

Texas Water Development Board Flood Planning Presentation Regional Flood Planning Group Meeting

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- RFPG Responsibilities: Scope of Work Overview(20 minutes)

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General Document Cross-Reference

Regional Flood Planning Contract Document References			2023 Regional Flood Plan Chapter, Associated TAC Sections, and Content		
TWDB Contract Reimbursement Accounting Number ('CAS')	Exhibit A - Contract SOW Task	Exhibit C - General Guidelines for Regional Flood Plan Development	Regional Flood Plan Chapter Number	Primary TAC Section	General Content
1	1	1	1	§361.30; §361.31; §361.32	Planning Area Description
2	2A	2	2	361.33	Existing Condition Flood Risk Analyses
3	2B			361.34	Future Condition Flood Risk Analyses

Task 1 – Planning Area Description



Llano dam on the Llano river sits on the banks of the county seat.

Image: TWDB

A general description of the region, including:

- social & economic character
- flood-prone areas, types of major flood risks, and key historical flood events
- political subdivisions with flood related authority
- the extent of local regulation and development codes relevant to flooding
- existing or proposed natural flood mitigation features and constructed major flood infrastructure

Task 2A & 2B – Existing & Future Condition Flood Risk Analyses

Perform existing and future condition **flood hazard analyses** to determine the location and magnitude of both 1.0% and 0.2% annual chance flood events



Develop existing & future condition **flood exposure analyses** to identify who and what might be harmed for both 1.0% and 0.2% annual chance flood events.

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

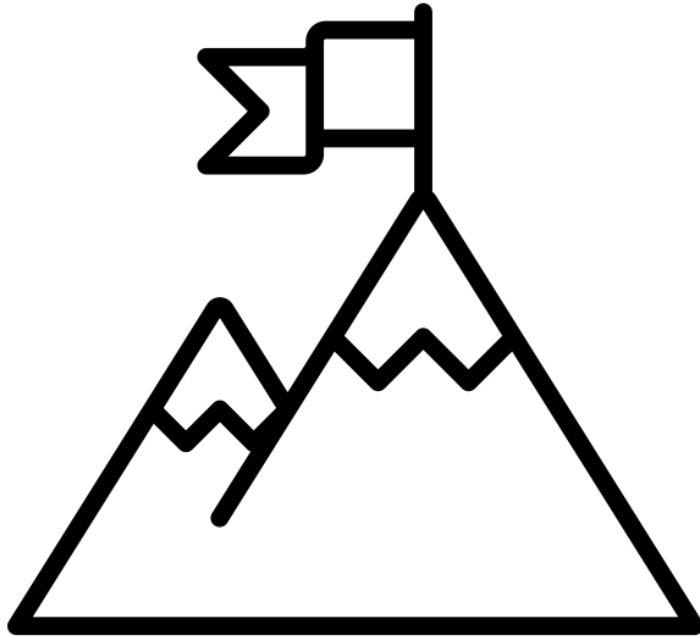
Task 3A – Evaluation & Recommendations on Floodplain Management Practices

- Consider how current floodplain management practices or regulations increase flood risks.
- Consider how the 1.0% annual chance floodplain and associated flood risks may change over time.
- Consider adopting minimum floodplain management/land use standards that an entity must adopt prior to including any evaluations, projects, or strategies in the regional flood plan.



West Fork San Jacinto River near Humble, Texas after Hurricane Harvey
Image: Steve Fitzgerald, Harris County Flood Control District

Task 3B – Flood Mitigation & Floodplain Management Goals

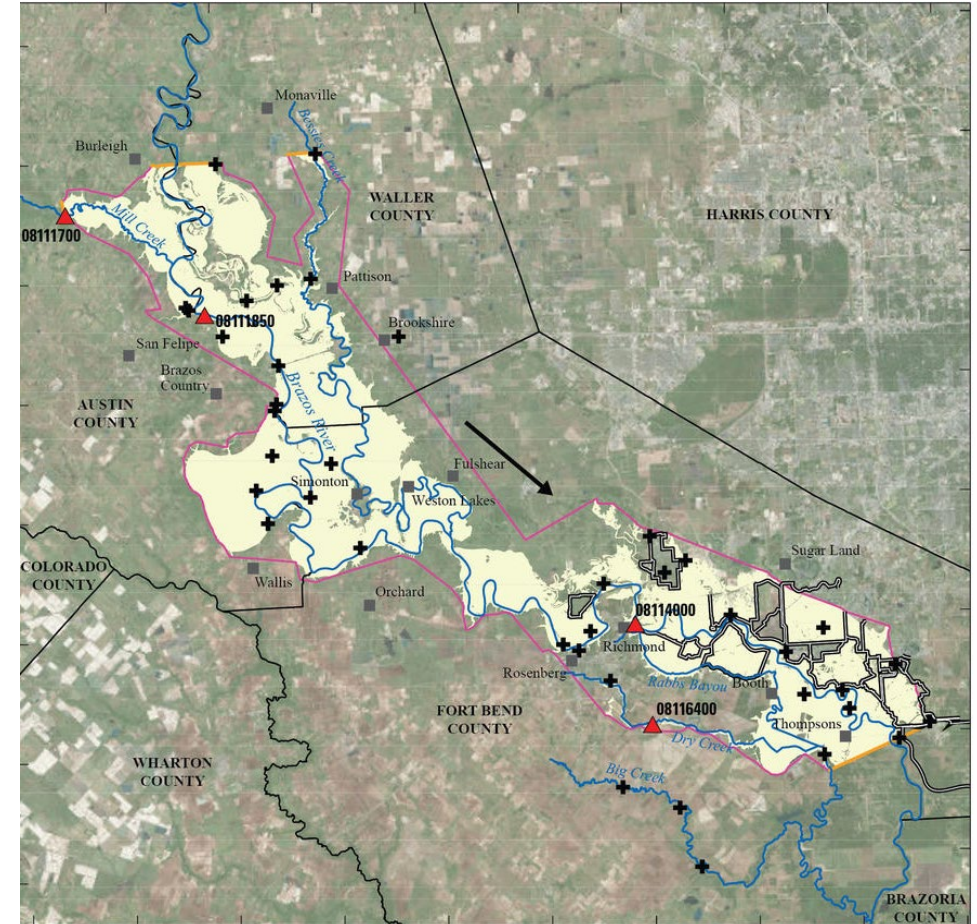


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- Identify specific and achievable flood mitigation and floodplain management goals
 - Short (10 year) & Long-Term (30 year)
- State the levels of residual flood risk after goals are fully met.

Task 4A – Flood Mitigation Needs Analysis

- Identify locations within the region that have the greatest flood mitigation and flood risk study needs.
- Based on the analyses and goals developed by the RFPG under Tasks 2A through 3B

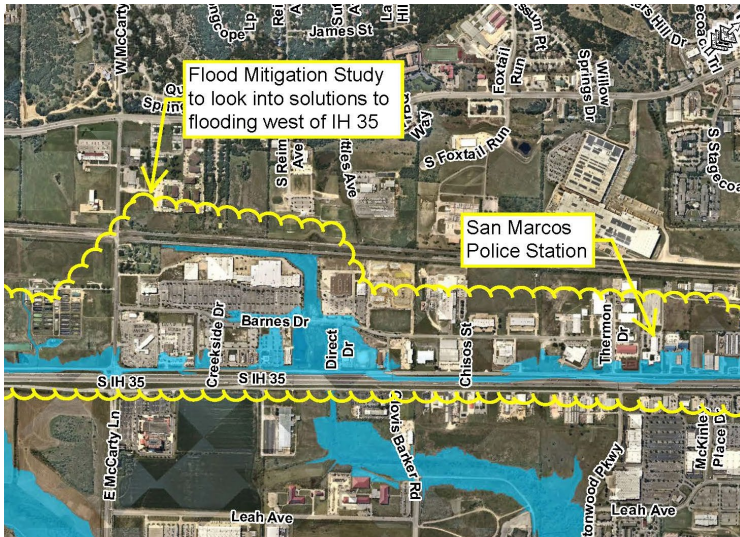


Map of inundated areas (yellow areas) on the lower Brazos River after Hurricane Harvey
Image: USGS

Key Terms for Tasks 4 & 5: FME, FMP, FMS

Flood Management Evaluation (FME)

- A proposed flood study of a specific, flood-prone area that is needed in order to assess flood risk and/or determine whether there are potentially feasible FMSs or FMPs.



Cottonwood Creek Flood Study, San Marcos, TX.

Image: City of San Marcos

Flood Management Strategy (FMS)

- A proposed plan to reduce flood risk or mitigate flood hazards to life or property (may or may not require associated FMPs to be implemented).



Exploration Green project, Clear Lake City, TX

Image: Texas Water Resources Institute

Flood Mitigation Project (FMP)

- A proposed project (structural and non-structural) that when implemented will reduce flood risk, mitigate flood hazards to life or property.

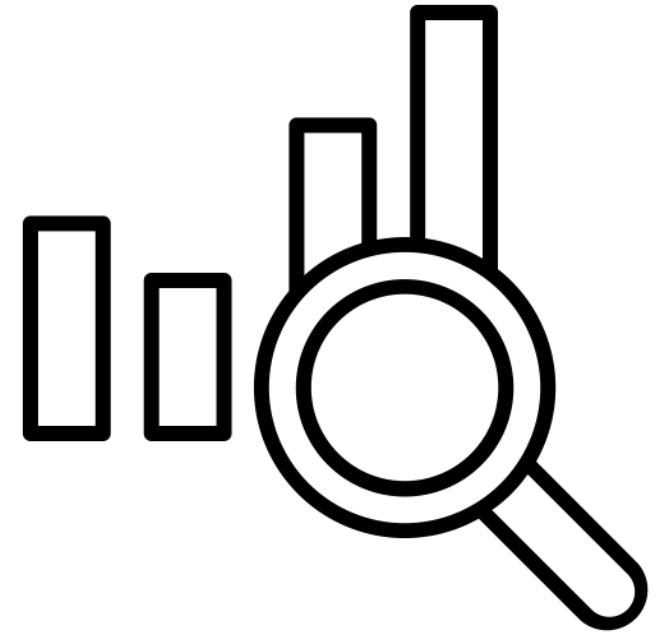


El Paso storm water project, El Paso, TX

Image: El Paso Water

Task 4B – Identification and Evaluation of Potential FMEs & Potentially Feasible FMSs and FMPs

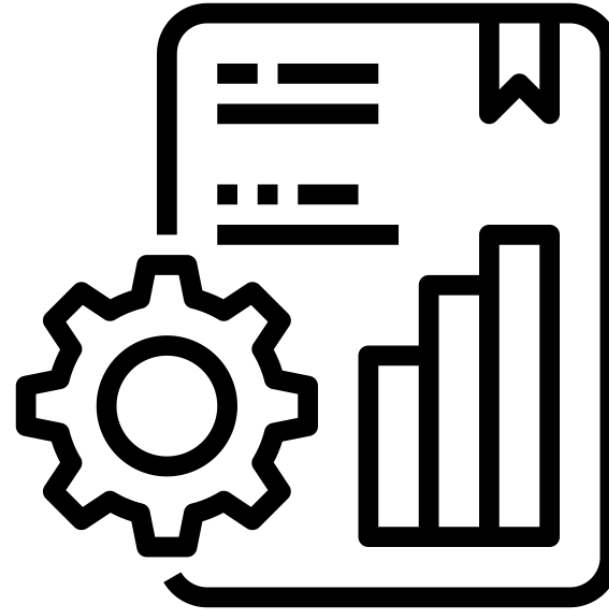
- Identify potential FMEs and potentially feasible FMSs and FMPs based on process developed with public input
- Evaluate potential FMEs and potentially feasible FMSs and FMPs based on a variety of factors described in rules and guidance.
- The FMPs should be permittable, constructible, and implementable.



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Task 4C – Prepare and Submit Technical Memorandum

- Include all deliverables from Tasks 1 to 4B detailed in the Scope of Work
- TWDB Guidance Document will provide more information.
- Tentative Due Date: January 2022



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Task 5 – Recommendation of FMEs, FMSs & FMPs

- Recommend FMEs that are most likely to identify potentially feasible FMSs and FMPs based on evaluations under Task 4B
- Recommend FMSs and FMPs to reduce the impacts of flood based on evaluations under Task 4B
- Recommendations should be based on comparison of alternatives



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Regional & State Flood Planning Long-Range Planning Process



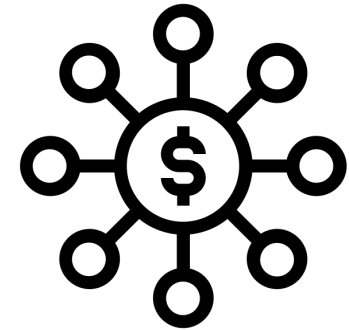
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Regional Flood Plans will identify flood risk and recommend FMEs, FMSs, and FMPs within regions.



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State Flood Plan will rank recommended FMEs, FMSs, and FMPs statewide.



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Future state financial assistance may be allocated using a to-be-determined prioritization criteria.*

*Funding to implement projects can also come from local, federal, or other sources.

Task 6A – Impacts of Regional Flood Plan

- Summarize the relative reduction in flood risk that implementation of the plan would achieve.
- Describe impacts of recommended FMSs and FMPs on environment, agriculture, recreation, water quality, erosion, sedimentation, and navigation.
- State that FMPs will not negatively affect neighboring areas.



Crops in the lower Rio Grande Valley
Image: TWDB



Recreational boating.
Image: TWDB



Dolan Falls
Image: TWDB

Task 6B – Impacts on Water Supply

- Summarize how Regional Flood Plan will affect water supply.
- How would FMSs and FMPs contribute to water supply?
- How would FMSs and FMPs impact water supply, availability, or projects in the State Water Plan?



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Task 7 – Flood Response Information and Activities

- Summarize existing flood response preparations.
- Coordinate with entities in the region to gather information
- RFPGs do not perform analyses or other activities related to disaster response or recovery.



Texas State Guard Hurricane Harvey emergency response.

Image: Texas State Guard

Task 8 – Administrative, Regulatory, and Legislative Recommendations

- Develop policy recommendations to implement and achieve the RFPG's stated goals and plans.
- Consider potential new revenue-raising opportunities to fund flood activities in the region.



Image: TWDB

Task 9 – Flood Infrastructure Financing Analysis

- Survey and report on how sponsors propose to finance recommended FMEs and FMPs
- Include recommendations on the proposed role of the State in financing FMEs and FMPs



Dam on the Llano River under Hwy 16 in Llano, Texas.

Image: TWDB

Task 10 – Public Participation & Plan Adoption

Administrative activities not included in other tasks, including:

- Meeting preparations, notices, agendas, materials, minutes, presentations, and public comments
- Website creation and maintenance
- Intraregional and interregional coordination and communication to develop the regional flood plan.



TWDB flood outreach meeting in Bastrop, TX.

Image: TWDB



Image: Brent Hanson, U.S. Geological Survey. Public domain.

Questions? Comments?