

Region 10
Lower Colorado-Lavaca
Regional Flood Planning Group

July 19, 2021

Region 10 Lower Colorado-Lavaca RFPG

- 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
June 21, 2021
9:00 AM
Zoom Virtual Meeting

Roll Call:

Voting Member	Interest Category	Present (x) /Absent () Alternate Present (*)
Terry Been	<i>Agricultural interests</i>	X
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>	X
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
Ann Yakimovicz	<i>Small business</i>	X
Kacey Cubine Paul	<i>Water districts</i>	X
Hank Smith	<i>Water utilities</i>	X
Kelly Payne	<i>River authorities</i>	X

Non-voting Member	Agency	Present(x)/Absent()/ Alternate Present (*)
Shonda Mace	General Land Office	X
Charles “CW” Schneider	Texas Commission on Environmental Quality	X
Lauren Mayes	Texas Department of Agriculture	X
Natalie Johnson	Texas Division of Emergency Management	
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	X
Mark Vogler	Region 8 – Lower Brazos Liaison	* Brian Fambrough
Cara Tackett	Region 12 – San Antonio Liaison	
Christy Youker	Region 9 – Upper Colorado Liaison	

Quorum:

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: **

Reem Zoun, TWDB
Matt Nelson, TWDB
Michael Moya, Halff Associates, Inc.
Mike Personett, Halff Associates, Inc.

Matt Bucchin, Halff Associates, Inc.
Cindy Engelhardt, Halff Associates, Inc.
Cris Parker, HDR
Karen Ford, WaterPR

Lauren Graber, LCRA
Annette Keaveny, LCRA
Marcin Tyszka, LCRA
Wes Birdwell, TFMA
Kathryn Johansen
Nick Kincaid

Milton Koller
Mieko Mahi
Lisa McCracken Mairs
Joanna Morgan
Stephen Rockwood

******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 9:00AM 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.

It was announced that Morgan White will serve as liaison for the Texas Water Development Board until a replacement for Haley Gillespie is set.

3. Approval of minutes from the previous meeting

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

4. Public comments– limit 3 minutes per person

Chair Phillip Spenrath called for public comments.

Mieko Mahi expressed thanks and gratitude for the members of the Regional Flood Planning Group and the work that they do.

5. TWDB Update

No formal presentation was prepared.

Morgan White introduced herself as team lead with TWDB for regional flood planning. She clarified that the TWDB's role in Regional Flood Planning was to help interpret what is possible and consistent with State guidelines and the RFPG's role was that of making decisions and shaping the Flood Plan.

6. Update from RFPG liaisons

Ann Yakimovicz said Region 9 was at same part of the process as Region 10. Of the 32 counties in Region 9, 13 are not included in FEMA flood maps and there has been a challenge with increased engagement and planning.

Ron Fieseler, Region 11, mentioned a flood river study presentation by Liz Levitz from AECOM. They are scheduling a second pre-planning public input meeting for August 4 at 4PM at the Wimberley Community Center and invite stakeholders in Austin, Caldwell, Hays, and Travis counties to join.

7. Update from the Planning Group Sponsor

Lauren Graber reported that the sponsor, LCRA, amended the contract with the technical consultant, Halff Associates.

Lauren Graber said that the General Land Office had awarded grant funds for flood mitigation projects. The GLO issued press releases about grant allocations and project awards.

Lauren Graber said she is monitoring the status of State rules governing virtual vs. in-person meetings for RFPG meetings. Future meetings may need to be in-person and, if so, will be held at LCRA in Austin. Start times may need to be adjusted to account for travel. Calling-in via telephone would not be allowed.

8. Presentation and discussion on floodplain management by Wes Birdwell, Executive Director, Texas Floodplain Management Association

Wes Birdwell presented on floodplain management in Texas.

RFPG members discussed and asked questions regarding storm rating, future flooding events and modeling, and community training in disaster response.

9. Technical Consultant presentations and discussions related to regional flood planning Tasks 1, 2, 3, and 10

Mike Personett (Halff Associates, Inc.), Karen Ford (WaterPR), Cindy Englehardt, (Halff Associates, Inc.), and Matt Bucchin (Halff Associates, Inc.) presented their topics entitled: *Status Report; Public and Stakeholder Engagement; Status of Task 1 – Planning Area Description; Demonstration of Online Survey and Web Map; Task 3 – Floodplain Management Practices; and Task 3B – Floodplain Management Goals.*

RFPG members discussed and asked questions regarding community outreach, public engagement strategies, flood data availability and acquisition, and discussed polling questions and responses.

10. Discussion and possible action regarding public and stakeholder engagement strategies, including potential creation of a subcommittee, selection of members, and authorization of the subcommittee's duties

The group discussed whether to form a subcommittee on public and stakeholder engagement strategies. The group declined to establish a committee and asked that the technical consultant instead give monthly reports on engagement activity.

11. Public comments– limit 3 minutes per person

Chair Phillip Spenrath called for public comments.

Mieko Mahi asked that Wes Birdwell's presentation be made public. She spoke to the documentation of GLO grant monies. She recommended any public survey format be brief and that direct mail be used to help reach the public.

12. 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, July 19 at 9:00 AM.

Potential items that will be discussed include Tasks 2A and 2B – Existing and Future Conditions Flood Risk Analyses; Task 8 Administrative, Regulatory, and Legislative Recommendations; Task 3B – Flood Mitigation and Floodplain Management Goals; and Task 4B – Identification and Evaluation of Potential Flood Management Evaluations and Potentially Feasible Flood Management Strategies and Flood Mitigation Projects.

13. Adjourn

Patrick Brzozowski made a motion to adjourn, seconded by Kacey Paul. The motion passed 13-0 and the meeting was adjourned at 12:15 PM CDT by Philip Spenrath.

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

Matt Hollon, 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. Technical Consultant presentations and discussions related to regional flood planning Tasks 1-5, 8, and 10

- a. Project status and outlook**
- b. Public and stakeholder engagement strategies**
- c. Present and discuss requirements and approach to Task 2A/2B – Existing and Future Conditions Flood Risk Analysis**
- d. Continue discussion re: Task 3B – Floodplain Management**
- e. Briefing and discussion re: Tasks 4B and 5 – FMEs, FMSs, and FMPs**
- f. Present and discuss approach to Task 8 – Administrative, Regulatory, and Legislative Recommendations**
- g. Review look-ahead calendar for August 2021 RFPG meeting**



LOWER COLORADO – LAVACA REGIONAL FLOOD PLAN

A TEXAS INITIATIVE

REGIONAL FLOOD PLANNING GROUP MEETING | JULY 19, 2021



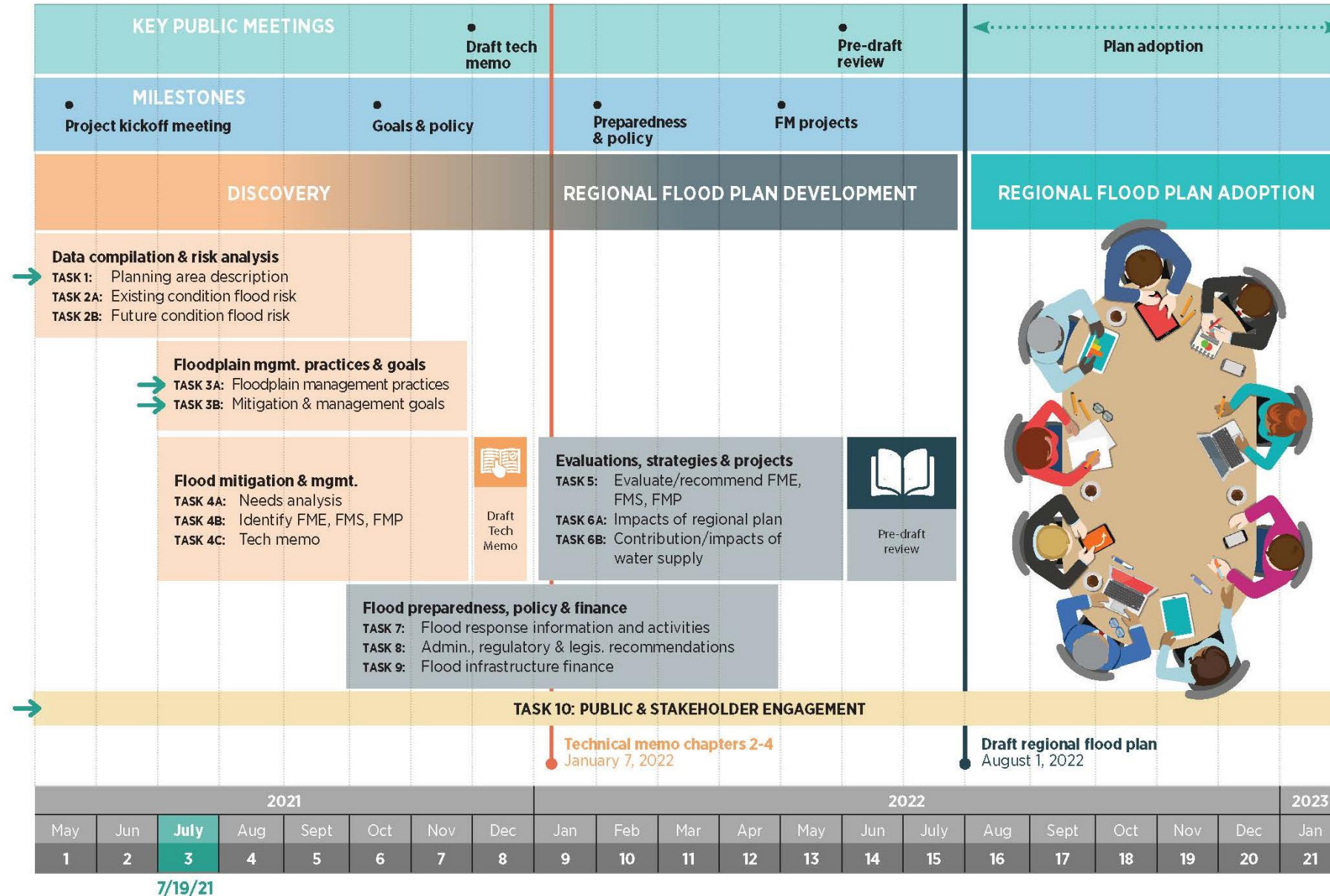
AGENDA

- Project Status (Tasks 1, 3A, 3B)
- Task 10 – Update Public and Stakeholder Engagement Strategies
- Task 2A/2B – Existing and Future Condition Flood Risk Analysis
- Task 3B – Floodplain Management Goals, continue discussion
- Tasks 4B and 5 – Briefing/discussion on Studies, Strategies and Projects
- Task 8 – Administrative, Regulatory and Legislative Recommendations
- Look Ahead Calendar



Project Status

PROJECT STATUS



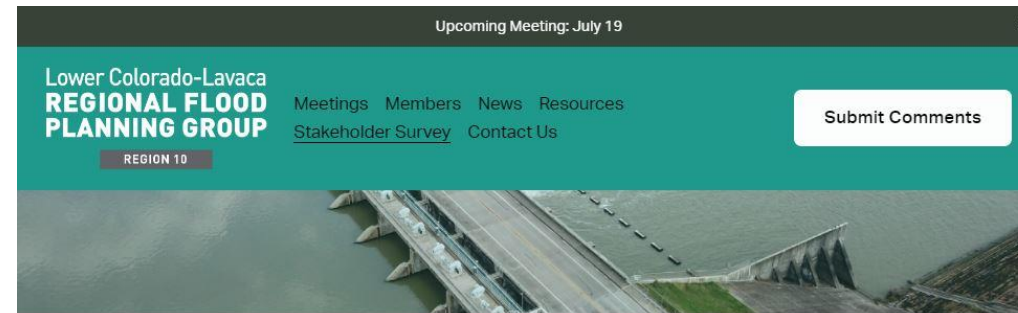
TASK 1 – PLANNING AREA DESCRIPTION

Matt Bucchin – HALFF



Survey to close July 30, 2021

- Introduction
 - Overview of process
 - Projected population growth
- Social and economic character
- Economic activity – status
- Flood prone areas
- Current flood protection measures
- Assessment of flood protection infrastructure
- Planned flood infrastructure improvements



You might have the information we need.

If you are in the **Lower Colorado-Lavaca Flood Planning Region (REGION 10)** we are asking for your help through an electronic data collection tool accessible through the Stakeholder Data Collection Tool button below.

The link will lead to another site where flooding information is being gathered from two groups, as defined below:

Public Stakeholders

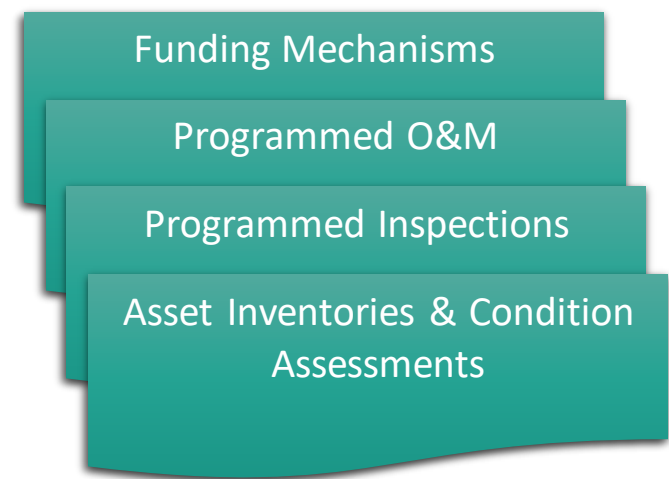
Public Stakeholders are invited to respond to the survey. This means the general public, individuals, groups, organizations including non-profit and non-governmental organizations

Community Stakeholders

Community Stakeholders include individuals with flood-related responsibilities, such as County and Community officials and Staff as well as Federal, State, regional, and local authorities, utilities and districts.

TASK 3A – FLOODPLAIN MANAGEMENT PRACTICES

Matt Bucchin – HALFF



Entity	Floodplain management regulations	Adopted minimum regulations	NFIP Participant	Higher Standards Adopted	Floodplain Management Practices	Level of enforcement of practices	Existing Stormwater or Drainage Fee
County 1	Yes	Yes	Yes	No	Moderate	Moderate	Yes
City 1	No	No	No	No	Low	Low	No
Special Purpose District	Unknown	No	No	No	None	None	No

TASK 3A – FLOODPLAIN MANAGEMENT PRACTICES

Matt Bucchin – HALFF

- Compile/evaluate information from existing databases & stakeholder discovery process
- Develop generalizations
 - floodplain management practices
 - flood risk and impact
 - Flood risk changes over time
- Develop forward-looking
 - floodplain management and land-use recommendations
 - economic development practices
 - strategy action statements

Infrastructure	Type / Condition	Example Flood Protection Standard
Resident and Commercial Buildings	New Construction	Finished floor elevations 1 foot above 100-year Water Surface Elevation (WSE)
	Pre-Existing (Retrofit)	
	Coastal New Construction	Finished floor elevations 1 foot above the highest elevation of either the riverine or coastal BFE including the combined riverine and coastal effects
	Coastal Pre-Existing (Retrofit)	

TASK 3 – FLOODPLAIN MITIGATION AND MANAGEMENT GOALS & STANDARDS



**Revisions may occur past this month*



Public & Stakeholder Engagement

PUBLIC OUTREACH AND ENGAGEMENT

Karen Ford – WaterPR



Strategies to Reach Audiences: Accomplished & Ongoing

Website Updates & Additions

- Photos, articles, news, resources
- Stakeholder survey page
- Activity, 526 views, up ~150% in past month

Digital Flier

- Distribution to public stakeholders (175), RFPG members
- Available on website (Resources)

Media

- Media Advisory sent July 9 (100+ media outlets)
- Radio Public Service Announcements (PSA) distributed ~70



PUBLIC OUTREACH AND ENGAGEMENT

Karen Ford – WaterPR



Strategies to Reach Audiences: Accomplished & Ongoing

Social Media


- Facebook
 - RFPG can Like, Share, but No Comment
 - Meeting notice and Stakeholder call for input

Outreach to Community & Public Stakeholders

- Mail Chimp blasts on June 21, 30; July 2, 6, 7, 9, 16
- Community Stakeholders ~225
- Public Stakeholders ~175

Other digital communication tools as needed

- Flood Planning 101 for general audiences



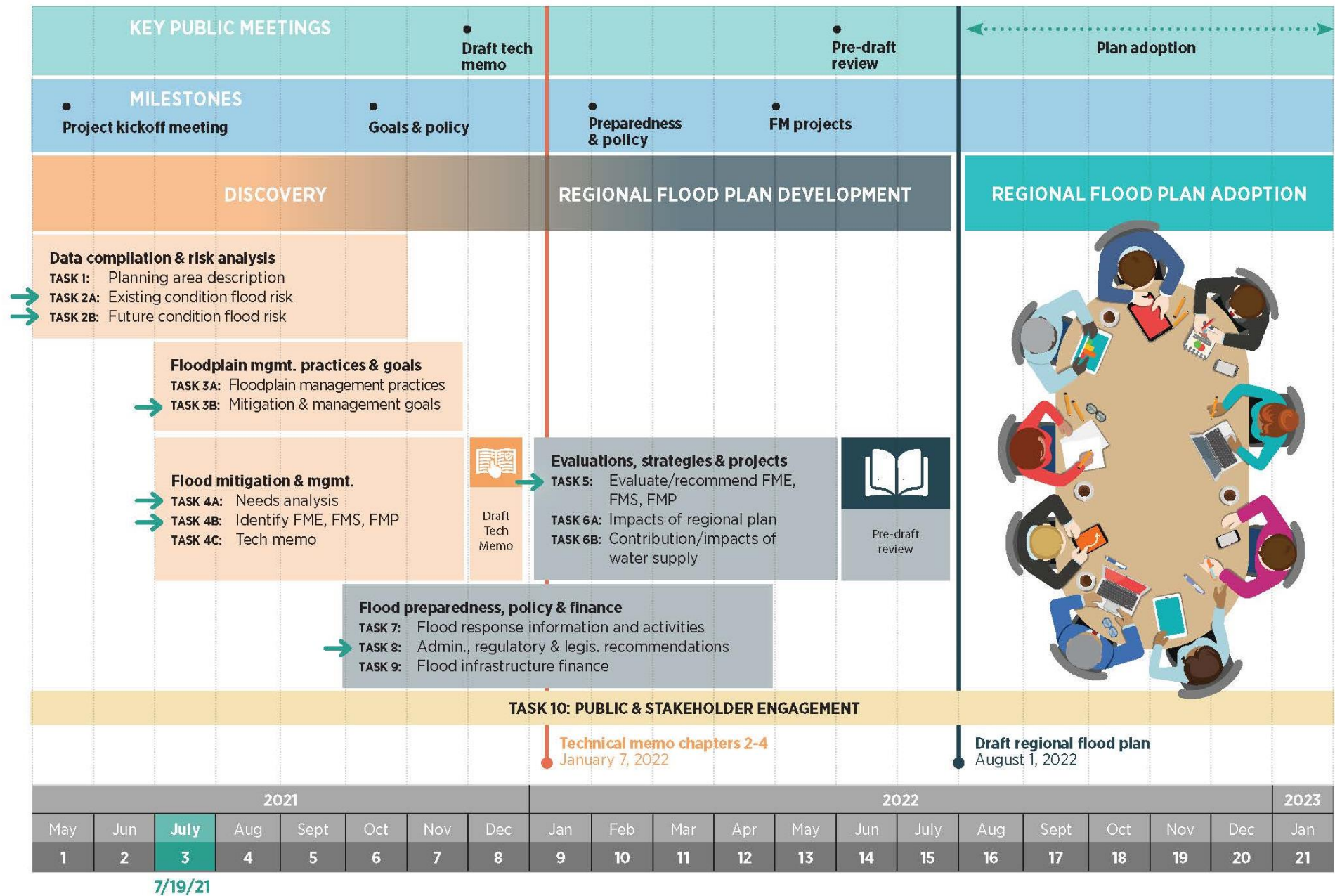
NEXT MEETING
Monday
July 19, 2021
9am to Noon

Lower Colorado-Lavaca
**REGIONAL FLOOD
PLANNING GROUP**
REGION 10

Virtual | Agenda & Link at:
LowerColoradoLavacaFlood.org



Task Presentations





Task 2A & 2B – Flood Risk Analysis Existing and Future Conditions

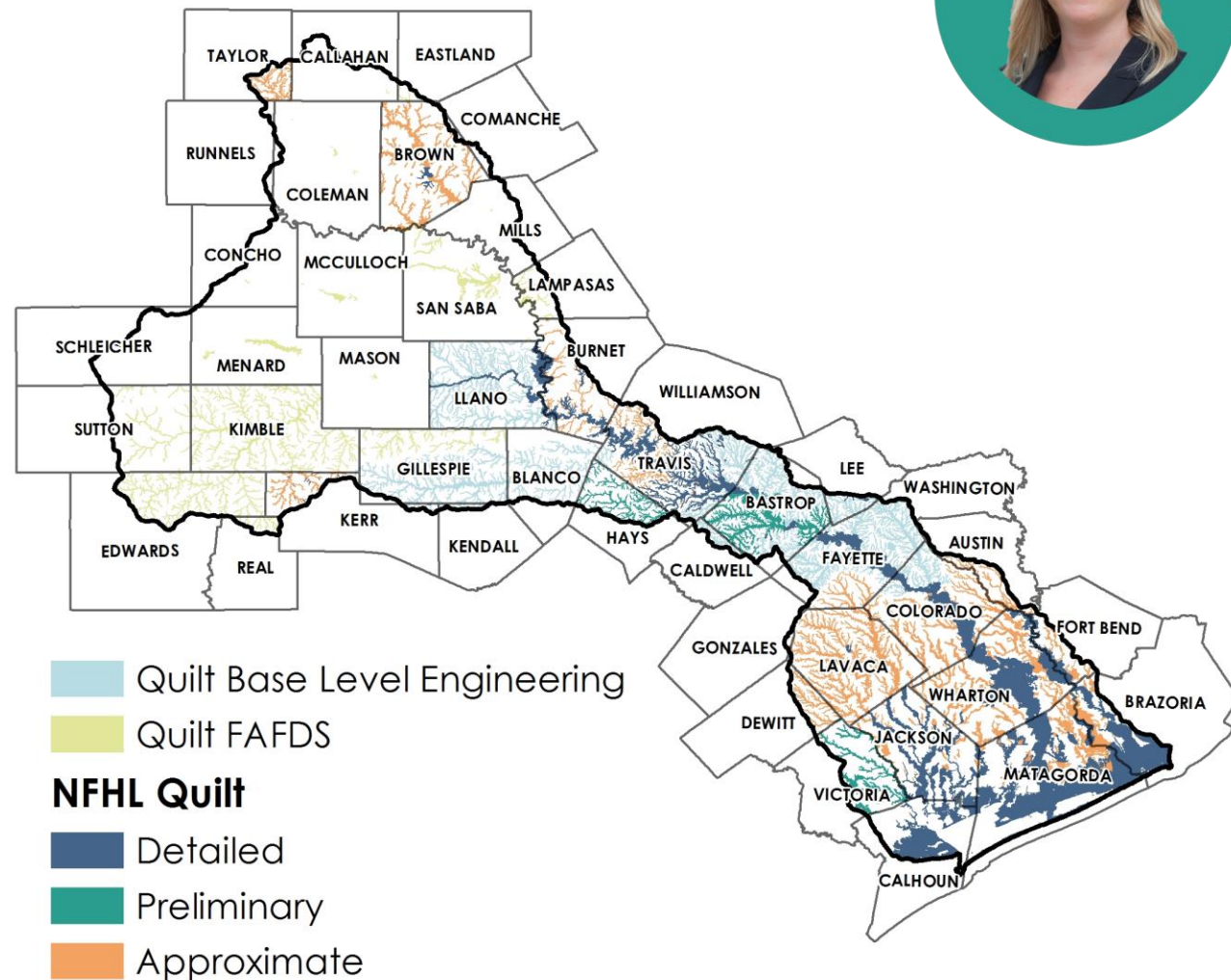
TASK 2A – EXISTING CONDITION FLOOD RISK

Cindy Engelhardt – HALFF



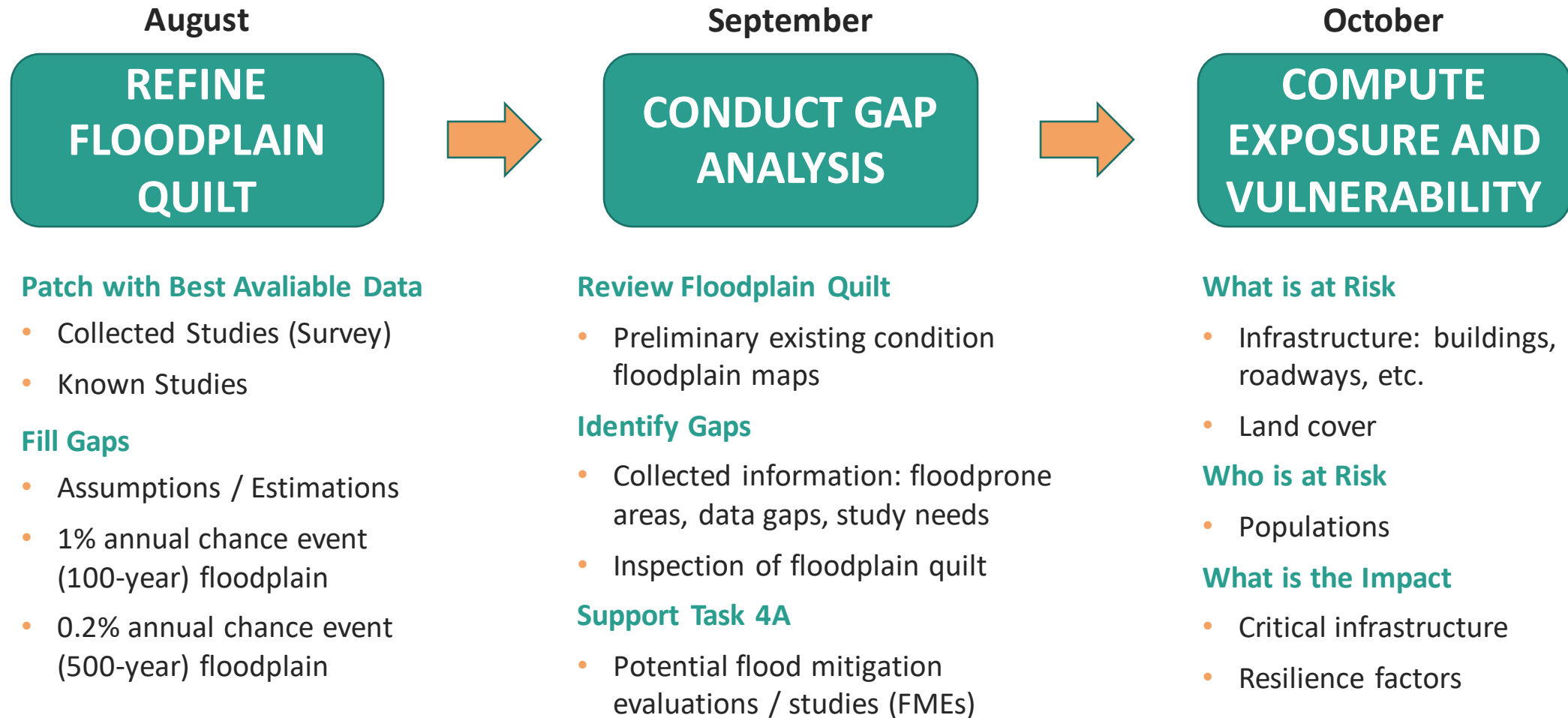
TWDB Floodplain Quilt

1. National Flood Hazard Layer
 - Pending & Preliminary Data
 - Effective Data for Detailed Study Areas (Zone AE, AO, AH, and VE)
2. Base Level Engineering
3. National Flood Hazard Layer
 - Effective Data for Approximate Study Areas (Zone A and V)
4. First American Flood Data Services
5. Fathom (*once available*)



TASK 2A – EXISTING CONDITION FLOOD RISK

Approach



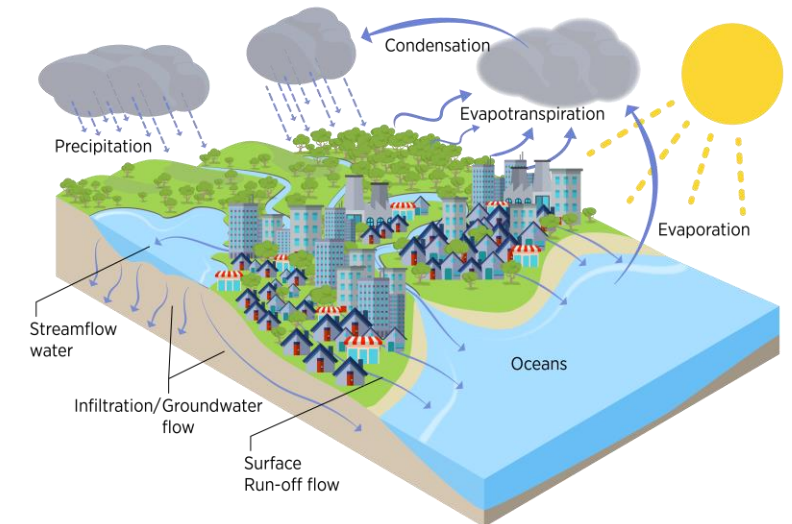
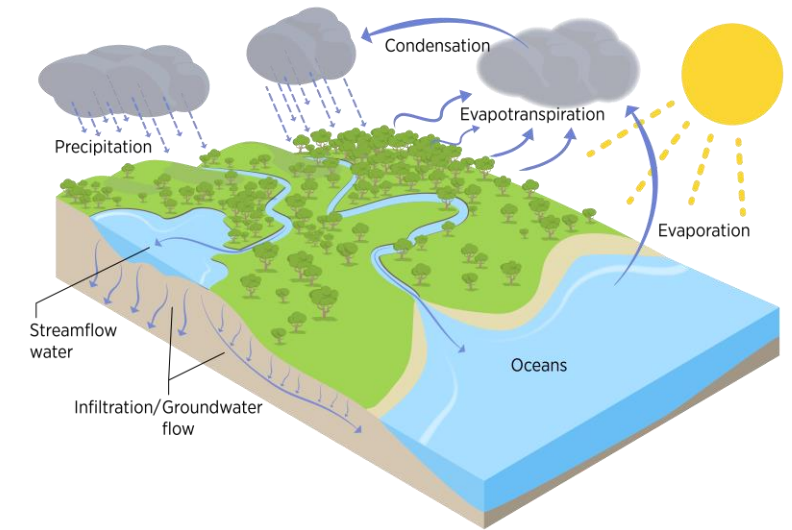
TASK 2B – FUTURE CONDITION FLOOD RISK

Scope of Work

Future Condition

“no-action” scenario for ~30 years

- Continued population growth
- Continued development increase
- Current floodplain management regulations/policy
- Anticipated climate change
- Anticipated land changes
- Completion of flood mitigation projects by 2050

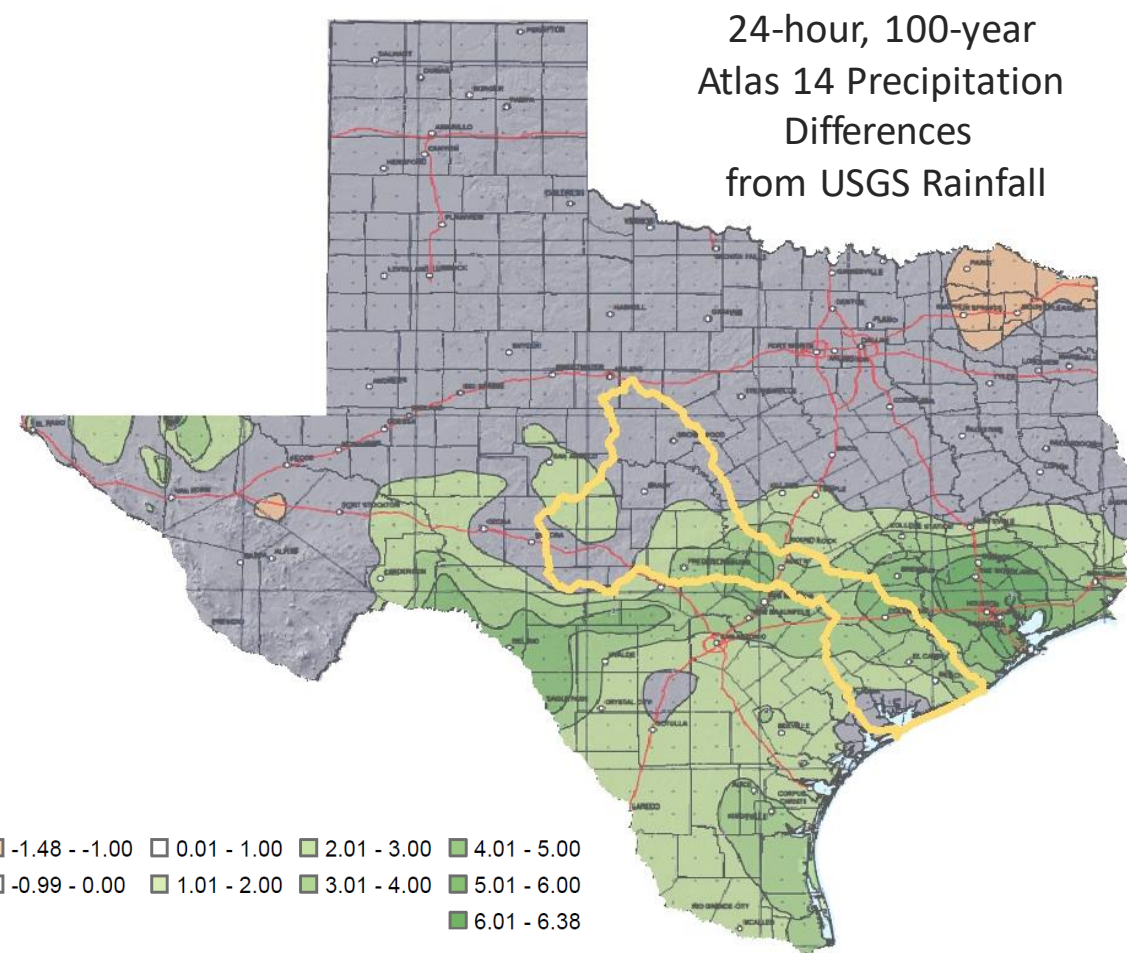


TASK 2B – FUTURE CONDITION FLOOD RISK

Scope of Work

Assumptions & Estimation Options (per TWDB guidance)

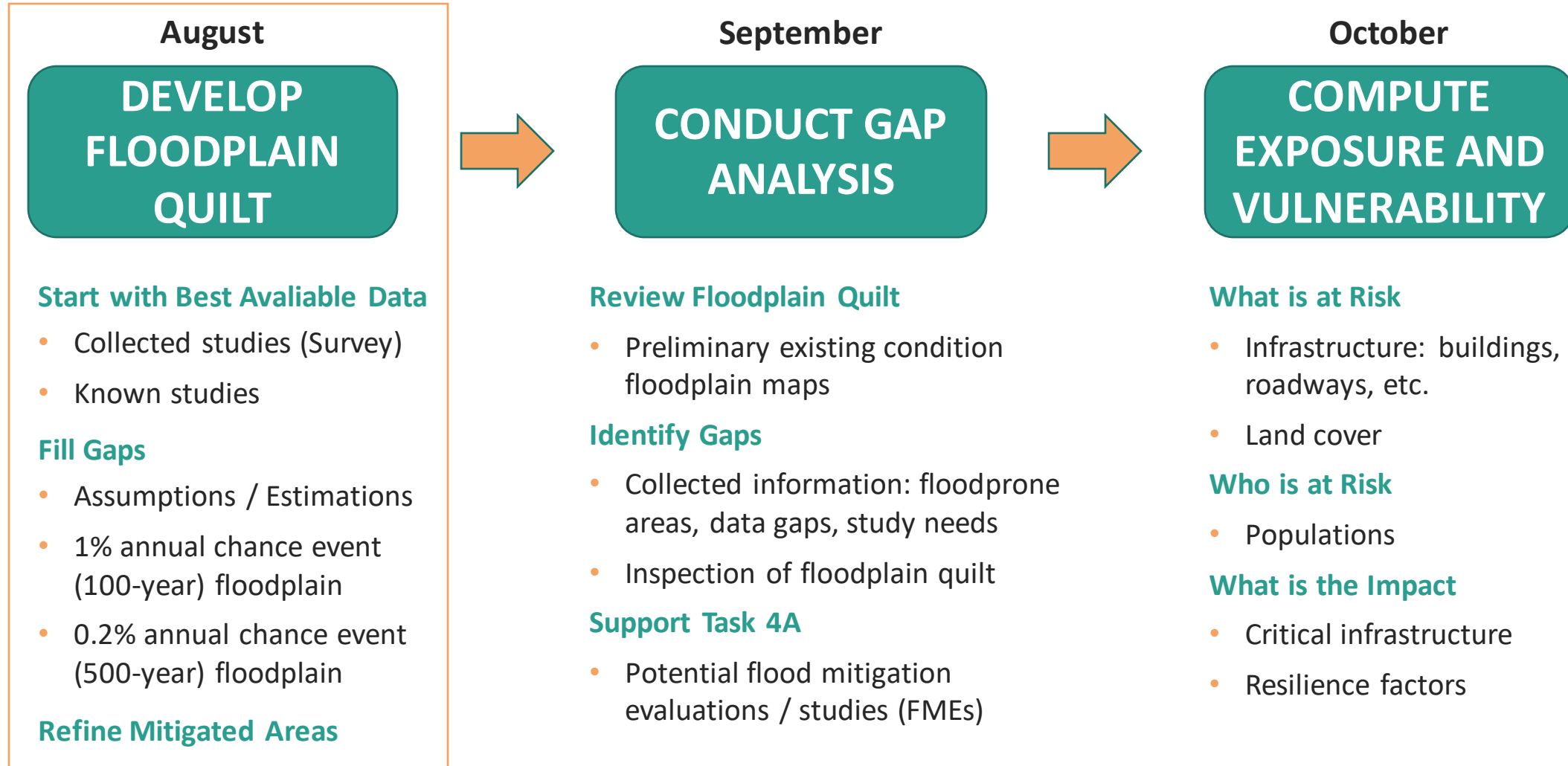
1. Increase based on population/development growth
 - Freeboard: water surface elevation increase
 - Floodplain buffer: floodplain width increase
2. Utilize existing condition 0.2% annual chance event (500-year) floodplain
3. Combination of above assumptions




Source: NOAA Atlas 14

TASK 2B – FUTURE CONDITION FLOOD RISK

Approach





Task 3B

Floodplain Management Goals

TWDB REQUIREMENTS FOR GOAL SETTING

Matt Bucchin – HALFF



**Specific &
Achievable**



**Short-term (10 yrs)
&/or
Long-term (30 yrs)**



**Residual
Risk**

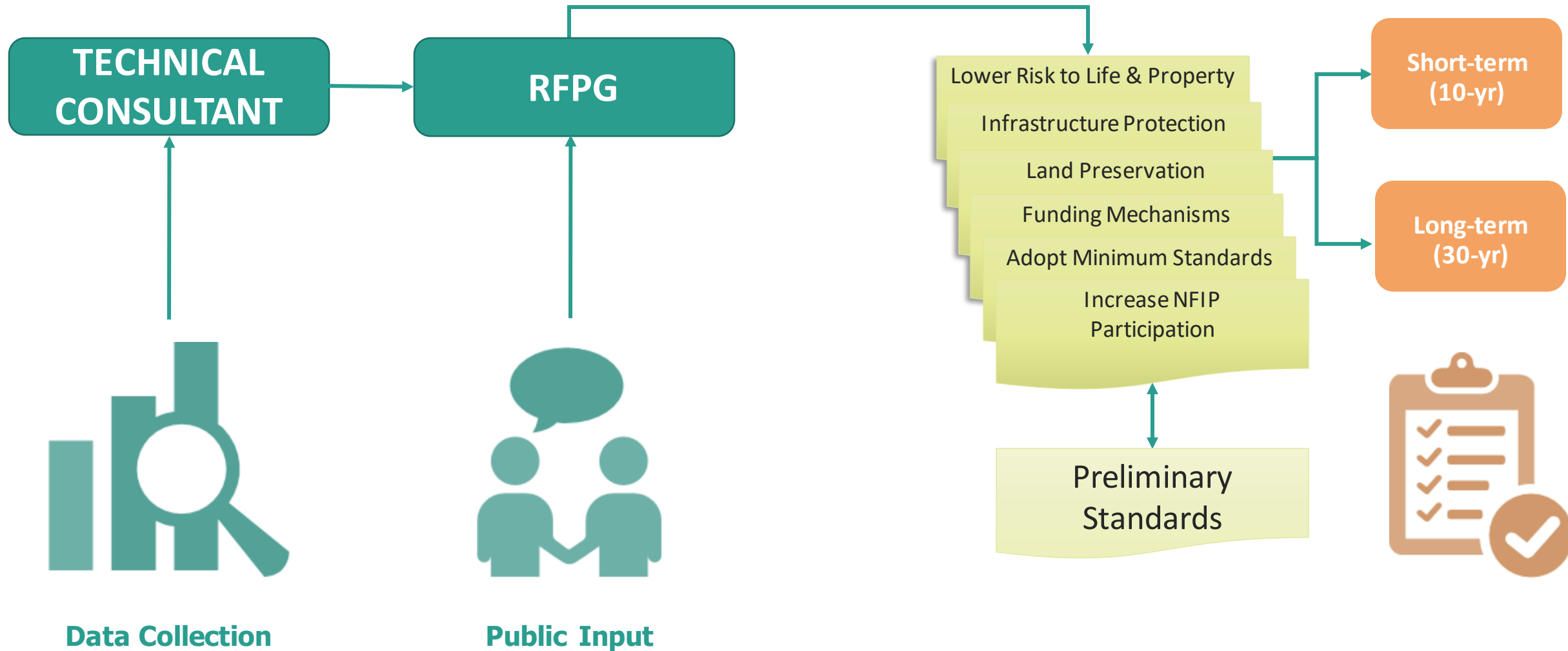


**Recommended
or
Required**



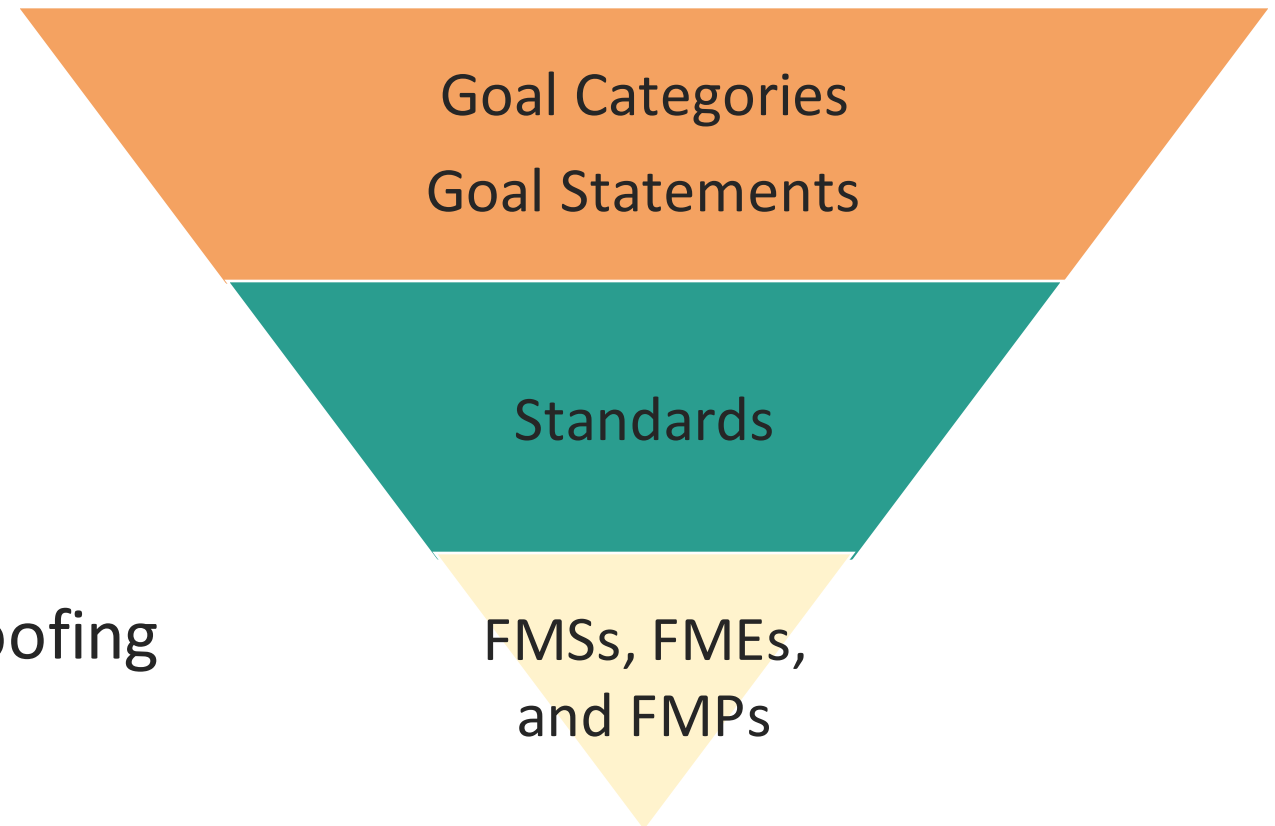
**Regionwide
or Subregional**

GOAL SETTING PROCESS



PROPOSED OVERARCHING GOAL CATEGORIES

- Education and Outreach
- Flood Warning and Readiness
- Flood Studies and Analysis
- Flood Prevention
- Property Acquisition
- Structure Elevation and Floodproofing
- Flood Infrastructure Projects



GOAL CATEGORIES AND BENEFITS

Goal Categories/ Benefits	Education and Outreach	Flood Warning and Readiness	Flood Studies and Analysis	Flood Prevention	Property Acquisition	Structure Elevation and Floodproofing	Flood Infrastructure Projects
Protect life	●	●	●	●	●	●	●
Protect infrastructure		●	●	●	●	●	●
Protect property		●	●	●	●	●	●
Protect the environment			●	●	●		●
Protect/enhance water supply				●	●	●	●
Sustain the economy		●		●		●	●
Realize multiple benefits*				●	●		●
Increase public awareness	●	●	●	●	●		
Build community support	●	●	●	●			
● - Potential benefit ● – Benefit * multiple benefits could include improved floodplain protection while improving water supply, increasing public recreation opportunities, etc.							

EXAMPLE GOAL CATEGORY – EDUCATION AND OUTREACH

Example Goal Statements	Short Term (2033)	Long Term (2053)
Increase the number of public stakeholder participants in the regional flood planning process by X percent per each cycle.	TBD%	TBD%
Increase the number of community stakeholder entities participating in the regional flood planning process by X percent per each cycle.	TBD%	TBD%
Increase the number of public outreach and education activities to improve awareness of flood hazards and benefits of flood planning in the flood planning region by X percent.	TBD%	TBD%

EXAMPLE GOAL CATEGORY – FLOOD INFRASTRUCTURE PROJECTS

Example Goal Statements	Short Term (2033)	Long Term (2053)
Reduce the number of vulnerable critical facilities located within the existing and future 1% annual chance event floodplain by X .	TBD	TBD
Reduce the number of vulnerable lane miles located within the existing and future 1% annual chance event floodplain by X .	TBD	TBD
Reduce the number of low water crossings located within the existing and future 1% annual chance event floodplain by X .	TBD	TBD

POST MEETING ASSIGNMENT

Goal Categories

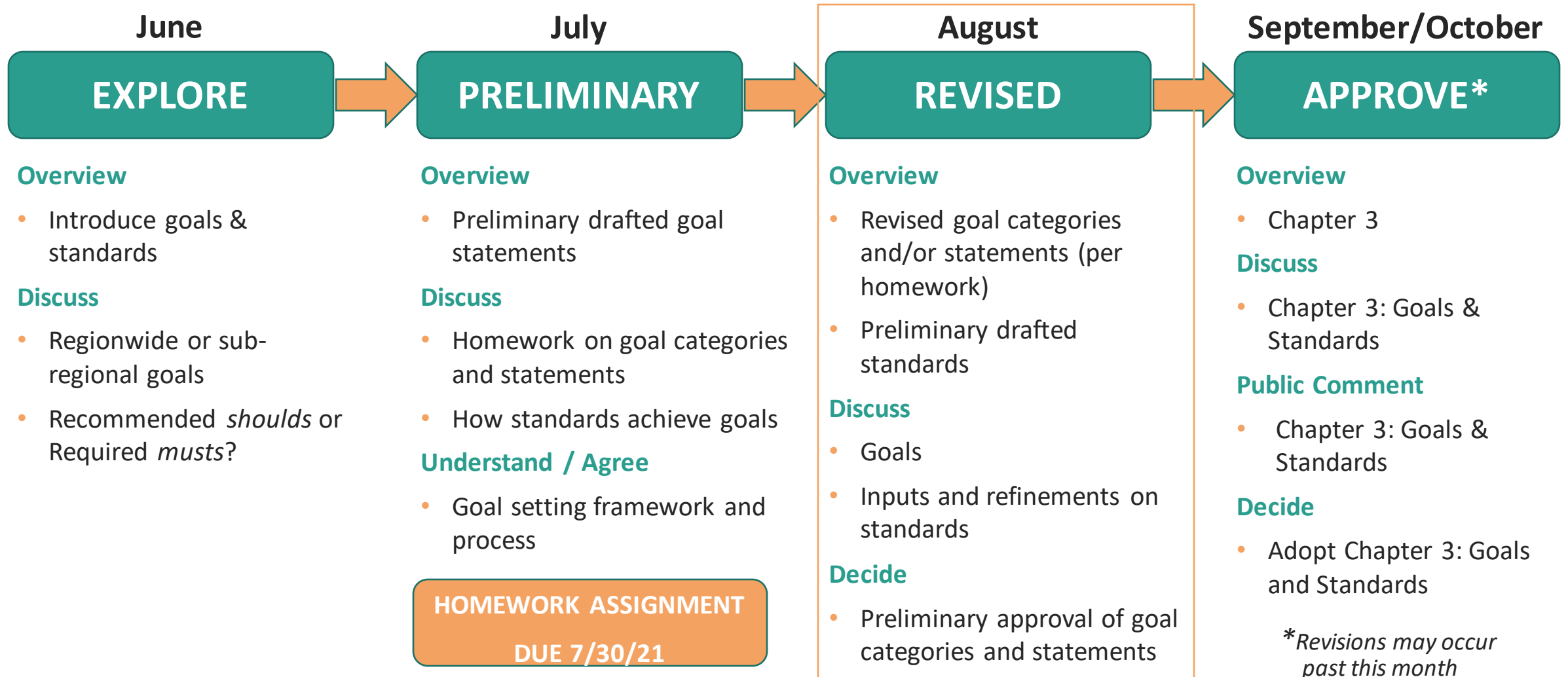
- Education and Outreach
- Flood Warning and Readiness
- Flood Studies and Analysis
- Flood Prevention
- Property Acquisition
- Structure Elevation and Floodproofing
- Flood Infrastructure Projects

(Statements for each to come.)

Homework

- Are these the right goal categories and statements?
- Are there any which should be added? Removed?
- Could they be worded better, differently?
- Thoughts on regionwide or subregional applicability
- Thoughts on short- and long-term target metrics
- Other input?

TASK 3 – DEVELOPMENT OF FLOODPLAIN MITIGATION AND MANAGEMENT GOALS & STANDARDS





Tasks 4A/B and 5

Potential FMEs, FMSs and FMPs

TASK 4 – NEEDS AND POTENTIAL FMEs, FMSs AND FMPs

Mike Personett – HALFF



Task 4A – Flood Mitigation Needs Analysis

- Identify areas most prone to flooding that threaten life and property
- Identify locations with the greatest flood mitigation and flood risk **Study** needs (FME)
- Locations where potentially feasible **Strategies** (FMS) and **Projects** (FMP) must be identified and evaluated

TASK 4B – IDENTIFY & EVALUATE FME, FMS, FMP

Mike Personett – HALFF

Task 4B – Evaluation of Potential Studies, Strategies, Projects

- Must relate to goals
- Define process to identify and select (requires public input)
 - **Studies** (FME) – areas that lack sufficient information or resources
 - **Strategies** (FMS) and/or **Projects** (FMP) – at least one solution for flood risk reduction for the 1% annual chance event (100-year) flood
- Screening level evaluation
- Strategies and Projects deemed infeasible may be set aside

TASK 4B – OVERVIEW OF STUDIES, STRATEGIES & PROJECTS

FLOOD MANAGEMENT STRATEGIES (FMS)

- Infrastructure Projects
- Property/Easement Acquisition
- Elevation of Structures
- Education and Outreach
- Flood Warning and Measurement
- Regulatory and Guidance

FLOOD MANAGEMENT EVALUATIONS (FME)

Studies

Flood
Preparedness
Study

Modeling and
Mapping /
Risk
Identification

Risk Reduction Analysis

Alternatives
Analysis /
Feasibility
Assessment

Preliminary
Engineering
(30% design)

FLOOD MITIGATION PROJECTS (FMP)

Structural Infrastructure

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

Non-Structural

Project Implementation

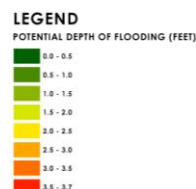
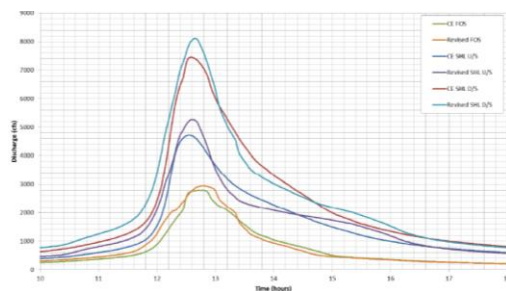
- Property/Easement acquisition
- Elevation of structures
- Floodproofing
- Flood readiness and resilience
- Flood warning, Gauges
- Regulatory Requirements

TASK 4A – FLOOD MITIGATION NEEDS ANALYSIS

Approach

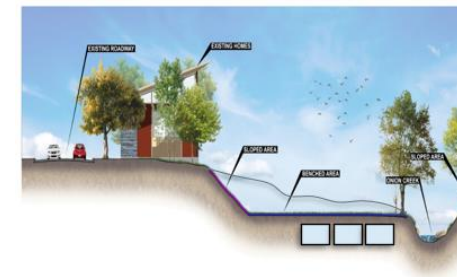
Study Needs

- Initial FMEs for Studies
 - Areas lacking sufficient models and accurate maps
 - Modeling and Mapping / Risk Identification FMEs
 - Areas lacking sufficient resilience measures
 - Flood Preparedness FMEs



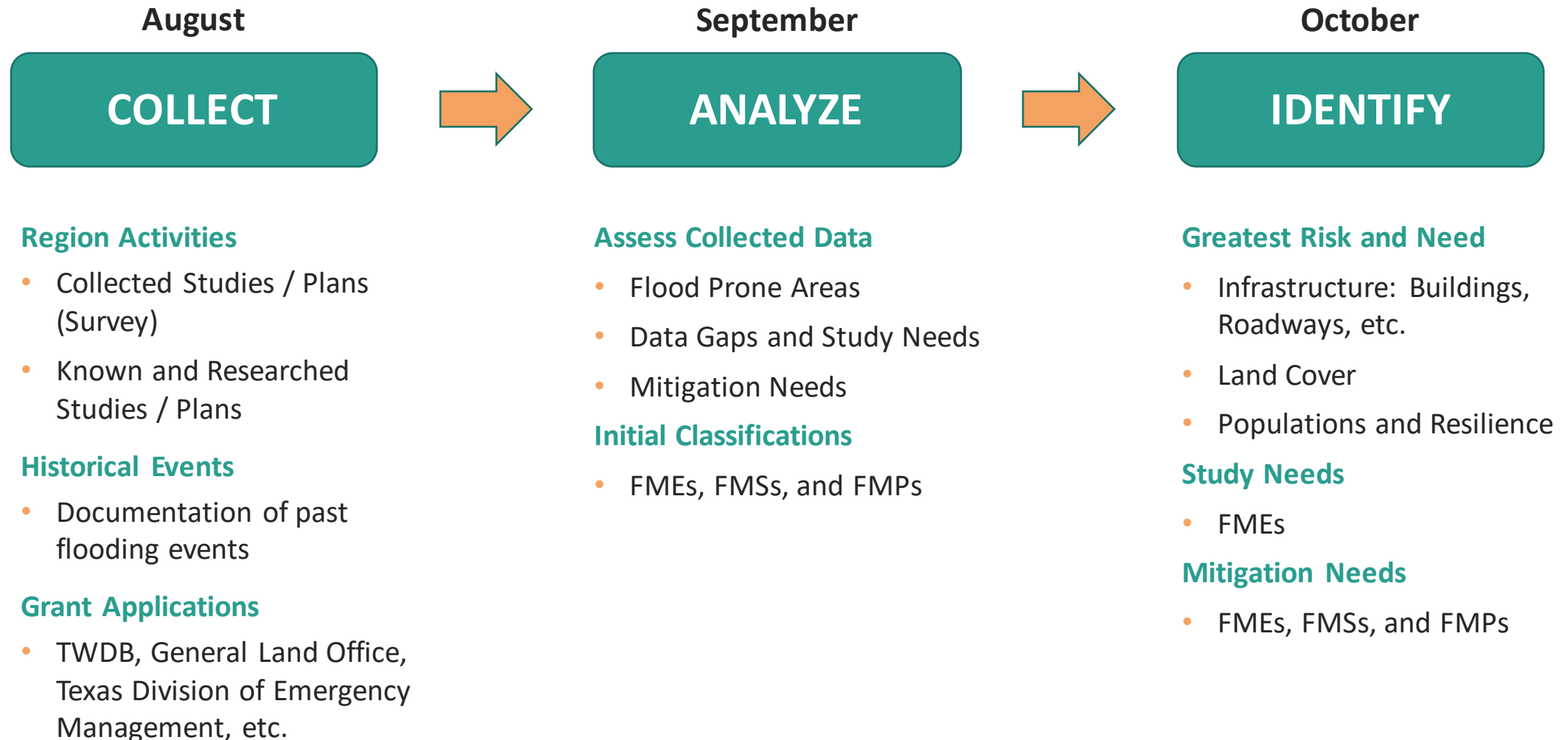
Flood Mitigation Needs

- Initial FMEs for Risk Reduction
 - Areas of high risk / flood prone
 - Alternatives Analysis / Feasibility Assessment FMEs
 - Preliminary Engineering FMEs
- Initial FMSs for Risk Reduction
 - Community-wide or area specific flood management strategies
- Initial FMPs for Risk Reduction
 - Areas of high risk / flood prone
 - Structural FMPs
 - Non-Structural FMPs



TASK 4A – FLOOD MITIGATION NEEDS ANALYSIS

Approach



TASKS 4B AND 5 – POTENTIAL FMEs, FMSs AND FMPs

Cris Parker – HDR



FMP Definition:

- A proposed PROJECT, either structural or non-structural, that has nonzero capital costs or other non-recurring cost and when implemented will reduce flood risk, mitigate flood hazards to life or property.

*“The regional flood planning process will focus primarily on mitigation and may include preparedness with regard to **identifying and recommending FMPs by the RFPG.**”*



Four Phases of Emergency Management

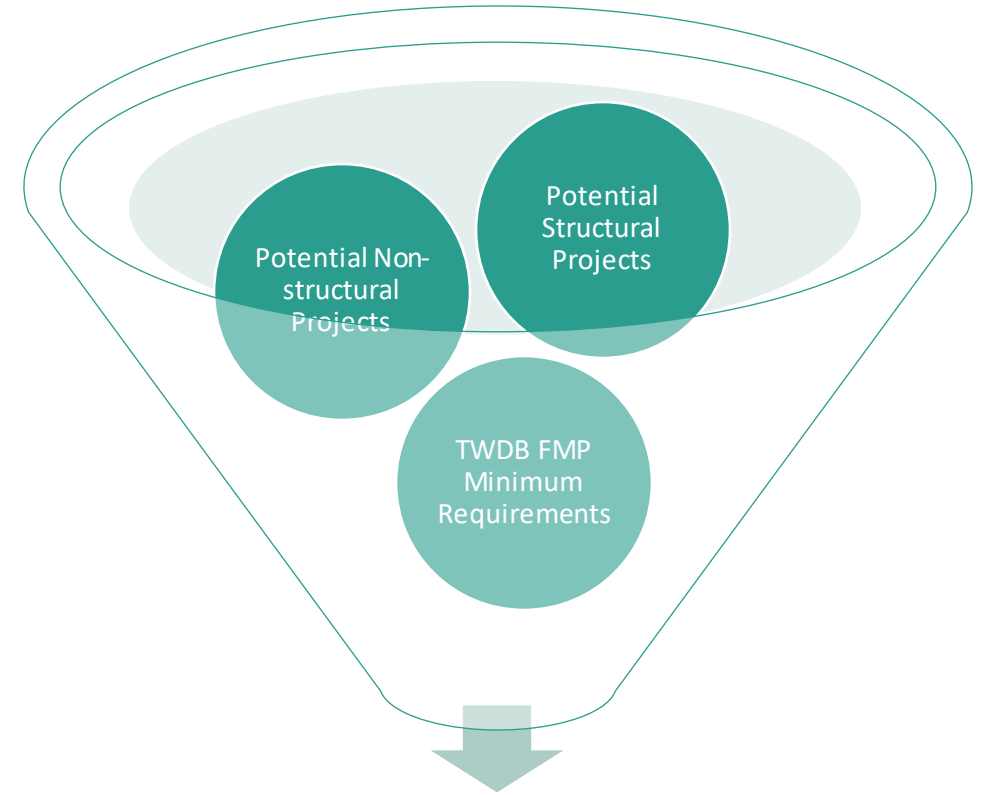
TASKS 4B AND 5 – POTENTIAL FMEs, FMSs AND FMPs

Task 4B Screening and Evaluation Approach

How does a potential Project get into the Plan?

Minimum Screening Requirements:

- Contributing drainage area ≥ 1 square mile, *except*:
 - Critical facilities or transportation routes
 - Other reasons determined by RFPG (level of risk, size...)
- Based on H&H modeling that meets TWDB guidelines
 - NOAA Atlas 14 rainfall data
- Meets No Negative Impact requirement
- Mitigates 1% annual chance event (100-year) flood
- Meets emergency need
- Flood risk reduction benefits quantified
- Adequate estimated capital cost data



FMPs for Task 5 – Final Evaluations

- Cost/Benefit Ratios
- Other Impacts/Benefits
- Residual Risk
- Implementation Issues

TASKS 4B AND 5 – POTENTIAL FMEs, FMSs AND FMPs

Flood Mitigation Project Types (FMP)

Structural Projects – building or modifying infrastructure to change flood characteristics to reduce flood risk

- Culvert/Bridge Improvements
- Channel Improvements
- Flood Detention
- Flood Walls / Levees
- Flood Diversion
- Storm Drain Improvements
- Coastal Protections
- Comprehensive Regional Project
- Nature-based Measures



TASKS 4B AND 5 – POTENTIAL FMEs, FMSs AND FMPs

Flood Mitigation Project Types (FMP)

Structural Projects:

Culvert / Bridge Improvements

- Riverine/creek flood risk reduction
- Low water crossing upgrades
 - Roadway creek crossings overtopped by 50% annual chance event (2-year) flood
- Part of larger riverine (channel widening) projects - enlarging culvert/bridge crossings



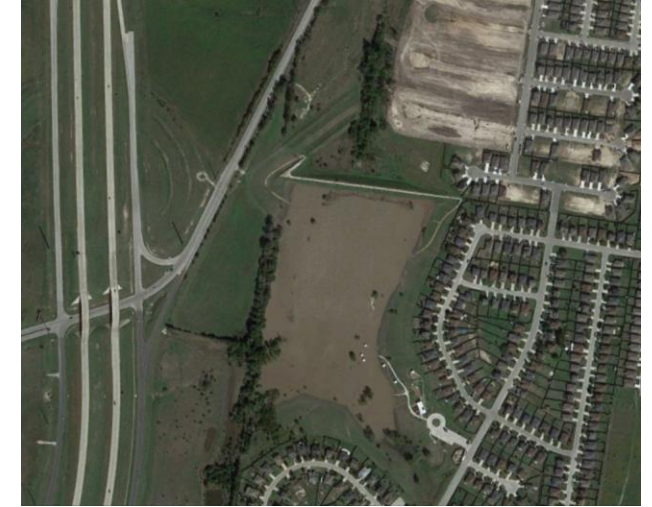
TASKS 4B AND 5 – POTENTIAL FMEs, FMSs AND FMPs

Flood Mitigation Project Types (FMP)

Structural Projects:

Flood Detention

- Regional in scale
 - Large flood control reservoirs
 - Regional flood detention ponds
- Flood benefit to large populations
- Flood benefit to agricultural areas (NRCS flood detention dams)
- Significant storage volume required to mitigate 1% annual chance event (100-year) flood
- Requires large tracts of land
- Can be difficult and costly in urbanized areas
- Long-term operation and maintenance (O&M) costs
- Can reduce flood risk, but can create dam safety risk
- Environmental considerations
- Can provide additional benefits – recreation, water supply, etc.



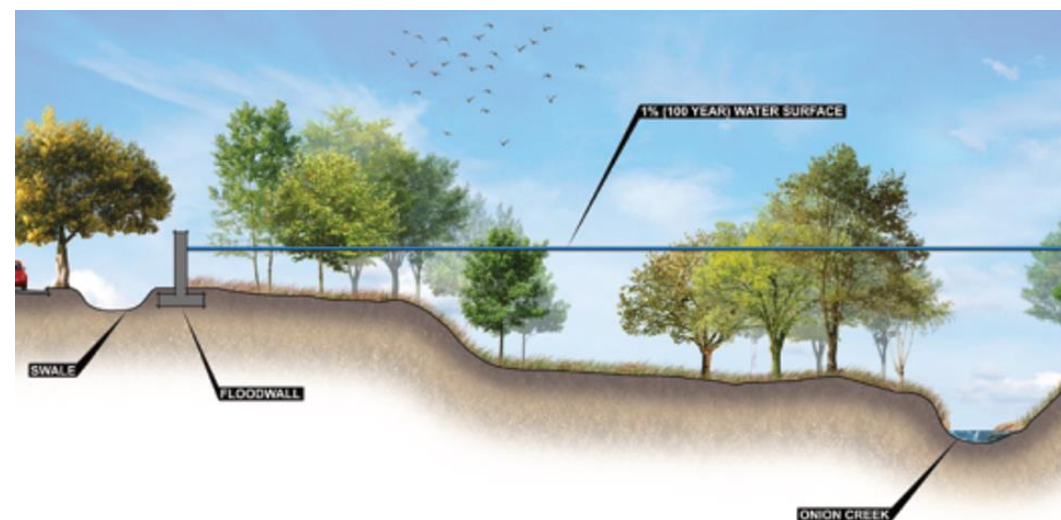
TASKS 4B AND 5 – POTENTIAL FMEs, FMSs AND FMPs

Flood Mitigation Project Types (FMP)

Structural Projects:

Levees / Floodwalls

- Riverine/creek flood risk reduction
- Flood benefit to large populations
- Can be difficult and costly in urbanized areas
 - Closures at road and rail crossings
 - Interior drainage / stormwater pumps
- Requires significant land acquisition
- Long-term O&M – FEMA certification
- Upstream/downstream impact considerations
- Can reduce flood risk, but can create levee safety risk
- Environmental considerations
- More common along rivers near coastal areas



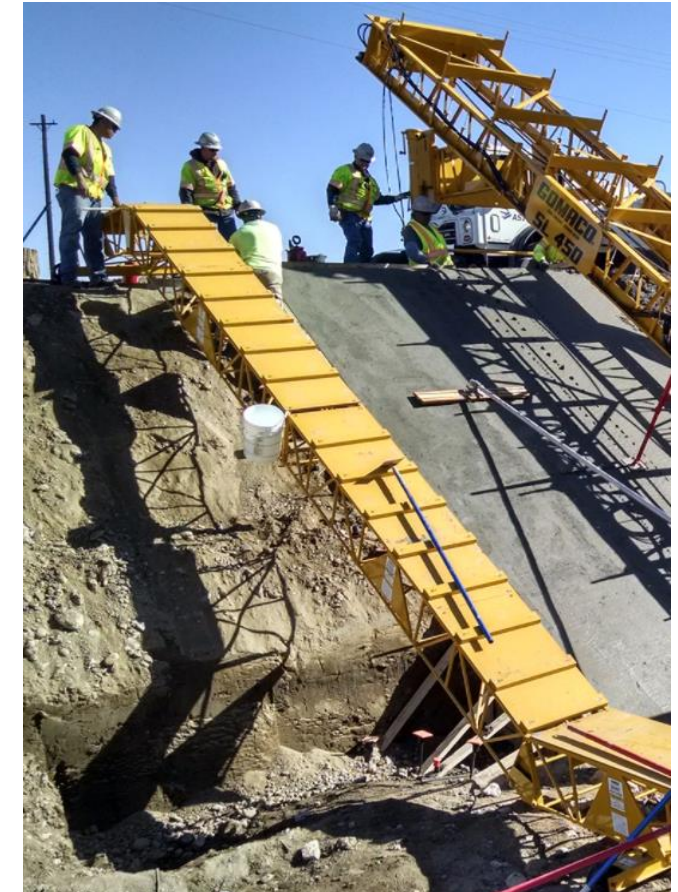
TASKS 4B AND 5 – POTENTIAL FMEs, FMSs AND FMPs

Flood Mitigation Project Types (FMP)

Structural Projects:

Coastal Structural Protection Projects

- Regional coastal storm surge flood risk reduction
- Flooding from combined riverine and coastal effects
- Coastal levees /dikes
- Seawall / floodwall
- Beach erosion countermeasures



TASKS 4B AND 5 – POTENTIAL FMEs, FMSs AND FMPs

Flood Mitigation Project Types (FMP)

Structural Projects:

Comprehensive / Combined Projects

- Most projects will be comprehensive regional projects
- Encouraged to include “nature-based” measures

Structural Projects:

Nature-based Measures

- Generally, provides minimal flood risk reduction to 1% annual chance event (100-year) flood
- Improve stormwater quality
- Improve ecological function uplift
- Reduce riverine/coastal erosion risk



TASKS 4B AND 5 – POTENTIAL FMEs, FMSs AND FMPs

Flood Mitigation Project Types (FMP)

Non-structural – actions that change the way people interact with flood risk and move people out of harm's way

Regulation Changes

Create/Improve Local Regulatory Requirements for Reduction of Flood Risk

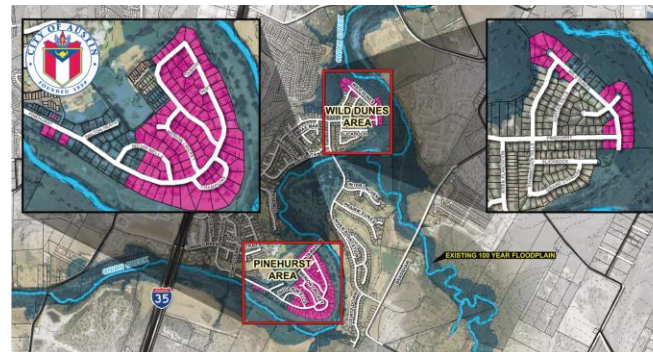
- Identifying flood hazard areas and regulate to keep people out of them
- Low capital cost compared to structural FMPs



Property Acquisition

“Floodplain Buyouts”

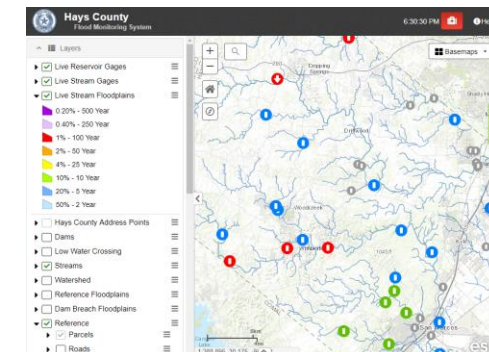
- Eliminates flood risk, no residual risk
- Costly up front, but no long-term operations and maintenance (O&M) costs



Flood Warning, Gauges

Flood Early Warning Systems, including stream gauges and monitoring stations

- Temporary floodplain evacuation to save lives
- Does not save property
- Low capital cost compared to structural FMPs



TASKS 4B AND 5 – POTENTIAL FMEs, FMSs AND FMPs

Flood Mitigation Project Types (FMP)

Non-Structural Projects:

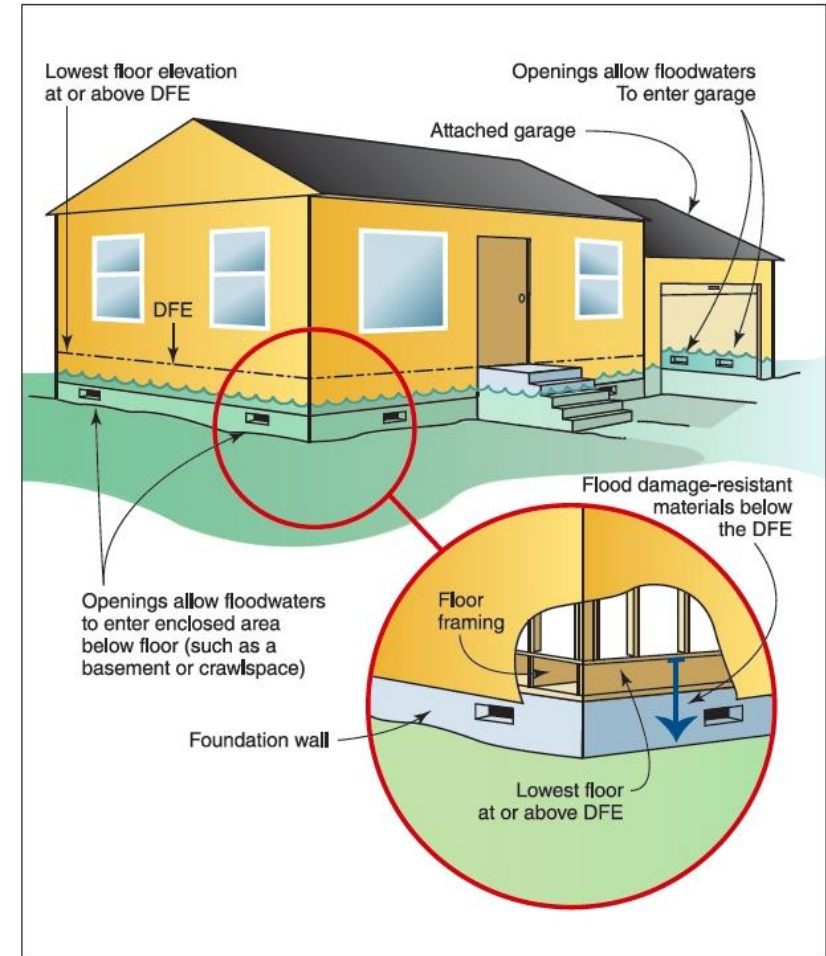
Floodproofing

- Difficult for public entities to implement on private property
- Create funding for property owners to implement

Non-Structural Projects:

Flood Readiness and Resilience

- Projects aimed at improving flood preparedness and response
- Flood emergency response/action plans
- Evacuation plans

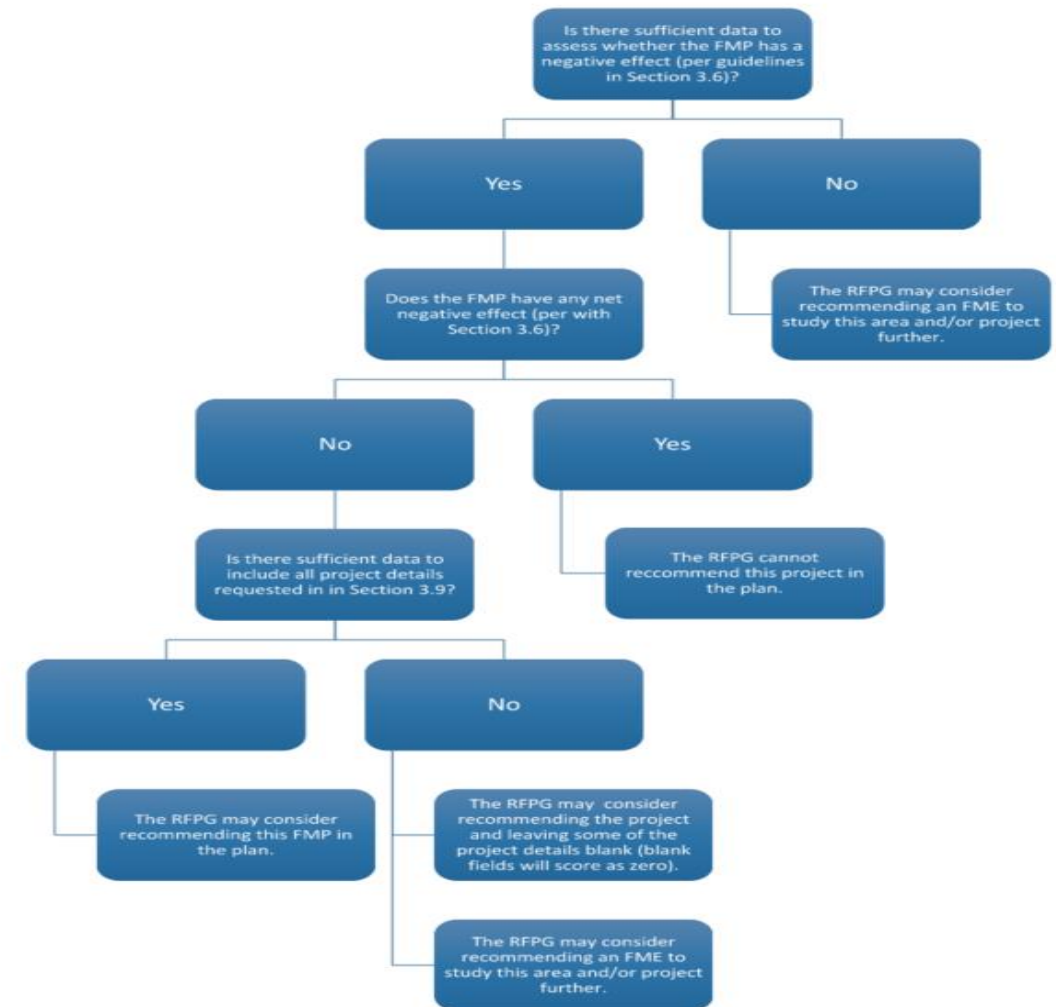



Wet floodproofing strategies, including openings that allow floodwaters to enter the basement. Graphic: FEMA

TASK 4 – PROCESS FOR SELECTION & EVALUATION OF STUDIES, STRATEGIES, AND PROJECTS

Figure 5: FMP flowchart

- Define decision process
- Include evaluation criteria:
 - Applicability and technical feasibility
 - Effectiveness
 - Cost
 - Benefits
 - No adverse flood impacts
 - Potential impacts and/or benefits to environment, agriculture, recreational resources, navigation, water quality, erosion, sedimentation
- Receive public comment on the proposed process
- Document the RFPG evaluation and selection process





Task 8

Administrative, Regulatory and Legislative Recommendations

TASK 8 – POLICY RECOMMENDATIONS

Mike Personett – HALFF



Administrative, Regulatory and Legislative Recommendations:

- Considered necessary to facilitate floodplain management and flood mitigation planning and implementation
- Needed and desirable to achieve its regional flood mitigation and floodplain management goals
- Potential new revenue-raising opportunities (e.g., municipal drainage utilities, regional flood authorities)

Proposed Process:

- Brainstorm to identify issues and topics of interest
- Solicit public and stakeholder input
- Develop policy issue “briefs”
- Consider and adopt recommendations (late spring 2022)

TASK 8 – POLICY RECOMMENDATIONS

Mike Personett – HALFF

Example Issues and Topics:

- Administrative:
 - Regional flood planning process improvements
- Regulatory:
 - City and county regulatory authority re: regulation of land use and development in floodplains
- Legislative:
 - Recurring appropriations to the Flood Infrastructure Fund for Study, Strategy and Project implementation
 - State incentives for establishment of municipal drainage utilities



Look-Ahead Calendar

August 2021

AUGUST 2021

RFPG Meeting

- Task 1 – Planning Area Description: Present and discuss preliminary draft Chapter 1
- Task 3A – Floodplain Management Practices: Present and discuss preliminary results
- Task 3B – Floodplain Management Goals: Review draft goal statements
- Present and discuss proposed process to identify and select Studies (FME), Strategies (FMS), and Projects (FMP)



Wrap Up

Region 10 Lower Colorado-Lavaca RFPG

9. Public comments– limit 3 minutes per person

10. Consider date and agenda items for next meeting

11. Adjourn