLOODPLAIN MANAGEMENT GOALS

Proposed Goals

Category 5 – Non-Structural Flood Risk Reduction Projects

Status	Goal	Short Term (2033)	Long Term (2053)	Metric
√	5.1 Reduce the number of structures and critical infrastructure that are at high risk of repetitive loss through property/easement acquisitions, relocations, floodproofing and/or elevation.	TBD	TBD	Number of NFIP repetitive-loss / severe repetitive-loss properties mitigated by acquisitions, relocations, floodproofing and/or elevation
\checkmark	5.2 Increase the acreage of publicly protected open space to reduce future impacts of flooding through property buyouts, land conservation easements, acquisitions, or other comparable means.	TBD	TBD	Acreage of preserved land in region

TASK 3B FLOODPLAIN MANAGEMENT GOALS

Proposed Goals

Category 6 – Structural Flood Risk Reduction Projects

Status	Goal	Short Term (2033)	Long Term (2053)	Metric
\checkmark	6.1 Reduce the number of structures and critical facilities that are at high risk of repetitive loss through the implementation of structural flood mitigation projects.	TBD	TBD	Number of NFIP repetitive-loss / severe repetitive-loss properties mitigated by structural flood mitigation projects
\checkmark	6.2 Increase the number of entities that mitigate flood risk at vulnerable roadways or waterways (e.g., lowwater crossings, irrigation canals).	TBD	TBD	Number of entities that mitigate flood risk at low-water crossings or vulnerable roadways or waterways

Region 10 Lower Colorado-Lavaca RFPG

11. Discussion and potential action to approve the process to be used by the RFPG to identify and select FMEs, FMSs, and FMPs



Task 4B -

Potential Studies, Strategies and Projects (FMEs, FMSs, FMPs respectively)

Proposed Selection Process for Public Comment

TASK 4B – POTENTIAL STUDIES, STRATEGIES & PROJECTS

Cris Parker – HDR

requirements



Proposed Selection Process – Task 4B-5 General Steps

Step 1: Initial screening of Studies,

Projects & Strategies received
Screen for minimum TWDB rules and guidance requirements

Step 4: Initial screening of Strategies
Screen for minimum TWDB guidance requirements

Step 5: Detailed evaluation of selected
Step 5: Screening of Projects
Screen per TWDB flowchart and guidance

Step 5: Detailed evaluation of selected
Studies, Projects & Strategies

Step 3: Screening of Studies
Screen for minimum TWDB guidance

Step 6: Final recommendations of Studies, Projects & Strategies

JUST IN CASE SLIDES BEYOND THIS POINT

NOTE: The document for public comment on Task 4B will be in the backup documents too.

3

Step 1: Initial screening of *Studies, Projects & Strategies* received

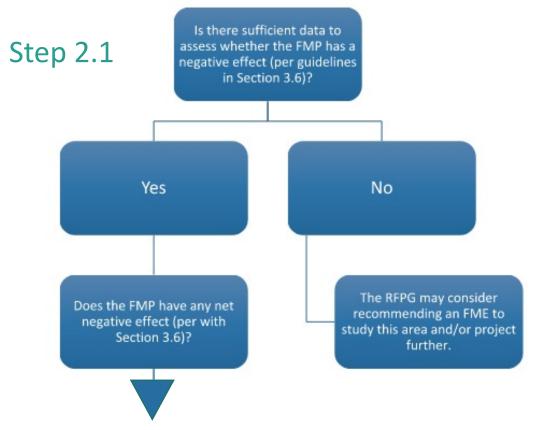
Screen for minimum TWDB rules and guidance requirements

- 1.1 Flood mitigation or floodplain management goal
- 1.2 Meets an emergency need
- 1.3 Flood problem with drainage area of 1 square mile or greater*
- 1.4 Reduces flood risk for 100-year (1% annual chance) flood

*except in instances of flooding of critical facilities or transportation routes or for other reasons, including levels of risk or project size, determined by the RFPG

Step 2: Screening of *Projects*

Screen per TWDB flowchart and guidance

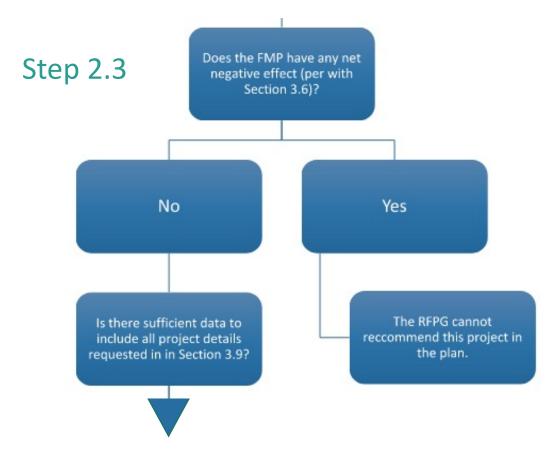


"Sufficient data"

- H&H modeling, mapping, and basis for mitigation project analysis generally meets Section 3.5 of TWDB technical guidelines
 - Reliable
 - Minimal uncertainty

Step 2: Screening of *Projects*

Screen per TWDB flowchart and guidance

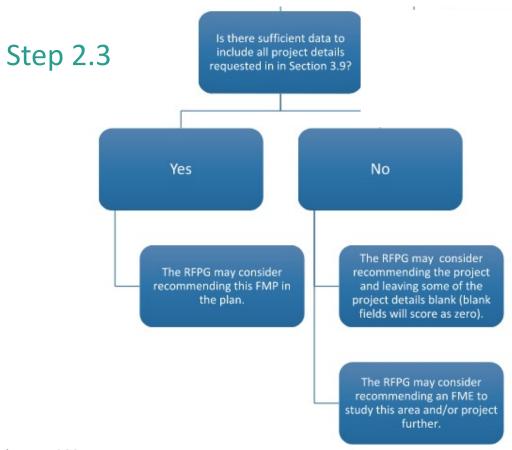


"Negative effect"

- For the 100-year (1% annual chance) flood event, no rise in flood elevation or discharge should be permissible. Projects should not:
 - Increase inundation on homes or commercial buildings
 - Increase inundation beyond ROW or easements
 - Increase inundation beyond existing drainage infrastructure capacity

Step 2: Screening of *Projects*

Screen per TWDB flowchart and guidance



Section 3.9 "Project Details"

- Flood severity level metrics
- Flood risk/damage reduction metrics
- Estimated capital and O&M cost
- Benefit/Cost Ratios
- Environmental benefits/impacts
- Implementation constraints
- Water supply benefits
- Others...

November 15, 2021 PALET Presentation 7

Step 3: Screening of *Studies*

Screen for minimum TWDB guidance requirements

Three General Categories of *Studies***:**

- Projects (FMPs) that didn't make the cut in Step 2
- Planned flood studies or flood risk reduction alternatives analyses provided by communities
- Flood study or flood risk reduction alternatives analysis needs identified in Task 4A
- 3.1 If detailed H&H and mitigation alternatives analysis \rightarrow *Project* or *Strategy*
- 3.2 Sensible
- 3.3 Reasonable planning-level cost estimate
- 3.4 Identified sponsor(s)
- 3.5 Structures, population and critical facilities at risk
- 3.6 Roadways at risk
- 3.7 Area of farm and ranch land at risk

Step 4: Initial screening of *Strategies*

Screen for minimum TWDB guidance requirements

"A proposed plan to reduce flood risk or mitigate flood hazards to life or property"

- Any proposed action that doesn't qualify as an FME or FMP
- RFPG has flexibility with Strategies
- Flood study or flood risk reduction alternatives analysis needs identified in Task 4A

Step 1 – Initial Screening

- 1.1 Flood mitigation or floodplain management goal
- 1.2 Meets an emergency need
- 1.3 Flood problem with drainage area of 1 square mile or greater*
- 1.4 Reduces flood risk for 100-year (1% annual chance) flood
- 4.1 Planning-level cost estimate
- 4.2 Identified sponsor(s)
- 4.3 Estimated flood risk and flood risk reduction

Step 5: Detailed evaluation of selected *Studies, Projects & Strategies*

- **5.1** Project benefit-cost ratios > 1.0
- 5.2 Have identified a *willing* sponsor(s)
- 5.3 No known insurmountable implementation constraints or hurdles (ROW, utility conflicts, permitting, etc.)
- 5.4 Evaluate RFPG specific requirements to incorporate a project or strategy into the RFP?
 - Example: Must include X% of "other" benefits?
 - Environmental/water quality
 - Water Supply
 - Erosion/sedimentation
 - Recreational
 - Example: X% of project includes nature-based solutions?

Step 6: Final recommendations of *Studies, Projects & Strategies*

Incorporate into the draft and final Reginal Flood Plan

- **6.1** Public comment of Recommended FMEs, FMSs and FMPs
- 6.2 Initial/Final adoption

Technical Memorandum

- Potentially feasible
- Potentially not feasible

Draft Regional Flood Plan

Recommended FMEs, FMSs and FMPs

Region 10 Lower Colorado-Lavaca RFPG

12. Public comments- limit 3 minutes per person

13. Consider date and agenda items for next meeting

14. Adjourn