

# Update from Consultant Team

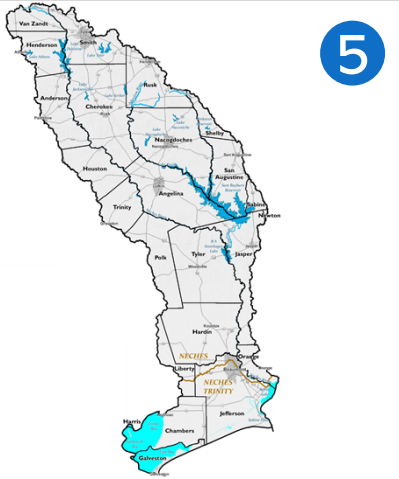
Neches Regional Flood Planning Group

August 12, 2021

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## RFP Updates

- Task 1 – Planning Area Description
- Task 2A – Existing Flood Risk
- Task 3A – Evaluation and Recommendations on Floodplain Management Practices
- Task 3B – Flood Mitigation and Floodplain Management Goals
- Task 4A – Flood Mitigation Needs Analysis
- Task 4B – Identification and Evaluation of FMEs, FMPs, and FMSs
- Schedule Update



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## Task 1 – Planning Area Description

Goals:

Describe Region

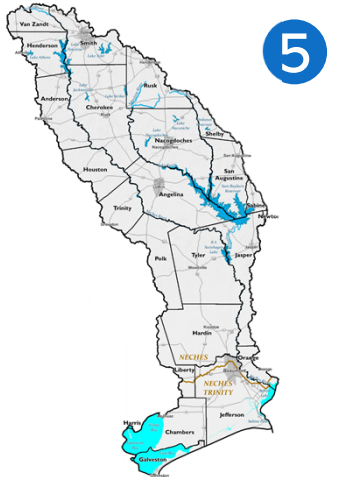
Inventory and Assess Existing Infrastructure

Funded or Ongoing Flood Mitigation Projects

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## Task 1 – Region Description

- **24** counties
- **11,452** square miles (10<sup>th</sup>)
- **9,673** stream miles (8<sup>th</sup>)
- **918,370** 2019 population estimate (8<sup>th</sup>)
- Major Cities (population > 25,000)
  - Beaumont, Port Arthur, Lufkin, Nacogdoches, Tyler
- **\$1,908,581,588** in National Flood Insurance Program (NFIP) claims between 1975-2019 (2<sup>nd</sup>)

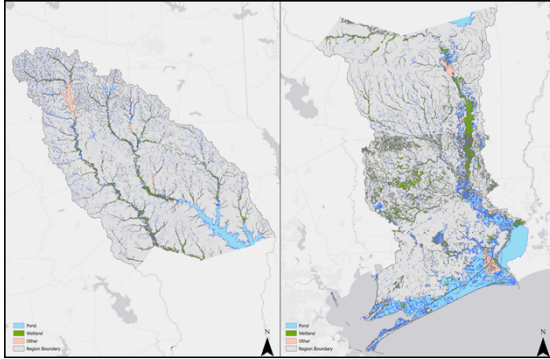


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## Task 1 - Inventory

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- 338 dams
- 186 low water crossings
- 667 rivers, creeks, and other water channels
- 1.5 Million+ acres of wetlands
- 58,000+ ponds/playas
- 304 reservoirs



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## Task 1 – Data Collection Update

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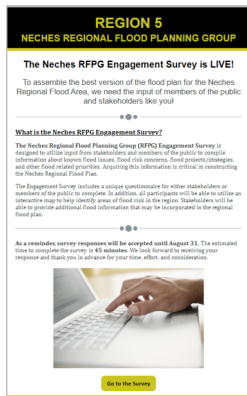
- Went Live on August 3, 2021
- Public Survey
  - Reduced from 15 to 5 questions
  - Requesting Top 3 Priorities for the establishment of goals
    - Implement protective standards & policies
    - Identify/Communicate flood risk
    - Reduce structures in 100-yr & 500-yr floodplain
    - Restore failing/aging infrastructure
    - Implement flood warning & response mechanisms
    - Provide or enhance inter-jurisdictional cooperation
- Stakeholder Survey
  - Will begin outreach August 16, 20201



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## Task 1 – Data Collection Update

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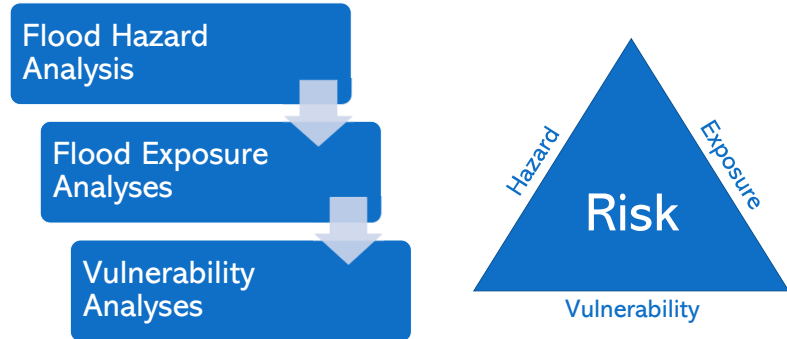


- How can you help?
- Fill out the survey
  - Reach out to your contacts
  - Post on social media and websites

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## Task 2A – Existing Condition Flood Risk

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## Task 2A - Existing Flood Hazard Analysis 5



Existing  
Flood  
Risk

Agencies

- Floodplain Quilt
- Fathom Data

Stakeholders

- Historic Flooding
- Previous Studies

Public

- Webmap Data
- Public Meeting per TWC 16.062(d)

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## Quilt Data Hierarchy 5

NFHL  
Pending

↓

NFHL  
Preliminary

↓

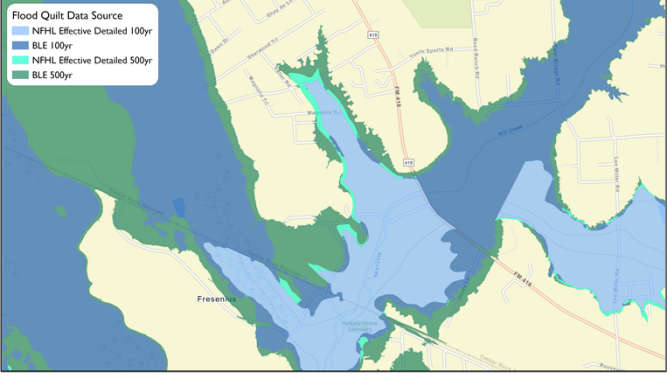
NFHL  
Detailed

↓

BLE

↓

NFHL  
Approximate



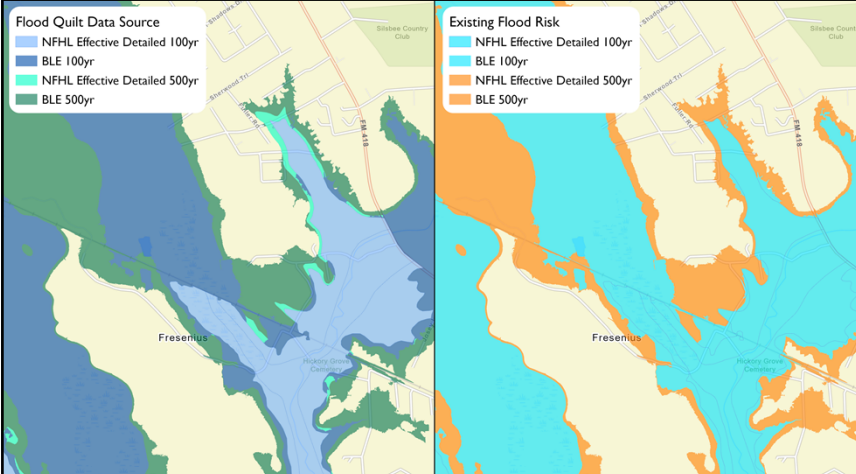
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**Flood Quilt Data Source**

- NFHL Effective Detailed 100yr
- BLE 100yr
- NFHL Effective Detailed 500yr
- BLE 500yr

**Existing Flood Risk**

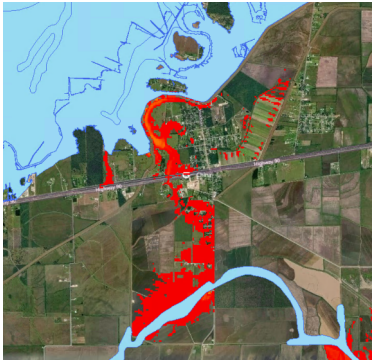
- NFHL Effective Detailed 100yr
- BLE 100yr
- NFHL Effective Detailed 500yr
- BLE 500yr



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## Task 2A – Draft Cursory Floodplain (Fathom) 5

- Released July 14, 2021
- Fluvial and Pluvial Mapping
- Flood risk coverage developed from largely nationwide 2D hydrodynamic model
- Course floodplain
  - 30m x 30m raster dataset
- Potential to supplement areas of known gaps



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## Task 2A – Flood Hazard Map Public Meeting 5

Tentative Dates

- Upper Neches
  - September 8
  - Possible Locations: Tyler, Lufkin, Nacogdoches
- Lower Neches
  - October 13
  - Possible Locations: Beaumont

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## Task 3A & 3B Overview 5

**Minimum Standards**

- Identify and reduce risk of impact to life and property

**Goals**

- Define overarching flood mitigation and floodplain management goals

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## Task 3A – Floodplain Management Practices 5

**Evaluate**

**Consider**

**Recommend/Adopt**

**Present Level of Study**

*NFIP Minimum Standards*

**Elevate**

**Maximize**

**Non-Flood-Focused Counties**

**Flood-Focused Counties**

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## Task 3A – Data Collection & Evaluate 5

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

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## Task 3A - Evaluate 5

- 70 NFIP participants currently identified
  - 22 have adopted Higher Standards
  - 26 have not adopted Higher Standards
  - 22 lack data on Higher Standards

Category	Percentage
Higher Standards Adopted	31.4%
Higher Standards Not Adopted	37.1%
Unknown	31.4%

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## Task 3A - Analysis 5

```

    graph LR
      A[Existing & Future Conditions] --> B[Identify Gaps]
      B --> C[Minimum Standards Discussion]
      D[Identify cities with disparities in floodplain management practices.]
      E[How do standards, level of enforcement, NFIP/ CRS participation, and overall FP management relate to existing and future flood risk?]
      F[RFGP will choose to adopt or recommend standards based on input from the Technical Committee and Consultant.]
      A --- E
      B --- D
      C --- F
    
```

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## Task 3A - Recommend or Adopt 5

- Recommend
  - No pre-requisite
  - All FMEs, FMSs, and FMPs can be considered in the RFP
- Adopt
  - Must meet adopted minimum **BEFORE** FME, FMS, or FMP can be included in the RFP
- RFGPs do not have the authority to enact or enforce floodplain management, land use, or other infrastructure design standards

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## Task 3A - Schedule 5


```

    timeline
      title Task 3A - Schedule
      Introduce 3A[Today]
      Inform[Continue discussion for the remainder of 2021]
      Solicit Input[Technical Committee to discuss feedback from RFGP members (early 2022)]
      DiscussWorkshop[Discuss & Workshop: Use live survey during RFGP meeting (early 2022); Technical Committee to discuss (early 2022)]
      Adopt[Vote on standards at RFGP meeting (2022)]
    
```


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### Task 3B – Flood Mitigation and Floodplain Management Goals 5


- “Protect against loss of life and property”
- When possible, goals should apply to the full flood planning region
- RFPG’s overarching flood mitigation and floodplain management goals




**Specific & Achievable**




**Reduce Residual Risk**



**Recommended or Required**



**Short Term (10 year) & Long Term (30 year)**



**Regionwide or Subregional**

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### Task 3B – Goal Considerations 5

Mitigate Existing	<p style="text-align: center;"><b>Loss of Life</b></p> <ul style="list-style-type: none"> <li>• Reduce / eliminate flood related fatalities</li> <li>• Reduce / eliminate flood related injuries</li> <li>• Reduce / eliminate Low Water Crossings</li> <li>• Percent of Low Water Crossings with warning systems</li> </ul>	<p style="text-align: center;"><b>Property Damage (Existing Structures)</b></p> <ul style="list-style-type: none"> <li>• Remove from 100-year floodplain</li> <li>• Remove Critical Structures from 500-year floodplain</li> <li>• Increase coverage of detailed flood hazard data</li> <li>• Number of mitigated structures (acquired, elevated, flood proofed)</li> </ul>
Prevent Future	<p style="text-align: center;"><b>Floodplain Management</b></p> <ul style="list-style-type: none"> <li>• Percent participating in NFIP</li> <li>• Percent adopted higher standards</li> <li>• Number participating in Community Rating System</li> <li>• Percent regulating future conditions floodplains</li> </ul>	<p style="text-align: center;"><b>Funding</b></p> <ul style="list-style-type: none"> <li>• Percent of region’s population with a dedicated storm water utility fee or drainage district</li> <li>• Percent with a documented, operational, and fully funded stormwater asset management plan and system</li> </ul>


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### Task 3B – Feedback on Draft Goals 5

Technical Committee and Consultant send email requesting feedback on goals



RFPG members distribute example goals (to those with representative interest) and provide feedback to Technical Committee



Technical Committee and Consultant to discuss feedback and prepare draft goals for RFPG meeting live Mentimeter discussion

Example Goals provided by TWDB\*

Short Term (10 year)	Long Term (30 year)
Reduce 5-year moving average of flood-related fatalities in the flood planning region by 50% by 2033.	Eliminate the occurrence of all flood-related fatalities in the flood planning region by 2053.
Remove 50% of the existing structures from 1% annual chance floodplain in the region by 2033.	Remove 95% of the existing structures from 1% annual chance floodplain in the region by 2053.
By 2033, 25% of all communities have adopted higher than NFIP-minimum standards.	By 2053, 50% of all communities have adopted higher than NFIP-minimum standards.

\*From TWDB Technical Guidance Exhibit C Table 10

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### Task 3B – Schedule 5

**Introduce 3B**

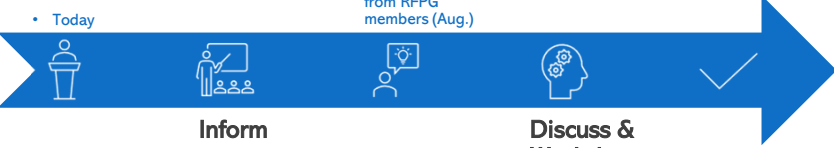
- Today

**Solicit Input**

- Technical Committee to discuss feedback from RFPG members (Aug.)

**Adopt**

- Vote on goals at Oct. RFPG meeting



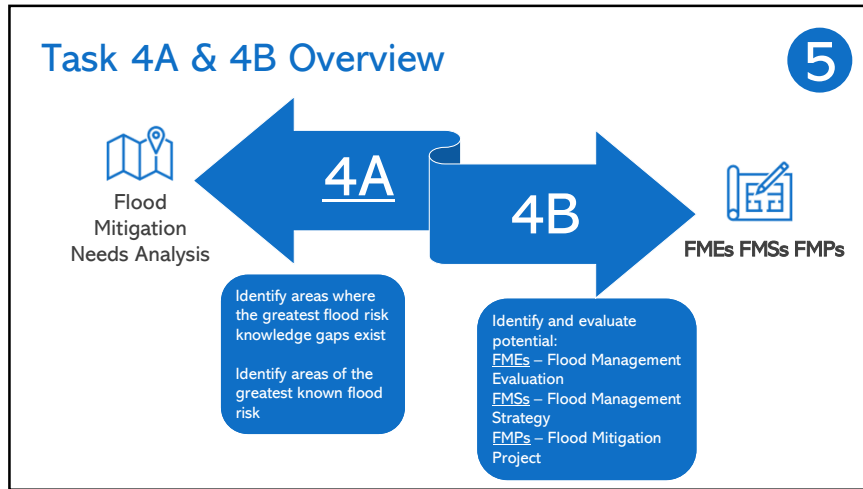
**Inform**

- Prelim. Draft goals sent to RFPG members after Aug. 12 RFPG meeting

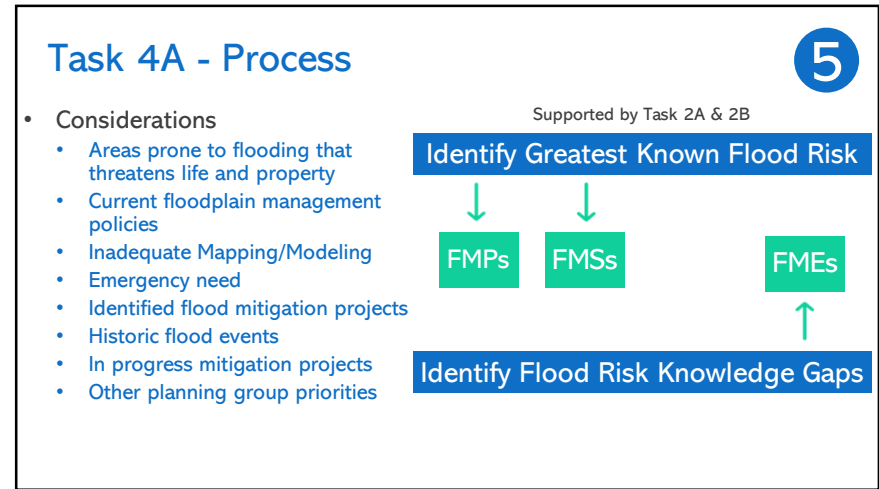
**Discuss & Workshop**

- Use live survey during Sep. RFPG meeting
- Technical Committee to discuss (Sep.)

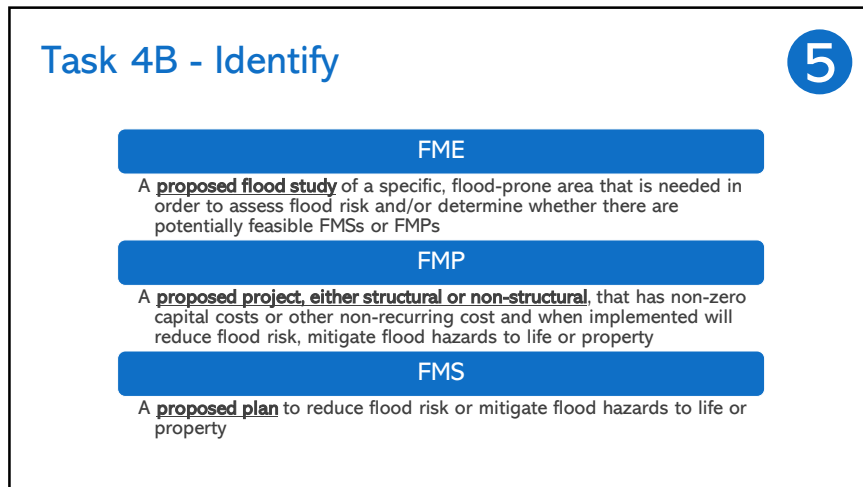
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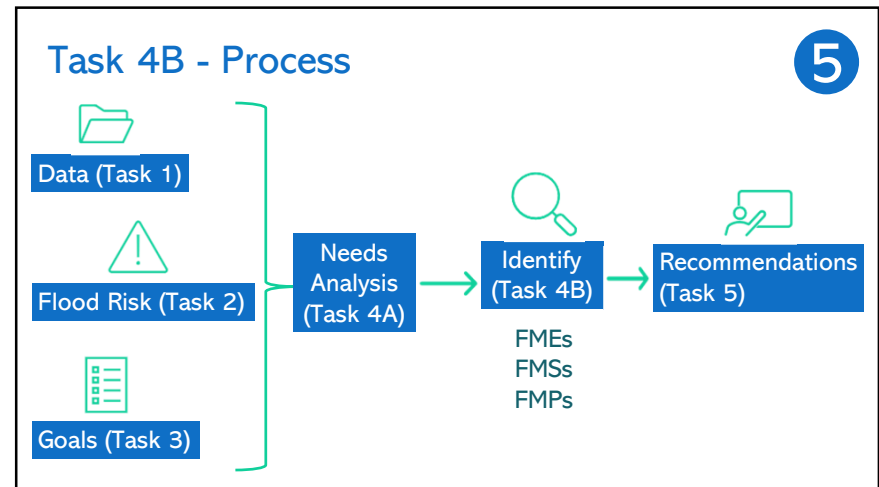
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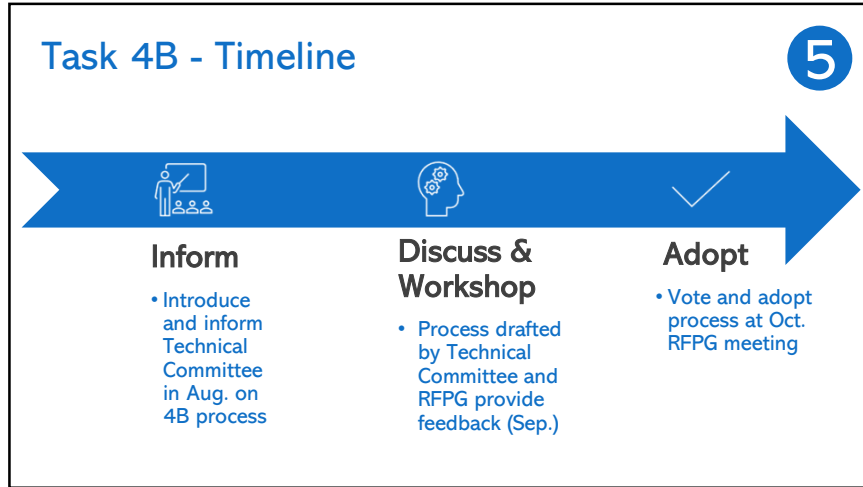
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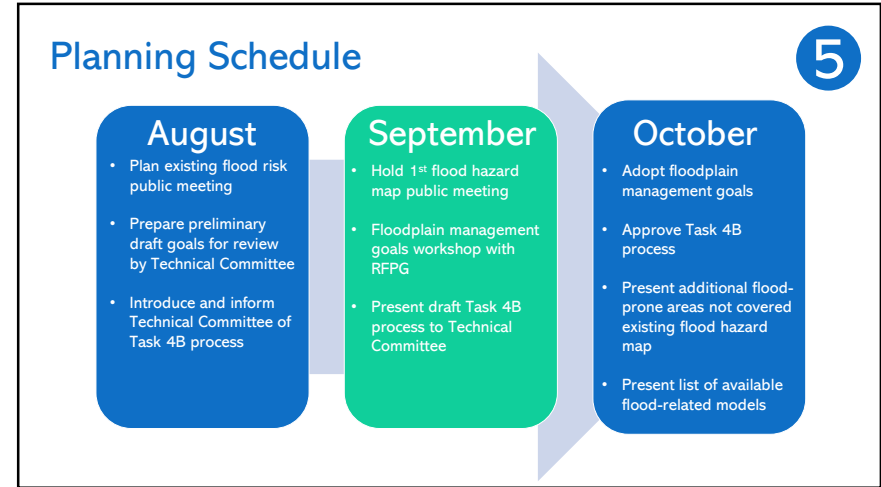
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