Region 6 - San Jacinto Regional Flood Planning Group
April 14, 2022
9:00 AM
Hybrid Meeting

Item 1:
Call to Order

Item 2:
Welcome and Roll Call

Item 3:
Registered Public Comments on Agenda Items

(3 minutes limit per person)

Item 4:
Texas Water Development Board Update

Item 5:
Approval of minutes
- March 03, 2022

Meeting Minutes
Region 6 San Jacinto Regional Flood Planning Group
March 03, 2022 at 9:00 AM
Hybrid Meeting | Virtual Registration: https://bit.ly/3Bf1JZm
Harris County Flood Control District: 9900 Northwest Fwy., Houston, TX 77092 – Rm. 100

Roll Call:

Voting Member	Interest Category (Executive Committee role)	Present (x) /Absent ( ) / Alternate Present (*)
Timothy E. Buscha	Industries (Chair)	X (In-Person)
Alia Vinson	Water Districts (Vice Chair)	X
Alisa Max	Counties (Secretary)	X
Gene Fisseler	Public (At-Large member)	X (In-Person)
Matthew Barrett	River Authorities (At-Large member)	X *Briana Gallagher
Elisa Macia Donovan	Agricultural Interests	X
TBA	Small Business	
Paul E. Lock	Electric Generating Utilities	X (In-Person)
Rachel Powers	Environmental Interests	X
Stephen Costello	Municipalities	X
Marcus Stuckett	Flood Districts	*Dena Green
Todd Burrer	Water Utilities	
Brian Maxwell	Coastal Communities	X *Bob Kosar
Christina Quintero	Public	X
Neil Gaynor	Upper Watershed	X

Non-voting Member	Agency	Present(x)/Absent ( )/ Alternate Present (*)
Hope Zubek	Texas Parks and Wildlife Department	X
Michelle Ellis	Texas Division of Emergency Management	
Kristin Lambrecht	Texas Department of Agriculture	
Joel Clark	Texas State Soil and Water Conservation Board	*Brian Koch
Colleen Jones	Texas General Land Office	
Megan Ingram	Texas Water Development Board	*Ryke Moore
Melinda Johnston	Texas Commission on Environmental Quality	
Jeff Taebel	Houston-Galveston Area Council	X *Justin Bower
Ellie Alkhoury	Texas Department of Transportation	
Tom Heidt	Port Houston	
Michael Turco	Harris-Galveston Subsidence District	X
Brandon Wade	Region H Regional Water Planning Group	
Sally Bakko	Gulf Coast Protection District	X
Eric Stevens	U.S. Army Corps of Engineers	

Liaisons from RFPG	Regional Flood Planning Group	Present(x)/Absent( )/ Alternate Present (*)
Todd Burrer	Trinity Region RFPG	
Stephen Costello	Neches Region RFPG	X
Michael Turco	Lower Brazos RFPG	X

Liaisons from Other Entities	Entity	Present(x)/Absent( )/ Alternate Present (*)
Mark Vogler	Lower Brazos RFPG	*Jeff Janecek
Scott Harris	Trinity Region RFPG	
Liv Haselbach	Neches Region RFPG	
Brandon Wade	Region H Regional Water Planning Group	

Technical Consultant Team Members	Entity	Present(x)/Absent( )/ Alternate Present (*)
Cory Stull	Freese and Nichols Inc.	X
Maggie Puckett	Freese and Nichols Inc.	X
Hayes McKibben	Freese and Nichols Inc.	
Andrew Moore	Halff, Associates	X
Jacob Torres	Torres & Associates	X
Evan Adrian	Torres & Associates	X
Rachel Herr	Halff	X

Quorum:
Quorum: **Yes**
Number of voting members or alternates that were present: 13
Number required for quorum per current voting membership of 15: 8

Attendees:

In Person: Claudia Garcia, David Brown, Fatima Berrios

Brian Fambrough
Caitlin Heller
Christina Lindsay
Connie Pothier
Craig Kalkomey (WFDD / LJA)
Dena Mahan
James Bronikowski (TWDB)
James Corn
Jh Christi
Lisa Mairs (USACE)
Mariah Najmuddin (Hollaway)
Marlisa Briggs
Matt Lopez (FCD)
Matt Nelson (TWDB)
Mohamed Bagha
Peggy Zahler
Rebecca Andrews
Reem Zoun (TWDB)
Srinivas Chintalapati
Stephan Gage (HCTRA)
Susan Chadwick
Unknown: 3

AGENDA ITEM NO. 1: Call to Order
Mr. Buscha called the meeting to order at 9:00 a.m.

AGENDA ITEM NO. 2: Welcome and Roll Call
In lieu of Ms. Max, Secretary, Ms. Berrios took attendance. A quorum was determined to present.

AGENDA ITEM NO. 3: Registered Public Comments on Agenda Items (Limit of 3 Minutes Per Person)
Ms. Berrios stated there were no registered public comments. Mr. Buscha noted that David Brown was present, in person, from the public.

AGENDA ITEM NO. 4: Texas Water Development Board Update
Mr. Ryke Moore spoke on behalf of Ms. Ingram and noted the following updates:

- Future conditions proposal was received and presented no concerns; however, the Texas Water Development Board requested a follow up meeting with the Technical Consultants and Project Sponsor to ask clarifying questions before an acceptance letter is sent out.
- Regarding the technical memorandum, Mr. Moore stated that the Texas Water Development Board has reviewed the technical memoranda from all fifteen regional flood planning groups and were awaiting the SJRFPG's March 7 deliverable.
- Mr. Moore continued with the contract amendment for Region 6, stating it was moving along and to defer to Ms. Ingram for any additional questions.

AGENDA ITEM NO. 5: Approval of Meeting Minutes – January 13, 2022
Mr. Buscha opened the floor for comments on the January 13, 2022 meeting minutes. Mr. Barrett asked a question regarding the description in the minutes of the appointment of Mr. Kosar to the Technical Committee and discussion ensued. Mr. Barrett suggested that he could send the rest of his non-substantive corrections to Ms. Garcia, to which Mr. Buscha agreed. Mr. Fisseler stated a minor comment regarding hybrid meetings and requested that the minutes include the in-person meeting location. Mr. Buscha opened for further comments, and none were given. Mr. Fisseler moved to approve the minutes as revised, and Ms. Vinson seconded. Mr. Buscha announced the motion carried unanimously for approval of the January 13, 2022 meeting minutes.

AGENDA ITEM NO. 6: Announcement of New Alternate Members and New Non-Voting Members
Mr. Buscha asked if there were any announcements for new non-voting members or alternates and Ms. Berrios stated there were no new announcements. Mr. Buscha mentioned that Mr. Stuckett had resigned from Harris County Flood Control District and thanked Ms. Green, his alternate, for joining the meeting. Mr. Buscha stated that the planning group would go through process of re-solicitation for the Flood Districts member. Ms. Max proposed that anyone who previously applied be encouraged to re-apply. Mr. Buscha called for objections, and none were given. Ms. Vinson wanted to remind the group of the vacancy filling process in our bylaws and clarified that the group had to process the notice but agreed with previous submissions being encouraged, if the candidates desired. Mr. Buscha confirmed the notice would be filed as per the bylaws.

AGENDA ITEM NO. 7: Liaison Reports Pertaining to Other Region(s) Progress and Status:

- **Trinity Region** – Mr. Buscha stated Mr. Burrer was not on the call to give an update.
- **Neches Region** – Mr. Buscha stated Mr. Costello was not on the call to give an update.
- **Lower Brazos Region** – Mr. Turco updated that the Lower Brazos would be holding public meetings throughout the basin in early March through April, details on the website. Mr.

Turco continued to update that the next meeting would be on March 24, 2022 and stated he was unable to attend the last meeting.

- **Region H Water** –Mr. Buscha stated that Mr. Wade was not on the call, and he would reach out to the Trinity and Neches liaisons for an update.

AGENDA ITEM NO. 8: Update from the Executive Committee, discussion, and possible action regarding the appointment of the Small Business Voting Member Position

Mr. Buscha advised the members that three candidates for the Small Business voting member position had been shortlisted. After holding three interviews, the Executive Committee recommended that Ms. Connie Pothier be appointed as the new Small Business voting member. Mr. Buscha briefly introduced Ms. Pothier and opened the floor for additional comments. Ms. Pothier gave a brief introduction regarding her background and her small business and expressed her gratitude to serve on the RFPG. Mr. Buscha opened the floor for discussion. Ms. Vinson moved to appoint Ms. Pothier as the Small Business voting member to the RFPG. Mr. Fisseler seconded the motion. Mr. Buscha announced the motion carried unanimously and introduced Ms. Pothier as the new voting member representing Small Businesses.

AGENDA ITEM NO. 9: Discussion, and Possible Action Regarding the Membership of Advisory Committees

a. Public Engagement Committee

b. Technical Committee

Mr. Buscha opened the floor for volunteers for any committees. Ms. Vinson suggested and moved to fill the vacant seat on the Public Engagement Committee with Ms. Pothier and to hold Mr. Stuckett's vacant seat on the Technical Committee until the Flood Districts member position was filled. Mr. Buscha asked Ms. Pothier if she would be willing to serve on the Public Engagement Committee, and she accepted. Ms. Vinson made a motion to approve Ms. Pothier as a member of the Public Engagement Committee, and Mr. Lock seconded the motion. Mr. Buscha stated the motion carried unanimously. No action was taken with respect to the Technical Committee.

AGENDA ITEM NO. 10: Presentation and updates from the SJRFPG Technical Consultant on future flood risks identification and analysis, and development of the Technical Memorandum due to the TWDB March 7, 2022

Mr. Buscha yielded the floor to the Technical Consultants. Mr. Stull mentioned the deliverable due to the Texas Water Development Board the following week, gave a brief overview of the discussion topic, and acknowledged his partner technical consultants from Halff Associates, Inc. Mr. Moore began by stating that what he was presenting was not a regulatory product. Mr. Moore restated the scope of work was to define the future hazard floodplain and analyze it. Mr. Moore continued to outline the technical approach to delineating future flood hazard for which the Technical Consultants sought approval. Mr. Moore began with the background to the materials presented (Hazard + Exposure + Vulnerability = Risk) for the future flood risk analysis. Mr. Moore touched on subsidence in our region and on several implications for our costal region. Mr. Moore explained that storm surge, storm intensity, sea level rise occurring (and projected), and coastal erosion were challenging. Mr. Fisseler questioned about Atlas 14 data and pointed out that future rainfall predictions will be verified as time passes and can be upward or downward as the SJRFPG updates future versions of its regional plan. Mr. Moore stated historical data had been used to make predictions but emphasized additional more up-to-date data would be included as it became available.

Mr. Torres explained the sea level rise conditions and went over the Technical Consultant's recommendation. Ms. Powers stated that the sea level rise was drastic, the midline level should be higher, and that the middle projection was not something the environmental community was confident in. Mr. Torres cited a published report by NOAA on sea level rise and stated they noticed some disconnect as well. Ms. Powers noted about historically vulnerable communities and asked the Technical Consultants to be mindful to protect those communities.

Ms. Bakko offered input from the Gulf Coast Protection District (GDPD) stating that the GDPD would serve as the nonfederal sponsor for the Texas Coastal Study authorized by Congress. The study is intended to look at flooding in natural disasters and the supply chain impact, not just to the region, but to the nation, with Ms. Bakko further stating that small businesses were the backbone of this country. Discussion ensued and Ms. Bakko offered to provide more information at an upcoming RFPG meeting. Mr. Maxwell suggested we should not duplicate or have conflicting efforts within the two groups. Ms. Bakko pointed out the importance of having consistent messages when communicating with state legislators and with Congress due to funding needed to reach goals. Mr. Stull reiterated that the data was constantly changing.

Dr. Gaynor stated that to create a buffer, the concept depended on the slope of the coastal region. Dr. Gaynor mentioned that he had been in communication with the Technical Consultant and that he believes the slope is over-estimated. Discussion ensued regarding slope calculations.

Mr. Torres moved on to subsidence and explained how subsidence impacts had been calculated. Ms. Vinson asked if consideration had been given to the impact of the conversion from groundwater to surface water uses. Mr. Torres stated that it did not, and they were working with Subsidence District reports. Discussion ensued between Ms. Vinson, Mr. Turco, and Mr. Fisseler regarding subsidence and groundwater use. Ms. Puckett stated that the discussion could impact mapping deliverables.

Mr. Moore began the discussion on the recommendations of future 100-year and future 500-year flood extents. Mr. Moore explained the riverine modeling and application of the buffer. Mr. Buscha wanted clarification on the recommendation to apply the buffers to determine future 500-year extents. Further discussion took place regarding future projects, changing elevations and buffers. Mr. Stull stated that the application of the buffers is a simplified solution to account for future conditions. Mr. Stull reminded the group that they were using the best data available.

At 10:32 a.m., Mr. Buscha called for a five-minute recess. The meeting reconvened at 10:37 a.m.

Mr. Moore moved to flood exposure analysis and which areas would be exposed in future flood events, which would essentially be a GIS map intersect. Mr. Moore moved on to a recommendation regarding flood exposure and identifying critical infrastructure database. Ms. Puckett provided an overview regarding defining critical infrastructure. Ms. Puckett continued to outline flood map gaps. Ms. Puckett stated the recommendation of focusing consideration on availability of FEMA mapping, base-level engineering, and land cover change. Ms. Puckett stated that the decisions were documented in the memorandum due on March 7, 2022. Mr. Barrett asked if they wanted final comments on the technical memorandum at this time. Ms. Puckett reminded the group that the deliverable was due the following Monday, in-progress which would continue to be refined. Mr. Buscha reiterated that we are operating with deadlines and milestones and stated that the goal was to move forward to submit the deliverables. Mr. Barrett stated he reviewed the documents and had non-substantive comments and questions that wouldn't affect today's approval. Mr. Barrett asked the group if it was comfortable with him providing comments to the Technical Consultants and no one objected. Discussion regarding a possible meeting

between Mr. Barrett and the Technical Consultants ensued. Mr. Buscha asked the group to review the documents and provide comments to the Technical Consultants so that by the April SJRFPG meeting, the Technical Consultants could have replies to the group's comments.

Ms. Puckett continued to present the interactive GIS dashboard. Ms. Puckett mentioned what was added was the Existing Flood Risk layer to the map. Ms. Vinson asked about adding a disclaimer that the website is not a regulatory product. Ms. Puckett agreed and stated that a disclaimer could be added. Mr. Stull asked Ms. Vinson for the appropriate language to be sent over to them. Ms. Max echoed Ms. Vinson's remark regarding messaging, so people know what it is and what it isn't. Mr. Buscha requested the link for the map be sent out to the group. Mr. Stull reviewed upcoming items and goals. Ms. Puckett reviewed the outreach and engagement efforts. Mr. Stull noted that the SJRFPG would have a booth at the upcoming TFMA conference. Dr. Gaynor asked for clarification regarding the technical memoranda and submittals. The Technical Consultants stated that the technical memorandum submitted in January was accepted by the Texas Water Development Board and the supplemental memorandum was due March 7. The Technical Consultants stated that the Task 2B deliverable had been reviewed by the Texas Water Development Board, separately from the February 23 memorandum.

AGENDA ITEM NO. 11: Update and recommendation from the Technical Committee and possible action from the RFPG as it pertains to:

a. **Technical approaches to develop deliverables required to be submitted as part of the Technical Memorandum due to TWDB March 7,2022**
b. **Approval of the Technical Memorandum and authorization of submittal of the completed document and required materials to TWDB**

Mr. Buscha stated that the SJRFPG was provided a very detailed briefing and some members recognized there were comments and clarifications needed. Mr. Buscha continued to encourage the group to remember that this was an ongoing development and opened for additional comments and discussion. Ms. Donovan moved to approve the technical memorandum and allow the Technical Consultants to submit it on behalf of the SJRFPG. Mr. Costello seconded the motion, which carried unanimously.

AGENDA ITEM NO. 12: Update from the Public Engagement Committee, discussion, and possible action from the RFPG as it pertains to the development of the Communications and Outreach Plan
Mr. Buscha stated that the next meeting for the Public Engagement Committee would be on March 10th and opened for discussion. Ms. Najmuddin with Hollaway Environmental + Communications, noted the importance of the Public Engagement Committee and Mr. Buscha noted that he looked forward to Ms. Pothier's participation.

AGENDA ITEM NO. 13: Approval and Certification of Administrative Expenses Incurred by The Project Sponsor for the Development of Regional Flood Plan

Mr. Buscha requested approval of the presented administrative expenses. Ms. Powers made a motion to approve the administrative expenses, and Ms. Vinson seconded the motion. Ms. Max abstained due to being the project sponsor. Mr. Buscha stated the motion carried.

AGENDA ITEM NO. 14: Presentation Of 2022Planning Group Key Dates and Deadlines:
Mr. Buscha stated the next SJRFPG meeting would be held on April 14, 2022 and the next Public Engagement Committee meeting would be held on March 10, 2022.

- **Upcoming Planning Schedule Milestones**
- **Next SJRFPG Planning Meeting to Be Held on April 14, 2022**

AGENDA ITEM NO. 15: Update and Discussion Pertaining to In-Person RFPG Meeting Location(s)
Mr. Buscha stated that the meeting would continue to be hybrid and that the Project Sponsor was exploring a more central location. Mr. Buscha stated that the SJRFPG would continue to meet at Harris County Flood Control District offices in the meantime.

AGENDA ITEM NO. 16: Reminder Regarding Planning Group Member Training on Public Information Act and Open Meetings Act
Mr. Buscha reminded the group that whoever hasn't completed the training needs to do so and submit records to Ms. Berrios.

AGENDA ITEM NO. 17: Consider Agenda Items for Next Meeting
Mr. Buscha identified the following items for the next agenda:

- Identify possible presentation by Gulf Coast Protection District at the April meeting
- Update on Flood Districts position solicitation

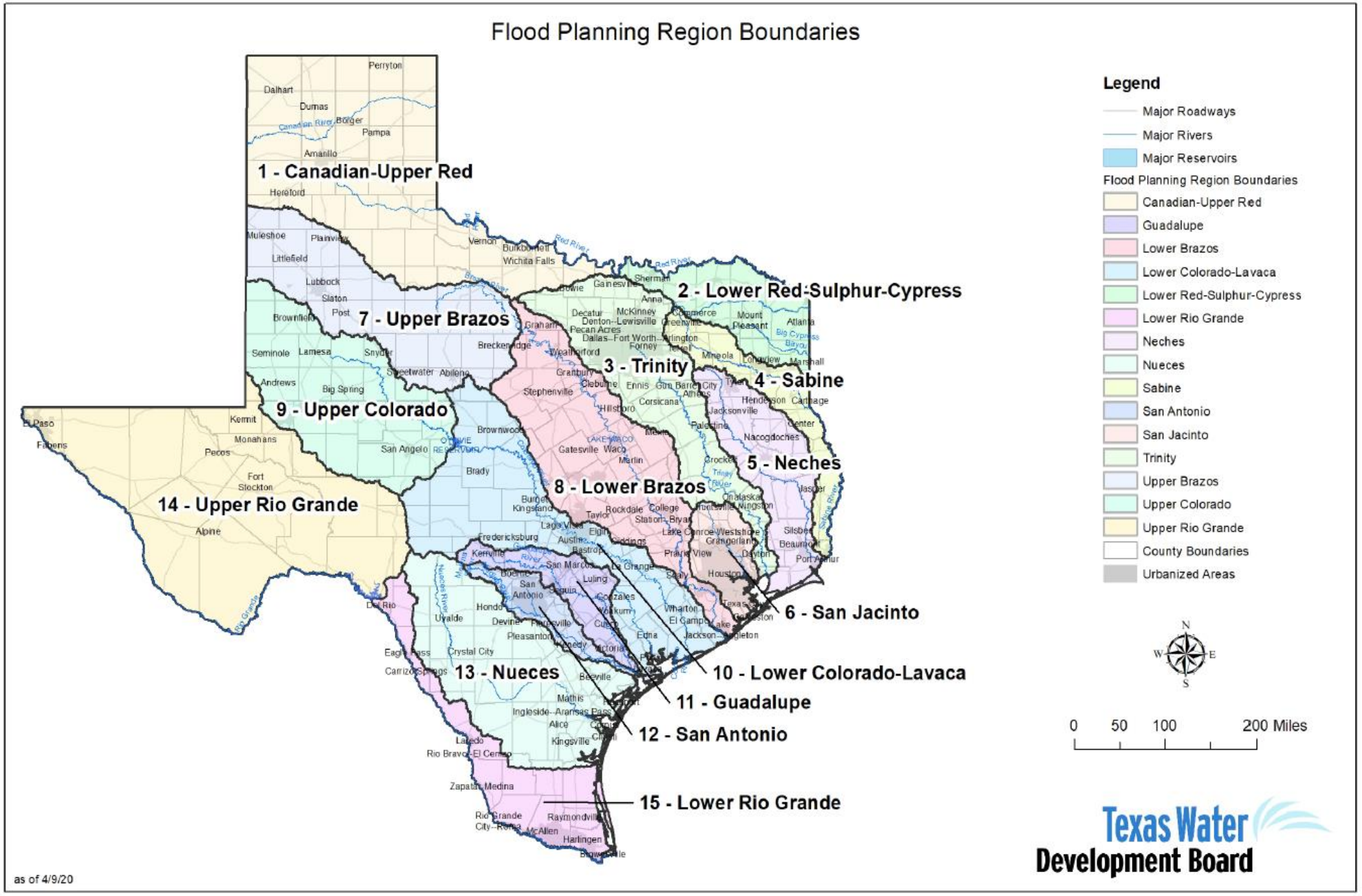
AGENDA ITEM NO. 18: Public Comments – Limit 3 Minutes Per Person
Ms. Berrios stated there were no requests to make public comments.

AGENDA ITEM NO. 19: Adjourn
Mr. Buscha announced the meeting was adjourned at 11:22 a.m.

_____
Alisa Max, Secretary

_____
Timothy Buscha, Chair

Item 6:
Announcement of new Alternate Members and new Non-Voting Members


Flood Planning Region Boundaries
1 - Canadian-Upper Red
2 - Lower Red-Sulphur-Cypress
3 - Trinity
4 - Sabine
5 - Neches
6 - San Jacinto
7 - Upper Brazos
8 - Lower Brazos
9 - Upper Colorado
10 - Lower Colorado-Lavaca
11 - Guadalupe
12 - San Antonio
13 - Nueces
14 - Upper Rio Grande
15 - Lower Rio Grande
Legend
Major Roadways
Major Rivers
Major Reservoirs
Flood Planning Region Boundaries
Canadian-Upper Red
Guadalupe
Lower Brazos
Lower Colorado-Lavaca
Lower Red-Sulphur-Cypress
Lower Rio Grande
Neches
Nueces
Sabine
San Antonio
San Jacinto
Trinity
Upper Brazos
Upper Colorado
Upper Rio Grande
County Boundaries
Urbanized Areas
N
W
E
S
0 50 100 200 Miles
Texas Water Development Board
as of 4/9/20

Item 7:
Liaison Reports pertaining to other region(s) progress and status:

a. Trinity Region
b. Neches Region
c. Lower Brazos Region
d. Region H Water

Item 8:
Update from Project Sponsor regarding the solicitation process for the Flood Districts Voting Member Position

Item 9:
Discussion, and Possible Action Regarding the Membership of Advisory Committees

a. Technical Committee

Item 10:

Update from the Technical Consultant on:

a. Technical Approach for conducting the Needs Analysis (Task 4A)
b. Minimum Standards (Task 3A)
c. Process for Recommending Potentially Feasible FMEs, FMSs, and FMPs (Task 5)
d. Public Engagement, Communications and Outreach Plan, and the Upcoming Public Meeting

Technical Consultant Update

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

April 14, 2022

Agenda

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

- Task 4A: Flood Mitigation Needs Analysis
- Task 3A: Minimum Standards
- Schedule through Draft RFP & Process for Recommending FMXs
- Task 10: Communications Plan and Upcoming Public Meeting(s)

Task 4A: Flood Mitigation Needs Analysis

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Meeting Goals:

- Understand Task requirements and needs for the RFP
- Provide feedback regarding scoring criteria used
- Gain consensus on approach for identifying needs

Task 4A: Flood Mitigation Needs Analysis

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Task Goals:

Conduct a two-piece, big picture analysis to guide subsequent efforts by identifying:

- Flood prone areas where the greatest **flood risk knowledge gaps** exist (and where the RFPG should consider identifying potentially feasible flood risk studies as FMEs)
- Greatest **known flood risk** and flood mitigation needs in the region and resulting need of potential strategies and projects (FMSs and FMPs) to reduce those risks

Task 4A: Flood Mitigation Needs Analysis

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

TWDB Technical Guidance for Task 4A

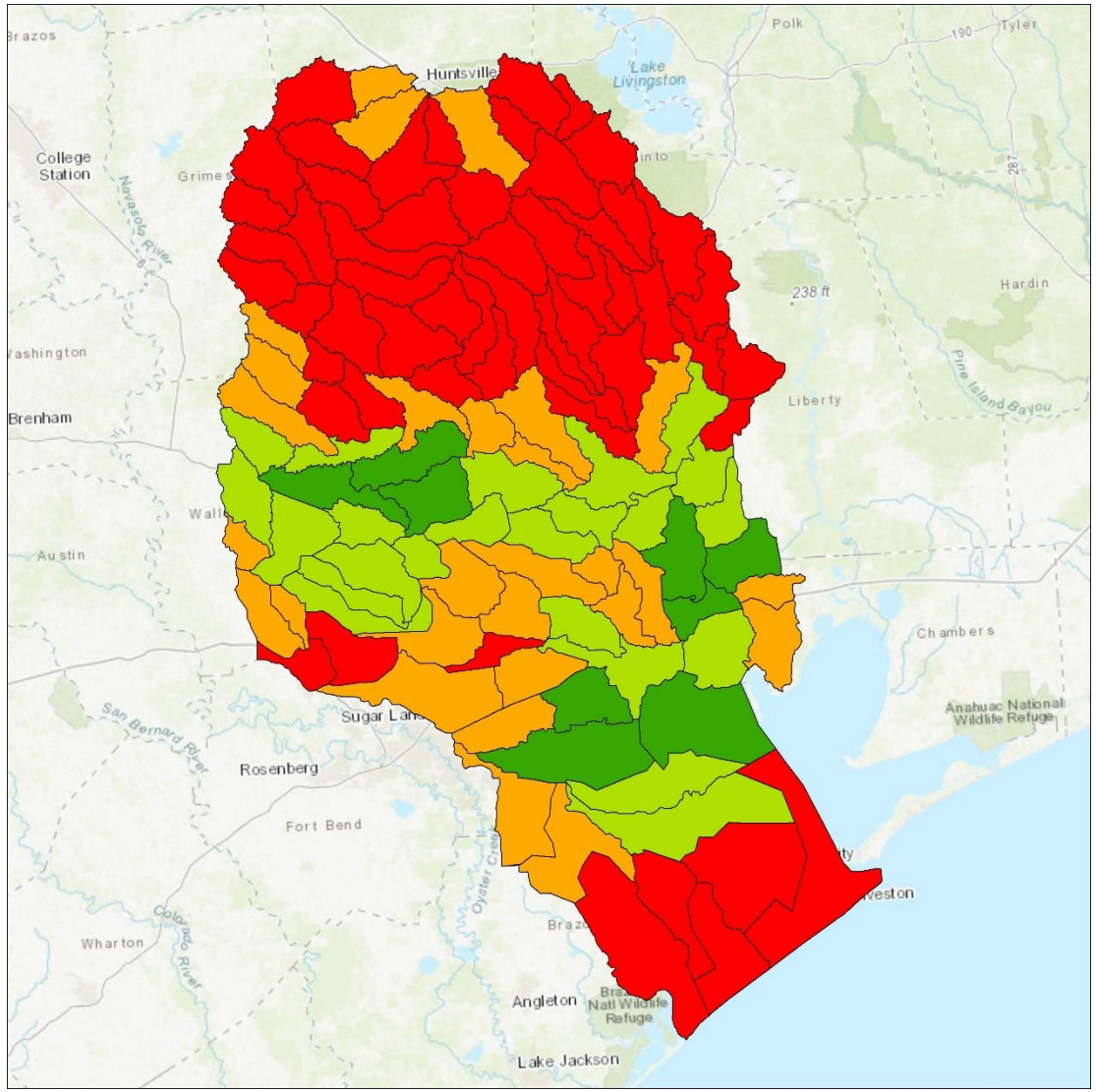
1. the areas in the FPR that the RFPG identified as the most prone to flooding that threatens life and property;
2. the relative locations, extent, and performance of current floodplain management and land use policies and infrastructure located within the FPR, particularly within the locations described in paragraph (1) of this subsection;
3. areas identified by the RFPG as prone to flooding that don't have adequate inundation maps;
4. areas identified by the RFPG as prone to flooding that don't have hydrologic and hydraulic models;
5. areas with an emergency need;
6. existing modeling analyses and flood risk mitigation plans within the FPR;
7. flood mitigation projects already identified and evaluated by other flood mitigation plans and studies;
8. documentation of historic flooding events;
9. flood mitigation projects already being implemented; and
10. any other factors that the RFPG deems relevant to identifying the geographic locations where potential FMEs and potentially feasible FMSs and FMPs shall be identified and evaluated.

Approach

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

- Deliverables
  - Location map depicting basin knowledge (studies)
  - Location map depicting flood risk (projects)

- Quantify each area by FEMA HUC 12
  - Granular for more detailed analysis
  - Based on watershed rather than political boundary
  - 108 HUC 12 boundaries in San Jacinto region
    - Divided up the larger coastal HUCs
    - Now 115 HUC boundaries in the region



Approach

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

- Comparison of the HUC 12s to identify the locations of greatest needs
- Score 1-5 based on the criteria

Low score = Low risk
High Score = High Risk

Categories	Range	Occurrence
1	0 - 0.017	23
2	0.0171 – 0.046	24
3	0.0461 – 0.093	23
4	0.0931 – 0.39	23
5	0.391+	22
	Total	115

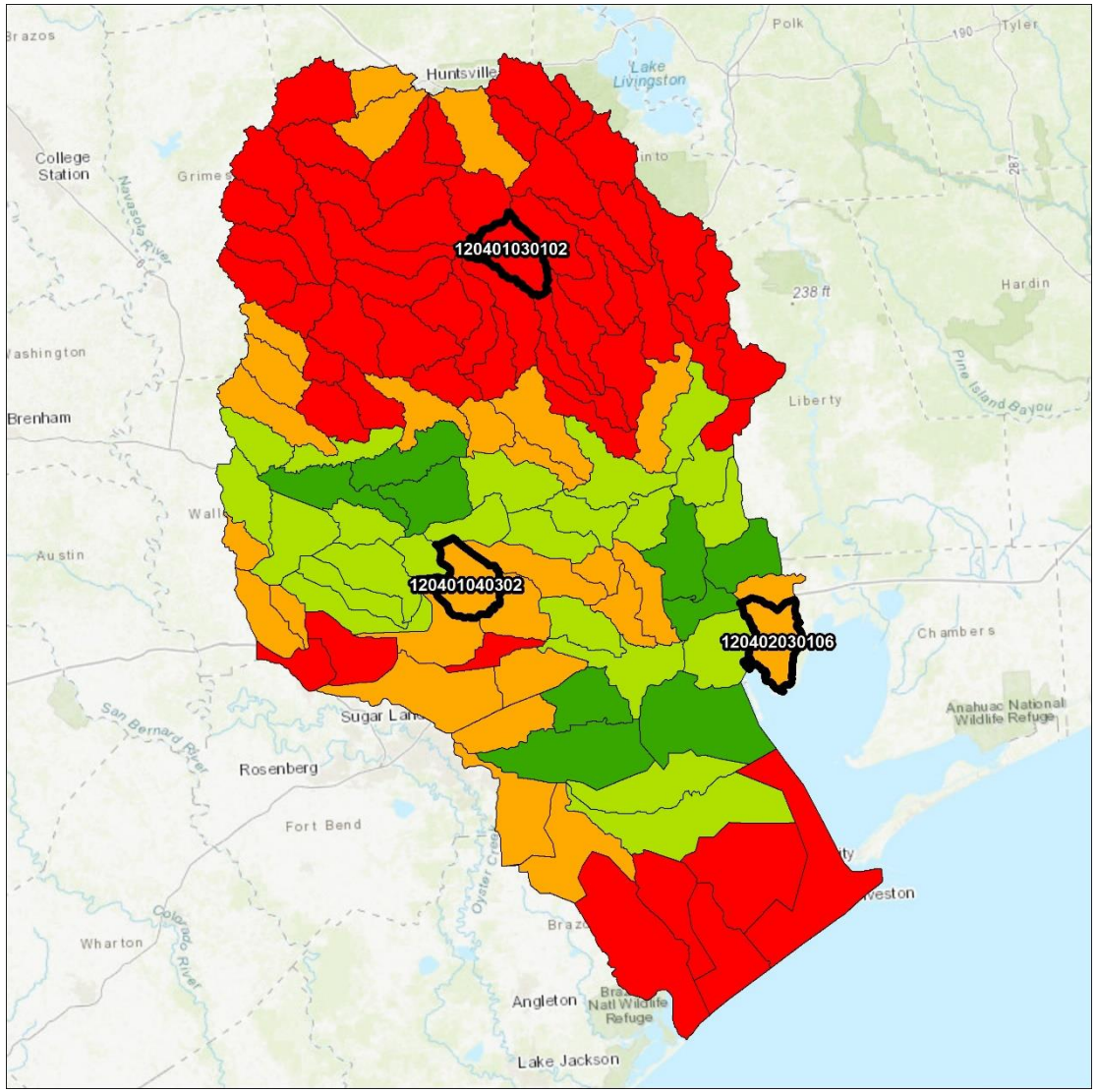
Comparison of flooded agricultural areas (square miles)

Approach

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Sample HUCs for demonstration purposes:

- 120401030102 (HUC 1)
  - Rural, upper watershed
- 120401040302 (HUC 2)
  - Urban, middle watershed
- 120402030106 (HUC 3)
  - Urban, coastal influence



Scoring is subject to change based on approach recommendations and detailed review.

1A – Area most prone to flooding (Existing)

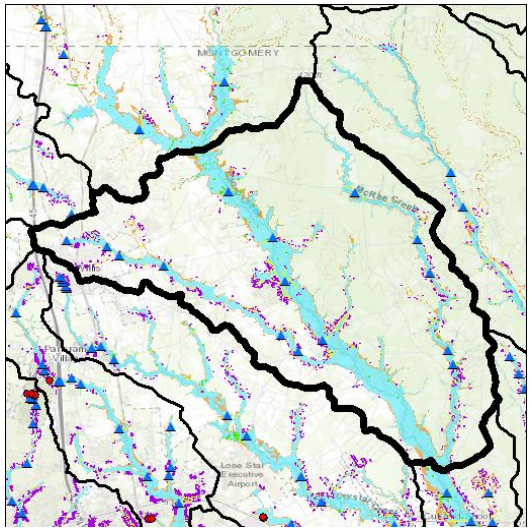
SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

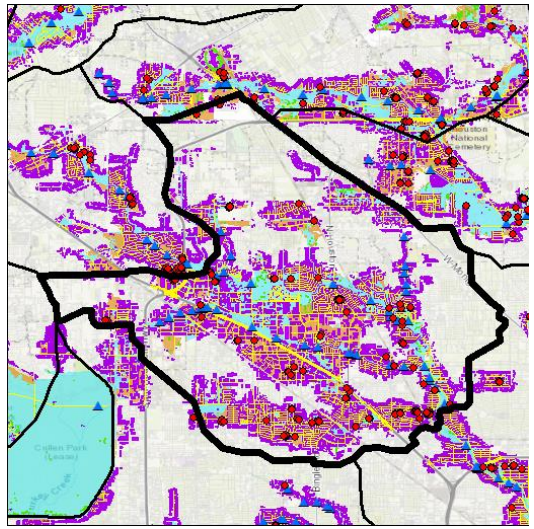
- Tabulation of information related to **existing flood risk**
- All statistics will be based on the Existing 0.2% (500-year) floodplain to correlate with anticipated Atlas 14 floodplain
  - Area in the existing floodplain (square miles)
  - Number of flooded structures (FS)
  - Agricultural areas (square miles) (AA)
  - Quantity of roadway miles (RM)
  - Number of roadway crossings (RC)
  - Number of critical facilities (CR)

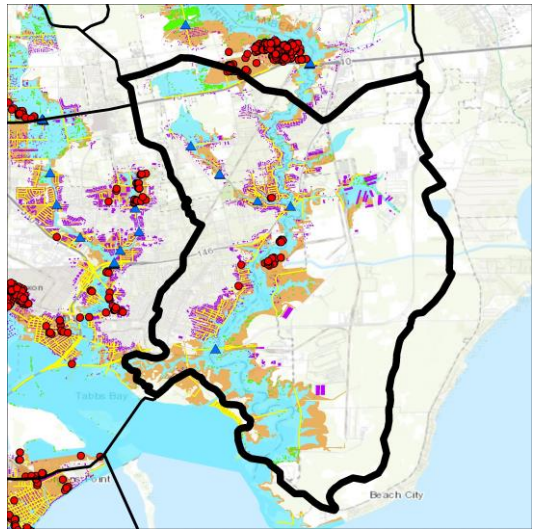
Existing conditions will be weighted 70% for the Category 1 score

1A – Area most prone to flooding (Existing)

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6







Legend

- Critical Facilities
- Crossings
- Roadway
- Structures
- Agricultural Land

	Area	Structures	Ag. Areas	Roadways	Crossings	Critical
HUC 1	97	381	0.02	11	31	0
HUC 2	103	17,333	0.05	242	121	126
HUC 3	98	2,217	0.23	43	30	32

	Area	Structures	Ag. Areas	Roadways	Crossings	Critical	Score
HUC 1	4	2	2	2	3	1	**2.3**
HUC 2	4	5	3	5	5	5	**4.5**
HUC 3	4	3	4	3	3	4	**3.5**

1B – Area most prone to flooding (Future)

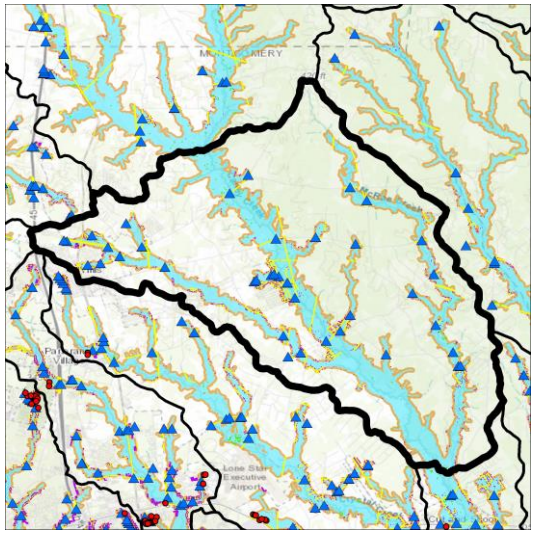
SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

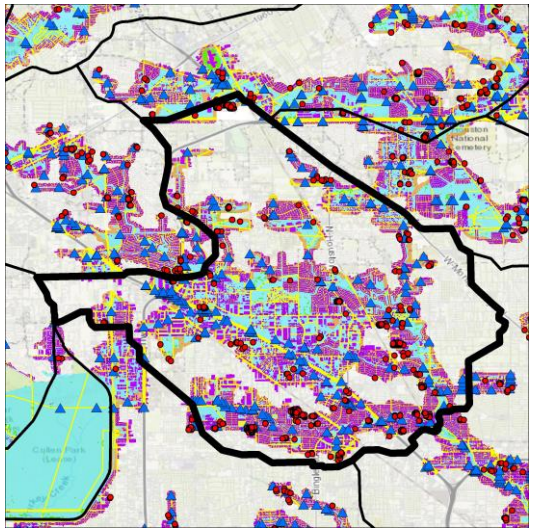
- Tabulation of information related to **future flood risk**
- All statistics will be based on the Future 0.2% (500-year) floodplain to correlate with anticipated Atlas 14 floodplain
  - Area in the existing floodplain (square miles)
  - Number of flooded structures (FS)
  - Agricultural areas (square miles) (AA)
  - Quantity of roadway miles (RM)
  - Number of roadway crossings (RC)
  - Number of critical facilities (CR)

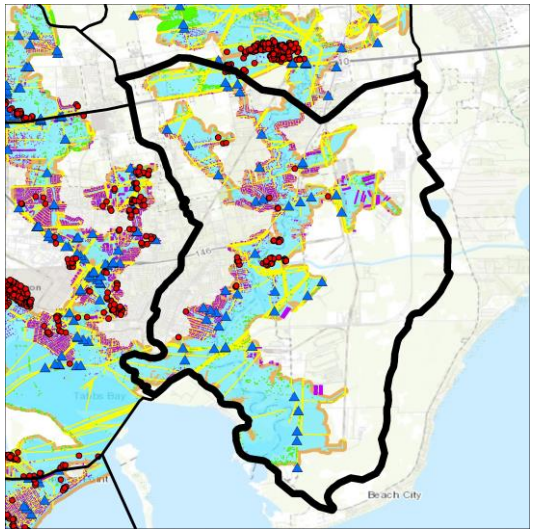
Future conditions will be weighted 30% for the Category 1 score since data is more approximate than existing conditions

1B – Area most prone to flooding (Future)

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6







Legend

- Critical Facilities
- Crossings
- Roadway
- Structures
- Agricultural Land

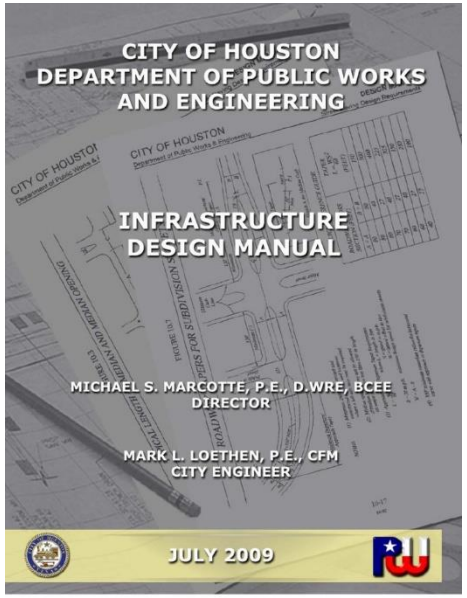
	Area	Structures	Ag. Areas	Roadways	Crossings	Critical
HUC 1	14	1,227	0.03	25	40	0
HUC 2	28	27,653	0.07	346	197	380
HUC 3	19	4,503	0.32	80	42	53

	Area	Structures	Ag. Areas	Roadways	Crossings	Critical	Score
HUC 1	3	2	2	2	3	1	**2.2**
HUC 2	5	5	3	5	5	5	**4.7**
HUC 3	4	4	4	4	3	4	**3.8**

2 – Floodplain Management, Land Use, Infrastructure

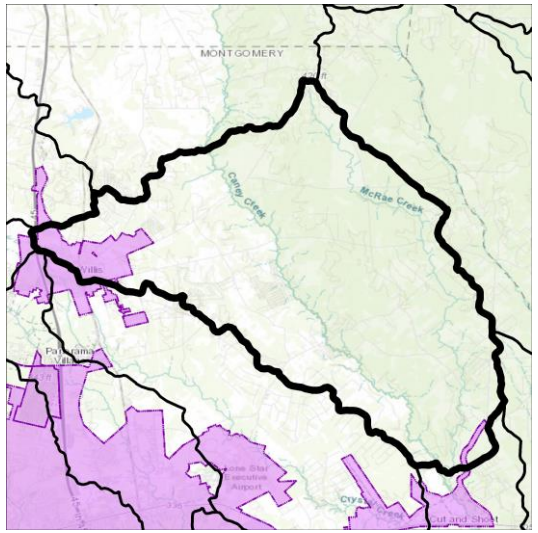
SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

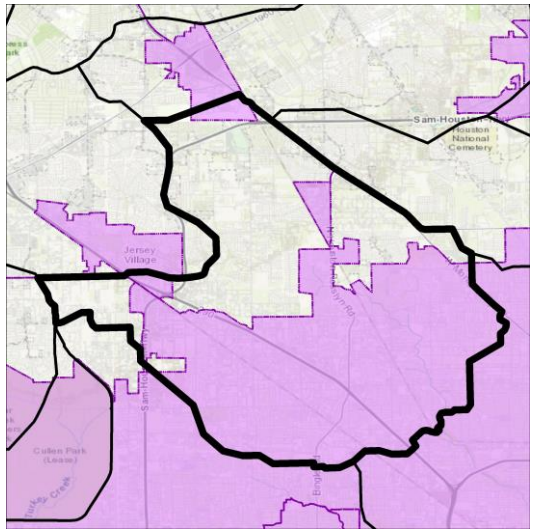
- NFIP Participation indicates floodplain standards for new development
- Drainage Criteria Manual (DCM) typically regulates detention requirements and local drainage infrastructures
- Higher floodplain standards (HFS) indicates additional guidance and requirements for new development such as higher finished floor elevations
- CRS Score indicates the level of higher standards which allows for a reduction in flood insurance for the community

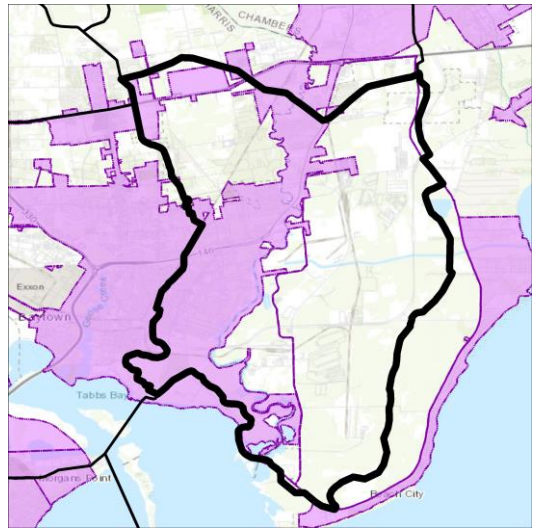


2 – Floodplain Management, Land Use, Infrastructure

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6





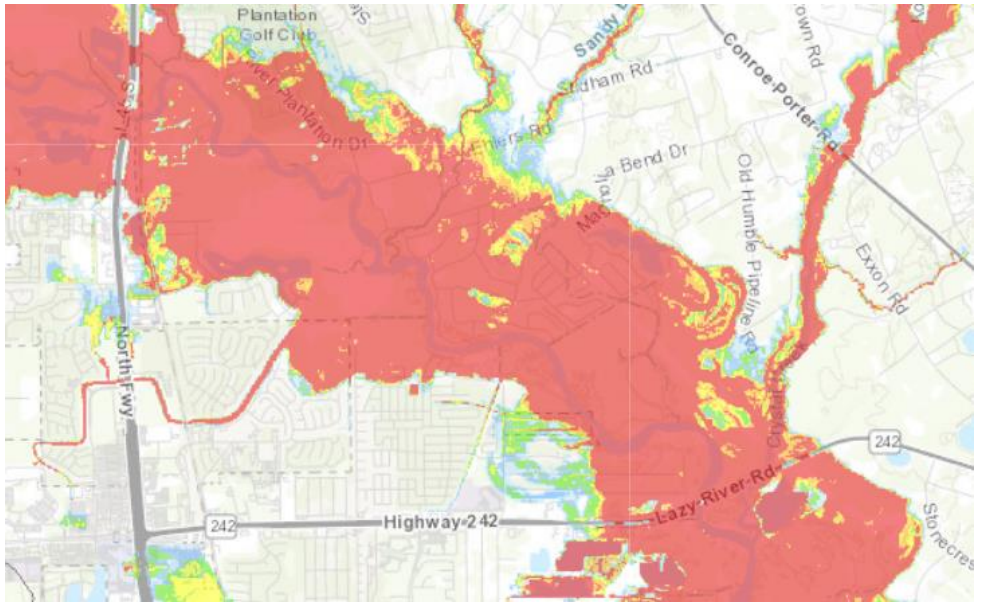


	NFIP	DCM	HFS	CRS	Score
HUC 1	1	1	1	5	**2**
HUC 2	1	1	1	1	**1**
HUC 3	1	1	1	1	**1**

3 – Adequacy of Floodplain Maps
4 – Adequacy of Floodplain Models

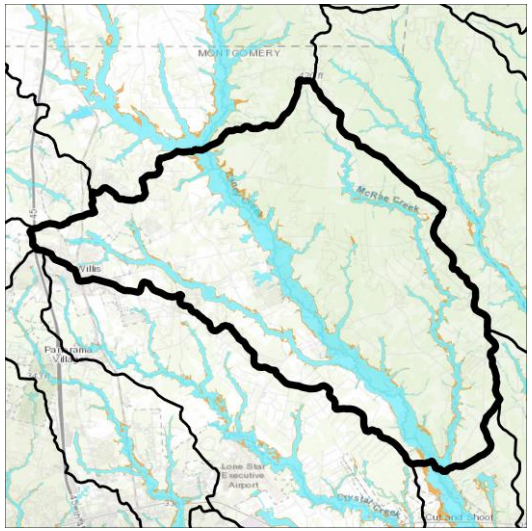
SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

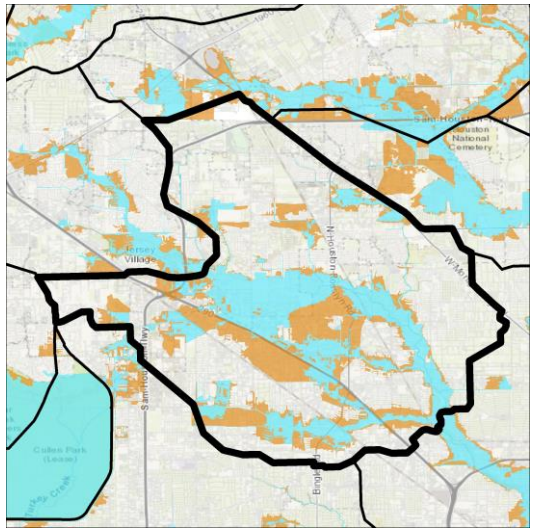
- Implemented maps – ongoing studies (such as MAAPNext) will be included in additional regional planning cycles
- Derived scoring based on type of available mapping and date of implementation
  - No mapping (very few areas)
  - Zone A (approximate limits and no elevations)
  - Pre 2008 (pre-LiDAR data)
  - BLE (updated topography but approximate methods)
  - 2008 – 2018 (Previous LiDAR dataset)
  - 2018 Newest Lidar and Atlas 14

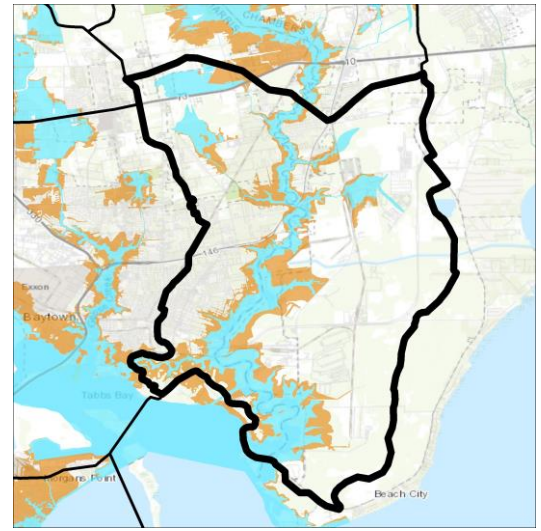


3 – Adequacy of Floodplain Maps
4 – Adequacy of Floodplain Models

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6



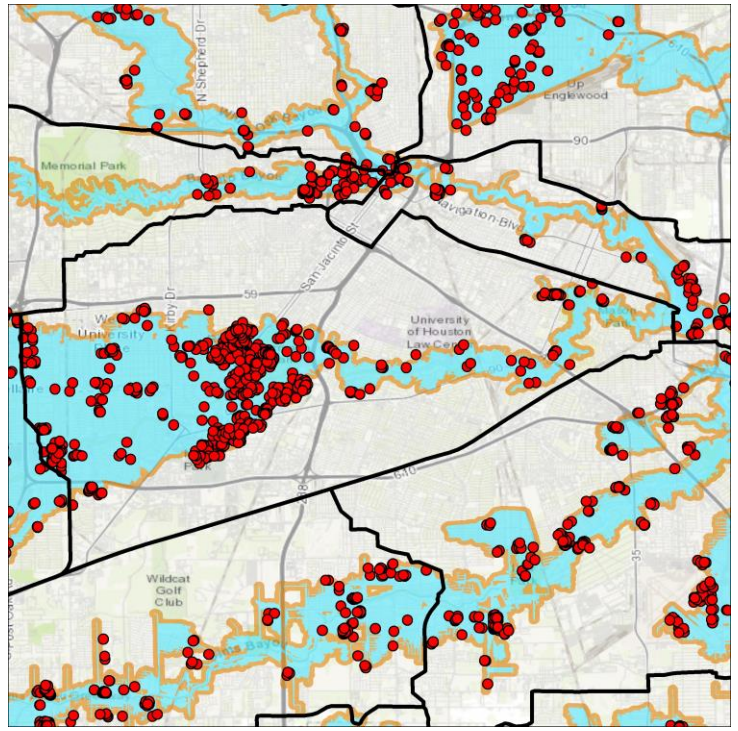




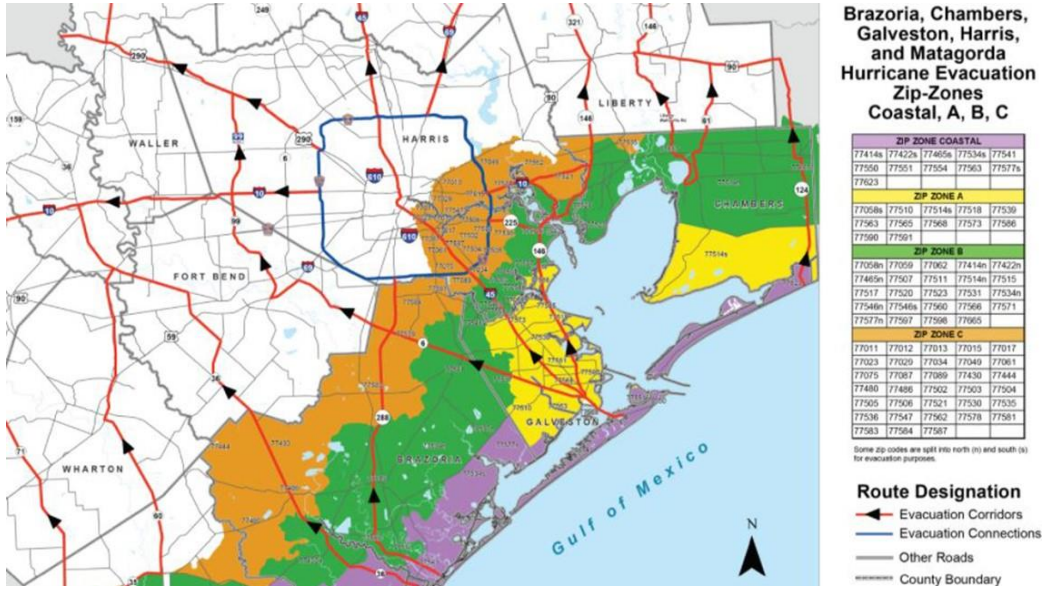
	0 2018+	1 2008-2018	2 BLE	3 Pre 2008	4 Zone A	5 No Map	Score
HUC 1		x					**1**
HUC 2				x			**3**
HUC 3				x			**3**

5 – Emergency Need

- Need as identified by the RFPG
  - FEMA Repetitive Losses/Severe Repetitive Losses (RL/SRL)
  - Critical Facilities within existing 0.2% (CF)
  - Hurricane Evacuation Routes (miles) (HER)

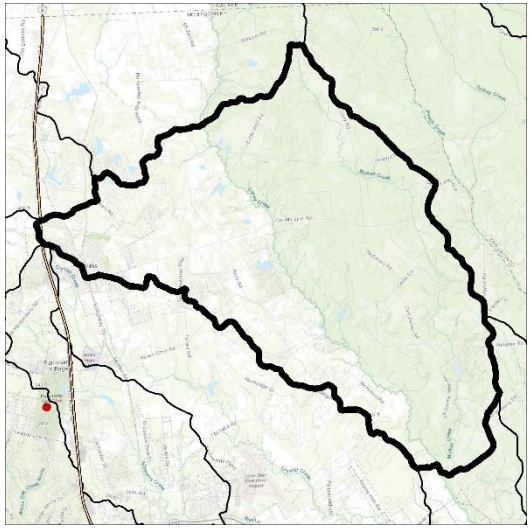


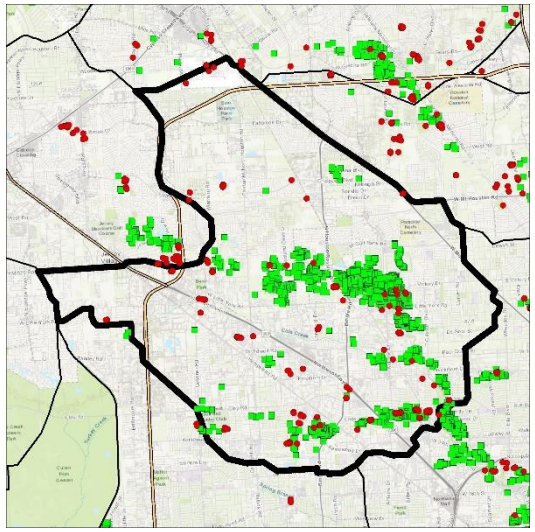
SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

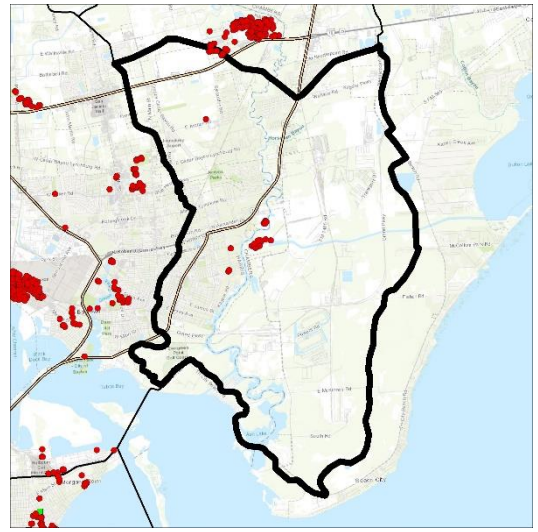


5 – Emergency Need

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6







Legend

- Critical Facilities
- FEMA Repetitive Loss
- Hurricane Evacuation Routes

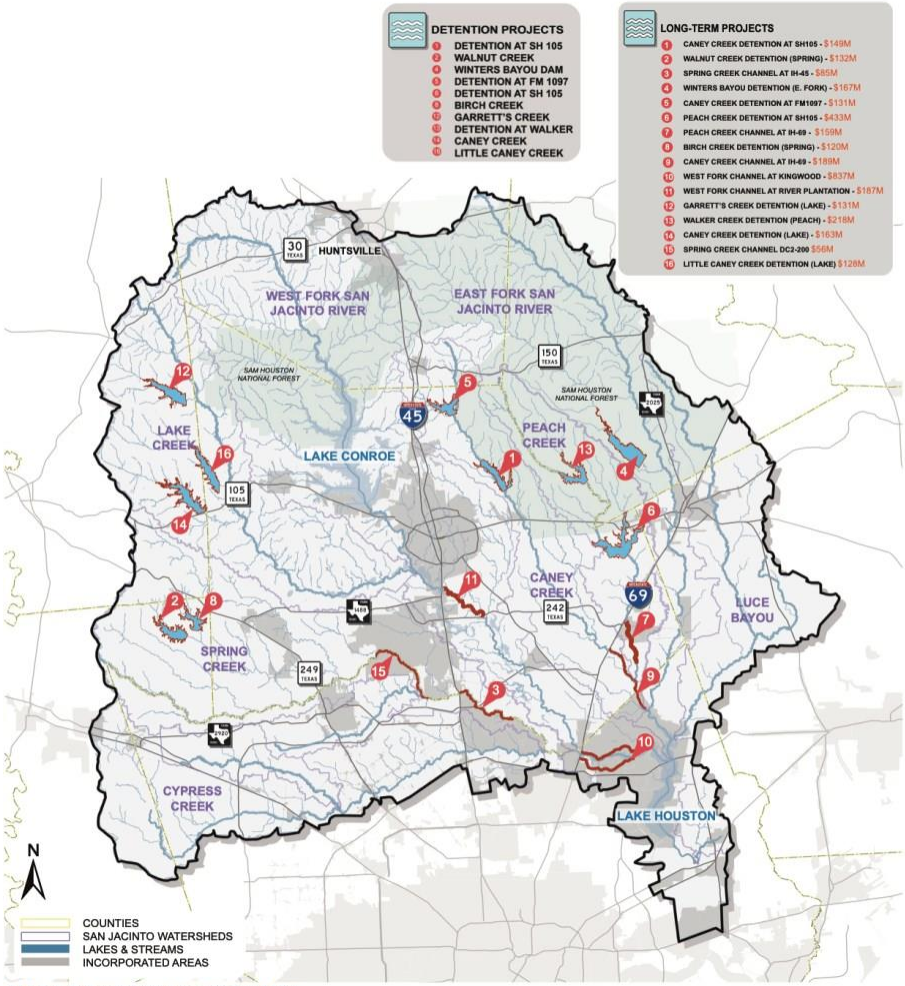
	RL/SRL	CF	HER
HUC 1	0	0	0.0
HUC 2	2,463	126	1.6
HUC 3	0	32	1.1

	RL/SRL	CF	HER	Score
HUC 1	1	1	1	**1**
HUC 2	5	5	4	**4.7**
HUC 3	1	4	3	**2.7**

6 – Existing Modeling Analysis and Mitigation Plans

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

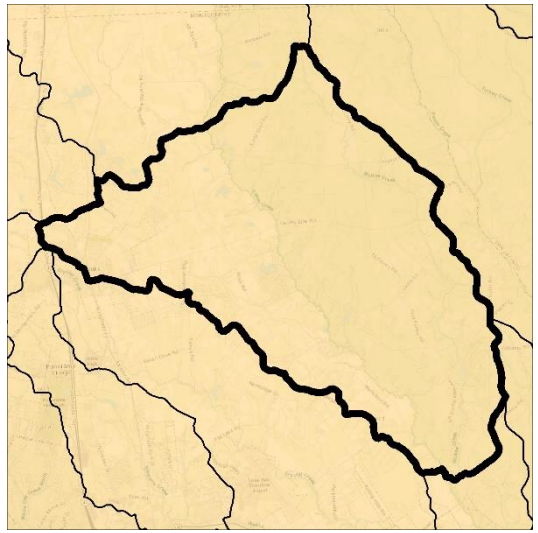
- Master Drainage Plans provide additional information to floodplain mapping including:
  - Infrastructure level of service
  - Local drainage information
  - Mitigation alternatives
  - Implementation and policy plans
- Reverse ranking as number of models and plans will reduce flood risk

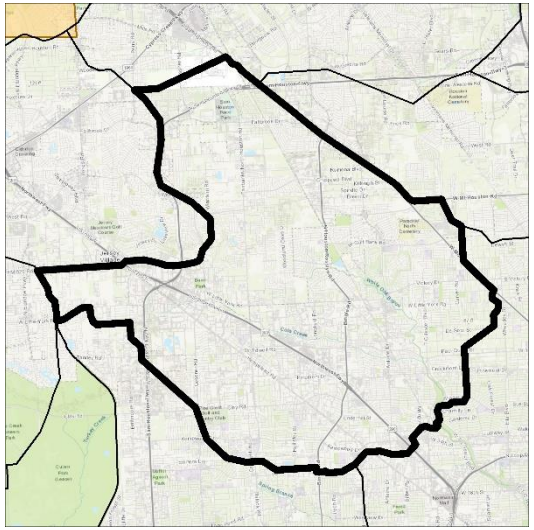


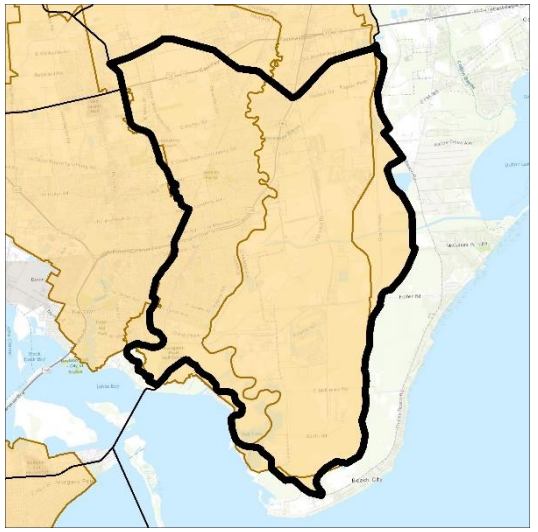
MAP 1.9, PROJECT LOCATION MAP

6 – Existing Modeling Analysis and Mitigation Plans

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6







	Number of Plans	Score
HUC 1	1	4
HUC 2	0	5
HUC 3	5	2

7 – Identified Flood Mitigation Projects

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

- Identified projects from plans/studies that are not implemented nor funded
- Focus of this analysis is **Gaps** and **Needs**
- Proposed projects do not capture the knowledge gaps nor the areas of greatest needs
- Do not want to discount the needs for these projects
  - Will be important in Tasks 4B and 5
- ***Recommend not including Criteria 7 in the assessment.***

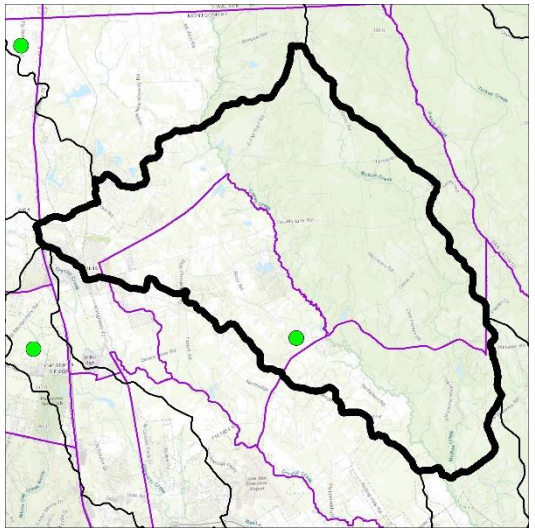
8 – Documentation of Historical Storms

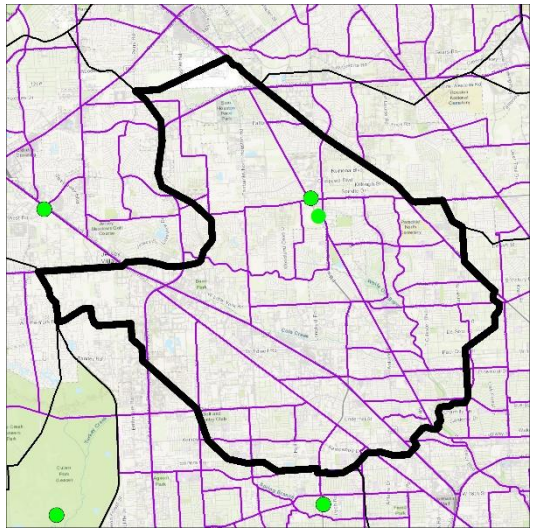
SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

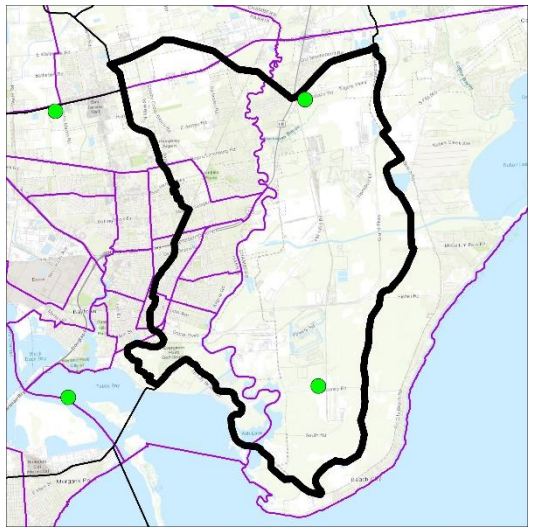
- Number of FEMA claims within each HUC
- Total of property damage of these claims

8 – Documentation of Historical Storms

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6







	Number of Claims	Claim Amount
HUC 1	23	$713,000
HUC 2	10,323	$299,024,000
HUC 3	1,082	$49,322,000

	Number of Claims	Claim Amount	Score
HUC 1	2	1	**1.5**
HUC 2	5	4	**4.5**
HUC 3	3	4	**3.5**

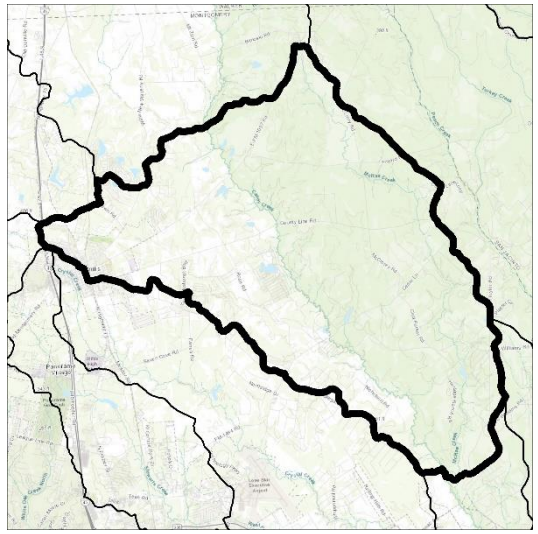
9 – Implemented Flood Mitigation Projects

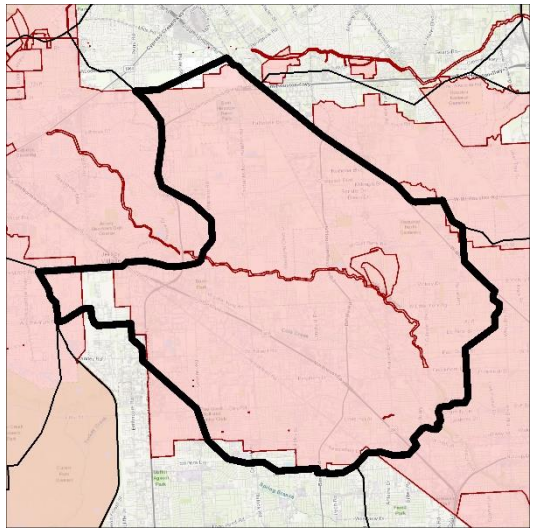
SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

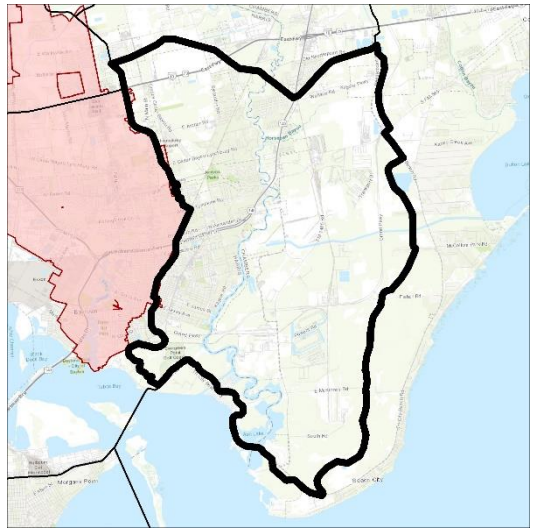
- Number of construction projects ongoing that would reduce flood risk for the HUC
- Flood mitigation projects that are <u>already</u> being implemented
- Reverse ranking as constructed projects will reduce flood risk

9 – Implemented Flood Mitigation Projects

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6



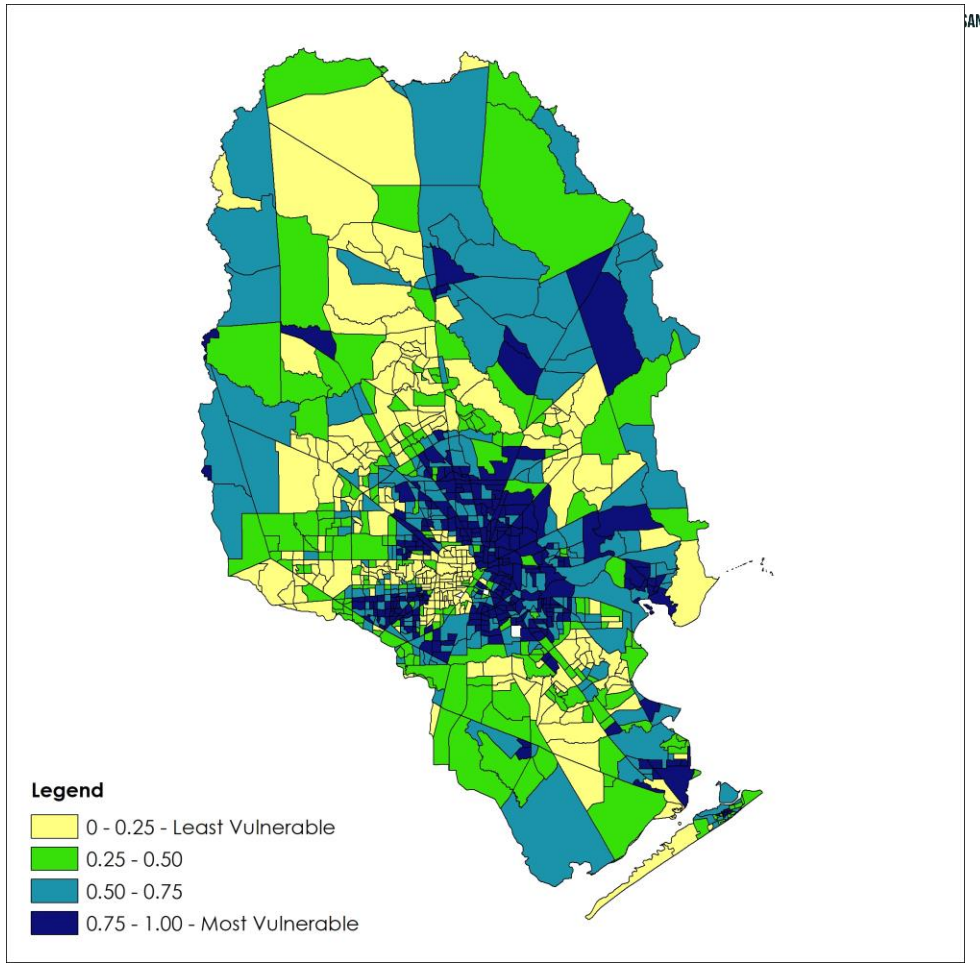




	Number of Projects	Score
HUC 1	0	**5**
HUC 2	15	**1**
HUC 3	1	**4**

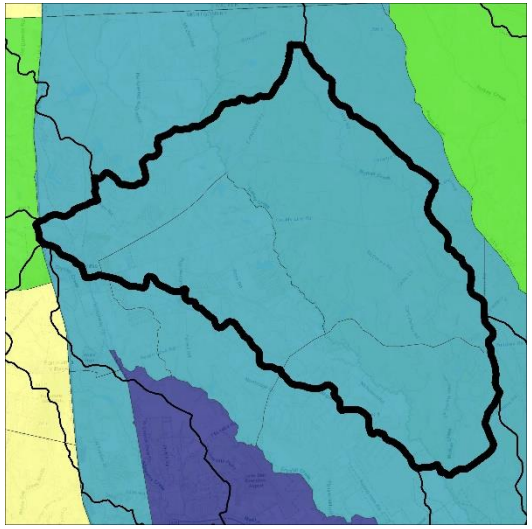
10 – Other Factors

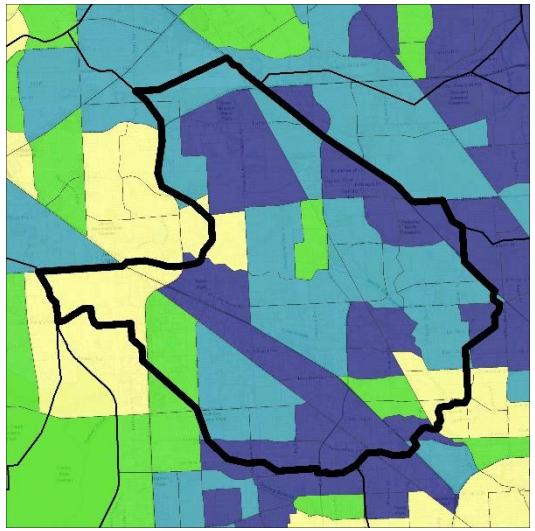
- Social Vulnerability Index (SVI) indicates how quickly an area may be able to recover to flooding events
- Low SVI may be able to respond more successfully than High SVI areas
- Score is applied to the entire HUC, not just the floodplain as flooding can occur outside of the identified flood hazard areas

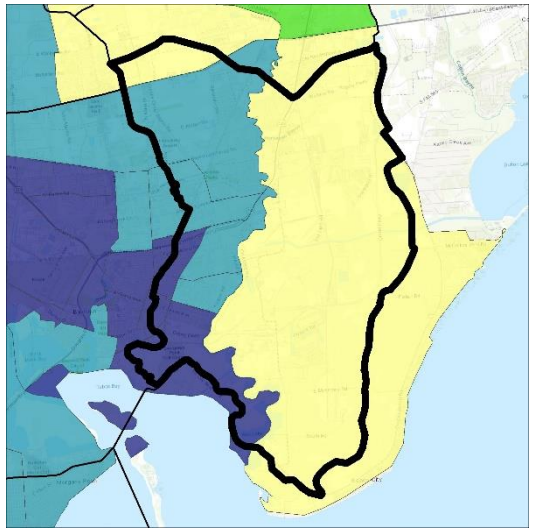


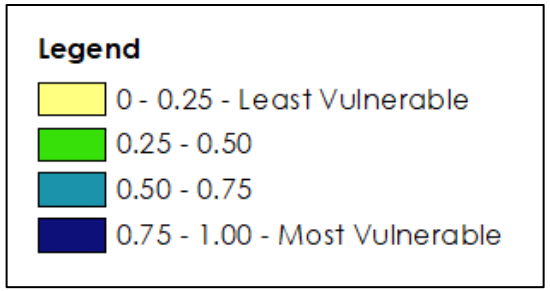
10 – Other Factors (SVI)

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6









	1 0-0.33	2 0.331-0.41	3 0.411-0.49	4 0.491-0.59	5 0.591+
HUC 1				x	
HUC 2					x
HUC 3					x

Flood Mitigation Needs Analysis

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Flood prone areas where the greatest **flood risk knowledge gaps** exist (and where the RFPG should consider identifying potentially feasible flood risk studies as FMEs)

Greatest **known flood risk** and flood mitigation needs in the region and resulting need of potential strategies and projects (FMSs and FMPs) to reduce those risks

Item	Knowledge Gap	Flood Risk Need
1		X
2		X
3 & 4	X	
5		X
6	X	
8		X
9	X	X
10		X

Total Score

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Combination of all categories

Knowledge Gap

	Models and Mapping	Mitigation Plans & Models	Projects	Score
	3 & 4	6	9	
HUC 1	1	4	5	**10**
HUC 2	3	5	1	**9**
HUC 3	3	2	4	**9**

Flood Risk Need

	Areas Prone to Flooding		Policies	Emergency Need	Historic Flood Events	Projects	SVI	Score
	1a (70%)	1b (30%)	2	5	8	9	10	
HUC 1	2.3	2.2	2	1.0	1.5	5	4	**15.8**
HUC 2	4.5	4.7	1	4.7	4.5	1	5	**20.8**
HUC 3	3.5	3.8	1	2.7	3.5	4	5	**19.8**

Total Score

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Combination of all categories

Knowledge Gap

	Models and Mapping	Mitigation Plans & Models	Projects	Score
	3 & 4	6	9	
HUC 1	1	4	5	**10**
HUC 2	3	5	1	**9**
HUC 3	3	2	4	**9**

Flood Risk Need

	Areas Prone to Flooding		Policies	Emergency Need	Historic Flood Events	Projects	SVI (50%)	Score
	1a (70%)	1b (30%)	2	5	8	9	10	
HUC 1	2.3	2.2	2	1.0	1.5	5	4	**13.8**
HUC 2	4.5	4.7	1	4.7	4.5	1	5	**18.3**
HUC 3	3.5	3.8	1	2.7	3.5	4	5	**17.3**

Total Score

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Combination of all categories

Knowledge Gap

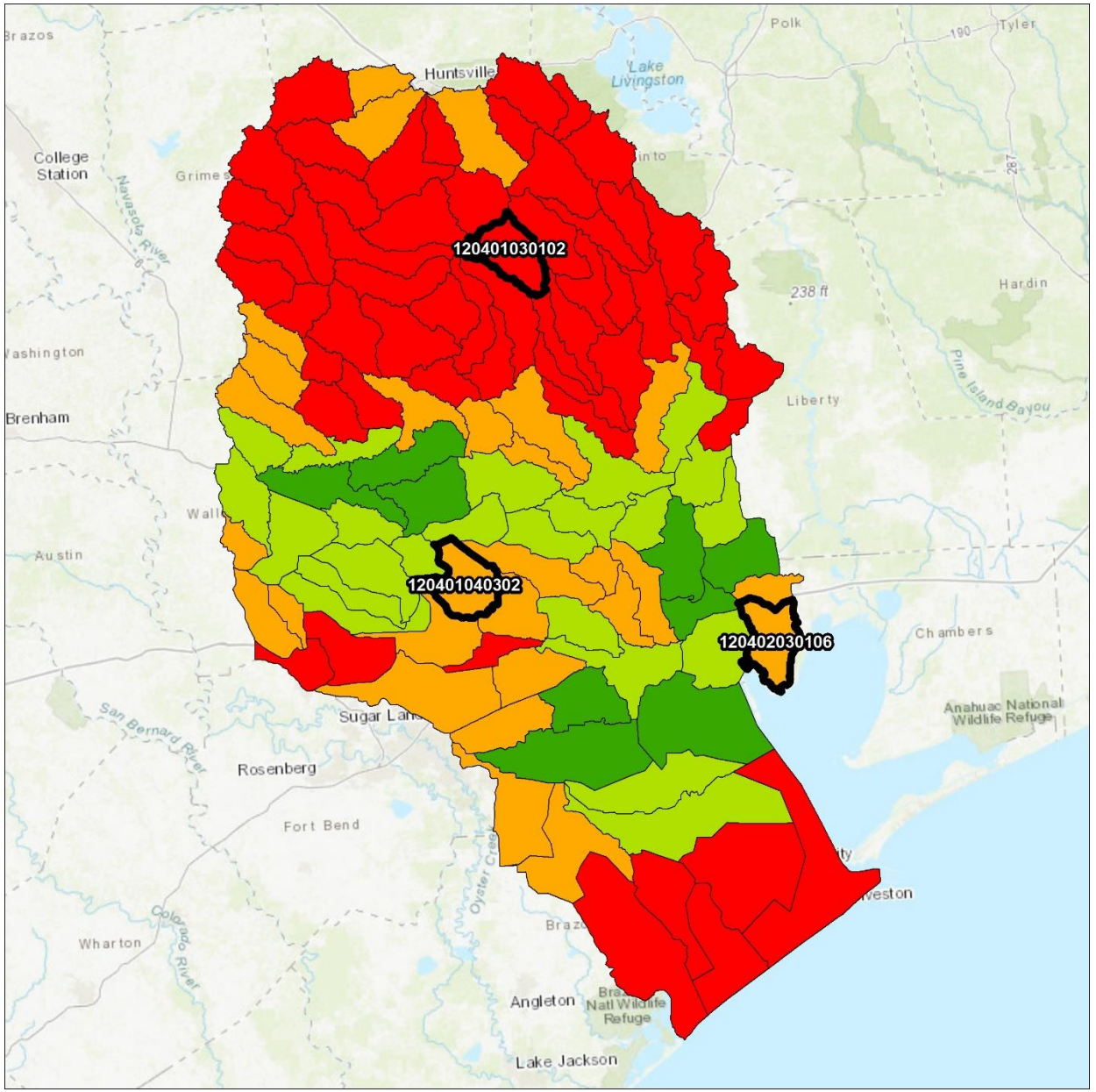
	Models and Mapping	Mitigation Plans & Models	Projects	Score
	3 & 4	6	9	
HUC 1	1	4	5	**10**
HUC 2	3	5	1	**9**
HUC 3	3	2	4	**9**

Flood Risk Need

	Areas Prone to Flooding		Policies	Emergency Need	Historic Flood Events	Projects	Score
	1a (70%)	1b (30%)	2	5	8	9	
HUC 1	2.3	2.2	2	1.0	1.5	5	**11.8**
HUC 2	4.5	4.7	1	4.7	4.5	1	**15.8**
HUC 3	3.5	3.8	1	2.7	3.5	4	**14.8**

Total Score

Flood Risk Knowledge Gaps
map



Example map, data will be refined

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Next Steps for Task 4A

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

- Incorporate any RFPG comments on Task 4A Approach
- Execute Task 4A
- Identify study and flood mitigation project needs and incorporate any recommendations as part of Task 4B and Task 5
- Identify data gaps that could be addressed in future flood planning cycles:
  - Additional structures, roadways, and other infrastructure built in the future
  - Additional studies and projects that are developed in between this and the next flood plan (such as MAAPNext)
  - Depth of flooding
  - Community input as to where emergencies occur

Task 3A: Floodplain Management Practices

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Guidance:

- **Evaluation of floodplain management practices**
  - NFIP participation
  - Collect and inventory codes and criteria
  - Higher Standards
  - Level of enforcement
  - Level of floodplain management practices
  - Develop ExFpMP Table and associated map

Task 3A: Floodplain Management Practices

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Guidance:

- Evaluation of floodplain management practices
- **Recommendations on floodplain management practices**
  - *Recommend* floodplain management standards for consideration by regulatory entities
  - *Adopt* minimum standards required to be adopted by local entities prior to the RFPG including any FMEs, FMSs, or FMPs
  - Consider how RFPG goals tie-in to identified standards

Regional Criteria Overview

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Participation in the NFIP

97%

Entities with "Strong" Standards

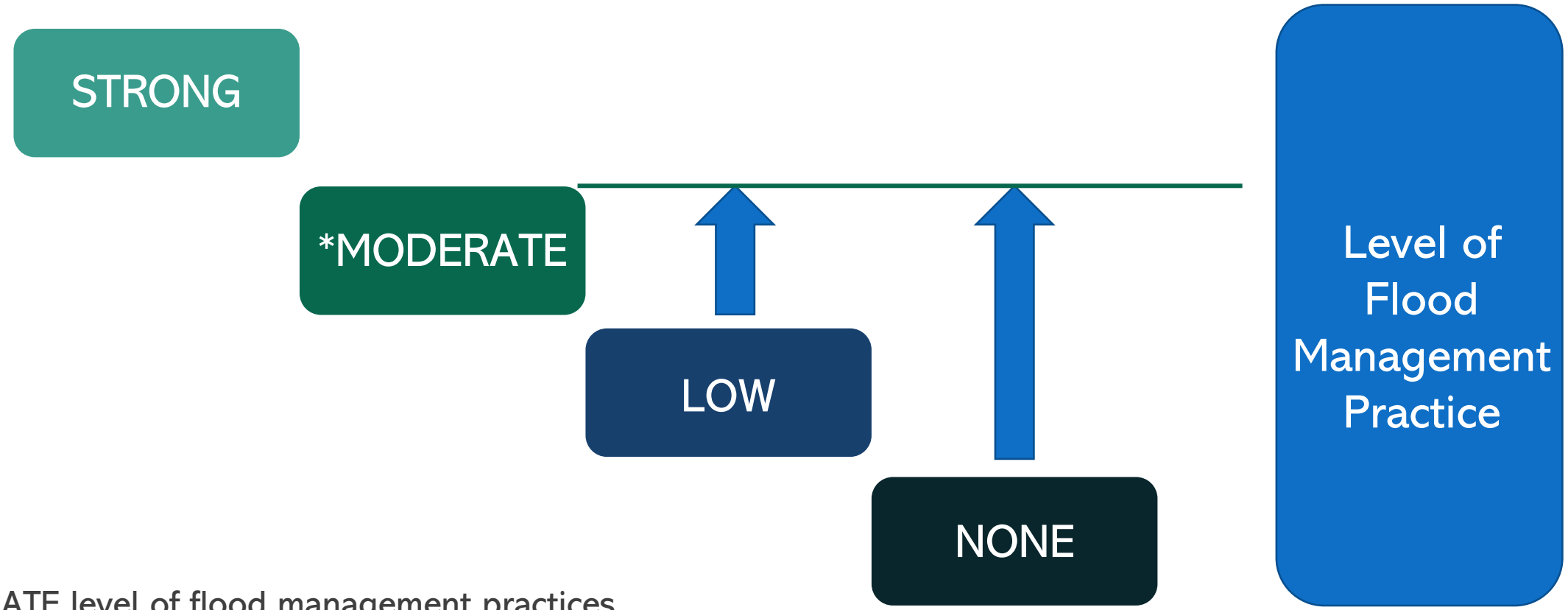
36%

78%

Entities with Higher Standards

Recommended Approach for the 1st Cycle

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6



*MODERATE level of flood management practices indicates those entities that have implemented *some* higher standards beyond NFIP minimums

Preliminary List of Identified Standards

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

1. Participation in the NFIP
2. Defining Region-wide No Adverse Impact Policy
3. Establish Minimum FFEs
4. Encourage use of Best-Available Rainfall (Atlas-14)
5. Compensatory Storage in the 1% Floodplain (100-year)
6. Compensatory Storage in the 0.2% Floodplain (500-year)
7. Development of Detailed H&H Analysis Criteria/Requirements
8. Incentivizing the Preservation of the Floodplain

Potential Minimum Standard

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

1. Participation in the National Flood Insurance Program (NFIP)

- All regulatory entities to implement ordinances that meet minimum requirements per the NFIP
- All regulatory entities to remain active NFIP participants in good standing

- *RFPG to consider noting resources in Chapter 3A or recommend actions within the plan to encourage implementation*

2. Defining Region-wide No Adverse Impact Policy

- No increase in peak water surface elevation equal to or greater than 0.01-ft on another property
- No loss in floodplain storage on the property
- No increase in peak flow rates to the receiving downstream waterway

Potential Minimum Standard

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

3. Establish Minimum Finished Floor Elevations

- All new habitable structures shall have a finished floor elevation established at or waterproofed to the 500-year flood elevation as shown in effective Flood Insurance Studies (FIS).

4. Encourage use of Best-Available Rainfall Data

- Utilize the latest rainfall data (NOAA Atlas 14) when developing regulations and criteria.
- Utilize the latest rainfall data (NOAA Atlas 14) when conducting new impact analyses and when designing drainage infrastructure.

Potential Minimum Standard

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

5. Compensatory Storage Requirements in the 1% AEP Floodplain

- Any reduction in floodplain storage or conveyance capacity within the 1% annual chance regulatory floodplain must be offset with a hydraulically equivalent (one-to-one) volume of mitigation sufficient to offset the reduction, except in areas identified as coastal flood zones (FEMA Flood Zone V and VE). Mitigation shall be provided within the same watershed from which floodplain storage was reduced.

6. Compensatory Storage Requirements in the 0.2% AEP Floodplain

- Any reduction in floodplain storage or conveyance capacity within the 0.2% annual chance regulatory floodplain must be offset with a hydraulically equivalent (one-to-one) volume of mitigation sufficient to offset the reduction, except in areas identified as coastal flood zones (FEMA Flood Zone V and VE). Mitigation shall be provided within the same watershed from which floodplain storage was reduced.

Potential Minimum Standard

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

7. Development of Detailed H&H Analysis Criteria/Requirements

- This measure includes efforts to develop hydrologic and hydraulic modeling criteria or requirements, as appropriate for the area of the flood planning region and identify characteristics of a development that would warrant a full hydrologic and hydraulic analysis.

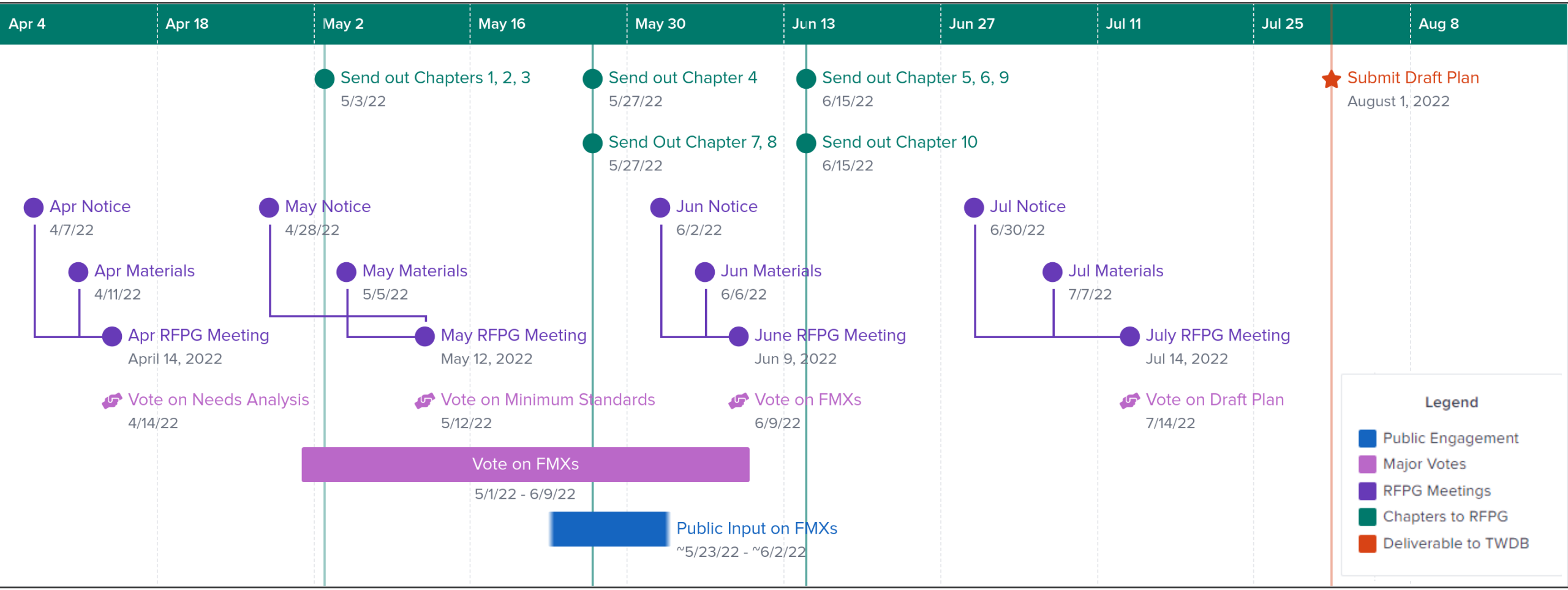
8. Incentivizing the Preservation of the Floodplain

- Encourage regulatory entities to explore and develop systems for incentivizing the preservation of the floodplain to reduce development directly within the regulatory floodplain.

- *RFPG to consider incorporating an FMS to facilitate the implementation of a local preservation program.*
- *RFPG to consider making regulatory recommendations as part of Task 8.*

Schedule through Draft RFP

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6



Recap on FMXs

Evaluated in Task 4B but recommended by the RFPG in Task 5

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

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

FMP

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

FMS

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

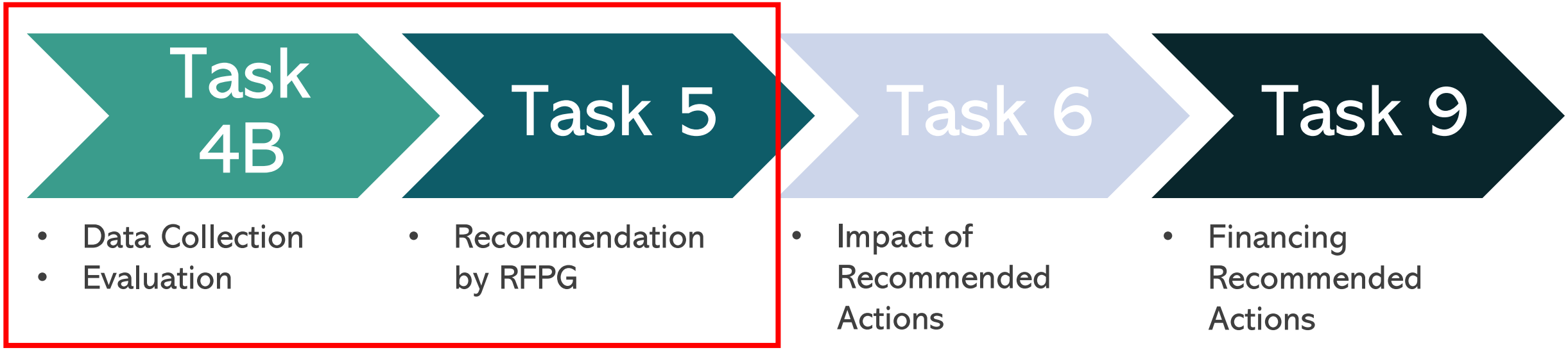
RFP Recommended Actions

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Task 4B	Task 5	Task 6	Task 9
• Data Collection • Evaluation	• Recommendation by RFPG	• Impact of Recommended Actions	• Financing Recommended Actions

RFP Recommended Actions

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6



Task 4B & 5 Process - FMEs

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Data Collection

- Collect available information on identified studies
- Contact sponsors to identify interest in potential FME, if study is still needed, refine inputs
- Propose FMEs, as needed, in areas of greatest need (Task 4A results)
- Populate required information including cost estimates, flood risk indicators, etc.

Evaluation

- Calculate planning level cost estimates
- Populate Flood Risk Indictors and other required TWDB data for FMEs
- Remove Identified FMEs that do not support a goal; Ensure FMEs cover adopted goals
- Identify FMEs that could be promoted to FMP as part of the amended plan

Recommend

- Final FME Recommendations
- TWDB Considerations

Task 4B & 5 Process - FMEs

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Considerations for Recommendation:

- FMEs that are most likely to identify potentially feasible FMSs/FMPs
- FMEs that evaluate, at a minimum, the 100-year
- FMEs that support goals adopted by the RFPG
- Overlap between FMEs or ongoing studies
- FMX sponsorship does not obligate the entity to take action or take financial responsibility

"Not every conceivable FME will be recommended in the regional plan. The RFPG and their TC must decide which identified potential FMEs will be recommended in their regional plan in order to ensure … limited resources can be directed efficiently…"

Task 4B & 5 Process - FMPs

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Data Collection

- Collect available information on identified studies
- Contact sponsors to identify interest in potential FMP, if study is still needed, refine inputs
- Populate required information including cost estimates, flood risk indicators, etc.

Evaluation

- Determine if infeasible (focused on response or recovery, no benefit in 100-year, dependent on infeasible action, negative impact)
- Confirm no negative impact, cost benefit analysis, other TWDB requirements
- Remove Identified FMPs that do not support a goal; Ensure FMPs cover adopted goals

Recommend

- Final FMP Recommendations
- TWDB Considerations

Task 4B & 5 Process - FMPs

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

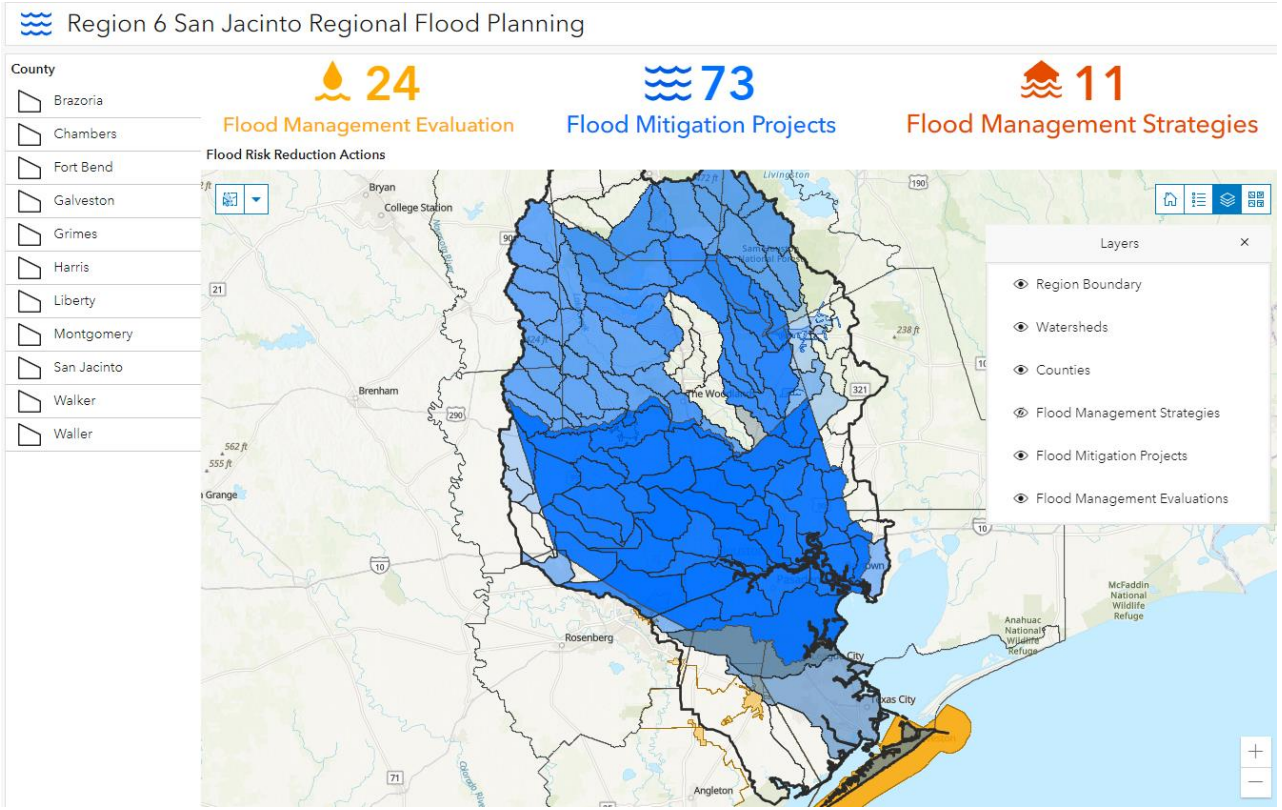
Considerations for Recommendation:

- FMPs demonstrate flood risk reduction in the 100-year
- FMPs may not negatively impact neighboring areas
- FMPs that contribute to water supply may not result in an overallocation of a water source
- Overlap or redundancy in proposed FMPs
- Focus on FMPs with contributing drainage area greater than 1 square mile
- FMX sponsorship does not obligate the entity to take action or take financial responsibility

Task 4B & 5 Process

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

- Utilize GIS Dashboard and One-Page-Summaries
- Perform all analysis prior to discussing with the RFPG
- Provide sufficient time for RFPG review ahead of voting
- Group FMXs strategically to hold votes for efficiency



Public Engagement Updates

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

- Identifying public engagement metrics that support the goals outlined in the SJRFPG Communications and Media Engagement Plan.
  - How can we measure meaningful engagement beyond quantitative metrics through the RFPG website, social media platforms, and public comment management system?
- Identifying additional engagement opportunities as well as opportunities to leverage RFPG member participation.
- Planning for the next RFPG public engagement meetings, per recommendations from the Public Engagement Committee.

Public Engagement Meeting Recommendations

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

- Three Meetings
  - Two In-Person Meetings
  - One Virtual Meeting
- Format
  - Open-house style (in-person and virtual)
- Accommodations
  - Live Interpretation
  - Translated Meeting Notices/Materials
- Targeted Timeframe
  - May 23 – June 3, 2022

Item 11:
Update and Recommendation from the Technical Committee and possible action from the RFPG as it pertains to the technical approach for conducting the Needs Analysis (Task 4A)

Item 12:
Update and recommendation from the Public Engagement Committee, discussion, and possible action from the RFPG as it pertains to the development of the Communications and Outreach Plan

Communications Plan Goals

SAN JACINTO REGIONAL FLOOD PLANNING GROUP
REGION 6

Identify communication strategies, methods, and tools to facilitate stakeholder participation and meet the evolving needs of stakeholders throughout the San Jacinto planning region.

Communicate information consistently and efficiently so that it reaches and engages as many audiences as possible throughout the San Jacinto planning region.

Drive overall awareness of the SJRFPG and its efforts to develop an RFP to reduce existing flood risks to life and property and avoid increasing flood risk in the future.

Provide opportunities for interested stakeholders to provide input and participate in the development of the RFP.

Track and report regularly on public engagement activities and public input to allow for adjustments that reach and accommodate stakeholders.

Item 13:
Approval and Certification of Administrative Expenses Incurred by The Project Sponsor for The Development of Regional Flood Plan

Administrative Expenses Incurred by Project Sponsor for 02/12/2022 – 03/25/2022

From	To	Hours Worked	Total Salary	Social Security	Group Insurance	Workers Comp	Unemployment Insurance	Retirement	Total	FY
2/12/2022	2/25/2022	4.50	155.10	11.86	35.46	1.36	0.50	24.35	228.63	FY2022
2/26/2022	3/11/2022	6.00	206.80	15.82	47.28	1.82	0.66	32.47	304.85	FY2022
3/12/2022	3/25/2022	7.00	243.65	18.64	55.16	2.14	0.24	38.25	358.08	FY2022
2/12/2022	2/25/2022	35.59	981.89	75.12	280.44	8.64	3.14	154.16	1,503.39	FY2022
2/26/2022	3/11/2022	38.75	1,069.07	81.79	305.34	9.41	3.42	167.85	1,636.88	FY2022
3/12/2022	3/25/2022	29.58	824.36	63.08	233.08	7.25	0.82	129.42	1,258.01	FY2022
			2,656.51	**203.23**	**723.68**	**23.37**	**7.96**	**417.08**	**4,031.83**	

Item 14:
Presentation of 2022 Planning Group Key Dates and Deadlines:

a. Upcoming Planning Schedule Milestones
b. Next SJRFPG Planning Meeting to be held on May 12, 2022

Item 15:
Update and Discussion Pertaining to In-Person RFPG Meeting Location(s)

Item 16:
Reminder Regarding Planning Group Member Training on Public Information Act and Open Meetings Act

Item 17:
Consider Agenda Items for Next Meeting

Item 18:
Public Comments – Limit 3 Minutes per Person

Item 19: Adjournment