NOTICE OF OPEN MEETING OF THE SAN ANTONIO REGIONAL FLOOD PLANNING GROUP TECHNICAL SUBCOMMITTEE

Region 12 San Antonio RFPG

03/24/2022

1:00 PM

TAKE NOTICE that a meeting of the Technical Subcommittee of the San Antonio Regional Flood Planning Group as established by the Texas Water Development Board will be held on Thursday, March 24, 2022, at 1:00 PM, in-person at the San Antonio River Authority, located at 201 W. Sheridan St and virtually at https://meet.goto.com/491795037.

Agenda:

1. (1:00 PM) Roll-Call
2. Public comments – limit 3 minutes per person
3. Review Deliverables Schedule
4. Discussion on Establishment of Task 3B Metrics
    a. Flood Mitigation and Floodplain Management Goals
5. Discussion on Task 4B & 5 Methodologies
    a. Identification and Evaluation of Potential and Recommended FME's, FMP's and FMS's
6. Public comments – limit 3 minutes per person
7. Date and Potential Agenda Items for Next Meeting
8. Adjourn

If you wish to provide written comments prior to or after the meeting, please email your comments to khayes@sariverauthority.org or physically mail them to the attention of Kendall Hayes at San Antonio River Authority, 201 W. Sheridan, San Antonio, TX, 78204 and include "Region 12 San Antonio Flood Planning Group Meeting" in the subject line of the email.

Additional information may be obtained from: Kendall Hayes, (210) 302-3641, khayes@sariverauthority.org, San Antonio River Authority, 201 W. Sheridan, San Antonio, TX. 78204.

Draft Schedule

		Month					
Task	**Due to RFPG**	**March**	**April**	**May**	**June**	**July**	**August**
Task 1 - Planning Area Description	Complete						
Task 2A, 2B - Flood Risk Analysis	Updates to Data Only						
Task 3A, 3B - Floodplain Management Practices and Goals	Approve at April Meeting						
Task 4A - Flood Mitigation Needs Analysis	Review at April Meeting						
Task 4B - Identify FMP's, E's, S's	Drat List of FMP's, E's, S's						
Task 4C - Technical Memorandum	Complete						
Task 5 - Evaluation and Recommendation of FMP,s. E's, S's	Final List of FMP's, E's, S's - June Meeting						
Task 6A - Impacts of Regional Flood Plan	May Meeting						
Task 6B - Impacts to Waster Supply and State Water Plan	May Meeting						
Task 7 - Flood Response Information and Activities	July Meeting						
Task 8 - Administrative, Regulatory and Legislative Recommendations	July Meeting						
Task 9 - Flood Infrastructure Financing Analysis	July Meeting						
Task 10 - Outreach and Plan Adoption	August Meeting						

Exhibit C, Table 11

Regional Flood Plan, Flood Mitigation, and Floodplain Management Goals

Goal ID	RFPG No.	RFPG Name	Goal	Term of Goal	Target Year	Applicable To	Residual Risk	How will the Goal be Measured	Overarching Goal(s)	Associated Goal IDs
12000001	12	San Antonio	Increase the number of public outreach and education activities to improve awareness of flood hazards and benefits of flood planning in the FPR by X occurrences, and nature base solution training and receive certificate enabling greater participation in flood risk/mitigation decisions.	Short Term (10 year)	2033	Entire RFPG			Education and Outreach	
12000002	12	San Antonio	Increase the number of public outreach and education activities to improve awareness of flood hazards and benefits of flood planning in the FPR by X occurrences, and nature base solution training and receive certificate enabling greater participation in flood risk/mitigation decisions.	Long Term (30 year)	2053	Entire RFPG			Education and Outreach	
12000003	12	San Antonio	Increase the proficiency of floodplain managers across the region through training from TFMA, ASFPM and FEMA. Improve FPM knowledge of nature based solutions, floodplain preservation, and cost/benefit of traditional structural solutions.	Short Term (10 year)	2033	Entire RFPG			Education and Outreach	
12000004	12	San Antonio	Increase the proficiency of floodplain managers across the region through training from TFMA, ASFPM and FEMA. Improve FPM knowledge of nature based solutions, floodplain preservation, and cost/benefit of traditional structural solutions.	Long Term (30 year)	2053	Entire RFPG			Education and Outreach	
12000005	12	San Antonio	Support the development of a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger to reduce flood deaths and high water rescues across the region.	Short Term (10 year)	2033	Entire RFPG			Flood Warning and Readiness	12000009
12000006	12	San Antonio	Support the development of a regionally coordinated warning and emergency response program that can detect the flood threat and provide timely warning of impending flood danger to reduce flood deaths and high water rescues across the region.	Long Term (30 year)	2053	Entire RFPG			Flood Warning and Readiness	12000010
12000007	12	San Antonio	Increase the number of flood gauges (rainfall, stream, reservoir, etc.) in the region by X gauges to provide localized information to emergency responders, and storage and accessibility of data to agencies.	Short Term (10 year)	2033	Entire RFPG			Flood Warning and Readiness	12000009
12000008	12	San Antonio	Increase the number of flood gauges (rainfall, stream, reservoir, etc.) in the region by X gauges to provide localized information to emergency responders, and storage and accessibility of data to agencies.	Long Term (30 year)	2053	Entire RFPG			Flood Warning and Readiness	12000010
12000009	12	San Antonio	Increase the number of entities that communicate real time flood warnings to the public. Leverage mobile phone navigation apps to provide real time rerouting for the public.	Short Term (10 year)	2033	Entire RFPG			Flood Warning and Readiness	12000007
12000010	12	San Antonio	Increase the number of entities that communicate real time flood warnings to the public. Leverage mobile phone navigation apps to provide real time rerouting for the public.	Long Term (30 year)	2053	Entire RFPG			Flood Warning and Readiness	12000008
12000011	12	San Antonio	Increase the number of entities which utilize/adopt Atlas 14 (Volume 11) or best available data from NOAA revised rainfall data as part of revisions to design criteria and flood prevention regulations by X percent. (region specific)	Short Term (10 year)	2033	Entire RFPG			Flood Studies and Analysis	
12000012	12	San Antonio	Increase the number of entities which utilize/adopt Atlas 14 (Volume 11) or best available data from NOAA revised rainfall data as part of revisions to design criteria and flood prevention regulations by X percent. (region specific)	Long Term (30 year)	2053	Entire RFPG			Flood Studies and Analysis	
12000013	12	San Antonio	Increase the number of entities that conduct detailed studies to update their local flood risk by X.	Short Term (10 year)	2033	Entire RFPG			Flood Studies and Analysis	
12000014	12	San Antonio	Increase the number of entities that conduct detailed studies to update their local flood risk by X.	Long Term (30 year)	2053	Entire RFPG			Flood Studies and Analysis	
12000015	12	San Antonio	Decrease the average age of FEMA Flood Insurance Rate Maps (NFHL/FIRMs/FIS) by X years.	Short Term (10 year)	2033	Entire RFPG			Flood Studies and Analysis	
12000016	12	San Antonio	Decrease the average age of FEMA Flood Insurance Rate Maps (NFHL/FIRMs/FIS) by X years.	Long Term (30 year)	2053	Entire RFPG			Flood Studies and Analysis	
12000017	12	San Antonio	Increase the number of entities which have completed an analysis for using existing Natural Flood Mitigation Features (NFMF) such as headwaters, buffers, and conservation easements.	Short Term (10 year)	2033	Entire RFPG			Flood Studies and Analysis	
12000018	12	San Antonio	Increase the number of entities which have completed an analysis for using existing Natural Flood Mitigation Features (NFMF) such as headwaters, buffers, and conservation easements.	Long Term (30 year)	2053	Entire RFPG			Flood Studies and Analysis	
12000019	12	San Antonio	Increase the number of participating Community Rating System (CRS) entities in the FPR by X.	Short Term (10 year)	2033	Entire RFPG			Flood Prevention	12000020
12000020	12	San Antonio	Increase the rating of participating entities within Community Rating System (CRS) in the FPR by X.	Short Term (30 year)	2053	Entire RFPG			Flood Prevention	12000019
12000021	12	San Antonio	Increase the number of entities which regulate to the 1% annual chance future conditions floodplains as part of new development and redevelopment by X.	Short Term (10 year)	2033	Entire RFPG			Flood Prevention	
12000022	12	San Antonio	Increase the number of entities which regulate to the 1% annual chance future conditions floodplains as part of new development and redevelopment by X.	Long Term (30 year)	2053	Entire RFPG			Flood Prevention	
12000023	12	San Antonio	Increase the number of entities that have adopted a holistic watershed approach using existing Natural Flood Mitigation Features (NFMF) such as headwaters, buffers, and conservation easements for flood risk reduction as a basis for comprehensive subdivision regulations.	Short Term (10 year)	2033	Entire RFPG			Flood Prevention	
12000024	12	San Antonio	Increase the number of entities that have adopted a holistic watershed approach using existing Natural Flood Mitigation Features (NFMF) such as headwaters, buffers, and conservation easements for flood risk reduction as a basis for comprehensive subdivision regulations.	Long Term (30 year)	2053	Entire RFPG			Flood Prevention	
12000025	12	San Antonio	Increase the number of acres of publicly protected open space by X as part of land conservation and acquisitions to reduce future impacts of flooding.	Short Term (10 year)	2033	Entire RFPG			Non-Structural Flood Infrastructure Projects	12000026
12000026	12	San Antonio	Increase the number of restored acres of publicly protected open space land in the region.	Long Term (30 year)	2053	Entire RFPG			Non-Structural Flood Infrastructure Projects	12000025

Exhibit C, Table 11

Regional Flood Plan, Flood Mitigation, and Floodplain Management Goals

Goal ID	RFPG No.	RFPG Name	Goal	Term of Goal	Target Year	Applicable To	Residual Risk	How will the Goal be Measured	Overarching Goal(s)	Associated Goal IDs
12000027	12	San Antonio	Reduce the number of NFIP repetitive-loss properties in the FPR by X.	Short Term (10 year)	2033	Entire RFPG			Non-Structural Flood Infrastructure Projects	
12000028	12	San Antonio	Reduce the number of NFIP repetitive-loss properties in the FPR by X.	Long Term (30 year)	2053	Entire RFPG			Non-Structural Flood Infrastructure Projects	
12000029	12	San Antonio	Reduce the number of residential properties in the future 1% annual chance floodplain by X.	Short Term (10 year)	2033	Entire RFPG			Non-Structural Flood Infrastructure Projects	
12000030	12	San Antonio	Reduce the number of residential properties in the future 1% annual chance floodplain by X.	Long Term (30 year)	2053	Entire RFPG			Non-Structural Flood Infrastructure Projects	
12000031	12	San Antonio	Reduce the number of vulnerable critical facilities located within the existing and future 1% annual chance (100-year) floodplain by X.	Short Term (10 year)	2033	Entire RFPG			Structural Flood Infrastructure Projects	
12000032	12	San Antonio	Reduce the number of vulnerable critical facilities located within the existing and future 1% annual chance (100-year) floodplain by X.	Long Term (30 year)	2053	Entire RFPG			Structural Flood Infrastructure Projects	
12000033	12	San Antonio	Reduce the number of vulnerable roadway segments and low water crossings located within the existing and future 1% annual chance (100-year) floodplain by X.	Short Term (10 year)	2033	Entire RFPG			Structural Flood Infrastructure Projects	
12000034	12	San Antonio	Reduce the number of vulnerable roadway segments and low water crossings located within the existing and future 1% annual chance (100-year) floodplain by X.	Long Term (30 year)	2053	Entire RFPG			Structural Flood Infrastructure Projects	
12000035	12	San Antonio	Increase the number of structural projects that include a NBS or Green Infrastructure (GI) component.	Short Term (10 year)	2033	Entire RFPG			Structural Flood Infrastructure Projects	

Task 4B – Identification and Evaluation of Potential Flood Management Evaluations and Potentially Feasible Flood Management Strategies and Flood Mitigation Projects

TWDB requirements for Task 4B state that each RFPG is to develop and receive public comment on a "…proposed process to be used by the RFPG to identify and select flood management evaluations, flood mitigation strategies, and flood mitigation projects". This process, once adopted by the RFPG, is to be documented and such documentation is to be included in the Technical Memorandum, the Initial Draft Regional Flood Plan, and the adopted Regional Flood Plan.

The following describes the proposed process being considered by the RFPG and on which public comment will be taken, both during the December RFPG meeting and via written comments submitted through the RFPG's website. The process, as described below, was designed to conform with TWDB requirements as expressed in the rules, the scope-of-work for the regional flood planning process, and technical guidelines.

Step 1: Conduct an initial screening of Projects, Evaluations, and Strategies that were received by or developed in conjunction with floodplain management communities/project sponsors:

In this first step, screening is conducted based on minimum TWDB requirements. The screening criteria applied in this step are:

- The evaluation/strategy/project is related to a flood mitigation or floodplain management goal.
- The evaluation /strategy/project meets an emergency need.
- The evaluation /strategy/project addresses a flood problem with drainage area of 1 square mile or greater.
- The evaluation /strategy/project reduces flood risk for the 100-year (1% annual chance) flood.
- Exceptions for level of flood risk reduction or problem area size include instances of flooding of critical facilities, transportation routes, or other factors as determined by the RFPG.

Step 2-1: Screening of Projects (FMPs):

In the second step, potential Flood Mitigation Projects

(FMPs) are subjected to a screening-level evaluation based on the TWDB Technical Guidelines for Regional Flood Planning (April 2021) and specifically Figure 5 FMP flowchart (Attachment A). If a potential FMP does not satisfy the screening criteria in this step, it will then become a potential Flood Management Evaluation. There are three criteria that are applied in this step are: "sufficient data", "no negative effect", and "project details".

- Sufficient data - The data upon which an assessment of no negative effect has been made must be reliable and have minimal uncertainty. H&H modeling, mapping, and basis for mitigation analysis must generally meet Section 3.5 of TWDB technical guidelines.
- No negative effect - The potential Project must not have negative impact on the 100-year (1% annual chance) flood event. It must not raise the flood elevation or increase discharge of the

100-year flood event. Any of the following will disqualify the potential project in this screening step:
    - Potential project increases inundation on homes, commercial buildings, critical facilities, and other structures.
    - Potential project increases inundation beyond existing or proposed ROW or easements.
    - Potential project increases inundation beyond existing drainage infrastructure capacity.
- Project details – Data used to define the potential project must include sufficient project details as described in Section 3.9 of TWDB technical guidelines, including but not limited to the following:
    - Flood severity level metrics
    - Flood risk/damage reduction metrics
    - Estimated capital and O&M costs
    - Benefit/Cost ratios
    - Environmental benefits/impacts
    - Potential for natural flood mitigation components
    - Implementation constraints
    - Water supply benefits

Step 2-2: Screening of Evaluations (FMEs):

Flood Management evaluations may fall into one of three general categories:

1. Potential projects (FMPs) that did not meet screening criteria Step 2-1.
2. Planned flood studies or flood risk reduction alternatives analyses provided by or developed in conjunction with floodplain management communities/project sponsors.
3. Potential flood studies or flood risk reduction alternatives analysis needs identified by the technical consultant in Task 4A.

In this step potential studies are screened based on the following criteria from TWDB technical guidelines and illustrated in the flowchart in Attachment B:

- Potential evaluation must identify structures, population, and critical facilities at risk within the flood problem area being studied.
- Potential evaluation must identify roadways impacted by flooding within the flood problem area being studied, if applicable.
- Potential evaluation must quantify area of agricultural land at risk within the flood problem area being studied, if applicable.
- Potential evaluation must have willing sponsor(s) identified that are willing to commit resources and some level of potential cost sharing.
- Potential evaluation must have reasonable planning-level cost estimate.

If there is sufficiently detailed H&H analysis and flood mitigation alternatives analysis, then the Evaluation may be considered as Project (FMP) or Strategy (FMS)

Step 2-3: Screening of Strategies (FMSs):

Strategies are proposed plans or actions that reduce flood risk or mitigate flood hazards to life or property. Any proposed action that doesn't meet the criteria to qualify as an evaluation or as a project can potentially be considered as a strategy. Strategies can also be flood studies or flood risk reduction alternatives analysis needs that are identified in Task 4A. In general, RFPG has flexibility with what qualifies as Strategies.

In this step, Strategies are screened based on the following criteria from the TWDB technical guidelines:

- Potential strategies must include a planning-level cost estimate.
- Potential strategies must have an identified sponsor(s) that are willing to commit resources and some level of potential cost sharing.
- Potential strategies must quantify the estimated flood risk being addressed and potential level of flood risk reduction.

Step 3: Sorting of Projects, Evaluations and Strategies by Flood Mitigation and Floodplain Management Goals:

In the third step, the projects, evaluations, and strategies identified will be assigned to one of more of the goals defined in Task 3B.

Step 4: Detailed assessment of selected Projects, Evaluations, and Strategies:

In the fourth step, potential evaluations, strategies, and projects that meet the criteria in the initial screening processes described in Steps 1 and 2 are to be evaluated further for potential feasibility and must meet the following:

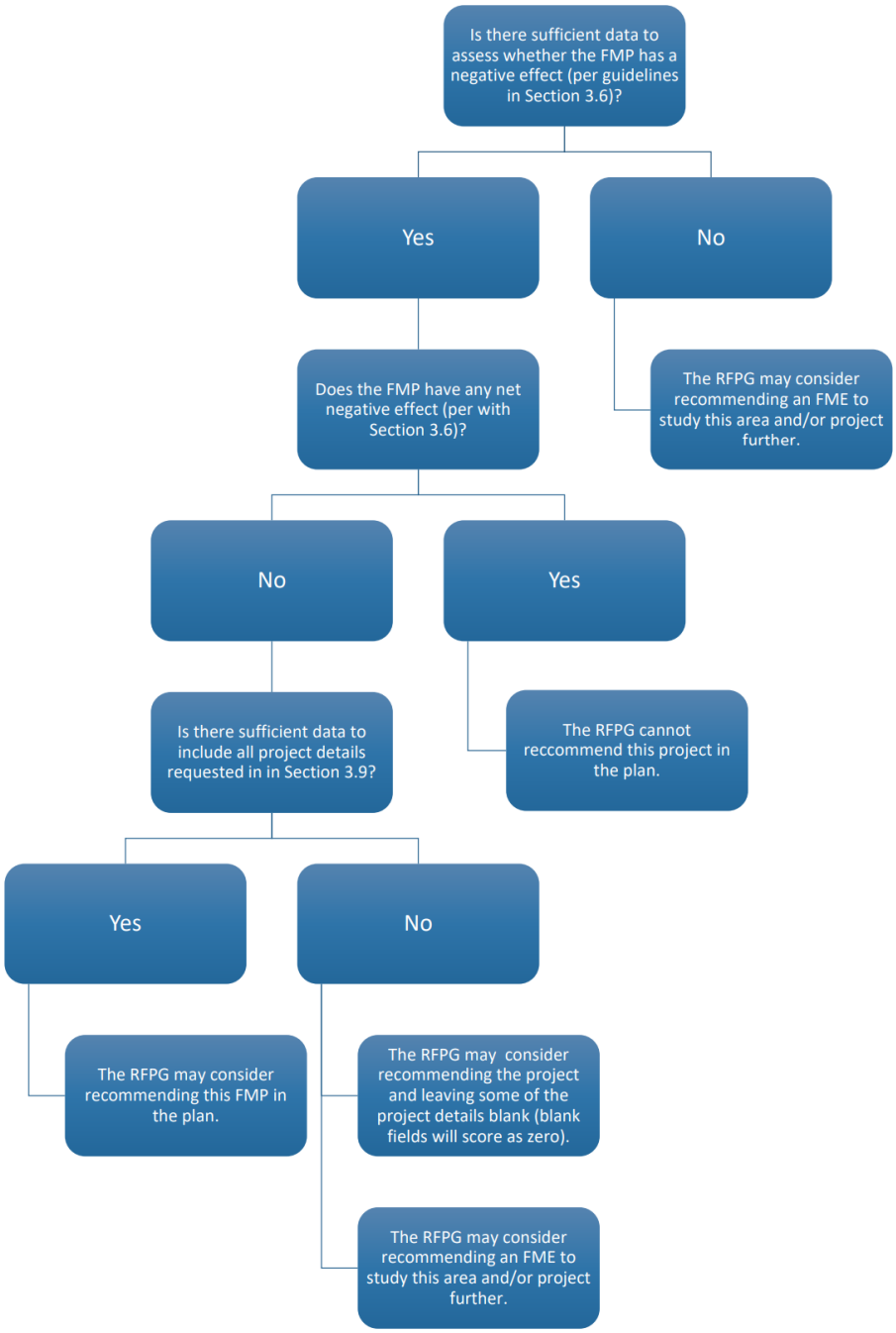
- Potential projects must have an estimated benefit-cost ratio greater than 1.0.
- Potential evaluations, strategies, and projects must have a willing sponsor(s) that has been verified.
- There must be no known insurmountable implementation constraints or hurdles, such as ROW acquisitions, utility conflicts, and/or permitting issues.
- Potential evaluations, strategies, and projects will be evaluated to identify maintenance requirements and their costs.

Step 5: Final recommendation of Projects, Evaluations, and Strategies:

In this final step recommended studies, strategies, and projects are to be incorporated in the initial draft and final regional flood plan. The regional flood plan must also include:

- Public comments and RFPG response on the recommended FMPs, FMEs and FMSs
- Initial and final adoption

Attachment A – FMP Flowchart



*From TWDB Technical Guidelines Figure 5: FMP Flowchart

Attachment B – FME Flowchart