

VOLUME 2
Appendix 2-A (Map 12A, 12B) to 4-C

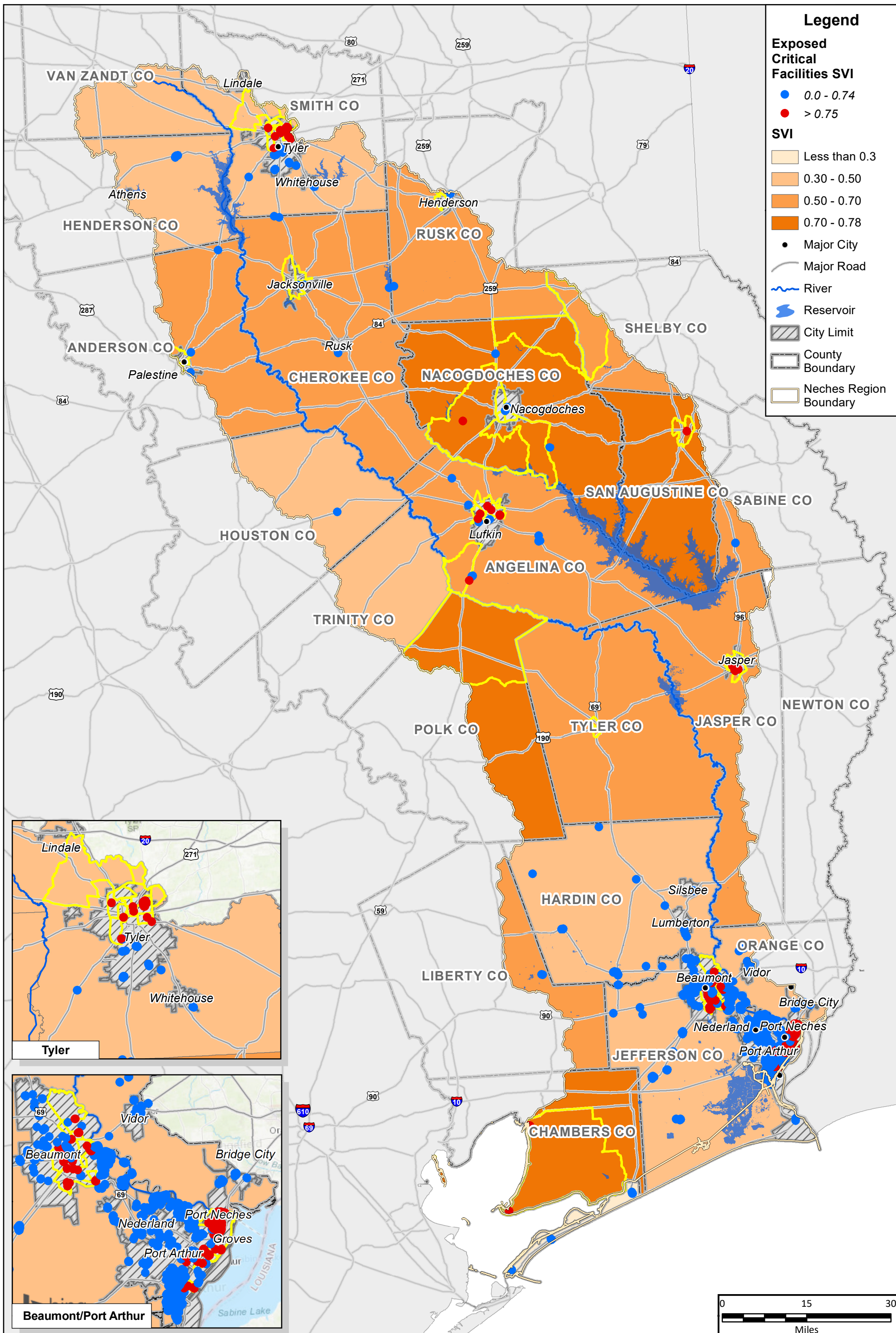
REGION 5 NECHES

2023 REGIONAL FLOOD PLAN

JANUARY 2023

PREPARED FOR THE
REGION 5 NECHES FLOOD PLANNING GROUP

APPENDIX 2-A
SUPPLEMENTARY MAPS FOR CHAPTER 2



Legend

Exposed Critical Facilities SVI

- 0.0 - 0.74
- > 0.75

SVI

- Less than 0.3
- 0.30 - 0.50
- 0.50 - 0.70
- 0.70 - 0.78

● Major City

— Major Road

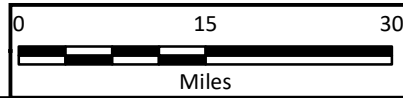
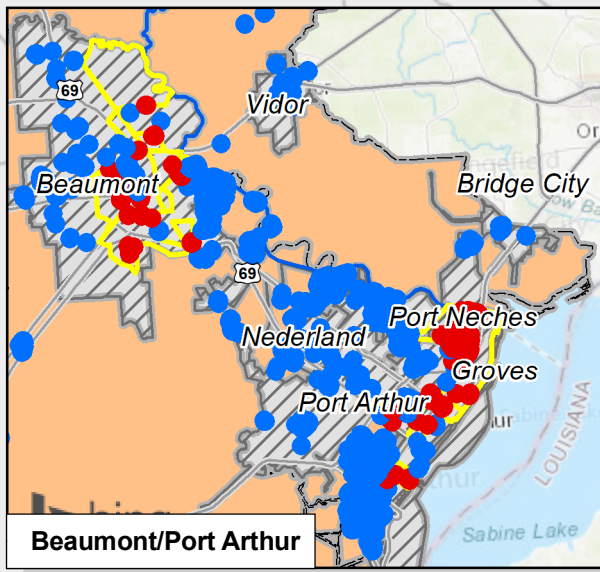
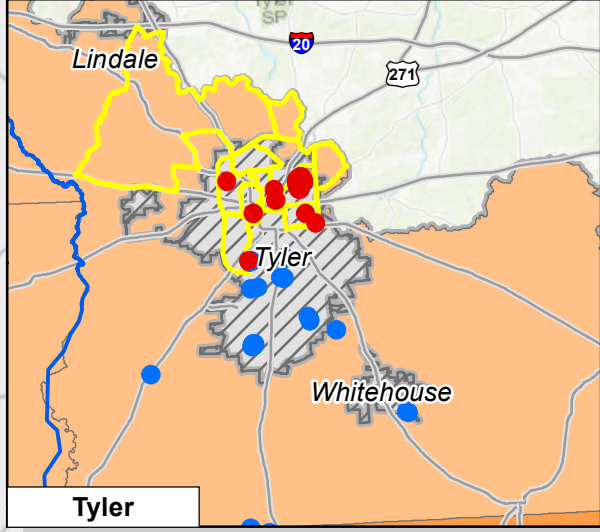
— River

— Reservoir

▨ City Limit

▭ County Boundary

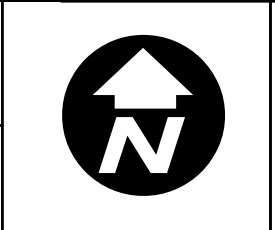
▭ Neches Region Boundary



Region 5: Neches Regional Flood Plan

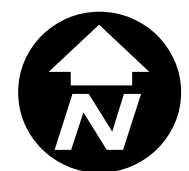
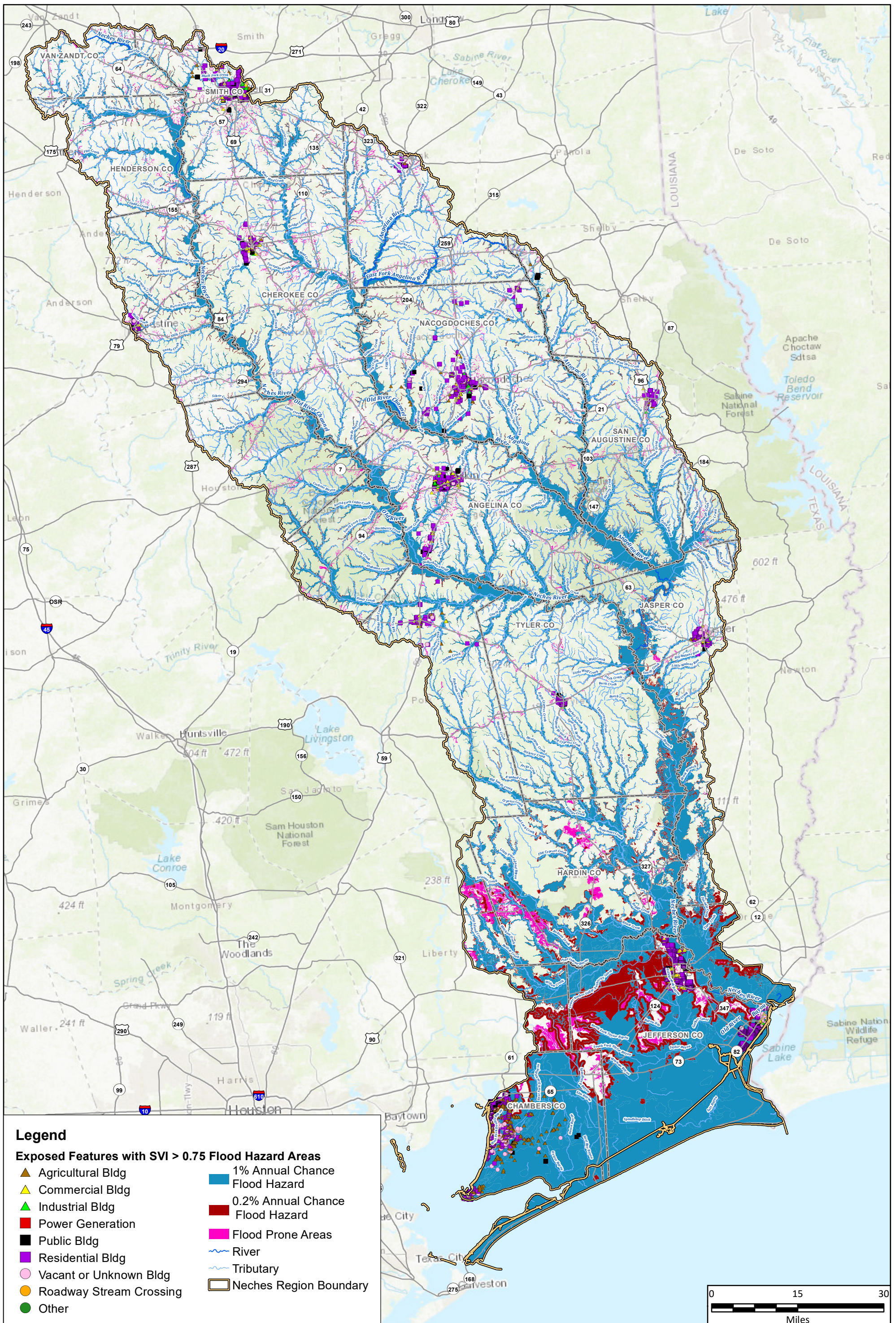
Future Condition Flood Hazard

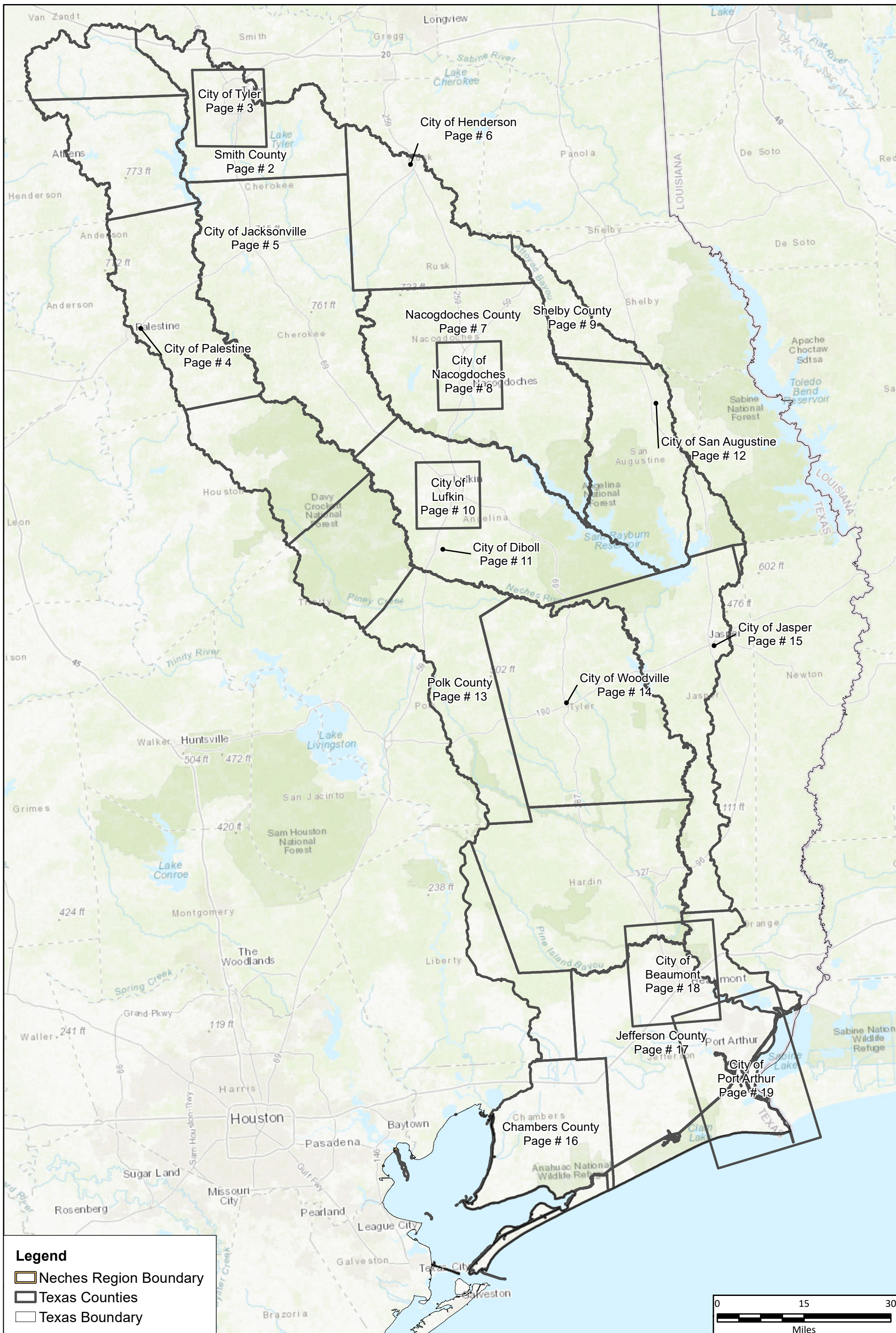
Future Condition Vulnerability and Critical Infrastructure

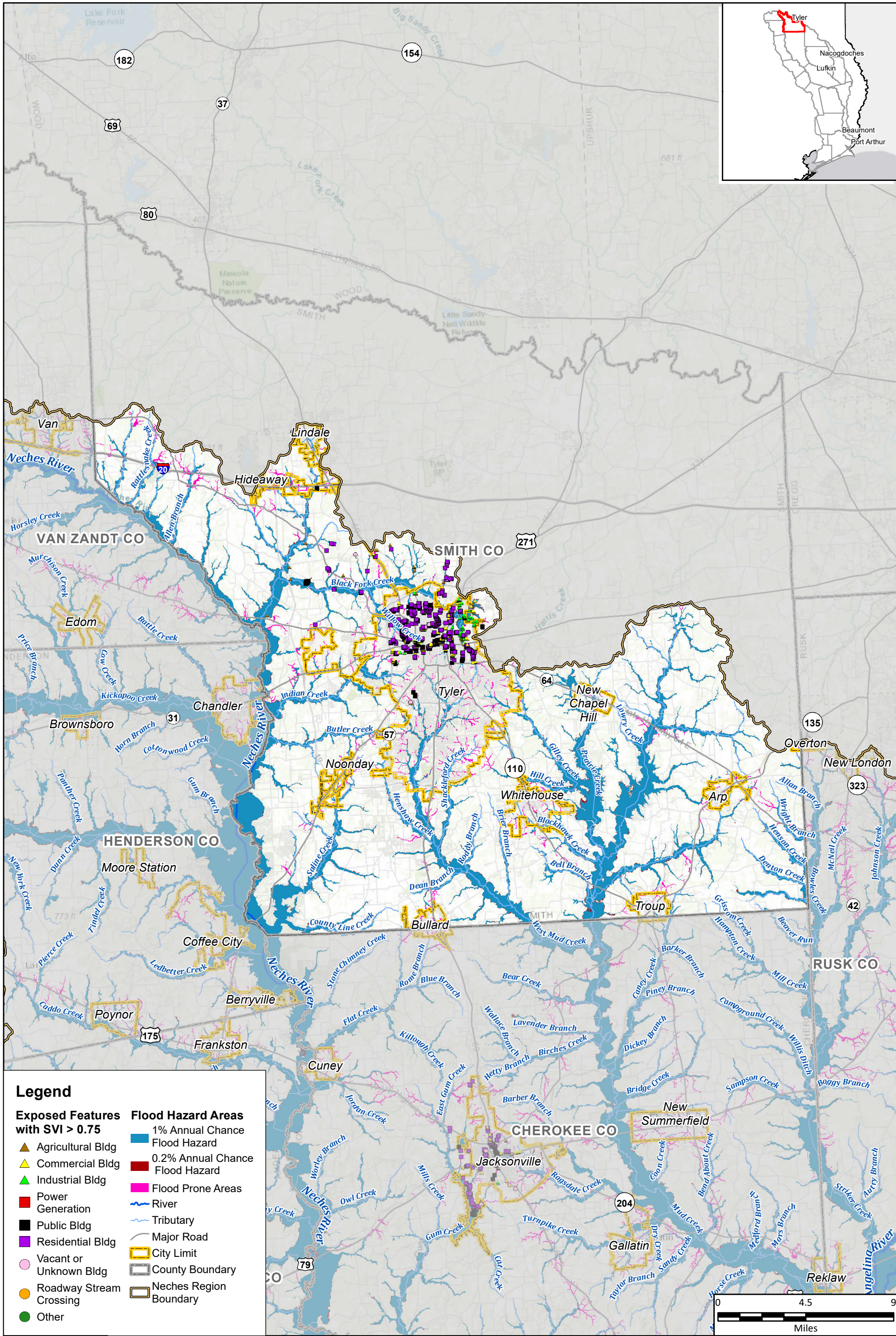


MAP
12A

Path: T:\7.0 DELIVERABLES\04_Draft_Plan\RFPP2023_Region_05\FinalData\StaticMaps\Map_12A_FutVulCricalFacilities_Neches_11X17.mxd

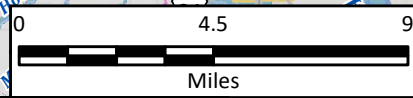


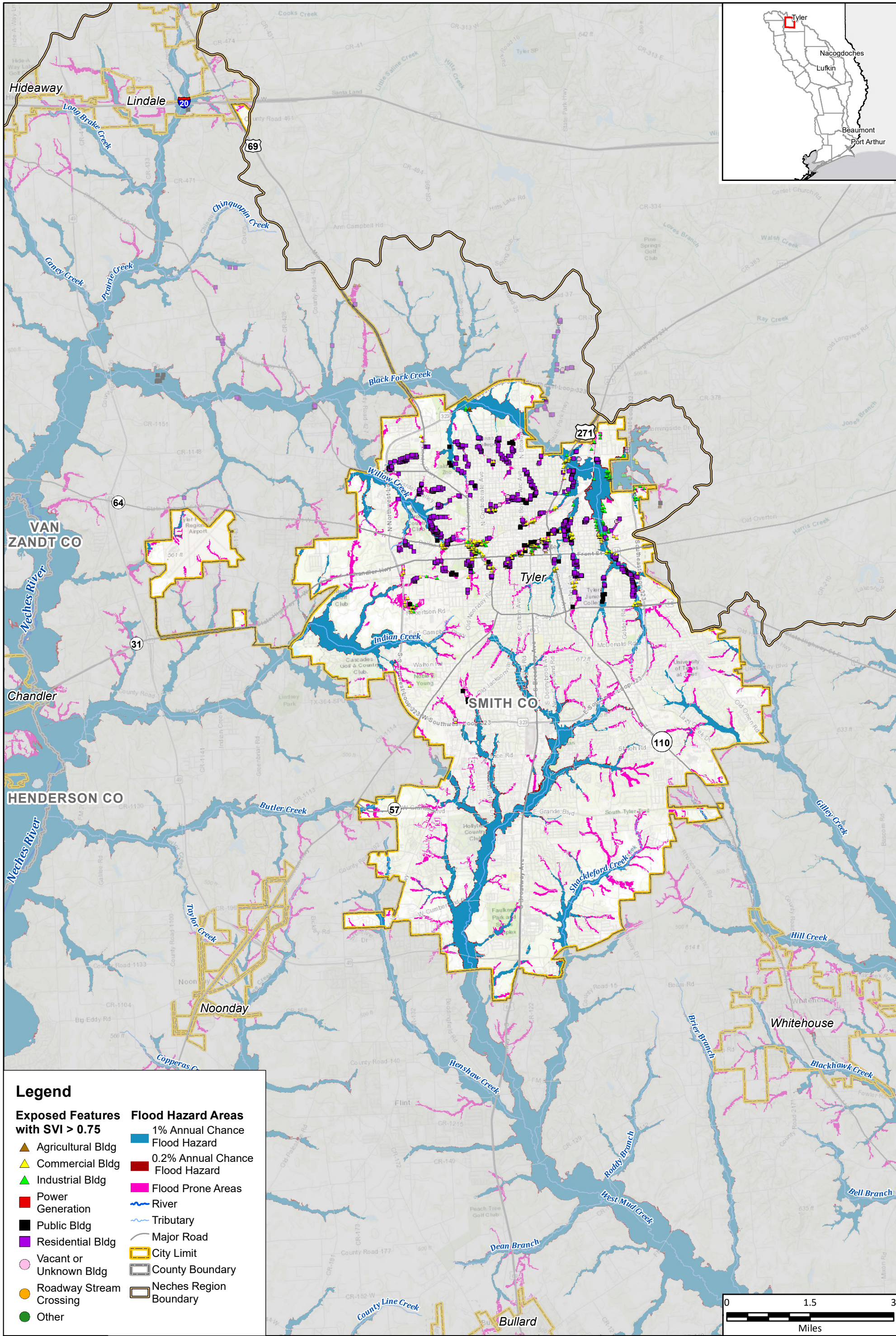




Legend

- | | |
|--|-----------------------------------|
| Exposed Features with SVI > 0.75 | Flood Hazard Areas |
| ▲ Agricultural Bldg | ■ 1% Annual Chance Flood Hazard |
| ▲ Commercial Bldg | ■ 0.2% Annual Chance Flood Hazard |
| ▲ Industrial Bldg | ■ Flood Prone Areas |
| ■ Power Generation | — River |
| ■ Public Bldg | — Tributary |
| ■ Residential Bldg | — Major Road |
| ○ Vacant or Unknown Bldg | ▭ City Limit |
| ○ Roadway Stream Crossing | ▭ County Boundary |
| ● Other | ▭ Neches Region Boundary |





Legend

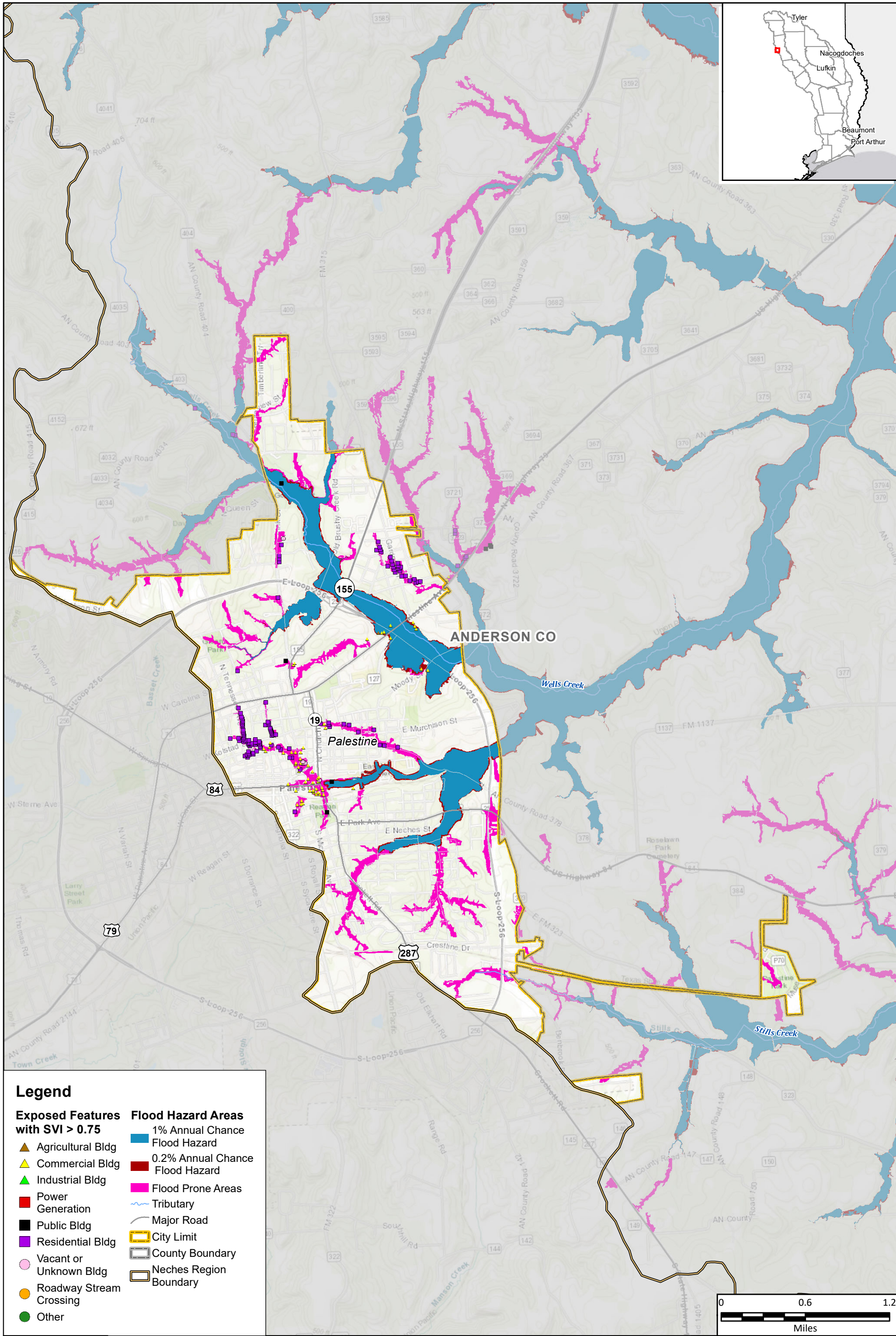
Exposed Features with SVI > 0.75

- ▲ Agricultural Bldg
- ▲ Commercial Bldg
- ▲ Industrial Bldg
- Power Generation
- Public Bldg
- Residential Bldg
- Vacant or Unknown Bldg
- Roadway Stream Crossing
- Other

Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Flood Prone Areas
- River
- Tributary
- Major Road
- City Limit
- County Boundary
- Neches Region Boundary





Legend

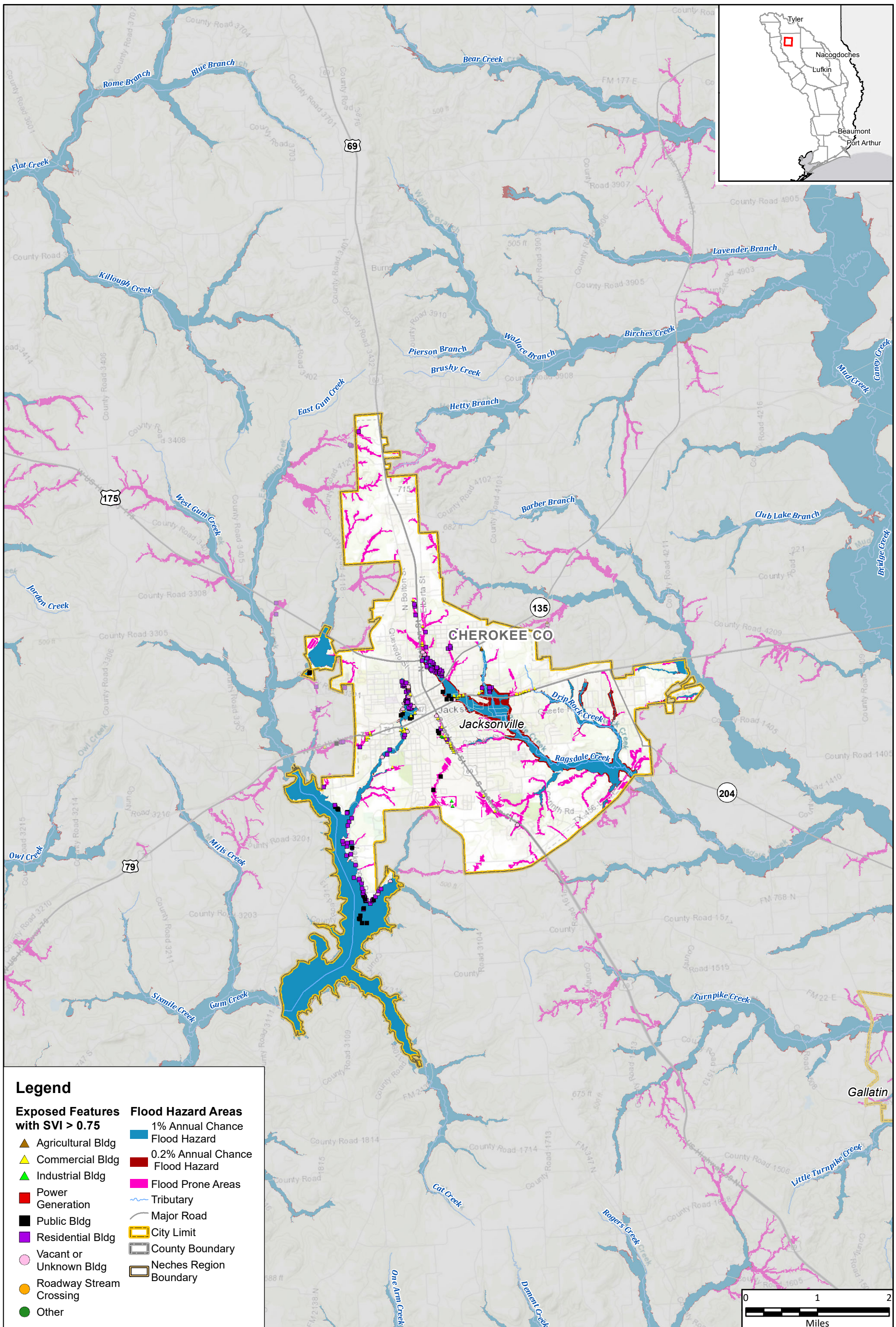
Exposed Features with SVI > 0.75

- ▲ Agricultural Bldg
- ▲ Commercial Bldg
- ▲ Industrial Bldg
- Power Generation
- Public Bldg
- Residential Bldg
- Vacant or Unknown Bldg
- Roadway Stream Crossing
- Other

Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Flood Prone Areas
- Tributary
- Major Road
- City Limit
- County Boundary
- Neches Region Boundary





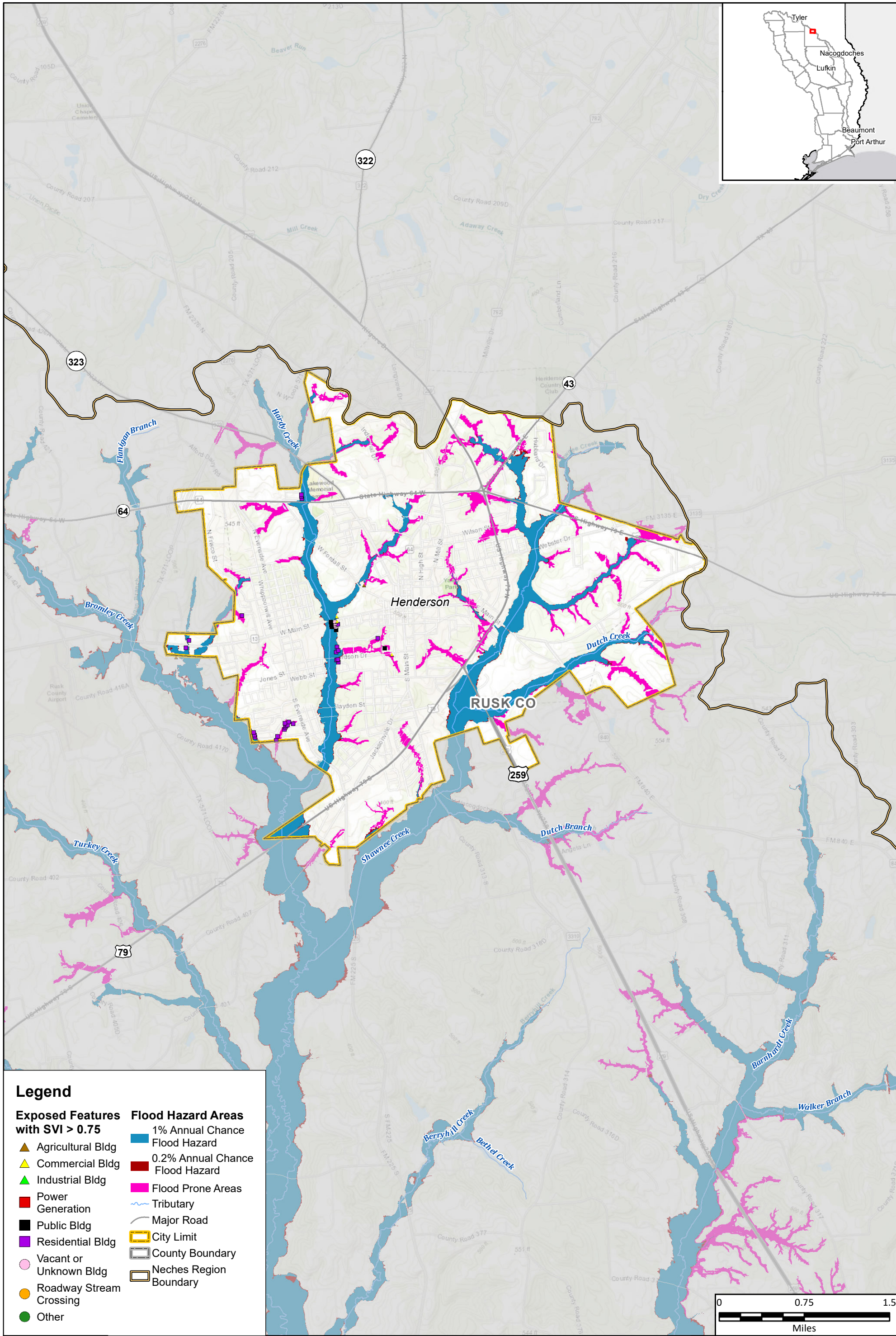
Legend

Exposed Features with SVI > 0.75

- ▲ Agricultural Bldg
- ▲ Commercial Bldg
- ▲ Industrial Bldg
- Power Generation
- Public Bldg
- Residential Bldg
- Vacant or Unknown Bldg
- Roadway Stream Crossing
- Other

Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Flood Prone Areas
- Tributary
- Major Road
- City Limit
- County Boundary
- Neches Region Boundary



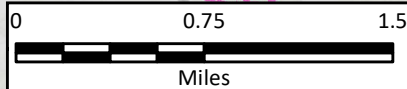
Legend

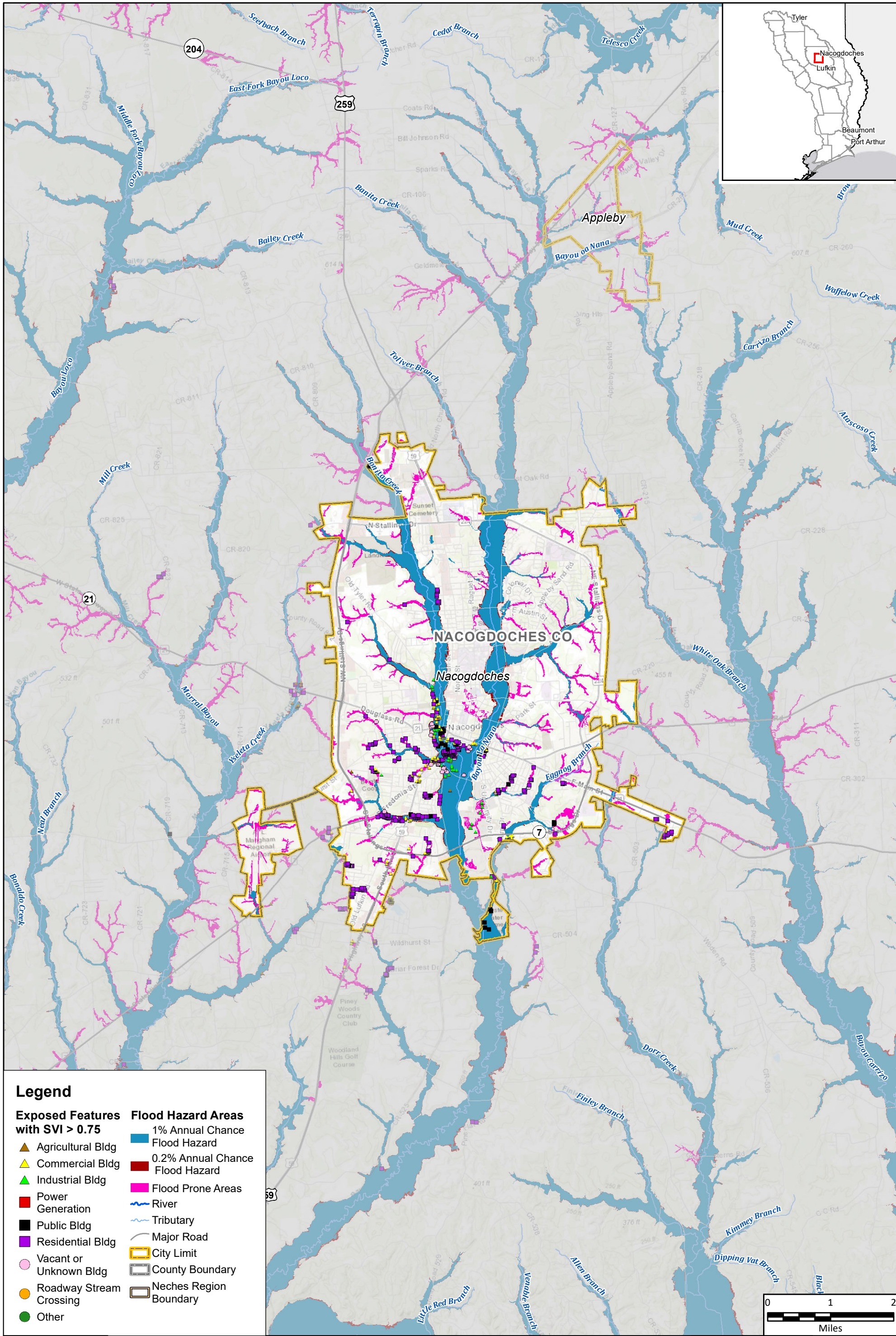
Exposed Features with SVI > 0.75

- ▲ Agricultural Bldg
- Commercial Bldg
- ▲ Industrial Bldg
- Power Generation
- Public Bldg
- Residential Bldg
- Vacant or Unknown Bldg
- Roadway Stream Crossing
- Other

Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Flood Prone Areas
- Tributary
- Major Road
- City Limit
- County Boundary
- Neches Region Boundary





Legend

- | | |
|--|-----------------------------------|
| Exposed Features with SVI > 0.75 | Flood Hazard Areas |
| ▲ Agricultural Bldg | ■ 1% Annual Chance Flood Hazard |
| ▲ Commercial Bldg | ■ 0.2% Annual Chance Flood Hazard |
| ▲ Industrial Bldg | ■ Flood Prone Areas |
| ■ Power Generation | — River |
| ■ Public Bldg | — Tributary |
| ■ Residential Bldg | — Major Road |
| ○ Vacant or Unknown Bldg | — City Limit |
| ○ Roadway Stream Crossing | — County Boundary |
| ● Other | — Neches Region Boundary |

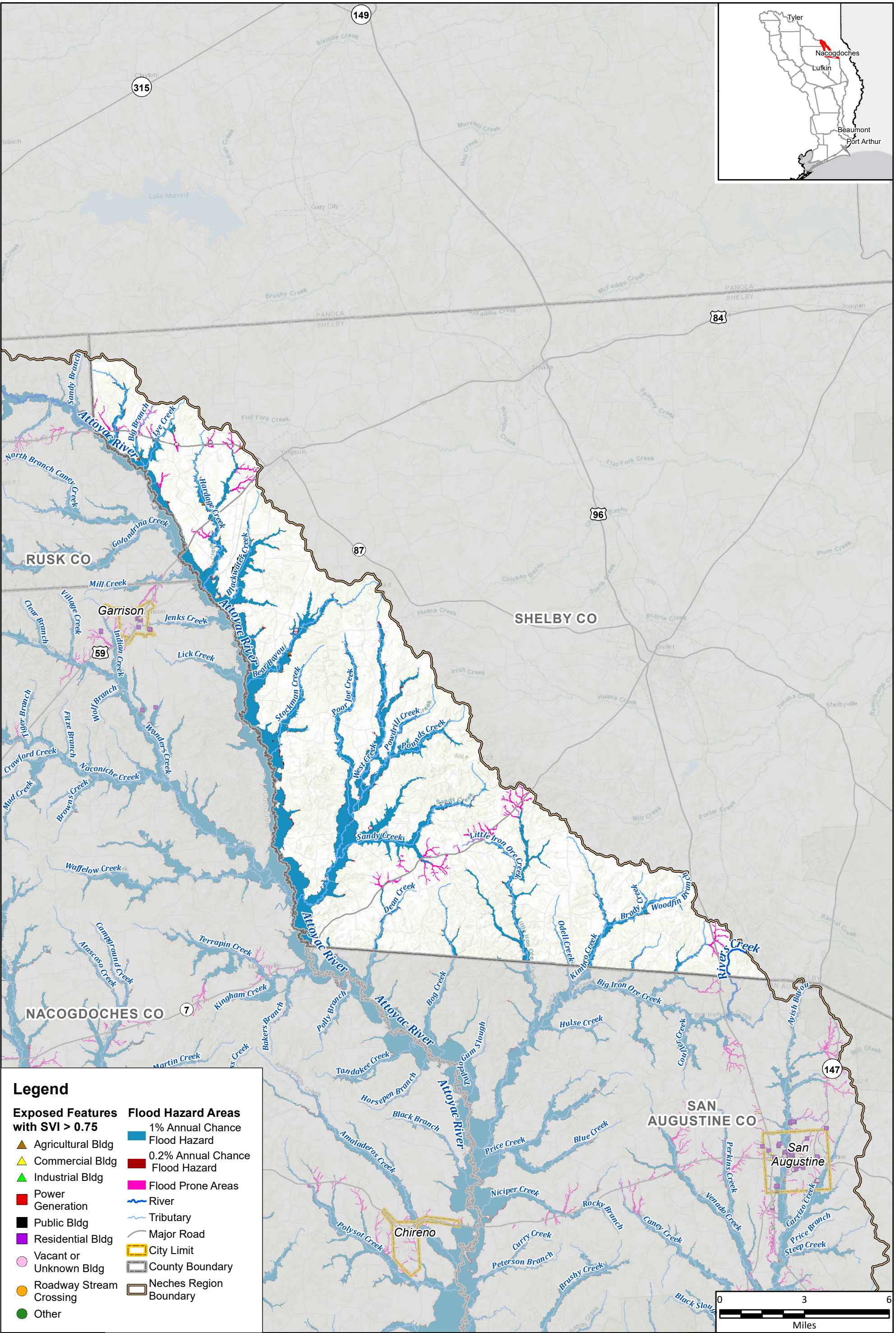


Region 5: Neches Regional Flood Plan
City of Nacogdoches

Future Condition Vulnerability



MAP 12B
FIGURE 8 of 19



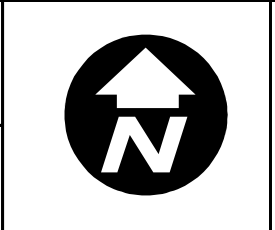
Legend

- | | |
|--|-----------------------------------|
| Exposed Features with SVI > 0.75 | Flood Hazard Areas |
| ▲ Agricultural Bldg | ■ 1% Annual Chance Flood Hazard |
| ▲ Commercial Bldg | ■ 0.2% Annual Chance Flood Hazard |
| ▲ Industrial Bldg | ■ Flood Prone Areas |
| ■ Power Generation | — River |
| ■ Public Bldg | — Tributary |
| ■ Residential Bldg | — Major Road |
| ○ Vacant or Unknown Bldg | □ City Limit |
| ● Roadway Stream Crossing | □ County Boundary |
| ● Other | □ Neches Region Boundary |

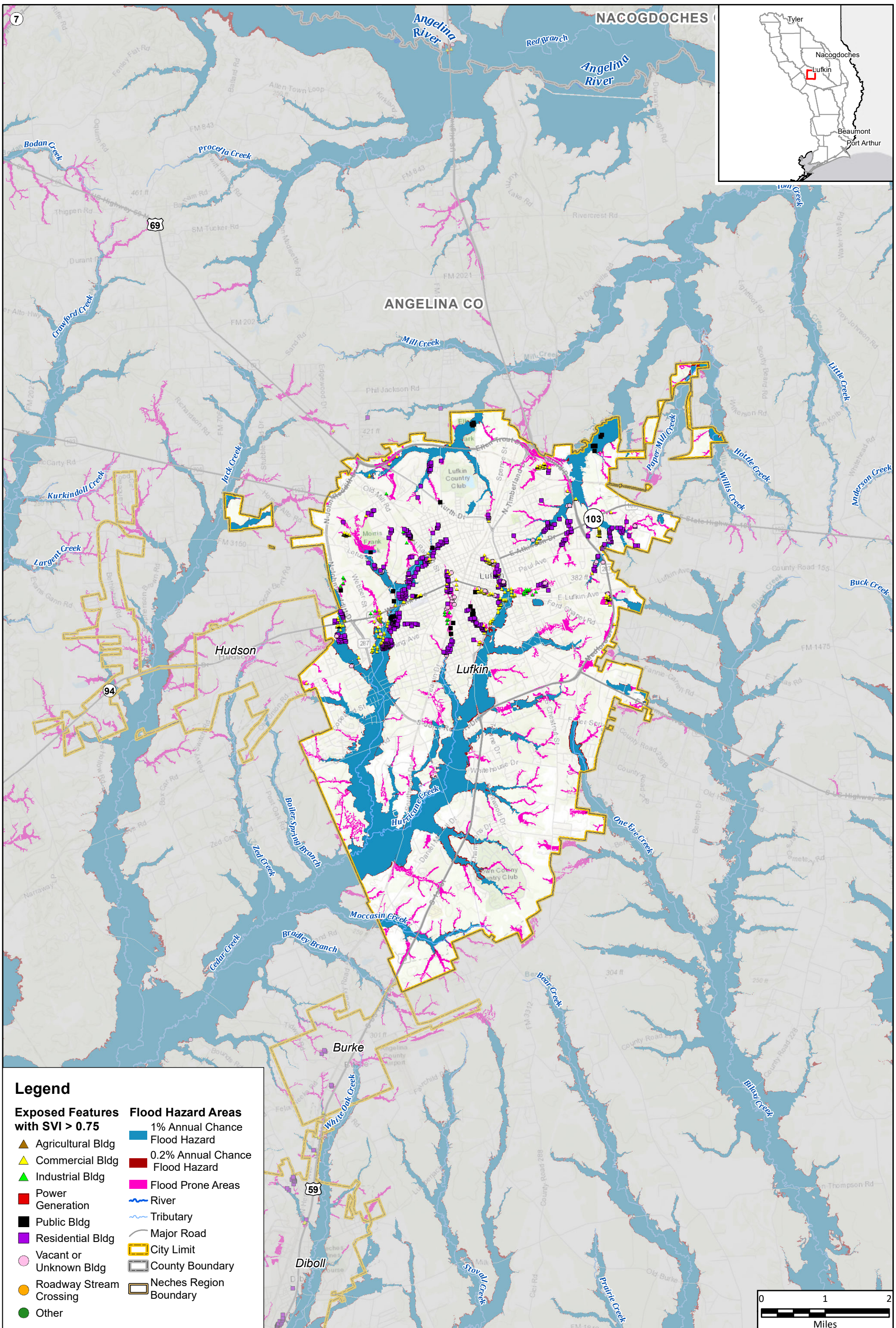


Region 5: Neches Regional Flood Plan
Shelby County

Future Condition Vulnerability

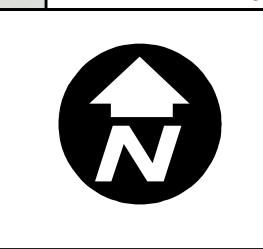
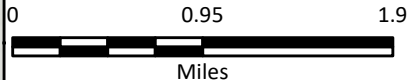
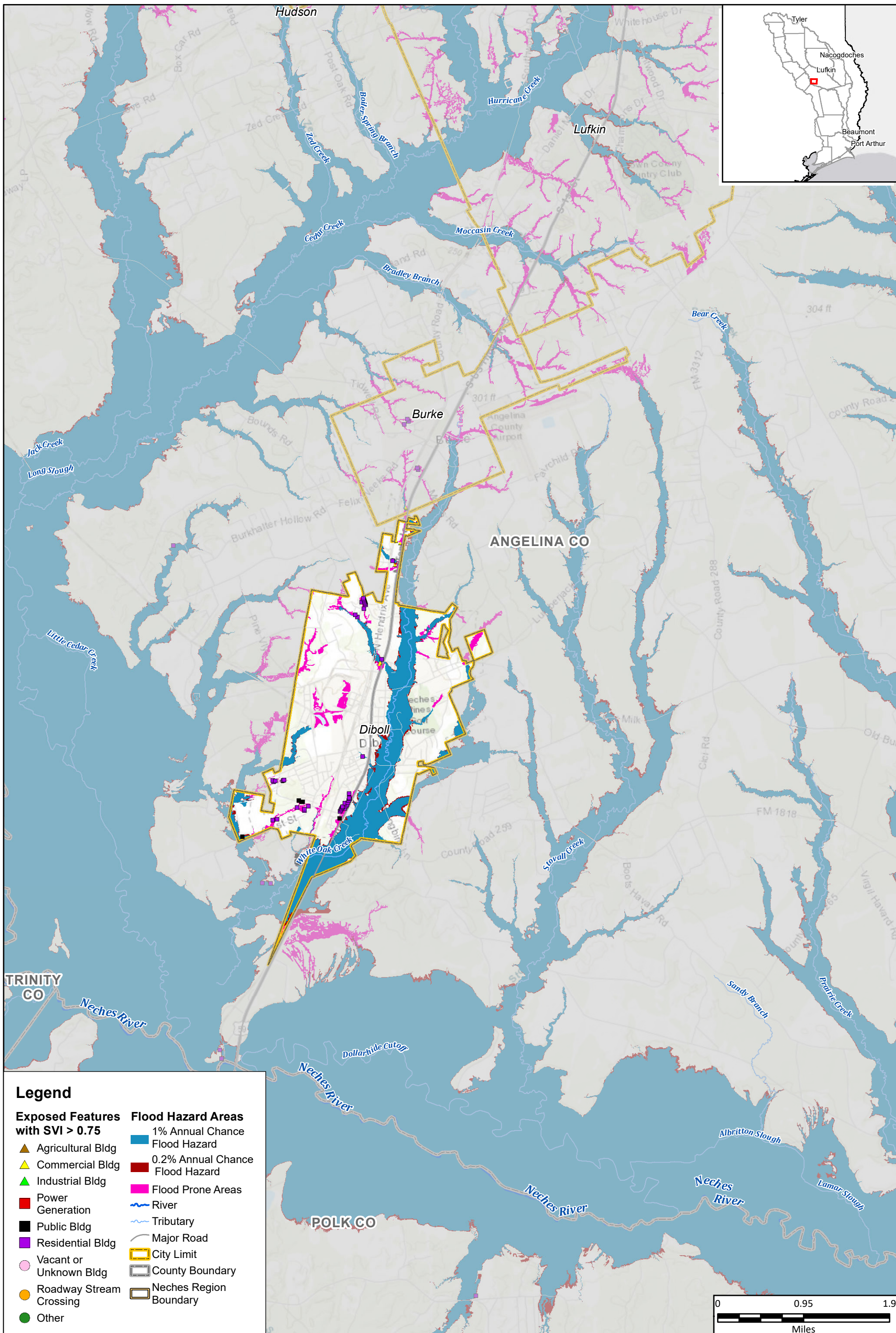


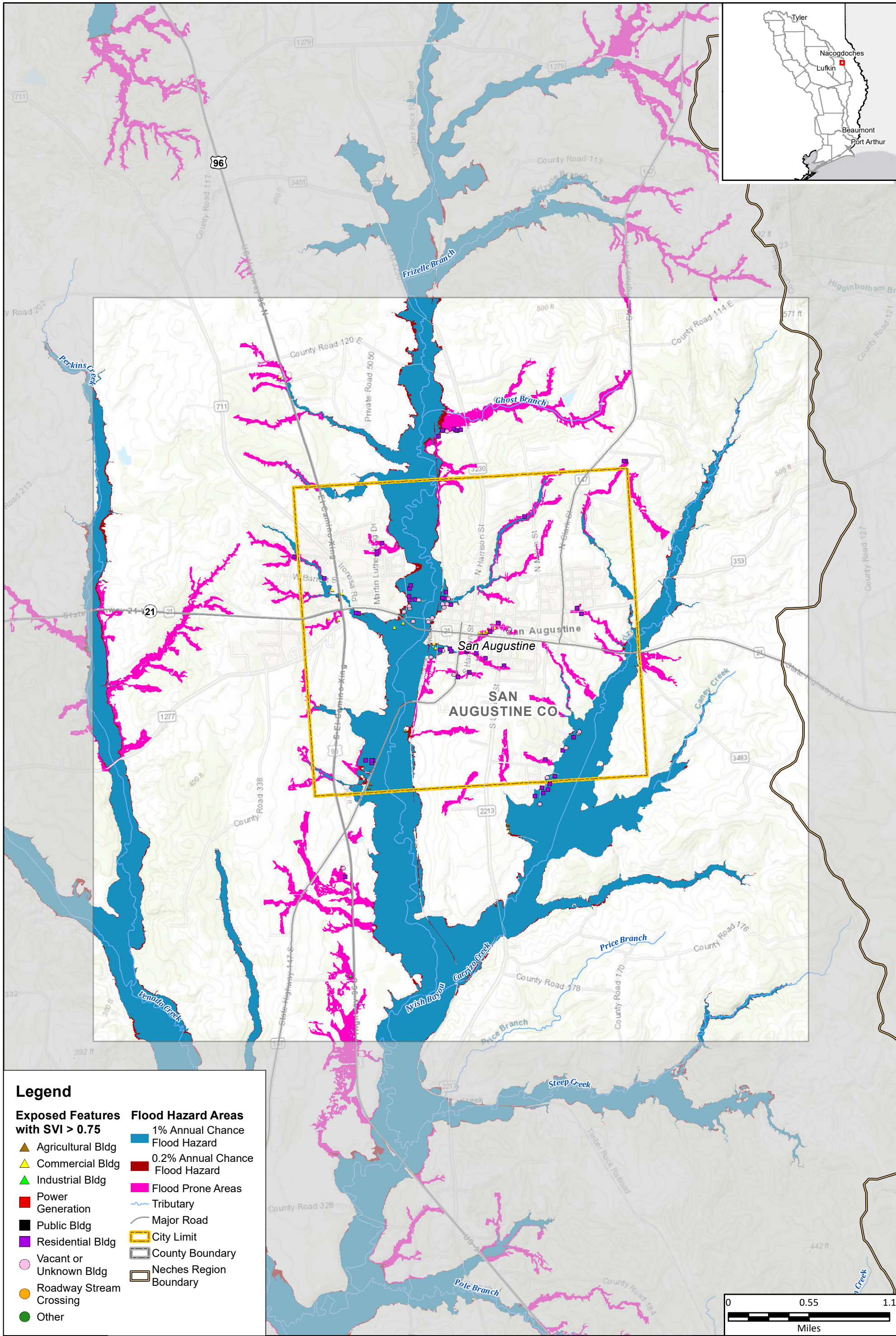
MAP 12B
FIGURE 9 of 19

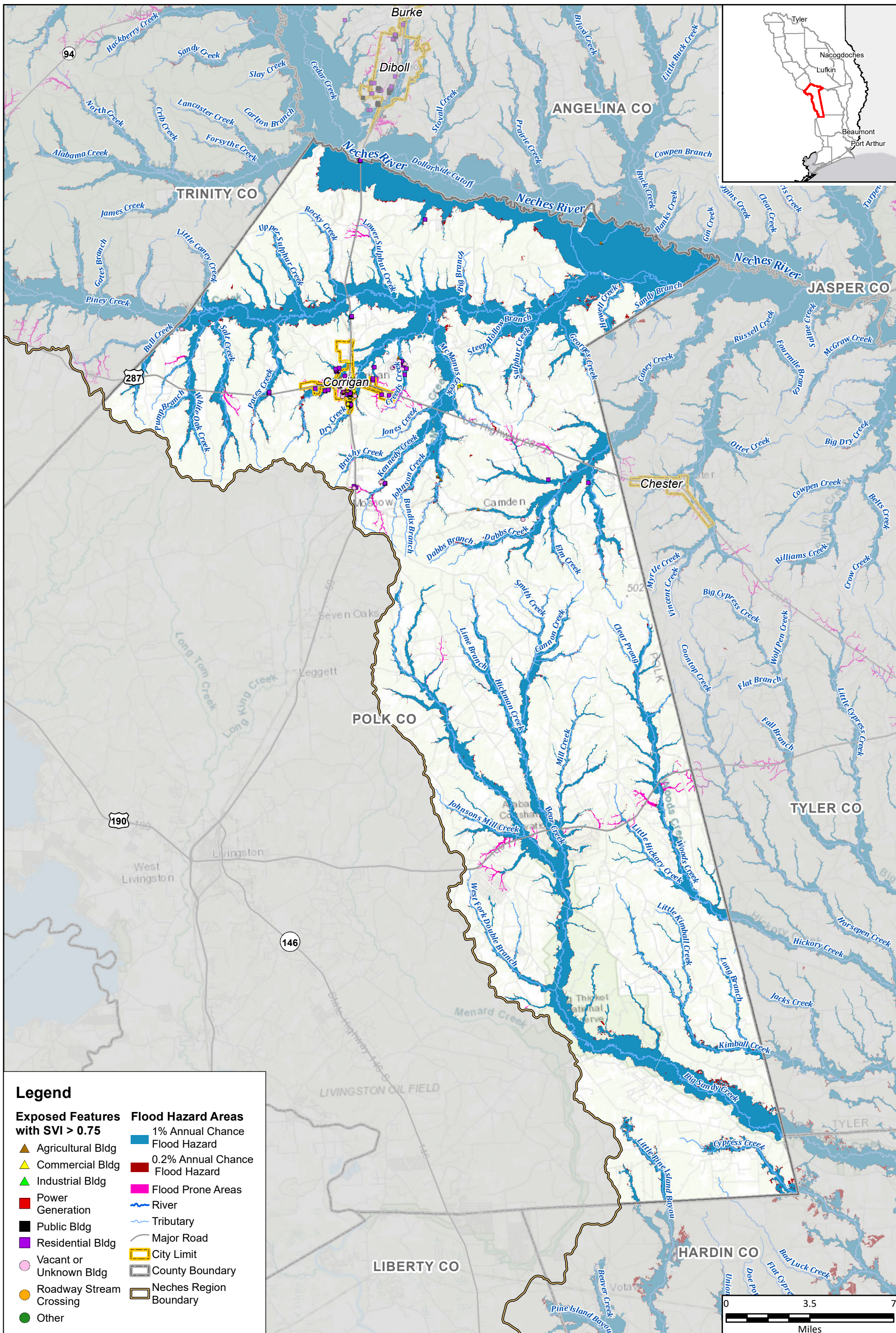


Legend

Exposed Features with SVI > 0.75	Flood Hazard Areas
▲ Agricultural Bldg	■ 1% Annual Chance Flood Hazard
▲ Commercial Bldg	■ 0.2% Annual Chance Flood Hazard
▲ Industrial Bldg	■ Flood Prone Areas
■ Power Generation	— River
■ Public Bldg	— Tributary
■ Residential Bldg	— Major Road
○ Vacant or Unknown Bldg	▭ City Limit
● Roadway Stream Crossing	▭ County Boundary
● Other	▭ Neches Region Boundary







Legend

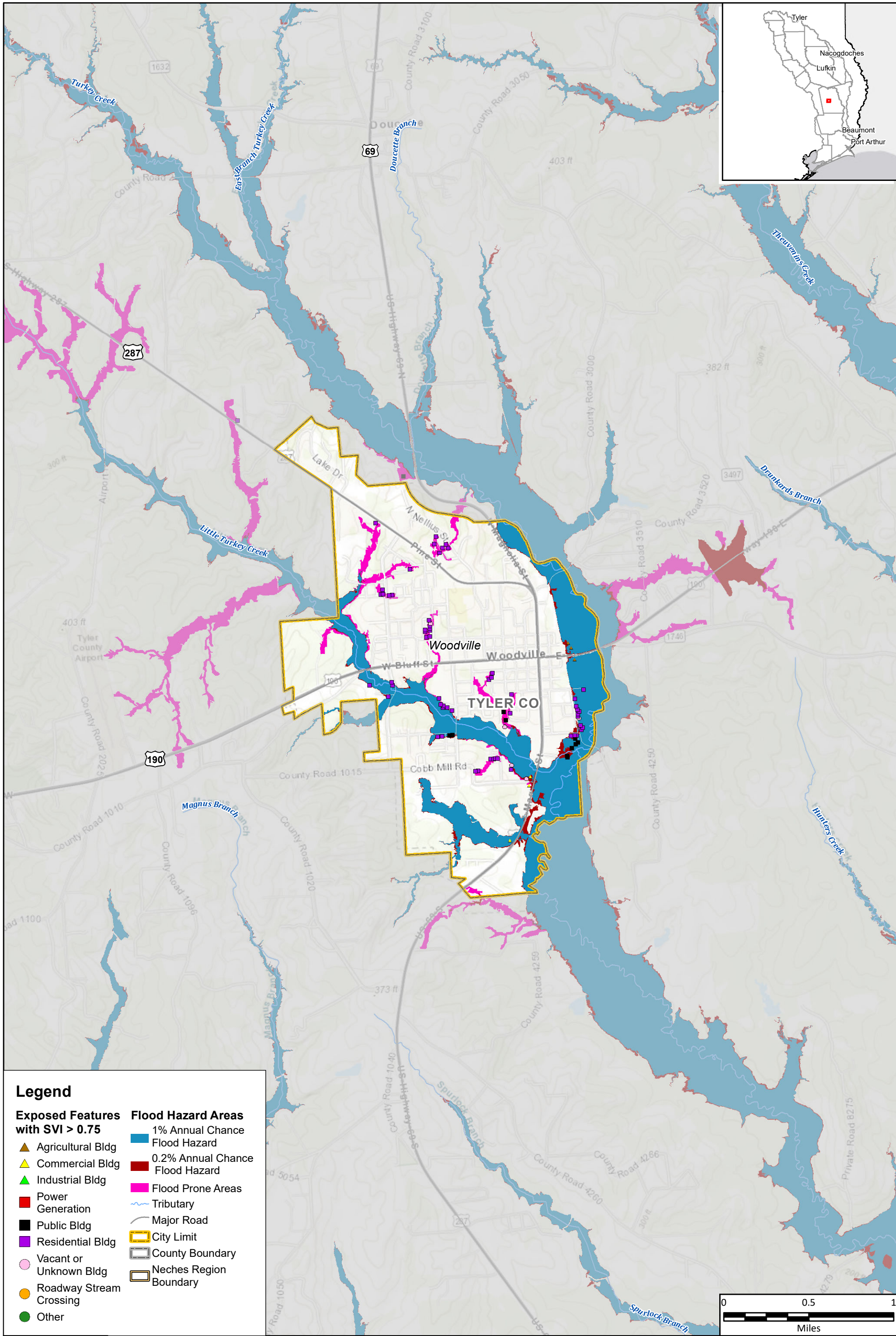
Exposed Features with SVI > 0.75

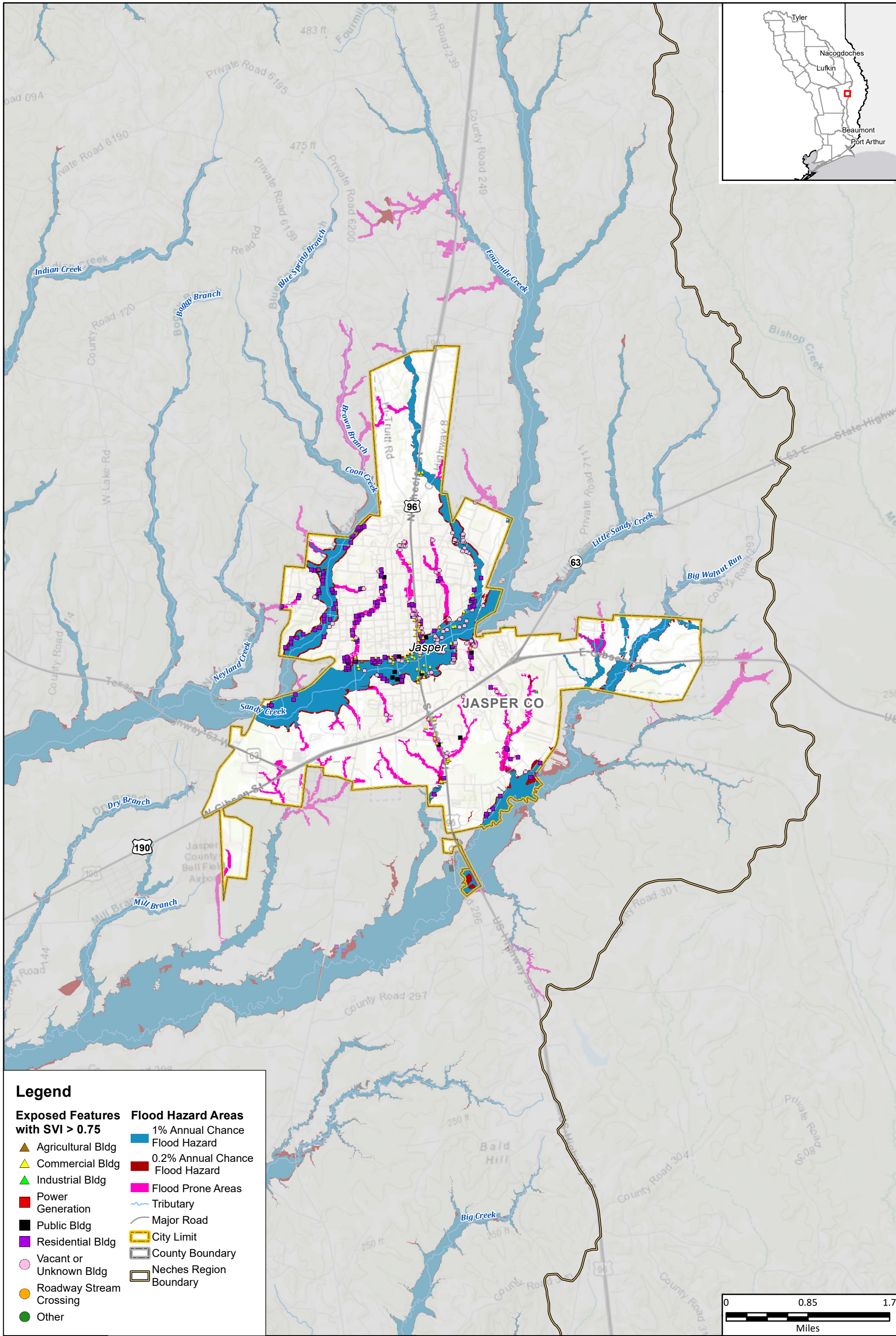
- ▲ Agricultural Bldg
- Commercial Bldg
- ▲ Industrial Bldg
- Power Generation
- Public Bldg
- Residential Bldg
- Vacant or Unknown Bldg
- Roadway Stream Crossing
- Other

Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Flood Prone Areas
- River
- Tributary
- Major Road
- City Limit
- County Boundary
- Neches Region Boundary







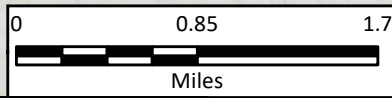
Legend

Exposed Features with SVI > 0.75

- ▲ Agricultural Bldg
- ▲ Commercial Bldg
- ▲ Industrial Bldg
- Power Generation
- Public Bldg
- Residential Bldg
- Vacant or Unknown Bldg
- Roadway Stream Crossing
- Other

Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Flood Prone Areas
- Tributary
- Major Road
- City Limit
- County Boundary
- Neches Region Boundary

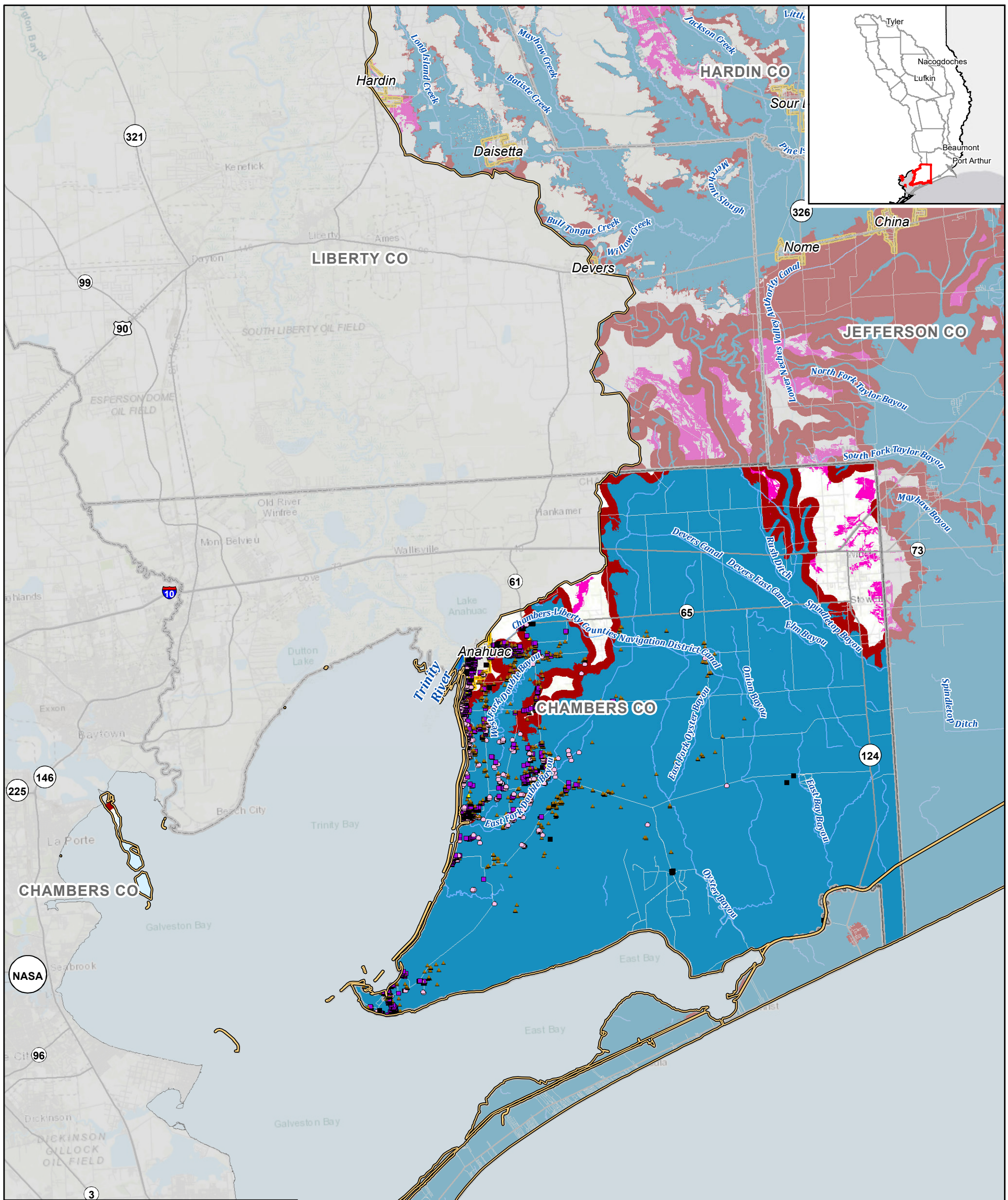


Region 5: Neches Regional Flood Plan
City of Jasper

Future Condition Vulnerability



MAP 12B
FIGURE 15 of 19



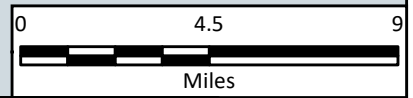
Legend

Exposed Features with SVI > 0.75

- ▲ Agricultural Bldg
- ▲ Commercial Bldg
- ▲ Industrial Bldg
- Power Generation
- Public Bldg
- Residential Bldg
- Vacant or Unknown Bldg
- Roadway Stream Crossing
- Other

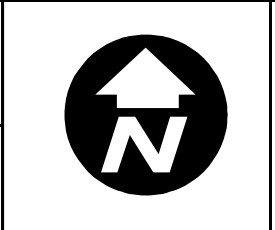
Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Flood Prone Areas
- River
- Tributary
- Major Road
- City Limit
- County Boundary
- Neches Region Boundary

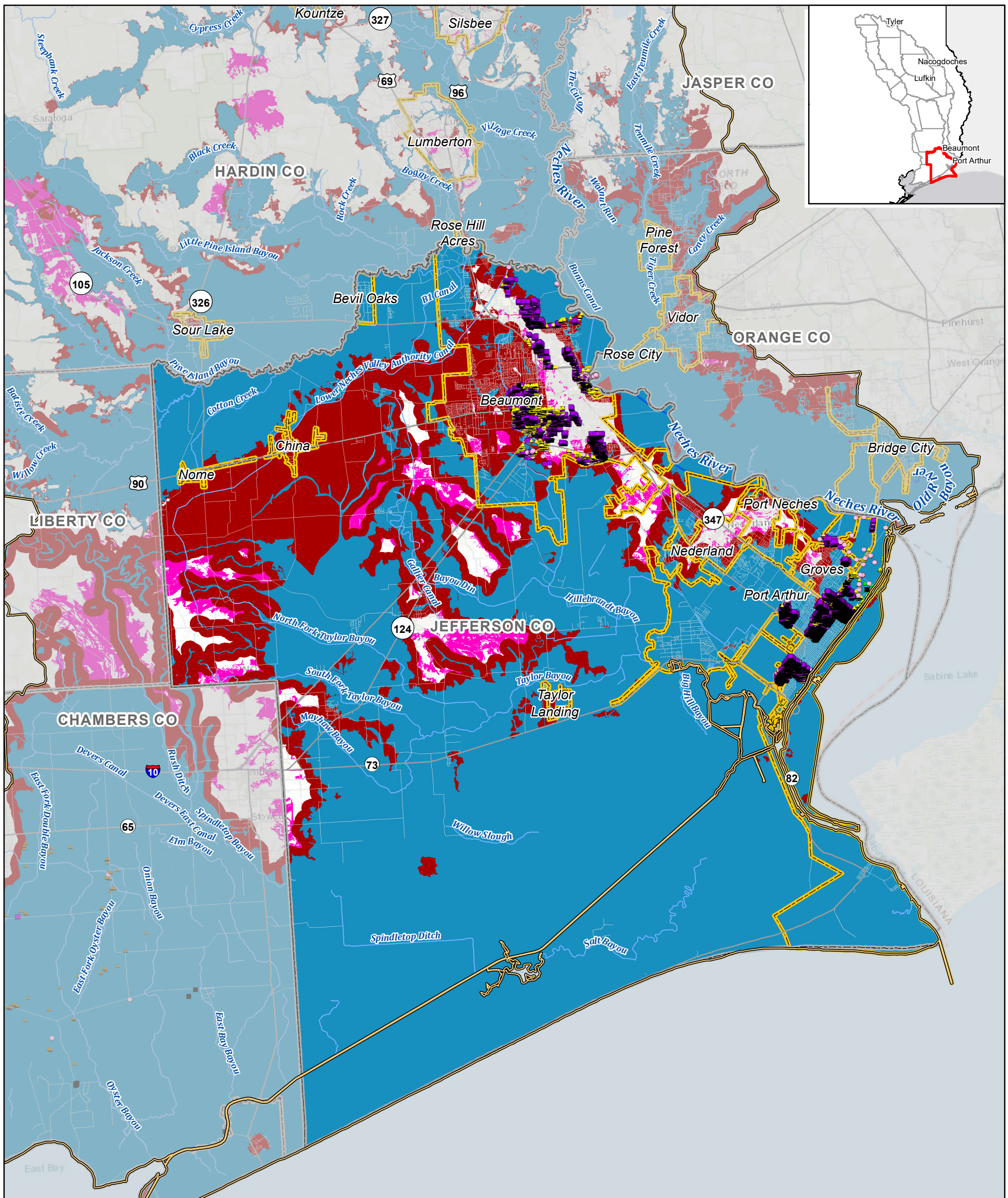


Region 5: Neches Regional Flood Plan
Chambers County

Future Condition Vulnerability



MAP 12B
FIGURE 16 of 19



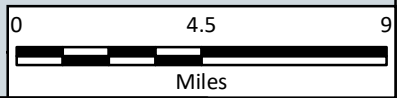
Legend

Exposed Features with SVI > 0.75

- ▲ Agricultural Bldg
- Commercial Bldg
- ▲ Industrial Bldg
- Power Generation
- Public Bldg
- Residential Bldg
- Vacant or Unknown Bldg
- Roadway Stream Crossing
- Other

Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Flood Prone Areas
- River
- Tributary
- Major Road
- City Limit
- County Boundary
- Neches Region Boundary

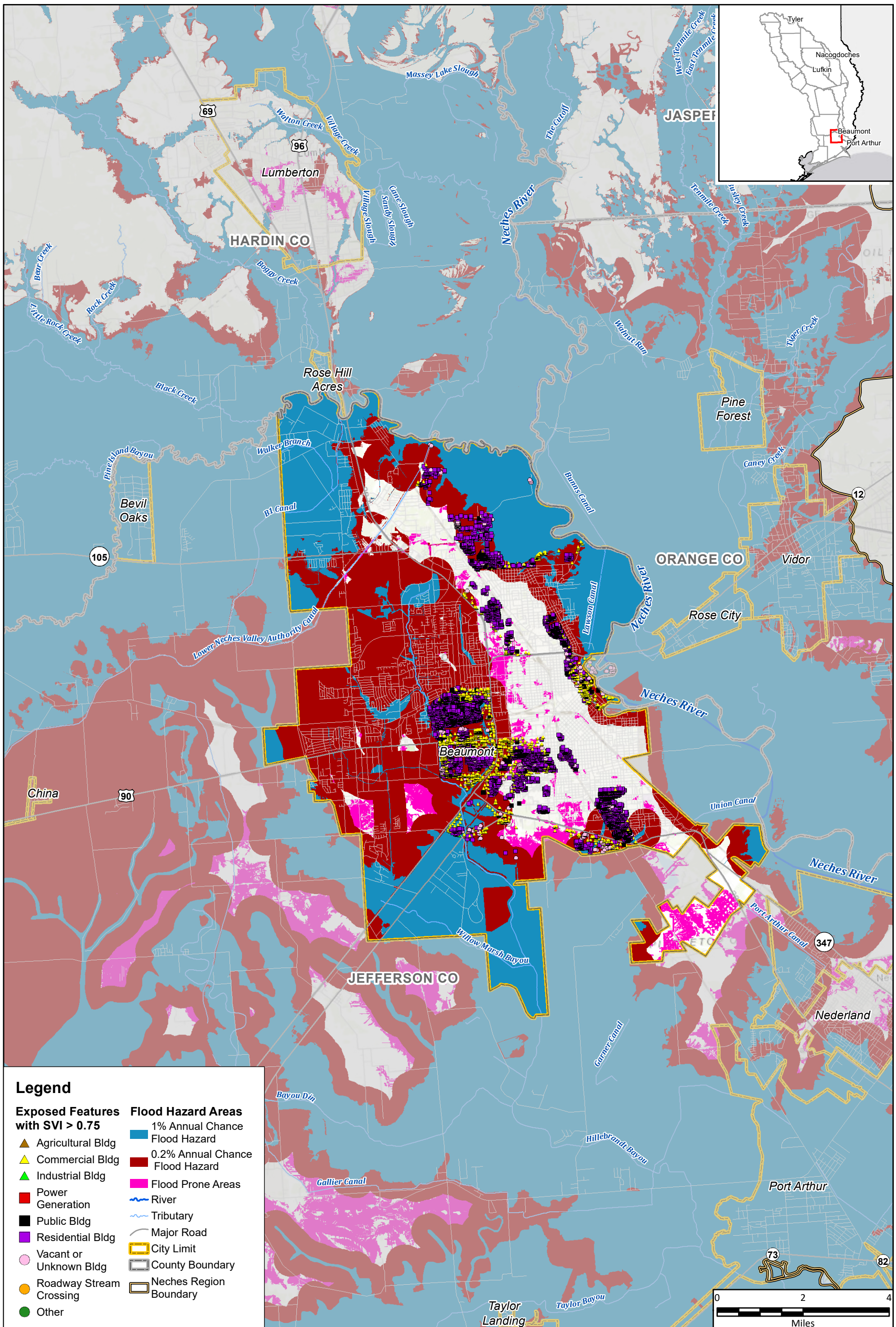


Region 5: Neches Regional Flood Plan
Jefferson County

Future Condition Vulnerability



MAP 12B
FIGURE 17 of 19



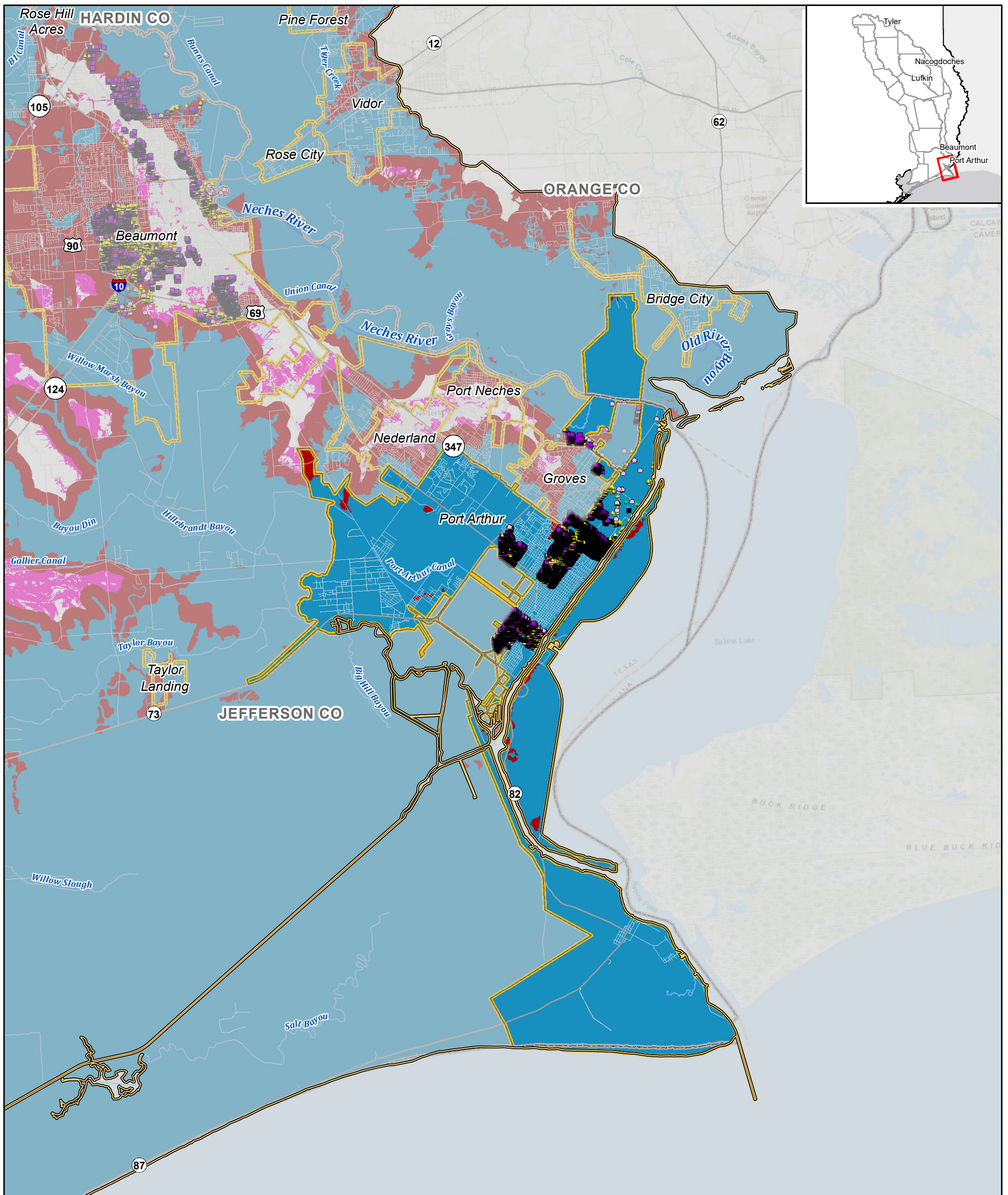
Legend

Exposed Features with SVI > 0.75

- ▲ Agricultural Bldg
- ▲ Commercial Bldg
- ▲ Industrial Bldg
- Power Generation
- Public Bldg
- Residential Bldg
- Vacant or Unknown Bldg
- Roadway Stream Crossing
- Other

Flood Hazard Areas

- 1% Annual Chance Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Flood Prone Areas
- River
- Tributary
- Major Road
- City Limit
- County Boundary
- Neches Region Boundary



Legend

- | | |
|--|---------------------------------|
| Exposed Features with SVI > 0.75 | Flood Hazard Areas |
| ▲ Agricultural Bldg | 1% Annual Chance Flood Hazard |
| ▲ Commercial Bldg | 0.2% Annual Chance Flood Hazard |
| ▲ Industrial Bldg | Flood Prone Areas |
| ■ Power Generation | River |
| ■ Public Bldg | Tributary |
| ■ Residential Bldg | Major Road |
| ● Vacant or Unknown Bldg | City Limit |
| ● Roadway Stream Crossing | County Boundary |
| ● Other | Neches Region Boundary |



Region 5: Neches Regional Flood Plan
City of Port Arthur

Future Condition Vulnerability



MAP 12B
FIGURE 19 of 19

APPENDIX 2-B
EXISTING AND FUTURE EXPOSURE SUMMARY TABLES

Table 3: Existing Condition Flood Risk

1% Annual Chance Flood Risk									
	RFPG No.	RFPG Name	County	Area in Flood Planning Region (sqmi)	Area in Floodplain (sqmi)	Riverine Flood Risk Type (sqmi)	Coastal Flood Risk Type (sqmi)	Local Flood Risk Type (sqmi)	Other Flood Risk Type (sqmi)
1	5	Neches	Anderson	495.35	70.71	70.71	0	0	0
2	5	Neches	Angelina	860.98	228.11	228.11	0	0	0
3	5	Neches	Chambers	434.46	264.64	203.33	61.30	0	0
4	5	Neches	Cherokee	1057.77	171.37	171.37	0	0	0
5	5	Neches	Galveston	56.94	53.82	6.41	47.42	0	0
6	5	Neches	Hardin	887.6	306.37	306.36	0	0	0
7	5	Neches	Harris	0.17	0.17	0	0.17	0	0
8	5	Neches	Henderson	373.91	74.63	74.62	0	0	0
9	5	Neches	Houston	418.21	61.41	61.41	0	0	0
10	5	Neches	Jasper	615.49	196.99	197.00	0	0	0
11	5	Neches	Jefferson	954.14	604.79	533.32	71.47	0	0
12	5	Neches	Liberty	235.49	73.97	73.97	0	0	0
13	5	Neches	Nacogdoches	977.21	170.58	170.57	0	0	0
14	5	Neches	Newton	6.39	0.74	0.74	0	0	0
15	5	Neches	Orange	155.72	102.59	87.23	15.36	0	0
16	5	Neches	Polk	535.17	100.67	100.67	0	0	0
17	5	Neches	Rusk	524.87	72.39	72.39	0	0	0
18	5	Neches	Sabine	95.27	21.31	21.31	0	0	0
19	5	Neches	San Augustine	533.5	122.71	122.72	0	0	0
20	5	Neches	Shelby	159.87	21.60	21.61	0	0	0
21	5	Neches	Smith	509.57	69.13	69.13	0	0	0
22	5	Neches	Trinity	341.74	73.89	73.89	0	0	0
23	5	Neches	Tyler	931.72	186.01	186.00	0	0	0
24	5	Neches	Van Zandt	244.01	29.91	29.91	0	0	0
TOTAL				11,405.55	3,078.52	2,882.77	195.71	0	0

Table 3: Existing Condition Flood Risk

				1% Annual Chance Flood Risk						
	RFPG No.	RFPG Name	County	Number of Structures in Floodplain	Residential Structures in Floodplain	Population	Roadway Stream Crossings (#)	Roadways Segments (miles)	Agricultural Areas (sqmi)	Critical Facilities (#)
1	5	Neches	Anderson	69	28	61	147	22.20	0.54	0
2	5	Neches	Angelina	1,201	750	6,718	310	66.37	0.26	11
3	5	Neches	Chambers	1,175	459	1,128	161	161.62	57.71	0
4	5	Neches	Cherokee	672	302	987	305	49.29	1.44	1
5	5	Neches	Galveston	4,937	4,476	1,820	141	142.59	0.52	8
6	5	Neches	Hardin	3,678	2,638	7,212	207	135.80	1.16	25
7	5	Neches	Harris	0	0	0	0	0	0	0
8	5	Neches	Henderson	240	108	162	117	20.05	0.54	0
9	5	Neches	Houston	17	3	16	112	19.70	0.18	0
10	5	Neches	Jasper	756	367	1,388	148	45.70	0.16	7
11	5	Neches	Jefferson	12,869	9,726	26,027	374	473.80	51.59	316
12	5	Neches	Liberty	116	57	140	18	7.11	2.38	1
13	5	Neches	Nacogdoches	585	238	4,007	257	38.32	0.37	1
14	5	Neches	Newton	0	0	0	1	0.16	0	0
15	5	Neches	Orange	5,007	4,273	8,737	106	136.13	0.54	36
16	5	Neches	Polk	84	45	321	121	16.80	0.10	0
17	5	Neches	Rusk	91	45	149	186	21.12	0.32	1
18	5	Neches	Sabine	11	2	16	23	2.67	0.01	0
19	5	Neches	San Augustine	64	28	110	107	13.22	0.07	0
20	5	Neches	Shelby	15	0	7	38	4.63	0.09	0
21	5	Neches	Smith	2,347	1,064	6,216	311	50.01	0.34	72
22	5	Neches	Trinity	32	15	15	86	22.49	0.11	0
23	5	Neches	Tyler	545	377	278	177	41.88	0.13	0
24	5	Neches	Van Zandt	217	144	202	105	13.47	0.36	0
TOTAL				34,728	25,145	65,717	3,558	1,505.11	118.92	479

Table 3: Existing Condition Flood Risk

				0.2% Annual Chance Flood Risk					
	RFPG No.	RFPG Name	County	Area in Flood Planning Region (sqmi)	Area in Floodplain (sqmi)	Riverine Flood Risk Type (sqmi)	Coastal Flood Risk Type (sqmi)	Local Flood Risk Type (sqmi)	Other Flood Risk Type (sqmi)
1	5	Neches	Anderson	495.35	74.67	74.66	0	0	0
2	5	Neches	Angelina	860.98	238.56	238.56	0	0	0
3	5	Neches	Chambers	434.46	371.39	310.09	61.30	0	0
4	5	Neches	Cherokee	1057.77	180.89	180.89	0	0	0
5	5	Neches	Galveston	56.94	54.79	7.38	47.42	0	0
6	5	Neches	Hardin	887.6	355.51	355.49	0	0	0
7	5	Neches	Harris	0.17	0.17	0.00	0.17	0	0
8	5	Neches	Henderson	373.91	78.57	78.57	0	0	0
9	5	Neches	Houston	418.21	66.16	66.16	0	0	0
10	5	Neches	Jasper	615.49	212.35	212.37	0	0	0
11	5	Neches	Jefferson	954.14	694.93	623.46	71.47	0	0
12	5	Neches	Liberty	235.49	85.66	85.66	0	0	0
13	5	Neches	Nacogdoches	977.21	178.40	178.39	0	0	0
14	5	Neches	Newton	6.39	0.83	0.83	0	0	0
15	5	Neches	Orange	155.72	121.58	106.22	15.36	0	0
16	5	Neches	Polk	535.17	106.01	106.02	0	0	0
17	5	Neches	Rusk	524.87	76.87	76.87	0	0	0
18	5	Neches	Sabine	95.27	22.49	22.49	0	0	0
19	5	Neches	San Augustine	533.5	127.06	127.07	0	0	0
20	5	Neches	Shelby	159.87	22.67	22.67	0	0	0
21	5	Neches	Smith	509.57	73.53	73.54	0	0	0
22	5	Neches	Trinity	341.74	79.00	78.99	0	0	0
23	5	Neches	Tyler	931.72	198.73	198.72	0	0	0
24	5	Neches	Van Zandt	244.01	32.01	32.01	0	0	0
TOTAL				11,405.55	3,452.84	3,257.09	195.71	0	0

Table 3: Existing Condition Flood Risk

	RFPG No.	RFPG Name	County	Number of Structures in Floodplain	0.2% Annual Chance Flood Risk					
					Residential Structures in Floodplain	Population	Roadway Stream Crossings (#)	Roadways Segments (miles)	Agricultural Areas (sqmi)	Critical Facilities (#)
1	5	Neches	Anderson	98	45	98	164	27.48	0.58	0
2	5	Neches	Angelina	1,418	891	7,665	339	78.11	0.28	12
3	5	Neches	Chambers	2,086	730	2,354	287	284.05	99.62	1
4	5	Neches	Cherokee	802	396	1,202	366	64.55	1.55	1
5	5	Neches	Galveston	4,968	4,497	1,831	141	144.32	0.53	8
6	5	Neches	Hardin	5,679	3,942	10,490	244	206.22	1.43	29
7	5	Neches	Harris	0	0	0	0	0	0	0
8	5	Neches	Henderson	315	157	1,159	153	25.91	0.60	1
9	5	Neches	Houston	19	3	16	127	24.27	0.20	0
10	5	Neches	Jasper	939	460	1,608	170	58.72	0.19	9
11	5	Neches	Jefferson	45,551	37,137	98,396	553	1,002.45	56.64	1,789
12	5	Neches	Liberty	155	79	192	20	10.75	2.55	2
13	5	Neches	Nacogdoches	694	300	4,989	274	47.82	0.40	1
14	5	Neches	Newton	0	0	0	1	0.18	0	0
15	5	Neches	Orange	10,827	9,468	19,607	142	248.64	0.71	119
16	5	Neches	Polk	116	61	433	127	20.32	0.10	0
17	5	Neches	Rusk	116	55	186	214	26.43	0.35	1
18	5	Neches	Sabine	19	3	23	26	3.49	0.01	0
19	5	Neches	San Augustine	83	35	135	123	16.75	0.07	0
20	5	Neches	Shelby	29	0	14	41	5.27	0.09	0
21	5	Neches	Smith	2,851	1,423	7,251	346	62.14	0.37	109
22	5	Neches	Trinity	41	19	27	94	27.47	0.12	0
23	5	Neches	Tyler	647	446	364	194	50.20	0.14	0
24	5	Neches	Van Zandt	264	174	235	129	18.32	0.40	0
TOTAL				77,717	60,321	158,275	4,275	2,453.86	166.91	2,082

Table 3: Existing Condition Flood Risk

	RFPG No.	RFPG Name	County	Possible Flood Prone Areas					
				Area in Flood Planning Region (sqmi)	Area in Floodplain (sqmi)	Riverine Flood Risk Type (sqmi)	Coastal Flood Risk Type (sqmi)	Local Flood Risk Type (sqmi)	Other Flood Risk Type (sqmi)
1	5	Neches	Anderson	495.35	3.96	0.53	0	3.43	0
2	5	Neches	Angelina	860.98	8.72	1.39	0	7.31	0.02
3	5	Neches	Chambers	434.46	12.27	0	0	0	12.27
4	5	Neches	Cherokee	1057.77	11.14	2.49	0	8.64	0
5	5	Neches	Galveston	56.94	0.44	0	0	0	0.44
6	5	Neches	Hardin	887.6	22.51	0	0	0	22.51
7	5	Neches	Harris	0.17	0	0	0	0	0
8	5	Neches	Henderson	373.91	2.66	0.25	0	2.39	0.02
9	5	Neches	Houston	418.21	3.97	1.68	0	2.18	0.10
10	5	Neches	Jasper	615.49	1.96	0	0	0	1.96
11	5	Neches	Jefferson	954.14	122.93	0	0	0	122.93
12	5	Neches	Liberty	235.49	31.77	0	0	0	31.77
13	5	Neches	Nacogdoches	977.21	7.92	1.96	0	5.96	0
14	5	Neches	Newton	6.39	0	0	0	0	0
15	5	Neches	Orange	155.72	1.41	0	0	0	1.41
16	5	Neches	Polk	535.17	1.48	0	0	0	1.48
17	5	Neches	Rusk	524.87	7.77	2.64	0	5.13	0
18	5	Neches	Sabine	95.27	1.09	0.06	0	0.67	0.37
19	5	Neches	San Augustine	533.5	4.54	1.29	0	3.25	0
20	5	Neches	Shelby	159.87	1.22	0.21	0	1.01	0
21	5	Neches	Smith	509.57	6.98	0.79	0	6.05	0.14
22	5	Neches	Trinity	341.74	2.34	0.28	0	2.06	0
23	5	Neches	Tyler	931.72	2.10	0	0	0	2.10
24	5	Neches	Van Zandt	244.01	2.73	0.18	0	2.42	0.13
TOTAL				11,405.55	261.91	13.76	0	50.50	197.64

Table 3: Existing Condition Flood Risk

	RFPG No.	RFPG Name	County	Possible Flood Prone Areas							
				Number of Structures in Floodplain	Residential Structures in Floodplain	Population	Roadway Stream Crossings (#)	Roadways Segments (miles)	Agricultural Areas (sqmi)	Critical Facilities (#)	Average SVI of features in floodplain or flood prone areas
1	5	Neches	Anderson	245	177	599	43	14.69	0.05	1	0.66
2	5	Neches	Angelina	808	544	5,248	50	34.70	0.02	10	0.65
3	5	Neches	Chambers	405	206	653	19	32.69	3.81	2	0.74
4	5	Neches	Cherokee	216	115	1,375	67	21.43	0.17	3	0.60
5	5	Neches	Galveston	2	2	0	0	0.04	0.02	0	0.27
6	5	Neches	Hardin	777	544	1,486	12	22.66	0.57	5	0.32
7	5	Neches	Harris	0	0	0	0	0	0	0	N/A
8	5	Neches	Henderson	132	79	545	26	7.33	0.06	3	0.40
9	5	Neches	Houston	25	16	21	13	3.81	0.02	2	0.38
10	5	Neches	Jasper	149	70	560	22	4.13	0	6	0.53
11	5	Neches	Jefferson	20,623	17,499	65,461	203	362.32	34.44	229	0.48
12	5	Neches	Liberty	117	89	214	3	12.93	2.43	0	0.57
13	5	Neches	Nacogdoches	323	201	1,755	41	14.46	0.04	6	0.71
14	5	Neches	Newton	0	0	0	0	0.00	0	0	N/A
15	5	Neches	Orange	507	404	760	1	9.77	0.01	3	0.35
16	5	Neches	Polk	35	20	101	7	1.73	0	0	0.79
17	5	Neches	Rusk	179	105	989	43	11.40	0.03	1	0.59
18	5	Neches	Sabine	13	6	23	2	0.42	0	3	0.60
19	5	Neches	San Augustine	42	21	49	22	4.72	0.01	0	0.73
20	5	Neches	Shelby	3	0	1	10	1.16	0	0	0.65
21	5	Neches	Smith	1,698	1,292	9,005	82	42.19	0.05	17	0.43
22	5	Neches	Trinity	6	4	6	7	2.02	0	0	0.37
23	5	Neches	Tyler	137	119	154	19	5.12	0	0	0.56
24	5	Neches	Van Zandt	101	50	113	13	5.77	0.05	0	0.36
TOTAL				26,543	21,563	89,118	705	615.48	41.78	291	N/A

THIS PAGE INTENTIONALLY LEFT BLANK

Table 5: Future Condition Flood Risk

	RFPG No.	RFPG Name	County	Area in Flood Planning Region (sqmi)	1% Annual Chance Flood Risk				
					Area in Floodplain (sqmi)	Riverine Flood Risk Type (sqmi)	Coastal Flood Risk Type (sqmi)	Local Flood Risk Type (sqmi)	Other Flood Risk Type (sqmi)
1	5	Neches	Anderson	495.35	74.67	74.66	0.00	0	0
2	5	Neches	Angelina	860.98	238.56	238.56	0.00	0	0
3	5	Neches	Chambers	434.46	371.26	310.09	61.16	0	0
4	5	Neches	Cherokee	1057.77	180.89	180.89	0.00	0	0
5	5	Neches	Galveston	56.94	54.40	7.37	47.04	0	0
6	5	Neches	Hardin	887.6	350.58	350.56	0.00	0	0
7	5	Neches	Harris	0.17	0	0	0	0	0
8	5	Neches	Henderson	373.91	78.57	78.57	0.00	0	0
9	5	Neches	Houston	418.21	66.16	66.16	0.00	0	0
10	5	Neches	Jasper	615.49	204.37	204.39	0.00	0	0
11	5	Neches	Jefferson	954.14	694.90	623.43	71.47	0	0
12	5	Neches	Liberty	235.49	85.66	85.66	0.00	0	0
13	5	Neches	Nacogdoches	977.21	178.40	178.39	0.00	0	0
14	5	Neches	Newton	6.39	0.83	0.83	0.00	0	0
15	5	Neches	Orange	155.72	119.68	104.32	15.36	0	0
16	5	Neches	Polk	535.17	106.01	106.02	0.00	0	0
17	5	Neches	Rusk	524.87	76.87	76.87	0.00	0	0
18	5	Neches	Sabine	95.27	22.49	22.49	0.00	0	0
19	5	Neches	San Augustine	533.5	127.06	127.07	0.00	0	0
20	5	Neches	Shelby	159.87	22.67	22.67	0.00	0	0
21	5	Neches	Smith	509.57	73.53	73.54	0.00	0	0
22	5	Neches	Trinity	341.74	79.00	78.99	0.00	0	0
23	5	Neches	Tyler	931.72	194.34	194.33	0.00	0	0
24	5	Neches	Van Zandt	244.01	32.01	32.01	0.00	0	0
TOTAL				11,405.55	3,432.91	3,237.85	195.03	0	0

Table 5: Future Condition Flood Risk

					1% Annual Chance Flood Risk						
	RFPG No.	RFPG Name	County	Area in Flood Planning Region (sqmi)	Number of Structures in Floodplain	Residential Structures in Floodplain	Population	Roadway Stream Crossings (#)	Roadways Segments (miles)	Agricultural Areas (sqmi)	Critical Facilities (#)
1	5	Neches	Anderson	495.35	98	45	95	164	27.48	0.58	0
2	5	Neches	Angelina	860.98	1,418	891	7,665	339	78.11	0.28	12
3	5	Neches	Chambers	434.46	2,086	730	2,354	287	284.05	99.62	1
4	5	Neches	Cherokee	1057.77	802	396	1,127	366	64.54	1.55	1
5	5	Neches	Galveston	56.94	4,968	4,497	1,825	141	143.45	0.53	8
6	5	Neches	Hardin	887.6	5,640	3,921	10,441	243	204.02	1.43	29
7	5	Neches	Harris	0.17	0	0	0	0	0	0	0
8	5	Neches	Henderson	373.91	315	157	1,159	153	25.91	0.60	1
9	5	Neches	Houston	418.21	19	3	16	127	24.27	0.20	0
10	5	Neches	Jasper	615.49	890	426	1,522	168	56.38	0.18	9
11	5	Neches	Jefferson	954.14	45,551	37,137	98,396	553	1002.45	56.63	1,789
12	5	Neches	Liberty	235.49	154	78	192	20	10.75	2.55	2
13	5	Neches	Nacogdoches	977.21	694	300	4,989	274	47.82	0.40	1
14	5	Neches	Newton	6.39	0	0	0	1	0.18	0	0
15	5	Neches	Orange	155.72	10,752	9,407	19,498	142	246.36	0.71	119
16	5	Neches	Polk	535.17	116	61	433	127	20.32	0.10	0
17	5	Neches	Rusk	524.87	116	55	186	214	26.42	0.35	1
18	5	Neches	Sabine	95.27	19	3	23	26	3.49	0.01	0
19	5	Neches	San Augustine	533.5	83	35	135	123	16.75	0.07	0
20	5	Neches	Shelby	159.87	29	0	14	41	5.27	0.09	0
21	5	Neches	Smith	509.57	2,850	1,422	7,250	346	62.14	0.37	109
22	5	Neches	Trinity	341.74	41	19	27	94	27.47	0.12	0
23	5	Neches	Tyler	931.72	604	410	321	194	47.77	0.13	0
24	5	Neches	Van Zandt	244.01	264	174	235	129	18.32	0.40	0
TOTAL				11,405.55	77,509	60,167	157,903	4,272	2,443.73	166.88	2,082

Table 5: Future Condition Flood Risk

	RFPG No.	RFPG Name	County	Area in Flood Planning Region (sqmi)	0.2% Annual Chance Flood Risk				
					Area in Floodplain (sqmi)	Riverine Flood Risk Type (sqmi)	Coastal Flood Risk Type (sqmi)	Local Flood Risk Type (sqmi)	Other Flood Risk Type (sqmi)
1	5	Neches	Anderson	495.35	78.11	78.10	0	0	0
2	5	Neches	Angelina	860.98	247.06	247.06	0	0	0
3	5	Neches	Chambers	434.46	401.14	339.97	61.16	0	0
4	5	Neches	Cherokee	1057.77	188.90	188.90	0	0	0
5	5	Neches	Galveston	56.94	56.55	9.51	47.04	0	0
6	5	Neches	Hardin	887.6	393.96	393.94	0	0	0
7	5	Neches	Harris	0.17	0	0	0	0	0
8	5	Neches	Henderson	373.91	81.90	81.89	0	0	0
9	5	Neches	Houston	418.21	69.79	69.79	0	0	0
10	5	Neches	Jasper	615.49	222.37	222.39	0	0	0
11	5	Neches	Jefferson	954.14	888.39	816.92	71.47	0	0
12	5	Neches	Liberty	235.49	128.90	128.89	0	0	0
13	5	Neches	Nacogdoches	977.21	185.38	185.37	0	0	0
14	5	Neches	Newton	6.39	0.90	0.90	0	0	0
15	5	Neches	Orange	155.72	147.47	132.11	15.36	0	0
16	5	Neches	Polk	535.17	111.14	111.14	0	0	0
17	5	Neches	Rusk	524.87	80.67	80.67	0	0	0
18	5	Neches	Sabine	95.27	23.35	23.35	0	0	0
19	5	Neches	San Augustine	533.5	130.84	130.84	0	0	0
20	5	Neches	Shelby	159.87	23.57	23.57	0	0	0
21	5	Neches	Smith	509.57	77.55	77.56	0	0	0
22	5	Neches	Trinity	341.74	83.14	83.13	0	0	0
23	5	Neches	Tyler	931.72	207.36	207.35	0	0	0
24	5	Neches	Van Zandt	244.01	33.87	33.87	0	0	0
TOTAL				11,405.55	3,862.30	3,667.23	195.03	0	0

Table 5: Future Condition Flood Risk

					0.2% Annual Chance Flood Risk						
	RFPG No.	RFPG Name	County	Area in Flood Planning Region (sqmi)	Number of Structures in Floodplain	Residential Structures in Floodplain	Population	Roadway Stream Crossings (#)	Roadways Segments (miles)	Agricultural Areas (sqmi)	Critical Facilities (#)
1	5	Neches	Anderson	495.35	126	63	150	188	33.73	0.61	0
2	5	Neches	Angelina	860.98	1,690	1,083	8,590	367	91.48	0.29	18
3	5	Neches	Chambers	434.46	3,298	1,365	4,295	334	349.03	107.88	6
4	5	Neches	Cherokee	1057.77	1,011	553	1,514	436	80.53	1.64	3
5	5	Neches	Galveston	56.94	5,246	4,686	2,088	142	150.38	0.56	13
6	5	Neches	Hardin	887.6	7,852	5,432	14,070	268	279.12	1.78	51
7	5	Neches	Harris	0.17	0	0	0	0	0	0	0
8	5	Neches	Henderson	373.91	373	195	1,236	174	32.19	0.64	1
9	5	Neches	Houston	418.21	24	4	16	150	28.67	0.21	0
10	5	Neches	Jasper	615.49	1,135	537	2,283	192	71.67	0.22	9
11	5	Neches	Jefferson	954.14	85,121	69,440	208,558	858	1,778.49	99.01	2,987
12	5	Neches	Liberty	235.49	364	237	645	31	32.82	5.93	3
13	5	Neches	Nacogdoches	977.21	819	386	5,843	312	60.22	0.42	1
14	5	Neches	Newton	6.39	0	0	0	1	0.31	0	0
15	5	Neches	Orange	155.72	15,812	13,645	28,038	170	344.09	0.98	178
16	5	Neches	Polk	535.17	138	72	562	140	24.40	0.11	0
17	5	Neches	Rusk	524.87	144	73	236	241	32.57	0.37	1
18	5	Neches	Sabine	95.27	31	4	41	31	4.13	0.01	0
19	5	Neches	San Augustine	533.5	94	37	156	138	20.43	0.07	0
20	5	Neches	Shelby	159.87	32	0	17	43	6.29	0.09	0
21	5	Neches	Smith	509.57	3,547	1,971	9,817	392	76.47	0.40	118
22	5	Neches	Trinity	341.74	50	26	46	104	32.50	0.13	0
23	5	Neches	Tyler	931.72	731	512	456	214	58.08	0.14	0
24	5	Neches	Van Zandt	244.01	314	203	274	156	22.81	0.43	0
TOTAL				11,405.55	127,952	100,524	288,931	5,082	3,610.39	221.92	3,389

Table 5: Future Condition Flood Risk

	RFPG No.	RFPG Name	County	Area in Flood Planning Region (sqmi)	Possible Flood Prone Areas				
					Area in Floodplain (sqmi)	Riverine Flood Risk Type (sqmi)	Coastal Flood Risk Type (sqmi)	Local Flood Risk Type (sqmi)	Other Flood Risk Type (sqmi)
1	5	Neches	Anderson	495.35	4.83	0.66	0	4.17	0
2	5	Neches	Angelina	860.98	10.16	1.40	0	8.74	0.01
3	5	Neches	Chambers	434.46	4.53	0.00	0	0.00	4.53
4	5	Neches	Cherokee	1057.77	13.63	2.46	0	11.17	0
5	5	Neches	Galveston	56.94	0	0	0	0	0
6	5	Neches	Hardin	887.6	31.81	0.00	0	0	31.81
7	5	Neches	Harris	0.17	0	0	0	0	0
8	5	Neches	Henderson	373.91	3.86	0.43	0	3.44	0
9	5	Neches	Houston	418.21	5.12	1.86	0	3.27	0
10	5	Neches	Jasper	615.49	2.37	0.00	0	0	2.37
11	5	Neches	Jefferson	954.14	22.01	0.00	0	0	22.01
12	5	Neches	Liberty	235.49	22.54	0.00	0	0	22.54
13	5	Neches	Nacogdoches	977.21	9.87	2.33	0	7.54	0.00
14	5	Neches	Newton	6.39	0	0	0	0	0
15	5	Neches	Orange	155.72	0.18	0.00	0	0	0.18
16	5	Neches	Polk	535.17	2.02	0.00	0	0	2.02
17	5	Neches	Rusk	524.87	9.61	3.16	0	6.45	0
18	5	Neches	Sabine	95.27	1.48	0.47	0	1.01	0
19	5	Neches	San Augustine	533.5	5.38	1.18	0	4.20	0
20	5	Neches	Shelby	159.87	1.38	0.23	0	1.15	0
21	5	Neches	Smith	509.57	8.57	0.99	0	7.58	0
22	5	Neches	Trinity	341.74	2.70	0.21	0	2.49	0
23	5	Neches	Tyler	931.72	2.58	0.00	0	0	2.58
24	5	Neches	Van Zandt	244.01	3.35	0.22	0	3.13	0
TOTAL				11,405.55	167.97	15.59	0	64.32	88.06

Table 5: Future Condition Flood Risk

				Possible Flood Prone Areas								
	RFPG No.	RFPG Name	County	Area in Flood Planning Region (sqmi)	Number of Structures in Floodplain	Residential Structures in Floodplain	Population	Roadway Stream Crossings (#)	Roadways Segments (miles)	Agricultural Areas (sqmi)	Critical Facilities (#)	Average SVI of features in floodplain or flood prone areas
1	5	Neches	Anderson	495.35	285	205	1,421	58	18.75	0.06	3	0.66
2	5	Neches	Angelina	860.98	997	669	8,062	58	42.80	0.03	13	0.65
3	5	Neches	Chambers	434.46	344	181	866	5	14.28	0.78	0	0.73
4	5	Neches	Cherokee	1057.77	308	166	2,439	75	27.25	0.23	3	0.61
5	5	Neches	Galveston	56.94	0	0	0	0	0	0	0	0.27
6	5	Neches	Hardin	887.6	1,005	710	3,955	14	31.22	1.90	8	0.33
7	5	Neches	Harris	0.17	0	0	0	0	0	0	0	N/A
8	5	Neches	Henderson	373.91	278	168	1,057	34	11.19	0.07	3	0.40
9	5	Neches	Houston	418.21	31	17	38	15	4.69	0.02	2	0.38
10	5	Neches	Jasper	615.49	172	89	904	31	5.25	0.01	7	0.53
11	5	Neches	Jefferson	954.14	6,563	5,615	35,464	58	92.61	4.36	80	0.47
12	5	Neches	Liberty	235.49	145	106	283	4	10.86	1.17	0	0.57
13	5	Neches	Nacogdoches	977.21	409	258	3,015	50	19.28	0.05	7	0.71
14	5	Neches	Newton	6.39	0	0	0	0	0	0	0	N/A
15	5	Neches	Orange	155.72	13	13	27	0	0.19	0	0	0.36
16	5	Neches	Polk	535.17	52	32	186	9	2.76	0	0	0.79
17	5	Neches	Rusk	524.87	242	125	1,643	61	16.00	0.04	2	0.59
18	5	Neches	Sabine	95.27	14	7	38	3	0.83	0	4	0.60
19	5	Neches	San Augustine	533.5	58	29	146	29	6.58	0.01	1	0.73
20	5	Neches	Shelby	159.87	5	0	2	10	1.49	0	0	0.65
21	5	Neches	Smith	509.57	2,130	1,650	15,244	103	54.85	0.06	19	0.44
22	5	Neches	Trinity	341.74	7	5	12	9	2.63	0.01	0	0.38
23	5	Neches	Tyler	931.72	151	134	278	22	5.70	0	0	0.57
24	5	Neches	Van Zandt	244.01	129	66	254	19	8.54	0.06	0	0.36
TOTAL				11,405.55	13,338	10,245	75,334	667	377.76	8.86	152	N/A

**APPENDIX 2-C
FUTURE POPULATION PROJECTIONS**

Water User Group	Population, 2020	Population, 2030	Population, 2040	Population, 2050
AFTON GROVE WSC	1237	1357	1474	1614
ALGONQUIN WATER RESOURCES OF TEXAS	303	337	371	410
ALTO	1275	1398	1519	1663
ALTO RURAL WSC	3272	3589	3899	4266
ANAHUAC	1984	2010	2038	2068
ANGELINA WSC	3000	3210	3386	3547
APPLEBY WSC	3655	4108	4553	5026
ARP	1084	1136	1189	1245
ATHENS	306	342	372	411
BEAUMONT	130024	138409	147221	157461
BEN WHEELER WSC	2554	2802	2992	3181
BERRYVILLE	1097	1201	1287	1401
BETHEL ASH WSC	3783	4372	4851	5443
BEVIL OAKS	1345	1431	1522	1628
BLACKJACK WSC	778	853	927	1014
BOLIVAR PENINSULA SUD	2943	3480	4118	4875
BRIDGE CITY	6073	6348	6540	6672
BROOKELAND FWSD	931	937	938	938
BROWNSBORO	1368	1665	1915	2243
BRUSHY CREEK WSC	2190	2280	2330	2368
BULLARD	3733	4777	5826	6956
CARO WSC	2593	2913	3228	3565
CARROLL WSC	669	744	820	904
CENTERVILLE WSC	856	925	932	904
CENTRAL WCID OF ANGELINA COUNTY	7323	7835	8266	8658
CHANDLER	3704	4510	5181	6067
CHESTER WSC	1096	1129	1152	1171
CHINA	1230	1309	1393	1489
CHOICE WSC	161	172	183	193
COLMESNEIL	1045	1045	1045	1045
CORRIGAN	1871	2091	2263	2410
COUNTY-OTHER, Anderson	1395	1460	1483	1483
COUNTY-OTHER, Angelina	5672	6072	6407	6706
COUNTY-OTHER, Chambers	1696	2036	2388	2766
COUNTY-OTHER, Cherokee	2038	2307	2551	2868
COUNTY-OTHER, Galveston	6	6	6	5
COUNTY-OTHER, Hardin	5922	6069	6170	6232
COUNTY-OTHER, Henderson	4683	4139	4001	3264
COUNTY-OTHER, Houston	293	287	286	286
COUNTY-OTHER, Jasper	8671	8861	8897	8894
COUNTY-OTHER, Jefferson	13126	17879	23610	30269
COUNTY-OTHER, Liberty	787	855	920	984
COUNTY-OTHER, Nacogdoches	6751	7582	8404	9280
COUNTY-OTHER, Newton	0	0	0	0
COUNTY-OTHER, Orange	13785	14411	14850	15148
COUNTY-OTHER, Polk	3734	4053	4256	4378
COUNTY-OTHER, Rusk	5542	6199	6827	7495
COUNTY-OTHER, Sabine	207	209	208	208
COUNTY-OTHER, San Augustine	4431	4431	4431	4431
COUNTY-OTHER, Shelby	1489	1600	1700	1795
COUNTY-OTHER, Smith	6273	7871	9516	11572
COUNTY-OTHER, Trinity	1075	1149	1120	1037
COUNTY-OTHER, Tyler	6273	6269	6229	6194
COUNTY-OTHER, Van Zandt	4842	5280	5611	5915
CRAFT TURNEY WSC	5215	5717	6211	6799

APPENDIX 2-C: FUTURE
POPULATION PROJECTIONS

JANUARY 2023

Water User Group	Population, 2020	Population, 2030	Population, 2040	Population, 2050
CRYSTAL SYSTEMS TEXAS	383	444	512	590
CUSHING	924	1037	1150	1270
CYPRESS CREEK WSC	592	595	595	595
D & M WSC	6238	7009	7767	8574
DAISETTA	1103	1242	1375	1508
DAMASCUS-STRYKER WSC	1557	1739	1883	2005
DEAN WSC	4725	4905	5087	5281
DEVERS	6	7	7	8
DIBOLL	5646	6041	6372	6675
EBENEZER WSC	838	934	1027	1127
EDOM WSC	1395	1526	1631	1740
EMERALD BAY MUD	1133	1133	1133	1133
ETOILE WSC	2238	2514	2786	3075
FOUR WAY SUD	5596	5986	6317	6616
FRANKSTON	1307	1372	1406	1431
FRANKSTON RURAL WSC	1295	1338	1354	1354
G M WSC	1326	1327	1327	1327
GALVESTON	0	0	0	0
GARRISON	1124	1263	1399	1545
GASTON WSC	1661	1851	2036	2235
GOODSPRINGS WSC	2869	3198	3518	3861
GRAPELAND	1242	1248	1249	1249
GROVES	16007	16007	16007	16007
GROVETON	160	173	174	169
GUM CREEK WSC	1311	1437	1561	1709
HARDIN COUNTY WCID 1	1421	1528	1605	1661
HARDIN WSC	2322	2907	3465	4024
HENDERSON	14039	15649	17212	18892
HUDSON WSC	9588	10259	10823	11337
HUNTINGTON	2504	2680	2826	2961
JACKSON WSC	2946	3304	3691	4129
JACKSONVILLE	18083	19830	21543	23585
JACOBS WSC	577	643	707	776
JASPER	8832	9026	9064	9064
JEFFERSON COUNTY WCID 10	5654	6018	6402	6847
KELLY G BREWER	155	162	167	170
KOUNTZE	2135	2141	2145	2148
LAKE LIVINGSTON WSC	1782	2004	2223	2457
LEAGUEVILLE WSC	2023	2159	2330	2533
LEGGETT WSC	11	12	13	14
LIBERTY	0	0	0	0
LIBERTY COUNTY FWSD 1 HULL	706	794	879	965
LILLY GROVE SUD	2649	2975	3299	3641
LINDALE	3390	4205	5083	5880
LINDALE RURAL WSC	2778	3116	3488	3776
LITTLE HOPE MOORE WSC	992	1090	1163	1236
LUFKIN	43626	46679	49241	51580
LUMBERTON MUD	28587	31985	34397	36192
M & M WSC	3325	3558	3753	3932
MAURICEVILLE SUD	556	580	596	607
MEEKER MWD	3334	3548	3774	4037
MELROSE WSC	2828	3178	3521	3888
MINDEN BRACHFIELD WSC	986	1100	1210	1328
MOORE STATION WSC	1430	1526	1647	1789
MOSCOW WSC	343	383	415	443
MT ENTERPRISE WSC	1864	2078	2285	2508

Water User Group	Population, 2020	Population, 2030	Population, 2040	Population, 2050
MURCHISON	603	604	606	608
NACOGDOCHES	37580	42218	46791	51656
NECHES WSC	1515	1564	1582	1582
NEDERLAND	18855	20071	21348	22833
NEW LONDON	1501	1672	1838	2018
NEW SUMMERFIELD	1238	1358	1475	1614
NORTH CHEROKEE WSC	4900	5375	5840	6391
NORTH HARDIN WSC	7821	8344	8716	8990
NORWOOD WSC	826	832	841	841
ORANGE	0	0	0	0
ORANGE COUNTY WCID 1	12402	12963	13357	13625
ORANGEFIELD WSC	1872	1956	2016	2057
OVERTON	221	248	275	303
PALESTINE	8735	9022	9126	9126
PENNINGTON WSC	805	851	856	838
PINELAND	968	970	970	970
POLLOK-REDTOWN WSC	1802	1931	2042	2148
PORT ARTHUR	55398	56095	56095	56095
PORT NECHES	13858	14752	15691	16782
R P M WSC	2957	3602	4111	4653
RAYBURN COUNTRY MUD	1703	1741	1748	1748
REDLAND WSC	2624	2808	2961	3102
RURAL WSC	1029	1052	1056	1056
RUSK	6204	6804	7391	8091
RUSK RURAL WSC	2969	3255	3537	3872
SAN AUGUSTINE	2121	2121	2121	2121
SAN AUGUSTINE RURAL WSC	1170	1170	1170	1170
SAND HILLS WSC	888	955	1015	1071
SILSBEE	7162	7320	7435	7517
SLOCUM WSC	2205	2276	2301	2301
SODA WSC	121	136	147	156
SOUR LAKE	1920	2021	2093	2147
SOUTH JASPER COUNTY WSC	452	462	464	464
SOUTH RUSK COUNTY WSC	1951	2174	2391	2627
SOUTHERN UTILITIES	41746	45000	48512	52936
SWIFT WSC	2773	3116	3453	3812
THE CONSOLIDATED WSC	3556	3592	3600	3603
TIMPSON	23	24	26	27
TRINITY BAY CONSERVATION DISTRICT	9849	11806	13830	16009
TROUP	2178	2402	2628	2871
TYLER	104881	114209	123583	133688
TYLER COUNTY WSC	5683	5711	5711	5711
UPPER JASPER COUNTY WATER AUTHORITY	1317	1352	1362	1364
VAN	2669	2978	3214	3447
VIRGINIA HILL WSC	2298	2635	2919	3293
WALNUT GROVE WSC	8728	10281	11839	13516
WALSTON SPRINGS WSC	2235	2308	2336	2336
WARREN WSC	1371	1377	1377	1377
WELLS	879	963	1046	1146
WEST HARDIN WSC	3850	3902	3945	3987
WEST JACKSONVILLE WSC	1127	1234	1341	1468
WEST JEFFERSON COUNTY MWD	8554	9105	9685	10359
WHITEHOUSE	9215	10854	12499	14270
WILDWOOD POA	1404	1469	1514	1545
WODEN WSC	2783	3127	3466	3825
WOODLAWN WSC	1829	1956	2064	2162
WOODVILLE	5809	5825	5825	5825
WRIGHT CITY WSC	3378	3769	4160	4585
ZAVALLA	834	893	943	987

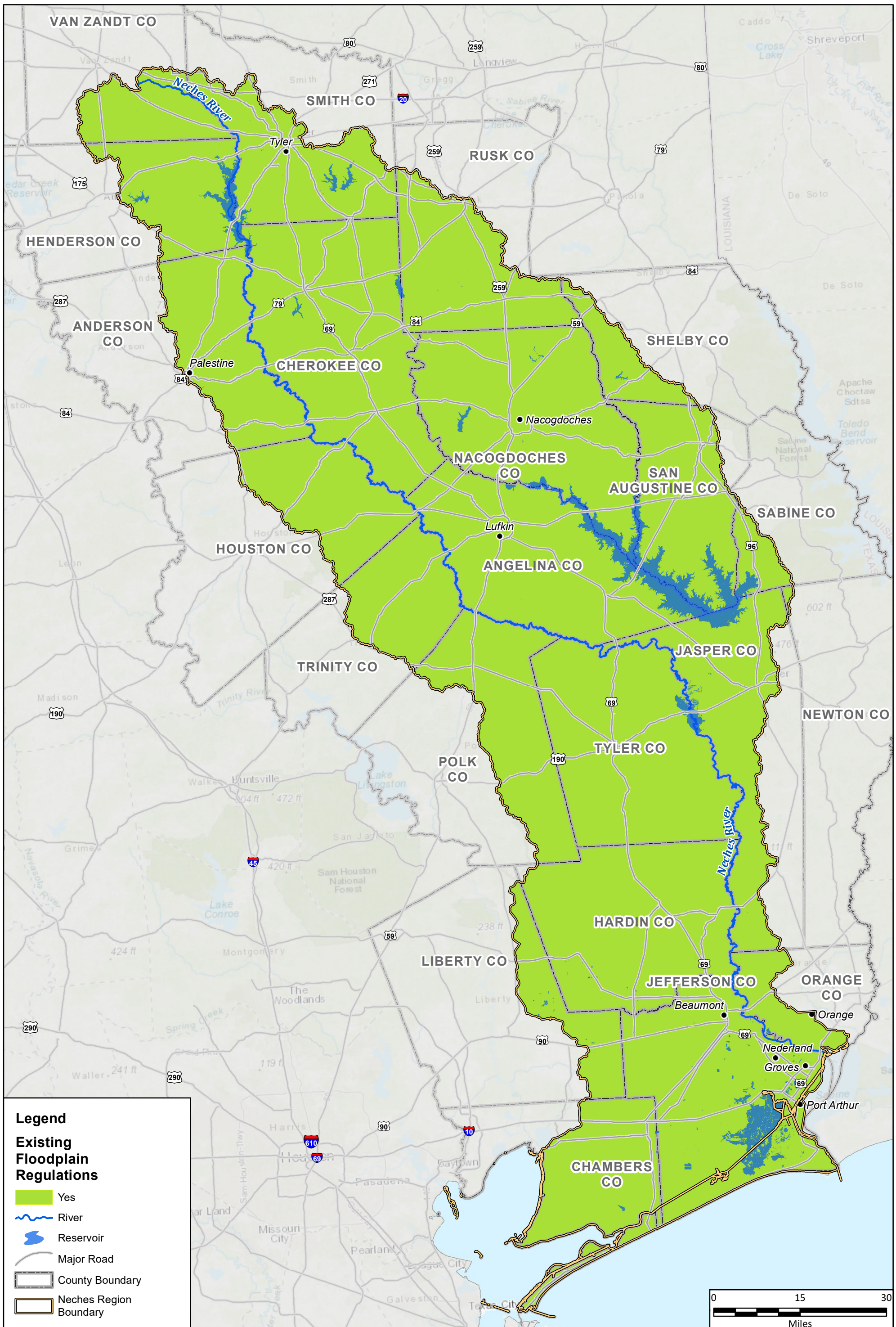
**APPENDIX 2-D
BIBLIOGRAPHY**

CHAPTER 2. FLOOD RISK ANALYSES

- “CDC SVI 2018 Documentation.” Centers for Disease Control, January 1, 2020, https://www.euro.who.int/_data/assets/pdf_file/0016/252601/Floods-and-health-Fact-sheets-for-health-professionals.pdf.
- “Climate Change Indicators in the United States.” United States Environmental Protection Agency, <https://www.epa.gov/climate-indicators>.
- “CropScape – Cropland Data Layer.” *National Agricultural Statistics Service*, United States Department of Agriculture, <https://nassgeodata.gmu.edu/CropScape/>.
- “Flood Planning Data.” Texas Water Development Board, https://owl.purdue.edu/owl/research_and_citation/mla_style/mla_formatting_and_style_guide/mla_formatting_and_style_guide.html.
- “Floodplain Quilt.” Texas Water Development Board, May 19, 2021, <https://twdb-flood-planning-resources-twdb.hub.arcgis.com/pages/flood-hazard-quilt>.
- “Floods and health – Fact sheets for health professionals.” World Health Organization, https://www.euro.who.int/_data/assets/pdf_file/0016/252601/Floods-and-health-Fact-sheets-for-health-professionals.pdf.
- “Future population and water demand.” *2022 State Water Plan*, Texas Water Development Board, https://www.twdb.texas.gov/waterplanning/swp/2022/docs/04-SWP22_Future-Population.pdf?d=26546.29999999702.
- “LandScan.” Oak Ridge National Laboratory, <https://www.ornl.gov/project/landscan>.
- “Sea Level 101, Part Two: All Sea Level is Local.” NASA Global Climate Change, July 14, 2022, <https://climate.nasa.gov/ask-nasa-climate/3002/sea-level-101-part-two-all-sea-level-is-local/>.
- “Sea-Level Change Curve Calculator.” Version (2022.34), US Army Corps of Engineers, May 1, 2022, https://cwbi-app.sec.usace.army.mil/rccslc/slcc_calc.html.
- “Technical Guidelines for Regional Flood Planning.” Texas Water Development Board, April 2021, https://www.twdb.texas.gov/flood/planning/planningdocu/2023/doc/04_Exhibit_C_TechnicalGuidelines_April2021.pdf?d=2127.900000002235.
- “Technical Mapping Advisory Council Future Conditions Risk Assessment and Modeling.” Technical Mapping Advisory Council, December 2015, https://www.fema.gov/sites/default/files/documents/fema_tmacc_2015_future_conditions_risk_assessment_modeling_report.pdf
- “Texas Administrative Code, Title 31, Part 10, Chapter 361, Subchapter C, Rule 361.33.” Texas Registrar, [https://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=31&pt=10&ch=361&rl=33](https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=31&pt=10&ch=361&rl=33).
- “U.S. Army Corps of Engineers Reservoir Reallocations.” Duke Nicholas Institute for Environmental Policy Solutions, <https://nicholasinstitute.duke.edu/reservoir-reallocation/>.

“Volumetric Survey of B.A. Steinhagen Lake.” Texas Water Development Board, March, 2, 2004,
https://www.twdb.texas.gov/surfacewater/surveys/completed/files/BASSteinhagen/2003-05/BASSteinhagen2003_FinalReport.pdf.

APPENDIX 3-A
SUPPLEMENTARY MAPS FOR CHAPTER 3



APPENDIX 3-B
EXISTING FLOODPLAIN MANAGEMENT PRACTICES

Table 6: Existing Floodplain Management Practices

Entity ^A	Floodplain management regulations (Yes/ No/ Unknown) ^A	Adopted minimum regulations pursuant to Texas Water Code Section 16.3145? (Yes/ No) ^A	NFIP Participant (Yes/ No) ^A	Higher Standards Adopted (Yes/ No) ^B	Floodplain Management Practices (Strong/Moderate/Low/ None) ^B	Level of enforcement of practices (High/ Moderate/ Low/ None) ^{B,C}	Existing Stormwater or Drainage Fee (Yes/No) ^B	Web Link to entity regulations ^B
Anderson County	Yes	Yes	Yes	No	Low			http://www.co.anderson.tx.us/upload/page/3220/docs/Anderson%20Co%20Floodplain%20permit.pdf
Angelina County	Yes	Yes	Yes	Yes	Low	Moderate; \$500 max/ each violation		https://www.angelinacounty.net/files/pdf/emc/acfloodpco.pdf
Angelina and Neches River Authority	Unknown**	No	No	No				
Chambers County	Yes	Yes	Yes	Yes	Moderate	Moderate		https://www.co.chambers.tx.us/upload/page/0139/docs/FLOODPLAIN%20REGULATIONS.pdf
Cherokee County	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		
City of Alto	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://cityofalto.com/city-government/ordinances/
City of Anahuac	Yes	Yes	Yes	Yes	Moderate	Moderate: misdemeanor, \$250, standard		https://library.municode.com/tx/anahuac/codes/code_of_ordinances?nodeId=TITXVLAUS_CH153FLDAPR_S153.03GEPR
City of Appleby	Yes	Yes	Yes					
City of Arp	Unknown**		No	No				
City of Athens	Yes	Yes	Yes	Yes	Moderate	Moderate; \$500 max/ each violation		https://library.municode.com/tx/athens/codes/code_of_ordinances?nodeId=PTIICOOR_CH5BUST_ARTXIFLDAPR_S5-137ESDEPE
City of Beaumont	Yes	Yes	Yes	Yes	Strong	Moderate; \$500, standard		https://z2.franklinlegal.net/franklin/Z2Browser2.html?showset=beaumontset
City of Berryville	Yes	Yes	Yes	Yes	Moderate	High; \$2000 max/ each violation		
City of Bevil Oaks	Yes	Yes	Yes	Yes	Strong	Moderate: misdemeanor, \$500, standard		https://img1.wsimg.com/blobby/go/f62e0282-a80f-420e-ae03-7559ffcd123e/downloads/1ca1adt9v_220698.pdf?ver=1627253792209
City of Bridge City	Yes	Yes	Yes	No	Low			https://library.municode.com/tx/bridge_city/codes/code_of_ordinances?nodeId=PTIICOOR_CH7DRFLCO_ARTIIFLDAPR
City of Brownsboro	Yes	Yes	Yes	Yes	Moderate	Moderate; \$500 max/ each violation		https://z2.franklinlegal.net/franklin/Z2Browser2.html?showset=brownsboroset
City of Bullard	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://www.bullardtexas.net/DocumentCenter/View/392/Flood-Prevention-Amendments?bidId=
City of Burke	Unknown**		No	No				
City of Chandler	Yes	Yes	Yes	Yes	Moderate	High; \$2000 max/ each violation		https://z2.franklinlegal.net/franklin/Z2Browser2.html?showset=chandlerset
City of Chester	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$500, standard		
City of China	Yes	Yes	Yes					
City of Chireno	Unknown**		No	No				
City of Coffee City	Yes	Yes	Yes					
City of Colmesneil	Yes	Yes	Yes					
City of Corrigan	Yes	Yes	Yes					
City of Cuneo	Unknown**		No	No				

Table 6: Existing Floodplain Management Practices

Entity ^A	Floodplain management regulations (Yes/ No/ Unknown) ^A	Adopted minimum regulations pursuant to Texas Water Code Section 16.3145? (Yes/ No) ^A	NFIP Participant (Yes/ No) ^A	Higher Standards Adopted (Yes/ No) ^B	Floodplain Management Practices (Strong/Moderate/Low/ None) ^B	Level of enforcement of practices (High/ Moderate/ Low/ None) ^{B,C}	Existing Stormwater or Drainage Fee (Yes/No) ^B	Web Link to entity regulations ^B
City of Daisetta	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$250, standard		
City of Diboll	Yes	Yes	Yes	No	Low			https://library.municode.com/tx/diboll/codes/code_of_ordinances?nodeId=COOR_CH7FLDAPR
City of Devers	Yes	Yes	Yes					
City of Edom	Unknown**		No	No				http://www.edomtexas.com/policies.html
City of Frankston	Unknown**		No	No				http://www.frankstontexas.com/documents/
City of Gallatin	Unknown**		No	No				
City of Garrison	Unknown**		No	No				
City of Grapeland	Yes	Yes	Yes	No	Low			
City of Groves	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$500, standard		https://library.municode.com/tx/groves/codes/code_of_ordinances?nodeId=PTIGEOR_CH10_1-2FLDAPR
City of Groveton	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		
City of Hardin	Yes	Yes	Yes	No	Low			
City of Henderson	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://www.hendersontx.us/Search?searchPhrase=floodplain
City of Hideaway	Yes	Yes	Yes	No	Low			
City of Hudson	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		
City of Huntington	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$500, standard		
City of Ivanhoe	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$500, standard		https://z2.franklinlegal.net/franklin/Z2Browser2.html?showset=ivanhoe
City of Jacksonville	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://library.municode.com/tx/jacksonville/codes/code_of_ordinances?nodeId=PTIITHCO_CH4BU_ARTVIIIIFLDAPR_DIV1GE_S4-204MEREFLLQ
City of Jasper	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://library.municode.com/tx/jasper/codes/code_of_ordinances?nodeId=PTIICOOR_CH10FLDAPR
City of Kennard	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		
City of Kountze	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$500, standard		
City of Lindale	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://library.municode.com/tx/lindale/codes/code_of_ordinances?nodeId=TITXVLAUS_CH152FLDAPR
City of Lufkin	Yes	Yes	Yes	Yes	Moderate	Moderate; \$1000 max/ each violation		https://z2.franklinlegal.net/franklin/Z2Browser2.html?showset=lufkin
City of Lumberton	Yes	Yes	Yes	Yes	Moderate			https://library.municode.com/tx/lumberton/codes/code_of_ordinances?nodeId=PTIICOOR_CH6BUBURE_ARTVIFLRE

Table 6: Existing Floodplain Management Practices

Entity ^A	Floodplain management regulations (Yes/ No/ Unknown) ^A	Adopted minimum regulations pursuant to Texas Water Code Section 16.3145? (Yes/ No) ^A	NFIP Participant (Yes/ No) ^A	Higher Standards Adopted (Yes/ No) ^B	Floodplain Management Practices (Strong/Moderate/Low/ None) ^B	Level of enforcement of practices (High/ Moderate/ Low/ None) ^{B,C}	Existing Stormwater or Drainage Fee (Yes/No) ^B	Web Link to entity regulations ^B
City of Moore Station	Unknown**		No	No				
City of Mount Enterprise	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://z2codes.franklinlegal.net/franklin/Z2Browser2.html?showset=mountenterpriseset
City of Murchison	Yes	Yes	Yes	Yes	Moderate	High; \$2000 max/ each violation		
City of Nacogdoches	Yes	Yes	Yes	Yes	Moderate			https://library.municode.com/tx/nacogdoches/codes/code_of_ordinances?nodeId=PTIICOOR_CH42FL
City of Nederland	Yes	Yes	Yes	Yes	Moderate	Moderate: misdemeanor, \$500, standard		https://library.municode.com/tx/nederland/codes/code_of_ordinances?nodeId=PTIICOOR_CH50FL
City of New Chapel Hill	Unknown**		No	No				
City of New London	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		
City of New Summerfield	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://z2.franklinlegal.net/franklin/Z2Browser2.html?showset=newsummerfieldset
City of Nome	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$500, standard		
City of Noonday	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		
City of Overton	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://cdn-5be0be53f911c81894252e67_closte.com/wp-content/uploads/2017/12/CHAPTER-91-Flood-Prevention_Mgt-Regs.pdf
City of Palestine	Yes	Yes	Yes	Yes	Moderate			https://library.municode.com/tx/palestine/codes/code_of_ordinances?nodeId=11964
City of Pine Forest	Yes	Yes	Yes	Yes	Moderate	High; \$2000 max/ each violation		https://cityofpineforest.com/documents/250/Chapter_9_Flood_Damage_Prevention_Protection_in_the_City_of_Pine_Forest.pdf
City of Pineland	Yes	Yes	Yes	No	Low			
City of Port Arthur	Yes	Yes	Yes	Yes	Strong	Moderate		https://library.municode.com/tx/port_arthur/codes/code_of_ordinances?nodeId=PTIICOOR_CH42FL
City of Port Neches	Yes	Yes	Yes	No	Low			https://library.municode.com/tx/port_neches/codes/code_of_ordinances?nodeId=PTIICOOR_CH54FL
City of Poynor	Yes	Yes	Yes	Yes	Moderate	High; \$2000 max/ each violation		
City of Reklaw	Yes	Yes	Yes	Yes	Moderate	High; \$2000 max/ each violation		
City of Rose City	Yes	Yes	Yes	No				
City of Rose Hill Acres	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$500, standard		https://cityofrosehillacres.org/city-ordinances-1
City of Rusk	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://library.municode.com/tx/rusk/codes/code_of_ordinances?nodeId=TITXVLAUS_CH151FLDAPR

Table 6: Existing Floodplain Management Practices

Entity ^A	Floodplain management regulations (Yes/ No/ Unknown) ^A	Adopted minimum regulations pursuant to Texas Water Code Section 16.3145? (Yes/ No) ^A	NFIP Participant (Yes/ No) ^A	Higher Standards Adopted (Yes/ No) ^B	Floodplain Management Practices (Strong/Moderate/Low/ None) ^B	Level of enforcement of practices (High/ Moderate/ Low/ None) ^{B,C}	Existing Stormwater or Drainage Fee (Yes/No) ^B	Web Link to entity regulations ^B
City of San Augustine	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://z2codes.franklinlegal.net/franklin/Z2Browser2.html?showset=sanaugustineset
City of Silsbee	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$500, standard		https://library.municode.com/tx/silsbee/codes/code_of_ordinances?nodeId=PTIICOOR_CH16FLDAPR
City of Sour Lake	Yes	Yes	Yes	Yes	Moderate	Moderate: misdemeanor, \$500, standard		https://codelibrary.amlegal.com/codes/sourlake/latest/sourlake/0-0-0-2860
City of Taylor Landing	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$500, standard		https://storage.googleapis.com/production-ipage-v1-0-5/835/412835/c6INDtZ/dd9f1fbb5d854a0bb836e414bbf4a8ad?fileName=Ordinances%201-15.pdf
City of Troup	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://z2codes.franklinlegal.net/franklin/Z2Browser2.html?showset=trouset
City of Tyler	Yes	Yes	Yes	Yes	Moderate	Moderate; \$500 max/ each violation	Yes	https://www.cityoftyler.org/home/showpublisheddocument/3197/637163404114630000
City of Van	Yes	Yes	Yes	Yes	Moderate	High; \$2000 max/ each violation		https://library.municode.com/tx/van/codes/code_of_ordinances?nodeId=14705
City of Vidor	Yes	Yes	Yes	Yes	Moderate	Moderate: misdemeanor, \$500, standard		https://library.municode.com/tx/vidor/codes/code_of_ordinances?nodeId=PTIICOOR_CH30FL
City of Wells	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		
City of Whitehouse	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		https://www.whitehousetx.org/164/Permits-Building-Inspection
City of Woodville	Yes	Yes	Yes	Yes	Moderate	Moderate: misdemeanor, \$500, standard		https://library.municode.com/tx/woodville/codes/code_of_ordinances?nodeId=COOR_CH32FLDAPR
City of Zavalla	Yes	Yes	Yes	Yes	Moderate	Moderate; \$500 max/ each violation		https://www.cityofzavalla.com/ordinances
Galveston County	Yes	Yes	Yes	No	Low	High; \$100/day; unique		https://www.galvestoncountytexas.gov/home/showpublisheddocument/4402/637371353924130000
Hardin County	Yes	Yes	Yes	Yes	Moderate	Moderate: misdemeanor, \$500, standard		http://www.co.hardin.tx.us/upload/page/3706/docs/Final_Ordinance_10-6-2010%20signed.pdf
Harris County	Yes	Yes	Yes	Yes	Strong		No	
Henderson County	Yes	Yes	Yes	Yes	Moderate	Moderate; \$500 max/ each violation		https://www.henderson-county.com/home/showpublisheddocument/8696/636670070988770000
Houston County	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		
Jasper County	Yes	Yes	Yes	Yes	Moderate	Moderate: misdemeanor, \$500, standard		

Table 6: Existing Floodplain Management Practices

Entity ^A	Floodplain management regulations (Yes/ No/ Unknown) ^A	Adopted minimum regulations pursuant to Texas Water Code Section 16.3145? (Yes/ No) ^A	NFIP Participant (Yes/ No) ^A	Higher Standards Adopted (Yes/ No) ^B	Floodplain Management Practices (Strong/Moderate/Low/ None) ^B	Level of enforcement of practices (High/ Moderate/ Low/ None) ^{B,C}	Existing Stormwater or Drainage Fee (Yes/No) ^B	Web Link to entity regulations ^B
Jefferson County	Yes	Yes	Yes	Yes	Moderate	Moderate		https://co.jefferson.tx.us/agenda/agendas_pl/20190715_518/Attachments/July%2015,%202019%20-%20Flood%20Damage%20Prevention%20Order.pdf
Jefferson County Drainage District 3	Unknown**	No	No	No				
Jefferson County Drainage District 6	Unknown**	No	No	No				
Jefferson County Drainage District 7	Unknown**	No	No	No				
Liberty County	Yes	Yes	Yes	Yes	Moderate	Moderate; \$500 max/ each violation		https://www.co.liberty.tx.us/upload/page/4898/Liberty%20County%20Flood%20Prevention%20Ordinance.pdf
Liberty County Drainage District	Unknown**	No	No	No				
Lower Neches Valley Authority	Unknown**	No	No	No				
Nacogdoches County	Yes	Yes	Yes	Yes	Low	Moderate; \$500 max/ each violation		
Newton County	Yes	Yes	Yes	Yes	Moderate	Moderate; \$500 max/ each violation		
Orange County	Yes	Yes	Yes	No	Low	Moderate; \$500, standard		https://www.co.orange.tx.us/media/Environmental%20Health%20Code%20Compliance/Flood%20Damage%20Prevention%20Order%20202015.pdf
Orange County Drainage District	Unknown**	No	No	No				https://ocddtx.com/wp-content/uploads/2020/05/OCDD-DCM-Regulations-Adopted-10-06-20.pdf
Polk County	Yes	Yes	Yes	Yes	Moderate	Moderate: misdemeanor, \$500, standard		https://www.co.polk.tx.us/upload/page/3608/Flood%20Damage%20Prevention%20Order.pdf
Rusk County	Yes	Yes	Yes	No	Low	Moderate; \$500 max/ each violation		
Sabine County	Yes	Yes	Yes					
San Augustine County	Yes	Yes	Yes	No	Low	Moderate; \$250 max/ each violation		
Shelby County	Yes	Yes	Yes					

Table 6: Existing Floodplain Management Practices

Entity ^A	Floodplain management regulations (Yes/ No/ Unknown) ^A	Adopted minimum regulations pursuant to Texas Water Code Section 16.3145? (Yes/ No) ^A	NFIP Participant (Yes/ No) ^A	Higher Standards Adopted (Yes/ No) ^B	Floodplain Management Practices (Strong/Moderate/Low/ None) ^B	Level of enforcement of practices (High/ Moderate/ Low/ None) ^{B,C}	Existing Stormwater or Drainage Fee (Yes/No) ^B	Web Link to entity regulations ^B
Smith County	Yes	Yes	Yes	Yes	Moderate			https://www.smith-county.com/home/showpublisheddocument/1098/63661044824233000
Town of Broaddus	Unknown**		No	No				
Town of Browndell	Unknown**		No	No				
Town of Cushing	Unknown**		No	No				
Trinity County	Yes	Yes	Yes					http://www.co.trinity.tx.us/upload/page/3956/docs/Subdivision/Sept2017-UpdatedSubDivisionRegulations.pdf
Trinity River Authority of Texas	No	No	No	No				
Tyler County	Yes	Yes	Yes	No	Low	Moderate: misdemeanor, \$500, standard		
Van Zandt County	Yes	Yes	Yes	Yes	Moderate	High; \$2000 max/ each violation		http://www.vanzandtcounty.org/upload/page/2685/2021%20Home/Subdivision%20Regulations.pdf

^A At a minimum, the RFPs must list all counties, cities and communities in the region with flood related authority in the region and identify whether entity they have any established floodplain management practices. Texas Water Code Sec. 16.3145: "The governing body of each city and county shall adopt ordinances or orders, as appropriate, necessary for the city or county to be eligible to participate in the National Flood Insurance Program."

^B This field may be left blank during the 1st planning cycle. However, RFPs are strongly encouraged to provide this information when applicable and available.

^C The following may serve as a guide for evaluating enforcement:
 high- actively enforces the entire ordinance, performs many inspections throughout construction process, issues fines, violations, and Section 1316s where appropriate, and enforces substantial damage and substantial improvement;
 moderate- enforces much of the ordinance, performs limited inspections and is limited in issuance of fines and violations;
 low- provides permitting of development in the floodplain, may not perform inspections, may not issue fines or violations;
 none- does not enforce floodplain management regulations.

**Indicates floodplain regulations were not assessed

**APPENDIX 3-C
FLOODPLAIN MANAGEMENT GOALS**

Table 11: Flood Mitigation and
Floodplain Management Goals

Goal ID	RFPG No.	RFPG Name	Goal	Term of Goal	Target Year	Applicable To	Residual Risk	Measurement Method	Overarching Goal	Associated Goal IDs
05000001	5	Neches	An average of 10% of the new regional infrastructure projects between 2023 – 2033 will utilize larger storm events (>100-year) as the basis of their design.	Short Term (10-year)	2033	Entire RFPG	The remainder of the new regional infrastructure projects between 2023 – 2033 will not be designed for larger storm events (>100 -year).	Number of new projects within region between 2023 – 2033 designed for larger storm events.	Improve Flood Infrastructure	05000002
05000002	5	Neches	An average of 25% of the new regional infrastructure projects between 2033 – 2053 will utilize larger storm events (>100-year) as the basis of their design.	Long Term (30-year)	2053	Entire RFPG	The remainder of the new regional infrastructure projects between 2033 – 2053 will not be designed for larger storm events (>100 -year).	Number of new projects within region between 2033 – 2053 designed for larger storm events.	Improve Flood Infrastructure	05000001
05000003	5	Neches	RFPG must consider in all projects and should incorporate nature-based practices and floodplain preservation in an average of 10% of their new flood risk reduction projects between 2023 - 2033.	Short Term (10-year)	2033	Entire RFPG	Areas outside of the project’s service area will not achieve a reduction in water surface elevation.	Number of new flood risk reduction projects between 2023 - 2033 incorporating nature-based practices (LID, FEMA Nature-Based Solutions guide)	Improve Flood Infrastructure	05000004
05000004	5	Neches	RFPG must consider in all projects and should incorporate nature-based practices and floodplain preservation in an average of 25% of their new flood risk reduction projects between 2033 - 2053.	Long Term (30-year)	2053	Entire RFPG	Areas outside of the project’s service area will not achieve a reduction in water surface elevation.	Number of new flood risk reduction projects between 2033 - 2053 incorporating nature-based practices (LID, FEMA Nature-Based Solutions guide)	Improve Flood Infrastructure	05000003
05000005	5	Neches	Reduce the number of critical facilities in the 100-year flood risk inundation extents by 15%.	Short Term (10-year)	2033	Entire RFPG	85% of critical facilities within the region have no change in flood risk from the 100-year storm event.	Number of critical facilities removed from the 100-year flood risk inundation extent.	Improve Flood Infrastructure	05000006
05000006	5	Neches	Reduce the number of critical facilities in the 100-year flood risk inundation extents by 25%.	Long Term (30-year)	2053	Entire RFPG	75% of critical facilities within the region have no change in flood risk from the 100-year storm event.	Number of critical facilities removed from the 100-year flood risk inundation extent.	Improve Flood Infrastructure	05000005
05000007	5	Neches	Reduce exposure of existing and future structures in the 100-year flood risk inundation extents by elevating, acquiring, relocating, or otherwise providing flood protection to 10% of structures.	Short Term (10-year)	2033	Entire RFPG	90% of existing within the 100-year flood risk inundation extent will have no change to flood risk.	Number of existing structures removed from the 100-year flood risk inundation extent.	Improve Flood Infrastructure	05000008

Table 11: Flood Mitigation and
Floodplain Management Goals

Goal ID	RFPG No.	RFPG Name	Goal	Term of Goal	Target Year	Applicable To	Residual Risk	Measurement Method	Overarching Goal	Associated Goal IDs
05000008	5	Neches	Reduce exposure of existing and future structures in the 100-year flood risk inundation extents by elevating, acquiring, relocating, or otherwise providing flood protection to 30% of structures.	Long Term (30-year)	2053	Entire RFPG	70% of existing structures within the 100-year flood risk inundation extent will have no change to flood risk	Number of existing structures removed from the 100-year flood risk inundation extent.	Improve Flood Infrastructure	05000007
05000009	5	Neches	Increase the amount of State/Federal funding for flood mitigation projects and strategies awarded within the Neches Region by 25%.	Short Term (10-year)	2033	Entire RFPG	Flood risk mitigation actions not executed as a result of lack of funding.	Increase in awarded funding based on total received in 2017 to be directed to the execution of flood mitigation actions.	Expand Funding	05000010
05000010	5	Neches	Increase the amount of State/Federal funding for flood mitigation projects and strategies awarded within the Neches Region by 75%.	Long Term (30-year)	2053	Entire RFPG	Flood risk mitigation actions not executed as a result of lack of funding.	Increase in awarded funding based on total received in 2017 to be directed to the execution of flood mitigation actions.	Expand Funding	05000009
05000011	5	Neches	Increase percentage of areas with dedicated funding sources for operations & maintenance for storm drainage system to 50% of communities.	Short Term (10-year)	2033	Entire RFPG	Entities without dedicated funding have no change in flood risk; entities with new funding sources have reduced risk as stormwater O&M and capital projects are implemented.	Number of entities within region with dedicated funding sources for stormwater operations and maintenance.	Expand Funding	05000012
05000012	5	Neches	Increase percentage of areas with dedicated funding sources for operations and maintenance for storm drainage system to 75% of communities.	Long Term (30-year)	2053	Entire RFPG	Entities without dedicated funding have no change in flood risk; entities with new funding sources have reduced risk as stormwater operations and maintenance projects are implemented.	Number of entities within region with dedicated funding sources for stormwater operations and maintenance.	Expand Funding	05000011
05000013	5	Neches	50% of the region's population is part of an entity that has a dedicated drainage charge, fee, or other continuous funding mechanism for the maintenance and/or restoration of flood infrastructure.	Short Term (10-year)	2033	Entire RFPG	Entities without continuous funding mechanisms may see an increase in flood risk as infrastructure may not function as designed. The population of the region within entities that have continuous funding mechanisms are able to maintain existing flood risk.	Number of people within region located in the jurisdictions of entities that have continuous funding mechanisms.	Expand Funding	05000014
05000014	5	Neches	75% of the region's population is part of an entity that has a dedicated drainage charge, fee, or other continuous funding mechanism for the maintenance and/or restoration of flood infrastructure.	Long Term (30-year)	2053	Entire RFPG	Entities without continuous funding mechanisms may see an increase in flood risk as infrastructure may not function as designed. The population of the region within entities that have continuous funding mechanisms are able to maintain existing flood risk.	Number of people within region located in the jurisdictions of entities that have continuous funding mechanisms.	Expand Funding	05000013
05000015	5	Neches	Increase the coverage of flood hazard data across the region by completing detailed studies that utilize consistent methodology in 75% of areas identified as having current gaps in flood mapping.	Short Term (10-year)	2033	Entire RFPG	No direct change to flood risk inundation extents; 75% of current areas with gaps will have improved flood hazard mapping that can provide a better understanding of structures at risk of flooding.	Number of HUC10s within region, previously marked as having gaps in mapping, with detailed flood hazard studies that utilize consistent methodology.	Improve Data	05000016

Table 11: Flood Mitigation and
Floodplain Management Goals

Goal ID	RFPG No.	RFPG Name	Goal	Term of Goal	Target Year	Applicable To	Residual Risk	Measurement Method	Overarching Goal	Associated Goal IDs
05000016	5	Neches	Increase the coverage of flood hazard data across the region by completing detailed studies that utilize consistent methodology in 100% of areas identified as having current gaps in flood mapping.	Long Term (30-year)	2053	Entire RFPG	No direct change to flood risk inundation extents; all current areas with gaps will have improved flood hazard mapping that can provide a better understanding of structures at risk of flooding.	Number of HUC10s within region, previously marked as having gaps in mapping, with detailed flood hazard studies that utilize consistent methodology.	Improve Data	05000015
05000017	5	Neches	Increase the number of gauges across the Neches basin to cover 50% of the region's HUC10s.	Short Term (10-year)	2033	Entire RFPG	No direct change to flood risk inundation extents; the increased number of gauges will aid in better prediction of flood events.	Number of HUC10s within region that have gauges installed within them.	Improve Data	05000018
05000018	5	Neches	Increase the number of gauges across the Neches basin to cover 100% of the region's HUC10s.	Long Term (30-year)	2053	Entire RFPG	No direct change to flood risk inundation extents; the increased number of gauges will aid in better prediction of flood events.	Number of HUC10s within region that have gauges installed within them.	Improve Data	05000017
05000019	5	Neches	Develop and maintain critical infrastructure database	Short Term (10-year)	2033	Entire RFPG	No direct change to flood risk inundation extents; the critical infrastructure database will aid in providing information of critical infrastructure at risk of ≥100-yr storm events.	Implementation and maintenance of database to be used by the RFPG.	Improve Data	N/A
05000020	5	Neches	Give notice to 100% of affected units of local government and improve 50% of Low Water Crossings, identified in the latest Regional Flood Plan, by installing warning devices.	Short Term (10-year)	2033	Entire RFPG	No direct change to flood risk inundation extents; installing warning devices will aid in preserving life by warning the public when a crossing is inundated by a flood event.	Number of Low Water Crossings with newly installed warning devices.	Improve Flood Infrastructure	05000021
05000021	5	Neches	Give notice to 100% of affected units of local government and improve 100% of Low Water Crossings, identified in the latest Regional Flood Plan, by installing warning devices.	Long Term (30-year)	2053	Entire RFPG	No direct change to flood risk inundation extents; installing warning devices will aid in preserving life by warning the public when a crossing is inundated by a flood event.	Number of Low Water Crossings with newly installed warning devices.	Improve Flood Infrastructure	05000020
05000022	5	Neches	Give notice to 100% of affected units of local government and solicit funding applications for improvement or removal of 25% of Low Water Crossings identified in the latest Regional Flood Plan.	Short Term (10-year)	2033	Entire RFPG	75% of the Low Water Crossings identified in the latest Regional Flood Plan will be at risk of inundation during major flood events.	Number of Low Water Crossings improved or removed from the number identified in the latest Regional Flood Plan.	Improve Flood Infrastructure	05000023
05000023	5	Neches	Give notice to 100% of affected units of local government and solicit funding applications for improvement or removal of 80% of Low Water Crossings identified in the latest Regional Flood Plan.	Long Term (30-year)	2053	Entire RFPG	20% of the Low Water Crossings identified in the latest Regional Flood Plan will be at risk of inundation during major flood events.	Number of Low Water Crossings improved or removed from the number identified in the latest Regional Flood Plan.	Improve Flood Infrastructure	05000022
05000024	5	Neches	100% of counties to perform public education and awareness campaigns to better inform the public of flood-related risks on an annual basis.	Short Term (10-year)	2033	Entire RFPG	No direct change to flood risk inundation extents; raising public awareness of flood-related risks will reduce future loss of life and mitigate future property damage.	Number of counties with active public education and awareness campaigns.	Expand Education and Outreach	05000025
05000025	5	Neches	Maintain 100% participation of counties performing public education and awareness campaigns to better inform the public of flood-related risks on an annual basis.	Long Term (30-year)	2053	Entire RFPG	No direct change to flood risk inundation extents; raising public awareness of flood-related risks will reduce future loss of life and mitigate future property damage.	Number of counties with active public education and awareness campaigns.	Expand Education and Outreach	05000024

**APPENDIX 3-D
ADDITIONAL INFORMATION**

COMMUNITY RATING SYSTEM ELIGIBLE COMMUNITIES

EFFECTIVE October 1, 2021

State	Community Number	Community Name	CRS Entry Date	Current Effective Date	Current Class	% Discount for SFHA	% Discount for Non- SFHA	Status*
SC	450249	Rockville, Town of	10/1/1998	5/1/2018	6	20	10	C
SC	450256	Seabrook Island, Town of	10/1/1995	5/1/2016	5	25	10	C
SC	455418	Sullivans Island, Town of	5/1/2004	5/1/2017	5	25	10	C
SC	450184	Sumter, City of	10/1/1992	5/1/2018	7	15	5	C
SC	450182	Sumter County	10/1/1992	5/1/2018	7	15	5	C
SC	450111	Surfside Beach, Town of	10/1/2010	5/1/2016	5	25	10	C
SC	450193	York County	10/1/2009	5/1/2020	8	10	5	C
SD	460007	Aberdeen, City of	10/1/2017	10/1/2017	9	5	5	C
SD	460044	Madison, City of	5/1/2014	5/1/2014	8	10	5	C
SD	460054	Meade County	10/1/2015	10/1/2015	9	5	5	C
SD	460042	Parkston, City of	5/1/2014	5/1/2014	9	5	5	C
SD	465420	Rapid City, City of	10/1/1992	5/1/2013	7	15	5	C
SD	460060	Sioux Falls, City of	4/1/2021	4/1/2021	8	10	5	NA
SD	460046	Spearfish, City of	5/1/2014	5/1/2014	9	5	5	C
SD	460016	Watertown, City of	5/1/2017	5/1/2017	8	10	5	C
TN	470211	Athens, City of	10/1/1993	10/1/2009	8	10	5	C
TN	470182	Bristol, City of	5/1/2006	10/1/2007	8	10	5	C
TN	470176	Carthage, City of	10/1/1992	4/1/2021	10	0	0	R
TN	470150	Cookeville, City of	5/1/2014	5/1/2014	9	5	5	C
TN	475425	Elizabethton, City of	10/1/1993	5/1/2020	8	10	5	C
TN	470105	Fayetteville, City of	10/1/1992	10/1/1993	10	0	0	R
TN	470206	Franklin, City of	10/1/2015	10/1/2018	8	10	5	C
TN	475426	Gatlinburg, City of	10/1/1993	10/1/2021	9	5	5	C
TN	470059	Humboldt, City of	10/1/1993	10/1/1996	10	0	0	R
TN	475432	Johnson City, City of	10/1/2014	10/1/2014	9	5	5	C
TN	470184	Kingsport, City of	10/1/1992	10/1/1997	10	0	0	R
TN	475433	Knox County	10/1/2002	5/1/2020	8	10	5	C
TN	475434	Knoxville, City of	10/1/1992	10/1/2019	6	20	10	C
TN	470070	Morristown, City of	10/1/1992	10/1/1993	10	0	0	R
TN	470040	Nashville, City of & Davidson County	10/1/1991	10/1/2006	8	10	5	C
TN	470100	Ripley, Town of	10/1/1991	10/1/1996	10	0	0	R
TN	475448	Spring City, Town of	10/1/1992	10/1/1997	10	0	0	R
TN	470380	Watertown, City of	5/1/2013	5/1/2013	9	5	5	C
TN	470204	Williamson County	10/1/2008	10/1/2015	8	10	5	C
TN	470207	Wilson County	5/1/2013	5/1/2013	9	5	5	C
TX	485454	Arlington, City of	10/1/1991	10/1/2021	5	25	10	C
TX	480624	Austin, City of	10/1/1991	5/1/2010	6	20	10	C
TX	481193	Bastrop County	10/1/2004	10/1/2004	8	10	5	C
TX	485456	Baytown, City of	10/1/1991	5/1/2006	6	20	10	C
TX	485457	Beaumont, City of	10/1/2008	10/1/2013	7	15	5	C
TX	480289	Bellaire, City of	10/1/1993	10/1/2021	10	0	0	R
TX	480586	Benbrook, City of	10/1/1991	10/1/2017	7	15	5	C
TX	480878	Bevil Oaks, City of	5/1/2010	10/1/2020	8	10	5	C

*Status: C-Cycle, M-Modification, NA-New Application, R-Retrograde

COMMUNITY RATING SYSTEM ELIGIBLE COMMUNITIES

EFFECTIVE October 1, 2021

State	Community Number	Community Name	CRS Entry Date	Current Effective Date	Current Class	% Discount for SFHA	% Discount for Non- SFHA	Status*
TX	480082	Bryan, City of	10/1/1995	5/1/2019	8	10	5	C
TX	485459	Burleson, City of	10/1/1991	10/1/2021	10	0	0	R
TX	481209	Burnet County	5/1/2014	4/1/2021	10	0	0	R
TX	480167	Carrollton, City of	10/1/1991	10/1/2012	6	20	10	C
TX	485462	Cleburne, City of	10/1/1992	5/1/2013	8	10	5	C
TX	480083	College Station, City of	5/1/2010	4/1/2021	6	20	10	C
TX	480484	Conroe, City of	10/1/1992	5/1/2002	7	15	5	C
TX	480170	Coppell, City of	10/1/1993	5/1/2016	8	10	5	C
TX	480155	Copperas Cove, City of	5/1/2018	5/1/2018	8	10	5	C
TX	485464	Corpus Christi, City of	10/1/1991	10/1/2021	8	10	5	C
TX	480171	Dallas, City of	10/1/1991	5/1/2011	5	25	10	C
TX	480291	Deer Park, City of	10/1/2000	5/1/2017	7	15	5	C
TX	480194	Denton, City of	10/1/1991	10/1/2018	8	10	5	C
TX	480774	Denton County	10/1/1992	10/1/1993	10	0	0	R
TX	481569	Dickinson, City of	10/1/2012	10/1/2012	8	10	5	C
TX	480173	Duncanville, City of	10/1/1991	10/1/2017	8	10	5	C
TX	480214	El Paso, City of	10/1/1991	10/1/1991	9	5	5	C
TX	480777	Flower Mound, City of	10/1/2019	10/1/2019	8	10	5	NA
TX	485468	Friendswood, City of	10/1/1991	10/1/2021	6	20	10	C
TX	480596	Fort Worth, City of	10/1/2012	10/1/2012	8	10	5	C
TX	485469	Galveston, City of	5/1/2014	5/1/2019	6	20	10	C
TX	485471	Garland, City of	10/1/1991	10/1/1997	7	15	5	C
TX	485472	Grand Prairie, City of	10/1/1991	5/1/2012	5	25	10	C
TX	480266	Guadalupe County	5/1/2009	5/1/2009	8	10	5	C
TX	480599	Haltom City, City of	10/1/2012	10/1/2018	8	10	5	C
TX	480287	Harris County	5/1/2004	10/1/2014	7	15	5	C
TX	480296	Houston, City of	5/1/2002	10/1/2009	5	25	10	C
TX	480601	Hurst, City of	10/1/1992	10/1/2017	8	10	5	C
TX	481271	Jamaica Beach, City of	10/1/2018	10/1/2018	8	10	5	C
TX	480300	Jersey Village, City of	5/1/2020	5/1/2020	7	15	5	NA
TX	485481	Kemah, City of	10/1/1992	5/1/2015	8	10	5	C
TX	485487	LaPorte, City of	10/1/1999	10/1/2013	7	15	5	C
TX	485488	League City, City of	10/1/1992	4/1/2021	5	25	10	M
TX	480042	Leon Valley, City of	10/1/2017	10/1/2017	7	15	5	C
TX	480195	Lewisville, City of	10/1/1991	10/1/2017	9	5	5	C
TX	480043	Live Oak, City of	5/1/2010	5/1/2010	7	15	5	C
TX	480452	Lubbock, City of	10/1/1992	5/1/2014	7	15	5	C
TX	480477	Midland, City of	10/1/1992	10/1/1994	8	10	5	C
TX	480304	Missouri City, City of	5/1/2010	5/1/2010	7	15	5	C
TX	485491	Nassau Bay, City of	10/1/1992	5/1/2009	7	15	5	C
TX	485493	New Braunfels, City of	10/1/2013	5/1/2019	8	10	5	C
TX	480607	North Richland Hills, City of	10/1/1991	10/1/2016	7	15	5	C
TX	480206	Odessa, City of	10/1/1992	10/1/2020	8	10	5	C

*Status: C-Cycle, M-Modification, NA-New Application, R-Retrograde

COMMUNITY RATING SYSTEM ELIGIBLE COMMUNITIES

EFFECTIVE October 1, 2021

State	Community Number	Community Name	CRS Entry Date	Current Effective Date	Current Class	% Discount for SFHA	% Discount for Non- SFHA	Status*
TX	480307	Pasadena, City of	10/1/1991	5/1/2019	8	10	5	C
TX	480077	Pearland, City of	5/1/2005	5/1/2014	6	20	10	C
TX	481028	Pflugerville, City of	5/1/2011	4/1/2021	7	15	5	C
TX	480140	Plano, City of	10/1/1992	5/1/2018	8	10	5	C
TX	485499	Port Arthur, City of	10/1/1991	10/1/1991	9	5	5	C
TX	480184	Richardson, City of	10/1/1991	10/1/2018	8	10	5	C
TX	480608	Richland Hills, City of	5/1/2014	5/1/2014	8	10	5	C
TX	485504	Rockport, City of	10/1/2019	10/1/2019	7	15	5	NA
TX	485505	San Marcos, City of	10/1/1992	10/1/2002	7	15	5	C
TX	485507	Seabrook, City of	10/1/2002	10/1/2011	7	15	5	C
TX	485510	Shoreacres, City of	5/1/2014	5/1/2020	8	10	5	C
TX	480234	Sugar Land, City of	5/1/2010	5/1/2010	7	15	5	C
TX	481127	Sunset Valley, City of	5/1/2010	10/1/2016	7	15	5	C
TX	480502	Sweetwater, City of	10/1/1991	5/1/2008	9	5	5	C
TX	485513	Taylor Lake Village, City of	5/1/2014	5/1/2014	8	10	5	C
TX	481585	Tiki Island, Village of	10/1/2001	10/1/2017	7	15	5	C
TX	480318	West University Place, City of	10/1/2019	10/1/2019	7	15	5	NA
TX	480654	Wharton, City of	10/1/2011	10/1/2016	9	5	5	C
TX	480662	Wichita Falls, City of	10/1/1991	10/1/2007	8	10	5	C
UT	490039	Bountiful, City of	10/1/1991	10/1/1991	9	5	5	C
UT	490074	Cedar City, City of	10/1/1994	10/1/1996	10	0	0	R
UT	490040	Centerville, City of	5/1/2002	10/1/2018	10	0	0	R
UT	490019	Logan, City of	10/1/1993	10/1/2019	7	15	5	C
UT	490072	Moab, City of	5/1/2001	10/1/2011	9	5	5	C
UT	490214	North Ogden, City of	10/1/1993	5/1/2019	10	0	0	C
UT	490216	Orem, City of	10/1/1993	5/1/2008	7	15	5	C
UT	490159	Provo, City of	10/1/1991	10/1/1996	8	10	5	C
UT	490178	Santa Clara, City of	10/1/1995	10/1/2018	8	10	5	C
UT	490177	St. George, City of	10/1/1994	10/1/2021	8	10	5	C
UT	490187	Weber County	10/1/2015	10/1/2015	9	5	5	C
UT	490052	West Bountiful, City of	10/1/1996	10/1/2021	10	0	0	R
VT	500013	Bennington, Town of	10/1/1993	10/1/1993	9	5	5	C
VT	500106	Berlin, Town of	5/1/2017	5/1/2017	9	5	5	C
VT	500126	Brattleboro, Town of	10/1/1991	10/1/2017	8	10	5	C
VT	500033	Colchester, Town of	5/1/2016	5/1/2016	8	10	5	C
VT	505518	Montpelier, City of	10/1/1998	5/1/2020	8	10	5	C
VT	500123	Waterbury, Town of	10/1/2016	4/1/2021	8	10	5	C
VT	500122	Waterbury, Village of	10/1/2016	4/1/2021	10	0	0	R
VA	510001	Accomack County	10/1/1992	5/1/2018	6	20	10	C
VA	515519	Alexandria, City of	10/1/1992	10/1/2013	6	20	10	C
VA	515520	Arlington County	10/1/1992	10/1/2008	8	10	5	C
VA	510075	Ashland, Town of	10/1/2016	10/1/2016	9	5	5	C
VA	510134	Bridgewater, Town of	10/1/1996	5/1/2006	8	10	5	C

*Status: C-Cycle, M-Modification, NA-New Application, R-Retrograde

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Abernathy		1			City of Lubbock provides technical assistance			
Abilene		1	1.5	1.5	(1) Developer must conduct a study and determine BFE and floodway boundary in Zone A (2) In Zone X, new construction must be elevated a minimum of 18" above natural grade or crown of nearest street. (3) New development must provide detention. (4) Elevation Certificates are required when structure is completed and before CO.	LFA is a CFM	2	
Addison		2			Residential requirement only - per Ordinance. City Council adopted Zone AE as floodway, and is not allowing development in floodway.	LFA is a CFM	1	
Alamo Heights	1	1			(1) The City requires a hydraulic analysis on all new development. (2) The City requires on-site detention. (3) In Zone X new construction must be elevated a minimum of 1.5' above natural grade or above the crown of the nearest street, whichever is higher.			
Alice		1	1.5	1.5	(1) Developer must conduct a study to define the BFE and floodway for both existing and fully developed conditions (2) If any portion of a development of a drainage course lies within 100 feet from the top of a high bank or is identified as located within the 100-yr floodplain on any FIRM, a detailed study of the area is required. (3) For drainage areas 160 acres and above, the developer is required to determine the 100-year floodplain based on a fully developed watershed and this floodplain cannot be disturbed and must be shown on the plat and the City has the option of accepting the area. (4) On-site detention is required (5) In Zone X new residential construction must be elevated a minimum of 2' or above the crown of the nearest street whichever is higher (6) In Zone X new non-residential construction must be elevated a minimum of 1.5' or above the crown of the nearest street whichever is higher (7)EC required prior to framing, when construction is completed and prior to CO.	LFA is a CFM	3	
Allen	2	2	2 see notes	0	(1) Developer must conduct a study and determine BFE and floodway boundary in Zone A (2) Elevation Certificates are required when structure is completed and before CO.	LFA is a CFM	1	
Alvarado		0			(1) Developer must conduct a study, based on fully developed watershed conditions, and determine BFE and floodway boundary in Zone A (2) Onsite and regional detention is required (3) Elevation Certificates are required prior to forming/pouring lowest floor; when structure is completed and before CO. (4) Biggest problem is development in SFHA and floodway property buyouts	LFA is a CFM	4	
Alvin	1	1	1	1	(1) New construction must be elevated +1' above BFE. (2) Developer must submit a study, based on both existing and fully developed conditions, showing BFE and floodway in Zone A. (3) Developer must balance fill with excavation producing no change in BFE in floodway (4) Detention is only required when there is no other alternative (5) New construction in Zone X (shaded and unshaded) must be elevated +1.5' above the flowline of the nearest street. (6) EC required prior to forming and pouring lowest floor; after construction; and prior to CO for all structures.	LFA is a CFM	4	
Amarillo	1	1	1.5	1.5		LFA is a CFM	4	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight					Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb				
Aransas County		1.5			Aransas County requires new construction to be elevated in the SFHA - 18" for new structures and 6" for accessory buildings.	LFA is a CFM	1	
Aransas Pass		1	0	0	City building FPM program	LFA is a CFM	1	
Arlington	more than 3'	2			(1) Developer must conduct a study and determine fully developed floodplain, floodway and BFE in Zone A (2) 1:1 Compensatory storage required for ant SFHA development (3) no increase in flood heights and no more than 5% increase in velocity on adjacent properties. If there is an increase, discharges must be detained on-site until requirement is achieved (4) Developer must mitigate downstream impacts of development (5) Elevation Certificate required when structure is completed and prior to CO (6) Arlington enforces 25% damage as substantially damaged (7) Arlington is CRS 7 (8) Six (6) CFM's on staff	LFA is a CFM	6	7
Athens		3			EC is required when construction is completed			
Austin	1	+2' (See Notes)	2	0	(1) City Code precludes development within the fully developed land-use condition 100-year floodplain. Conditional exceptions include: 1) Within Central Business District, 2 feet above fully developed BFE, and 2) Minimum freeboard of 1 foot above fully developed BFE in all other areas. (2) All development must demonstrate no adverse flooding impact; mitigation typically achieved by on-site or regional detention ponds. (3) City uses fully developed watershed condition floodplain for regulating all subdivision platting and building construction. (4) City adopted the IBC and the IRC (except Plumbing) with reference to ASCE 24. (5) City requires cumulative building addition and improvements (substantial improvements) for 10 years. (6) Electric meter must be BFE +3' (7) EC's required prior to pouring lowest floor, when construction is completed and prior to CO. (8) on site and regional detention required.(9) Biggest problem: Old Pre-FIRM structures	LFA is a CFM	30	6
Austin County	1	1	0	0				
Bailey's Prairie	1	1			(1) Developer must submit a study defining both the BFE and floodway based on fully developed conditions.(2) EC required prior to forming/pouring lowest floor and when structure is completed.	LFA is a CFM	1	
Balch Springs		No Adverse Impact			In a nutshell, "No Adverse Impact" means you cannot build in the floodplain (contact Balch Springs city engineer for more info)			
Ballenger		0			Elevation Certificate required before CO			
Bandera County		3	2	1	(1) Developer must submit a study defining the floodway boundary in Zone A prior to permit (2) EC required prior to forming or pouring the lowest floorand when construction is completed (3) County requires detention, mitigation of downstream impacts and setback from floodway	LFA is a CFM	1	
Bartonville		1			(1) Developer must submit a study defining both the BFE and floodway.(2) Developer must prove no adverse impact to adjacent properties (3) EC required when structure is completed and prior to CO.	LFA is a CFM	1	
Bastrop		2			Developer must conduct a drainage study and provide detention when required. Development must demonstrate no adverse impact on adjacent properties.			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Bastrop County	2	2	0	0	(1) New development must be elevated a minimum of +2' above BFE based on both current and fully developed watershed conditions. (2) Developer must conduct a study, based on fully developed watershed conditions, and determine BFE in Zone A; (3) On-site compensatory storage required along with floodway setback and mitigation of downstream impacts (4) County enforces "cumulative damage over the life of the structure" treshold for substantial damage. (5) Elevation Certificates are required prior to framing and when construction is completed. (6) One acre minimum lot size with buildable area outside SFHA (7) Floodplain must be preserved as open space, drainage easement or other defined area that limits impact (8) Drainage study required to define detention needed to prevent adverse impact and mitigate downstream impacts (9) Bastrop County is CRS Class 8. (9) LFA is a CFM and County has 4 CFM's on staff.	Certificates of non-compliance to be filed with County Clerk. Inspections reports from PE/AIA are required during construction. Any home w/in 150' of a watercourse must be +2' above NG. New Subdivisions must have BM's and include dedicated 10'setback (easement)from SFHA	4	8
Bay City	2	2	0.5	0.5	(1) Developer must submit a study to define BFE and floodway in Zone A prior to permit (2) Both residential and non residential structures must be elevated a minimum of 24 inches above BFE. (3) Onsite detention required (4) Manufactured homes can only be placed in existing manufactured home parks or subdivisions (5) EC required when construction is complete and prior to CO (6) Construction in AO/AH zones must be at depth specified or +3' is no depth specified. (7) Matagorda County DD#1 must review and approve major drainageways, detention and outfalls (8) The lowest adjacent grade to foundations must fall 6" in first 1' from foundations (9) City has FEMA approved all hazards and Flood Mitigation Plans (10) Biggest problem : Preliminary DFIRMs are now 7 years old. (11) Permanent metal storage containers (conex boxes) prohibited in SFHA. Temporary use up to 180 days if designed to withstand 10 psi uplift.	LFA is a CFM	1	
Baytown	1.5	*see notes	1.5	1.5	(1) New construction must be elevated a minimum of 1.5' above BFE. (2) Detention is required. (3) In Zone X, new construction must be elevated a minimum of 1.5 feet above natural grade or above crown of nearest street. (4) EC required prior to pouring lowest floor and before CO. (5) City is CRS Class 6.	LFA is a CFM	1	6
Beaumont		1.5	1	1	(1) No more buyouts because City cannot manage any more vacant lots. (2) Elevation Certificates required prior to pouring slab, after construction and before CO.(3) Mobile homes not permitted outside MH Parks or MH Subdivisions (4) Mobile Homes must be elevated +1.5' above BFE (5) Biggest problem is fsubstantial damage	LFA is a CFM	4	7
Bedford		2			Bedford has a FEMA approved all hazards Mitigation Plan			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Bee Cave	2 see notes	2 see notes	1	0.5	(1) City does not allow development in the floodplain (2) Developer must conduct a study and determine BFE and floodway boundary in Zone A based on fully developed watershed; (3) New development must provide detention, mitigate downstream impacts and engineer must submit NAI certificate (4) New development must setback from floodway boundary (5) Elevation Certificates are required prior to forming/pouring lowest floor, when structure is completed and before CO. (6) Biggest problem is tremendous population growth and potential encroachments in SFHA	LFA is a CFM	2	
Bellaire	1	*see notes	1	1	In Zone X, new construction must be elevated 1.0' above natural grade or crown of nearest street. EC required 1)before construction begins, 2)when construction is complete and 3) before CO. County-wide detention requirements by HCFCD. Bellaire is CRS Class 8	LFA is a CFM	1	8
Belton	0	0	1.5	1				
Benbrook	2'	2	0	0	(1) Developer must conduct a study to define BFE and Floodway in Zone A areas. (2) In Zone AO, new structures must be +2 feet above depth number (i.e.in Zone AO 1' - new structure must be elevated to +3') (3) No development in floodway without No-Rise Certificate, (4) Detention is required using iSWM criteria with no increase of peak flow under the 2-year, 25-year and 100-year condition, (5) If applicable, EC required at time of foundation forms and EC is always required when construction is completed, (6) New Critical Facilities (hospitals and fire stations) are prohibited within the 500-year floodplain and must be elevated +3' above BFE (7) Engineered fill and erosion/scour protection required for compacted fill beyond foundation and buffer required for structures adjacent streams (8) Non residential in Zone AE must be elevated +2 above the BFE for floodproofed, (9) No new lots in SFHA without buildable area outside SFHA, (10) Park dedication requirement of floodplain where each acre of flowway fringe counts as 1/2 acre toward park requirement, (11) Floodway area accepted for park dedication but does not receive park dedication credit.(12) City has Stormwater Utility Fee (13) Problem is remapping impacted structures	LFA is a CFM	4	6
Bevil Oaks	2	2	0	0	(1) Developer must conduct a study, based on fully developed conditions, to determine the BFE and Floodway boundary in Zone A prior to permit (2) Onsite detention required (3)Developer must mitigate downstream impacts (4) EC's required prior to forming/pouring lowest floor, when structure is completed: and prior to CO (5) Biggest problem is training and compliance	LFA is a CFM	3	7
Bexar County		1	8"	8"	(1) Developer must conduct a study to determine the BFE and Floodway in Zone A prior to permit (2) NAI is required (no impact) outside of owners property (3) Platted property requirements include residences to be 8" above finish grade in all zones (4) Plat must show floodplain areas as drainage easements (5) County does not use floodway rules (6) EC is required prior to framing/pouring lowest floor and when structure is completed (7) Biggest problem is building and modifying structures without permits		10	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Bosque County	0	0	0	0	(1) Developer is required to conduct a study to define BFE in Zone A to establish BFE and floodway. (2) Downstream impacts must be mitigated (3) EC is required prior to forming/pouring lowest floor (4) Biggest problem is lack of BFE for Zone A in County	LFA is a CFM	1	
Brady	2	2	2	2	(1) Developer must conduct a study and determine BFE and floodway boundary in Zone A based on fully developed watershed; (2) New development must provide detention (3) New development must setback from floodway boundary (4) Elevation Certificates are required prior to forming/pouring lowest floor, when structure is completed and before CO. (5) Biggest problems are: EAP for Lake Brad; non studied areas	LFA is a CFM	1	
Brazoria County		2			(1) In Zone A new development must be 2' above highest natural ground (2) Detention may be required (3) Developer must mitigate downstream impacts and set back from Floodway boundary (3) Drainage plan required for all commercial projects, structures over 5,000 SF and in Zone X when fill exceeds 20 loads per acre (4) No rise certification required for floodway development. (5) EC required prior to forming or pouring lowest floor, a dn when construction is complete (6) Biggest problem i Pre FIRM structures (7) Drainage District approval required for development	LFA is a CFM	2	
Brazos County		2	0	0	(1) Developer must conduct a study and determine BFE and floodway boundary in Zone A . (2) No fill is allowed in SFHA (NAI) (3) Detention is required (4) EC required before forming/pouring lowest floor, when the structure is completed and prior to CO. (5) Septic Permit cannot be issued without Floodplain Permit. (6) County has interlocal agreement for ETJ Permits and shares GIS and floodplain data with the cities of Bryan and College Station. (7) Biggest problem is Oilfield development in the floodplain	LFA is a CFM	4	
Brenham	2	2	2	1	(1) Developer must conduct a study and determine BFE and floodway boundary in Zone A based on existing and fully developed conditions . (2) Detention is required (3) EC required before forming/pouring and prior to CO.	LFA is a CFM	1	
Brookside Village	2	2	1	1	(1) City enforces a true "no rise" floodway and no fill allowed in floodway regardless of engineering analysis. No-Rise certification must be signed, sealed and dated by a PE (2) Developer must conduct a study, based on fully developed conditions, to define BFE and floodway in Zone A (3) Detention and Floodway setback is required in Zone AE (4) Permits are required for both Floodplain and Septic Tanks. (5) EC required prior to forming/pouring lowest floor and when construction is completed. (6) Biggest problem: Undersized major drain	LFA is a CFM	1	
Brownsboro		3			EC required when construction is completed			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Brownwood		1	1 (see notes)	1 (see notes)	(1) "No rise" study required for Zone AE development (2) Study required to define BFE in Zone A before a permit will be issued. (3) Detention required to mitigate development. (4) Developer must mitigate downstream impacts of proposed development (5) New construction in Zone X (shaded and unshaded) must be elevated 1' +2% above natural grade or crown of nearest street. (6) EC required after construction is completed and prior to CO. (7) Floodplain issues in the County located in the City's ETJ are regulated by the City (8) Biggest problem is construction in Floodway	LFA is a CFM	1	
Bryan	N/A	1	0.5	0.5	(1) Development in Zone X must be elevated 0.5' above top of curb or above crown of nearest street. (2) EC's required during construction with form board survey and prior to CO. (3) Manufactured homes must be elevated 2' above BFE (4) City adopted IBC (5) Stormwater detention is required to mitigate development impacts	LFA is a CFM	5	6
Buda	2	2	0	0	(1) Developer must submit a study, based on fully developed watershed conditions, establishing floodplain and floodway boundaries and BFE in Zone A (2) On-site detention is required to mitigate development (3) No development is allowed in the designated floodplain	LFA is a CFM	1	
Bulverde		2				LFA is a CFM	1	
Burleson		1			Burleson is CRS 7	LFA is a CFM	1	7
Burnet County	1	1			(1) Developer is required to conduct a study to define BFE and floodway in Zone A. (2) Detention is required (3) Development in Zone X must be elevated a minimum of 12" above NG. (4) EC is required prior to forming/pouring lowest floor; when structure is completed; and prior to CO.		1	9
Calhoun County		0	0	0	(1) County requires "no rise" for floodway development (2) No mobile homes allowed in Zone V (3) EC required when construction is completed (4) Biggest problem is insurance companies writing policies for non compliant structures	LFA is a CFM	2	
Canton	1	1			(1) Developer must submit a study establishing floodplain and floodway boundaries and BFE in Zone A (2) EC required before forming/pouring lowest floor, after construction and prior to CO.	LFA is a CFM	1	
Cameron County		2						
Canyon		1	1.5	1.5	(1) Developer must conduct a study in Zone A to establish BFE and Floodway (2) Floodway setback required for new development (3) New development in Zone X must be elevated a minimum of 18 inches above top of curb.(4) EC is required when structure is completed and prior to CO. (5) Biggest problem is keeping development out of Floodway	LFA is a CFM	2	
Carmine	0	0			Member of TCRFC			
Carrollton	2	2	0	0	(1) Zero (0') rise in Floodway. (2) Developer must conduct a study, based on fully developed watershed conditions, to determine BFE and floodway in Zone A; (3) New development must provide detention. (4) Elevation Certificate is required before pouring/placing lowest floor, and before CO (5) Biggest problem is addressing erosion in channels and maintaining floodplain	LFA is a CFM	3	6

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Cedar Hill	1	2	2	2	(1) Developer is required to conduct a study, based on fully developed conditions, to define BFE and floodway in Zone A. (2) Detention is required (3) Developer must mitigate downstream impacts (4) Grading permit requires in SFHA (5) Biggest problem is out of date FIRMS and no BFE data in Zone A	LFA is a CFM	1	
Chico		2			EC is required when construction is completed			
Cedar Park		1			(1) In Zone A the Developer must conduct a study to define the BFE and to ensure conveyance of fully developed flows (2) Detention or mitigation required for fill placed in floodplain/floodway. (3) EC required when structure is completed and prior to CO (4) Engineering study required showing no adverse impacts to adjacent tracts. (5) City adopted City of Austin Drainage Criteria Manual requiring conveyance of fully-developed 1% storm in drainage easements when drainage areas is greater than 64 acres.	LFA is a CFM	3	
Celina	2	2	0	//	(1) Developer is required to conduct a study, based on fully developed conditions, to define BFE and floodway in Zone A. (2) Detention is required (3) Developer must setback from Floodway and mitigate downstream impacts (4) Biggest problem is non compliant development in the ETJ	LFA is a CFM	6	
Chambers County		1	0	0	(1) In Zone A, the Developer is required to conduct a study, based on fully developed watershed conditions, to define BFE and floodway. (2) Onsite detention is required (3) Developer must mitigate downstream impacts and setback from Floodway (4) Manufactured homes must be elevated so lowest support is 1' above BFE (5) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO. (6) Biggest problem is compliance	LFA is a CFM	2	
Charlotte	0	0			(1) Developer is required to conduct a study to define BFE and floodway in Zone A. (2) Detention is required (3) EC is required prior to forming/pouring lowest floor; when structure is completed; and prior to CO.			
Clear Lake Shores	1	1	2	1	(1) Clear Lake Shores is a coastal community so fill is allowed but not for structural support in Zone VE (2) EC required prior to framing/pouring lowest floor, when construction is completed and prior to CO. (3) Biggest problem is flooding from tidal waters and stormwater drainage.			
Cleburne		1			Cleburne is CRS Class 8.	LFA is a CFM	2	8
Cleveland	1	1	1.5	1	(1) In Zone A Developer cost conduct a study, based on fully developed watershed conditions, to define BFE and Floodway before permit (2) Fill placed in floodplain/floodway must be mitigated. (3) On site detention required, floodway setback and mitigation of downstream impacts (4) New structures in Zone X must be elevated 1.5' X shaded and 1' X unshaded above natural grade or crown of nearest street.(5) EC required prior to forming/pouring lowest floor and when structure is completed and prior to CO.		0	
Cold Spring		0			(1) In Zone A the Developer must conduct a study to define the BFE and Floodway. EC required when structure is completed.	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
College Station	N/A	1	2	2	(1) Designated channel reaches have additional requirements of +2', +3' and +4' above BFE. (2) New construction in shallow flooding areas (Zone AH and AO) must be elevated +1' above depth number or BFE. (3) EC are required prior to forming/pouring lowest floor and Prior to issuing a CO. (4) Detention is required to mitigate the impact of development. College Station is CRS 7. City has five (5) CFM's on staff.	Brazos County, Bryan and College Station have standardized floodplain management requirements and drainage policy. LFA is a CFM	5	7
Colleyville	2	2	0	0	(1) In Zone A developer must conduct a study, based on fully developed watershed conditions, and define the BFE and floodway (2) On-site detention is required (3) Fine is \$2,000/day for non compliance	LFA is a CFM	2	
Collin County	2	2			(1) City requires mitigation of all fill placed in floodplain and floodway (2) Detention is required (4) EC required prior to forming/pouring lowest floor	LFA is a CFM	2	
Collingsville		2			(1) EC required upon completion of construction, (2) Fine is \$2,000/day for non compliance			
Colorado County	1	1			In Zone A the Developer must conduct a study to define the BFE and Floodway. Detention or mitigation required for fill placed in floodplain/floodway. EC required when structure is completed.	LFA is a CFM	1	
Comal County	0.01	0.01			(1) No development is allowed in platted Zone A areas. (2) Developer must conduct a study showing NAI resulting from the proposed development (3) Detention is required (4) Developers must designate Zone A areas on Plats and designate Zone A areas as building set back areas (5) EC required prior to forming/pouring lowest floor and when construction is completed	LFA is a CFM	1	
Conroe	1	1			(1) Developer must conduct a study to establish BFE and floodway boundary (2) City requires mitigation of all fill placed in floodplain and floodway (3) Manufactured homes may not be placed in the 100-year floodplain (4) No rise certification required for floodway development (5) Detention is required (6) New construction in Zone X must be elevated a minimum of 1' above BFE or crown of nearest street or closest BFE (7) EC required when construction is completed and prior to CO. (8) All sanitary sewer manholes must be bolted and sealed 1' above BFE (9) Structures crossing the floodplain must be sized to carry the 100-year flood discharge. (10) Permit violations carry \$500/day fine (11) Two (2) CFM's on staff (12) Conroe is CRS 7	LFA is a CFM	2	7
Coppell	1	2	1 see notes	1 see notes	(1) Developer is required to conduct a study to define BFE in Zone A. (2) Developer must mitigate downstream impacts (3) In Zone X new structures must be elevated a minimum of 1' above curb of nearest street (4) EC is required prior to forming/pouring lowest floor; when structure is completed; and prior to CO. (5) Biggest problem is maintaining channel conveyance and preventing encroachment into channel and floodway	LFA is a CFM	4	8
Copper Canyon		1			Flood plain administrator requires 2 feet on all new subdivisions			
Copperas Cove		1.5						
Corinth		2			(1) EC is required when construction is completed and prior to CO (2) New Ordinance 4/18/2011			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Corpus Christi	0	0	1.5	1.5	(1) Developer is required to conduct a study to define BFE in Zone A. (2) Developer must mitigate downstream impacts (3) In Zone X new structures must be elevated a minimum of +1.5' above curb of nearest street (4) EC is required prior to forming/pouring lowest floor; when structure is completed; and prior to CO. (5) Biggest problem is community education	LFA is a CFM	9	7
Corsicana		1			(1) Developer is required to conduct a study to define BFE and floodway in Zone A. (2) EC is required prior to forming/pouring lowest floor; when structure is completed; and prior to CO.	LFA is a CFM	1	
Crowley		2			(1) Developer is required to conduct a study to define BFE in Zone A. (2) Proposed development in the floodway must include a H&H study proving no (0.0') increase in the BFE's. (3) Detention is required (4) EC is required prior to forming/pouring lowest floor and when structure is completed.(5) New bridges and culverts must pass fully developed flows with 1' freeboard.			
Cuero	1	1			(1) On site detention is required (2) Developer must mitigate downstream impacts and setback from Floodway (3) EC required when construction is completed and prior to CO (4) Biggest problem is education of public and development community	LFA is a CFM	1	
Dallas	3	3 (see notes)	+3 see notes	+3 See notes	(1) All floodplains have been mapped to fully-developed conditions. (2)No construction allowed in the floodplain (3) New construction must be BFE +3' (4) In Corps defined floodway, on Trinity River and tribs, no development is allowed without CLOMR, Dallas Fill Permit and Corridor Development Certificate (CDC) (5) Fill permit allows reclamation but has +3' freeboard and NAI requirement (6) Dallas does not have floodways therefore there is a 0' rise allowed in floodplain (7) Hydraulics analysis required to ensure that there is no loss in valley storage.(8) EC's required for modification to existing structures. (9) City also has environmental requirements in SFHA. (10) Detention may be required (11) Dallas is CRS Class 5. (12) Dallas is a CTP Community (13) Biggest issues are: (13.1) Funding for capital construction projects for flood protection and storm drainage. (13.2) Complexity of federal grant requirements requires a lot of local resources. (13.3) Challenges of floodplain development in large, built up urban areas.	LFA is a CFM	25	5
Dallas County		1	0	0	(1) No encroachment into Floodway without a study proving NAI (2) Detention is required (3) Downstream impacts must be mitigated (4) Problem: Filling without a permit and educating the public	LFA is a CFM	3	
Dalworthington Gardens		2						
Dayton	1	1	1	1				
Decatur	2	2	0.5	0.5	(1) Developer is required to conduct a study, based on fully developed conditions, to define BFE in Zone A to establish BFE and floodway. (2) Detention is required (3) Developer must mitigate downstream impacts (4) Biggest problem: No BFE's in Zone A and flooding in Zone X	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight					Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb				
Deer Park	1	1	2	2	(1) Plats must show floodplain boundaries and BFE's (2) EC required prior to framing and pouring lowest floor, when construction is completed (3) Floodplain Ordinance posted on City website (4) Detention required. (5) EC required for all zones (6) Problem: Mechanical equipment below BFE	LFA is a CFM	2	8
Denison		2			(1) Critical Facilities that cannot be located outside the 500-year floodplain must be elevated a minimum of +3' above the BFE (2) EC can only be prepared by a RPLS	LFA is a CFM	1	
Denton	2	2	2.5	2.5	(1) No rise allowed in floodway/floodplain. (2) In Zone A, Developer must define Floodplain and Floodway if 3 acres or 20 lots. (3) New structures in Zone X and any structure within 200' of SFHA must be elevated 2.5' above BFE or 18" above crown of nearest street whichever is higher. (4) EC required when structure is completed and before CO. Denton is CRS Class 6.	LFA is a CFM	1	6
Denton County		2			(1) Developer must conduct a study to establish the BFE in Zone A areas (2) Developer must mitigate downstream impacts (3) Form board survey required before lowest floor is poured (4) EC is required when construction is completed and prior to CO (5) Geotechnical report and engineering foundation design is required for new structures in SFHA. (6) County is CRS 10	LFA is a CFM	4	10
Desoto		2			(1) EC required upon completion of construction (2) city has adopted the 2003 International Building Code			
Dickinson		1			(1) Onsite and regional detention is required (2) Developer must setback from Floodway boundary and mitigate downstream impacts (3) Development in Zone X must be elevated a minimum of 2' above NG or crown of nearest street (4) EC required prior to forming/pouring lowest floor; when construction is completed and prior to CO	LFA is a CFM	2	8
Double Oak		1			Floodplain administrator requires +2 feet on all new subdivisions			
Duncanville	2	2	0	0	(1) Developer is required to conduct a study to define BFE and floodway in Zone A based on fully developed watershed conditions. (2) Detention is required (3) EC is required when structure is completed and prior to CO	LFA is a CFM	1	7
Eagle Lake		1			requires final EC from surveyor for all new construction in FP			
Eagle Pass		1	1	1	(1) Developer is required to conduct a study to define BFE and floodway in Zone A. (2) Detention is required (3) In Zone X, new development must be elevated 1' above natural ground or curb of nearest street. (4) EC is required prior to forming/pouring lowest floor, when structure is completed and prior to CO	LFA is a CFM	1	
East Bernard		1			City has contracted with Wharton County to manage floodplain management program.	Wharton Co. LPA is CFM	1	
Edgecliff Village	0	0	0	0	(1) Drainage plan required with preliminary Plat (2) Detention is required (3) EC is required prior to forming/pouring lowest floor and when structure is completed (4) City has new Stormwater Utility Fee (5) City's FPM consultant has 2 CFMs on staff (6) Problem: Cost to maintain infrastructure		* See not e#5	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
El Campo		0	1.5	1.5	(1) In Zone X (shaded) - new development must be 18 in. above natural grade or 12 in. above crown of nearest street (2) In Zone X (unshaded) new development must be 18" above crown of nearest street. (3) EC required before framing/pouring lowest floor and after construction is complete. (4) No development permitted in the Floodway (5) City has FEMA approved all-hazard and Flood Mitigation Plans.	LFA is a CFM	1	
El Lago		4.1			(1) New construction must be elevated at or above 15.7' (BFE = 11.6') (2) EC required prior to forming/pouring lowest floor and before CO			
Elgin		1						
Ellis County	0	2	0	0				
El Paso, City of	2	2	2	1	(1) Developer must perform a study, based on fully developed conditions, to define BFE and Floodway in Zone A. (2) Developer must mitigate downstream impacts (3) Regional detention is required for large subdivisions (4) El Paso adopted Drainage Impact Fees to fund drainage projects (5) City is CRS 9 (6) EC required before framing; after construction and before CO. (7) Problem: Cost to improve infrastructure	LFA is a CFM	1	9
Ennis	2	2	10"	10"	(1) In Zone A, the Developer is required to conduct a study to define BFE and floodway. (2) Detention is required (3) Problem: No BFE's in Zone A	LFA is a CFM	2	
Eules		2	0	0	(1) Zone A - Developer must submit a H&H Study, based on fully developed watershed, identifying 100-year BFE, dedicate the area that is inundated by 25-year fully developed storm, and new development must be BFE+2. (2) Detention is required if downstream system is undersized. (3) City has FEMA approved all hazards and Flood Mitigation Plans.(4) Biggest problem is preservation of natural streams by reducing erosion, maintaining water quality, and vegetation maintenance.	LFA is a CFM	1	
Fairview		3			EC is required when construction is completed			
Farmers Branch	2	2			(1) Developer must mitigate (on site) impacts of development. (3) Development in Zone X must be elevated a minimum of 2' above NG or crown of nearest street (4) EC required prior to forming/pouring lowest floor and when construction is completed (5) Biggest problem is redevelopment of Pre-FIRM properties	LFA is a CFM	1	
Fayette County		1			a new ordinance is being proposed requiring +2'. (2) EC required at final stage of dev/ (3) FPA position is recently vacant/ it was managed by a CFM			
Flower Mound	1.5	1.5	0	0	(1) No development is allowed in the floodplain without a no rise study showing no increase in water surface or velocity (2) In Zone A, developer must conduct a study, based on fully developed conditions to define floodplain. (3) No fill is allowed in floodplain or floodway without mitigation (4) In Zone X development must be elevated a minimum of 1' above the curb. (5) Detention is required (5) EC required prior to framing/pouring lowest floor and when construction is completed and prior to CO	LFA is a CFM	3	
Forney		0				1	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Fort Bend County	1.5	1.5	2	2	(1) In Zone A, the Developer is required to conduct a study, based on fully developed watershed conditions, to define BFE and floodway. (2) Detention is required (3) Developer must mitigate downstream impacts (4) In Zone X structures must be elevated a minimum of 24" above NG and above the crown of the nearest street (5) Permits required for structures greater than 100sf; for modification of natural drainage route; for fill in excess of 500CY; or fill resulting in surface change in excess of 6" (6) EC is required prior to forming/pouring lowest floor and when construction is completed. (7) Biggest problems: Zone A areas without BFE; unpermitted development and fill; and major development pressure	LFA is a CFM	8	
Fort Worth	2	3			(1) City enforces "no rise" requirement (2) In Zone A (no BFE) developer must conduct a study to establish BFE. (3) Developer must provide detention and mitigate downstream impacts (4) EC required prior to forming/pouring lowest floor and when construction is complete (5) City requires Corridor Development Certificate compliance prior to developing in Trinity River 100 & 500-yr floodplains (6) Developer must dedicate 100-year fully developed floodplain +10' as a drainage easement (7) Fort Worth has installed a flood warning system (8) EC required when construction is completed and prior to CO	LFA is a CFM	10	8
Fredericksburg	1	1			(1) In Zone A, the Developer is required to conduct a study to define BFE and floodway based on fully developed watershed conditions. (2) City requires NAI - Detention and mitigation of downstream impacts (3) No development is allowed within the 100 year floodplain. All construction over 1 acre requires detention/no increased runoff. (4) Any land in SFHA that cannot be properly drained cannot be subdivided or developed without a study and CLOMR (5) Biggest problem is need for updated FIRMs	LFA is a CFM	1	
Freeport	1	2	1	1	(1) Developer is required to conduct a study to define the existing conditions and fully developed conditions BFE and floodway in Zone A (2) New construction in Zone X must be elevated 12 inches above NG in Zone X Shaded and 12 inches above NG in Zone X Unshaded (3) EC required prior to forming/pouring lowest floor; when structure is completed; and prior to CO.(4) Levee certification effort is underway	LFA is a CFM	1	
Friendswood	2	2	1.5	1.5	(1) Developer must conduct a study to establish the BFE in Zone A before permit (2) Detention required (3) EC required prior to forming/pouring lowest floor, when construction is completed and prior to CO	LFA is a CFM	5	5

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Frisco	2	2	1	1	(1) Developer is required to conduct a study to define the existing conditions and fully developed conditions BFE and floodway in Zone A (2) New construction in all zones must be elevated a minimum of 12" above curb (3) Both on-site and regional detention is required (4) Developer must offset from floodway boundary and mitigate downstream impacts (5) City has fully developed conditions models and all future development must be outside fully developed floodplain (6) In Zone X (unshaded) new development must be elevated a minimum of 12" above natural grade, crown of nearest street or 24" above fully developed BFE, whichever is higher (7) Biggest problems are: low water crossings, undersized culverts/bridges and older homes in SFHA	LFA is a CFM	2	
Gainesville	2	2	1	0.75	(1) Developer is required to conduct a study to define existing conditions and fully developed conditions BFE and floodway in Zone A. (2) Detention is required for new construction. (3) New construction in Zone X (shaded) must be elevated a minimum of 1' above NG or crown of nearest street and 0.75' above in Zone X (unshaded) (4) EC is required prior to forming/pouring lowest floor and when structure is completed. (5) Two (2) CFM's on Staff	LFA is a CFM	1	
Galveston	0	0	1.5	1.5	(1) Only require detention in specific areas where a drainage channel has been determined to be undersized. Galveston is a barrier island and we seek to direct drainage to the Gulf of Mexico or Galveston Bay as quickly as possible. All the City drainage outfalls are tidally influenced and any delay in getting runoff off the island is not acceptable. The City seeks to get rainwater off the island as quickly as possible. (2) maximum enclosures below BFE in VE-Zones is 299 Square feet based on outside dimensions. (3) New construction in Zone X must be elevated a minimum of 18" above NG or crown of nearest street (4) EC is required prior to forming/framing lowest floor, when structure is completed and prior to CO (5) Biggest problem is citizens wanting to enclose more area and install restrooms below BFE	LFA is a CFM	2	7
Galveston County		0	2	1.5	(1) New construction in Zone X must be elevated 24 inches above NG in Zone X Shaded and 18 inches above NG in Zone X Unshaded (2) EC required when structure is completed. (3) Major HMGP buyout project underway on Boliver Peninsula	LFA is a CFM	1	
Garland	1	1	1	1	(1) Fully-developed BFE and compensatory valley storage required for all development in Rowlett and Spring Creeks. (2) Developer must conduct a study for to define floodplain and floodway in Zone "A" areas. (3) Detention required for high impact projects. (4) In Zone X all development must be elevated a minimum of 2' above point of positive drainage (5) EC is required when construction is completed and prior to CO (6) Compensatory excavation or detention required to meet NAI (7) Developer must mitigate downstream impacts (8) No Manufactured Homes allowed in SFHA (9) Flood study required for all LOMR-Fs	LFA is a CFM	4	7

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Georgetown		1	0	0	(1) In Zone A, the Developer may be required to conduct a study to define BFE and floodway. (2) Detention is required (3) Development in Zone X must be elevated a minimum of 1' above NG and above the crown of the nearest street (4) EC is required prior to framing/pouring lowest floor, when construction is completed and prior to CO. (5) Biggest problem is the need for updated maps due to massive development pressure	LFA is a CFM	3	
Gillespie County		0	0	0	(1) EC required prior to forming/pouring lowest floor and when construction is completed (2) Biggest problem is large unstudied areas with no BFE's or floodways.			
Goldthwaite Gonzales County	1	2 0			City required drainage review by CFM for all subdivision proposals. City is CRS Class 7 but lower class is pending.. City is a FEMA Cooperative Technical Partner (CTP). Two (2) CFM's on staff.	LFA is a CFM	2	
Grand Prairie	1	2	0.5	0.5	(1) Developer must conduct a study, based on fully developed watershed conditions, to define BFE in Zone A (2) On-site and regional detention is required (3) Developer must mitigate downstream impacts (4) Floodway setback required for new construction (5) EC required when construction is completed and prior to CO (6) City enforces CDC development requirements along Trinity River (7) City is a FEMA Cooperative Technical Partner (CTP). (8) Valley storage must be preserved (9) New mobile homes must be BFE +3' (10) City requires CLOMR to revise floodway and LOMC for all completed projects that remove properties from the floodplain (11) City enforces free board of +2' on the lowest floor elevation of buildings and +1' free board on parking and paving areas (12) City requires land in SFHA to be dedicated as drainage easements during the platting process (13) Biggest problems are convincing TxDOT to design and construct to city's higher standards and developers filing LOMR's after construction is complete	LFA is a CFM	6	5
Grapevine	2	2	See notes	See notes	(1) In Zone A, the Developer is required to conduct a study to define BFE based on fully developed watershed conditions. (2) City requires NAI - Detention and mitigation of downstream impacts (3) Drainage plan required before permit in Zone X to determine elevation requirements (4) Biggest problem is erosion	LFA is a CFM	1	
Grayson County		1			(1) In Zone A, the Developer is required to conduct a study to define BFE and floodway. (2) EC is required prior to forming/pouring lowest floor and when construction is completed (3) Biggest problem is educating the public	LFA is a CFM	1	
Greenville		1	0	0	(1) Developer must conduct a study to establish BFE's in Zone A (2) Pad elevation must be +1' above BFE (3) In reclaimed areas lowest floor must be +2' above BFE (4) Structures in the SFHA that have footprint increased greater than 15% are considered substantially improved (5) On site detention is required (6) Biggest problem is Pre-FIRM structures in SFHA below BFE	LFA is a CFM	1	
Grimes County		0			(1) In Zone A, the Developer is required to conduct a study to define BFE and floodway. (2) Detention is required (3) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO.	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Guadalupe County	1	1			(1) new construction must be elevated 1' above BFE. (2) Developer must submit a study showing BFE and floodway in Zone A areas based on fully developed conditions. Study must also show "no rise". (3) Detention is required to mitigate development. (4) EC is required prior to forming/pouring lowest floor; after construction is completed and prior to CO. (5) New Plats must show BFE for all lots in floodplain. (6) County is CRS 8. (7) Three CFM's on staff.	LFA is a CFM	3	8
Gun Barrell City		3			EC is required when construction is completed			
Haltom City		2			City has initiated a major HMGP acquisition project to remove a mobile home park from the floodway.	LFA is a CFM	1	7
Harlingen	2	2	2	1.5	(1) In Zone A, the Developer is required to conduct a study to define BFE and floodway. (2) Detention is required (3) Development in Zone X must be elevated 2' (Shaded X) and 1.5' (Unshaded X) (4) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO	LFA is a CFM	1	
Harden County	1	1	0	0	(1) Developer must conduct a study to define BFE's in Zone A before permit (2) New development must setback from floodway boundary (3) EC is required prior to forming/pouring lowest floor and when construction is completed. (4) Biggest problem: massive Zone A areas without BFE's	LFA is a CFM	1	
Harker Heights		1						
Harris County	See notes	+2 above 500-yr	+1 above 500-yr	1	(1) Developer must conduct a study to define both the BFE and floodway prior to permitting development in Zone A (2) new construction and substantial improvement in SFHA must be elevated +2' above BFE (3) +3.0 feet to lowest horizontal member in floodway (2) no fill is allowed in floodplain or floodway without mitigation (NAI) (3) both on site and regional detention is required (4) In Zone A the lowest floor must be +6' above NG (5) In Zone AO the lowest floor must be +3' above the depth number (6) EC is required prior to framing/pouring lowest floor, when construction is completed and prior to CO (7) Critical facilities must be elevated a minum of 3' above 500-year flood elevation (8) No fill allowed in Zone AE and new structures must be on piers or open wall foundations (9) HCFCD is a FEMA Cooperative Technical Partner	LFA is a CFM	12	6
Harrison County		0			Commissioners Court is evaluating an 2012 ordinance that incorporated higher standards (freeboard)	LFA is a CFM	1	
Haslet	2	2	0	0	(1) New Construction must be +2' above Fully Developed BFE in all studied areas and +1' in unstudied areas.(2) Developer must conduct a study and define fully developed BFE and FW in Zone A. (3) Detention is required and developer must mitigate downstream impacts	LFA is a CFM	2	
Hays County	1	1	0	0	(1) In Zone A, the Developer is required to conduct a study, based on fully developed watershed conditions, to define BFE. (2) Detention is required in new subdivisions (3) EC is required when construction is completed and before CO is issued. (4) Permits are required for all development to determine compliance (5) Biggest problem is mapping and permitting homes destroyed adject to Blanco River (record flood)	LFA is a CFM	4	
Henderson County		3			EC required when construction is completed			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Herlotes	1	1			Developer must establish BFE and Floodway in Zone A. Detention is required. EC is required before pour and after construction is completed.	LFA is a CFM	1	
Highland Haven	2	2	1	1	(1) Study is required to define BFE in Zone A (2) No fill in floodplain or floodway with out mitigation (3) all development in SFHA must be elevated a minimum of +2' above NG (3) Detention is required (5) EC is required prior to forming/pouring lowest floor and prior to CO.(6) City is basically built out and only SF lots remaining (7) Biggest problem: Noncompliant waterfront structures and resistance from property owners	LFA is a CFM	1	
Highland Park		1						
Highland Village		2	0	0	(1) Developer must conduct a study to define BFE and floodway in Zone A (2) No fill in floodplain or floodway with out mitigation (3) Detention is required for subdivisions greater than 5 acres (4) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO.(5) Biggest problem is drainage problems and flooding from storm runoff	LFA is a CFM	2	
Village of the Hills	1	1	0	0				
Hillsboro	2	2	0	0	(1) Developer must conduct a study, based on fully developed watershed conditions, to define BFE and floodway in Zone A (2) Detention is required (3) EC is required prior to forming/pouring lowest floor; when construction is completed and prior to CO (4)All new construction and substantial improvements of residential and commerical structures have the lowest floor including basement elevated to two 2 feet above the base flood elevation (5) Development fee of \$200 is required	LFA is a CFM	1	
Hillshire Village		1			(1) Hillshire Village enforces HCFCF detention requirements. (2) Hillshire Village is part of the HGAC Mitigation Plan			
Hitchcock	1	1			(1) Developer must conduct a study to define the floodway and BFE in Zone A (2) EC required prior to forming/pouring lowest floor, when construction is completed and prior to CO	LFA is a CFM	1	
Holiday Lakes	2	2	2	2	(1) New construction must be elevated on piling or piers (2) No fill allowed in SFHA (3) EC required prior to framing/pouring lowest floor, when construction is complete and prior to CO (4) Biggest problem is Fre-FIRM structures below BFE	LFA is a CFM	1	
Hood County	0	2	0	0	(1) Developer must conduct a study to define BFE in Zone A (2) Newly created parcels developed after August 14, 2012 must elevate to two feet above BFE. Septic systems are not allowed in floodplain for new subdivisions after this date. Septic system permits may not be issued until floodplain requirements are met per on-site sewage facility Order. (3) EC is required when construction is completed.(4) Biggest problem is large number of uninsured structures in improvised areas.	LFA is a CFM	2	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Houston	0	1	See notes	0	(1) 1 foot freeboard in floodplain, 1.5 feet freeboard in floodway (2) Onsite and regional detention is required. (3) Developer must mitigate downstream impacts (4) Critical facilities must be elevated a minimum of +1' above the 500-year in Zone X (5) EC required prior to forming/pouring lowest floor, when construction is completed and prior to CO. (6) Biggest problem is large number of Repetitive Loss structures	LFA is a CFM	22	5
Hunt County		2			(1) Developer must conduct a study to define the floodway and BFE in Zone A (2) EC required prior to forming/pouring lowest floor and when construction is completed			
Hunter's Creek Village	1	1	1	1	(1) Developer must conduct a study based on fully developed conditions to define the floodway and BFE in Zone A (2) EC required prior to forming/pouring lowest floor and when construction is completed (3) Developer must mitigate downstream impacts (4) EC required prior to forming/pouring lowest floor, when construction is completed and prior to CO (5) Biggest problem is educating the public.	LFA is a CFM	1	
Hutchins	2	2	0	0	(1) Onsite and regional detention required (2) Hutchins - encroachment comes from Dallas County Regulations (3) EC required when construction is completed and prior to CO. (4)	LFA is a CFM	2	
Hutto	1	2			(1) Developer must conduct a study to define the floodway and BFE in Zone A (2) Detention is required to mitigate the impacts of a proposed project	LFA is a CFM	1	
Hurst	0	1	1	0.5	(1) Developer must conduct a study to define the floodway in Zone A (2) Detention is required to mitigate the impacts of a proposed project (3) Developer must mitigate downstream impacts (4) Development in Zone X must be elevated above fully developed BFE (5) EC required prior to CO (6) City is creating a Storm Water Utility (7) City has adopted both iSWM and SWMP (7) Biggest problem is a lack of plan to mitigate floodprone structures.	LFA is a CFM	2	7
Ingleside	1	1	1	1	(1) City utilized the 1987 San Patricio Drainage District Study that established the 100-year flood elevation in the City (2) New development must be +1' above BFE or +1' above crown of nearest street whichever is higher. (3) Developer must conduct a study, based on fully developed watershed conditions, to define the BFE in Zone A (4) Onsite Detention required, setback from Floodway and mitigation of downstream impacts (5) Development in Zone X must be elevated a minimum of +1' above the crown of closest road (6) EC required prior to forming/pouring lowest floor; when construction is completed and prior to CO. (7) Biggest problem is coastal flooding and incomplete record keeping in the past	LFA is a CFM	1	
Irving		2				LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Jackson County	1	1	0	0	(1) In Zone A, developer must conduct a study, based on fully developed watershed conditions, to define the BFE. (2) Developer is required to mitigate downstream impacts of a proposed project. (3) EC required prior to forming/pouring lowest floor; when construction is completed and prior to CO (4) Biggest problem is educating local elected officials of the need to adopt higher (more stringent) standards to mitigate flood risks	LFA is a CFM	1	
Jamacia Beach		0	0	0	(1) City has Zone V areas where no fill is allowed (2) EC is required prior to forming/pouring lowest floor and when construction is completed. (2) Biggest problem is completing a CAV			
Jasper	1	1	1	1	(1) Developer must conduct a study to define the floodway and BFE in Zone A based on fully developed watershed conditions. (2) Developer must mitigate downstream impacts (3) Development in Zone X must be elevated a minimum of 1' above NG and above the crown of the nearest street (4) EC required prior to forming/pouring lowest floor, when construction is completed and prior to CO (5) Biggest problem is ignorance of floodplain issues such as drainage maintenance and floodplain permits	LFA is a CFM	1	
Jefferson County		1	10"	10"	(1) No rise allowed in Floodway (2) Detention is required (3) EC required prior to forming/pouring lowest floor (2) Biggest problem is enforcement	LFA is a CFM	1	
Jersey Village	1.5	1.5	1.5	1.5	(1) In Zone A, developer must conduct a study, based on fully developed watershed conditions, to define the floodway and BFE. (2) Detention, on-site and regional, is required to mitigate the impacts of a proposed project. (3) No fill can be imported into the floodplain (4) Developer must mitigate downstream impacts (5) In Zone X (shaded) new construction must be elevated a minimum of 18" above BFE and 1' above natural grade or crown of nearest street (6) EC required prior to forming/pouring lowest floor; when construction is completed and prior to CO (7) Biggest problem is pushback from owners that wish to improve more than 50% without elevating.	LFA is a CFM	1	
Johnson County	3	3	1.5	1.5	(1) Developer must conduct a study to define the floodway and BFE in Zone A based on fully developed watershed conditions. (2) Developer must mitigate downstream impacts and setback from Floodway boundary (3) EC required prior to framing/pouring lowest floor and when construction is complete (4) H&H study required to replace large culverts (5) Biggest problem is building without a permit	LFA is a CFM	1	
Jonestown	1	1			(1) In Zone A, developer must conduct a study to define the floodway and BFE. (2) Detention is required to mitigate the impacts of a proposed project. (3) EC required prior to forming/pouring lowest floor; when construction is completed and prior to CO	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Kaufman	1	2	1.5	1.5	(1) Developer must conduct a study to define the floodway and BFE in Zone A based on fully developed watershed conditions. (2) Detention is required to mitigate the impacts of a proposed project (3) Development in Zone X must be elevated a minimum of 1.5' above NG and above the crown of the nearest street (4) EC required prior to forming/pouring lowest floor and when construction is completed	LFA is a CFM	1	
Kaufman County	2	2	2	2	(1) Two feet of freeboard is required (2) In Zone A, developer must conduct a study to define the BFE and floodway based on existing and fully developed conditions (3) Developer must provide detention and mitigate downstream impacts (4) In Zone X new development must be elevated a minimum of 2' above natural grade or above the crown of the nearest street whichever is higher			
Keene	2	2	0	0	(1) Onsite and regional detention required (2) EC required when construction is completed and prior to CO. (3) Biggest problem is two separate watersheds (Trinity & Brazos) with no enforcement options in either should someone violate the ordinance.	LFA is a CFM	2	
Keller	2	2			(1) Developer must conduct a study to define the floodway and BFE in Zone A based on fully developed watershed conditions. (2) Detention is required to mitigate the impacts of a proposed project (3) EC required prior to CO (4) Two CFM's on staff.	LFA is a CFM	2	
Kemah Kemp		1.5 2	1.5	1.5	(1) City has successfully acquired flood prone properties using HMGP (2) Kemah evaluating if detention is feasible being a coastal community.	LFA is a CFM	1	8
Kendall County	0	0	0	0	(1) In Zone A, developer must conduct a study to define the BFE and map drainage areas greater than 100 acres (2) Detention required to mitigate the impacts of a proposed project. (3) Detention is required for all commercial development in SFHA (4) LOMR required for subdivisions in SFHA (5) EC required before framing/pouring lowest floor and after structure is complete (6) Biggest problem is Pre FIRM structures in Floodplain and Floodway	LFA is a CFM	1	
Kennedale	2	2	2	2	(1) Developer must conduct a study to define the floodway and BFE in Zone A based on fully developed watershed conditions. (2) Detention is required to mitigate the impacts of a proposed project (3) Detention required and developer must mitigate downstream impacts and setback from Floodway boundary (4) EC required prior to framing/pouring lowest floor, after construction is complete and prior to CO (5) Biggest problem is lack of funding	LFA is a CFM	1	
Kerr County		1			(1) Developer must conduct a study to define the BFE in Zone A areas. (2) EC required when construction is completed	LFA is a CFM	1	
Kerrville	1	1			(1) In Zone A, developer must conduct a study to define the floodway and BFE. (2) Detention may be required to mitigate the impacts of a proposed project. (3) EC required prior to forming/pouring lowest floor; after structure is complete and prior to CO. (4) Three CFMs on staff	LFA is a CFM	3	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight					Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb				
Killeen		2	0	0	(1) In Zone A developer must conduct a study and define the BFE and floodway (2) New construction in Zone AE must be elevated a minimum of +2' BFE (2) EC is required at permit application; prior to forming/pouring lowest floor and prior to final inspection.	LFA is a CFM	7	
Kingsville		1			City is proposing +2 ft above BFE along the floodplain with no new development allowed in the floodplain unless an engineered study is provided showing no rise in FP			
La Marque		2	2	2	(1) Onsite detention is required for new construction. (2) No fill is allowed in floodplain or floodway without mitigation. (3) EC is required prior forming/pouring lowest floor, when construction is complete and prior to CO. (4) Biggest problem is hurricanes			
La Porte	1	1	1	1	(1) Developer must conduct a study, based on fully developed watershed conditions, to define BFE and Floodway in Zone A. (2) Onsite and regional detention is required for new construction. (3) No fill is allowed in floodplain or floodway without mitigation. (4) Setback from floodway boundary is required. (5) EC is required prior to framing/pouring lowest floor; when construction is completed; and prior to CO. (5) Biggest problem is People wanting to place fill in the flood plain/ floodway. The City of La Porte is a bayside community accommodating major HCFCD channels with AE/VE zones.	LFA is a CFM	3	7
Lago Vista	1	1	0	0	(1) Developer must conduct a study, based on fully developed watershed conditions, to define BFE and Floodway in Zone A. (2) Detention is required for new construction. (3) No fill is allowed in floodplain or floodway without mitigation. (4) Setback from floodway boundary is required. (5) EC is required prior to framing/pouring lowest floor; when construction is completed; and prior to CO. (5) Biggest problem is illegal enclosure of area below elevated structures around Lake Travis	LFA is a CFM	1	
LaGrange	0	0	1	1	(1) In Zone A developer must conduct a study to define BFE and floodway (2) On-site detention is required (3)Development in Zone X must be elevated 1' above natural grade or crown of nearest street (3) EC is required when construction is completed and prior to CO (4) Biggest problem is unpermitted development	LFA is a CFM	1	
Lake Ransom Canyon		1			City of Lubbock provides technical assistance			
Lake Shores	1	1	1.5	1.5	(1) Developer must conduct a study to define the BFE and floodway in Zone A areas. (2) Detention is required for new development (3) EC required when construction is completed (4) Biggest problem is Poor drainage	LFA is a CFM	1	
Lakeway		1			(1) Within Zone A, if no base flood elevation data is available, new and substantially improved structures shall have the lowest floor (including basement) elevated at least 2 ft. above the highest adjacent grade.(2) EC required after construction is completed.			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Lamarque	2	2	2	2	(1) Detention and setback from Floodway Boundary is required for new construction. (2) Development in Zone X must be elevate a minimum of 24" above NG and above the crown of the nearest street (3) EC is required prior to framing/pouring lowest floor, when construction is completed and prior to CO. (4) Biggest problem is submitting a CRS application	LFA is a CFM	1	
Lampasses County		0	1	1	(1) New construction in SFHA must be setback from floodway boundary (2) Development in Zone X must be elevated a minimum of 1' above NG and above the crown of the nearest street (3)	LFA is a CFM	1	
Lancaster	1	*see notes			(1) Lowest floor must be elevated +1' BFE based on fully developed conditions (2) Detention is required to mitigate development in SFHA. (3) EC required before CO is issued. (4) Pre Development peak flows must be maintained. Downstream assessment is required using a 10% zone of influence.	LFA is a CFM	1	
Laredo	1	1			(1) Developer must conduct a study, based on fully developed wathershed conditions, to establish BFE and Floodway in Zone A areas (2) Both onsite and regional detention required to mitigate development impacts (3) Developer must setback from Floodway boundary and mitigate downstream impacts. (4) Ec required prior to placement/pouring lowest floor	LFA is a CFM	4	
League City	1.5	1.5	1.5	1.5	(1) All new construction must have a freeboard of 1.5 feet - above BFE in SFHA, above nearest adjacent BFE in shaded X zone, and 1.5' above highest natural grade or crown of street in X zone. (2) ECs are required at all 3 stages. (3) City is a no-rise community. (4) Cut and fill mitigation (grading) plan required. (4) Cumulative substantial improvements/damage over a 10-year period. (5) League City is a class 6 in CRS. (6) City has 9 CFM's on staff	LFA is a CFM	8	6
Leander	1	2	1	1	(1) Developer must conduct a study, based on fully developed wathershed conditions, to establish BFE in Zone A areas (2) Developer must construct detention, mitigate downstream impacts and setback from Floodway boundary (3) Biggest problem is educating the public	LFA is a CFM	1	
Leon County	1	1	1	0	(1) Developer must conduct a study, based on fully developed wathershed conditions, to establish BFE and Floodway in Zone A areas (2) Developer must mitigate downstream impacts (3) EC required prior to placement/pouring lowest floor, when construction is completed and prior to CO (4) Biggest problem is advertising the floodplain determination permit			
Leon Valley	1	1	0	0				
Levelland		0				1	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight					Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb				
Lewisville		2	0	0	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) Detention is required for new construction. (3) Developer must dedicate floodplain as drainage ROW (4) Zone AE must be dedicated as a Drainage R.O.W for new development and if the property is being platted. (5) City requires 100 year design for storm piping and street capacity. (6) EC is required when construction is completed and prior to CO. (7) Biggest problem is maintenance issues on privately owned floodplains and single family subdivisions	LFA is a CFM	2	7
Liberty	0	0	1	1	(1) Developer must conduct a study to define the Floodway in Zone A. (2) Detention is required for new construction. (3) Developer must provide detention and mitigate downstream impacts (4) EC is required prior to framing/pouring lowest floor, when construction is completed and prior to CO. (5) Biggest problem is educating the public	LFA is a CFM	1	
Liberty County		1			(1) New construction in Zone AE must be elevated a minimum of +1' BFE (2) New construction in Zone X (shaded and unshaded) must be elevated a minimum of 1.5' above natural grade or crown of the nearest street. (3) Developer must conduct a study to define BFE and Floodway in Zone A. (4) Detention is required for new construction. (5) EC is required prior to forming/pouring lowest floor and after structure is completed.	Co Eng is a CFM	1	
Little Elm	0	0	1.5	1.5	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) Detention is required for new construction. (3) No fill is allowed in floodplain or floodway without mitigation. (4) Setback from Floodway is required (5) EC is required prior to framing/pouring lowest floor.	LFA is a CFM	2	
Live Oak County	1	1	1	1	(1) Developer must conduct a study to define BFE in Zone A. (2) Onsite and regional Detention is required for new construction. (3) Developer must offset from Floodway boundary and mitigate downstream impacts (4) No fill is allowed in floodplain or floodway without mitigation. (5) In Zone X new construction must be elevated to street level (6) EC is required prior to forming/ placement of lowest floor and prior to CO. LFA is a CFM.	LFA is a CFM	1	
Live Oak		1			Live Oak is CRS 7		1	7
Llano		1	1	1	(1) Developer must conduct a study to define impact in Floodway and detention may be required. (2) Development in Zone X must be elevated a minimum of +1 above NG. (3) EC required prior to forming, when structure is completed an before CO.	LFA is a CFM	1	
Llano County	2	2			(1) No windows, doors or lighting in structures with level below BFE; (2) Elevation Certificates required prior to forming/pouring lowest floor, when construction is completed and prior to CO. (3) Developer is required to perform a study and define BFE in Zone A. (4) Pre-FIRM structures below BFE cannot be enlarged (footprint) even if not substantial improvement. (5) Fill must be compacted to 95% Proctor. (6) Two CFMs on staff		2	
Log Cabin		3			EC required when construction is completed			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Longview		2	0.5	0.5	(1) new construction must be elevated +2 feet in zone AE and +0.5 feet above surrounding grade in Zone X (3) Study required to define BFE and floodway in Zone A areas (4) EC required prior to forming/pouring lowest floor and when new construction is completed. (5) Developer's engineer required to certify adequate drainage capacity is available or provide detention.	LFA is a CFM	1	
Lubbock	1	1	1	1	(1) Lubbock has many Playa Lakes floodplains that must be treated as lakes not riverine floodways The lowest floor of new construction must be a minimum of 1' above crown of nearest street. In playa lake areas: new development must be elevated (a) a minimum of 1' above the BFE; (b) a minimum of 2' above the lake overflow or (c) a minimum of 1' above the 500-year level if the playa does not overflow during the 500-year event (2) Developer must conduct a study to establish new BFE's in Zone A's (3) In established subdivisions new construction must be elevated a minimum of 1' above BFE (3) In new subdivisions construction must be elevated a minimum of 0.5' based on fully developed watershed conditions (4) (5) City requires NAI regarding floodways = 0.0000'rise (5) In Zone X new development must be elevated a minimum of 1' above natural grade or above the crown of the nearest street (6) Drainage analysis, based on fully developed watershed conditions, is required for all new development (7) EC required before forming/pouring lowest floor and prior to CO. (8) Biggest problems are: SI/SD determinations; educating citizens and defending poor FIRM's.	LFA is a CFM	4	7
Lubbock County	1	1	1	1	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) Development in Zone X must be elevated a minimum of 1' above natural grade or crown of nearest street.	LFA is a CFM	1	
Lufkin	1	1			Developer must conduct a study to define BFE and Floodway in Zone A.	1	1	
Madison County		2						
Malakoff		3			EC required when construction is completed			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Mansfield	2	3	0	0	(1) Developer must conduct a study, based on fully developed watershed conditions, to define the BFE in Zone A areas (2) City has FEMA approved Flood and all-hazards Mitigation Plans (3) City has developed a Repetitive Loss Plan.(4) EC is required prior to forming/pouring lowest floor (5) City requires erosion setback adjacent to channels (6) City has adopted the NCTCOG iSWM Drainage Criteria Manual (7) Earthen channels must be constructed with 1' freeboard for 100-year flood flow and have 4:1 erosion setback from bottom of channel (minimum of 10' set back from top of bank) (8) Detention is required to mitigate any fill in floodplain and floodway (9)CLOMR required for fill in Floodway (10) City has successfully acquired nine properties using acquisition funding (11) Ultimate development studies completed on all FEMA channels in the City. (12) EC required for subdivisions that have fginish floors designated on Plat(13) Biggest problems are upgrading infrastructure and dealing with TxDOT regarding drainage design standards	LFA is a CFM	2	
Manvel		2	2		(1) New construction must be elevated +2' above BFE. (2) Developer most submit a study establishing the BFE and floodway in Zone A. (3) Any development in the floodway must include a "no rise" certificate. (4) No critical facilities allowed in the 500-year floodplain (5) No enclosures below the BFE. (6) New construction in Zone X (shaded) must be elevated +2' above natural grade or crown of the nearest street. In Zone X (unshaded) the requirement is +1.5' above natural grade or +1' above the crown of the nearest street, whichever is higher. (7) Detention is required to offset the impacts of proposed development. (8) EC required prior to forming and pouring lowest floor; after construction; and prior to CO. (9) Biggest problem is the Gulf Coast Water Authority has an elevated irrigation canal that causes much of our City to be in a floodplain, as it blocks the natural flow of water.	LFA is a CFM	2	
Marble Falls		1			studies required in un-numbered A for BFE and floodway/ no fill allowed in floodway without mitigation/ EC required at permit, prior to foundation, at completion and prior to CO/ interested in CRS/ FPA is CFM	LFA is a CFM	1	
Martindale		0	2	2	(1) Developer must conduct a study to define the BFE and detention may be required. (2) New construction in Zone X (shaded) must be elevated a minimum of 2 feet above natural grade or above the crown of the nearest street. (3) EC required prior to forming or pour lowest floor, when structure is completed and before CO.	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Matagorda County	0	2			(1) New development must be elevated a minimum of +2' above BFE. (2) No development allowed in the Floodway without an engineering study showing 0.00' rise (3) in Zone A the developer must conduct a study to define the BFE and Floodway before permit issued. As a minimum the new development must be 2' above natural grade. (4) +1' Freeboard required within unaccredited Town of Matagorda Levee (5) Developer must setback from Floodway boundary (6) EC required before forming/pouring lowest floor, when structure is completed and prior to final electric connection (7) Piling and breakaway wall certification required for construction in Zone VE (8) County has adopted cumulative substantial improvement ordinance requiring cumulative for a minimum of 5 years. (9) County has FEMA approved all-hazards and Flood Mitigation plans. (10) Problem is educating the public		1	
Maybank		3			EC is required when construction is completed			
McKinney	2	*see notes	2	2	(1) Developer must conduct a study, based on fully developed watershed conditions, to define the BFE and floodway. (2) Detention is required if erosive or capacity conditions exist downstream (3) Developer must mitigate downstream impacts (4) No net loss of valley storage allowed (5) Minimum finish floor must be shown on all Plats adjacent to the floodplain (6) EC required for CO (7) Problem protecting and rehabilitating NRCS structures/lakes	LFA is a CFM	5	
McLennan County	1	1	0	0	(1) Developer must conduct a study, based on fully developed watershed conditions, to define the BFE prior to permit in Zone A. (2) Detention is required (3) Developer must mitigate downstream impacts (4) EC required when construction is complete (7) Problem is studies by universities and others that do not agree with FEMA/FIS	LFA is a CFM	1	
Meadowlakes	1	1	1.5	1.5	(1) Developer must conduct a study to identify BFE and Floodway boundary in Zone A (2) In Zone X, new construction must be elevated 1.5' above natural grade or crown of nearest street. (3) EC required: before construction begins; when forms are in place (but before pour); after foundations complete; and prior to CO (4) No Rise certificate required for Floodway development	LFA is a CFM	1	
Medina County	1	1	1.5	0	(1) Developer must conduct a study to define BFE and floodway in Zone A prior to permit (2) On-site detention is required for new construction. (3) Developer must mitigate downstream impacts (4) 18" Freeboard required in all zones (4) EC is required prior to forming/pouring lowest floor and when construction is completed. (5) Biggest problem is County has numerous unstudied streams	LFA is a CFM	1	
Melissa	2	2	1	1	(1) Developer must conduct a study, based on fully developed watershed conditions, to define the BFE and floodway. (2) Detention is required (3) Developer must mitigate downstream impacts and setback fro Floodway boundary (4) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO (7) Problem is new development in Zone X		1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Mesquite	2	2' (see notes)	2	1	(1) Mesquite uses BFEs based on fully developed watershed conditions. (2) Mesquite requires developer to do an ultimate development (built out) model and keep finish floors 2' above this elevation. (3) Development in Zone X must be elevated a minimum of 2' in X shaded and 1' in X unshaded (4) On-site detention is required when site exceeds 10 acres (5) No fill is allowed in FP or FW without mitigation-no adverse impact (5) EC required prior to placing/pouring lowest floor and prior to CO (6) Two CFMs on staff.	LFA is a CFM	2	
Midland		1			Playas Lowest floor must be +1' above overflow elevation or BFE whichever is higher. No import of fill is allowed in Playas. This is difficult to enforce. Midland is CRS 8		1	8
Midlothian		2			City recently revised the ordinance to require new construction to be elevated a minimum of 2' above BFE			
Mills County		0						
Missouri City	1	1	1.5	1.5	(1) Developer must conduct a study to define the BFE and detention may be required. (2) New construction in Zone X must be elevated a minimum of 1.5 feet above natural grade or above the crown of the nearest street. (3) EC required for all new construction regardless of Zone and prior to forming, when structure is completed and before CO. (4) Missouri City is CRS 7 (4) City utilizes NAVD 1988 for EC's and new construction.	LFA is a CFM	1	7
Mont Belvieu	2	2	1.5	1.5	(1) Developer must conduct a study, based on fully developed watershed conditions, to define the BFE and floodway in Zone A areas. (2) Detention is required. (3) New construction in Zone X must be elevated a minimum of 1.5 feet above natural grade or above the crown of the nearest street. (4) EC required prior to forming/pouring lowest floor; when construction is completed and prior to CO.	LFA is a CFM	1	
Montgomery County	1	1	0	0	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) Detention is required (3) EC is required prior to framing/pouring lowest floor, when construction is completed and prior to CO (3) Biggest problem is unpermitted development throughout the county		3	
Nacogdoches		1						
Nassau Bay		2			Nassau Bay is CRS 7		1	7
Nederland	1.5	1.5	1	1	(1) Developer must conduct a study, based on fully developed watershed conditions, to define the BFE and Floodway (2) Detention is required. (3) New construction in Zone X must be elevated a minimum of 1' above natural grade or above the crown of the nearest street (4) EC required prior to forming/pouring lowest floor; when construction is completed and prior to CO. (3) One CFM on staff	LFA is a CFM	1	
New Braunfels		2			(1) Developer must mitigate downstream impacts (2) Detention is required. (3) EC required when construction is completed and prior to CO. (4) City developed Drainage Criteria Manual.(5) Biggest problem is flash flooding	LFA is a CFM	5	6
Newton County		1	0	0	(1) Developer must mitigate fill placement. (2) Onsite detention required (3) EC required prior to forming/placing lowest floor and prior to CO (3) Biggest problem is power company connecting unpermitted development	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
North Richland Hills		2'	1'	1'	(1) Developer must conduct a study to define BFE in Zone A before permit is issued (2) FF must be 2.0' above BFE. (3) CLOMR/LOMR required for all Zone "A" floodplain, subdivisions 5 acres and larger located in Zone "AE", and subdivisions with any proposed improvements in the floodway. (4) A separate ordinance governs Little Bear Creek which specifies no rise in ultimate BFE. (5) Developer must provide onsite detention and mitigate downstream impacts (6) In Zone X lowest floor must be 1' above curb at CL of lot or 1.5' above BFE whichever is higher (7) Two Elevation Certificates are required during construction - (1) with form board survey and (2) prior to issuance of CO. (8) Biggest problems is waiting for the RAMPP Team to release the new FIS/FIRMs. They have been pending for 4+ years	LFA is a CFM	2	6
Nueces County	1	1	1	1	(1) Fill placed in floodplain/floodway must be mitigated.(2) On-site detention required (3) EC required prior to forming/pouring lowest floor and when structure is completed.(4) Biggest problem is staffing			
Oak Ridge North		1	1	1	(1) Developer must conduct a study to define the BFE and Floodway (2) Detention is required (2) EC is required prior to forming/pouring lowest floor and when construction is completed (3) Biggest problem is substantial improvements to Pre-FIRM structures	LFA is a CFM	4	
Odessa		1	1	1	(1) Developer must conduct a study to establish both BFE and floodway in Zone A areas (2) Detention is required to mitigate development.(3) Developer must mitigate downstream impacts. (4) Development in Zone X must be elevated a minimum of 1' above NG and above the crown of the nearest street (5) EC required after construction is completed and prior to CO. (6) Biggest problems are determining the BFE for unnumbered A zones in already developed areas and localized flooding	LFA is a CFM	4	7
Orange County		0	18" see notes	18" see notes	(1) Developer must conduct a study to define BFE and floodway in Zone A prior to permit (2) Floodway setback is required (2) On site detention and setback from Floodway is required (3) In Zone X the County recommends elevating 18" to 24" above the crown of the nearest road (3) EC is required prior to forming/pouring lowest floor; when construction is completed; and prior to CO.	LFA is a CFM	3	
Palacios		1			(1) EC required prior to pouring lowest floor; when structure is complete; and prior to CO (2) City has FEMA approved all-hazard and Flood Mitigation Plans	LFA is a CFM	1	
Palestine		1	0.5	0.5	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) No fill is allowed in floodplain or floodway without mitigation (NAI) (3) Onsite and regional detention required (4) Developer must mitigate downstream impacts and setback from floodway boundary (5) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO. (6) Biggest problem is maintenance of culverts and channels in residential areas.	LFA is a CFM	1	
Pantego		2						
Paradise		2			New NFIP Community			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Parker County		2	2	2	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) No fill is allowed in floodplain or floodway without mitigation (NAI) (3) Onsite and regional detention required (4) Developer must setback from Floodway boundary and mitigate downstream impacts (5) Engineering study required to show no rise in BFE due to development (6) Development in Zone X must be elevated a minimum of 2' above NG or above the crown of the nearest street (7) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO.	LFA is a CFM	1	
Pasadena	1	1	1	1	(1) In Zone A developer must conduct a study to define BFE and floodway (2) One foot above the base flood elevation (BFE) for properties within the floodplain -Zone AE and (3) one foot above the centerline or crown of the neighboring street for properties outside the floodplain - Zone X. (4) Detention is required for any development of property with more than 1 acre in size to mitigate the impact of fill/development.(5) City follows Harris County Flood Control District's Design Criteria manual requiring on-site and regional detention and mitigation of downstream impacts. (6) EC required prior to framing/pouring lowest floor; when construction is completed; and prior to CO.(7) EC is also required in all Zone X areas. (8) Pasadena has 4 CFM's on staff. (9) Biggest problem is lack of funding to mitigate floodprone properties		4	5
Payne Springs		3			EC required when construction is completed			
Pearland		1			Pearland is CRS 7	LFA is a CFM	1	7
Pflugerville		0			City is CRS 7		1	7
Pinehurst	0	0	0	0	(1) Developer must conduct a study and define the BFE and floodway in Zone A (2) Onsite detention required (3) EC required prior to forming/pouring lowest floor, when structure is completed and prior to CO (5) biggest problem is education of developers and public	LFA is a CFM	1	
Planeview		1						
Plano	2	2	2	2	(1)Developer must conduct a study, based on fully developed watershed conditions, to identify BFE and Floodway (2) Detention is required for new construction. (3) Developer must setback from Floodway andmitigate downstream impacts (4) No residential construction allowed in floodplain (5) EC is required prior to forming/pouring lowest floor and when construction is completed. (6) City buying out properties that were in flood plain where possible. (7) Biggest problem is flood awareness	LFA is a CFM	4	5
Point Blank		0			(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) EC is required prior to forming/pouring lowest floor and prior to CO.	LFA is a CFM	1	
Point Venture	1	1	1	1	(1) Regional detention is required (2) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO.			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Polk County		1			(1) Developer must conduct a study to define BFE in Zone A (2) On site detention and setback from floodway boundary required. (3) Areas around Lake Livingston in Zone A requires EC. (4) County permits are withheld until EC has been submitted. (5) Electric service cannot be purchased until County has determined if property is in SFHA (6) Polk County has 1 CFM on staff.	LFA is a CFM	1	
Port Aransas	1	1	0	0	(1) City is a Zone V community (2) EC required before framing/pouring lowest floor and prior to CO (3) Biggest problem is hurricanes	LFA is a CFM	2	
Port Arthur		1	0	0	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) Detention is required for new construction. (3) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO. (4) Biggest problem is staffing	LFA is a CFM	3	9
Randall County	3	3			(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) Detention is required for new construction. (3) EC is required when construction is completed and prior to CO.			
Raymondville	1	1	2	2	(1) Developer must conduct a study to define BFE in Zone A. (2) Detention is required for new construction. (3) Developer must setback from Floodway and mitigate downstream impacts (4) New construction in Zone X must be elevated a minimum of 2' above natural grade or crown of nearest street. (4) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO.	LFA is a CFM	1	
Regugio County	0	0	2	2				
Richardson	2	2	1	1	(1) Developer must conduct a study to define BFE in Zone A.(2)Developer must mitigate downstream impacts (3) Detention may be required (4)Manufactured homes must be elevated +2' above fully developed BFE (5) City has adopetd IBC 2015 (6) Fence permits required. Fences not allowed in Floodway and restricted in SFHA (7) Developetr must setback from floodway boundary (8) City regulates overflow at low point in lots. (9) No rise in BFE is allowed (10) EC is required when construction is completed and prior to CO (11) Biggest problems are redeveloping with existing drainage problems; undersized downstream capacity and channel erosion	LFA is a CFM	3	7
Richmond	1.5	1.5	1.5	1.5	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) Detention, mitigation of downstream impacts, and Floodway setback is required for new construction. (3) New construction in Zone X must be elevated a minimum of 1.5' above natural grade or crown of nearest street. (4) Mobil homes must be elevated so that the bottom of horizontal structural members are above BFE (5) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO.	LFA is a CFM	1	(*)

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Richland Hills		1	0	0	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) New development is encouraged to be elevated +2' above BFE (3) EC is required when construction is completed and prior to CO. (4) Richland Hills has a FEMA approved all Hazards Mitigation Plan (5) Biggest problem is large number of Pre-FIRM structures in community experiencing higher flood insurance premiums due to BW12 and HFIAA			8
Rockport	0	1.5	1	1	(1) Detention is required (2) EC required prior to CO (3) Biggest problems are: transitioning to higher floodplain management standards; resistance to freeboard requirements ; and historic waterfront structures downtown	LFA is a CFM	1	
Rockwall	2	2	0	0	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) Detention and mitigating downstream impacts is required for new construction. (3) EC is not required (4) Biggest problem is building or rebuilding on vacant lots and fences in SFHA	LFA is a CFM	1	
Round Rock	2	2	0	0	(1) Developer must conduct a study, based on fully developed conditions, to define BFE in Zone A. (2) Developer must mitigate downstream impacts and set back fro floodway (3) Biggest problem is floodplain encroachment	LFA is a CFM	1	
Rowlett		2	2	2	(1) Developer must conduct a study to identify BFE and floodway in Zone A. (2) New construction in Zone X Shaded must be elevated a minimum of 2 feet above NG or nearest street. (3) Detention is required except for lots in excess of 1 acre or proof submitted that no negative impact on the existing storm drainage system (4) Floodway setback is required for new development (5) Builders required to submit a Lot Grading Plan as part of permit request. (6) Survey or EC is required prior to pouring lowest floor of new construction. (7) EC required when structure is completed and prior to CO. (8) As Built sealed by a RPLS is required when structure is completed	LFA is a CFM	1	
Royce City	2	2			(1) Developer must conduct a study to define BFE and Floodway in Zone A for both existing and fully developed conditions. (2) Detention is required for new construction. (3) EC is required prior to forming/pouring lowest floor; when construction is completed and prior to CO.			
Sachse		2			(1) Detention is required (2) EC required prior to forming/pouring lowest floor	LFA is a CFM	1	
Saginaw		2			EC required when construction is completed			
Saledo		0	2	2	(1) Developer must conduct a study to define BFE in Zone A (2) Detention is required for new construction. (3) Fill cannot be used to reclaim any area in SFHA or Floodway (4) Developer must mitigate downstream impacts (5) EC is required prior to forming/pouring lowest floor; when construction is completed and prior to CO. (6) Biggest problem is property owners wanting to fill within the floodplain to construct new residential improvements.	LFA is a CFM	1	
San Angelo		1			Lowest Floor elevated +1' above BFE on FIRM			

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
San Antonio		2			(1) Developer must conduct a study to define BFE and Floodway in Zone A (2) No habitable structures allowed in floodplain (3) Non-residential structures in floodplain and adjacent to floodplain must be elevated +1' above ultimate development BFE (4) Reclamation of floodplain is not allowed when drainage area is greater than 320 acres (5) Ponding depth in parking lots in SFHA cannot exceed 6 inches (6) City acquires Repetitive Loss structures and structures that have been substantial damaged (7) New DFIRMs will show floodplain boundaries based on ultimate development (8) City enforces cumulative building addition and substantial improvements over a 10-year period (9) All development must demonstrate no adverse flooding impact to 2000 feet downstream of development (10) Detention required to mitigate adverse impacts (10) EC required when construction is complete and prior to CO (11) Biggest problem is regional and localized flooding	LFA is a CFM	6	
Sanger	2	2	2	1	(1) Developer must conduct a study, based on fully developed watershed conditions, to define BFE and floodway in Zone A. (2) City requires onsite detention (3) EC required prior forming/pouring lowest floor (4) Biggest problem: development encroaching on SFHA	LFA is a CFM	1	
San Jacinto Co.	2	2	0	0	(1) Developer must conduct a study to define BFE and Floodway in Zone A. (2) Developer must setback from floodway boundary (3) County requires Elevation Certificate prior forming/pouring lowest floor (4) Biggest problem: CFM needed to administer the program		0	
San Marcos		1			(1) Developer must establish BFE and floodway boundary in Zone A (however the only Zone A areas are unpopulated) (2) Detention is required (3) City requires Elevation Certificate prior forming/pouring lowest floor; when construction is completed and prior to CO. (4) San Marcos is CRS 7; Four (4) CFM's on staff	LFA is a CFM	4	7
San Patricio Co.	1.5	1.5	1.5	1.5	San Patricio County requires all development, regardless of zone, to be elevated a minimum of 18" above NG. (1) Developer must conduct a study, based on fully developed watershed conditions, to define BFE and Floodway in Zone A. (2) Detention is required for new construction. (3) Developer must setback from Floodway and mitigate downstream impacts (NAI) upstream and downstream. (4) Development in Zone X must be elevated a minimum of 18" above NG or the crown of the nearest street (5) EC is required when construction is completed and prior to CO. (6) Biggest problem is citizen compliance with Court Orders	LFA is a CFM	3	
San Saba County		0			(1) Developer must conduct a study to define BFE and floodway in Zone A. (2) EC required prior to framing/pouring lowest floor (3) Biggest problem is enforcing the Court Order with minimal penalties	LFA is a CFM	1	
Santa Fe	1	1			(1) Developer must conduct a study to define BFE and floodway in Zone A. (2) Detention is required (3) EC required when construction is completed and prior to CO	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Schertz		1	0	0	(1) Developer must establish BFE in Zone A (2) Developer must mitigate downstream impacts and setback from floodway boundary (3) City has adopted cumulative loss requirement (4) City requires Elevation Certificate prior forming/pouring lowest floor; when construction is completed and prior to CO. (4) Biggest problem: City needs funding for a LFA dedicated to the FPM program	LFA is a CFM	7	
Seabrook		1.5	BFE + 1.5'	BFE + 1.5'	(1) Developer must conduct a study to define BFE and Floodway prior to permit (2) New construction in Zone X must be elevated a minimum of 1.5' above the adjacent A Zone BFE (2) No fill allowed in floodway. (3) City requires Elevation Certificates prior forming/pouring lowest floor; when construction is completed and prior to CO. (4) Biggest problem: Pre FIRM structures below BFE	LFA is a CFM	4	7
Seagoville		2			EC required when construction is completed			
Sealy	1	1	1.5	1.5	(1) New construction must be elevated: +1' above BFE; 12" above curb; or 18" above natural grade whichever is higher. (2) Developer must conduct H&H study to define BFE in Zone A. (3) Detention is required to mitigate the impact of development in SFHA. (4) New construction in Zone X must be elevated a minimum of 18" above NG or 12" above curb whichever is higher. (5) EC required prior to forming/pouring lowest floor; after construction and prior to CO.(6) "Zero Rise" downstream of development in Allen's Creek watershed. (7) City has GIS mapping available on line.	LFA is a CFM		
Seguin	1	1	1	1	(1) Developer must conduct a study to define BFE and Floodway in Zone A for both existing and fully developed conditions. (2) Detention is required for new construction. (3) Developer must mitigate downstream impacts and offset from floodway boundary (4) Fences constructed in Floodway must be breakaway and cabled to prevent floating away (5) EC is required prior to forming/pouring lowest floor; when construction is completed and prior to CO. (6) City offers FPM training for contractors (7) Biggest problem: substantial improvement to structures in the floodway	LFA is a CFM	3	
Selma		0	1	1	(1) Detention is required (2) EC required prior to forming/pouring lowest floor, when construction is completed and prior to CO (3) Biggest problem is recordkeeping	LFA is a CFM	1	
Seven Points		3						
Shepherd		0			(1) Developer must conduct a study to define BFE in Zone A prior to permit (2) EC is required prior to forming/pouring lowest floor and prior to CO.	LFA is a CFM	1	
Sherman	2	2	0	0	(1) Developer must conduct a study to define BFE in Zone A prior to permit (2) On-site detention is required for new construction. (3) No fill is allowed in SFHA without mitigation (4) EC is required prior forming/pouring lowest floor. (5) Biggest problem is funding	LFA is a CFM	2	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Shoreacres		2	NA	NA	(1) Shoreacres is a coastal community (2) Non-city structures must be elevated +2' above BFE. (3) City structures and projects must be elevated +3' above BFE. (4) The entire city is either Zone AE or VE and no Zone X areas. (5) City identified a Storm Surge Zone" where no fill without a special permit and structures must be built to Zone V standards (6) No construction on fill allowed (7) EC required prior to framing/pouring lowest floor; when construction is completed; and prior to CO.	LFA is a CFM	1	9
Simonton		1	1	1	1 foot above BFE or 1 foot above street elevation whichever is higher. Elevation Certificate is required after construction.	Pending change - Elevation Certificates will be required - before pour or lowest floor framed in and after construction.		
Slaton		1			City of Lubbock provides technical assistance			
Smith County		2	2	2	(1) Onsite detention required - No fill in floodplain or floodway without mitigation. (3) Developer must mitigate downstream impacts and setback from the floodway boundary (4) EC is required prior to forming/pouring the lowest floor, when construction is completed and prior to CO. (5) Biggest problem is politics and backing county staff.	LFA is a CFM	2	
Southlake	2	2	0	0	(1) Developer must conduct a study (existing and fully developed conditions) to define the BFE and floodway in Zone A prior to permit (2) On-site detention is required for new construction. (3) No fill is allowed in SFHA without mitigation (4) No fill allowed in floodway (5) Developer must mitigate downstream impacts of development	LFA is a CFM	3	
Southside Place		0			1 or 1.5			
Spring Valley		1	1	1	(1) Developer must conduct a study to define BFE in Zone A. (2) City must comply with HCFCD higher standard requirements (3) No fill in floodplain or floodway without mitigation. (3) New construction in Zone X must be elevated a minimum of 1.0' above natural grade or crown of nearest street. (4) EC is required before framing/pouring lowest floor; when construction is completed; and prior to CO.	LFA is a CFM	1	
Stafford		1.5			(1) Critical Facilities must be elevated 3' above the BFE or to the 500-year flood elevation whichever is higher.			
Star Harbor		3			EC required when construction is completed			
Stephenville		0	1	1	(1) Developer must conduct a study to define BFE in Zone A. (2) No fill in floodplain or floodway without mitigation (detention). (3) New construction in Zone X must be elevated a minimum of 1.0' above natural grade or crown of nearest street. (4) EC is required before framing/pouring lowest floor and prior to CO.	LFA is a CFM	2	
Sugarland		1' above top of curb or 1' above elevation in front of house whichever is greater, regardless of BFE	1.5	1.5	(1) Developer must conduct a study, based on fully developed watershed conditions to define floodway in Zone A (2) Developer must provide onsite detention and mitigate downstream impacts (3) EC required prior to framing/pouring lowest floor (4) Sugarland is a FEMA Cooperative Technical Partner (CTP) (5) Biggest problem: overlapping authority with LID's	LFA is a CFM	4	7

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Sunset Valley	1	1	0	0	(1) Developer must conduct a study, based on fully developed watershed conditions, to define BFE and floodway in Zone A (2) EC required prior to pouring lowest floor (3) Biggest problem is water in homes	LFA is a CFM	2	8
Sweetwater		0			Sweetwater is CRS 9		1	9
Tarrant County		2	0	0	(1) Work in floodplain may require a engineering study to ensure adjacent property owners won't be affected by construction and/or development in the floodplain. This is determined on a case by case basis and is applicable to all zones. (2) Strict compliance to "no rise" in FW (3) On-site detention and mitigation of downstream impacts is required (4) EC required when structure is completed. (5) Approval of CRS application is pending (6) Biggest problem is educating developers and citizens on floodplain management and obtaining a permit prior to construction.	LFA is a CFM	1	
Taylor Lake Village		0			Taylor Lake Village is CRS 10			10
Temple		1			(1) Developer must conduct a study to define BFE in Zone A. (2) No fill in floodplain or floodway without mitigation (detention). (3)Setback from floodway boundary required	LFA is a CFM	7	
Terrell		2			(1) City has posted FIRM's and Preliminary DFIRM's on website in GIS format (2) EC required when construction is completed.			
Texarkana	1	1			(1) In Zone A the developer must submit a study, based on fully developed watershed conditions, showing BFE and Floodway. (2) No development allowed in the floodway(3) Developer must mitigate downstream impacts (4) EC required when construction is completed and prior to issuing CO.(5) Three (3) CFM's in PW department	LFA is a CFM	3	
The Colony	2	2	0	0	(1) Developer must conduct a study, based on fully developed watershed conditions, to establish the BFE and floodway in Zone A, (2) No development allowed in the floodway. (3) Drainage study required for Zone X development (4) Developer must provide detention, mitigate downstream impacts and setback from Floodway (5) Elevation certificate required prior to CO, (4) Cannot increase velocities above 6 fps.(5) Biggest problem is streambank erosion and flooding in low lying areas		1	
Tiki Island	1	1			(1) Developer must establish BFE in Zone A. (2) EC is required prior to framing/pouring lowest floor, when construction is completed and prior to CO.	LFA is a CFM	1	8
Tomball		1.5	1	1	(1) Developer must conduct a study to define BFE and floodway in Zone A (2) Lowest floor of new construction must be a minimum of 12" above nearest roadway centerline or top of rim of nearest sanitary or storm sewer manhole, whichever is highest. (3) Both on-site and regional detention is required. (4) Developer must setback from Floodway (5) City has adopted flood hazard maps with ponding areas identified in Zone X and new construction in ponding areas must be elevated above the ponding elevation (6) EC required prior to pouring lowest floor, when construction is completed and before CO. (4) City has Impact Fee System (5)	LFA is a CFM	2	
Tom Green County		0			(1) Developer must establish BFE in Zone A. (2) Developer must mitigate all fill placed in floodway. (3) EC is required prior to framing/pouring lowest floor, when construction is completed and prior to CO. One (1) CFM on staff	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Travis County		1	1	1	(1) Developer must establish BFE in Zone A. (2) Developer must mitigate all fill placed in floodway. (3) Development in Zone X must be elevated a minimum of 1' above NG and crown of nearest street (4) EC is required when construction is completed and prior to CO.	LFA is a CFM	1	
Tyler	1	1	0.5	0.5	(1) New construction must be elevated the higher of +1' existing conditions or +1' fully developed conditions. (2) Developer must conduct a study to establish floodway and BFE based on both existing and fully developed conditions. (3) EC required prior to forming/pouring lowest floor; when construction is complete and prior to CO. (4) A 6% City Storm Water Management surcharge added to water/sewer bills.	LFA is a CFM	5	
Tyler County	1	2			(1) Developer must establish BFE and floodway in Zone A. (2) Developer must mitigate downstream impacts (3) EC is required prior to forming/pouring lowest floor and prior to CO.			
University Park	0	0	0	0	(1) University Park is a fully developed community (must tear down something to build anything new). (2) There is a maximum impermeable surface limit per lot regulation.(3) In all zones new development must match grade of adjacent properties.(4) On site detention required and developer must mitigate downstream (offsite) impacts and setback from Floodway (5) EC required prior to forming/pouring lowest floor; when construction is complete and prior to CO (6) City has installed a Collapsible dam structure (7) Biggest problem is undersized storm sewers and localized flooding	LFA is a CFM	1	
Uvalde		2	2	2	(1) New construction must be elevated a minimum of 2' above BFE. (2) Developer must conduct a study to establish the BFE and floodway in Zone A based on existing watershed conditions (3) No fill in floodway without mitigation. (4) In Zone X new construction must be elevated 2' above natural grade or crown of nearest street (5) EC required prior to framing/pouring lowest floor.			
Ushler County		2			Revised ordinance in 2010			
Van Zant County		2			Revised ordinance in 2010			
Victoria	0	1 (see notes)	2	2	(1) City Drainage ordinance requires 1' freeboard (2) Developer must establish BFE and Zero rise Floodway in Zone A. (3) Detention and mitigation of downstream impacts is required. (4) Residential development in all <u>Zone X (shaded and non-shaded)</u> must be elevated a minimum of 30' above gutter and 24' above the crown of the nearest street. (5) Non-residential development in <u>Zone X</u> (shaded and non-shaded) must be elevated a minimum of 20" above gutter and 12" above the nearest street. (5) EC is required after construction is completed and before CO. (6) City Storm drainage Criteria Manual requires elevation of both slab and pier and beam structures and lot grading above BFE. (7) Biggest problems are funding for map revisions and Zone A development	LFA is a CFM	8	
Victoria County		0			(1) Developer must establish BFE and floodway in Zone A. (2) Detention required - Developer must mitigate all fill placed in SFHA and floodway. (3) EC is required prior to forming/pouring lowest floor, when construction is completed and prior to CO. One (1) CFM on staff	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Waco		1						
Waller		1						
Waller County	1.5	1.5			(1) Developer must establish BFE in Zone A. (2) Developer must mitigate all fill placed in floodway. (3) EC is required before forming/pouring lowest floor and when construction is completed.			
Washington County		0	0	0	(1) Developer must mitigate downstream impacts (3) EC is required before forming/pouring lowest floor and when construction is completed. (4) Biggest problem is community buyin to floodplain management program and the NFIP	LFA is a CFM	2	
Waxahachie		1	0	0	(1) Developer must establish BFE and floodway in Zone A. (2) Developer must provide onsite detention and mitigate downstream impacts (3) EC is required prior to CO. (4) Biggest problem is lack of H&H based on fully developed conditions	LFA is a CFM	1	
Weatherford	2	2	0	0	(1) Developer must conduct a study, based on fully developed watershed conditions, and establish BFE and floodway in Zone A (2) Developer must mitigate downstream impacts (detention required) (3) EC is required when construction is completed. (4) Drainage study required with development that exceeds 5,000sf impervious cover. (5) Biggest problem is erosion.	LFA is a CFM	2	
Webb County	1	1			(1) Developer must conduct a study, based on fully developed watershed conditions, to identify BFE and Floodway boundary in Zone A. (2) Developer must mitigate all fill placed in floodplain and floodway. (3) Both onsite and regional detention required (4) Developer must setback from Floodway boundary and mitigate downstream impacts (5) EC is required before forming/pouring lowest floor; when construction is completed; and prior to CO. (6) County withholds public utility connections until structure is compliant with FP development requirements (7) Four (4) CFM's on staff	LFA is a CFM	4	
Webster		1						
Weslaco	1	1	1.5	1.5	(1) Developer must conduct a study to identify the BFE in Zone A. (2) Developer must mitigate all fill placed in floodplain and floodway. (3) Detention and setback from Floodway is required for new construction (4) EC is required before forming/pouring lowest floor; when construction is completed; and prior to CO. (6) City requires dedication of floodplain 75' from channel centerline (7) Biggest problem is the out of date 1980 FIRM	LFA is a CFM	1	(*)
Westlake	2	*see notes			EC or report must be submitted by a PE demonstrating permit compliance.			
West Lake Hills		+1 recommended			City adopted Standard Ordinance but recommends that new construction be elevated +1 above BFE			
West Orange		1			Developer must establish BFE and Floodway in Zone A. EC is required before CO.			
West University Place		0			(1) mitigation required for fill placed in floodplain and floodway (2) EC required prior to forming/pouring lowest floor and prior to CO	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Wharton	1	1	1	1	(1) Developer must conduct a study to identify the BFE in Zone A. (2) New construction in Zone X must be +1' above curb or adjacent grade whichever is higher. (2) Detention required to mitigate fill/development (3) Developer must mitigate downstream impacts and setback from Floodway boundary (4) City limits cumulative impact requirements by ordinance (5) Drainage plan required for new development that meets Wharton County Drainage Criteria (6) EC required prior to forming; when structure is completed and prior to CO. (7) Wharton has FEMA approved all hazards and Flood Mitigation plans. (8) Biggest problem is substantial improvement of structures below BFE	LFA is a CFM	2	8
Wharton County	0	0	See notes	See notes	(1) Detention required in new subdivisions. (2) EC required prior to pouring lowest floor and when structure is completed. (3) FP Permits are cross referenced to 911 Addressing. (4) Wharton County has a county wide drainage plan with BFE's established in most Zone A areas (5) County requires a drainage study for all commercial development in SFHA (6) County enforces NAI in Floodway (7) County recommends +18" in Zone X (8) Biggest problem is Hurricane Harvey recovery due to a large number of substantially damaged structures	LFA is a CFM	1	
Wichita County		1	0	0	(1) Developer must establish floodway and BFE in Zone A. (2) Developer must mitigate downstream impacts (3) EC required before forming/pouring lowest floor (4) 911 address must be assigned prior to permit. (5) Public Works must verify road culvert size and oversee installation. (6) County requires a PE letter of compliance that the structure was built as per permit (7) County has approved Mitigation Plan. (8) Biggest problem is enforcement	LFA is a CFM	1	
Wichita Falls	1	1	1	1	(1) Developer must conduct a study to identify the BFE in Zone A. (2) Detention is required for residential in excess of 2 acres and commercial in excess of 1 acre. (3) Developer must mitigate downstream impacts (4) Manufactured Home restrictions in SFHA (5) EC required when construction is complete and prior to CO. (6) Biggest problems are enforcement and development pressures for floodprone properties	LFA is a CFM	1	8
Williamson County		1	1	1	(1) No fill allowed in SFHA w/o mitigation. (2) Community enforces cumulative impact limitations over a 5 year period (3) Onsite detention required (4) Developer must mitigate upstream and downstream impacts of development. (5) New construction in Zone X must be elevated 1' above natural grade or crown of nearest street (6) Plats that include a SFHA with DA in excess of 64 acres must show 100-year boundary. (7) EC is required when structure is completed. (8) Biggest problem is regulating development in Zone A without BFE	LFA is a CFM	3	
Willis		0	1	1	(1) Developer must establish floodway and BFE in Zone A (2) Onsite Detention is required. (3) Developer must mitigate any downstream impacts (4) Development in Zone X must be elevated a minimum of +1' above NG or crown of nearest street (5) EC required before forming/pouring lowest floor, when construction is complete and prior to CO.	LFA is a CFM	1	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
Wilson County		2	2	2	(1) Developer must conduct a study to identify the BFE in Zone A. (2) Detention and mitigation of downstream impacts is required. (3) Developer must mitigate downstream impacts (4) No critical facilities allowed in SFHA and 500-year floodplain (5) Subdivisions and mobile home parks located in the SFHA must have elevated access roads (6) EC required prior to forming/pouring lowest floor and when construction is complete. (6) Biggest problem is development without a permit	LFA is a CFM	1	
Wise County	2	2	0	0	(1) Developer must conduct a study based on fully developed conditions to establish BFE and floodplain boundary in Zone A (2) Detention is required in Development Rules and regulations (3) Developer must prevent post development runoff from exceeding predevelopment runoff (4) Maximum allowable increase in BFE is 0.1' in SFHA	LFA is a CFM	1	
Woodville		1						
Yoakum		1			(1) Developer must establish floodplain and BFE in Zone A (2) EC required when structure is completed and prior to CO (3) two CFMs on staff	LFA is a CFM	2	
Higher Standard Surveys submitted by others:								
TxDOT Amarillo District	NA	NA	NA	NA	Biggest issue: Letting communities know that developers must mitigate impact to TxDOT Facilities. TxDOT has the right to control developers' outfall onto or across TxDOT ROW. TxDOT's rules follow Title 43 of Texas Administrative Code.		Several	
MPO/Colleen Russell	2	1	2	3	(1) Developer must conduct a study to identify BFE and Floodway boundary in Zone A. (2) Developer must mitigate downstream impacts. (3) Onsite detention required (4) Developer must setback from Floodway boundary (5) EC is required before forming/pouring lowest floor; when construction is completed; and prior to CO. (6)Biggest problem is no inlets	LFA is a CFM		
Texas DEM					Biggest problems in Texas: Lack of mitigation efforts and lack of dam inundation studies.	Planner is CFM	4	
US Dept of Health		2	0	0	(1) Requirements apply to hospitals and health care facilities constructed by US Department of Health and Human Services (2) Study required to establish BFE and floodway in Zone A (3) Detention, mitigation of downstream impacts and setback from floodway boundary is required. (4) Evacuation route planning required for each facility (5) EC required prior to forming/pouring lowest floor, when construction is completed and prior to CO (6) Biggest problem is construction in remote area (Zone A without BFE)	PM is CFM	1	
Meyerland HOA	2	2'	3 see notes	3 see notes	(1) Harris County requirements apply (2) HOA requires development in Zone X to be elevated +2' (5 acres or less) and +3' (2 acres or less)	Consultant is CFM		

2018 TFMA Higher Standards Survey Summary:

331 responses were received (There are 1,243 Texas communities enrolled in the NFIP)	
282 (85%) of communities that responded have adopted a "Freeboard" ordinance requiring new construction to be elevated 1' or more above BFE.	
145 (44%) of communities that responded require that new construction be elevated above the BFE based on "fully developed" watershed conditions.	
127 (38%) of communities that responded require freeboard in Zone X (shaded) 500-year floodplain	
123 (37%) of communities that responded require freeboard in Zone X (unshaded) outside the 500-year floodplain	
159 (48%) of communities that responded require on-site or regional detention to mitigate development impacts	

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight					Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb				
242 (73%) of communities that responded have a CFM on staff.								
582 CFMs are on staff of the 325 communities that responded to the survey (1.8 CFM per community)								
63 Texas communities (58 cities and 5 counties) participate in CRS (5.1% of Texas 1,240 NFIP communities)								
74 (29%) Texas Counties responded to the survey (254 counties)								
Thank you for participating in the 2018 TFMA "Higher Standards" Survey.								

Date of Survey: - The information in this spreadsheet includes all survey responses received from 2004 through 2018
2018 Survey conducted by TFMA using Survey Monkey (Feb 2018-April 2018) XXX surveys received via Survey Monkey
2017 Survey conducted by TFMA using Survey Monkey (March 2017-April 2017) 49 surveys received via Survey Monkey
2016 Survey conducted by TFMA using Survey Monkey (July 2016-August 2016) 107 surveys received via Survey Monkey
2015 Survey conducted by TFMA using Survey Monkey (Jan 2015-Oct 2015) 140 surveys received via Survey Monkey
2014 Survey conducted by TFMA using Survey Monkey (Jan 2014-Aug 2014)
2013 Survey conducted by John Ivey, PE, CFM, Roy Sedwick, CFM and Mike Segner, CFM (Jan 2013-May 2013)
2012 Survey conducted by John Ivey, PE, CFM, Roy Sedwick, CFM and Mike Segner, CFM (Jan 2012-Apr 2012)
2011 Survey conducted by John Ivey, PE, CFM, Roy Sedwick, CFM and Mike Segner, CFM (Feb-Apr 2011)
2010 Survey conducted by John Ivey, PE, CFM, Roy Sedwick, CFM and Leon Curtis, PE, CFM (Apr-Jun 2010)
2009 Survey conducted by John Ivey, PE, CFM, Mike Howard, CFM, Roy Sedwick, CFM, Heidi Carlin, CFM and Rachel Powers (Feb-Jul 2009)
2008 Survey conducted by John Ivey, PE, CFM, Mike Howard, CFM, Roy Sedwick, CFM and Heidi Carlin, CFM (Jan-Apr 2008)
2007 Survey conducted by John Ivey, PE, CFM, Mike Howard, CFM, Roy Sedwick, CFM and Lochen Wood, CFM (Mar-Jun 2007)
2006 Survey conducted by John Ivey, PE, CFM, Roy Sedwick, CFM and Lochen Wood, CFM (Mar/Apr 2006)
2005 Survey conducted by John Ivey, PE, CFM and Roy Sedwick, CFM, including initial findings by Charlie Hastings, PE, CFM
2004 Survey conducted by Charlie Hastings, PE, CFM, City Engineer, City of Kerrville, Texas via e-mail over a two day period (6/23/04 - 6/24/04)

Higher Standard Surveys were received via Survey Monkey in 2017		----->	Communities submitting surveys in 2018 for the first time
Acronyms			Wilson County
AE Zone	FEMA designated zone inundated by 100-year flood (1% chance flood)		McLennan County
AIA	American Institute of Architects		Melissa
ASFPM	Association of State Floodplain Managers		Liberty
ASFPM	Association of State Floodplain Managers		Leander
B Zone	FEMA designated zone inundated by 500-year flood (now Zone X shaded)		Port Aransas
BFE	Base Flood Elevation		Cedar Hill
BRA	Brazos River Authority		US Dept Health & Human Services
BW12	Biggert Watters 2012 NFIP Reform Act		Meyerland HOA
C Zone	FEMA designated zone outside of the 500-year flood (now Zone X unshaded)		
CBRA	Coastal Barrier Resource Act - EO11990		Communities submitting surveys in 2017 for the first time
CDBG	Community Development Block Grant (HUD)		Edgecliff Village
CFM	Certified Floodplain Manager		Grayson County
CFS	Cubic Feet per Second (i.e.stream discharge)		Lake Shores
CLOMR	Conditional Letter of Map Revision		Weslaco
CO	Certificate of Occupancy		MPO?
COE	US Army Corps of Engineers - USACE		TxDOT Amarillo District
CRS	Community Rating System		Pitstop, Montana???
CTP	Cooperative Technical Partner (with FEMA)		
DA	Drainage Area (usually measured in square miles)		Communities submitting surveys in 2016 for the first time
DEM	See TDEM - Texas Division of Emergency Management (Texas)		Austin County
DFIRM	Digital Flood Insurance Rate Map		Belton
DHS	Department of Homeland Security		Dayton
EC	Elevation Certificate (FEMA form)		Ellis County
ESA	Endangered Species Act		Holiday Lakes
FEMA	Federal Emergency Management Agency		Village of the Hills
FMA	Flood Mitigation Assistance (grant program)		Hunter's Creek Village
FPS	Feet per Second (i.e.floodway velocity)		Leon Valley
FFRMS	Federal Flood Risk Management Standard - EO 13690		Rockwall
GLO	Texas General Land Office		Rockport
			Refugio County

TFMA 2018 Higher Standards Survey (Freeboard = Finished Floor Elevation above BFE)

3/13/2018

Higher Standard Surveys received via Survey Monkey in 2018 = Yellow Highlight								
City or County Name	Feet above Fully Developed BFE	Feet above Existing BFE	Zone X(B) (Shaded) above street or curb	Zone X(C) (Unshaded) above street or curb	Special Notes	Is LFA a CFM?	CFM's on staff	CRS Rating
HAG	Highest Adjacent Grade				Schertz			
HEC	Hydrologic Engineering Center (U S Army Corps of Engineers)				Waxahachie			
HEC RAS	Hydrologic Engineering Center River Analysis System							
HFIAA	Homeowners Flood Insurance Affordability Act - NFIP Reform Act 2014				Communities submitting surveys in 2015 for the first time			
HMGP	Hazard Mitigation Grant Program				Alice			
IA	Individual Assistance (disaster recovery)				Aransas Pass			
LAG	Lowest Adjacent Grade				Bee Cave			
LCRA	Lower Colorado River Authority				Cuero			
LFA	Local Floodplain Administrator				Ennis			
LOMA	Letter of Map Amendment				Hutchins			
LOMC	Letter of Map Change				Keene			
LOMR	Letter of Map Revision				University Park			
NAI	No Adverse Impact				Bosque County			
NAVD	North American Vertical Datum				Chambers County			
NFIP	National Flood Insurance Program				Dallas County			
NG	Natural Grade (Natural Ground Elevation)				Harden County			
NGVD	National Geological Vertical Datum (1929)				Hood County			
NRCS	Natural Resources Conservation Service				Leon County			
PA	Public Assistance (disaster recovery funding)				Jackson County			
PE	Professional Engineer				Newton County			
Q100	Flood Discharge from the 100 year flood							
RPLS	Registered Public Land Surveyor							
SFR	Single Family Residential							
SFHA	Special Flood Hazard Area							
TCRFC	Texas Colorado River Floodplain Coalition							
TFMA	Texas Floodplain Management Association							
TWDB	Texas Water Development Board							
TDEM	Texas Division of Emergency Management (Texas)							
X Zone shaded	FEMA designated zone inundated by 500-year flood (former B Zone)							
X Zone unshaded	FEMA designated zone outside of the 500-year flood (former C Zone)							

**APPENDIX 3-E
BIBLIOGRAPHY**

CHAPTER 3. FLOODPLAIN MANAGEMENT PRACTICES AND FLOOD PROTECTION GOALS

“Planning Risk Assessment for Flood Risk Management Studies.” U.S. Army Corps of Engineers, July 17, 2017,
https://www.publications.usace.army.mil/Portals/76/Publications/EngineerRegulations/er_1105-2-101.pdf.

“Subdivision.” FEMA, July 8, 2022, <https://www.fema.gov/glossary/subdivision>

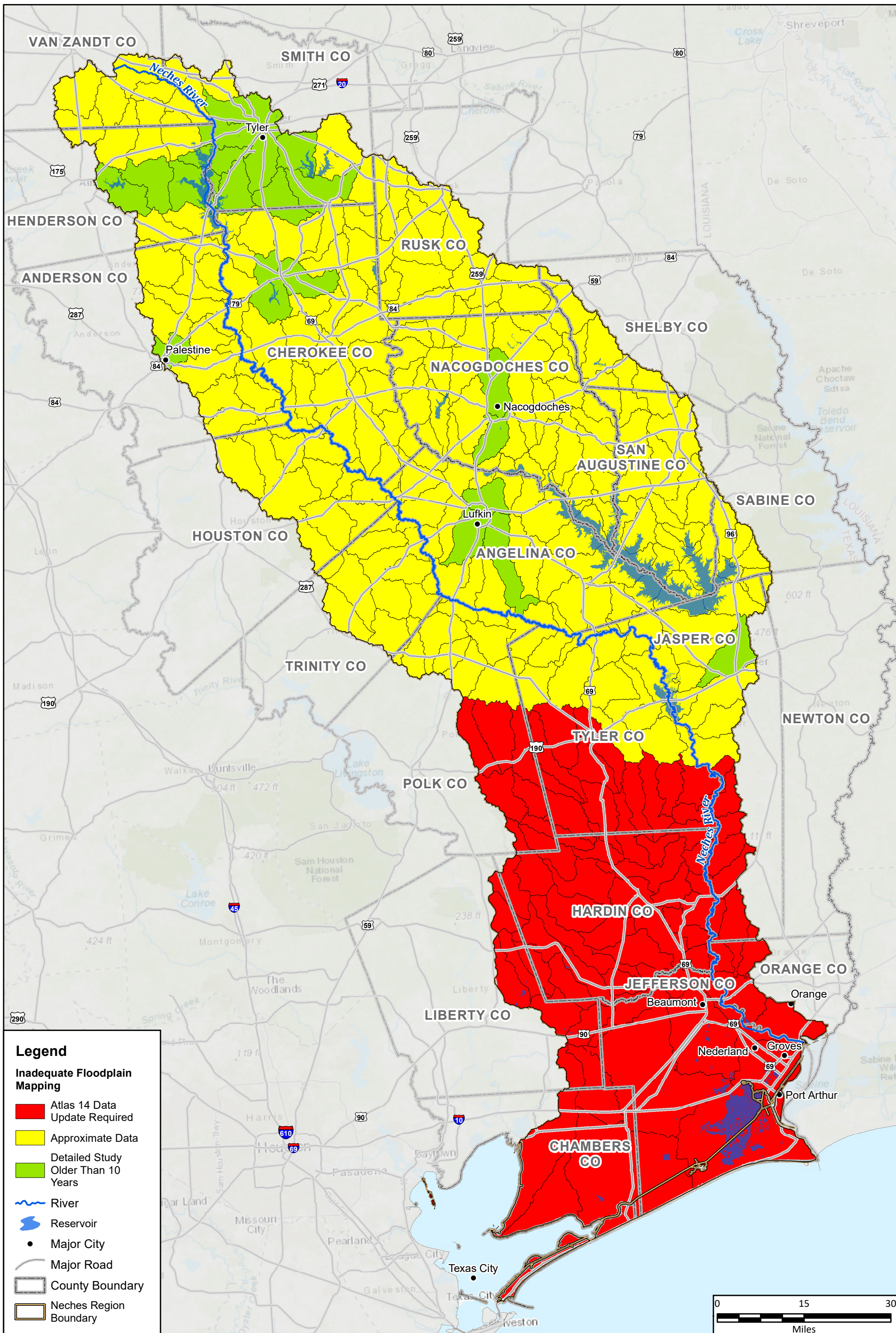
“Technical Guidelines for Regional Flood Planning.” Texas Water Development Board, April 2021,
https://www.twdb.texas.gov/flood/planning/planningdocu/2023/doc/04_Exhibit_C_TechnicalGuidelines_April2021.pdf?d=2127.900000002235.

“Texas Administrative Code, Title 31, Part 10, Chapter 361, Subchapter C, Rule 361.36.” Texas Registrar,
[https://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=31&pt=10&ch=361&rl=36](https://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=31&pt=10&ch=361&rl=36).

“Texas Floodplain Management Association (TFMA) 2018 Higher Standards Survey.” TFMA Higher Standards Committee, March 6, 2018,
https://cdn.ymaws.com/www.tfma.org/resource/resmgr/2018_higher_standards/2018_tfma_higher_standards_s.pdf.

“Title 44, Chapter 1, Subchapter B, Part 60 – Criteria for Land Management and Use.” *Code of Federal Regulations*, National Archives and Records Administration, April 4, 2022,
<https://www.ecfr.gov/current/title-44/chapter-I/subchapter-B/part-60>.

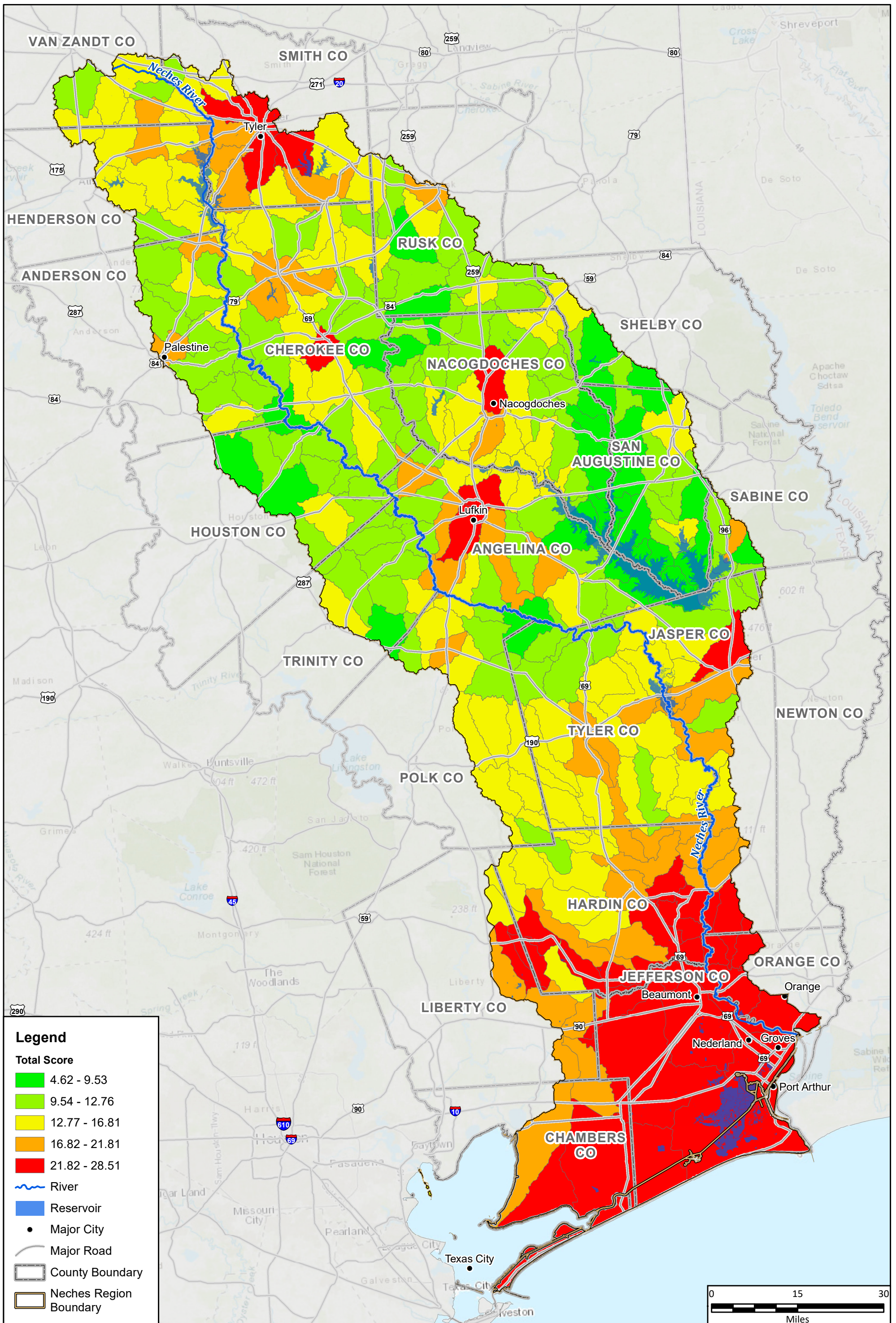
APPENDIX 4-A
SUPPLEMENTARY MAPS FOR CHAPTER 4



Legend

Inadequate Floodplain Mapping

- Atlas 14 Data Update Required
- Approximate Data
- Detailed Study Older Than 10 Years
- River
- Reservoir
- Major City
- Major Road
- County Boundary
- Neches Region Boundary



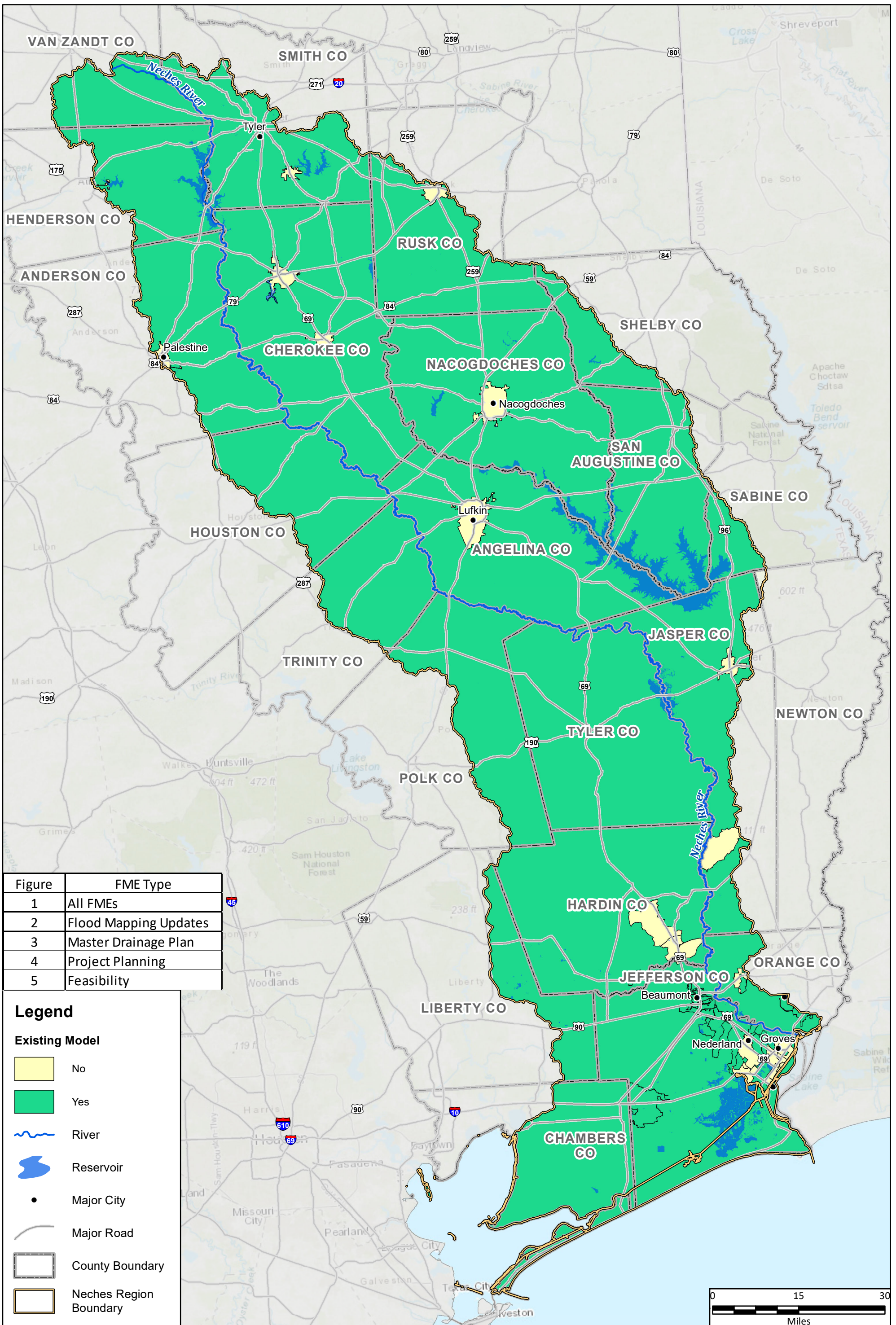
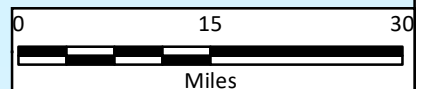


Figure	FME Type
1	All FMEs
2	Flood Mapping Updates
3	Master Drainage Plan
4	Project Planning
5	Feasibility

Legend

Existing Model

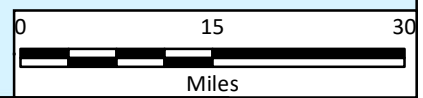
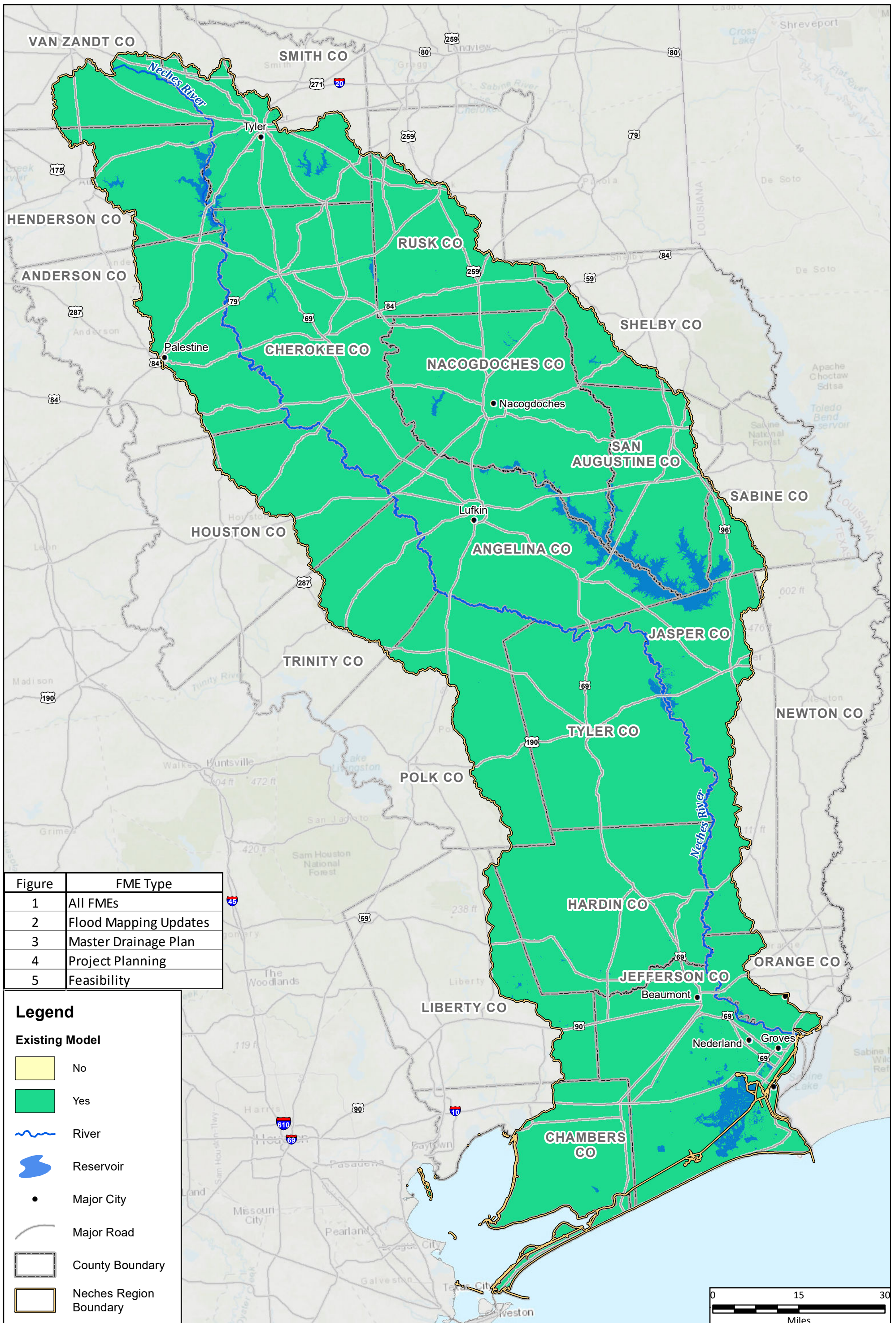
- No
- Yes
- River
- Reservoir
- Major City
- Major Road
- County Boundary
- Neches Region Boundary



Region 5: Neches Regional Flood Plan
FMEs, FMSs, and FMPs
**Extent of Potential Flood Management Evaluations
 and Existing Mapping Needs**



MAP
16
 FIGURE
 1 of 5



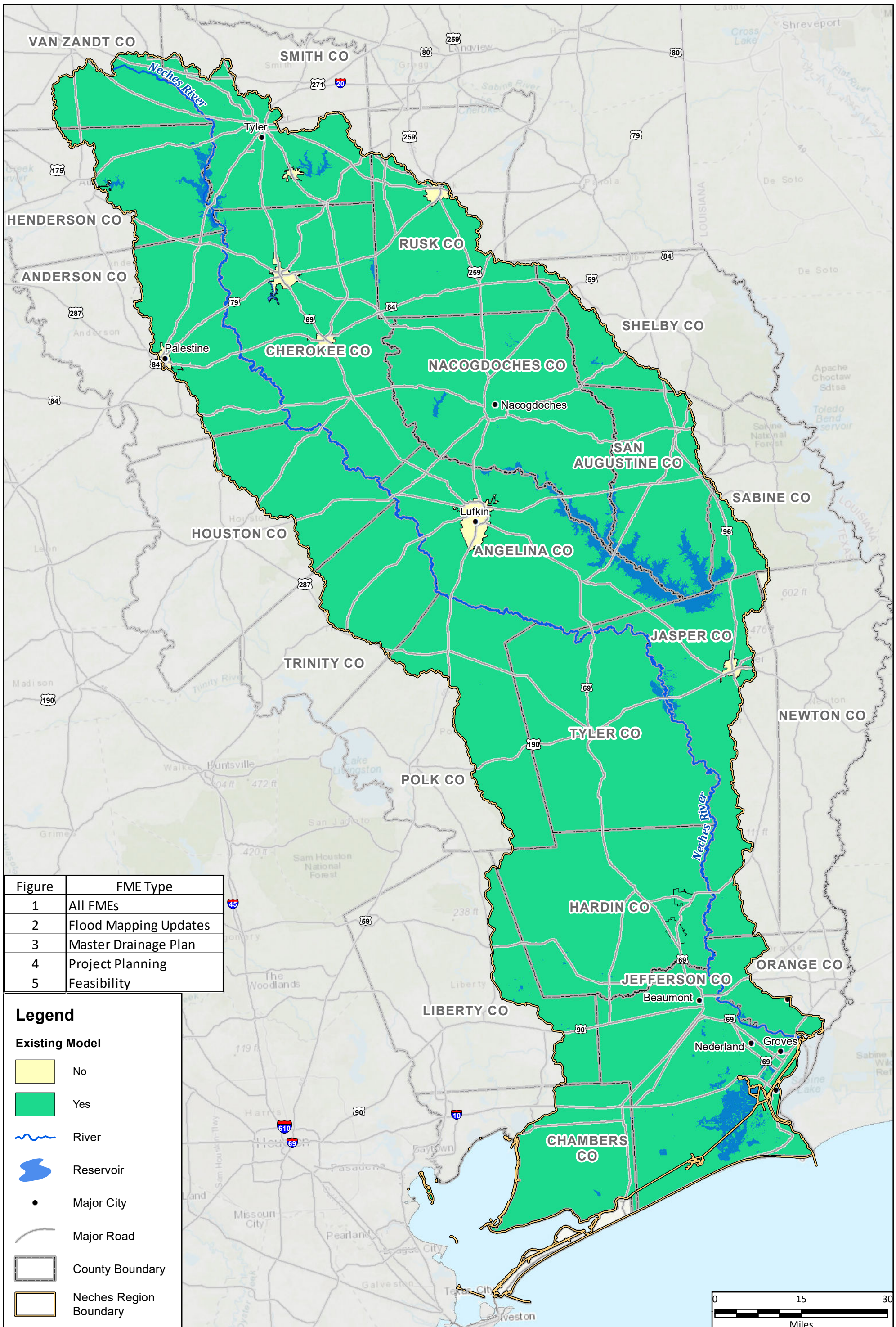
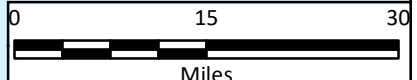


Figure	FME Type
1	All FMEs
2	Flood Mapping Updates
3	Master Drainage Plan
4	Project Planning
5	Feasibility

Legend

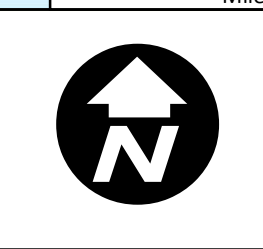
Existing Model

- No
- Yes
- River
- Reservoir
- Major City
- Major Road
- County Boundary
- Neches Region Boundary



Region 5: Neches Regional Flood Plan
FMEs, FMSs, and FMPs

**Extent of Potential Flood Management Evaluations
and Existing Mapping Needs - Master Drainage Plan**



**MAP
16**
FIGURE
3 of 5

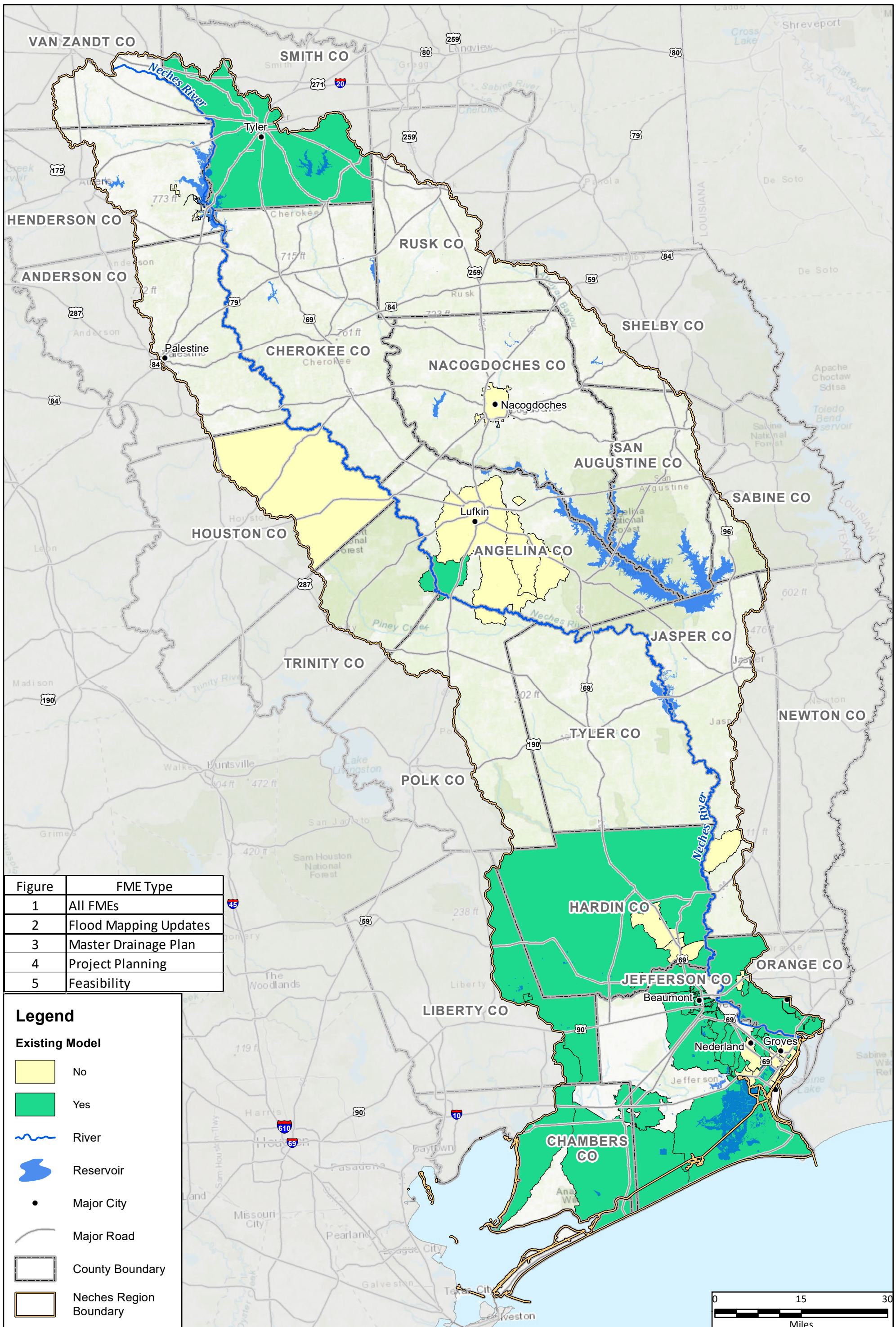
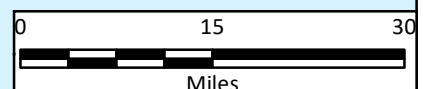


Figure	FME Type
1	All FMEs
2	Flood Mapping Updates
3	Master Drainage Plan
4	Project Planning
5	Feasibility

Legend

Existing Model

- No
- Yes
- River
- Reservoir
- Major City
- Major Road
- County Boundary
- Neches Region Boundary



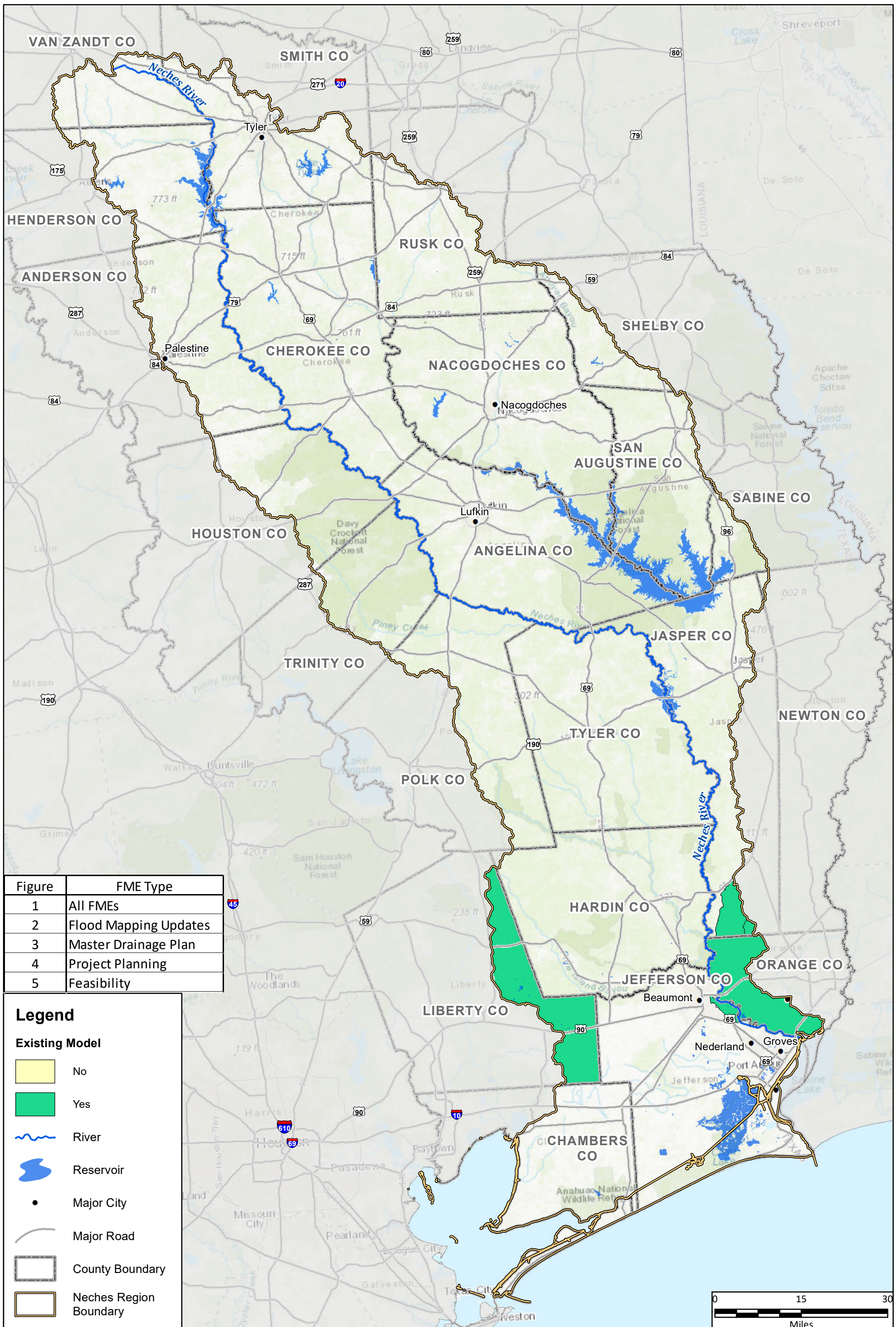


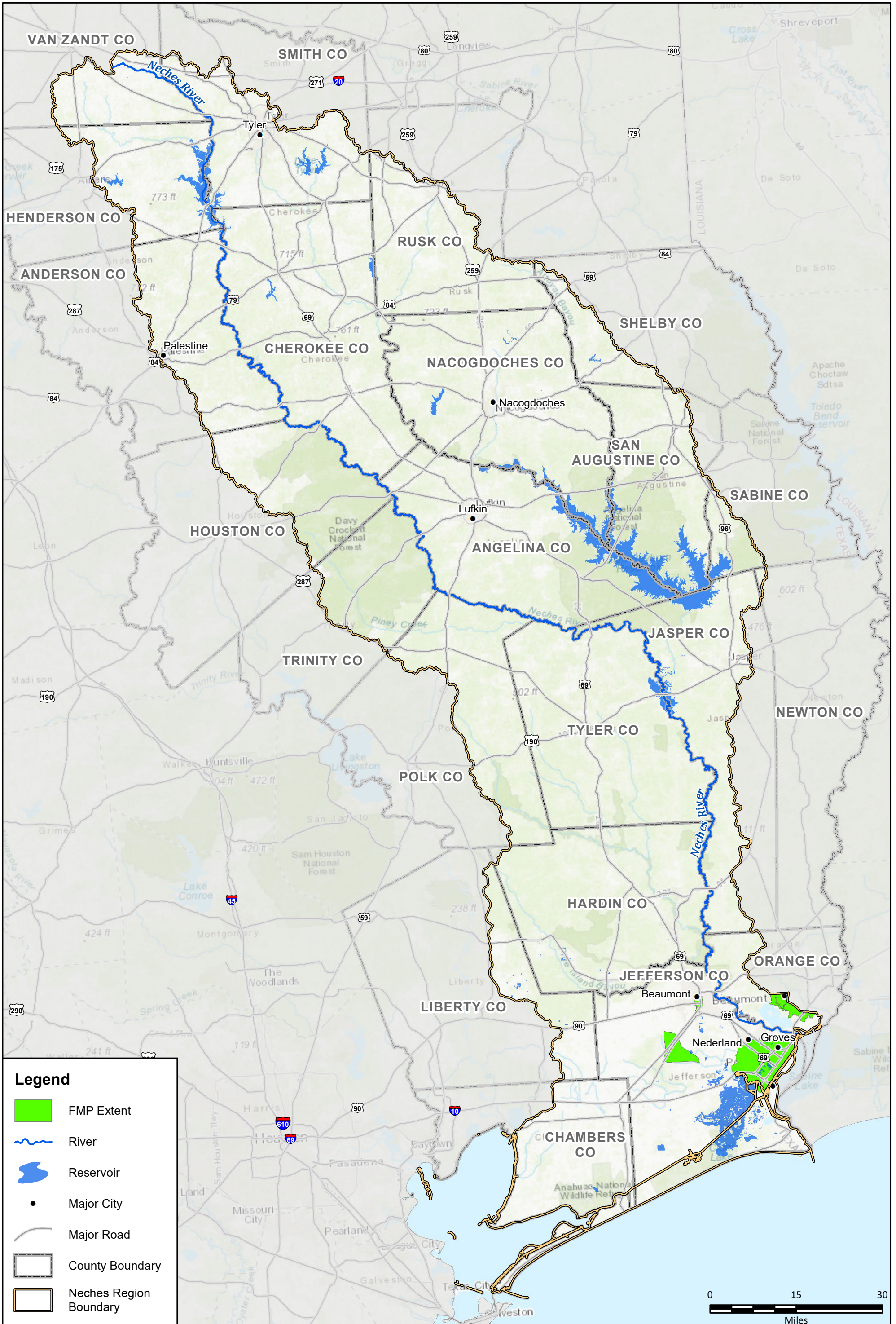
Figure	FME Type
1	All FMEs
2	Flood Mapping Updates
3	Master Drainage Plan
4	Project Planning
5	Feasibility

Legend

Existing Model

- No
- Yes
- River
- Reservoir
- Major City
- Major Road
- County Boundary
- Neches Region Boundary





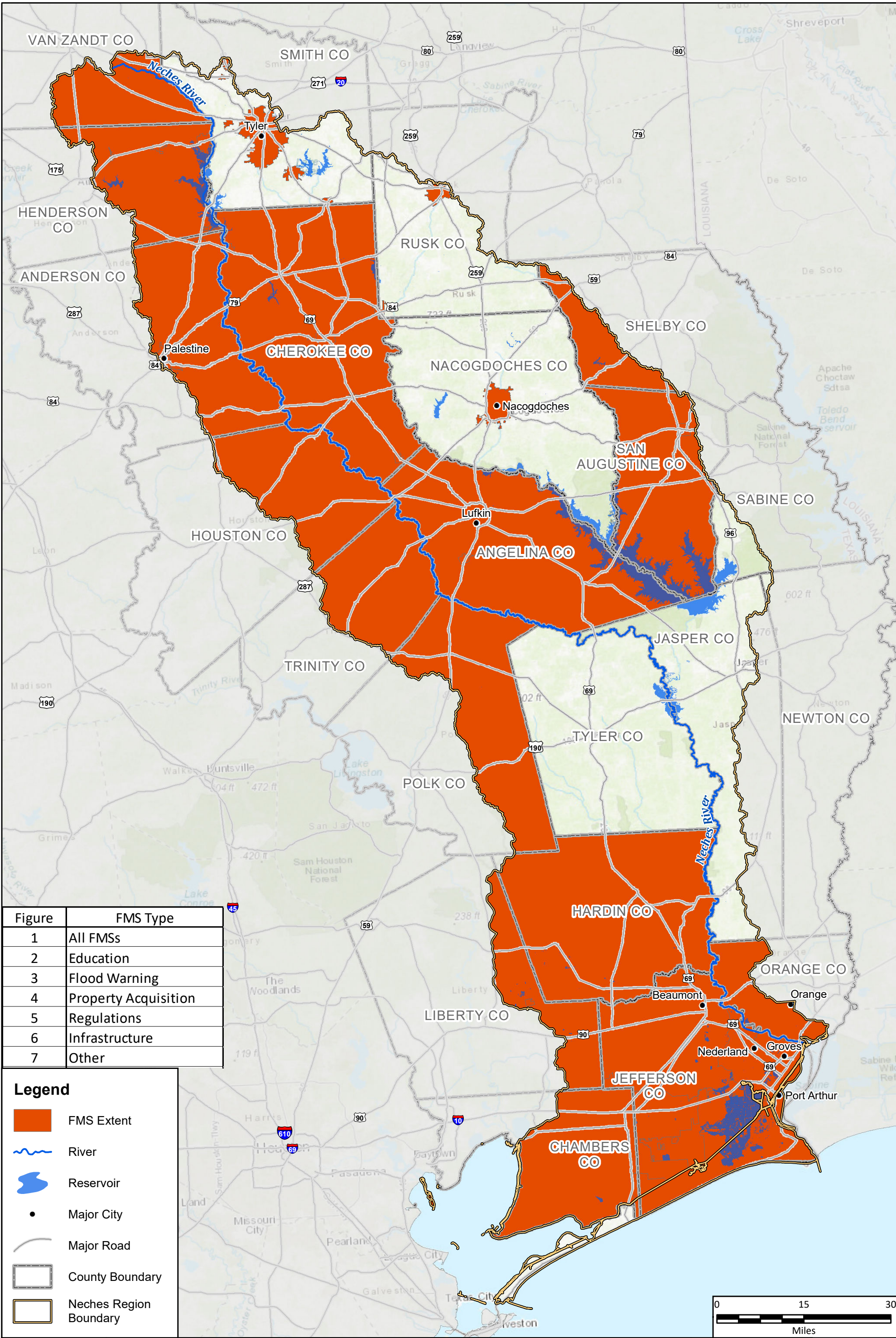
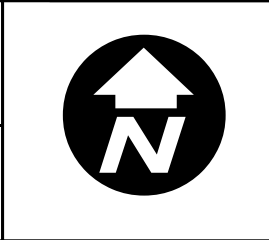
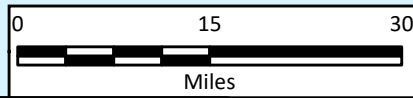


Figure	FMS Type
1	All FMSs
2	Education
3	Flood Warning
4	Property Acquisition
5	Regulations
6	Infrastructure
7	Other

Legend

- FMS Extent
- River
- Reservoir
- Major City
- Major Road
- County Boundary
- Neches Region Boundary



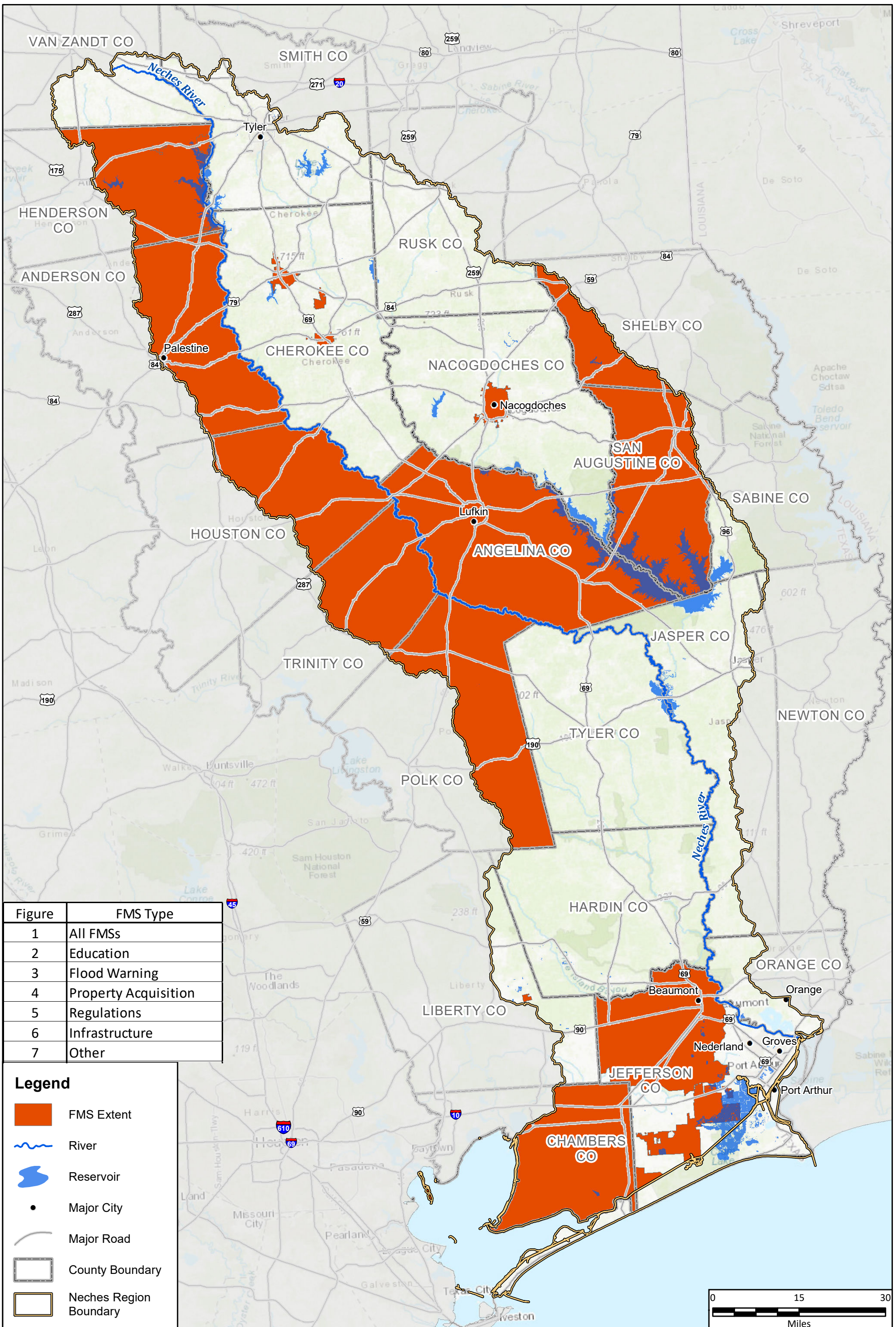


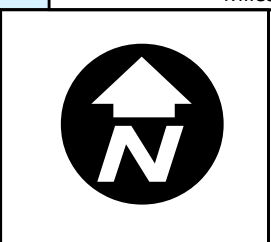
Figure	FMS Type
1	All FMSs
2	Education
3	Flood Warning
4	Property Acquisition
5	Regulations
6	Infrastructure
7	Other

Legend

- FMS Extent
- River
- Reservoir
- Major City
- Major Road
- County Boundary
- Neches Region Boundary



Region 5: Neches Regional Flood Plan
FMEs, FMSs, and FMPs
 Extent of Potential Flood Management Strategies - Education



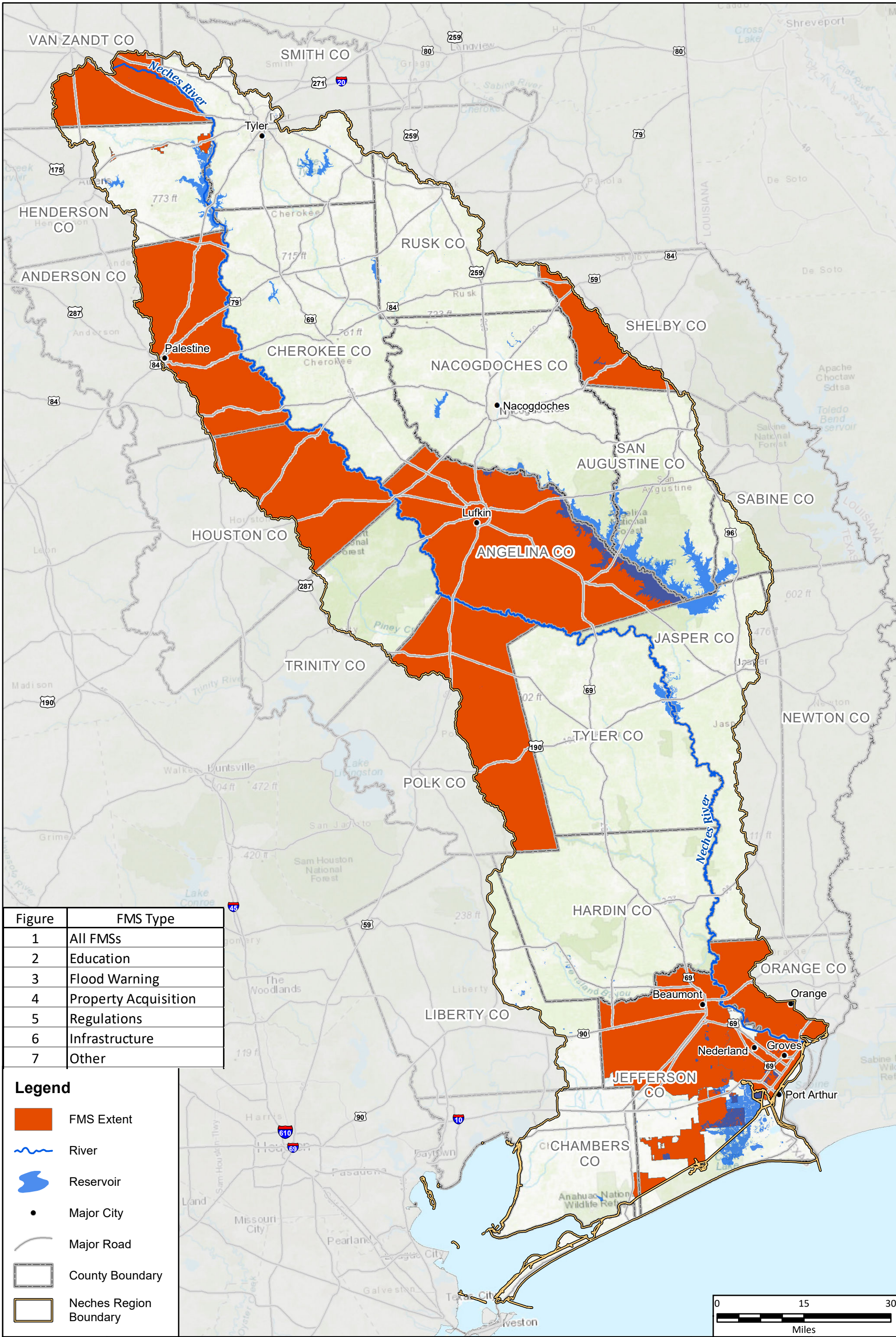
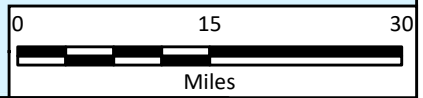


Figure	FMS Type
1	All FMSs
2	Education
3	Flood Warning
4	Property Acquisition
5	Regulations
6	Infrastructure
7	Other

Legend

- FMS Extent
- River
- Reservoir
- Major City
- Major Road
- County Boundary
- Neches Region Boundary



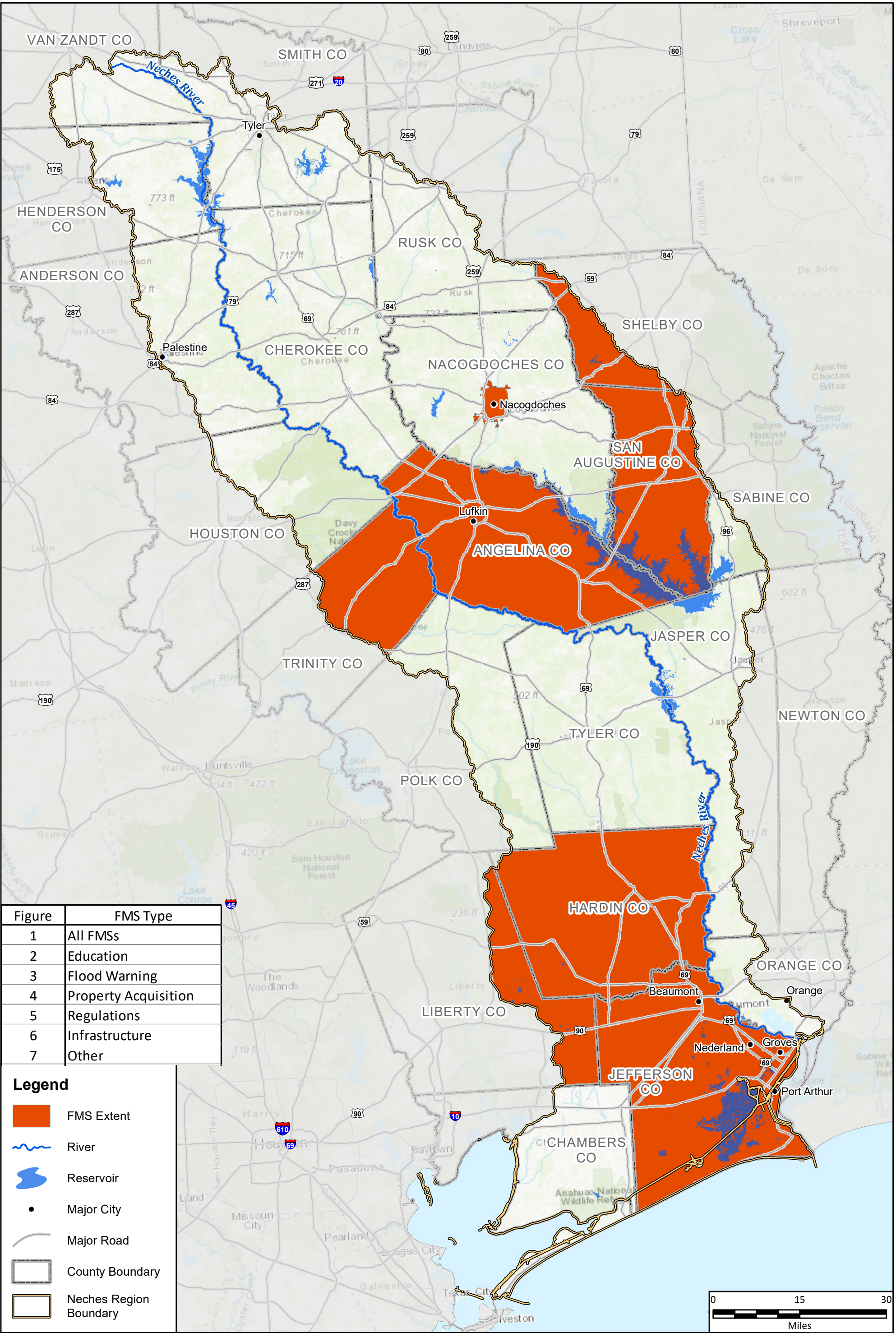







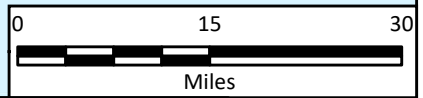


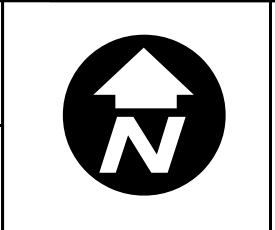
Figure	FMS Type
1	All FMSs
2	Education
3	Flood Warning
4	Property Acquisition
5	Regulations
6	Infrastructure
7	Other

Legend

-  FMS Extent
-  River
-  Reservoir
-  Major City
-  Major Road
-  County Boundary
-  Neches Region Boundary



Region 5: Neches Regional Flood Plan
FMEs, FMSs, and FMPs
Extent of Potential Flood Management Strategies - Property Acquisition



MAP
18
 FIGURE
 4 of 7

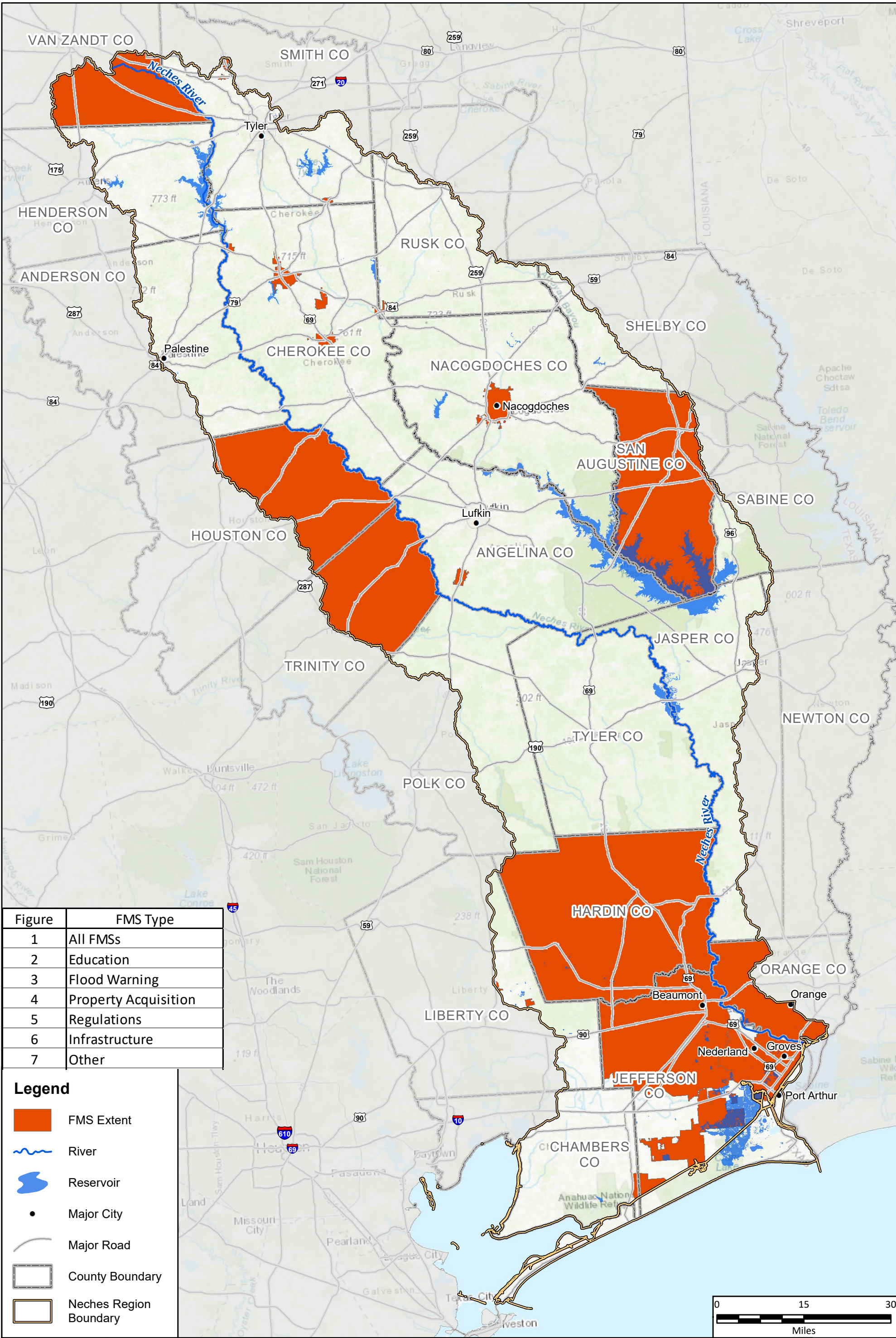
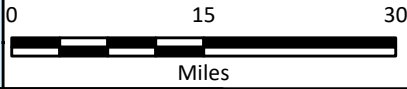


Figure	FMS Type
1	All FMSs
2	Education
3	Flood Warning
4	Property Acquisition
5	Regulations
6	Infrastructure
7	Other

Legend

- FMS Extent
- River
- Reservoir
- Major City
- Major Road
- County Boundary
- Neches Region Boundary



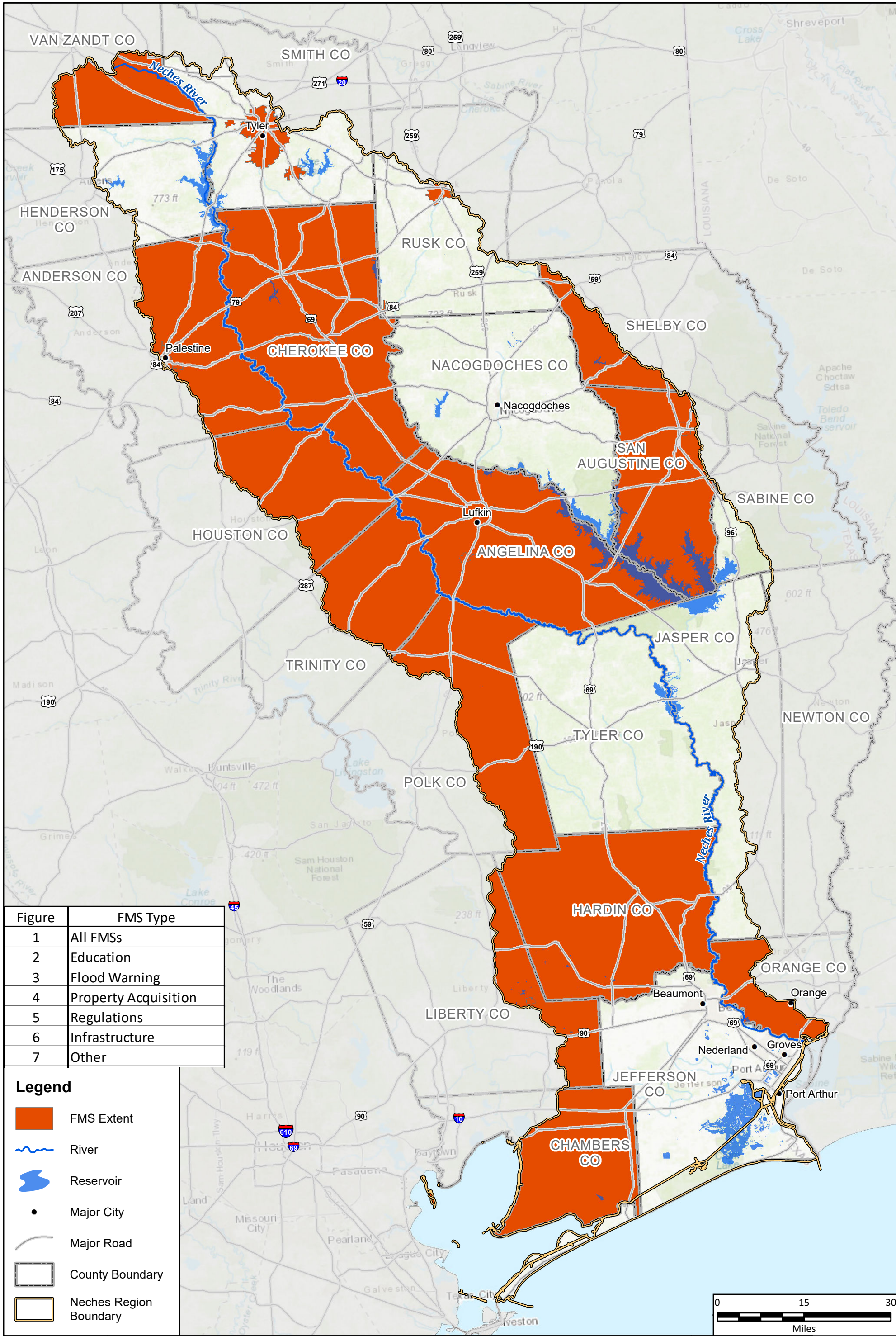







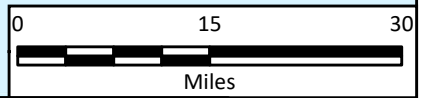


Figure	FMS Type
1	All FMSs
2	Education
3	Flood Warning
4	Property Acquisition
5	Regulations
6	Infrastructure
7	Other

Legend

-  FMS Extent
-  River
-  Reservoir
-  Major City
-  Major Road
-  County Boundary
-  Neches Region Boundary



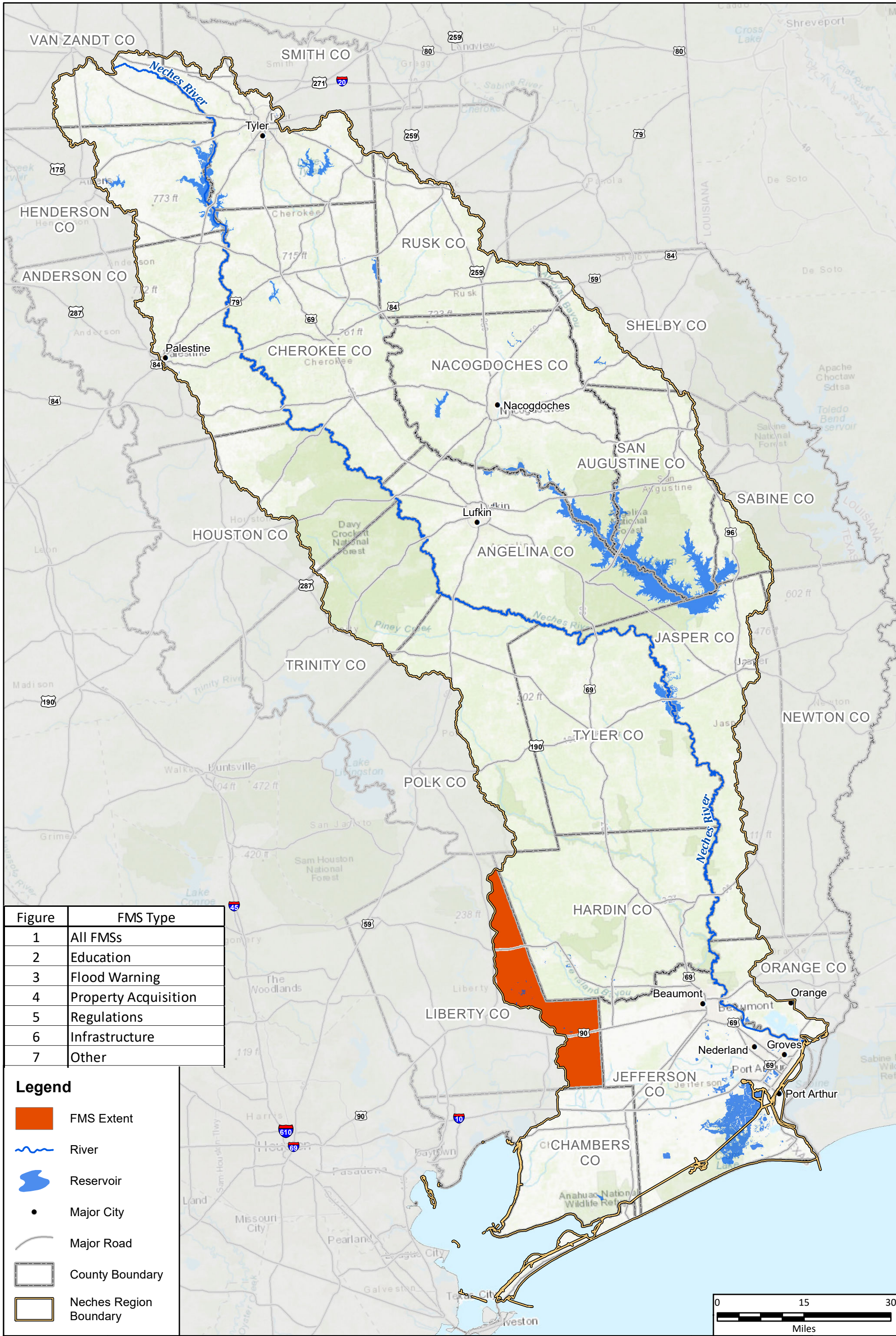
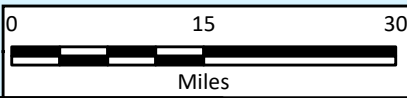


Figure	FMS Type
1	All FMSs
2	Education
3	Flood Warning
4	Property Acquisition
5	Regulations
6	Infrastructure
7	Other

Legend

- FMS Extent
- River
- Reservoir
- Major City
- Major Road
- County Boundary
- Neches Region Boundary



APPENDIX 4-B
TABLES FOR POTENTIAL FLOOD MANAGEMENT EVALUATIONS, FLOOD
MANAGEMENT STRATEGIES, AND FLOOD MITIGATION PROJECTS

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000001	Anderson County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Anderson	12020001	Various	Upper Neches
051000002	Angelina County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Angelina	12020002, 12020003, 12020004, 12020005	Various	Middle Neches, Lower Neches, Upper Angelina, Lower Angelina
051000003	Chambers County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Chambers	12040201, 12040202, 12040203, 12040204	120402030200, 120402020100, 120402020400, 120402020500, 120402020200, 120402020300, 120402040200, 120402010100	Sabine Lake, East Galveston Bay, North Galveston Bay, West Galveston Bay
051000004	Cherokee County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Cherokee	12020001, 12020002, 12020004	Various	Upper Neches, Middle Neches, Upper Angelina
051000005	Galveston County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Galveston	12040202, 12040204	120402020100, 120402020400, 120402020500, 120402020300, 120402040200	East Galveston Bay, West Galveston Bay
051000006	Hardin County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Hardin	12020003, 12020006, 12020007	Various	Lower Neches, Village, Pine Island Bayou
051000007	Henderson County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Henderson	12020001	120200010203, 120200010404, 120200010205, 120200010206, 120200010301, 120200010302, 120200010304, 120200010103, 120200010202, 120200010204, 120200010305, 120200010303, 120200010307, 120200010403, 120200010405	Upper Neches

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000001	Anderson County Update Flood Hazard Mapping	495	Riverine	Anderson	Anderson	Yes	\$2,236,919	Yes
051000002	Angelina County Update Flood Hazard Mapping	861	Riverine	Angelina	Angelina	Yes	\$3,900,000	Yes
051000003	Chambers County Update Flood Hazard Mapping	434	Riverine, Coastal	Chambers	Chambers	Yes	\$652,546	Yes
051000004	Cherokee County Update Flood Hazard Mapping	1,058	Riverine	Cherokee	Cherokee	Yes	\$4,800,000	Yes
051000005	Galveston County Update Flood Hazard Mapping	57	Riverine, Coastal	Galveston	Galveston	Yes	\$68,502	Yes
051000006	Hardin County Update Flood Hazard Mapping	888	Riverine	Hardin	Hardin	Yes	\$1,800,000	Yes
051000007	Henderson County Update Flood Hazard Mapping	374	Riverine	Henderson	Henderson	Yes	\$1,681,614	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000001	Anderson County Update Flood Hazard Mapping	69	28	61	0	2	2	22	348	None	None
051000002	Angelina County Update Flood Hazard Mapping	1,201	750	6,718	11	19	19	66	165	None	2010
051000003	Chambers County Update Flood Hazard Mapping	1,175	459	1,128	0	0	0	162	36,933	2024	2024
051000004	Cherokee County Update Flood Hazard Mapping	672	302	987	1	10	10	49	920	None	None
051000005	Galveston County Update Flood Hazard Mapping	4,937	4476	1,820	8	0	0	143	330	2024	2024
051000006	Hardin County Update Flood Hazard Mapping	3,678	2638	7,212	25	13	13	136	743	2024	2024
051000007	Henderson County Update Flood Hazard Mapping	240	108	162	0	1	1	20	348	None	None

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000008	Houston County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Houston	12020001, 12020002	120200010509, 120200010705, 120200010701, 120200010702, 120200010703, 120200020101, 120200020203, 120200020206, 120200020204, 120200020402, 120200020401, 120200020102, 120200020103, 120200020104, 120200020106, 120200020202	Upper Neches, Middle Neches
051000009	Jasper County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Jasper	12020002, 12020003, 12020005	Various	Middle Neches, Lower Neches, Lower Angelina
051000010	Jefferson County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Jefferson	12020003, 12020007, 12040201, 12040202	120200030407, 120200030405, 120200030406, 120200070110, 120200070105, 120200070201, 120200070205, 120200070304, 120200070303, 120402020500, 120402020200, 120402020300, 120402010500, 120402010100, 120402010200, 120402010300	Lower Neches, Pine Island Bayou, Sabine Lake, East Galveston Bay
051000011	Liberty County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Liberty	12020007, 12030203, 12040201, 12040202	120200070109, 120200070102, 120200070101, 120200070110, 120200070104, 120200070105, 120200070107, 120200070106, 120200070103, 120200070108, 120200070201, 120302030202, 120402020100, 120402020200, 120402010100	Pine Island Bayou, Lower Trinity, Sabine Lake, East Galveston Bay
051000012	Nacogdoches County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Nacogdoches	12020004, 12020005	Various	Upper Angelina, Lower Angelina
051000013	Orange County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Orange	12010005, 12020003, 12040201	120200030407, 120200030404, 120200030405, 120200030406, 120200030402, 120200030403, 120100051005, 120100051004, 120402010500	Lower Sabine, Lower Neches, Sabine Lake

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000008	Houston County Update Flood Hazard Mapping	418	Riverine	Houston	Houston	Yes	\$1,697,174	Yes
051000009	Jasper County Update Flood Hazard Mapping	615	Riverine	Jasper	Jasper	Yes	\$1,210,721	Yes
051000010	Jefferson County Update Flood Hazard Mapping	954	Riverine, Coastal	Jefferson	Jefferson	Yes	\$1,900,000	Yes
051000011	Liberty County Update Flood Hazard Mapping	235	Riverine	Liberty	Liberty	Yes	\$402,626	Yes
051000012	Nacogdoches County Update Flood Hazard Mapping	977	Riverine	Nacogdoches	Nacogdoches	Yes	\$4,400,000	Yes
051000013	Orange County Update Flood Hazard Mapping	156	Riverine, Coastal	Orange	Orange	Yes	\$760,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000008	Houston County Update Flood Hazard Mapping	17	3	16	0	7	7	20	117	None	None
051000009	Jasper County Update Flood Hazard Mapping	756	367	1,388	7	3	3	46	104	2024	2024
051000010	Jefferson County Update Flood Hazard Mapping	12,869	9726	26,027	316	22	22	474	33,019	2024	2024
051000011	Liberty County Update Flood Hazard Mapping	116	57	140	1	0	0	7	1,526	2024	2024
051000012	Nacogdoches County Update Flood Hazard Mapping	585	238	4,007	1	20	20	38	240	None	None
051000013	Orange County Update Flood Hazard Mapping	5,007	4273	8,737	36	20	20	136	346	2024	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000014	Polk County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Polk	12020002, 12020006, 12020007	Various	Middle Neches, Village, Pine Island Bayou
051000015	Rusk County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Rusk	12020004, 12020005	Various	Upper Angelina, Lower Angelina
051000016	Sabine County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Sabine	12020005	120200050705, 120200050804, 120200050805, 120200050806, 120200050807, 120200050803, 120200050808, 120200050809	Lower Angelina
051000017	San Augustine County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	San Augustine	12020005	Various	Lower Angelina
051000018	Shelby County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Shelby	12020005	120200050303, 120200050301, 120200050307, 120200050401, 120200050402, 120200050403, 120200050404, 120200050405, 120200050701	Lower Angelina
051000019	Smith County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Smith	12020001, 12020004	Various	Upper Neches, Upper Angelina
051000020	Trinity County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Trinity	12020002	120200020203, 120200020207, 120200020205, 120200020206, 120200020204, 120200020304, 120200020303, 120200020305, 120200020306, 120200020402, 120200020401, 120200020403, 120200020404, 120200020405, 120200020407, 120200020202	Middle Neches
051000021	Tyler County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Tyler	12020002, 12020003, 12020006	Various	Middle Neches, Lower Neches, Village

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000014	Polk County Update Flood Hazard Mapping	535	Riverine	Polk	Polk	Yes	\$375,054	Yes
051000015	Rusk County Update Flood Hazard Mapping	525	Riverine	Rusk	Rusk	Yes	\$1,318,550	Yes
051000016	Sabine County Update Flood Hazard Mapping	95	Riverine	Sabine	Sabine	Yes	\$182,571	Yes
051000017	San Augustine County Update Flood Hazard Mapping	533	Riverine	San Augustine	San Augustine	Yes	\$904,125	Yes
051000018	Shelby County Update Flood Hazard Mapping	160	Riverine	Shelby	Shelby	Yes	\$711,827	Yes
051000019	Smith County Update Flood Hazard Mapping	510	Riverine	Smith	Smith	Yes	\$1,225,342	Yes
051000020	Trinity County Update Flood Hazard Mapping	342	Riverine	Trinity	Trinity	Yes	\$1,540,238	Yes
051000021	Tyler County Update Flood Hazard Mapping	932	Riverine	Tyler	Tyler	Yes	\$1,800,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000014	Polk County Update Flood Hazard Mapping	84	45	321	0	8	8	17	62	None	2024
051000015	Rusk County Update Flood Hazard Mapping	91	45	149	1	0	0	21	206	None	None
051000016	Sabine County Update Flood Hazard Mapping	11	2	16	0	1	1	3	5	2024	2024
051000017	San Augustine County Update Flood Hazard Mapping	64	28	110	0	2	2	13	42	2024	2024
051000018	Shelby County Update Flood Hazard Mapping	15	0	7	0	4	4	5	56	None	None
051000019	Smith County Update Flood Hazard Mapping	2,347	1064	6,216	72	42	42	50	216	None	None
051000020	Trinity County Update Flood Hazard Mapping	32	15	15	0	1	1	22	68	None	None
051000021	Tyler County Update Flood Hazard Mapping	545	377	278	0	8	8	42	82	2024	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000022	Van Zandt County Update Flood Hazard Mapping	Complete a detailed study within the county extent to delineate an updated flood hazard area, which can be used for regulatory purposes.	05000015, 05000016	Van Zandt	12020001	120200010201, 120200010203, 120200010205, 120200010206, 120200010301, 120200010101, 120200010102, 120200010103, 120200010105, 120200010202, 120200010204	Upper Neches
051000023	Anderson County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Anderson	12020001	Various	Upper Neches
051000024	Angelina County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Angelina	12020002, 12020003, 12020004, 12020005	Various	Middle Neches, Lower Neches, Upper Angelina, Lower Angelina
051000025	Chambers County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Chambers	12040201, 12040202, 12040203, 12040204	120402030200, 120402020100, 120402020400, 120402020500, 120402020200, 120402020300, 120402040200, 120402010100	Sabine Lake, East Galveston Bay, North Galveston Bay, West Galveston Bay
051000026	Cherokee County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Cherokee	12020001, 12020002, 12020004	Various	Upper Neches, Middle Neches, Upper Angelina
051000027	Hardin County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Hardin	12020003, 12020006, 12020007	Various	Lower Neches, Village, Pine Island Bayou

Table 12: Potential Flood Management Evaluations Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000022	Van Zandt County Update Flood Hazard Mapping	244	Riverine	Van Zandt	Van Zandt	Yes	\$1,111,237	Yes
051000023	Anderson County Master Drainage Plan	495	Riverine	Anderson	Anderson	Yes	\$737,953	Yes
051000024	Angelina County Master Drainage Plan	861	Riverine	Angelina	Angelina	Yes	\$1,700,000	Yes
051000025	Chambers County Master Drainage Plan	434	Riverine, Coastal	Chambers	Chambers	Yes	\$1,600,000	Yes
051000026	Cherokee County Master Drainage Plan	1,058	Riverine	Cherokee	Cherokee	Yes	\$1,600,000	Yes
051000027	Hardin County Master Drainage Plan	888	Riverine	Hardin	Hardin	Yes	\$1,000,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000022	Van Zandt County Update Flood Hazard Mapping	217	144	202	0	0	0	13	232	None	None
051000023	Anderson County Master Drainage Plan	69	28	61	0	2	2	22	348	None	None
051000024	Angelina County Master Drainage Plan	1,201	750	6,718	11	19	19	66	165	None	None
051000025	Chambers County Master Drainage Plan	1,175	459	1,128	0	0	0	162	36,933	2024	2024
051000026	Cherokee County Master Drainage Plan	672	302	987	1	10	10	49	920	None	None
051000027	Hardin County Master Drainage Plan	3,678	2638	7,212	25	13	13	136	743	2024	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000028	Henderson County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Henderson	12020001	120200010203, 120200010404, 120200010205, 120200010206, 120200010301, 120200010302, 120200010304, 120200010103, 120200010202, 120200010204, 120200010305, 120200010303, 120200010307, 120200010403, 120200010405	Upper Neches
051000029	Houston County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Houston	12020001, 12020002	120200010509, 120200010705, 120200010701, 120200010702, 120200010703, 120200020101, 120200020203, 120200020206, 120200020204, 120200020402, 120200020401, 120200020102, 120200020103, 120200020104, 120200020106, 120200020202	Upper Neches, Middle Neches
051000030	Jasper County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Jasper	12020002, 12020003, 12020005	Various	Middle Neches, Lower Neches, Lower Angelina
051000031	Jefferson County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Jefferson	12020003, 12020007, 12040201, 12040202	120200030407, 120200030405, 120200030406, 120200070110, 120200070105, 120200070201, 120200070205, 120200070304, 120200070303, 120402020500, 120402020200, 120402020300, 120402010500, 120402010100, 120402010200, 120402010300	Lower Neches, Pine Island Bayou, Sabine Lake, East Galveston Bay
051000032	Liberty County Master Drainage Plan	Complete a county wide drainage plan, which can be used for regulatory purposes.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Liberty	12020007, 12030203, 12040201, 12040202	120200070109, 120200070102, 120200070101, 120200070110, 120200070104, 120200070105, 120200070107, 120200070106, 120200070103, 120200070108, 120200070201, 120302030202, 120402020100, 120402020200, 120402010100	Pine Island Bayou, Lower Trinity, Sabine Lake, East Galveston Bay

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000028	Henderson County Master Drainage Plan	374	Riverine	Henderson	Henderson	Yes	\$1,900,000	Yes
051000029	Houston County Master Drainage Plan	418	Riverine	Houston	Houston	Yes	\$610,983	Yes
051000030	Jasper County Master Drainage Plan	615	Riverine	Jasper	Jasper	Yes	\$1,200,000	Yes
051000031	Jefferson County Master Drainage Plan	954	Riverine, Coastal	Jefferson	Jefferson	Yes	\$1,100,000	Yes
051000032	Liberty County Master Drainage Plan	235	Riverine	Liberty County Drainage District	Liberty County Drainage District	Yes	\$201,313	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000028	Henderson County Master Drainage Plan	240	108	162	0	1	1	20	348	None	None
051000029	Houston County Master Drainage Plan	17	3	16	0	7	7	20	117	None	None
051000030	Jasper County Master Drainage Plan	756	367	1,388	7	3	3	46	104	2024	2024
051000031	Jefferson County Master Drainage Plan	12,869	9726	26,027	316	22	22	474	33,019	2024	2024
051000032	Liberty County Master Drainage Plan	116	57	140	1	0	0	7	1,526	2024	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000033	Nacogdoches County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Nacogdoches	12020004, 12020005	Various	Upper Angelina, Lower Angelina
051000034	Orange County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Orange	12010005, 12020003, 12040201	120200030407, 120200030404, 120200030405, 120200030406, 120200030402, 120200030403, 120100051005, 120100051004, 120402010500	Lower Sabine, Lower Neches, Sabine Lake
051000035	Polk County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Polk	12020002, 12020006, 12020007	Various	Middle Neches, Village, Pine Island Bayou
051000036	Rusk County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Rusk	12020004, 12020005	Various	Upper Angelina, Lower Angelina
051000037	Sabine County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Sabine	12020005	120200050705, 120200050804, 120200050805, 120200050806, 120200050807, 120200050803, 120200050808, 120200050809	Lower Angelina
051000038	San Augustine County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	San Augustine	12020005	Various	Lower Angelina

Table 12: Potential Flood Management Evaluations Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000033	Nacogdoches County Master Drainage Plan	977	Riverine	Nacogdoches	Nacogdoches	Yes	\$1,900,000	Yes
051000034	Orange County Master Drainage Plan	156	Riverine, Coastal	Orange	Orange	Yes	\$450,000	Yes
051000035	Polk County Master Drainage Plan	535	Riverine	Polk	Polk	Yes	\$150,021	Yes
051000036	Rusk County Master Drainage Plan	525	Riverine	Rusk	Rusk	Yes	\$1,400,000	Yes
051000037	Sabine County Master Drainage Plan	95	Riverine	Sabine	Sabine	Yes	\$76,348	Yes
051000038	San Augustine County Master Drainage Plan	533	Riverine	San Augustine	San Augustine	Yes	\$379,732	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000033	Nacogdoches County Master Drainage Plan	585	238	4,007	1	20	20	38	240	None	None
051000034	Orange County Master Drainage Plan	5,007	4273	8,737	36	20	20	136	346	2024	2024
051000035	Polk County Master Drainage Plan	84	45	321	0	8	8	17	62	2024	2024
051000036	Rusk County Master Drainage Plan	91	45	149	1	0	0	21	206	None	None
051000037	Sabine County Master Drainage Plan	11	2	16	0	1	1	3	5	2024	2024
051000038	San Augustine County Master Drainage Plan	64	28	110	0	2	2	13	42	2024	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000039	Shelby County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Shelby	12020005	120200050303, 120200050301, 120200050307, 120200050401, 120200050402, 120200050403, 120200050404, 120200050405, 120200050701	Lower Angelina
051000040	Smith County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Smith	12020001, 12020004	Various	Upper Neches, Upper Angelina
051000041	Trinity County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Trinity	12020002	120200020203, 120200020207, 120200020205, 120200020206, 120200020204, 120200020304, 120200020303, 120200020305, 120200020306, 120200020402, 120200020401, 120200020403, 120200020404, 120200020405, 120200020407, 120200020202	Middle Neches
051000042	Tyler County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Tyler	12020002, 12020003, 12020006	Various	Middle Neches, Lower Neches, Village
051000043	Van Zandt County Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Van Zandt	12020001	120200010201, 120200010203, 120200010205, 120200010206, 120200010301, 120200010101, 120200010102, 120200010103, 120200010105, 120200010202, 120200010204	Upper Neches
051000044	City of Palestine Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Anderson	12020001	120200010502, 120200010504	Upper Neches

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000039	Shelby County Master Drainage Plan	160	Riverine	Shelby	Shelby	Yes	\$1,250,000	Yes
051000040	Smith County Master Drainage Plan	510	Riverine	Smith	Smith	Yes	\$538,612	Yes
051000041	Trinity County Master Drainage Plan	342	Riverine	Trinity	Trinity	Yes	\$481,324	Yes
051000042	Tyler County Master Drainage Plan	932	Riverine	Tyler	Tyler	Yes	\$700,000	Yes
051000043	Van Zandt County Master Drainage Plan	244	Riverine	Van Zandt	Van Zandt	Yes	\$484,386	Yes
051000044	City of Palestine Master Drainage Plan	7	Riverine	Palestine	Palestine	Yes	\$700,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000039	Shelby County Master Drainage Plan	15	0	7	0	4	4	5	56	None	None
051000040	Smith County Master Drainage Plan	2,347	1064	6,216	72	42	42	50	216	None	None
051000041	Trinity County Master Drainage Plan	32	15	15	0	1	1	22	68	None	None
051000042	Tyler County Master Drainage Plan	545	377	278	0	8	8	42	82	2024	2024
051000043	Van Zandt County Master Drainage Plan	217	144	202	0	0	0	13	232	None	None
051000044	City of Palestine Master Drainage Plan	14	10	31	0	2	2	2	2	None	None

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000045	City of Lufkin Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Angelina	12020002, 12020005	120200020301, 120200020302, 120200020308, 120200020502, 120200050104	Middle Neches, Lower Angelina
051000046	City of Jacksonville Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Cherokee	12020001, 12020004	120200010506, 120200040201, 120200040204	Upper Neches, Upper Angelina
051000047	City of Rusk Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Cherokee	12020001, 12020004	120200010601, 120200010602, 120200040206, 120200040207	Upper Neches, Upper Angelina
051000048	City of Lumberton Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Hardin	12020006, 12020007	120200060407, 120200070303	Village, Pine Island Bayou
051000049	City of Rose Hill Acres Master Drainage Plan	Develop drainage study to identify flood mitigation measures and drainage improvements including purchase of easements in the ETJ or a possible MOU to implement improvements.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Hardin	12020007	120200070303	Pine Island Bayou
051000050	City of Silsbee Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Hardin	12020003, 12020006	120200030401, 120200060406, 120200060407	Lower Neches, Village

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000045	City of Lufkin Master Drainage Plan	35	Riverine	Lufkin	Lufkin	Yes	\$1,000,000	Yes
051000046	City of Jacksonville Master Drainage Plan	17	Riverine	Jacksonville	Jacksonville	Yes	\$560,000	Yes
051000047	City of Rusk Master Drainage Plan	7	Riverine	Rusk	Rusk	No	\$280,000	Yes
051000048	City of Lumberton Master Drainage Plan	11	Riverine	Lumberton	Lumberton	Yes	\$380,000	Yes
051000049	City of Rose Hill Acres Master Drainage Plan	0	Riverine	Rose Hill Acres	Rose Hill Acres	Yes	\$200,000	Yes
051000050	City of Silsbee Master Drainage Plan	8	Riverine	Silsbee	Silsbee	Yes	\$320,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000045	City of Lufkin Master Drainage Plan	868	552	6,004	5	12	12	23	3	None	2010
051000046	City of Jacksonville Master Drainage Plan	367	152	430	0	7	7	4	5	None	None
051000047	City of Rusk Master Drainage Plan	41	9	455	0	0	0	2	2	None	None
051000048	City of Lumberton Master Drainage Plan	230	207	622	0	1	1	4	6	2023	2023
051000049	City of Rose Hill Acres Master Drainage Plan	129	123	234	0	0	0	2	0	None	2024
051000050	City of Silsbee Master Drainage Plan	88	68	616	2	3	3	2	1	2023	2023

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000051	City of Athens Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Henderson	12020001	120200010303	Upper Neches
051000052	City of Jasper Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Jasper	12020003	120200030301, 120200030205	Lower Neches
051000053	City of Beaumont Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Jefferson	12020003, 12020007, 12040201	120200030405, 120200030406, 120200030407, 120200070205, 120200070303, 120200070304, 120402010200	Lower Neches, Pine Island Bayou, Sabine Lake
051000054	City of Nederland Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Jefferson	12020003, 12040201	120200030407, 120402010300	Lower Neches, Sabine Lake
051000055	City of Nacogdoches Update Flood Control Study	Conduct Flood Control Study and implement actions such as channelization, detention, retention, etc to stop repetitive flood losses.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Nacogdoches	12020004, 12020005	120200040704, 120200050101, 120200050102, 120200050106, 120200050201	Upper Angelina, Lower Angelina
051000056	City of Henderson Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Rusk	12020004	120200040401	Upper Angelina
051000057	City of Arp Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Smith	12020004	120200040106, 120200040102, 120200040101	Upper Angelina

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000051	City of Athens Master Drainage Plan	1	Riverine	Athens	Athens	No	\$31,056	Yes
051000052	City of Jasper Master Drainage Plan	11	Riverine	Jasper	Jasper	Yes	\$440,000	Yes
051000053	City of Beaumont Master Drainage Plan	85	Riverine, Coastal	Beaumont	Beaumont	Yes	\$600,000	Yes
051000054	City of Nederland Master Drainage Plan	6	Riverine, Coastal	Nederland	Nederland	Yes	\$240,000	Yes
051000055	City of Nacogdoches Update Flood Control Study	28	Riverine	Nacogdoches	Nacogdoches	Yes	\$1,080,000	Yes
051000056	City of Henderson Master Drainage Plan	10	Riverine	Henderson	Henderson	No	\$480,000	Yes
051000057	City of Arp Master Drainage Plan	3	Riverine	Arp	Arp	No	\$1,300,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000051	City of Athens Master Drainage Plan	0	0	0	0	0	0	0	0	None	None
051000052	City of Jasper Master Drainage Plan	171	66	1,093	7	2	2	6	2	None	None
051000053	City of Beaumont Master Drainage Plan	2,546	2102	7,759	16	4	4	55	120	2019	2024
051000054	City of Nederland Master Drainage Plan	381	163	804	3	0	0	3	1	None	2024
051000055	City of Nacogdoches Update Flood Control Study	446	185	3,965	1	0	0	14	4	2010	None
051000056	City of Henderson Master Drainage Plan	37	17	73	0	0	0	2	5	None	None
051000057	City of Arp Master Drainage Plan	0	0	0	0	0	0	0	0	None	None

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000058	City of Tyler Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Smith	12020001, 12020004	120200010301, 120200010302, 120200010104, 120200010105, 120200040104, 120200040103	Upper Neches, Upper Angelina
051000059	City of Whitehouse Master Drainage Plan	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000015, 05000016	Smith	12020004	120200040103, 120200040105, 120200040106	Upper Angelina
051000060	Willie Nerron Road and Gillan Creek Bridge Replacement	Evaluate bridge improvements (upgrade bridge and increase channel flow) to current crossing to develop costs, quantify benefits, evaluate impacts, and begin design.	05000007, 05000008	Angelina	12020005	120200050107	Lower Angelina
051000061	Hall Street over White Oak Creek Bridge Improvements	Evaluate alternatives to elevate bridge over White Oak Creek on Hall St going into the park	05000007, 05000008	Angelina	12020002	120200020306	Middle Neches
051000062	Preliminary Engineering of Gibsonville Street and Porterville Road Bridges Improvements	Evaluate alternatives to raise bridges on Gibsonville St. and Porterville Road to increase flow of creek under.	05000007, 05000008	Angelina	12020002	120200020501	Middle Neches
051000063	Shawnee Creek Concrete Canal	Evaluate project to quantify benefits, evaluate impacts, and begin design for a concrete canal for Shawnee Creek from Louisiana Street to 6th Street.	05000001, 05000002	Angelina	12020002	120200020505	Middle Neches
051000064	City of Lufkin Detention Pond Construction and Improvements	Evaluate project to quantify benefits, evaluate impacts, and begin design for a retention pond behind Inez Timms property. Increase holding capacity of existing retention ponds throughout the city.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000009, 05000010	Angelina	12020002, 12020005	120200020301, 120200020302, 120200020308, 120200020502, 120200050104	Middle Neches, Lower Angelina
051000065	Anahuac, North of Canal Drainage	Study to identify possible drainage improvements in the city limits of Anahuac. Study will focus on the area north of the Chambers-Liberty Counties Navigation District canal generally along N. Main Street, Texas Avenue, and Work Street.	05000001, 05000002	Chambers	12040202	120402020100	East Galveston Bay

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000058	City of Tyler Master Drainage Plan	56	Riverine	Tyler	Tyler	Yes	\$2,200,000	Yes
051000059	City of Whitehouse Master Drainage Plan	5	Riverine	Whitehouse	Whitehouse	Yes	\$150,000	Yes
051000060	Willie Nerron Road and Gillan Creek Bridge Replacement	2	Riverine	Angelina	Angelina	No	\$325,000	Yes
051000061	Hall Street over White Oak Creek Bridge Improvements	41	Riverine	Diboll	Diboll	Yes	\$103,000	Yes
051000062	Preliminary Engineering of Gibsonville Street and Porterville Road Bridges Improvements	48	Riverine	Huntington	Huntington	No	\$650,000	Yes
051000063	Shawnee Creek Concrete Canal	40	Riverine	Huntington	Huntington	Yes	\$390,000	Yes
051000064	City of Lufkin Detention Pond Construction and Improvements	220	Riverine	Lufkin	Lufkin	Yes	\$82,500	Yes
051000065	Anahuac, North of Canal Drainage	139	Riverine, Coastal	Chambers	Chambers	Yes	\$100,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000058	City of Tyler Master Drainage Plan	1,042	755	5,666	72	31	31	23	4	2008	None
051000059	City of Whitehouse Master Drainage Plan	36	18	67	0	1	1	1	2	None	None
051000060	Willie Nerron Road and Gillan Creek Bridge Replacement	0	0	0	0	0	0	0	0	None	None
051000061	Hall Street over White Oak Creek Bridge Improvements	155	71	593	6	0	0	7	15	2010	None
051000062	Preliminary Engineering of Gibsonville Street and Porterville Road Bridges Improvements	6	4	0	0	0	0	3	4	None	None
051000063	Shawnee Creek Concrete Canal	17	14	22	0	2	2	2	5	None	None
051000064	City of Lufkin Detention Pond Construction and Improvements	969	619	6,103	5	16	16	34	37	None	None
051000065	Anahuac, North of Canal Drainage	949	379	925	0	0	0	59	10,886	2024	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000066	Dredging West Fork- Double Bayou	Evaluate project to quantify benefits, evaluate impacts, and begin design. Improvements include dredging West Fork- Double Bayou from mouth to FM 562 bridge.	05000001, 05000002	Chambers	12040202	120402020100	East Galveston Bay
051000067	Spindletop Bayou Ditch Improvement	Evaluate project to quantify benefits, evaluate impacts, and begin design. Improvements include increasing IH10 crossings, enlarge ditches and create retention along the Spindletop Bayou in east Chambers County.	05000001, 05000002	Chambers	12040202	120402020300	East Galveston Bay
051000068	North Anahuac Drainage	Evaluate project to quantify benefits, evaluate impacts, and begin design. Improvements include expanding/repairing road ditches and culverts and channelizing the drainage outfall for the area north of Lonestar Canal.	05000001, 05000002	Chambers	12040202	120402020100	East Galveston Bay
051000069	Southeast Drainage Ditch	Evaluate project to quantify benefits, evaluate impacts, and begin design. Improvements include channelization and crossing upgrades from Benton Lane to FM 563.	05000001, 05000002	Chambers	12040202	120402020100	East Galveston Bay
051000070	Southwest Anahuac Ditch	Evaluate project to quantify benefits, evaluate impacts, and begin design. Improvements include channelization and crossing upgrades from Main Street to Bay.	05000001, 05000002	Chambers	12040202	120402020100	East Galveston Bay
051000071	City of Lumberton Adler Ditch Drainage Improvements	H&H Study to identify alternatives for improving existing drainage of Adler Ditch	05000001, 05000002, 05000007, 05000008	Hardin	12020006, 12020007	120200060407, 120200070303	Village, Pine Island Bayou
051000072	City of Lumberton East Village Creek Parkway Drainage Improvements	H&H Study to identify alternatives for improving existing drainage of East Village Creek Parkway	05000007, 05000008	Hardin	12020006, 12020007	120200060407, 120200070303	Village, Pine Island Bayou
051000073	City of Lumberton Greens Branch Ditch Western Extension	H&H Study to identify alternatives for improving existing drainage of Greens Branch Ditch	05000001, 05000002, 05000007, 05000008	Hardin	12020006, 12020007	120200060407, 120200070303	Village, Pine Island Bayou
051000074	City of Lumberton Drainage Chance Cut Off Concrete Lining	H&H Study to identify alternatives for improving existing drainage of Chance Cut Off	05000001, 05000002, 05000007, 05000008	Hardin	12020006, 12020007	120200060407, 120200070303	Village, Pine Island Bayou
051000075	City of Lumberton Detention Pond at FM 421	H&H Study to develop alternatives for detention at FM 421	05000001, 05000002, 05000005, 05000006	Hardin	12020007	120200070303	Pine Island Bayou
051000076	City of Lumberton Elevate Taft Road and Brushy Creek Subdivision	H&H Study to identify alternatives for elevating Taft Road and Brushy Creek Subdivision	05000007, 05000008	Hardin	12020006	120200060407	Village

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000066	Dredging West Fork- Double Bayou	139	Riverine, Coastal	Chambers	Chambers	Yes	\$1,400,000	Yes
051000067	Spindletop Bayou Ditch Improvement	302	Riverine, Coastal	Chambers	Chambers	Yes	\$1,500,000	Yes
051000068	North Anahuac Drainage	139	Riverine, Coastal	Anahuac	Anahuac	Yes	\$800,000	Yes
051000069	Southeast Drainage Ditch	139	Riverine, Coastal	Anahuac	Anahuac	Yes	\$125,000	Yes
051000070	Southwest Anahuac Ditch	139	Riverine, Coastal	Anahuac	Anahuac	Yes	\$125,000	Yes
051000071	City of Lumberton Adler Ditch Drainage Improvements	3	Riverine	Lumberton	Lumberton	Yes	\$100,000	Yes
051000072	City of Lumberton East Village Creek Parkway Drainage Improvements	2	Riverine	Lumberton	Lumberton	Yes	\$125,000	Yes
051000073	City of Lumberton Greens Branch Ditch Western Extension	11	Riverine	Lumberton	Lumberton	Yes	\$100,000	Yes
051000074	City of Lumberton Drainage Chance Cut Off Concrete Lining	2	Riverine	Lumberton	Lumberton	Yes	\$50,000	Yes
051000075	City of Lumberton Detention Pond at FM 421	11	Riverine	Lumberton	Lumberton	Yes	\$50,000	Yes
051000076	City of Lumberton Elevate Taft Road and Brushy Creek Subdivision	0	Riverine	Lumberton	Lumberton	Yes	\$75,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000066	Dredging West Fork- Double Bayou	949	379	925	0	0	0	59	10,886	2024	2024
051000067	Spindletop Bayou Ditch Improvement	345	237	147	0	0	0	79	22,570	2024	2024
051000068	North Anahuac Drainage	949	379	925	0	0	0	59	10,886	2024	2024
051000069	Southeast Drainage Ditch	949	379	925	0	0	0	59	10,886	2024	None
051000070	Southwest Anahuac Ditch	949	379	925	0	0	0	59	10,886	2024	2024
051000071	City of Lumberton Adler Ditch Drainage Improvements	2	2	27	0	0	0	0	18	2024	2024
051000072	City of Lumberton East Village Creek Parkway Drainage Improvements	27	17	82	0	1	1	1	1	None	None
051000073	City of Lumberton Greens Branch Ditch Western Extension	230	207	622	0	1	1	4	6	2024	2024
051000074	City of Lumberton Drainage Chance Cut Off Concrete Lining	10	10	71	0	0	0	0	1	None	None
051000075	City of Lumberton Detention Pond at FM 421	539	439	847	1	0	0	10	10	None	None
051000076	City of Lumberton Elevate Taft Road and Brushy Creek Subdivision	130	129	357	0	0	0	2	2	None	None

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000077	City of Rose Hill Acres Flood Mitigation Improvements	Develop drainage study to identify flood mitigation measures in and around Rose Hill Acres ETJ.	05000001, 05000002, 05000003, 05000004, 05000009, 05000010	Hardin	12020007	120200070303	Pine Island Bayou
051000078	City of Nacogdoches Flood Mitigation Project	H&H study to mitigate the wide-spread flooding that occurs along LaNana and Banita Creeks in the City of Nacogdoches	05000001, 05000002, 05000003, 05000004, 05000009, 05000010	Nacogdoches	12020004, 12020005	120200040704, 120200050101, 120200050102, 120200050106, 120200050201	Upper Angelina, Lower Angelina
051000079	City of Rose Hill Acres Ditch Improvements	H&H Study to identify alternatives for ditch improvements within Rose Hill Acres	05000001, 05000002	Hardin	12020007	120200070303	Pine Island Bayou
051000080	City of Rose Hill Acres Road and Bridge Elevation	H&H study to locate roadways prone to flooding and identify alternatives to improve drainage.	05000007, 05000008	Hardin	12020007	120200070303	Pine Island Bayou
051000081	City of Silsbee Easy Street Drainage Improvements	H&H study to locate roadways prone to flooding and identify alternatives to improve drainage.	05000007, 05000008	Hardin	12020006	120200060406	Village
051000082	City of Vidor Schoolhouse Ditch Alternative B	H&H study to identify alternatives for Schoolhouse Ditch	05000001, 05000002, 05000007, 05000008	Orange	12020003	120200030405, 120200030406	Lower Neches
051000083	City of Vidor Schoolhouse Ditch Alternative C	H&H study to identify alternatives for Schoolhouse Ditch	05000001, 05000002, 05000007, 05000008	Orange	12020003	120200030405, 120200030406	Lower Neches
051000084	City of Vidor Drainage Improvements	Perform H&H modeling to identify and define flood risk, develop conceptual alternatives to reduce flood risk, develop OPCC for conceptual alternatives, and rank projects. Conceptual alternatives should evaluate feasibility of nature based solutions.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000009, 05000010	Orange	12020003, 12010005	120200030405, 120100051004, 120100051003, 120200030404, 120200030406	Lower Neches, Lower Sabine
051000085	Hardin County Black Creek Detention Pond	H&H Study to develop alternatives for detention at Black Creek.	05000001, 05000002, 05000003, 05000004, 05000007, 05000008, 05000009, 05000010	Hardin	12020003	120200030307	Lower Neches
051000086	Hardin County Boggy Creek Detention Pond	H&H Study to develop alternatives for detention on Boggy Creek.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000009, 05000010	Hardin	12020006, 12020007	120200070205, 120200070303, 120200060407, 120200070301, 120200070304, 120200060405, 120200070302	Village, Pine Island Bayou
051000087	Hardin County Cooks Lake Road Bridge Elevation	H&H study to improve drainage along Cooks Lake Bridge.	05000007, 05000008	Hardin	12020003, 12020007	120200070303, 120200070304, 120200030402	Lower Neches, Pine Island Bayou

Table 12: Potential Flood Management Evaluations Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000077	City of Rose Hill Acres Flood Mitigation Improvements	0	Riverine	Rose Hill Acres	Rose Hill Acres	Yes	\$500,000	Yes
051000078	City of Nacogdoches Flood Mitigation Project	28	Riverine	Nacogdoches	Nacogdoches	Yes	\$100,000	Yes
051000079	City of Rose Hill Acres Ditch Improvements	0	Riverine	Rose Hill Acres	Rose Hill Acres	Yes	\$50,000	Yes
051000080	City of Rose Hill Acres Road and Bridge Elevation	0	Riverine	Rose Hill Acres	Rose Hill Acres	Yes	\$50,000	Yes
051000081	City of Silsbee Easy Street Drainage Improvements	4	Riverine	Silsbee	Silsbee	Yes	\$50,000	Yes
051000082	City of Vidor Schoolhouse Ditch Alternative B	3	Riverine	Orange	Orange	Yes	\$100,000	Yes
051000083	City of Vidor Schoolhouse Ditch Alternative C	3	Riverine	Orange	Orange	Yes	\$100,000	Yes
051000084	City of Vidor Drainage Improvements	10	Riverine	Orange	Orange	Yes	\$100,000	Yes
051000085	Hardin County Black Creek Detention Pond	50	Riverine	Hardin	Hardin	Yes	\$150,000	Yes
051000086	Hardin County Boggy Creek Detention Pond	43	Riverine	Hardin	Hardin	Yes	\$150,000	Yes
051000087	Hardin County Cooks Lake Road Bridge Elevation	10	Riverine	Hardin	Hardin	Yes	\$20,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000077	City of Rose Hill Acres Flood Mitigation Improvements	129	123	234	0	0	0	2	0	2024	2024
051000078	City of Nacogdoches Flood Mitigation Project	446	185	3,965	1	0	0	14	4	None	None
051000079	City of Rose Hill Acres Ditch Improvements	129	123	234	0	0	0	2	0	None	2024
051000080	City of Rose Hill Acres Road and Bridge Elevation	129	123	234	0	0	0	2	0	None	2024
051000081	City of Silsbee Easy Street Drainage Improvements	135	96	228	0	4	4	3	4	2023	2023
051000082	City of Vidor Schoolhouse Ditch Alternative B	150	111	411	0	3	3	2	0	2024	2024
051000083	City of Vidor Schoolhouse Ditch Alternative C	150	111	411	0	3	3	2	0	2024	2024
051000084	City of Vidor Drainage Improvements	541	416	1,143	1	5	5	13	1	None	2024
051000085	Hardin County Black Creek Detention Pond	23	3	11	0	0	0	8	15	None	2024
051000086	Hardin County Boggy Creek Detention Pond	648	497	1,000	1	0	0	14	43	None	2024
051000087	Hardin County Cooks Lake Road Bridge Elevation	41	23	119	0	0	0	3	8	None	2024

Table 12: Potential Flood Management Evaluations Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000088	Hardin County Reservoir	H&H study of large reservoir for flood control / drought assistance.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000009, 05000010	Hardin	12020006, 12020007	120200070205, 120200070303, 120200060407, 120200070301, 120200070304, 120200060405, 120200070302	Village, Pine Island Bayou
051000089	Hardin County South Area Drainage System	H&H study to identify alternatives for developing a drainage system to drain / retain flood waters around the communities of Pinewood, Countrywood, Bevil Oaks, and Rose Hill	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000009, 05000010	Hardin	12020003, 12020006, 12020007	Various	Lower Neches, Village, Pine Island Bayou
051000090	Hardin County SE Area Drainage System	H&H study to identify alternatives for developing a large drainage system to drain Lumberton directly into the Neches River, instead of Pine Island Bayou.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000009, 05000010	Hardin	12020003, 12020006, 12020007	Various	Lower Neches, Village, Pine Island Bayou
051000091	Hardin County Pinewood Drainage Improvements	H&H Study to identify alternatives for improving existing drainage within Pinewood.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Hardin	12020006, 12020007	120200070205, 120200070303, 120200060407, 120200070301, 120200070304, 120200060405, 120200070302	Village, Pine Island Bayou
051000092	Hardin County Coon Marsh Gully Drainage Improvements	H&H Study to identify alternatives for improving existing drainage within Marsh Gully	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Hardin	12020007	120200070205, 120200070201, 120200070204	Pine Island Bayou
051000093	Hardin County Municipal Storm Drain Project	Evaluate project to quantify benefits, evaluate impacts, and begin design.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson, Hardin	12020003, 12020006, 12020007	120200030405, 120200060407, 120200070201, 120200070203, 120200070204, 120200070205, 120200070302, 120200070303, 120200070304, 120402010200	Lower Neches, Village, Pine Island Bayou
051000094	City of Coffee City Flood-prone Roadway and Infrastructure Evaluation	Locate roadways and properties prone to flooding due to heavy rainfall	05000007, 05000008	Henderson	12020001	120200010305, 120200010307	Upper Neches
051000095	City of Moore Station Flood-prone Roadway and Infrastructure Evaluation	Locate roadways and properties prone to flooding due to heavy rainfall	05000007, 05000008	Henderson	12020001	120200010305	Upper Neches
051000096	Houston County Earthen Dike Construction	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of an earthen dike to elevate emergency vehicle access road to critical facilities to provide protection to the 500-year flood level.	05000001, 05000002, 05000003, 05000004, 05000007, 05000008	Houston	12020001, 12020002	120200010509, 120200010705, 120200010701, 120200010702, 120200010703, 120200020101, 120200020203, 120200020206, 120200020204, 120200020402, 120200020401, 120200020102, 120200020103, 120200020104, 120200020106, 120200020202	Upper Neches, Middle Neches

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000088	Hardin County Reservoir	43	Riverine	Hardin	Hardin	Yes	\$500,000	Yes
051000089	Hardin County South Area Drainage System	886	Riverine	Hardin	Hardin	Yes	\$1,000,000	Yes
051000090	Hardin County SE Area Drainage System	888	Riverine	Hardin	Hardin	Yes	\$1,250,000	Yes
051000091	Hardin County Pinewood Drainage Improvements	43	Riverine	Hardin	Hardin	Yes	\$350,000	Yes
051000092	Hardin County Coon Marsh Gully Drainage Improvements	2	Riverine	Hardin	Hardin	Yes	\$300,000	Yes
051000093	Hardin County Municipal Storm Drain Project	128	Riverine	Hardin	Hardin	Yes	\$2,000,000	Yes
051000094	City of Coffee City Flood-prone Roadway and Infrastructure Evaluation	7	Riverine	Coffee City	Coffee City	No	\$25,000	Yes
051000095	City of Moore Station Flood-prone Roadway and Infrastructure Evaluation	1	Riverine	Moore Station	Moore Station	No	\$25,000	Yes
051000096	Houston County Earthen Dike Construction	418	Riverine	Houston	Houston	No	\$16,972	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000088	Hardin County Reservoir	648	497	1,000	1	0	0	14	43	None	2024
051000089	Hardin County South Area Drainage System	3,676	2636	7,210	25	13	13	136	743	2024	2024
051000090	Hardin County SE Area Drainage System	3,678	2638	7,212	25	13	13	136	743	2024	2024
051000091	Hardin County Pinewood Drainage Improvements	648	497	1,000	1	0	0	14	43	None	2024
051000092	Hardin County Coon Marsh Gully Drainage Improvements	285	226	792	1	2	2	6	10	2024	2024
051000093	Hardin County Municipal Storm Drain Project	3,487	2863	7,462	8	5	5	75	395	2023	2024
051000094	City of Coffee City Flood-prone Roadway and Infrastructure Evaluation	4	0	6	0	0	0	1	3	None	None
051000095	City of Moore Station Flood-prone Roadway and Infrastructure Evaluation	2	1	5	0	0	0	0	0	None	None
051000096	Houston County Earthen Dike Construction	17	3	16	0	7	7	20	117	None	None

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000097	Ditch 100 A (East Caldwood) Improvements	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of 2,200 ft of channel to be retrofitted with an underground culvert to allow for shaping and resizing the ditch to allow for continued maintenance.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010200	Sabine Lake
051000098	Ditch 119 Crossings at Yount and Edson	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of crossing improvements that will protect about 50 homes and mitigate flood risk on a historically flood prone road.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010200	Sabine Lake
051000099	Lateral B4A and B4A Ext. Improvements	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of widening those channels to increase the runoff capacity – upgrading/enlarging road crossings to reduce out of bank flooding.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000100	Rodair Pump Station	Evaluate project to quantify benefits, evaluate impacts, and begin design.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000101	Upgrade to Lateral B4B	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of widening those channels to increase the runoff capacity – upgrading/enlarging road crossings to reduce out of bank flooding.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000102	Beauxart Gardens Central Ditch Improvements	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of widening those channels to increase the runoff capacity – upgrading/enlarging road crossings to reduce out of bank flooding.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000103	Houston Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000104	Grannis Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake

Table 12: Potential Flood Management Evaluations Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000097	Ditch 100 A (East Caldwell) Improvements	146	Riverine, Coastal	Jefferson County Drainage District 6	Jefferson County Drainage District 6	Yes	\$75,000	Yes
051000098	Ditch 119 Crossings at Yount and Edson	146	Riverine, Coastal	Jefferson County Drainage District 6	Jefferson County Drainage District 6	Yes	\$50,000	Yes
051000099	Lateral B4A and B4A Ext. Improvements	324	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$225,000	Yes
051000100	Rodair Pump Station	324	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$2,000,000	Yes
051000101	Upgrade to Lateral B4B	324	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$50,000	Yes
051000102	Beauxart Gardens Central Ditch Improvements	1	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$50,000	Yes
051000103	Houston Upgrade Pumping Equipment	0	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$250,000	Yes
051000104	Grannis Upgrade Pumping Equipment	0	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000097	Ditch 100 A (East Caldwell) Improvements	2,893	2271	8,660	22	5	5	70	4,386	2023	2024
051000098	Ditch 119 Crossings at Yount and Edson	2,893	2271	8,660	22	5	5	70	4,386	2023	2024
051000099	Lateral B4A and B4A Ext. Improvements	5,013	3786	12,745	83	3	3	160	9,044	2024	2024
051000100	Rodair Pump Station	5,013	3786	12,745	83	3	3	160	9,044	2024	2024
051000101	Upgrade to Lateral B4B	5,013	3786	12,745	83	3	3	160	9,044	2024	2024
051000102	Beauxart Gardens Central Ditch Improvements	226	9	277	0	0	0	2	10	2024	2024
051000103	Houston Upgrade Pumping Equipment	0	0	0	0	0	0	0	0	None	2024
051000104	Grannis Upgrade Pumping Equipment	1	0	95	0	0	0	0	0	None	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000105	Foley Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000106	Lakeside Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000107	Rodair Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010200, 120402010300	Sabine Lake
051000108	9th Avenue - Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000109	Halbouty Add two pumps (open spots in structure)	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000110	Rodair Upper Build new station with associated levee	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010200, 120402010300	Sabine Lake
051000111	Main C Diversion - Build New Pump Station and Channel	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000112	Upper Johns Gulley Upgrade Drainage Channel	H&H study to identify alternatives for Upper Johns Gulley drainage improvements	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010200, 120402010300	Sabine Lake
051000113	Central Gardens Ditch - Upgrade Drainage Channel	H&H study to identify alternatives for Central Gardens Ditch	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000114	Pure Oil Ditch Improvements	H&H study to identify alternatives for Pure Oil Ditch	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12020003	120200030407	Lower Neches

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000105	Foley Upgrade Pumping Equipment	1	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000106	Lakeside Upgrade Pumping Equipment	5	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000107	Rodair Upgrade Pumping Equipment	12	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000108	9th Avenue - Upgrade Pumping Equipment	6	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000109	Halbouty Add two pumps (open spots in structure)	12	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000110	Rodair Upper Build new station with associated levee	12	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000111	Main C Diversion - Build New Pump Station and Channel	13	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000112	Upper Johns Gulley Upgrade Drainage Channel	8	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000113	Central Gardens Ditch - Upgrade Drainage Channel	1	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000114	Pure Oil Ditch Improvements	2	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000105	Foley Upgrade Pumping Equipment	0	0	0	0	0	0	0	0	None	2024
051000106	Lakeside Upgrade Pumping Equipment	207	200	387	0	0	0	3	3	None	2024
051000107	Rodair Upgrade Pumping Equipment	511	250	981	0	0	0	10	64	None	2024
051000108	9th Avenue - Upgrade Pumping Equipment	36	19	528	0	0	0	2	1	None	2024
051000109	Halbouty Add two pumps (open spots in structure)	251	99	1,008	33	0	0	7	164	None	2024
051000110	Rodair Upper Build new station with associated levee	511	250	981	0	0	0	10	64	None	2024
051000111	Main C Diversion - Build New Pump Station and Channel	251	99	1,008	33	0	0	7	164	2024	2024
051000112	Upper Johns Gulley Upgrade Drainage Channel	0	0	0	0	0	0	1	477	2024	2024
051000113	Central Gardens Ditch - Upgrade Drainage Channel	80	76	150	0	0	0	1	0	2024	2024
051000114	Pure Oil Ditch Improvements	6	0	33	6	0	0	0	3	2024	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000115	Rodair Gulley Ditch Improvements	H&H study to identify alternatives for Rodair Gulley	05000001, 05000002, 05000003, 05000004, 05000007, 05000008	Jefferson	12040201	120402010200, 120402010300	Sabine Lake
051000116	Main C Diversion Channel Improvements	H&H study to identify alternatives for Main C Diversion Channel	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000117	Main B Channel Improvements	H&H study to identify alternatives for Main B Channel	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000118	Main A Channel Improvements	H&H study to identify alternatives for Main A Channel	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12020003, 12040201	120200030407, 120402010300	Lower Neches, Sabine Lake
051000119	Rodair Lateral 5 Detention Pond Excavation	H&H study to identify additional detention required to expand existing level of service	05000001, 05000002, 05000003, 05000004, 05000007, 05000008, 05000009, 05000010	Jefferson	12040201	120402010200, 120402010300	Sabine Lake
051000120	Halbouty Detention Pond Excavation	H&H study to identify additional detention required to expand existing level of service	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000009, 05000010	Jefferson	12040201	120402010300	Sabine Lake
051000121	9th Avenue Additional Detention Excavation	H&H study to identify additional detention required to improve existing level of service	05000001, 05000002, 05000003, 05000004, 05000007, 05000008, 05000009, 05000010	Jefferson	12040201	120402010300	Sabine Lake
051000122	Tevis Diversion	H&H study to identify alternatives for a diversion to the Neches River.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12020003, 12040201	120200030406, 120402010200	Lower Neches, Sabine Lake
051000123	JCDD7 Hurricane Flood Protection Levee Study	Study to identify possible upgrades to levees to help reduce the risk of flooding and to help the District review and update levees in jurisdictional area.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000009, 05000010	Jefferson	12020003, 12040201	120200030407, 120200030406, 120402010200, 120402010300	Lower Neches, Sabine Lake

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000115	Rodair Gulley Ditch Improvements	12	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000116	Main C Diversion Channel Improvements	13	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000117	Main B Channel Improvements	6	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000118	Main A Channel Improvements	6	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000119	Rodair Lateral 5 Detention Pond Excavation	2	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000120	Halbouty Detention Pond Excavation	12	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000121	9th Avenue Additional Detention Excavation	6	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000122	Tevis Diversion	3	Riverine	Jefferson County Drainage District 6	Jefferson County Drainage District 6	Yes	\$100,000	Yes
051000123	JCDD7 Hurricane Flood Protection Levee Study	112	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$777,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000115	Rodair Gulley Ditch Improvements	511	250	981	0	0	0	10	64	2024	2024
051000116	Main C Diversion Channel Improvements	251	99	1,008	33	0	0	7	164	2024	2024
051000117	Main B Channel Improvements	876	741	4,603	17	0	0	19	8	2024	2024
051000118	Main A Channel Improvements	147	111	822	2	0	0	3	4	2024	2024
051000119	Rodair Lateral 5 Detention Pond Excavation	29	3	132	0	0	0	1	6	None	2024
051000120	Halbouty Detention Pond Excavation	251	99	1,008	33	0	0	7	164	None	2024
051000121	9th Avenue Additional Detention Excavation	36	19	528	0	0	0	2	1	None	2024
051000122	Tevis Diversion	300	256	1,152	1	0	0	9	0	2024	2024
051000123	JCDD7 Hurricane Flood Protection Levee Study	4,705	3668	12,671	82	3	3	95	876	2024	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000124	Crane Bayou Channel Improvements	H&H study to identify alternatives for Crane Bayou Channel	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12020003, 12040201	120200030407, 120402010300	Lower Neches, Sabine Lake
051000125	Rodair Upper Additional Pump Station	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000007, 05000008	Jefferson	12040201	120402010200, 120402010300	Sabine Lake
051000126	South Park Diversion	H&H study to identify alternatives for a diversion to the Neches River.	05000001, 05000002, 05000003, 05000004, 05000007, 05000008	Jefferson	12020003, 12040201	120200030406, 120402010200	Lower Neches, Sabine Lake
051000127	Blanchette Diversion	H&H study to identify alternatives for a diversion to the Neches River.	05000001, 05000002, 05000003, 05000004, 05000007, 05000008	Jefferson	12020003, 12040201	120200030406, 120402010200	Lower Neches, Sabine Lake
051000128	Rodair Gully System Detention	H&H study to identify additional detention required to expand existing level of service	05000001, 05000002, 05000003, 05000004, 05000007, 05000008, 05000009, 05000010	Jefferson	12040201	120402010200, 120402010300	Sabine Lake
051000129	El Vista Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000130	W. Port Arthur Road Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000131	Central - Upgrade Pumping Equipment and Structure	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000132	Star Lake Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000133	Crane Bayou Additional Pumping	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000005, 05000006, 05000007, 05000008	Jefferson	12020003, 12040201	120200030407, 120402010300	Lower Neches, Sabine Lake

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000124	Crane Bayou Channel Improvements	7	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000125	Rodair Upper Additional Pump Station	12	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000126	South Park Diversion	6	Riverine	Jefferson County Drainage District 6	Jefferson County Drainage District 6	Yes	\$100,000	Yes
051000127	Blanchette Diversion	8	Riverine	Jefferson County Drainage District 6	Jefferson County Drainage District 6	Yes	\$100,000	Yes
051000128	Rodair Gully System Detention	12	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000129	El Vista Upgrade Pumping Equipment	2	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000130	W. Port Arthur Road Upgrade Pumping Equipment	1	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000131	Central - Upgrade Pumping Equipment and Structure	3	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000132	Star Lake Upgrade Pumping Equipment	1	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000133	Crane Bayou Additional Pumping	7	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000124	Crane Bayou Channel Improvements	359	320	775	3	0	0	5	0	2024	2024
051000125	Rodair Upper Additional Pump Station	511	250	981	0	0	0	10	64	2024	2024
051000126	South Park Diversion	16	11	259	0	0	0	1	0	2024	2024
051000127	Blanchette Diversion	88	38	558	0	0	0	2	4	2024	2024
051000128	Rodair Gully System Detention	511	250	981	0	0	0	10	64	2024	2024
051000129	El Vista Upgrade Pumping Equipment	507	415	750	0	0	0	10	2	None	2024
051000130	W. Port Arthur Road Upgrade Pumping Equipment	3	0	4	0	0	0	0	0	None	2024
051000131	Central - Upgrade Pumping Equipment and Structure	0	0	0	0	0	0	0	0	None	2024
051000132	Star Lake Upgrade Pumping Equipment	1	1	0	0	0	0	0	0	None	2024
051000133	Crane Bayou Additional Pumping	359	320	775	3	0	0	5	0	None	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000134	Lakeview Additional Pumping	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000135	City of Daisetta Drainage Projects	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of drainage improvements throughout the city to include widening culverts and ditches.	05000001, 05000002, 05000003, 05000004, 05000007, 05000008	Liberty	12020007	120200070108	Pine Island Bayou
051000136	Liberty County Culvert Replacement Project	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of increasing culvert size in identified flood hazard problem areas within Liberty County.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Liberty	12020007, 12030203, 12040201, 12040202	120200070109, 120200070102, 120200070101, 120200070110, 120200070104, 120200070105, 120200070107, 120200070106, 120200070103, 120200070108, 120200070201, 120302030202, 120402020100, 120402020200, 120402010100	Pine Island Bayou, Lower Trinity, Sabine Lake, East Galveston Bay
051000137	Liberty County Recanalization Feasibility Study	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of dechannelizing existing feeder creeks that flow from north to south and improve drainage for storm water runoff.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Liberty	12020007, 12030203, 12040201, 12040202	120200070109, 120200070102, 120200070101, 120200070110, 120200070104, 120200070105, 120200070107, 120200070106, 120200070103, 120200070108, 120200070201, 120302030202, 120402020100, 120402020200, 120402010100	Pine Island Bayou, Lower Trinity, Sabine Lake, East Galveston Bay
051000138	Stadium Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000139	Delmar Upgrade Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000140	DeQueen Additional Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake
051000141	Shreveport Additional Pumping Equipment	H&H study to size pump upgrades and improve existing level of service.	05000001, 05000002, 05000007, 05000008	Jefferson	12040201	120402010300	Sabine Lake

Table 12: Potential Flood Management Evaluations Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000134	Lakeview Additional Pumping	2	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000135	City of Daisetta Drainage Projects	1	Riverine	Daisetta	Daisetta	Yes	\$150,000	Yes
051000136	Liberty County Culvert Replacement Project	235	Riverine	Liberty	Liberty	Yes	\$100,657	Yes
051000137	Liberty County Recanalization Feasibility Study	235	Riverine	Liberty	Liberty	Yes	\$26,171	Yes
051000138	Stadium Upgrade Pumping Equipment	0	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000139	Delmar Upgrade Pumping Equipment	1	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000140	DeQueen Additional Pumping Equipment	1	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes
051000141	Shreveport Additional Pumping Equipment	0	Riverine	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$100,000	Yes

Table 12: Potential Flood Management Evaluations Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000134	Lakeview Additional Pumping	216	215	479	0	0	0	2	0	None	2024
051000135	City of Daisetta Drainage Projects	0	0	0	0	0	0	0	0	2023	2024
051000136	Liberty County Culvert Replacement Project	116	57	140	1	0	0	7	1,526	2024	2024
051000137	Liberty County Recanalization Feasibility Study	116	57	140	1	0	0	7	1,526	2024	2018
051000138	Stadium Upgrade Pumping Equipment	6	6	27	0	0	0	0	0	None	2024
051000139	Delmar Upgrade Pumping Equipment	676	646	1,618	0	0	0	6	0	None	2024
051000140	DeQueen Additional Pumping Equipment	0	0	0	0	0	0	0	0	None	2024
051000141	Shreveport Additional Pumping Equipment	0	0	0	0	0	0	0	0	None	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000142	Delaware Diversion	Divert storm runoff out of Beaumont from the Hillebrandt watershed to the Neches River.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Jefferson	12020007, 12020003, 12040201	120200070304, 120200030405, 120402010200	#N/A
051000143	Tyrrell Park Detention	Install a detention pond in the vicinity of Tyrrell Park Rd. within the city of Beaumont.	05000001, 05000002, 05000003, 05000004, 05000007, 05000008	Jefferson	12040201	120402010200	Sabine Lake
051000144	Mayhaw Lateral Improvements	Rectify negative impacts to properties downstream of IH-10 caused by additional drainage crossings	05000001, 05000002, 05000003, 05000004, 05000007, 05000008	Jefferson, Chambers	12040201, 12040202	120402010100, 120402020200, 120402020300	Sabine Lake, East Galveston Bay
051000145	Feasibility Assessment for Increase in Size of Culverts and Railroad Trestles on Major Drainage Structures Throughout Orange County	H&H Study to analyze most efficient alternatives for dredging, widening, or otherwise improving culverts and railroad trestles within Orange County.	05000005, 05000006, 05000007, 05000008	Orange	12010005, 12020003, 12040201	120100051004, 120100051005, 120200030402, 120200030403, 120200030404, 120200030405, 120200030406, 120200030407, 120402010500	Lower Sabine, Lower Neches, Sabine Lake
051000146	Feasibility Assessment of the Capacity of Drainage Ditches and Channels that Convey Stormwater from Neighborhoods Located Within Orange County	H&H Study to analyze most efficient alternatives for improving existing drainage ditches and channels linked to neighborhoods within Orange County.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Orange	12010005, 12020003, 12040201	120100051004, 120100051005, 120200030402, 120200030403, 120200030404, 120200030405, 120200030406, 120200030407, 120402010500	Lower Sabine, Lower Neches, Sabine Lake
051000147	Orange County DD Harvey Repairs	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of repairing damage to drainage ditches, crossings, culverts, levees, and right-of-ways caused by Hurricane Harvey to restore pre-flood capacity.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Orange	12010005, 12020003, 12040201	120200030407, 120200030404, 120200030405, 120200030406, 120200030402, 120200030403, 120100051005, 120100051004, 120402010500	Lower Sabine, Lower Neches, Sabine Lake
051000148	Orange County DD SW Detention/Retention Facilities	Evaluate project to quantify benefits, evaluate impacts, and begin design. Project consists of stormwater detention/retention facilities throughout OCDD.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008, 05000009, 05000010	Orange	12010005, 12020003, 12040201	120200030407, 120200030404, 120200030405, 120200030406, 120200030402, 120200030403, 120100051005, 120100051004, 120402010500	Lower Sabine, Lower Neches, Sabine Lake

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000142	Delaware Diversion	7	Riverine	Jefferson County Drainage District 6	Jefferson County Drainage District 6	Yes	\$500,000	Yes
051000143	Tyrrell Park Detention	5	Riverine	Jefferson County Drainage District 6	Jefferson County Drainage District 6	Yes	\$500,000	Yes
051000144	Mayhaw Lateral Improvements	47	Riverine	Jefferson County Drainage District 6	Jefferson County Drainage District 6	Yes	\$2,200,000	Yes
051000145	Feasibility Assessment for Increase in Size of Culverts and Railroad Trestles on Major Drainage Structures Throughout Orange County	156	Riverine, Coastal	Orange County Drainage District	Orange County Drainage District	Yes	\$150,000	Yes
051000146	Feasibility Assessment of the Capacity of Drainage Ditches and Channels that Convey Stormwater from Neighborhoods Located Within Orange County	156	Riverine, Coastal	Orange County Drainage District	Orange County Drainage District	Yes	\$100,000	Yes
051000147	Orange County DD Harvey Repairs	156	Riverine, Coastal	Orange County Drainage District	Orange County Drainage District	Yes	\$130,000	Yes
051000148	Orange County DD SW Detention/Retention Facilities	156	Riverine, Coastal	Orange County Drainage District	Orange County Drainage District	Yes	\$130,000	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000142	Delaware Diversion	583	476	2,441	1	0	0	12	0	2024	2024
051000143	Tyrrell Park Detention	1	1	0	0	0	0	2	258	None	2024
051000144	Mayhaw Lateral Improvements	401	267	534	0	3	3	28	2,479	2024	2024
051000145	Feasibility Assessment for Increase in Size of Culverts and Railroad Trestles on Major Drainage Structures Throughout Orange County	5,007	4273	8,737	36	20	20	136	346	2024	2024
051000146	Feasibility Assessment of the Capacity of Drainage Ditches and Channels that Convey Stormwater from Neighborhoods Located Within Orange County	5,007	4273	8,737	36	20	20	136	346	2024	2024
051000147	Orange County DD Harvey Repairs	5,007	4273	8,737	36	20	20	136	346	2024	2024
051000148	Orange County DD SW Detention/Retention Facilities	5,007	4273	8,737	36	20	20	136	346	2024	2024

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Description	Associated Goals	Counties	HUC8s	HUC12s	Watershed Name
051000149	Feasibility Assessment of Widening and Deepening Segments of Tiger Creek	H&H Study to analyze most efficient alternatives for constructing improvements to segments of Tiger Creek.	05000001, 05000002, 05000003, 05000004, 05000007, 05000008	Orange, Jasper	12020003	120200030404	Lower Neches
051000150	Feasibility Assessment of Construction of a Stormwater Detention Pond Adjacent to Tiger Creek	H&H Study to analyze most efficient alternatives for constructing a stormwater detention pond in the vicinity of Tiger Creek.	05000001, 05000002, 05000003, 05000004, 05000007, 05000008, 05000009, 05000010	Orange, Jasper	12020003	120200030404	Lower Neches
051000151	Feasibility Assessment of Widening and Deepening Segments of Ten-Mile Creek	H&H Study to analyze most efficient alternatives for constructing improvements to segments of Ten-Mile Creek.	05000001, 05000002, 05000003, 05000004, 05000007, 05000008	Orange, Jasper	12020003	120200030403	Lower Neches
051000152	Feasibility Assessment of Widening and Deepening Segments of Anderson Gully	H&H Study to analyze most efficient alternatives for constructing improvements to segments of Anderson Gully.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Orange, Jefferson	12020003	120200030406	Lower Neches
051000153	City of Bullard Culvert Upgrades	Study to evaluate existing culverts for current condition and identify culverts that need to be upgraded.	05000001, 05000002, 05000003, 05000004, 05000007, 05000008	Smith	12020001	120200010306, 120200010401, 120200040105	Upper Neches
051000154	Smith County Drainage Capacity Upgrades	Study to evaluate existing culverts within Smith County and identify culverts that need to be upgraded.	05000001, 05000002, 05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Smith	12020001, 12020004	Various	Upper Neches, Upper Angelina
051000155	Bridge City Drainage Outfall Improvement Project	Improve and extend three major drainage ditches and extend a neighborhood outfall to reduce structural flooding in residences within the area.	05000003, 05000004, 05000005, 05000006, 05000007, 05000008	Orange	12010005, 12020003, 12040201	120100051005, 120200030407, 120402010500	Lower Sabine, Lower Neches, Sabine Lake
051000156	Colonial Outfall Ditch Culvert Improvements	H&H Study to analyze most efficient alternatives to install new culverts along FM 1442 (Bridge City) at Colonial Outfall Ditch.	05000007, 05000008	Orange	12020003	120200030407	Lower Neches
051000157	City of Beaumont Drainage Studies	H&H Study to analyze most efficient alternatives to install new culverts along FM 1442 (Bridge City) at Colonial Outfall Ditch.	05000001, 05000002	Jefferson	12020003, 12040201	120200030405, 120200030406, 120402010200	Lower Neches, Sabine Lake

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	FME Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need	Estimated Study Cost	Potential Funding Sources and Amount
051000149	Feasibility Assessment of Widening and Deepening Segments of Tiger Creek	28	Riverine	Orange County Drainage District	Orange County Drainage District	Yes	\$150,000	Yes
051000150	Feasibility Assessment of Construction of a Stormwater Detention Pond Adjacent to Tiger Creek	28	Riverine	Orange County Drainage District	Orange County Drainage District	Yes	\$100,000	Yes
051000151	Feasibility Assessment of Widening and Deepening Segments of Ten-Mile Creek	46	Riverine	Orange County Drainage District	Orange County Drainage District	Yes	\$175,000	Yes
051000152	Feasibility Assessment of Widening and Deepening Segments of Anderson Gully	42	Riverine, Coastal	Orange County Drainage District	Orange County Drainage District	Yes	\$325,000	Yes
051000153	City of Bullard Culvert Upgrades	3	Riverine	Bullard	Bullard	No	\$50,000	Yes
051000154	Smith County Drainage Capacity Upgrades	510	Riverine	Smith	Smith	Yes	\$225,000	Yes
051000155	Bridge City Drainage Outfall Improvement Project	4	Riverine, Coastal	Orange County Drainage District	Orange County Drainage District	Yes	\$200,000	Yes
051000156	Colonial Outfall Ditch Culvert Improvements	1	Riverine, Coastal	Orange County Drainage District	Orange County Drainage District	Yes	\$200,000	Yes
051000157	City of Beaumont Drainage Studies	1	Riverine	Beaumont	Beaumont	Yes	\$118,750	Yes

Table 12: Potential Flood Management Evaluations
Identified by RFPG

FME ID	FME Name	Estimated number of structures at flood risk	Habitable structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	Existing or Anticipated Models (year)	Existing or Anticipated Maps (year)
051000149	Feasibility Assessment of Widening and Deepening Segments of Tiger Creek	848	762	1,268	0	5	5	17	15	2024	2024
051000150	Feasibility Assessment of Construction of a Stormwater Detention Pond Adjacent to Tiger Creek	848	762	1,268	0	5	5	17	15	2024	2024
051000151	Feasibility Assessment of Widening and Deepening Segments of Ten-Mile Creek	415	350	748	0	2	2	13	44	2024	2024
051000152	Feasibility Assessment of Widening and Deepening Segments of Anderson Gully	1,366	890	2,262	194	9	9	35	140	2024	2024
051000153	City of Bullard Culvert Upgrades	0	0	0	0	0	0	0	0	None	None
051000154	Smith County Drainage Capacity Upgrades	2,347	1064	6,216	72	42	42	50	216	2024	2024
051000155	Bridge City Drainage Outfall Improvement Project	1,889	1635	3,394	6	1	1	36	6	2024	2024
051000156	Colonial Outfall Ditch Culvert Improvements	188	180	905	0	1	1	5	1	2024	2024
051000157	City of Beaumont Drainage Studies	29	3	588	0	0	0	0	0	2019	2024

Table 13: Potentially Feasible
Flood Mitigation Projects Identified by RFPG

FMP ID	FMP Name	Description	Associated Goals (ID)	Counties	HUC8s	HUC12s	Watershed Name	Project Type	Project Area (sqmi)	Flood Risk Type	Sponsor	Entities with Oversight	Emergency Need (Y/N)	Estimated Project Cost (\$)	Potential Funding Sources and Amount
053000001	Bayou Din Detention Basin	Construct a new detention basin with nearby channel and crossing improvements in the vicinity of Bayou Din.	05000001, 05000002	Jefferson	12040201	120402010100, 120402010200	Sabine Lake	Detention Pond	19	Riverine, Coastal	Jefferson County Drainage District 6	Jefferson County Drainage District 6	Yes	\$85,000,000	Local funds (JCDD6), Unknown Amount
053000002	Bessie Heights Drainage Ditch Extension Project	Expand the Bessie Heights Drainage Ditch to address flooding risk to residential properties in the area.	05000001, 05000002	Orange	12020003	120200030407	Lower Neches	Channel	3	Riverine, Coastal	Orange County Drainage District	Orange County Drainage District	Yes	\$4,250,000	Local funds (OCDD), Unknown Amount
053000003	Channel 100-A Concrete Repair	Conduct repairs and install improvements to Channel 100-A located within the city of Beaumont.	05000001, 05000002, 05000005, 05000006	Jefferson	12040201	120402010200	Sabine Lake	Channel	3	Riverine, Coastal	Jefferson County Drainage District 6	Jefferson County Drainage District 6	Yes	\$39,570,866	Local funds (JCDD6), Unknown Amount
053000004	Port Arthur and Vicinity Coastal Storm Risk Management Project	Construct levees, floodwalls, pump stations, drainage structures, and other flood mitigation infrastructure to reduce adverse flood impact in the vicinity of the city of Port Arthur.	05000001, 05000002, 05000005, 05000006,	Jefferson	12020003, 12040201	120200030407, 120402010300	Lower Neches, Sabine Lake	Comprehensive	66	Riverine, Coastal	Jefferson County Drainage District 7	Jefferson County Drainage District 7	Yes	\$863,000,000	Federal (USACE), Local funds (JCDD7), \$863,000,000
053000005	Orange County Coastal Storm Risk Management Project	Construct levees, floodwalls, pump stations, drainage structures, and other flood mitigation infrastructure to reduce adverse flood impact in Orange County.	05000001, 05000002, 05000005, 05000006	Orange	12020003, 12010005, 12040201	120200030407, 120100051005, 120100051004, 120402010500	Lower Neches, Lower Sabine, Sabine Lake	Comprehensive	14	Riverine, Coastal	Orange County Drainage District	Orange County Drainage District	Yes	\$119,900,000	Federal (USACE), Local funds (OCDD and GCPD), \$119,900,000 within Region 5

Table 13: Potentially Feasible
Flood Mitigation Projects Identified by RFPG

FMP ID	FMP Name	Flood Risk									
		Area in 100yr (1% annual chance) Floodplain	Area in 500yr (0.2% annual chance) Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at 100 year flood risk	Estimated Population at 100 year flood risk	Critical facilities at 100 year flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at 100 year flood risk (Miles)	Estimated farm & ranch land at 100 year flood risk (acres)
053000001	Bayou Din Detention Basin	10	3	534	395	1,297	21	5	5	15	1,048
053000002	Bessie Heights Drainage Ditch Extension Project	1	0	139	125	207	0	0	0	3	6
053000003	Channel 100-A Concrete Repair	2	0	1,622	1,200	7,388	9	0	0	24	2
053000004	Port Arthur and Vicinity Coastal Storm Risk Management Project	32	18	23,310	19,801	49,671	1,201	3	3	327	97
053000005	Orange County Coastal Storm Risk Management Project	8	6	3,872	3,409	6,708	49	1	1	61	43

Table 13: Potentially Feasible Flood Mitigation Projects Identified by RFPG

FMP ID	FMP Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr (1% annual chance) Flood risk	Number of structures removed from 100yr (1% annual chance) Flood risk	Number of structures removed from 500yr (0.2% annual chance) Flood risk	Residential structures removed from 100yr (1% annual chance) Flood risk	Estimated Population removed from 100yr (1% annual chance) Flood risk	Critical facilities removed from 100yr (1% annual chance) Flood risk (#)	Number of low water crossings removed from 100yr (1% annual chance) Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities (if available)	Estimated reduction in injuries (if available)
053000001	Bayou Din Detention Basin	97	101	91	41	286	4	0	0	0	44.93326	Unknown	Unknown
053000002	Bessie Heights Drainage Ditch Extension Project	3	8	0	8	10	0	0	0	0	0	Unknown	Unknown
053000003	Channel 100-A Concrete Repair	452	10	10	8	53	0	0	0	0	0	Unknown	Unknown
053000004	Port Arthur and Vicinity Coastal Storm Risk Management Project	441	3275	2000	2308	8315	71	0	0	32	12.24948	Unknown	Unknown
053000005	Orange County Coastal Storm Risk Management Project	175	201	419	136	357	0	0	0	2	2.123139	Unknown	Unknown

Table 13: Potentially Feasible Flood Mitigation Projects Identified by RFPG

FMP ID	FMP Name	Pre-Project Level of Service	Post-Project Level of Service	Cost/ Structure removed	Percent Nature-based Solution (by cost)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Social Vulnerability Index (SVI)	Water Supply Benefit (Y/N)	Traffic Count for Low Water Crossings	Benefit-Cost Ratio
053000001	Bayou Din Detention Basin	Unknown	Project will be designed to the 500-YR event with an estimated project useful life of 75 years.	\$442,708	0	No	No	0.213	No	N/A	4.9
053000002	Bessie Heights Drainage Ditch Extension Project	Unknown	Project will be designed to reduce impact from the 100-YR event.	\$531,250	0	No	No	0.156	No	N/A	0.01
053000003	Channel 100-A Concrete Repair	Unknown	Project will be designed to the 500-YR event with an estimated project useful life of 75 years.	\$1,978,543	0	No	No	0.726	No	N/A	11.21
053000004	Port Arthur and Vicinity Coastal Storm Risk Management Project	Unknown	Project will be designed to reduce impact from the 500-YR event.	\$163,708	0	No	No	0.574	No	N/A	4.6
053000005	Orange County Coastal Storm Risk Management Project	Unknown	Project will be designed to reduce impact from the 500-YR event.	\$193,387	0	No	No	0.164	No	N/A	1.2

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000001	Anderson County Flood Education Program	Educate homeowners to increase awareness about the hazard of flooding and to inform residents of mitigation actions to reduce risk.	Anderson	\$50,000	\$0
052000002	Anderson County Natural Hazards Education Program Development	Develop, enhance and implement education programs to increase awareness of natural hazards and to inform residents of mitigation actions to reduce risk to citizens, public infrastructure, private property owners, businesses and schools.	Anderson	\$50,000	\$0
052000003	City of Frankston Flood Education Program	The City will provide public education on the dangers of flash flooding, and to inform residents of mitigation actions to reduce risk to citizens, public infrastructure, private property owners, businesses and schools.	Frankston	\$50,000	\$0
052000004	Angelina County Public Education on Mitigation Techniques	Publish educational materials to inform the public in methods of mitigating private property against natural hazard damage.	Angelina	\$10,000	\$0
052000005	Chambers County Public Education on Mitigation Techniques	Implement an outreach and education campaign to educate the public on mitigation techniques for all hazards to reduce loss of life and property.	Chambers	\$50,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000001	Anderson County Flood Education Program	70.71	3.95	69	28	73	0	2	2	22	348
052000002	Anderson County Natural Hazards Education Program Development	70.71	3.95	69	28	73	0	2	2	22	348
052000003	City of Frankston Flood Education Program	0.24	0.02	0	0	0	0	0	0	0	0
052000004	Angelina County Public Education on Mitigation Techniques	228.11	10.45	1,201	750	8,420	11	19	19	66	165
052000005	Chambers County Public Education on Mitigation Techniques	264.64	106.76	1,175	459	1,431	0	0	0	162	36,933

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000001	Anderson County Flood Education Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000002	Anderson County Natural Hazards Education Program Development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000003	City of Frankston Flood Education Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000004	Angelina County Public Education on Mitigation Techniques	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000005	Chambers County Public Education on Mitigation Techniques	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000001	Anderson County Flood Education Program	N/A	0	No	No	No
052000002	Anderson County Natural Hazards Education Program Development	N/A	0	No	No	No
052000003	City of Frankston Flood Education Program	N/A	0	No	No	No
052000004	Angelina County Public Education on Mitigation Techniques	N/A	0	No	No	No
052000005	Chambers County Public Education on Mitigation Techniques	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000006	City of Gallatin "Turn Around Don't Drown" Campaign	Promote the "Turn Around Don't Drown" campaign in partnership with DPS.	Gallatin	\$10,000	\$0
052000007	City of Jacksonville Public Education on Mitigation Actions	Develop and implement public education program to educate the public on mitigation actions to reduce their risk, along with posting updated pertinent weather information on City social media during weather events.	Jacksonville	\$20,000	\$0
052000008	City of Rusk "Turn Around Don't Drown" Campaign	Promote the "Turn Around Don't Drown" campaign in partnership with DPS.	Rusk	\$10,000	\$0
052000009	Henderson County Emergency Training Program	Increase training opportunities for citizens to encourage their involvement in mitigation efforts.	Henderson	\$50,000	\$0
052000010	City of Berryville Public Education on Mitigation Techniques	Provide materials and data sources to educate citizens of all potential hazards in the planning area and methods to mitigate hazards and increase awareness.	Berryville	\$3,000	\$0
052000011	City of Brownsboro Flood Mitigation Education for City Officials and Citizens	Seek FEMA and State training in flood mitigation to assist with NFIP and encourage awareness of flood hazard and National Flood Insurance Program assistance to citizens	Brownsboro	\$5,000	\$0
052000012	City of Brownsboro Public Education on Mitigation Techniques	Provide materials and data sources to educate citizens of all potential hazards in the planning area and methods to mitigate hazards and increase awareness.	Brownsboro	\$5,000	\$0
052000013	City of Chandler Citizen/Business/City Mitigation Strategy Planning	Encourage the development of public and private partnership with businesses, service organizations and other community groups to work together on mitigation	Chandler	\$10,000	\$0
052000014	City of Chandler Public Education on Code Red System	Provide public training and education materials about the Code Red system and how to register for the warning system notifications	Chandler	\$10,000	\$0
052000015	Houston County Property Elevation and Public Education on NFIP	Conduct program to educate residents on NFIP/availability of flood insurance and elevating new construction in and outside of mapped floodplain areas.	Houston	\$10,000	\$0
052000016	Houston County Public Education Program on Emergency Evacuation	Conduct public education program and advertise Houston County Emergency Evacuation Plan, such as escape routes in coordination with TxDOT.	Houston	\$22,200	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000006	City of Gallatin "Turn Around Don't Drown" Campaign	0.84	0.06	2	2	0	0	0	0	1	60
052000007	City of Jacksonville Public Education on Mitigation Actions	0.66	0.26	192	134	606	0	7	7	4	4
052000008	City of Rusk "Turn Around Don't Drown" Campaign	0.54	0.06	41	9	462	0	0	0	2	1
052000009	Henderson County Emergency Training Program	74.63	3.94	240	108	267	0	1	1	20	348
052000010	City of Berryville Public Education on Mitigation Techniques	0.07	0.01	0	0	0	0	0	0	0	0
052000011	City of Brownsboro Flood Mitigation Education for City Officials and Citizens	0.55	0.05	32	15	52	0	0	0	1	8
052000012	City of Brownsboro Public Education on Mitigation Techniques	0.55	0.05	32	15	52	0	0	0	1	8
052000013	City of Chandler Citizen/Business/City Mitigation Strategy Planning	1.03	0.07	29	13	105	0	0	0	1	7
052000014	City of Chandler Public Education on Code Red System	1.03	0.07	29	13	105	0	0	0	1	7
052000015	Houston County Property Elevation and Public Education on NFIP	61.41	4.75	17	3	16	0	7	7	20	117
052000016	Houston County Public Education Program on Emergency Evacuation	61.41	4.75	17	3	16	0	7	7	20	117

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000006	City of Gallatin "Turn Around Don't Drown" Campaign	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000007	City of Jacksonville Public Education on Mitigation Actions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000008	City of Rusk "Turn Around Don't Drown" Campaign	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000009	Henderson County Emergency Training Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000010	City of Berryville Public Education on Mitigation Techniques	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000011	City of Brownsboro Flood Mitigation Education for City Officials and Citizens	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000012	City of Brownsboro Public Education on Mitigation Techniques	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000013	City of Chandler Citizen/Business/City Mitigation Strategy Planning	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000014	City of Chandler Public Education on Code Red System	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000015	Houston County Property Elevation and Public Education on NFIP	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000016	Houston County Public Education Program on Emergency Evacuation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000006	City of Gallatin "Turn Around Don't Drown" Campaign	N/A	0	No	No	No
052000007	City of Jacksonville Public Education on Mitigation Actions	N/A	0	No	No	No
052000008	City of Rusk "Turn Around Don't Drown" Campaign	N/A	0	No	No	No
052000009	Henderson County Emergency Training Program	N/A	0	No	No	No
052000010	City of Berryville Public Education on Mitigation Techniques	N/A	0	No	No	No
052000011	City of Brownsboro Flood Mitigation Education for City Officials and Citizens	N/A	0	No	No	No
052000012	City of Brownsboro Public Education on Mitigation Techniques	N/A	0	No	No	No
052000013	City of Chandler Citizen/Business/City Mitigation Strategy Planning	N/A	0	No	No	No
052000014	City of Chandler Public Education on Code Red System	N/A	0	No	No	No
052000015	Houston County Property Elevation and Public Education on NFIP	N/A	0	No	No	No
052000016	Houston County Public Education Program on Emergency Evacuation	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000017	City of Kennard Public Awareness Program	Conduct public awareness program and distribute NFIP education information to citizens including availability of flood insurance.	Houston	\$10,000	\$0
052000018	JCDD6 Public Education Material Distribution	Develop distribution centers in local libraries, DD6 facilities, DD6 website and other public buildings where information and safety guidance on natural and manmade hazards as well as ways to mitigate hazards can be provided to citizens	Jefferson County Drainage District 6	\$50,000	\$0
052000019	City of Daisetta Education of City Council on Mitigation Benefits	Educate City Council on benefits of mitigation and encourage council members to become more involved.	Daisetta	\$10,000	\$0
052000020	City of Nacogdoches Public Education Program	Develop and promote a public education program regarding flood hazards, NFIP, and flood plain regulations.	Nacogdoches	\$20,000	\$0
052000021	Polk County Public Education Campaign	Initiate public education campaign to improve the community's understanding and access to information on natural hazards and how to improve level of protection for their homes.	Polk	\$50,000	\$0
052000022	San Augustine County Public Education on Mitigation Techniques	Includes programs in schools and senior citizen centers, pamphlets, and community meetings.	San Augustine	\$10,600	\$0
052000023	Shelby County Public Education on Hazards	Educate the residents of Shelby County and participating jurisdictions on safety and planning for the hazards identified in this plan	Shelby	\$50,000	\$0
052000024	City of Groveton Public Education on Mitigation Actions	Create a program to educate the public about specific mitigation actions for multiple hazards	Groveton	\$5,100	\$0
052000025	Trinity County Public Education on Mitigation Actions	Create a program to educate the public about specific mitigation actions for multiple hazards	Trinity	\$10,200	\$0
052000026	Anderson County Code Red System	Plan and implement a new publicity campaign to expand enrollment in CODE RED notification system; use CODE RED to warn of impending hazard events.	Anderson	\$100,000	\$0
052000027	Angelina County Siren Warning System Installation	Install warning siren system.	Angelina	\$209,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000017	City of Kennard Public Awareness Program	61.41	4.75	17	3	16	0	7	7	20	117
052000018	JCDD6 Public Education Material Distribution	254.21	35.05	6,491	5,238	20,772	30	16	16	215	20,945
052000019	City of Daisetta Education of City Council on Mitigation Benefits	0.16	0.01	0	0	0	0	0	0	0	0
052000020	City of Nacogdoches Public Education Program	3.41	0.27	446	185	5,331	1	0	0	14	4
052000021	Polk County Public Education Campaign	100.67	5.34	84	45	368	0	8	8	17	62
052000022	San Augustine County Public Education on Mitigation Techniques	122.71	4.35	64	28	146	0	2	2	13	42
052000023	Shelby County Public Education on Hazards	21.60	1.07	15	0	8	0	4	4	5	56
052000024	City of Groveton Public Education on Mitigation Actions	0.03	0.00	3	3	2	0	0	0	0	0
052000025	Trinity County Public Education on Mitigation Actions	73.89	5.11	32	15	15	0	1	1	22	68
052000026	Anderson County Code Red System	70.71	3.95	69	28	73	0	2	2	22	348
052000027	Angelina County Siren Warning System Installation	228.11	10.45	1,201	750	8,420	11	19	19	66	165

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000017	City of Kennard Public Awareness Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000018	JCDD6 Public Education Material Distribution	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000019	City of Daisetta Education of City Council on Mitigation Benefits	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000020	City of Nacogdoches Public Education Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000021	Polk County Public Education Campaign	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000022	San Augustine County Public Education on Mitigation Techniques	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000023	Shelby County Public Education on Hazards	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000024	City of Groveton Public Education on Mitigation Actions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000025	Trinity County Public Education on Mitigation Actions	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000026	Anderson County Code Red System	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000027	Angelina County Siren Warning System Installation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000017	City of Kennard Public Awareness Program	N/A	0	No	No	No
052000018	JCDD6 Public Education Material Distribution	N/A	0	No	No	No
052000019	City of Daisetta Education of City Council on Mitigation Benefits	N/A	0	No	No	No
052000020	City of Nacogdoches Public Education Program	N/A	0	No	No	No
052000021	Polk County Public Education Campaign	N/A	0	No	No	No
052000022	San Augustine County Public Education on Mitigation Techniques	N/A	0	No	No	No
052000023	Shelby County Public Education on Hazards	N/A	0	No	No	No
052000024	City of Groveton Public Education on Mitigation Actions	N/A	0	No	No	No
052000025	Trinity County Public Education on Mitigation Actions	N/A	0	No	No	No
052000026	Anderson County Code Red System	N/A	0	No	No	No
052000027	Angelina County Siren Warning System Installation	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000028	Houston County Alert/Notification System Installation	Purchase and install I-info alert/notification system including one user license per jurisdiction or participating entity.	Houston	\$602,000	\$0
052000029	Houston County Gage Installation and Monitoring	Install stream and rain gauges in flood prone areas and waterways as part of overall rainfall tracking, recording program, and new alert notification system.	Houston	\$121,000	\$0
052000030	Houston County Rainfall Observer Program	Implement rainfall observer program utilizing volunteers.	Houston	\$5,000	\$0
052000031	City of Brownsboro Code Red System Implementation	Obtain access and/or incorporate the use of the automated emergency calling system, Code Red, into local emergency management plan	Brownsboro	\$100,000	\$0
052000032	City of Chandler Warning Siren Maintenance	Check the location and condition of warning sirens; determine if repairs are needed	Chandler	\$100,000	\$0
052000033	City of Murchison Warning Siren System Installation	Obtain early warning siren system installment inside jurisdiction to assist in public notification of hazard prior to hazard occurrence	Murchison	\$100,000	\$0
052000034	JCDD6 Increase Flood Predictive Capability for Streams and Creeks	Utilize ALERT stations and work with National Weather Service to help citizens of the Bevil Oaks community better understand the flood warnings and predictions.	Jefferson County Drainage District 6	\$100,000	\$0
052000035	JCDD7 Update Data Operation System-Control Center	Will allow officials to see what pump stations are operating in real time, monitor pumps/generator conditions and status	Jefferson County Drainage District 7	\$104,000	\$0
052000036	OCDD Hazard Notification System Development	Develop employee emergency notification system to warn staff of imminent hazards/risks.	Orange County Drainage District	\$11,000	\$0
052000037	OCDD Installing Additional Stream Gages	Add stream gauges to the major watersheds to increase flood predictive capability for streams and creeks that affect OCDD (stream gages)	Orange County Drainage District	\$534,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000028	Houston County Alert/Notification System Installation	61.41	4.75	17	3	16	0	7	7	20	117
052000029	Houston County Gage Installation and Monitoring	61.41	4.75	17	3	16	0	7	7	20	117
052000030	Houston County Rainfall Observer Program	61.41	4.75	17	3	16	0	7	7	20	117
052000031	City of Brownsboro Code Red System Implementation	0.55	0.05	32	15	52	0	0	0	1	8
052000032	City of Chandler Warning Siren Maintenance	1.03	0.07	29	13	105	0	0	0	1	7
052000033	City of Murchison Warning Siren System Installation	0.08	0.01	3	2	1	0	0	0	0	0
052000034	JCDD6 Increase Flood Predictive Capability for Streams and Creeks	254.21	35.05	6,491	5,238	20,772	30	16	16	215	20,945
052000035	JCDD7 Update Data Operation System-Control Center	36.65	45.18	4,705	3,668	17,575	82	3	3	95	876
052000036	OCDD Hazard Notification System Development	102.59	18.99	5,007	4,273	11,929	36	20	20	136	346
052000037	OCDD Installing Additional Stream Gages	102.59	18.99	5,007	4,273	11,929	36	20	20	136	346

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000028	Houston County Alert/Notification System Installation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000029	Houston County Gage Installation and Monitoring	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000030	Houston County Rainfall Observer Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000031	City of Brownsboro Code Red System Implementation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000032	City of Chandler Warning Siren Maintenance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000033	City of Murchison Warning Siren System Installation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000034	JCDD6 Increase Flood Predictive Capability for Streams and Creeks	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000035	JCDD7 Update Data Operation System-Control Center	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000036	OCDD Hazard Notification System Development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000037	OCDD Installing Additional Stream Gages	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000028	Houston County Alert/Notification System Installation	N/A	0	No	No	No
052000029	Houston County Gage Installation and Monitoring	N/A	0	No	No	No
052000030	Houston County Rainfall Observer Program	N/A	0	No	No	No
052000031	City of Brownsboro Code Red System Implementation	N/A	0	No	No	No
052000032	City of Chandler Warning Siren Maintenance	N/A	0	No	No	No
052000033	City of Murchison Warning Siren System Installation	N/A	0	No	No	No
052000034	JCDD6 Increase Flood Predictive Capability for Streams and Creeks	N/A	0	No	No	No
052000035	JCDD7 Update Data Operation System-Control Center	N/A	0	No	No	No
052000036	OCDD Hazard Notification System Development	N/A	0	No	No	No
052000037	OCDD Installing Additional Stream Gages	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000038	Polk County Improved Hazard Communication	Upgrade and expand implementation of natural hazard warning systems and methods.	Polk	\$3,110,000	\$0
052000039	Shelby County Electronic Hazard Warning Message Board Acquisition	Acquire electronic message board for use during disaster response and recovery operations	Shelby	\$111,000	\$0
052000040	Shelby County Warning Siren Installation	Install warning sirens at strategic locations for use during disaster events	Shelby	\$3,319,000	\$0
052000041	City of Groveton Warning System Upgrades	Implement, upgrade, expand, and integrate digital methods for storm notification to include all methods of communication including: cell phones, text messages, land-lines, internet networking sites, television, and radio.	Groveton	\$11,000	\$0
052000042	Van Zandt County Warning System Acquisition	Acquire and Install Warning Systems throughout the County, including Incorporated Jurisdictions. Reduce risk to citizens through improved communications and early warning.	Van Zandt	\$82,000	\$0
052000043	Angelina County Property Acquisition	Acquire repetitive loss properties.	Angelina	\$2,100,000	\$0
052000044	Angelina County Property Elevation	Elevate properties in the floodplain.	Angelina	\$630,000	\$0
052000045	Hardin County Voluntary Flood Buyout	Voluntary flood buyouts.	Hardin	\$4,000,000	\$0
052000046	Hardin County Voluntary Residential Structure Elevation	Voluntary elevations of flood prone properties in Hardin County.	Hardin	\$7,500,000	\$0
052000047	City of Kountze Flood Buyout	Voluntary flood buyouts.	Kountze	\$6,000,000	\$0
052000048	City of Lumberton Voluntary Flood Buyout	Voluntary flood buyouts.	Lumberton	\$6,000,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000038	Polk County Improved Hazard Communication	100.67	5.34	84	45	368	0	8	8	17	62
052000039	Shelby County Electronic Hazard Warning Message Board Acquisition	21.60	1.07	15	0	8	0	4	4	5	56
052000040	Shelby County Warning Siren Installation	21.60	1.07	15	0	8	0	4	4	5	56
052000041	City of Groveton Warning System Upgrades	0.03	0.00	3	3	2	0	0	0	0	0
052000042	Van Zandt County Warning System Acquisition	29.91	2.09	217	144	233	0	0	0	13	232
052000043	Angelina County Property Acquisition	228.11	10.45	1,201	750	8,420	11	19	19	66	165
052000044	Angelina County Property Elevation	228.11	10.45	1,201	750	8,420	11	19	19	66	165
052000045	Hardin County Voluntary Flood Buyout	306.37	49.13	3,678	2,638	10,528	25	13	13	136	743
052000046	Hardin County Voluntary Residential Structure Elevation	306.37	49.13	3,678	2,638	10,528	25	13	13	136	743
052000047	City of Kountze Flood Buyout	0.64	0.46	3	2	2	0	0	0	1	0
052000048	City of Lumberton Voluntary Flood Buyout	2.61	1.29	235	210	658	0	1	1	4	23

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000038	Polk County Improved Hazard Communication	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000039	Shelby County Electronic Hazard Warning Message Board Acquisition	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000040	Shelby County Warning Siren Installation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000041	City of Groveton Warning System Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000042	Van Zandt County Warning System Acquisition	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000043	Angelina County Property Acquisition	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000044	Angelina County Property Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000045	Hardin County Voluntary Flood Buyout	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000046	Hardin County Voluntary Residential Structure Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000047	City of Kountze Flood Buyout	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000048	City of Lumberton Voluntary Flood Buyout	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000038	Polk County Improved Hazard Communication	N/A	0	No	No	No
052000039	Shelby County Electronic Hazard Warning Message Board Acquisition	N/A	0	No	No	No
052000040	Shelby County Warning Siren Installation	N/A	0	No	No	No
052000041	City of Groveton Warning System Upgrades	N/A	0	No	No	No
052000042	Van Zandt County Warning System Acquisition	N/A	0	No	No	No
052000043	Angelina County Property Acquisition	N/A	100	No	No	No
052000044	Angelina County Property Elevation	N/A	0	No	No	No
052000045	Hardin County Voluntary Flood Buyout	N/A	100	No	No	No
052000046	Hardin County Voluntary Residential Structure Elevation	N/A	0	No	No	No
052000047	City of Kountze Flood Buyout	N/A	100	No	No	No
052000048	City of Lumberton Voluntary Flood Buyout	N/A	100	No	No	No

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000049	City of Rose Hill Acres Voluntary Flood Buyout	Voluntary flood buyouts.	Rose Hill Acres	\$5,000,000	\$0
052000050	City of Rose Hill Acres Voluntary Residential Structure Elevation	Voluntary elevations of flood prone properties in Rose Hill Acres.	Rose Hill Acres	\$6,000,000	\$0
052000051	City of Silsbee Voluntary Flood Buyout	Voluntary flood buyouts.	Silsbee	\$6,000,000	\$0
052000052	City of Sour Lake Voluntary Flood Buyout	Voluntary flood buyouts.	Sour Lake	\$6,000,000	\$0
052000053	Jefferson County Property Elevation	FIF Application; aimed to elevate houses within county subject to inundation from flooding.	Jefferson	\$1,110,000	\$0
052000054	Liberty County Property Acquisition	Acquire property located in the floodplain including properties located in subdivisions along the Trinity River.	Liberty	\$2,140,000	\$0
052000055	City of Nacogdoches Study and Ranking of Repetitive Loss Structures	Analyze flood-prone properties in the City of Nacogdoches and identify appropriate mitigation options for each repetitive loss structure.	Nacogdoches	\$327,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000049	City of Rose Hill Acres Voluntary Flood Buyout	0.33	0.05	134	123	278	0	0	0	2	0
052000050	City of Rose Hill Acres Voluntary Residential Structure Elevation	0.33	0.05	134	123	278	0	0	0	2	0
052000051	City of Silsbee Voluntary Flood Buyout	0.93	0.24	87	69	780	2	3	3	2	1
052000052	City of Sour Lake Voluntary Flood Buyout	1.16	0.42	435	323	1,687	7	3	3	8	7
052000053	Jefferson County Property Elevation	604.79	90.14	12,869	9,726	40,765	316	22	22	474	33,019
052000054	Liberty County Property Acquisition	73.97	11.69	116	57	143	1	0	0	7	1,526
052000055	City of Nacogdoches Study and Ranking of Repetitive Loss Structures	3.41	0.27	446	185	5,331	1	0	0	14	4

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000049	City of Rose Hill Acres Voluntary Flood Buyout	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000050	City of Rose Hill Acres Voluntary Residential Structure Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000051	City of Silsbee Voluntary Flood Buyout	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000052	City of Sour Lake Voluntary Flood Buyout	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000053	Jefferson County Property Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000054	Liberty County Property Acquisition	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000055	City of Nacogdoches Study and Ranking of Repetitive Loss Structures	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000049	City of Rose Hill Acres Voluntary Flood Buyout	N/A	100	No	No	No
052000050	City of Rose Hill Acres Voluntary Residential Structure Elevation	N/A	0	No	No	No
052000051	City of Silsbee Voluntary Flood Buyout	N/A	100	No	No	No
052000052	City of Sour Lake Voluntary Flood Buyout	N/A	100	No	No	No
052000053	Jefferson County Property Elevation	N/A	0	No	No	No
052000054	Liberty County Property Acquisition	N/A	100	No	No	No
052000055	City of Nacogdoches Study and Ranking of Repetitive Loss Structures	N/A	100	No	No	No

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000056	San Augustine County Acquisition and Conversion of Flood Prone Properties	Acquire flood prone/repetitive loss properties and convert to open space, parks, boating access, trails, agricultural projects, and/or as a general community asset.	San Augustine	\$530,000	\$0
052000057	San Augustine County Structure Elevation	Elevate existing flood prone structures above the base flood elevation to reduce flood losses. Flood proof historical structures at risk from flooding.	San Augustine	\$318,000	\$0
052000058	Shelby County Property Acquisition	Acquire flood prone/repetitive loss properties and convert to open space, parks, boating access, trails, agricultural projects, and/or as a general community asset	Shelby	\$100,000	\$0
052000059	Trinity County Buyout Program Implementation	Develop and implement a program to buyout repetitive loss properties and convert to open space, parks, boating access, trails, and/or as a general community asset.	Trinity	\$100,000	\$0
052000060	City of Groveton Buyout Program Implementation	Develop and implement a program to buyout repetitive loss properties and convert to open space, parks, boating access, trails, and/or as a general community asset.	Groveton	\$100,000	\$0
052000061	City of Diboll Ordinance and Regulation Update	Update building code and subdivision ordinance to include restrictions on the distance a structure can be built from active streams and creeks.	Diboll	\$10,000	\$0
052000062	City of Cuney Bridge and Culvert Inspection Program	Plan and implement a program to regularly inspect low-lying bridges and highway culverts, clear debris, and create safe pathways for excess water runoff, to avoid flooding.	Cuney	\$25,000	\$0
052000063	City of Cuney Seek NFIP Participation	Pass appropriate Resolutions and Ordinances for participation in the National Flood Insurance Program.	Cuney	\$5,000	\$0
052000064	City of Gallatin Multi-Jurisdiction Coordination	Work with County or TXDOT to increase drainage capacity in sites that are prone to flooding.	Gallatin	\$5,000	\$0
052000065	City of Jacksonville Multi-Jurisdiction Coordination	Work with County or TXDOT to increase drainage capacity in sites that are prone to flooding.	Jacksonville	\$10,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000056	San Augustine County Acquisition and Conversion of Flood Prone Properties	122.71	4.35	64	28	146	0	2	2	13	42
052000057	San Augustine County Structure Elevation	122.71	4.35	64	28	146	0	2	2	13	42
052000058	Shelby County Property Acquisition	21.60	1.07	15	0	8	0	4	4	5	56
052000059	Trinity County Buyout Program Implementation	73.89	5.11	32	15	15	0	1	1	22	68
052000060	City of Groveton Buyout Program Implementation	0.03	0.00	3	3	2	0	0	0	0	0
052000061	City of Diboll Ordinance and Regulation Update	0.98	0.07	118	49	610	6	0	0	4	1
052000062	City of Cunev Bridge and Culvert Inspection Program	0.15	0.01	0	0	0	0	0	0	0	0
052000063	City of Cunev Seek NFIP Participation	0.15	0.01	0	0	0	0	0	0	0	0
052000064	City of Gallatin Multi-Jurisdiction Coordination	0.84	0.06	2	2	0	0	0	0	1	60
052000065	City of Jacksonville Multi-Jurisdiction Coordination	0.66	0.26	192	134	606	0	7	7	4	4

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000056	San Augustine County Acquisition and Conversion of Flood Prone Properties	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000057	San Augustine County Structure Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000058	Shelby County Property Acquisition	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000059	Trinity County Buyout Program Implementation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000060	City of Groveton Buyout Program Implementation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000061	City of Diboll Ordinance and Regulation Update	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000062	City of Cunev Bridge and Culvert Inspection Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000063	City of Cunev Seek NFIP Participation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000064	City of Gallatin Multi-Jurisdiction Coordination	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000065	City of Jacksonville Multi-Jurisdiction Coordination	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000056	San Augustine County Acquisition and Conversion of Flood Prone Properties	N/A	100	No	No	No
052000057	San Augustine County Structure Elevation	N/A	0	No	No	No
052000058	Shelby County Property Acquisition	N/A	100	No	No	No
052000059	Trinity County Buyout Program Implementation	N/A	100	No	No	No
052000060	City of Groveton Buyout Program Implementation	N/A	100	No	No	No
052000061	City of Diboll Ordinance and Regulation Update	N/A	0	No	No	No
052000062	City of Cuney Bridge and Culvert Inspection Program	N/A	0	No	No	No
052000063	City of Cuney Seek NFIP Participation	N/A	0	No	No	No
052000064	City of Gallatin Multi-Jurisdiction Coordination	N/A	0	No	No	No
052000065	City of Jacksonville Multi-Jurisdiction Coordination	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000066	City of Reklaw Improved Enforcement of Ordinances	Improve the long-range management and use of flood-prone areas by the adoption and enforcement of local ordinances to regulate new development within the floodplain. Review and revise ordinances, when needed.	Reklaw	\$10,000	\$0
052000067	City of Rusk Flood Maps Maintenance and Update	Work with state and federal agencies to maintain current flood maps.	Rusk	\$10,000	\$0
052000068	Hardin County Continued NFIP Participation	Continue participation in the NFIP and initiate participation in CRS. Includes improvement of flood mapping and elevation data, mitigation for repetitive loss properties, and instituting higher regulatory standards for future floodplain development.	Hardin	\$80,000	\$0
052000069	Hardin County Drainage District	Form Drainage District: Purpose would be to oversee/ maintain, and construct required drainage projects for the County. Regulate stormwater mitigation for new and future developments.	Hardin	\$900,000	\$0
052000070	City of Kountze Continued NFIP Participation	Continue participation in the NFIP and initiate participation in CRS. Includes improvement of flood mapping and elevation data, mitigation for repetitive loss properties, and instituting higher regulatory standards for future floodplain development.	Kountze	\$60,000	\$0
052000071	City of Lumberton Continued NFIP Participation	Continue participation in the NFIP and initiate participation in CRS. Includes improvement of flood mapping and elevation data, mitigation for repetitive loss properties, and instituting higher regulatory standards for future floodplain development.	Lumberton	\$80,000	\$0
052000072	City of Rose Hill Acres Continued NFIP Participation	Continue participation in the NFIP and initiate participation in CRS. Includes improvement of flood mapping and elevation data, mitigation for repetitive loss properties, and instituting higher regulatory standards for future floodplain development.	Rose Hill Acres	\$80,000	\$0
052000073	City of Silsbee Continued NFIP Participation	Continue participation in the NFIP and initiate participation in CRS. Includes improvement of flood mapping and elevation data, mitigation for repetitive loss properties, and instituting higher regulatory standards for future floodplain development.	Silsbee	\$50,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000066	City of Reklaw Improved Enforcement of Ordinances	0.61	0.03	1	0	0	0	0	0	0	1
052000067	City of Rusk Flood Maps Maintenance and Update	0.54	0.06	41	9	462	0	0	0	2	1
052000068	Hardin County Continued NFIP Participation	306.37	49.13	3,678	2,638	10,528	25	13	13	136	743
052000069	Hardin County Drainage District	306.38	49.13	3,678	2,638	10,528	25	13	13	136	743
052000070	City of Kountze Continued NFIP Participation	0.64	0.46	3	2	2	0	0	0	1	0
052000071	City of Lumberton Continued NFIP Participation	2.61	1.29	235	210	658	0	1	1	4	23
052000072	City of Rose Hill Acres Continued NFIP Participation	0.33	0.05	134	123	278	0	0	0	2	0
052000073	City of Silsbee Continued NFIP Participation	0.93	0.24	87	69	780	2	3	3	2	1

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000066	City of Reklaw Improved Enforcement of Ordinances	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000067	City of Rusk Flood Maps Maintenance and Update	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000068	Hardin County Continued NFIP Participation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000069	Hardin County Drainage District	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000070	City of Kountze Continued NFIP Participation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000071	City of Lumberton Continued NFIP Participation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000072	City of Rose Hill Acres Continued NFIP Participation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000073	City of Silsbee Continued NFIP Participation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000066	City of Reklaw Improved Enforcement of Ordinances	N/A	0	No	No	No
052000067	City of Rusk Flood Maps Maintenance and Update	N/A	0	No	No	No
052000068	Hardin County Continued NFIP Participation	N/A	0	No	No	No
052000069	Hardin County Drainage District	N/A	0	No	No	No
052000070	City of Kountze Continued NFIP Participation	N/A	0	No	No	No
052000071	City of Lumberton Continued NFIP Participation	N/A	0	No	No	No
052000072	City of Rose Hill Acres Continued NFIP Participation	N/A	0	No	No	No
052000073	City of Silsbee Continued NFIP Participation	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000074	City of Sour Lake Continued NFIP Participation	Continue participation in the NFIP and initiate participation in CRS. Includes improvement of flood mapping and elevation data, mitigation for repetitive loss properties, and instituting higher regulatory standards for future floodplain development.	Sour Lake	\$60,000	\$0
052000075	Houston County Mobile Home Inspection	Conduct routine inspection of manufactured home/mobile homes in flood-prone area to ensure proper tie-downs per Flood Damage Ordinance.	Houston	\$61,000	\$0
052000076	JCDD6 Multi-Jurisdiction Coordination	Increase coordination with the City and County regarding flood predictions and post event recovery.	Jefferson County Drainage District 6	\$20,000	\$0
052000077	JCDD6 Severe Weather Action Plan	Create severe weather action plan, conduct drills, identify and promulgate evacuation and sheltering options.	Jefferson County Drainage District 6	\$60,000	\$0
052000078	JCDD7 Storm Water Management Plan	Help to establish and allow District to enforce development regulations within existing flood zones.	Jefferson County Drainage District 7	\$50,000	\$0
052000079	City of Daisetta Property Construction Ordinance	The city shall adopt a land-use ordinance which prohibits building residential or commercial structures in the 100-year floodplain.	Daisetta	\$10,000	\$0
052000080	City of Daisetta Property Elevation Ordinance	The city shall adopt a land use ordinance which requires any structure within the 100-year floodplain to be elevated 2 feet above base flood elevation.	Daisetta	\$5,000	\$0
052000081	City of Hardin Subdivision Ordinance Implementation	Implement subdivision ordinance regulations concerning building in flood-prone areas.	Hardin	\$10,000	\$0
052000082	City of Nacogdoches Stormwater Drainage Fee Implementation	Implement stormwater drainage fee to assist funding of flood mitigation infrastructure projects	Nacogdoches	\$40,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000074	City of Sour Lake Continued NFIP Participation	1.16	0.42	435	323	1,687	7	3	3	8	7
052000075	Houston County Mobile Home Inspection	61.41	4.75	17	3	16	0	7	7	20	117
052000076	JCDD6 Multi-Jurisdiction Coordination	254.21	35.05	6,491	5,238	20,772	30	16	16	215	20,945
052000077	JCDD6 Severe Weather Action Plan	254.21	35.05	6,491	5,238	20,772	30	16	16	215	20,945
052000078	JCDD7 Storm Water Management Plan	36.65	45.18	4,705	3,668	17,575	82	3	3	95	876
052000079	City of Daisetta Property Construction Ordinance	0.16	0.01	0	0	0	0	0	0	0	0
052000080	City of Daisetta Property Elevation Ordinance	0.16	0.01	0	0	0	0	0	0	0	0
052000081	City of Hardin Subdivision Ordinance Implementation	0.12	0.01	1	1	1	0	0	0	0	1
052000082	City of Nacogdoches Stormwater Drainage Fee Implementation	3.41	0.27	446	185	5,331	1	0	0	14	4

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000074	City of Sour Lake Continued NFIP Participation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000075	Houston County Mobile Home Inspection	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000076	JCDD6 Multi-Jurisdiction Coordination	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000077	JCDD6 Severe Weather Action Plan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000078	JCDD7 Storm Water Management Plan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000079	City of Daisetta Property Construction Ordinance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000080	City of Daisetta Property Elevation Ordinance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000081	City of Hardin Subdivision Ordinance Implementation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000082	City of Nacogdoches Stormwater Drainage Fee Implementation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000074	City of Sour Lake Continued NFIP Participation	N/A	0	No	No	No
052000075	Houston County Mobile Home Inspection	N/A	0	No	No	No
052000076	JCDD6 Multi-Jurisdiction Coordination	N/A	0	No	No	No
052000077	JCDD6 Severe Weather Action Plan	N/A	0	No	No	No
052000078	JCDD7 Storm Water Management Plan	N/A	0	No	No	No
052000079	City of Daisetta Property Construction Ordinance	N/A	0	No	No	No
052000080	City of Daisetta Property Elevation Ordinance	N/A	0	No	No	No
052000081	City of Hardin Subdivision Ordinance Implementation	N/A	0	No	No	No
052000082	City of Nacogdoches Stormwater Drainage Fee Implementation	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000083	City of Nacogdoches Codes and Ordinances Update	Review and update, if necessary, all City codes and ordinances pertaining to floodplain management to ensure their compliance with state and federal laws and to achieve cohesion with the mitigation strategies contained herein.	Nacogdoches	\$30,000	\$0
052000084	OCDD Drainage Criteria Manual and Regulations Enforcement	Implement and enforce the Drainage Criteria Manual and Regulations for regulation of the effects of new developments and stormwater runoff.	Orange County Drainage District	\$20,000	\$0
052000085	OCDD Support/Create Stricter Floodplain Ordinances	Work with Communities to support ordinances or create ordinances that help to protect new structures from being built in the floodplain or floodway	Orange County Drainage District	\$40,000	\$0
052000086	San Augustine County Continue NFIP Participation	Continue participation in the National Flood Insurance Program (NFIP) and expand administration and monitoring capabilities	San Augustine	\$53,000	\$0
052000087	City of Linsdale Natural Runoff Policies Implementation	Incorporate "natural run-off" policies. Calculate cumulative effect of development, increase capacity of storm water drainage systems, institute regular drain system maintenance.	Linsdale	\$30,000	\$0
052000088	City of Linsdale No Adverse Impact Implementation	Incorporate "no adverse impact" design requirements in community development. Provide awareness to stakeholders and design engineers; building code adoption and plan approval process.	Linsdale	\$60,000	\$0
052000089	City of Troup Floodplain Ordinance Update	Adopt and enforce a stricter floodplain ordinance that no new structures are allowed in the 100-year floodway. Adopted by City Council action.	Troup	\$40,000	\$0
052000090	Trinity County Dam/Levee Failure Data Collection	Develop and implement standard operating procedures for collecting and sharing data to provide extent of dam/levee failure	Trinity	\$30,600	\$0
052000091	Van Zandt County Higher Standards Incorporation	Incorporate Higher Standards for Hazard Resistance in Local Application of the Building Code.	Van Zandt	\$30,000	\$0
052000092	Anderson County Culvert Improvements	Widen culverts to mitigate against future drainage issues that lead to flooding.	Anderson	\$3,000,000	\$0
052000093	Anderson County Dam Inspection and Maintenance Program	Work with dam owners to keep dams in excellent condition by visiting dam locations and doing inspections with owners to ensure that dams are properly maintained and failure possibilities are greatly reduced.	Anderson	\$2,000,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000083	City of Nacogdoches Codes and Ordinances Update	3.41	0.27	446	185	5,331	1	0	0	14	4
052000084	OCDD Drainage Criteria Manual and Regulations Enforcement	102.59	18.99	5,007	4,273	11,929	36	20	20	136	346
052000085	OCDD Support/Create Stricter Floodplain Ordinances	102.59	18.99	5,007	4,273	11,929	36	20	20	136	346
052000086	San Augustine County Continue NFIP Participation	122.71	4.35	64	28	146	0	2	2	13	42
052000087	City of Linsdale Natural Runoff Policies Implementation	0.30	0.02	17	6	69	0	0	0	0	1
052000088	City of Linsdale No Adverse Impact Implementation	0.30	0.02	17	6	69	0	0	0	0	1
052000089	City of Troup Floodplain Ordinance Update	0.05	0.01	1	1	17	0	0	0	0	0
052000090	Trinity County Dam/Levee Failure Data Collection	73.89	5.11	32	15	15	0	1	1	22	68
052000091	Van Zandt County Higher Standards Incorporation	29.91	2.09	217	144	233	0	0	0	13	232
052000092	Anderson County Culvert Improvements	70.71	3.95	69	28	73	0	2	2	22	348
052000093	Anderson County Dam Inspection and Maintenance Program	70.71	3.95	69	28	73	0	2	2	22	348

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000083	City of Nacogdoches Codes and Ordinances Update	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000084	OCDD Drainage Criteria Manual and Regulations Enforcement	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000085	OCDD Support/Create Stricter Floodplain Ordinances	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000086	San Augustine County Continue NFIP Participation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000087	City of Linsdale Natural Runoff Policies Implementation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000088	City of Linsdale No Adverse Impact Implementation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000089	City of Troup Floodplain Ordinance Update	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000090	Trinity County Dam/Levee Failure Data Collection	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000091	Van Zandt County Higher Standards Incorporation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000092	Anderson County Culvert Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000093	Anderson County Dam Inspection and Maintenance Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000083	City of Nacogdoches Codes and Ordinances Update	N/A	0	No	No	No
052000084	OCDD Drainage Criteria Manual and Regulations Enforcement	N/A	0	No	No	No
052000085	OCDD Support/Create Stricter Floodplain Ordinances	N/A	0	No	No	No
052000086	San Augustine County Continue NFIP Participation	N/A	0	No	No	No
052000087	City of Linsdale Natural Runoff Policies Implementation	N/A	100	No	No	No
052000088	City of Linsdale No Adverse Impact Implementation	N/A	0	No	No	No
052000089	City of Troup Floodplain Ordinance Update	N/A	0	No	No	No
052000090	Trinity County Dam/Levee Failure Data Collection	N/A	0	No	No	No
052000091	Van Zandt County Higher Standards Incorporation	N/A	0	No	No	No
052000092	Anderson County Culvert Improvements	N/A	0	No	No	No
052000093	Anderson County Dam Inspection and Maintenance Program	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000094	City of Frankston Culvert Improvements	Develop plan to increase drainage capacity in sites that are prone to flooding.	Frankston	\$1,000,000	\$0
052000095	City of Palestine Drainage System Expansion and Maintenance	Establish plan and necessary standards to increase the capacity of drainage ditches along all city streets and roads	Palestine	\$2,000,000	\$0
052000096	Angelina County Culvert Improvements	Develop plan to upgrade major culvert areas which are prone to flooding.	Angelina	\$2,000,000	\$0
052000097	City of Burke Drainage Ditch Capacity Upgrades	Establish a plan and necessary standards to increase the capacity of drainage ditches along all city streets and roads	Burke	\$500,000	\$0
052000098	Chambers County Property Protection	Project will clear obstacles, widen and reshape ditches, and upgrade culverts to restore adequate drainage to mitigate flooding throughout all participating jurisdictions	Chambers	\$1,000,000	\$0
052000099	Cherokee County Culvert Upgrades	Develop plan to upgrade major culvert areas which are prone to flooding.	Cherokee	\$2,000,000	\$0
052000100	City of Alto Culvert Improvements	Develop plan to increase drainage capacity in sites that are prone to flooding.	Alto	\$1,000,000	\$0
052000101	City of Reklaw Drainage System Upgrades	Establish plan to increase drainage capacity in sites that are prone to flooding.	Reklaw	\$1,000,000	\$0
052000102	City of Rusk Culvert Improvements	Establish plan to increase drainage capacity in sites that are prone to flooding.	Rusk	\$1,000,000	\$0
052000103	City of Wells Culvert Improvements	Establish plan to increase drainage capacity in sites that are prone to flooding.	Wells	\$1,000,000	\$0
052000104	Hardin County Culverts, Ditches, and Channel	Establish plan to upgrade storm water capacity by installing/upgrading culverts and enlarging storm water channels.	Hardin	\$3,000,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk										
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)	
052000094	City of Frankston Culvert Improvements	0.24	0.02	0	0	0	0	0	0	0	0	0
052000095	City of Palestine Drainage System Expansion and Maintenance	0.49	0.11	14	10	42	0	2	2	2	2	2
052000096	Angelina County Culvert Improvements	228.11	10.45	1,201	750	8,420	11	19	19	66	165	165
052000097	City of Burke Drainage Ditch Capacity Upgrades	0.08	0.01	1	1	0	0	0	0	0	0	0
052000098	Chambers County Property Protection	264.64	106.76	1,175	459	1,431	0	0	0	162	36,933	36,933
052000099	Cherokee County Culvert Upgrades	171.37	9.52	672	302	1,382	1	10	10	49	920	920
052000100	City of Alto Culvert Improvements	0.11	0.01	11	2	2	0	0	0	0	0	0
052000101	City of Reklaw Drainage System Upgrades	0.61	0.03	1	0	0	0	0	0	0	0	1
052000102	City of Rusk Culvert Improvements	0.54	0.06	41	9	462	0	0	0	2	1	1
052000103	City of Wells Culvert Improvements	0.04	0.00	1	1	0	0	0	0	0	0	0
052000104	Hardin County Culverts, Ditches, and Channel	306.37	49.13	3,678	2,638	10,528	25	13	13	136	743	743

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000094	City of Frankston Culvert Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000095	City of Palestine Drainage System Expansion and Maintenance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000096	Angelina County Culvert Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000097	City of Burke Drainage Ditch Capacity Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000098	Chambers County Property Protection	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000099	Cherokee County Culvert Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000100	City of Alto Culvert Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000101	City of Reklaw Drainage System Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000102	City of Rusk Culvert Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000103	City of Wells Culvert Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000104	Hardin County Culverts, Ditches, and Channel	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000094	City of Frankston Culvert Improvements	N/A	0	No	No	No
052000095	City of Palestine Drainage System Expansion and Maintenance	N/A	0	No	No	No
052000096	Angelina County Culvert Improvements	N/A	0	No	No	No
052000097	City of Burke Drainage Ditch Capacity Upgrades	N/A	0	No	No	No
052000098	Chambers County Property Protection	N/A	0	No	No	No
052000099	Cherokee County Culvert Upgrades	N/A	0	No	No	No
052000100	City of Alto Culvert Improvements	N/A	0	No	No	No
052000101	City of Reklaw Drainage System Upgrades	N/A	0	No	No	No
052000102	City of Rusk Culvert Improvements	N/A	0	No	No	No
052000103	City of Wells Culvert Improvements	N/A	0	No	No	No
052000104	Hardin County Culverts, Ditches, and Channel	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000105	Hardin County Detention Ponds	Develop a program to construct water retention ponds to collect stormwater run-off, reduce flooding, and use as an alternate water source throughout Hardin County.	Hardin	\$1,000,000	\$0
052000106	Hardin County Elevate Roads and Bridges	Develop a program to elevate roads and bridges including installing, upsizing culverts and headwalls, and bridge upgrades.	Hardin	\$10,000,000	\$0
052000107	City of Kountze Culverts and Ditches	Develop plan to increase drainage capacity in sites that are prone to flooding.	Kountze	\$3,000,000	\$0
052000108	City of Kountze Elevate Roads and Bridges	Develop a program to elevate roads and bridges including installing, upsizing culverts and headwalls, and bridge upgrades.	Kountze	\$2,000,000	\$0
052000109	City of Kountze General Drainage Improvements	Increase drainage capacity; add stormwater detention basins and stormwater pumping stations where gravity flow is not feasible.	Kountze	\$1,500,000	\$0
052000110	City of Lumberton Culverts, Ditches, and Channels	Develop plan to increase drainage capacity in sites that are prone to flooding.	Lumberton	\$3,000,000	\$0
052000111	City of Rose Hill Acres Flood Control Improvements	Develop a program to upgrade flood control structures (barriers, berms) for the purpose of protecting critical facilities, potable water sources, and agricultural resources from water contamination and saltwater intrusion.	Rose Hill Acres	\$3,000,000	\$0
052000112	City of Rose Hill Acres General Drainage Improvements	Establish criteria to increase drainage capacity; add stormwater detention basins, box culverts and/or pipes to increase drainage capacity.	Rose Hill Acres	\$400,000	\$0
052000113	City of Silsbee Detention, Culverts, Ditches and Channels	Develop plan to increase drainage capacity in sites that are prone to flooding.	Silsbee	\$1,500,000	\$0
052000114	City of Silsbee Drainage Ditches	Develop a program to upgrade drainage ditches and explore converting necessary ditches into curb / sewer construction.	Silsbee	\$1,000,000	\$0
052000115	City of Silsbee Flood Mitigation for Hendrix Development	Explore, plan, and implement flood mitigation strategies within the Hendrix Development.	Silsbee	\$5,000,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000105	Hardin County Detention Ponds	306.37	49.13	3,678	2,638	10,528	25	13	13	136	743
052000106	Hardin County Elevate Roads and Bridges	306.38	49.13	3,678	2,638	10,528	25	13	13	136	743
052000107	City of Kountze Culverts and Ditches	0.64	0.46	3	2	2	0	0	0	1	0
052000108	City of Kountze Elevate Roads and Bridges	0.64	0.46	3	2	2	0	0	0	1	0
052000109	City of Kountze General Drainage Improvements	0.64	0.46	3	2	2	0	0	0	1	0
052000110	City of Lumberton Culverts, Ditches, and Channels	2.61	1.29	235	210	658	0	1	1	4	23
052000111	City of Rose Hill Acres Flood Control Improvements	0.33	0.05	134	123	278	0	0	0	2	0
052000112	City of Rose Hill Acres General Drainage Improvements	0.33	0.05	134	123	278	0	0	0	2	0
052000113	City of Silsbee Detention, Culverts, Ditches and Channels	0.93	0.24	87	69	780	2	3	3	2	1
052000114	City of Silsbee Drainage Ditches	0.93	0.24	87	69	780	2	3	3	2	1
052000115	City of Silsbee Flood Mitigation for Hendrix Development	0.93	0.24	87	69	780	2	3	3	2	1

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000105	Hardin County Detention Ponds	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000106	Hardin County Elevate Roads and Bridges	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000107	City of Kountze Culverts and Ditches	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000108	City of Kountze Elevate Roads and Bridges	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000109	City of Kountze General Drainage Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000110	City of Lumberton Culverts, Ditches, and Channels	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000111	City of Rose Hill Acres Flood Control Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000112	City of Rose Hill Acres General Drainage Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000113	City of Silsbee Detention, Culverts, Ditches and Channels	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000114	City of Silsbee Drainage Ditches	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000115	City of Silsbee Flood Mitigation for Hendrix Development	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000105	Hardin County Detention Ponds	N/A	0	No	No	No
052000106	Hardin County Elevate Roads and Bridges	N/A	0	No	No	No
052000107	City of Kountze Culverts and Ditches	N/A	0	No	No	No
052000108	City of Kountze Elevate Roads and Bridges	N/A	0	No	No	No
052000109	City of Kountze General Drainage Improvements	N/A	0	No	No	No
052000110	City of Lumberton Culverts, Ditches, and Channels	N/A	0	No	No	No
052000111	City of Rose Hill Acres Flood Control Improvements	N/A	0	No	No	No
052000112	City of Rose Hill Acres General Drainage Improvements	N/A	0	No	No	No
052000113	City of Silsbee Detention, Culverts, Ditches and Channels	N/A	0	No	No	No
052000114	City of Silsbee Drainage Ditches	N/A	0	No	No	No
052000115	City of Silsbee Flood Mitigation for Hendrix Development	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000116	City of Sour Lake Channel Improvements	Establish criteria and standards for installing large concrete channels, box culvert, concrete pipe, and/or mechanisms as needed to mitigate drainage ditch erosion and improve water capacity and conveyance.	Sour Lake	\$500,000	\$0
052000117	City of Sour Lake Drainage Outfalls	Advance a plan to rectify, enlarge, and maintain outfall channels for the City of Sour Lake, including excavating interior roadside ditches.	Sour Lake	\$1,000,000	\$0
052000118	City of Sour Lake Stormwater Detention	Establish criteria and standards to construct water retention ponds to collect stormwater run-off and reduce flooding.	Sour Lake	\$7,000,000	\$0
052000119	Houston County Drainage Culvert Upgrades	Develop a plan to expand/upgrade drainage culverts to prevent flooded roadways and add signage in low-water crossings.	Houston	\$3,000,000	\$0
052000120	Houston County Flood Infrastructure Maintenance	Clear debris from bridges, box culverts, and drainage systems throughout unincorporated county.	Houston	\$2,000,000	\$0
052000121	City of Grapeland Critical Facilities Flood-Proofing	Flood proof critical facilities to the 500-year flood that are located in flood-prone areas of the city.	Houston	\$1,000,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000116	City of Sour Lake Channel Improvements	1.16	0.42	435	323	1,687	7	3	3	8	7
052000117	City of Sour Lake Drainage Outfalls	1.16	0.42	435	323	1,687	7	3	3	8	7
052000118	City of Sour Lake Stormwater Detention	1.16	0.42	435	323	1,687	7	3	3	8	7
052000119	Houston County Drainage Culvert Upgrades	61.41	4.75	17	3	16	0	7	7	20	117
052000120	Houston County Flood Infrastructure Maintenance	61.41	4.75	17	3	16	0	7	7	20	117
052000121	City of Grapeland Critical Facilities Flood-Proofing	61.41	4.75	17	3	16	0	7	7	20	117

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000116	City of Sour Lake Channel Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000117	City of Sour Lake Drainage Outfalls	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000118	City of Sour Lake Stormwater Detention	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000119	Houston County Drainage Culvert Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000120	Houston County Flood Infrastructure Maintenance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000121	City of Grapeland Critical Facilities Flood-Proofing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000116	City of Sour Lake Channel Improvements	N/A	0	No	No	No
052000117	City of Sour Lake Drainage Outfalls	N/A	0	No	No	No
052000118	City of Sour Lake Stormwater Detention	N/A	0	No	No	No
052000119	Houston County Drainage Culvert Upgrades	N/A	0	No	No	No
052000120	Houston County Flood Infrastructure Maintenance	N/A	0	No	No	No
052000121	City of Grapeland Critical Facilities Flood-Proofing	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000122	City of Kennard Ditch Maintenance Program	Implement program to routinely remove debris from drainage ways and roadside ditches to prevent back up of flood velocity and improve conveyance of stream during flood events.	Kennard	\$1,000,000	\$0
052000123	Liberty County Drainage Projects	The county will work with partnering jurisdictions and engineers in order to implement drainage projects throughout the county- including adding ditches, detention ponds and detention basins in identified locations throughout the county.	Liberty	\$2,000,000	\$0
052000124	City of Daisetta Culvert Maintenance and Upgrades	Removal of debris, silt and vegetation obstacles in drainage ways. Project will clear obstacles, mow and reshape ditches, and upgrade culverts to restore adequate drainage to mitigate flooding.	Daisetta	\$1,000,000	\$0
052000125	OCDD Flood Infrastructure Improvements	Support regional efforts to plan, design, and construct large scale flood control / storm surge protection improvements	Orange County Drainage District	\$3,000,000	\$0
052000126	Polk County Facilities Hazard Hardening Retrofit	Activities may include but are not limited to: flood proofing, impact resistant windows, storm shutters, roof straps, structural bracing, low-flow plumbing fixtures, roll-up door reinforcement, grounding systems, and surge-protection.	Polk	\$1,500,000	\$0
052000127	Polk County Flood Infrastructure Improvements	Implement program to elevate and reinforce roadways and bridges prone to inundation from flooding. Projects may include general road elevation; upgrading culverts and installing headwalls; upgrades and reinforcement of bridges and bridge footings.	Polk	\$2,000,000	\$0
052000128	City of Henderson Flood Infrastructure Maintenance	Establish a plan to conduct various flood control maintenance improvements throughout the City	Henderson	\$1,000,000	\$0
052000129	San Augustine County Bridge Improvements	Develop a program to elevate roads and bridges including installing, upsizing culverts and headwalls, and bridge upgrades.	San Augustine	\$2,000,000	\$0
052000130	San Augustine County Culvert Upgrades	Establish a plan to upgrade culverts in county extent. Actions can include but are not limited to: installing/upgrading culverts and headwalls; and enlarging storm water ditches and canals.	San Augustine	\$2,000,000	\$0
052000131	San Augustine County Facilities Hazard Hardening Retrofit	Actions can include but are not limited to: installing window screens, storm shutters, window film reinforcements, roof straps, and flood proofing.	San Augustine	\$1,500,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000122	City of Kennard Ditch Maintenance Program	61.41	4.75	17	3	16	0	7	7	20	117
052000123	Liberty County Drainage Projects	73.97	11.69	116	57	143	1	0	0	7	1,526
052000124	City of Daisetta Culvert Maintenance and Upgrades	0.16	0.01	0	0	0	0	0	0	0	0
052000125	OCDD Flood Infrastructure Improvements	102.59	18.99	5,007	4,273	11,929	36	20	20	136	346
052000126	Polk County Facilities Hazard Hardening Retrofit	100.67	5.34	84	45	368	0	8	8	17	62
052000127	Polk County Flood Infrastructure Improvements	100.67	5.34	84	45	368	0	8	8	17	62
052000128	City of Henderson Flood Infrastructure Maintenance	0.94	0.06	37	17	97	0	0	0	2	5
052000129	San Augustine County Bridge Improvements	122.71	4.35	64	28	146	0	2	2	13	42
052000130	San Augustine County Culvert Upgrades	122.71	4.35	64	28	146	0	2	2	13	42
052000131	San Augustine County Facilities Hazard Hardening Retrofit	122.71	4.35	64	28	146	0	2	2	13	42

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000122	City of Kennard Ditch Maintenance Program	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000123	Liberty County Drainage Projects	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000124	City of Daisetta Culvert Maintenance and Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000125	OCDD Flood Infrastructure Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000126	Polk County Facilities Hazard Hardening Retrofit	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000127	Polk County Flood Infrastructure Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000128	City of Henderson Flood Infrastructure Maintenance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000129	San Augustine County Bridge Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000130	San Augustine County Culvert Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000131	San Augustine County Facilities Hazard Hardening Retrofit	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000122	City of Kennard Ditch Maintenance Program	N/A	0	No	No	No
052000123	Liberty County Drainage Projects	N/A	0	No	No	No
052000124	City of Daisetta Culvert Maintenance and Upgrades	N/A	0	No	No	No
052000125	OCDD Flood Infrastructure Improvements	N/A	0	No	No	No
052000126	Polk County Facilities Hazard Hardening Retrofit	N/A	0	No	No	No
052000127	Polk County Flood Infrastructure Improvements	N/A	0	No	No	No
052000128	City of Henderson Flood Infrastructure Maintenance	N/A	0	No	No	No
052000129	San Augustine County Bridge Improvements	N/A	0	No	No	No
052000130	San Augustine County Culvert Upgrades	N/A	0	No	No	No
052000131	San Augustine County Facilities Hazard Hardening Retrofit	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000132	San Augustine County Detention and Retention Pond Construction	Construct storm water detention/retention ponds at strategic locations for improved stormwater storage to hold storm water run-off and as a mitigation measure for drought and wildfire.	San Augustine	\$3,000,000	\$0
052000133	City of San Augustine and City of Broaddus County Facilities Hazard Hardening Retrofit	Construct flood protection, winter storm-hardening, and expansive soils mitigation projects for water distribution networks and wastewater facilities for Cities of Broaddus and San Augustine.	San Augustine	\$1,000,000	\$0
052000134	Shelby County Detention and Retention Pond Construction	Establish a plan and necessary standards to construct storm water detention/retention ponds at strategic locations for improved stormwater storage to hold storm water run-off and as a mitigation measure for drought and wildfire	Shelby	\$3,000,000	\$0
052000135	Shelby County Drainage Upgrades	Establish a plan to upgrade stormwater conveyance capacity via drainage improvement projects	Shelby	\$2,000,000	\$0
052000136	Shelby County Facilities Hazard Hardening Retrofit	Establish a plan to storm-harden and/or retrofit existing and newly constructed critical facilities	Shelby	\$2,000,000	\$0
052000137	Shelby County Roadway/Bridge Elevation	Develop a program to elevate roads and bridges including installing, upsizing culverts and headwalls, and bridge upgrades.	Shelby	\$2,000,000	\$0
052000138	City of Tyler Open Channel Improvements	Implement a program to enclose open channels that are contributing to flooding. Priority locations are: 1) Ashmore subdivision between Ashmore and Salisbury and 2) Fleishel Ave. between 6th and 8th Streets.	Tyler	\$1,500,000	\$0
052000139	City of Whitehouse Drainage Capacity Upgrades	Establish a plan to increase stormwater drainage capacity by completing a hydraulic study, evaluating historical water drainage, then constructing needed improvements.	Whitehouse	\$1,000,000	\$0
052000140	Trinity County Flood Infrastructure Upgrades	Within the county, develop a plan to install/improve culverts and headwalls in addition to expanding stormwater ditches and canals	Trinity	\$2,000,000	\$0
052000141	Trinity County Flood-prone Infrastructure Upgrades	Develop a program to upgrade flood infrastructure in the county. May include general roadway elevation upgrading culverts and installing headwalls; upgrades and reinforcement of bridges and bridge footings; etc.	Trinity	\$2,000,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000132	San Augustine County Detention and Retention Pond Construction	122.71	4.35	64	28	146	0	2	2	13	42
052000133	City of San Augustine and City of Broaddus County Facilities Hazard Hardening Retrofit	0.88	0.06	34	17	114	0	0	0	1	2
052000134	Shelby County Detention and Retention Pond Construction	21.60	1.07	15	0	8	0	4	4	5	56
052000135	Shelby County Drainage Upgrades	21.60	1.07	15	0	8	0	4	4	5	56
052000136	Shelby County Facilities Hazard Hardening Retrofit	21.60	1.07	15	0	8	0	4	4	5	56
052000137	Shelby County Roadway/Bridge Elevation	21.60	1.07	15	0	8	0	4	4	5	56
052000138	City of Tyler Open Channel Improvements	4.98	0.51	1,042	755	7,482	72	31	31	23	4
052000139	City of Whitehouse Drainage Capacity Upgrades	0.43	0.04	33	16	98	0	2	2	1	2
052000140	Trinity County Flood Infrastructure Upgrades	73.89	5.11	32	15	15	0	1	1	22	68
052000141	Trinity County Flood-prone Infrastructure Upgrades	73.89	5.11	32	15	15	0	1	1	22	68

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000132	San Augustine County Detention and Retention Pond Construction	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000133	City of San Augustine and City of Broadus County Facilities Hazard Hardening Retrofit	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000134	Shelby County Detention and Retention Pond Construction	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000135	Shelby County Drainage Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000136	Shelby County Facilities Hazard Hardening Retrofit	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000137	Shelby County Roadway/Bridge Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000138	City of Tyler Open Channel Improvements	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000139	City of Whitehouse Drainage Capacity Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000140	Trinity County Flood Infrastructure Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000141	Trinity County Flood-prone Infrastructure Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000132	San Augustine County Detention and Retention Pond Construction	N/A	0	No	No	No
052000133	City of San Augustine and City of Broaddus County Facilities Hazard Hardening Retrofit	N/A	0	No	No	No
052000134	Shelby County Detention and Retention Pond Construction	N/A	0	No	No	No
052000135	Shelby County Drainage Upgrades	N/A	0	No	No	No
052000136	Shelby County Facilities Hazard Hardening Retrofit	N/A	0	No	No	No
052000137	Shelby County Roadway/Bridge Elevation	N/A	0	No	No	No
052000138	City of Tyler Open Channel Improvements	N/A	0	No	No	No
052000139	City of Whitehouse Drainage Capacity Upgrades	N/A	0	No	No	No
052000140	Trinity County Flood Infrastructure Upgrades	N/A	0	No	No	No
052000141	Trinity County Flood-prone Infrastructure Upgrades	N/A	0	No	No	No

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Description	Sponsor	Estimated Project Cost (\$)	Potential Funding Sources and Amount
052000142	City of Groveton Flood Infrastructure Upgrades	Within the city, develop a plan to install/improve culverts and headwalls in addition to expanding stormwater ditches and canals	Groveton	\$750,000	\$0
052000143	Van Zandt County Drainage Capacity Upgrades	Establish a plan to increase Drainage Capacity; possible actions include installing French Drains, Building Elevation, and Upgrading Undersized Pipe under State Hwy for Water to Run into Creek.	Van Zandt	\$2,000,000	\$0
052000144	Van Zandt County Flood Infrastructure Maintenance	Adopt and Implement a Program for Clearing Debris from Bridges, Drains and Culverts. Reduce damages caused by flooding by maintaining or restoring drainage capacity.	Van Zandt	\$2,000,000	\$0
052000145	Van Zandt County Road Elevation	Develop a program to elevate roads and bridges including installing, upsizing culverts and headwalls, and bridge upgrades.	Van Zandt	\$2,000,000	\$0
052000146	Liberty County Topographical Mapping Update	Purchase updated topographical maps/complete LiDAR aerial survey for drainage plan.	Liberty	\$107,000	\$0
052000147	Liberty County Drainage District Multi-County Coordination	Work with adjoining counties regarding flood and drainage issues.	Liberty County Drainage District	\$50,000	\$0

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Flood Risk									
		Area in 100yr Floodplain	Area in 500yr Floodplain	Estimated number of structures at 100yr flood risk	Residential structures at flood risk	Estimated Population at flood risk	Critical facilities at flood risk (#)	Number of low water crossings at flood risk (#)	Estimated number of road closures (#)	Estimated length of roads at flood risk (Miles)	Estimated active farm & ranch land at flood risk (acres)
052000142	City of Groveton Flood Infrastructure Upgrades	0.03	0.00	3	3	2	0	0	0	0	0
052000143	Van Zandt County Drainage Capacity Upgrades	29.91	2.09	217	144	233	0	0	0	13	232
052000144	Van Zandt County Flood Infrastructure Maintenance	29.91	2.09	217	144	233	0	0	0	13	232
052000145	Van Zandt County Road Elevation	29.91	2.09	217	144	233	0	0	0	13	232
052000146	Liberty County Topographical Mapping Update	73.97	11.69	116	57	143	1	0	0	7	1,526
052000147	Liberty County Drainage District Multi-County Coordination	73.97	11.69	116	57	143	1	0	0	7	1,526

Table 14: Potentially Feasible Flood Management Strategies Identified by RFPG

FMS ID	FMS Name	Reduction in Flood Risk											
		Number of structures with reduced 100yr Flood risk	Number of structures removed from 100yr Flood risk	Number of structures removed from 500yr Flood risk	Residential structures removed from 100yr Flood risk	Estimated Population removed from 100yr Flood risk	Critical facilities removed from 100yr Flood risk (#)	Number of low water crossings removed from 100yr Flood risk (#)	Estimated reduction in road closure occurrences	Estimated length of roads removed from 100yr flood risk (Miles)	Estimated active farm & ranch land removed from 100yr flood risk (acres)	Estimated reduction in fatalities	Estimated reduction in injuries
052000142	City of Groveton Flood Infrastructure Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000143	Van Zandt County Drainage Capacity Upgrades	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000144	Van Zandt County Flood Infrastructure Maintenance	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000145	Van Zandt County Road Elevation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000146	Liberty County Topographical Mapping Update	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
052000147	Liberty County Drainage District Multi-County Coordination	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Table 14: Potentially Feasible Flood Management Strategies
Identified by RFPG

FMS ID	FMS Name	Cost/ Structure removed	Consideration of Nature based Solution (Y/N)	Negative Impact (Y/N)	Negative Impact Mitigation (Y/N)	Water Supply Benefit (Y/N)
052000142	City of Groveton Flood Infrastructure Upgrades	N/A	0	No	No	No
052000143	Van Zandt County Drainage Capacity Upgrades	N/A	0	No	No	No
052000144	Van Zandt County Flood Infrastructure Maintenance	N/A	0	No	No	No
052000145	Van Zandt County Road Elevation	N/A	0	No	No	No
052000146	Liberty County Topographical Mapping Update	N/A	0	No	No	No
052000147	Liberty County Drainage District Multi-County Coordination	N/A	0	No	No	No

**APPENDIX 4-C
BIBLIOGRAPHY**

CHAPTER 4. ASSESSMENT AND IDENTIFICATION OF FLOOD MITIGATION NEEDS

“CDC SVI 2018 Documentation.” Center for Disease Control, January 31, 2020,
https://svi.cdc.gov/Documents/Data/2018_SVI_Data/SVI2018Documentation.pdf.

“Technical Guidelines for Regional Flood Planning.” Texas Water Development Board, April 2021,
https://www.twdb.texas.gov/flood/planning/planningdocu/2023/doc/04_Exhibit_C_TechnicalGuidelines_April2021.pdf?d=2127.900000002235.