

TEXAS WATER DEVELOPMENT BOARD COOPERATING TECHNICAL PARTNER (CTP) STATEWIDE PRIORITIZATION

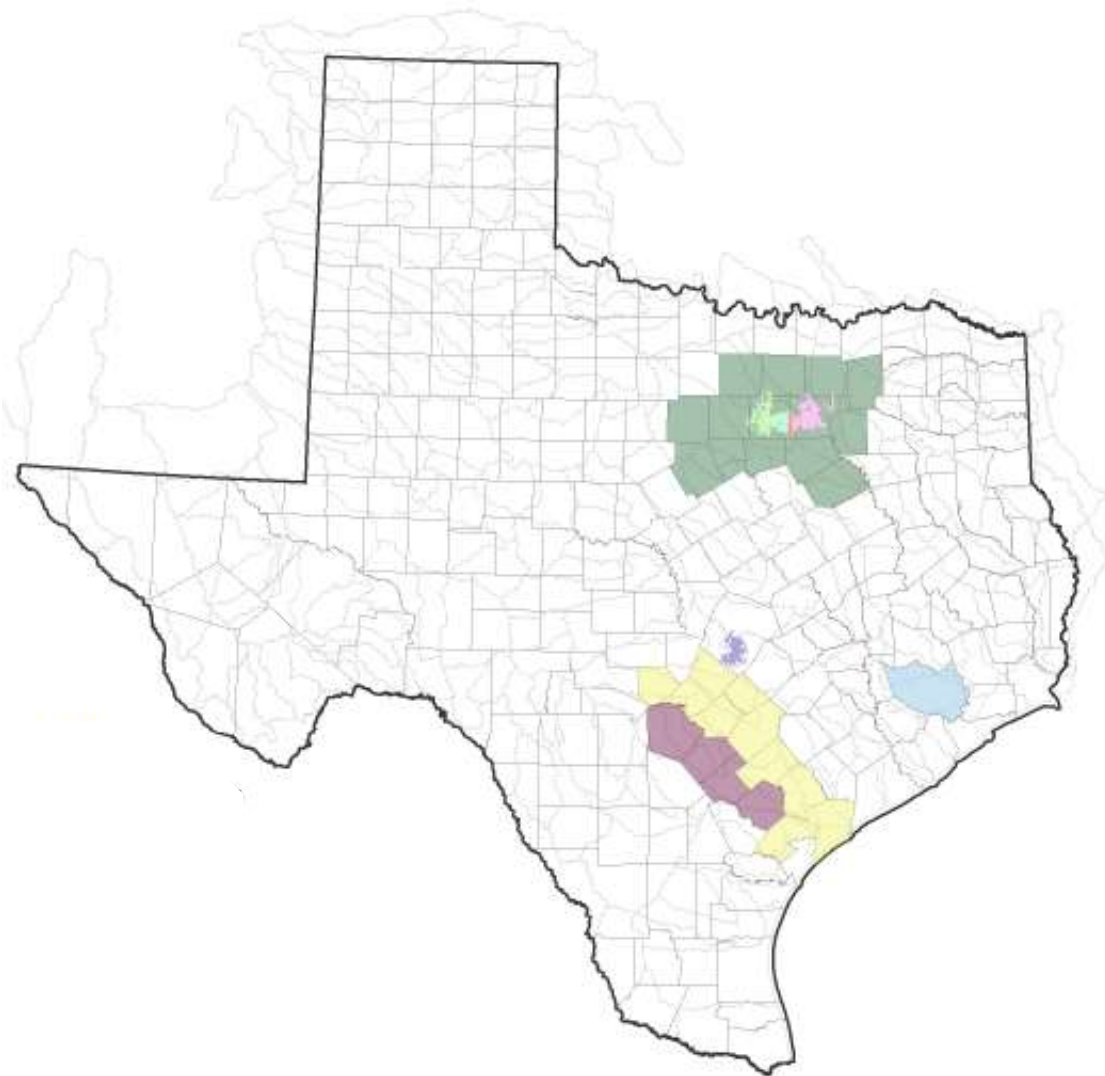
**MANUEL RAZO, GISP, CFM
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**ASFPM, PHOENIX, ARIZONA
JUNE 21, 2018**

TEXAS WATER DEVELOPMENT BOARD

- FEMA CTP since 2000
- National Flood Insurance State Program
- Federal and State Grant & Loan Programs
- Texas Natural Resources Information System
 - State clearinghouse for geographic information
 - Floodplain Mapping Services
 - Technical assistance for mapping issues
 - Map printing, aerial & elevation data
 - High water marks and Low water crossings





ACTIVE TEXAS

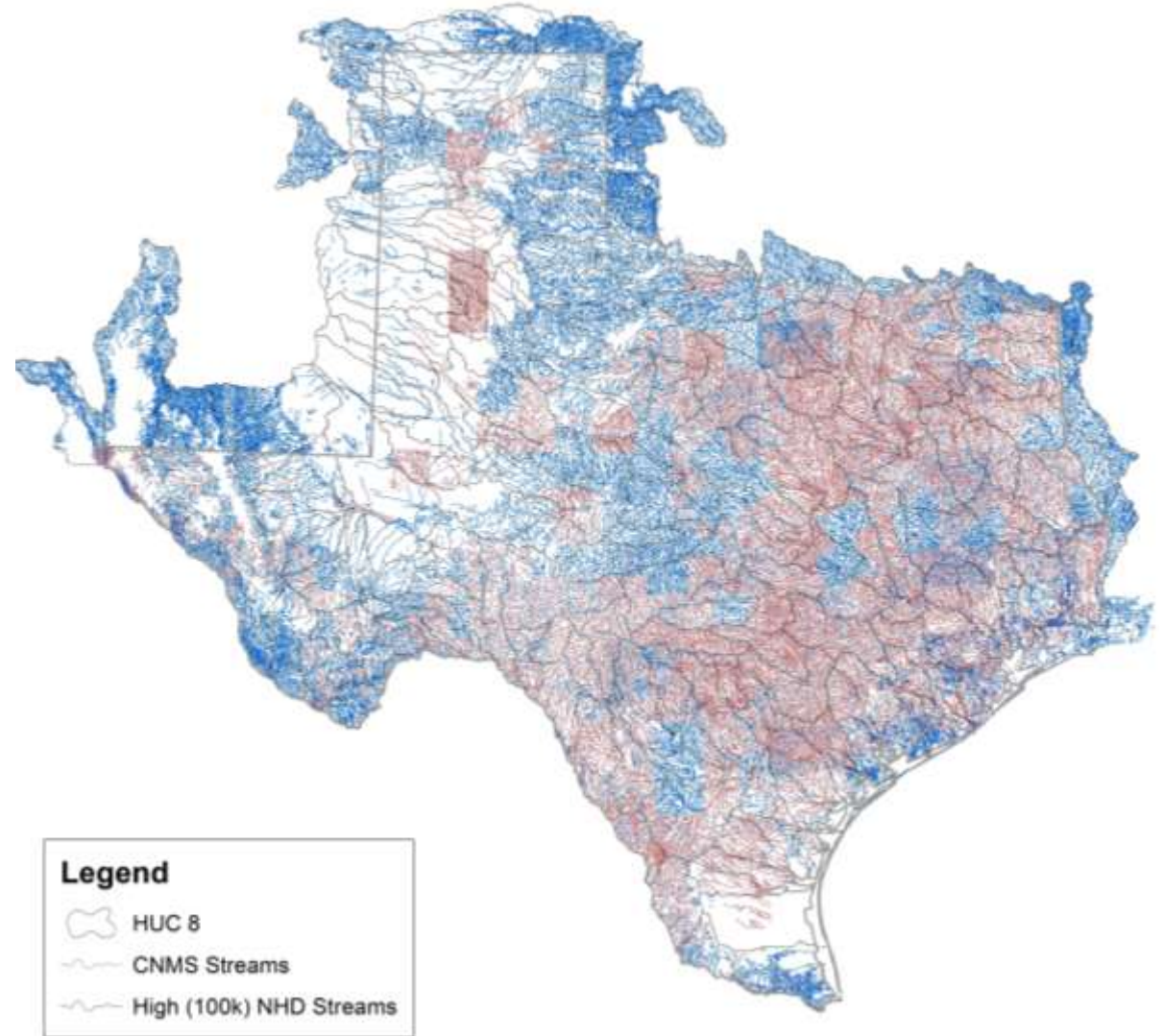
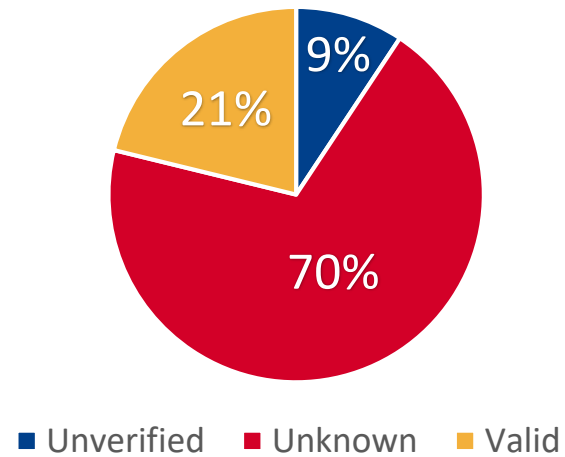
COOPERATING TECHNICAL PARTNERS

- Arlington
- Austin
- Dallas
- Fort Worth
- Grand Prairie
- GBRA
- HCFCD
- NCTCOG
- SARA
- TAMU

FEMA COORDINATED NEEDS MANAGEMENT STRATEGY

- Texas Stream Inventory
 - Approximately 120,000 miles of stream

Study Status



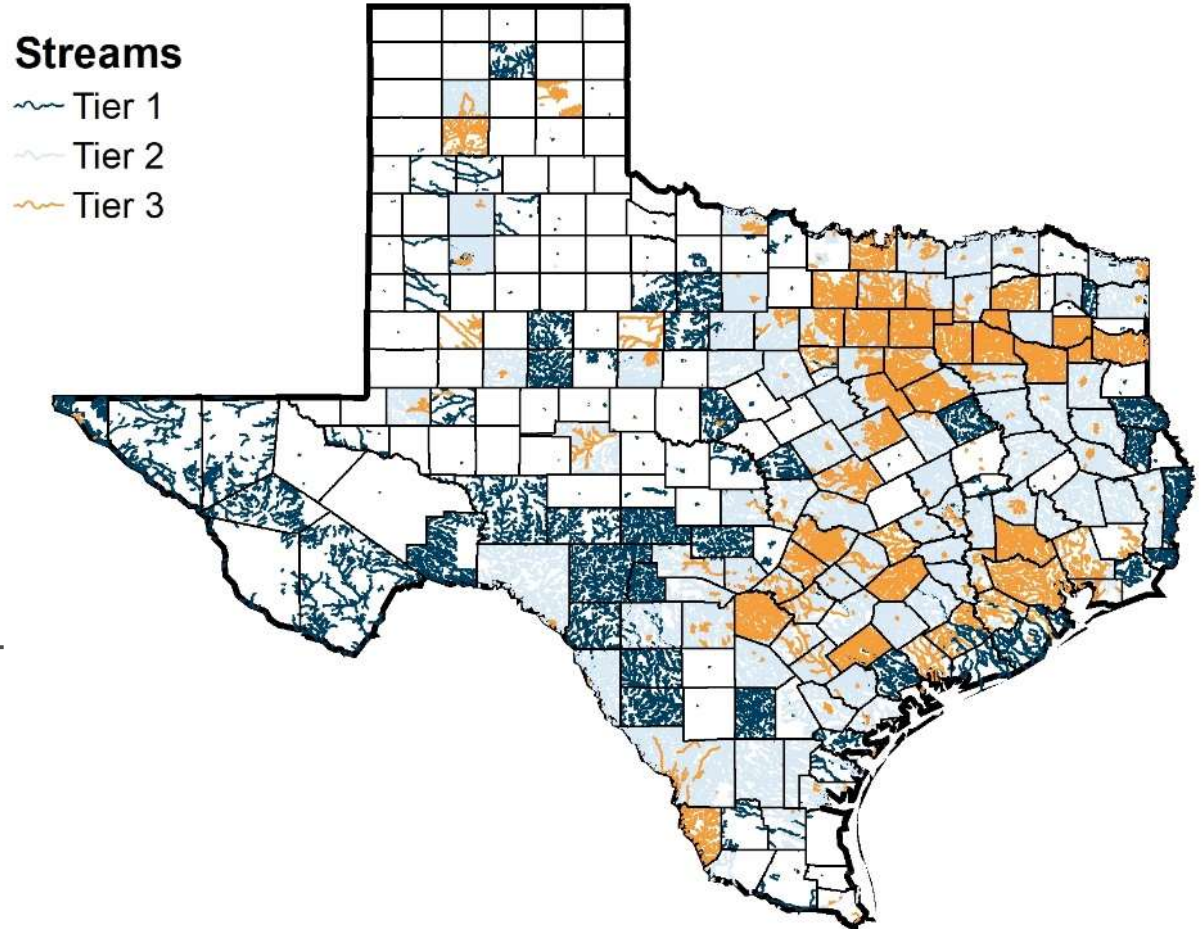
FEMA COORDINATED NEEDS

MANAGEMENT STRATEGY

■ Texas Stream Inventory Tier Classifications

- *Tier 0:* Known to be flood prone but not yet identified as SFHA. (0%)
- *Tier 1:* SFHA is not available in digital format. (23%)
- *Tier 2:* SFHA is available as a digital product, but not known to be model-backed. (48%)
- *Tier 3:* SFHA is available as a digital product, model-backed with high quality elevation (29%)

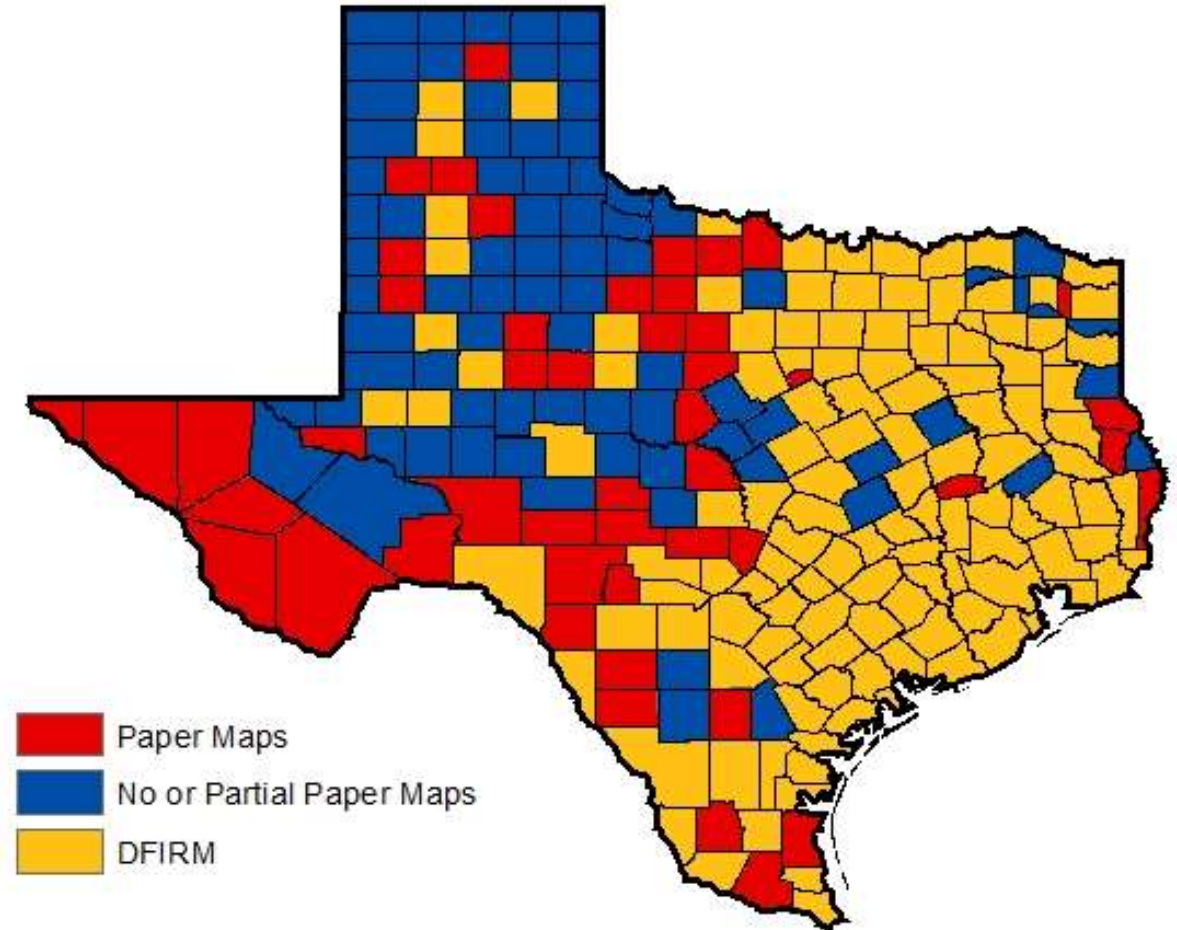
CNMS Tier Inventory



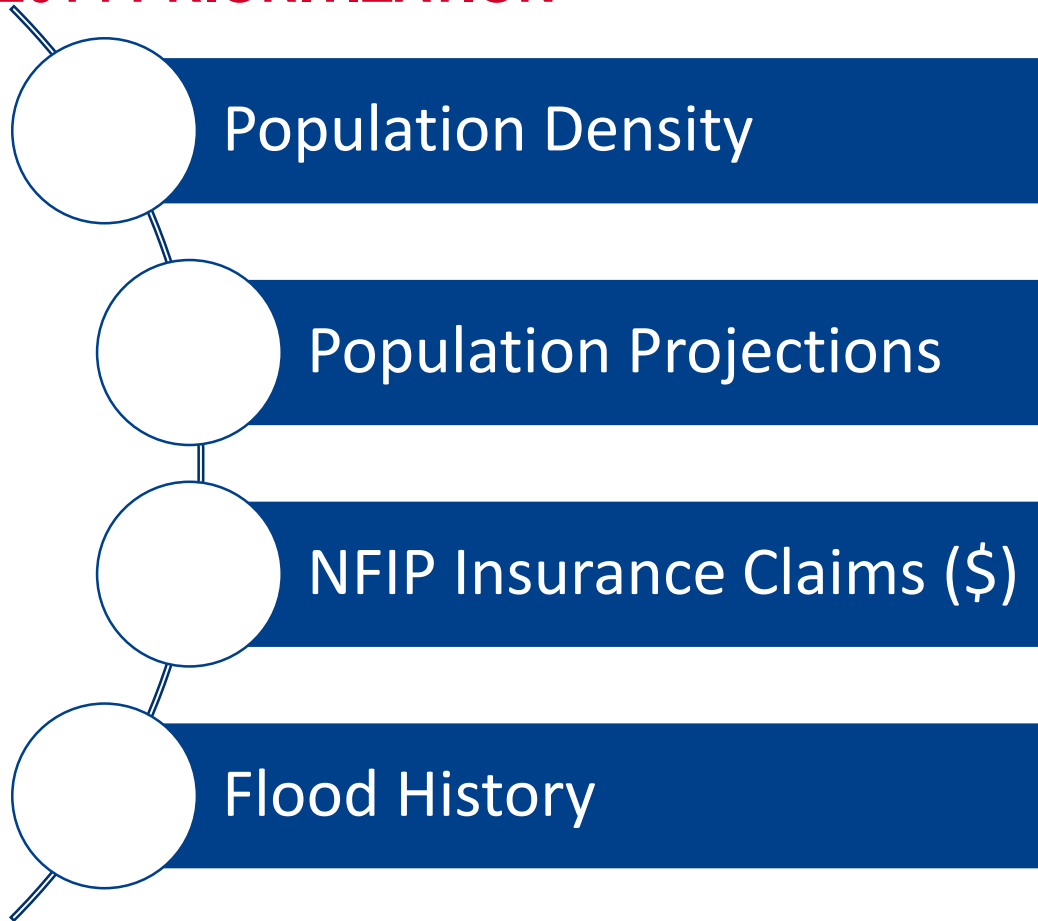
FEMA MAPPING STATUS

- Paper Inventory – 20%
- Digital Inventory – 80%
- Facts
 - Oldest Current Effective Map: 1978
 - Average FIRM age: 13 years

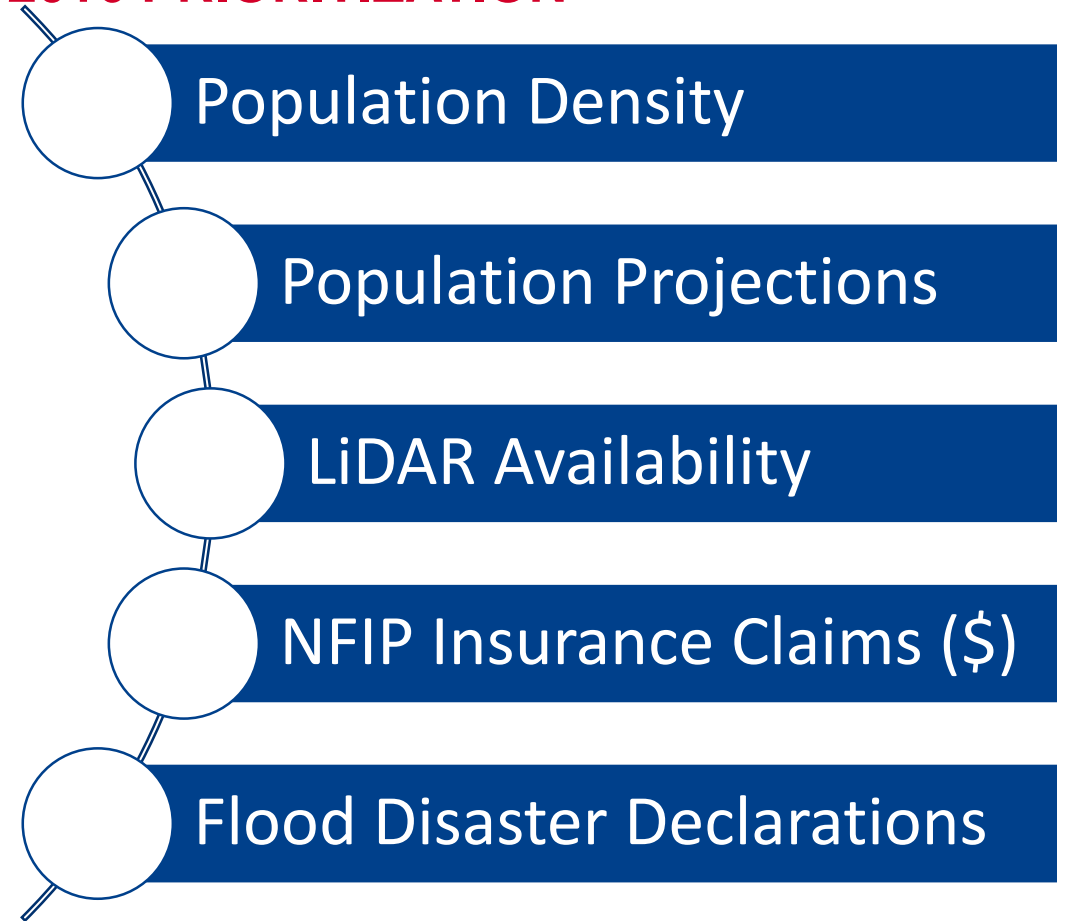
FEMA Map Status



2014 PRIORITIZATION

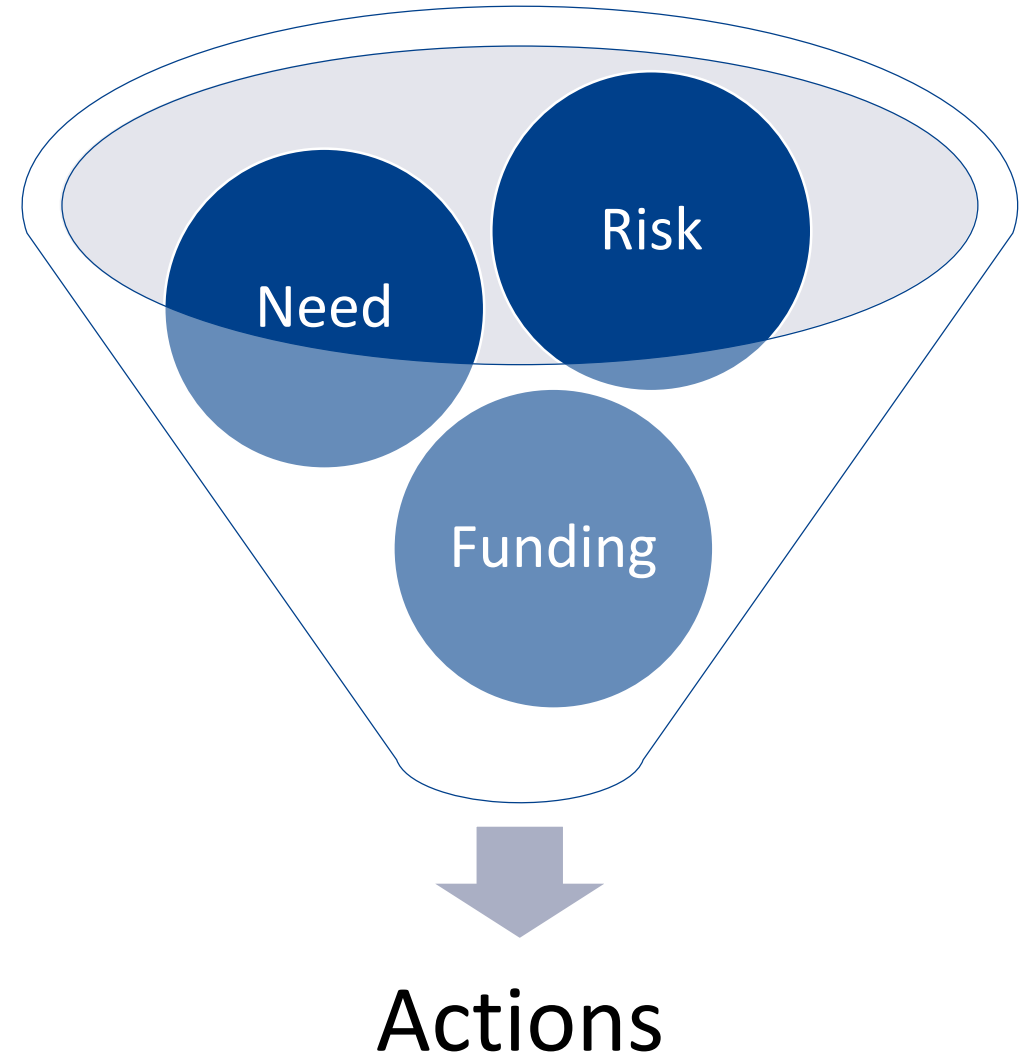


2016 PRIORITIZATION



GOALS

- Statewide Discovery Database
 - Data Collection
- Statewide Prioritization
 - Assessment Data
 - Multiple Assessment Objectives

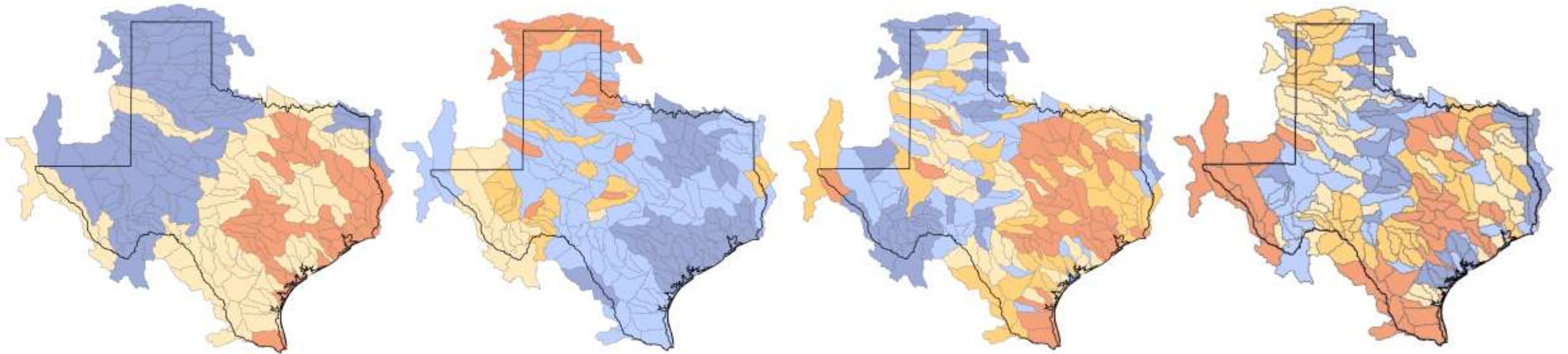




SECTION | PILOT PROJECT PRIORITIZATION

ASSESSMENT CRITERIA

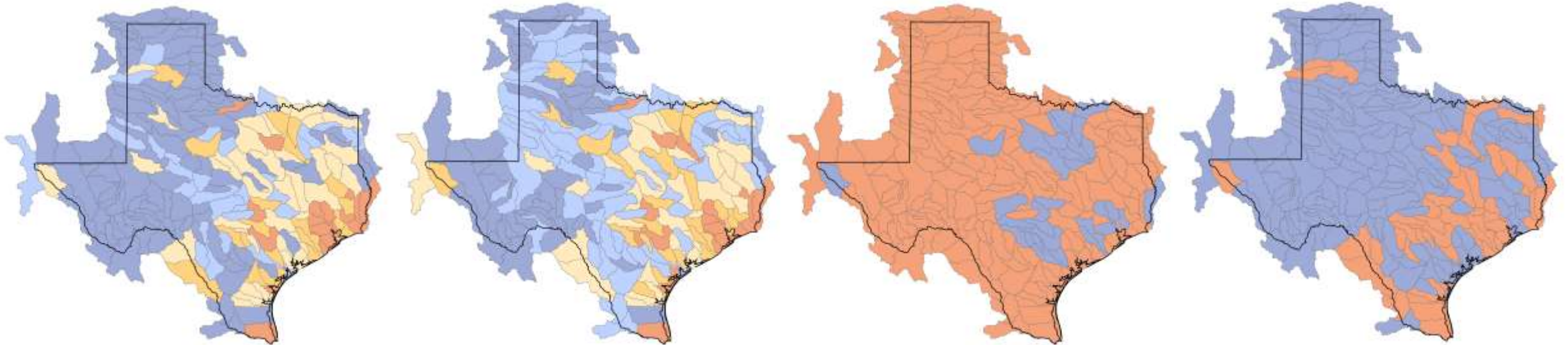
- Elevation Data (LiDAR)
- FEMA Floodplain Mapping Status
- Current Population
- Population Change (2015-2020)



SECTION | PILOT PROJECT PRIORITIZATION

ASSESSMENT CRITERIA

- Repetitive Loss & Severe Repetitive Loss Properties
- NFIP Insurance Claims
- Watershed Champion
- Leverage



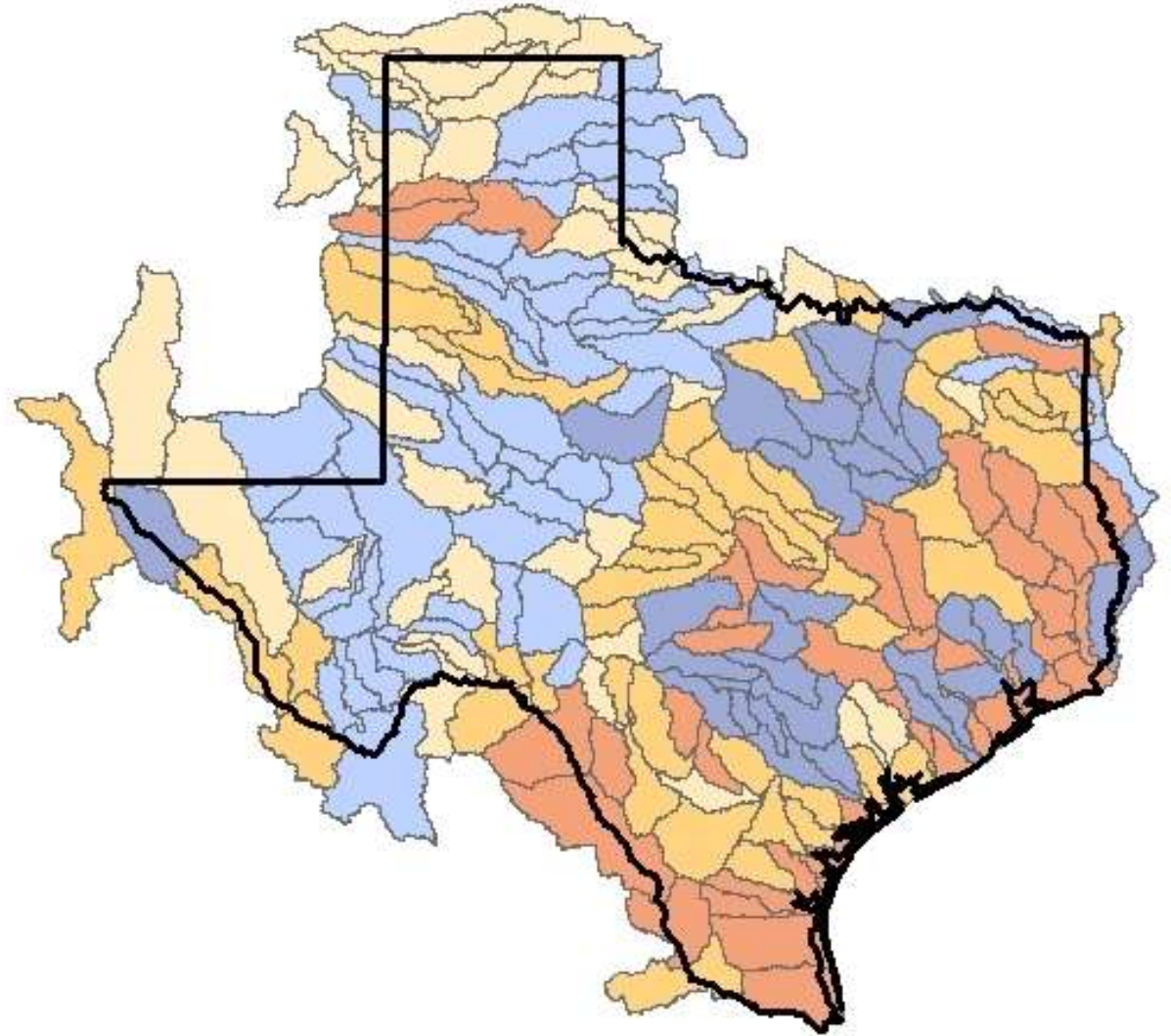
MAPPING UPDATE ASSESSMENT MATRIX

	Elevation Data	Risk & Need						Partner Contribution
Score	LiDAR	Fema FP Map Status	Current Population 2015	Population 2015 - 2030 % Change	RL & SRL (count)	NFIP Claims (claims count per HUC)	Champion	Leverage
5	Full	No Maps	150,001 +	26.01 - 56.0	301+	1,001+	No	Yes
4	-	Partial Paper Maps	45,001 - 150,000	17.01 - 26.0	76 - 300	251 - 1,000	-	-
3	Partial	Paper Maps	20,001 - 45,000	13.01 - 17.0	11 - 75	51 - 250	-	-
2	-	Partial DFIRM	3,501 - 20,000	9.51 - 13.0	1 - 10	1 - 50	-	-
1	None	DFIRM	0 - 3,500	-0.5 - 9.5	0	0	Yes (Negative points)	No
Weight	33	10	5	5	5	5	4	33
Percentage	33	34						33

MAPPING UPDATE ASSESSMENT MATRIX

■ Top 10 Mapping Watersheds

1. South Laguna Madre
2. Austin-Oyster
3. South Corpus Christi Bay
4. West Galveston Bay
5. Spring
6. Sabine Lake
7. Lower Colorado-Cummins
8. Lower Angelina
9. Lower Neches
10. Upper Angelina



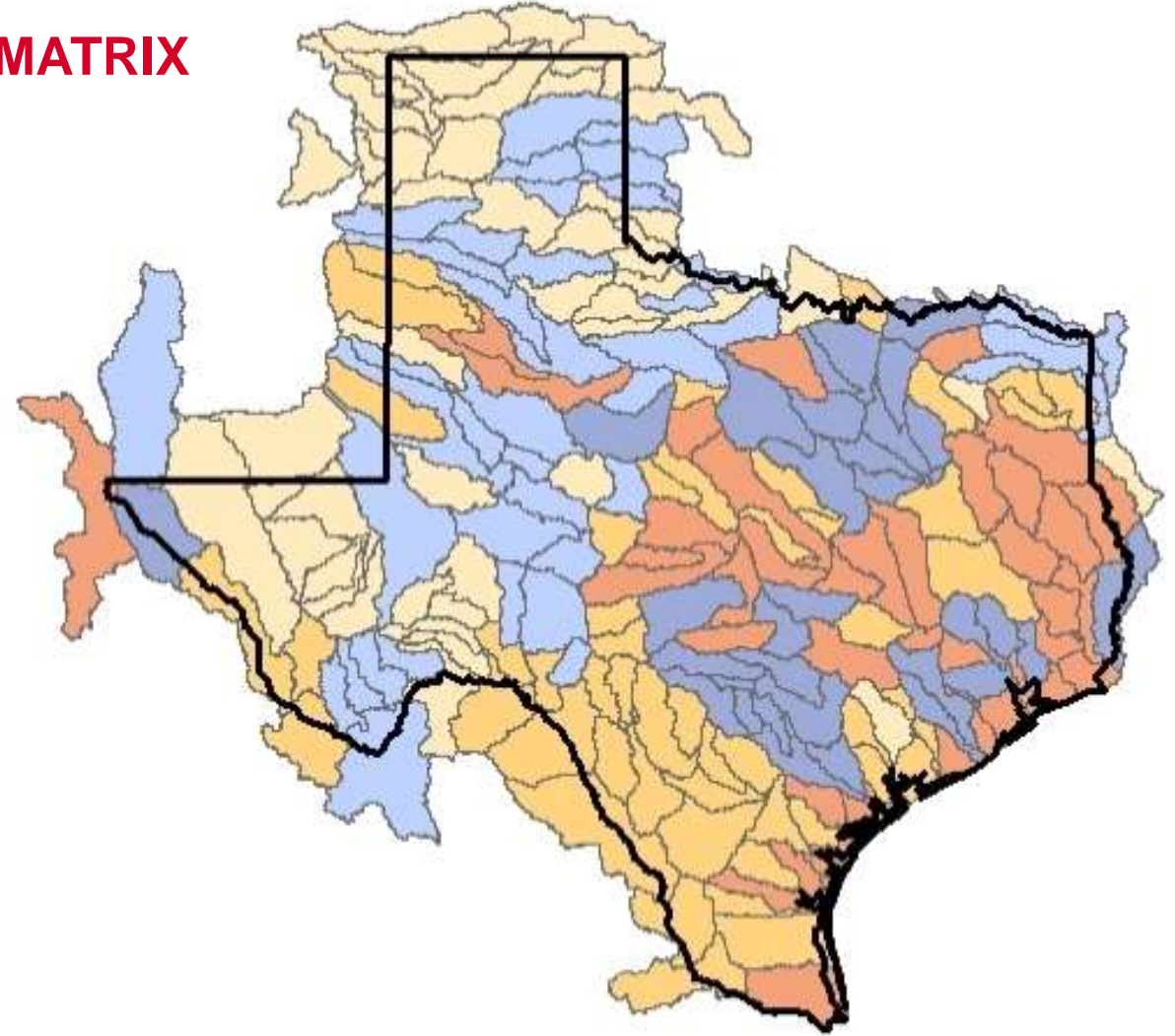
BASE LEVEL ENGINEERING ASSESSMENT MATRIX

	Elevation Data	Risk & Need						Partner Contribution
Score	LiDAR	Fema FP Map Status	Current Population 2015	Population 2015 - 2030 % Change	RL & SRL (count)	NFIP Claims (claims count per HUC)	Champion	Leverage
5	Full	No Maps	150,001 +	26.01 - 56.0	301+	1,001+	No	Yes
4	-	Partial Paper Maps	45,001 - 150,000	17.01 - 26.0	76 - 300	251 - 1,000	-	-
3	Partial	Paper Maps	20,001 - 45,000	13.01 - 17.0	11 - 75	51 - 250	-	-
2	-	Partial DFIRM	3,501 - 20,000	9.51 - 13.0	1 - 10	1 - 50	-	-
1	None	DFIRM	0 - 3,500	-0.5 - 9.5	0	0	Yes (Negative points)	No
Weight	50	26	5	5	5	5	4	0
Percentage	50	50						0

BASE LEVEL ENGINEERING ASSESSMENT MATRIX

■ Top 10 Mapping Watersheds

1. South Laguna Madre
2. South Corpus Christi Bay
3. Toledo Bend Reservoir
4. Lampasas
5. Austin-Oyster
6. Middle Neches
7. Lower Angelina
8. Pedernales
9. North Laguna Madre
10. North Corpus Christi Bay



SECTION | PILOT PROJECT PRIORITIZATION

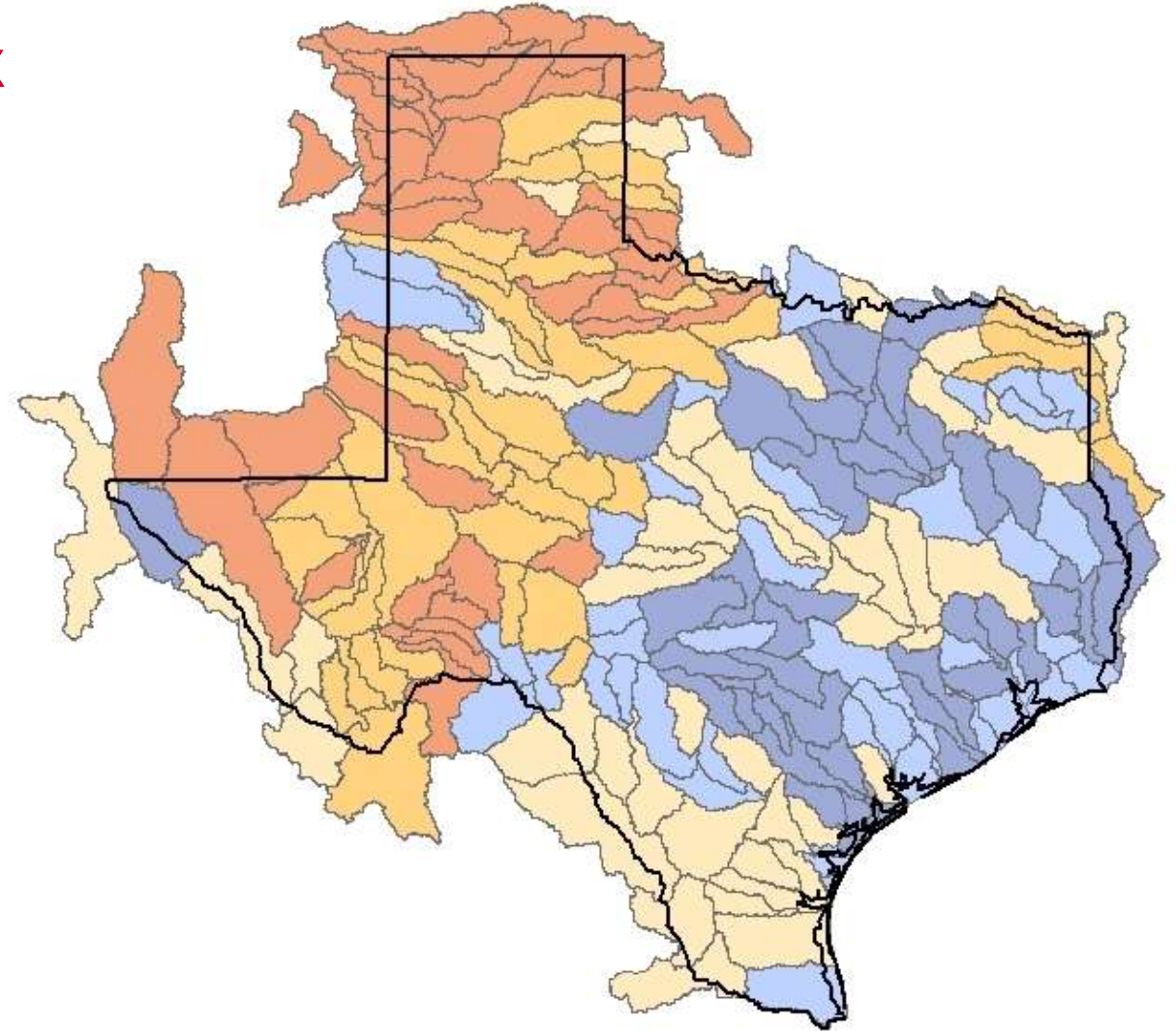
LIDAR ACQUISITION ASSESSMENT MATRIX

	Elevation Data	Risk & Need						Partner Contribution
Score	LiDAR	Fema FP Map Status	Current Population 2015	Population 2015 - 2030 % Change	RL & SRL (count)	NFIP Claims (claims count per HUC)	Champion	Leverage
5	None	No Maps	150,001 +	26.01 - 56.0	301+	1,001+	No	Yes
4	-	Partial Paper Maps	45,001 - 150,000	17.01 - 26.0	76 - 300	251 - 1,000	-	-
3	Partial	Paper Maps	20,001 - 45,000	13.01 - 17.0	11 - 75	51 - 250	-	-
2	-	Partial DFIRM	3,501 - 20,000	9.51 - 13.0	1 - 10	1 - 50	-	-
1	Full (Negative points)	DFIRM	0 - 3,500	-0.5 - 9.5	0	0	Yes (Negative points)	No
Weight	75	8	3	4	4	3	3	0
Percentage	75	25						0

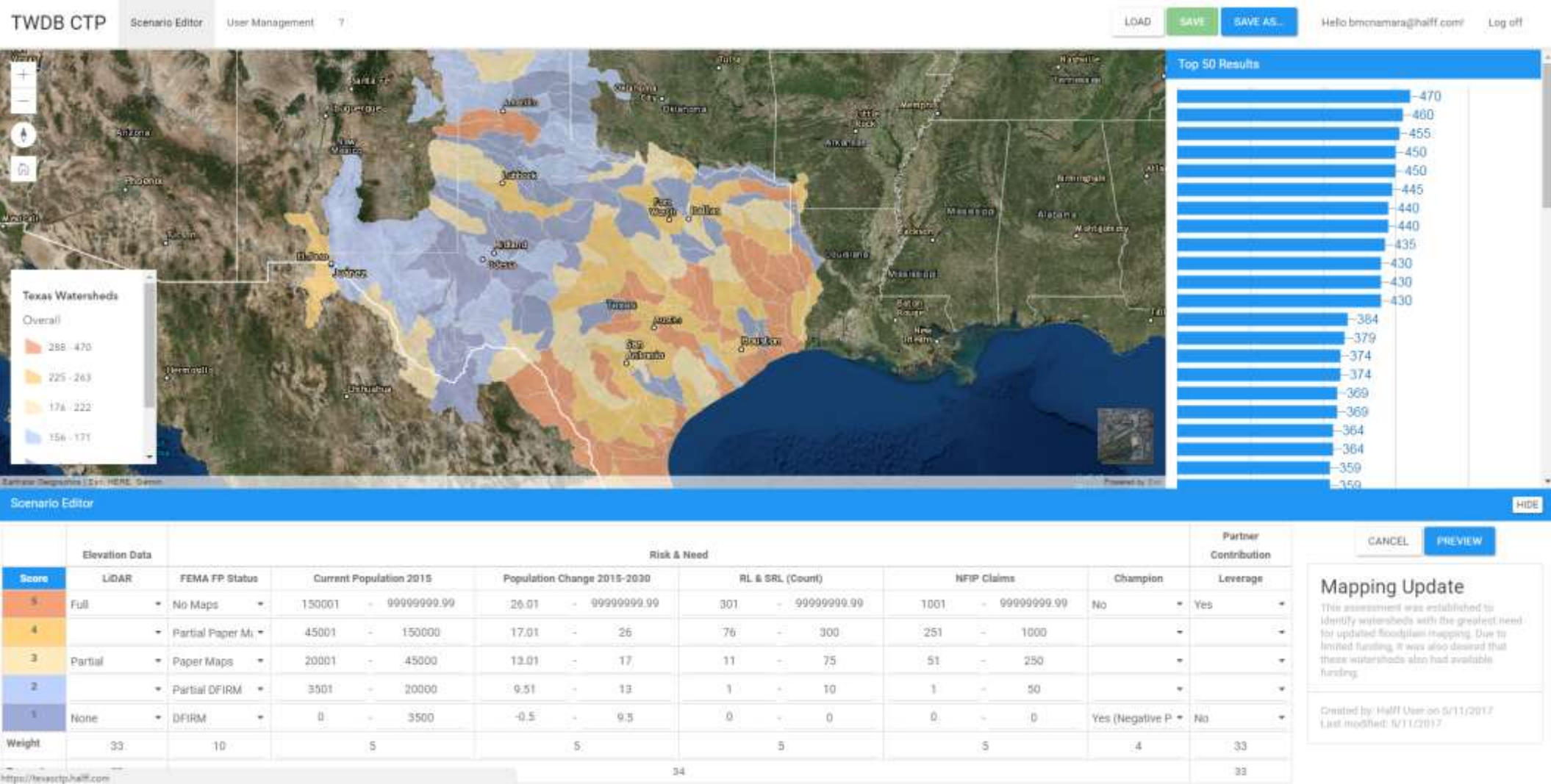
LIDAR ACQUISITION ASSESSMENT MATRIX

■ Top 10 Mapping Watersheds

1. Monument-Seminole Draws
2. Coldwater
3. Upper Prairie Dog Town Fork Red
4. Wichita
5. Palo Duro
6. Upper Beaver
7. Middle Canadian-Trujillo
8. Carrizo
9. Pease
10. Rita Blanca



SECTION | PILOT PROJECT PRIORITIZATION WEB APPLICATION



SECTION | PILOT PROJECT PRIORITIZATION WEB APPLICATION

TWDB CTP

Scenario Editor

User Management

?

LOAD

SAVE

SAVE AS...

Hello cengelhardt@half.com!

Log off

+

Texas Watersheds

Overall

288 - 470

225 - 263

176 - 222

156 - 171

Earthstar Geographics | Esri, HERE, Garmin

South Laguna Madre (12110208)

Field	Value (Score)
LIDAR	Full (165)
FEMA Map Status	Partial DFIRM (20)
Curr. Pop. 2015	961927 (25)
Pop Change 2015-30	39.57 (25)
RL & SRL	500 (25)

Top 50 Results

470
460
455
450
450
445
440
440
435
430
430

Scenario Editor

HIDE

	Elevation Data		Risk & Need							Partner Contribution		
Score	LiDAR	FEMA FP Status	Current Population 2015		Population Change 2015-2030		RL & SRL (Count)		NFIP Claims		Champion	Leverage
5	Full	No Maps	150001	- 99999999.99	26.01	- 99999999.99	301	- 99999999.99	1001	- 99999999.99	No	Yes
4		Partial Pape	45001	- 150000	17.01	- 26	76	- 300	251	- 1000		
3	Partial	Paper Maps	20001	- 45000	13.01	- 17	11	- 75	51	- 250		
2		Partial DFIRI	3501	- 20000	9.51	- 13	1	- 10	1	- 50		
1	None	DFIRM	0	- 3500	-0.5	- 9.5	0	- 0	0	- 0	Yes (Negativ	No
Weight	33	10	5		5		5		5		4	33
Percentage	33	34										33

CANCEL

PREVIEW

Mapping Update

This assessment was established to identify watersheds with the greatest need for updated floodplain mapping. Due to limited funding, it was also desired that these watersheds also had available funding.

Created by: Half User on 5/11/2017

Last modified: 5/11/2017

MAINTENANCE & ENHANCEMENTS

- Suggested Annual Maintenance
- Potential Enhancements
 - Coordinated Needs Management Strategy (CNMS) Inventory Updates
 - Federal and State Database
 - RiskMAP Needs Collection

