



TERREBONNE PARISH HAZARD MITIGATION PLAN UPDATE

HAZARD MITIGATION PLAN UPDATE
COMMITTEE MEETING

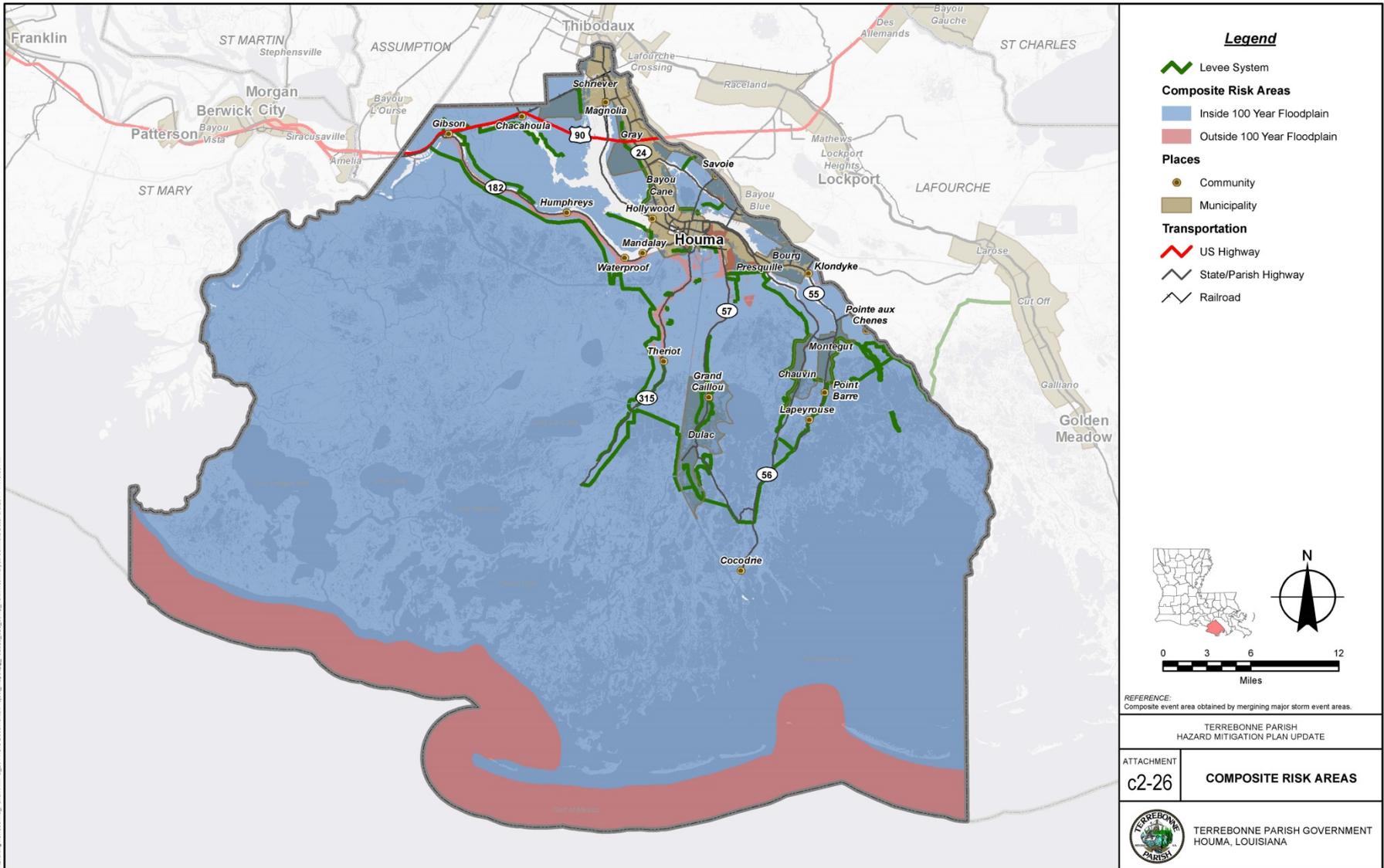
August 7, 2014

- ATTENDANCE
- INTRODUCTIONS
- HAZARD MITIGATION PLAN UPDATE COMMITTEE

- I. Welcome & Introductions
- II. Summary of Second Meeting
- III. Modeling Data Gaps
- IV. Review Risk Assessment
- V. Determine Mitigation Strategies
- VI. Review Updated Maps
- VII. Conclusion

- I. Welcome & Introductions
- II. Summary of First Meeting
- III. Data Inventory and Maps Presentation
- IV. Risk Assessment
- V. Hazard Event Profiles
- VI. Determine Mitigation Strategies
- VII. Conclusion

- Modeling Grant
- Project Ideas?
- Modeling of drainage areas?
Locations?



I:\Planning\Terrebonne_Parish\HMPU_2016\GIS Documents\Final_C2-26_Map.mxd, 2/25/2016 11:19:34 AM

Discussion of FEMA Worksheet #3A—Inventory Assets

	Number of Structures			Value of Structures			Number of People		
	# in Community	# in Hazard Area	% in Hazard Area	\$ in Community	\$ in Hazard Area	% in Hazard Area	#in Community	# in Hazard Area	% in Hazard Area
Total	42,560	26,373	62%	\$7,275,577,000	\$4,407,015,000	61%	104,503	64,961	62%

Repetitive Loss Structures

- 514 structures identified
- Total amount of claims by these structures = \$50 Million
- Average claim amount = \$36,500

Discussion – FEMA Worksheet 4

- Replacement Value of Critical Facilities
 - \$1.3 Billion
- Contents Value
 - \$1.7 Billion
- Composite Risk Loss Estimate
 - \$1.8 Billion

Preliminary Project List (**handout**)

Discussion of New or Additional Projects?

Existing Plans and Preventative Activities:

- Comprehensive Plan
 - Building Code
 - Zoning Ordinance
 - Floodplain Management Regulations
 - Subdivision Ordinance
 - Stormwater Management Regulations
-
1. How tools can reduce losses
 2. Current community standards
 3. Additional plans/regulations?

Mitigation Goals and Objectives

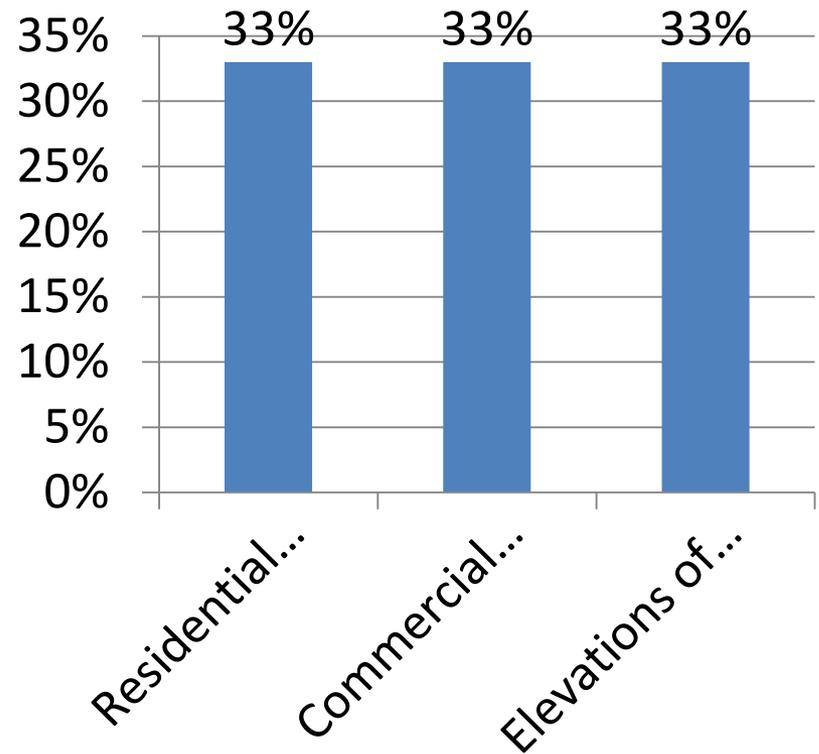
1. Identify and pursue preventative measures that will reduce future damages from hazards.
2. Enhance public awareness and understanding of disaster preparedness.
3. Reduce repetitive flood losses in the parish.
4. Facilitate sound development in the parish to reduce or eliminate the potential impact of hazards.

- Identify and Prioritize Mitigation Measures
 - Determine evaluation criteria
 - Social – Is the mitigation strategy socially acceptable?
 - Technical – Is the proposed action technically feasible and cost effective? Does it provide the appropriate level of protection?
 - Administrative – Does the parish have the capability to implement the action? Is the lead agency capable of carrying out oversight of the project?
 - Political – Is the mitigation action politically acceptable?
 - Legal – Does the parish have the authority to implement the proposed measure?
 - Economic – Does the economic base, protected growth and opportunity costs justify the mitigation project?
 - Environmental – Does the proposed action meet statutory considerations and public desire for sustainable and environmentally healthy communities?
 - Implementation Strategy
 - Identify who will implement the mitigation measures
 - Identify mitigation funding
 - Identify when the mitigation measures should be completed

Question 1

Which type of project do you consider the highest priority?

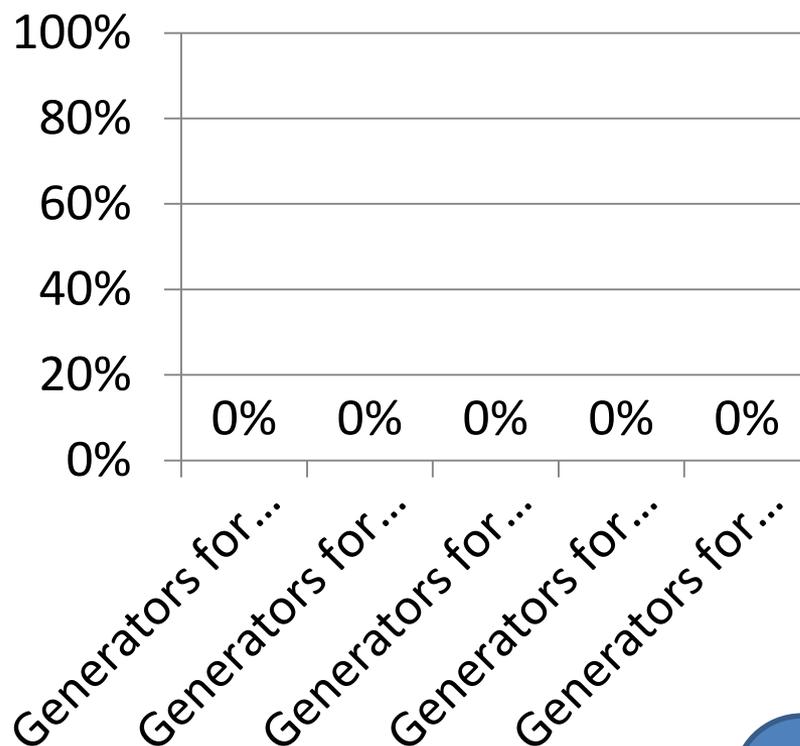
1. Residential Elevations
2. Commercial Elevations
3. Elevations of Critical Facilities



Question 2

Which type of project do you consider the highest priority?

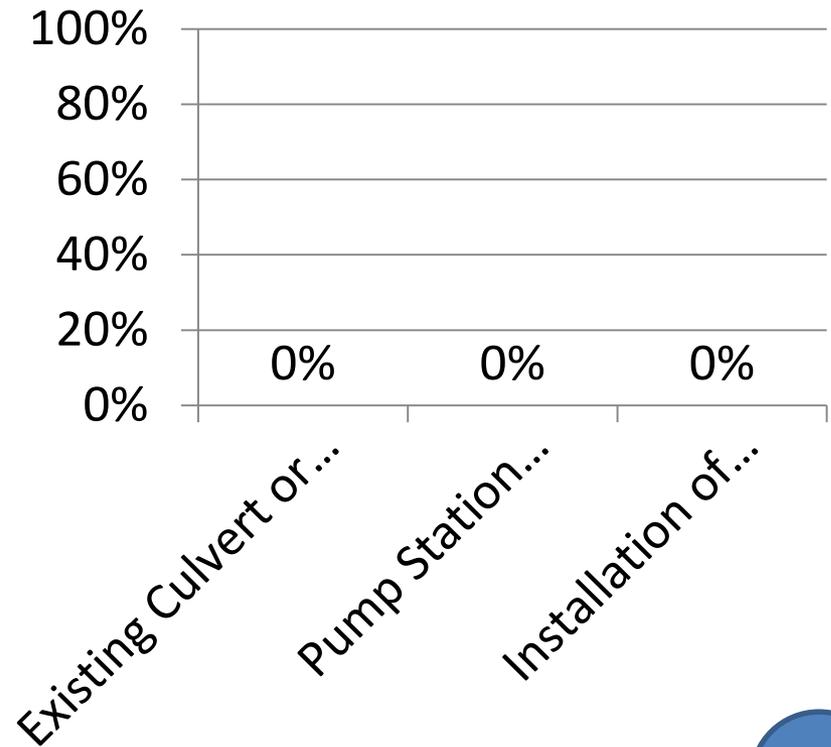
1. Generators for Schools
2. Generators for Sewer Lift Stations
3. Generators for Potable Water Facilities
4. Generators for First Responders
5. Generators for Drainage Pump Stations



Question 3

What type of drainage improvement do you think should be the highest priority?

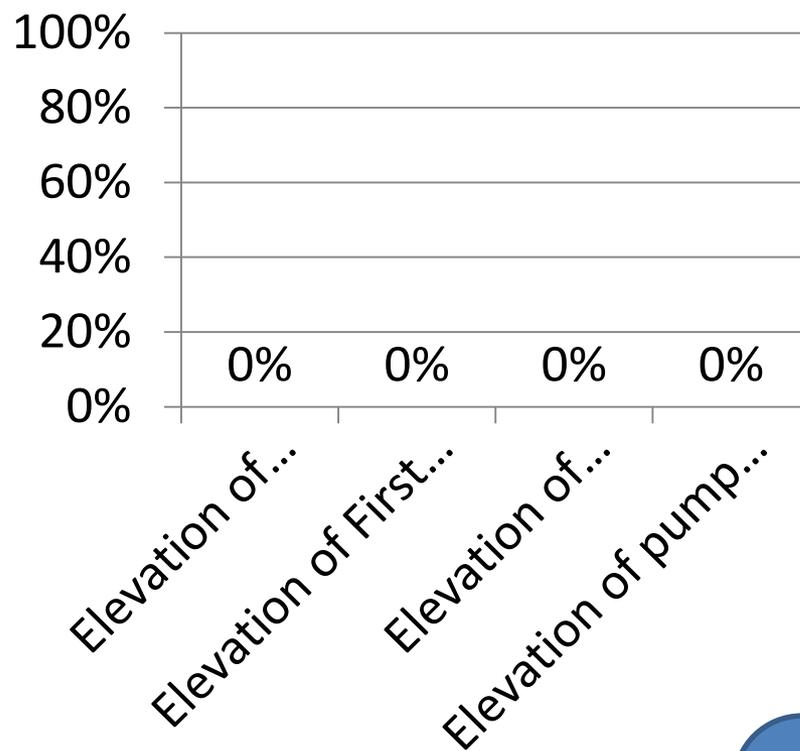
1. Existing Culvert or Ditch Upgrades
2. Pump Station Upgrades
3. Installation of new Drainage Ditches/Culverts where none currently exists



Question 4

What type of critical facility elevation do you think should be the top priority?

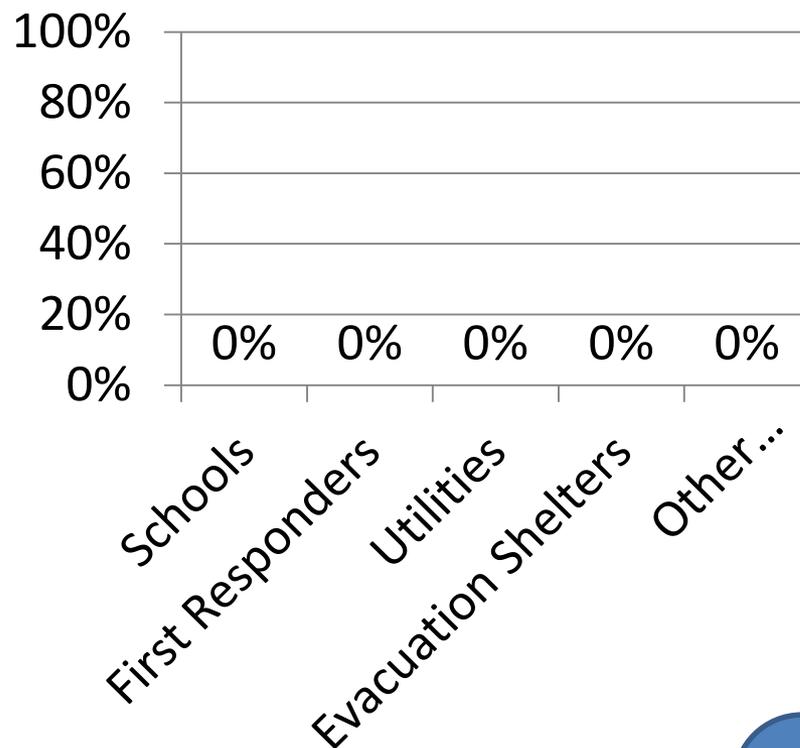
1. Elevation of utilities (water/sewer)
2. Elevation of First Responder structures
3. Elevation of evacuation routes with flood history
4. Elevation of pump station controls



Question 5

What type of wind hardening project do you think should be the top priority?

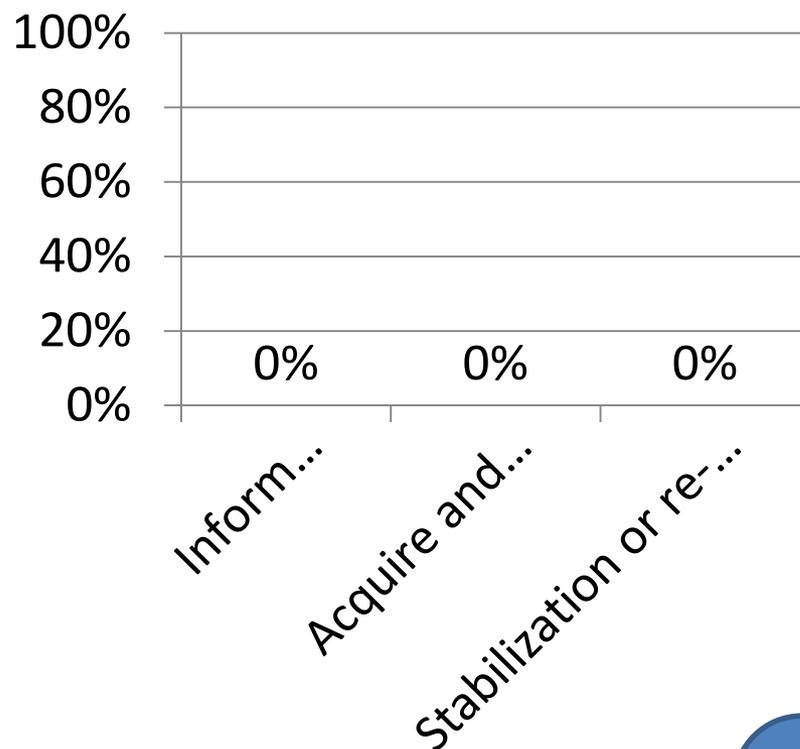
1. Schools
2. First Responders
3. Utilities
4. Evacuation Shelters
5. Other Government Structures



Question 6

What type of project would be of the highest priority to prevent coastal erosion?

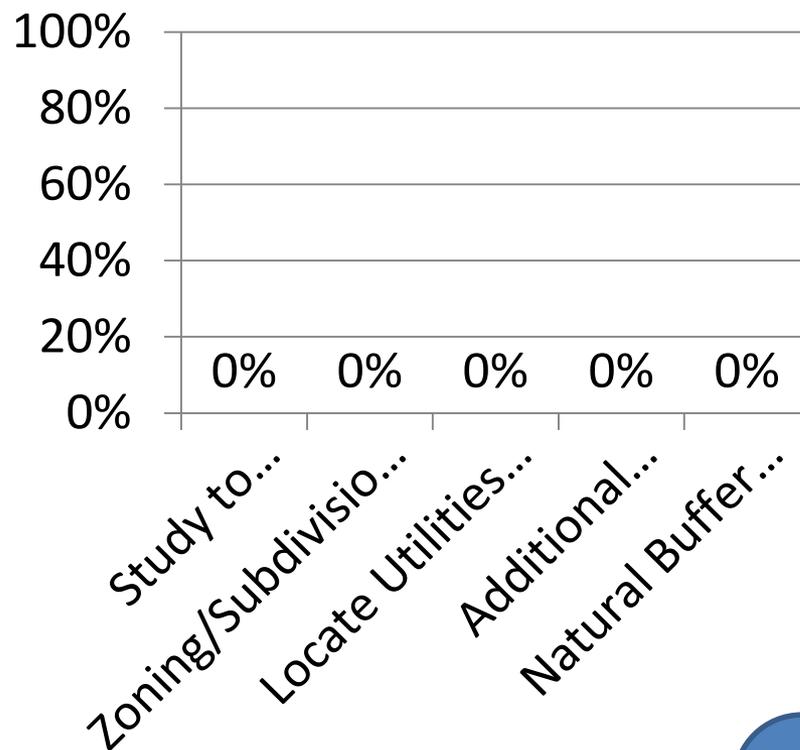
1. Inform community of risks
2. Acquire and demolish structures in at risk area
3. Stabilization or rebuilding of barrier islands



Question 7

What type of project do you think would be of the highest priority to combat sea level rise?

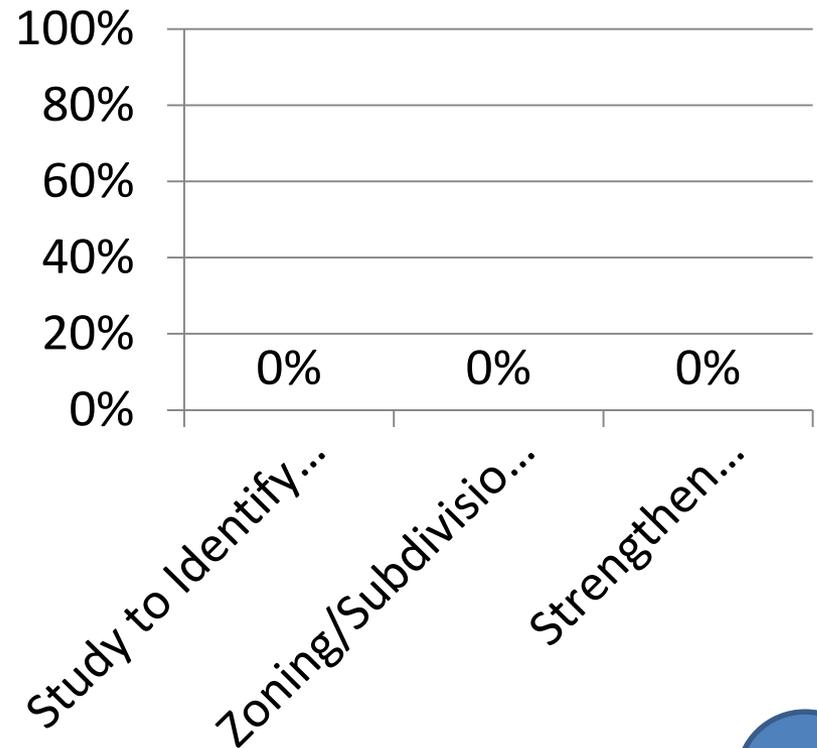
1. Study to investigate baseline risk
2. Zoning/Subdivision Regulations
3. Locate Utilities outside high risk areas
4. Additional Freeboard Requirement
5. Natural Buffer Restoration



Question 8

What type of project do you think would be the highest priority to combat subsidence?

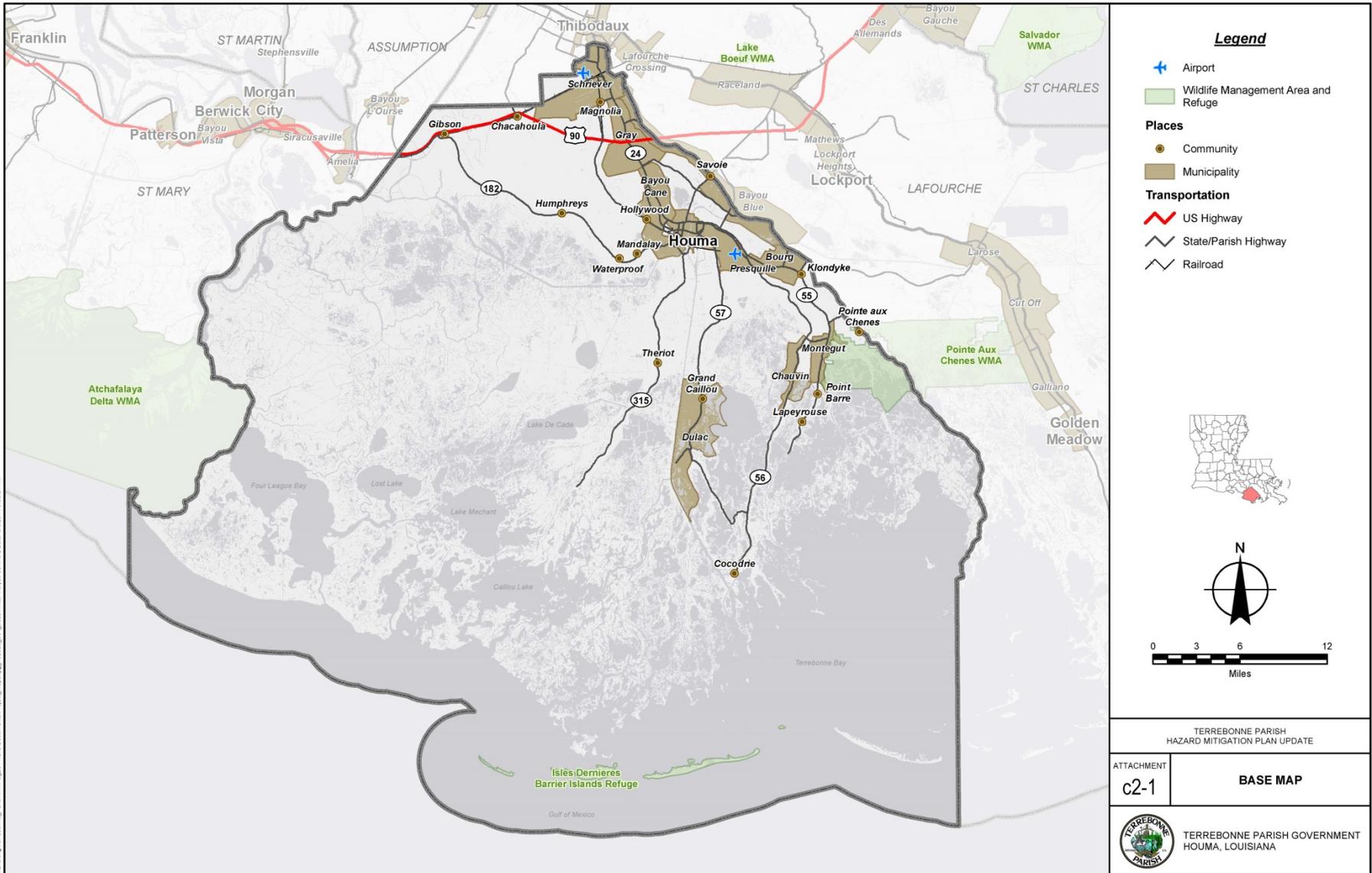
1. Study to Identify Baseline Risk
2. Zoning/Subdivision Regulations
3. Strengthen Building codes to resist subsidence loads



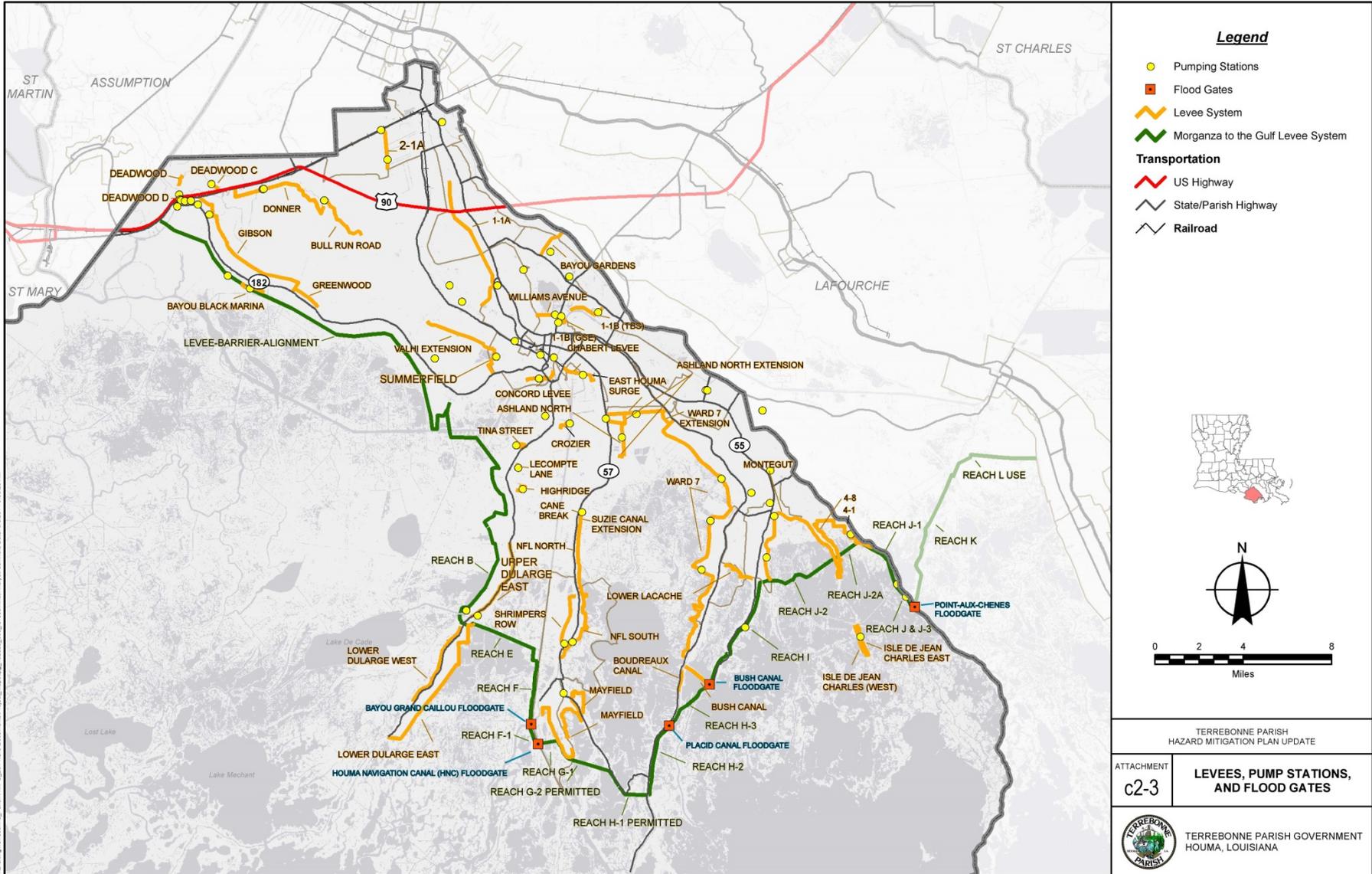
Discussion Points:

- Capability of community to fund and implement activity
- Discussion of implementation of current projects and achievement of expectations

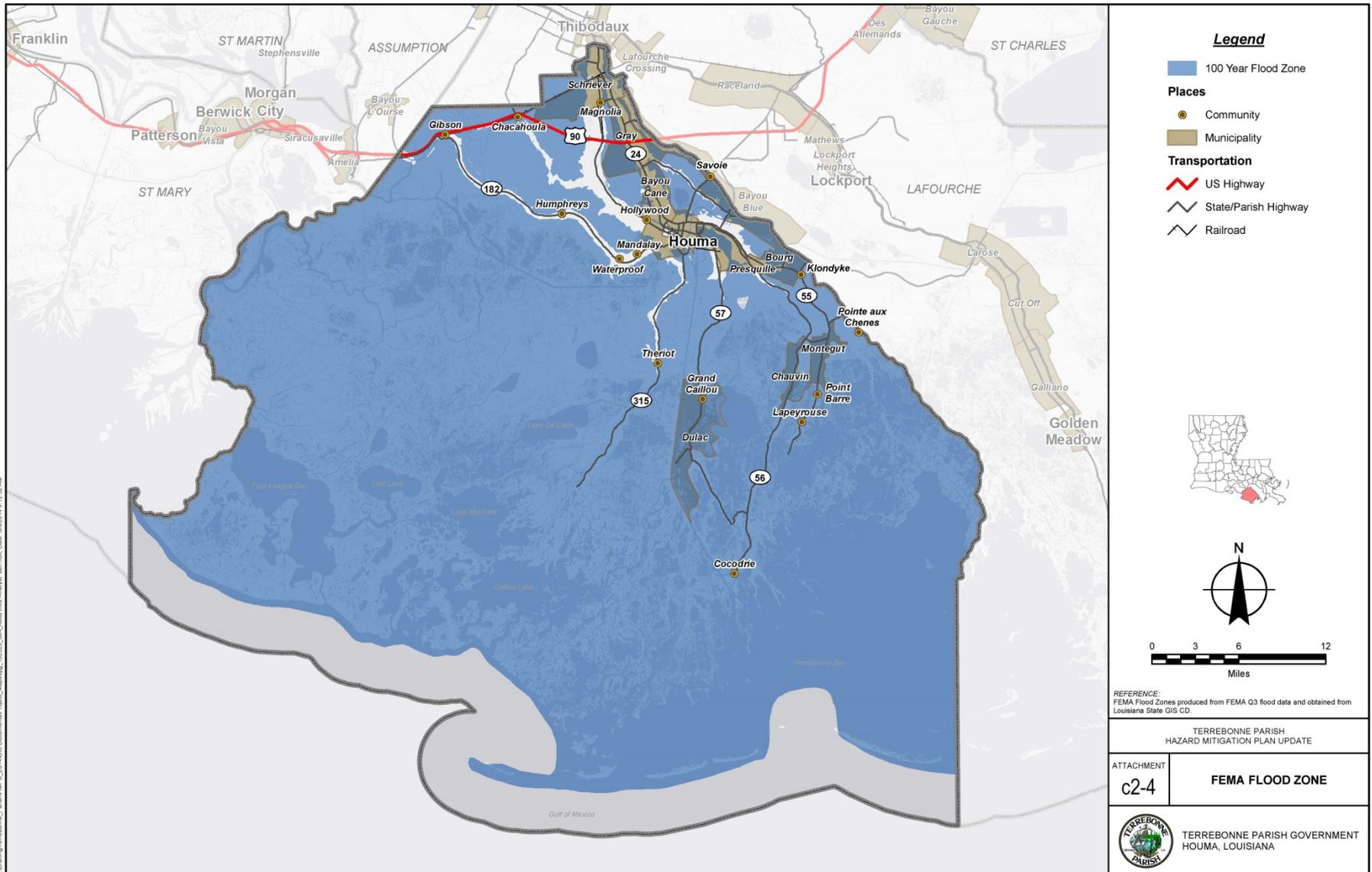
- Capability Assessment
 - What plans reduce long-term vulnerability?
 - What capabilities could be used to implement mitigation and reduce vulnerability in the future?
 - Strengths/Opportunities for Improvement?
 - Planning and Regulatory
 - Administrative and Technical
 - Financial
 - Education and Outreach
- Discussion Questions:
 - What community capabilities can be identified?
 - What limits to community capabilities can be identified?
 - What improvements can be suggested?



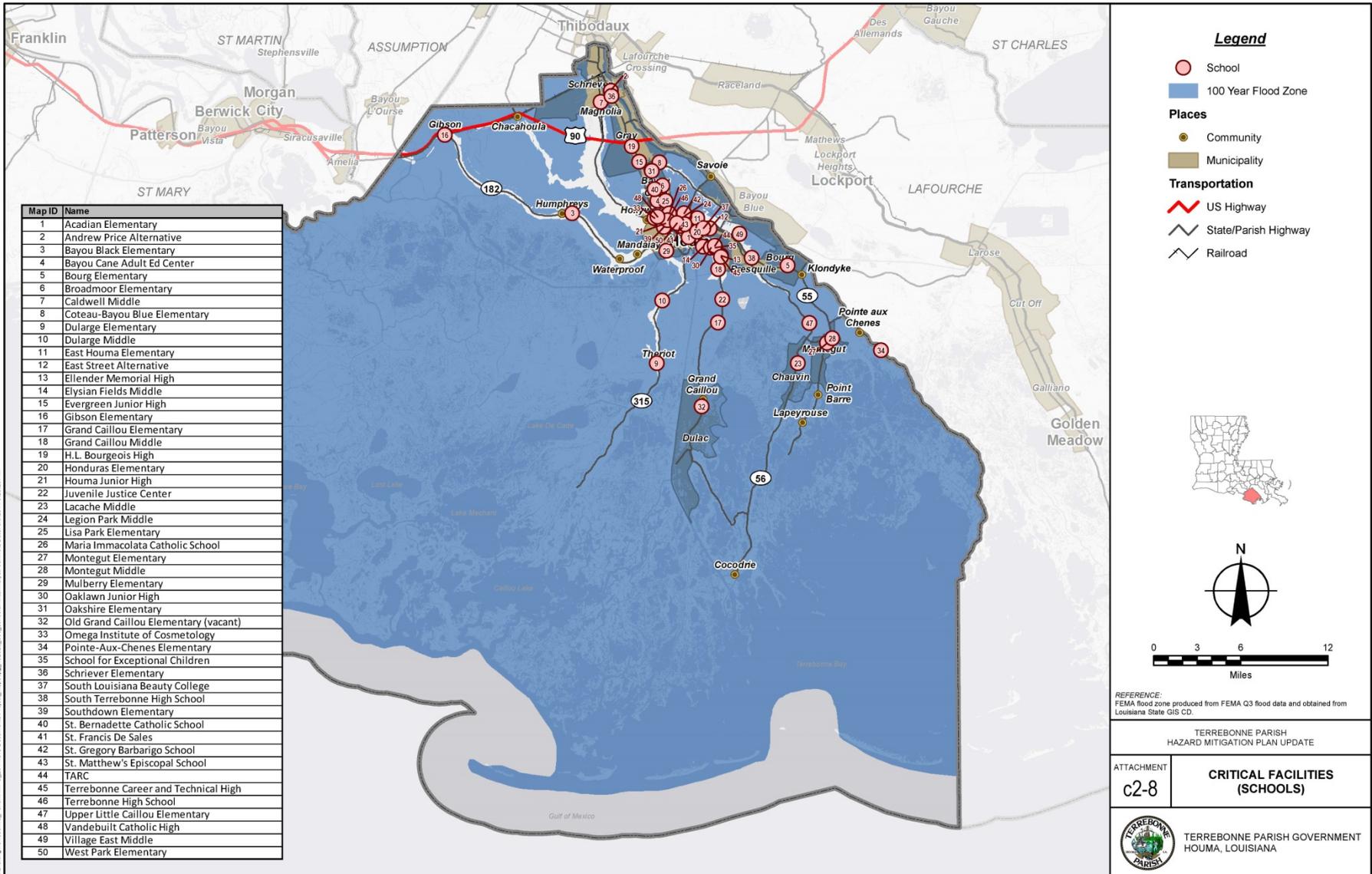
I:\Working\Terrebonne_Parish\Map\2014\GIS Documents\Project_Maps\152205_001_Letter.mxd Analyst: Jon Lee Date: 06/20/14 10:08:21 AM



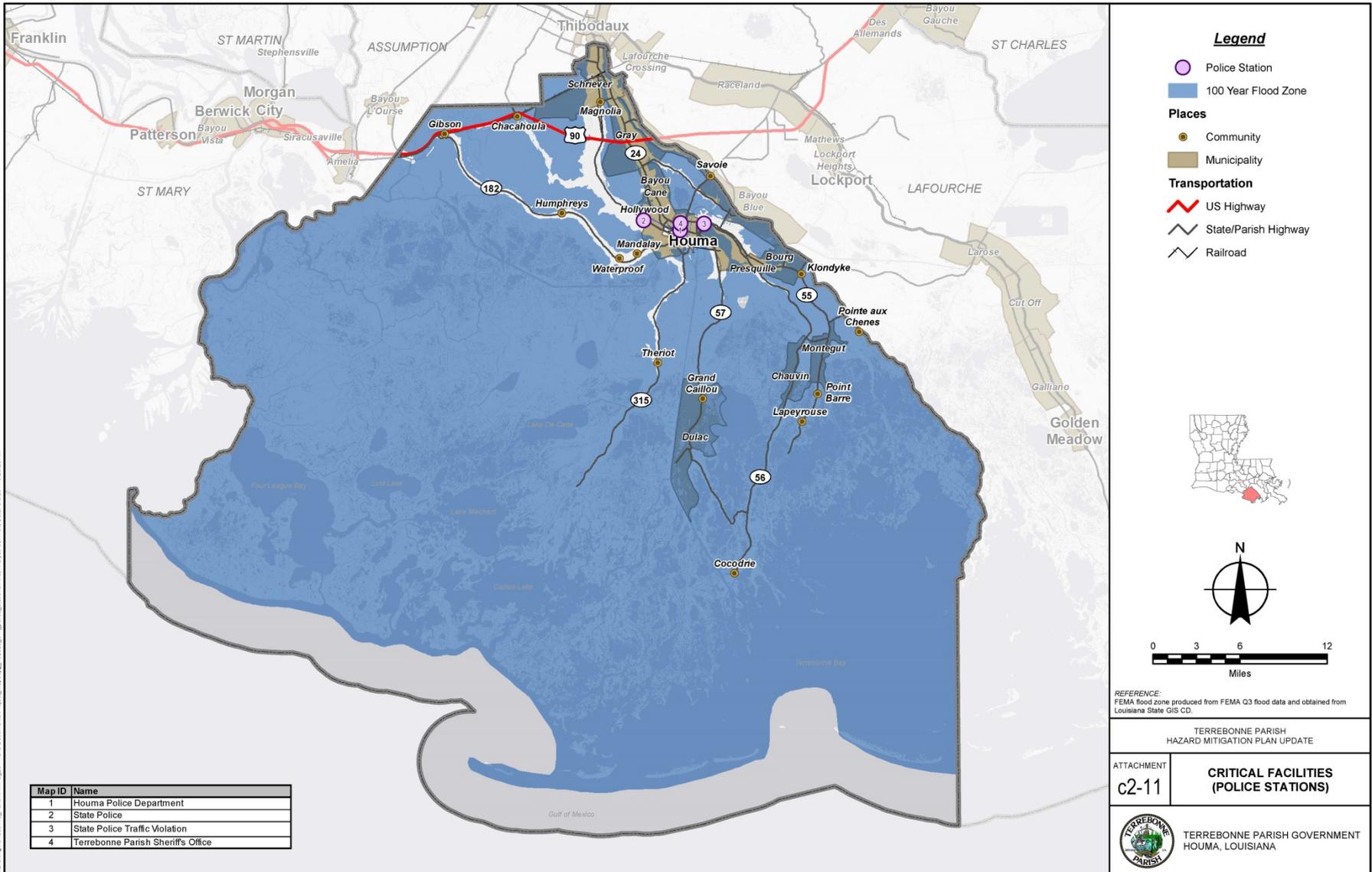
J:\C:\proj\terrebonne_parrish\MPU_2016\GIS\Documents\Project_Maps\15529_200_1600.mxd Analyst: Ben Fort Date: 8/25/16 9:02:26 AM



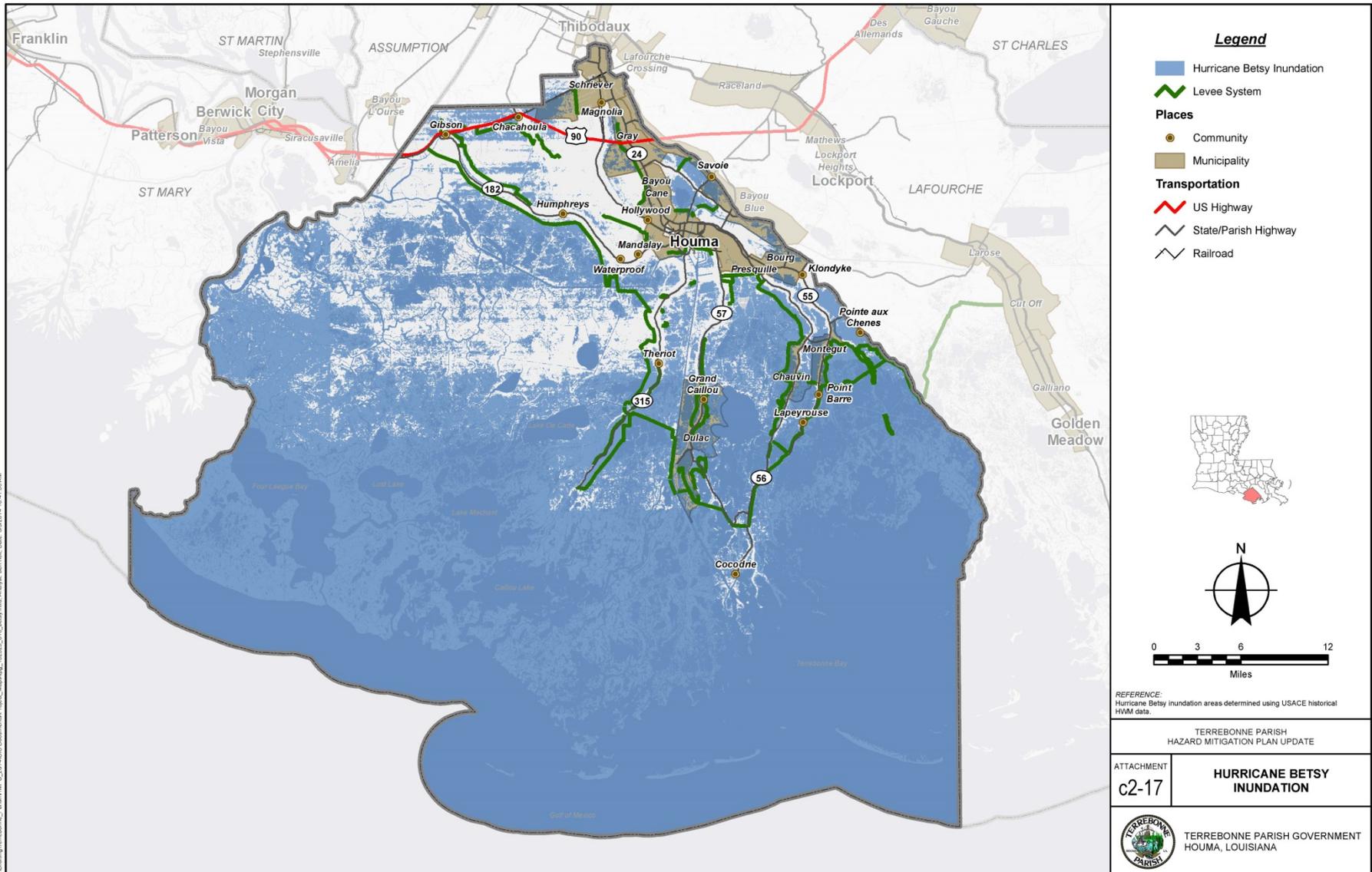
I:\Working\Terrebonne_Parish\MapU_2014\GIS Documents\Project_Materials_152526_004_000.mxd; Analyst: Jon Lee; Date: 9/25/14 11:12:24 AM



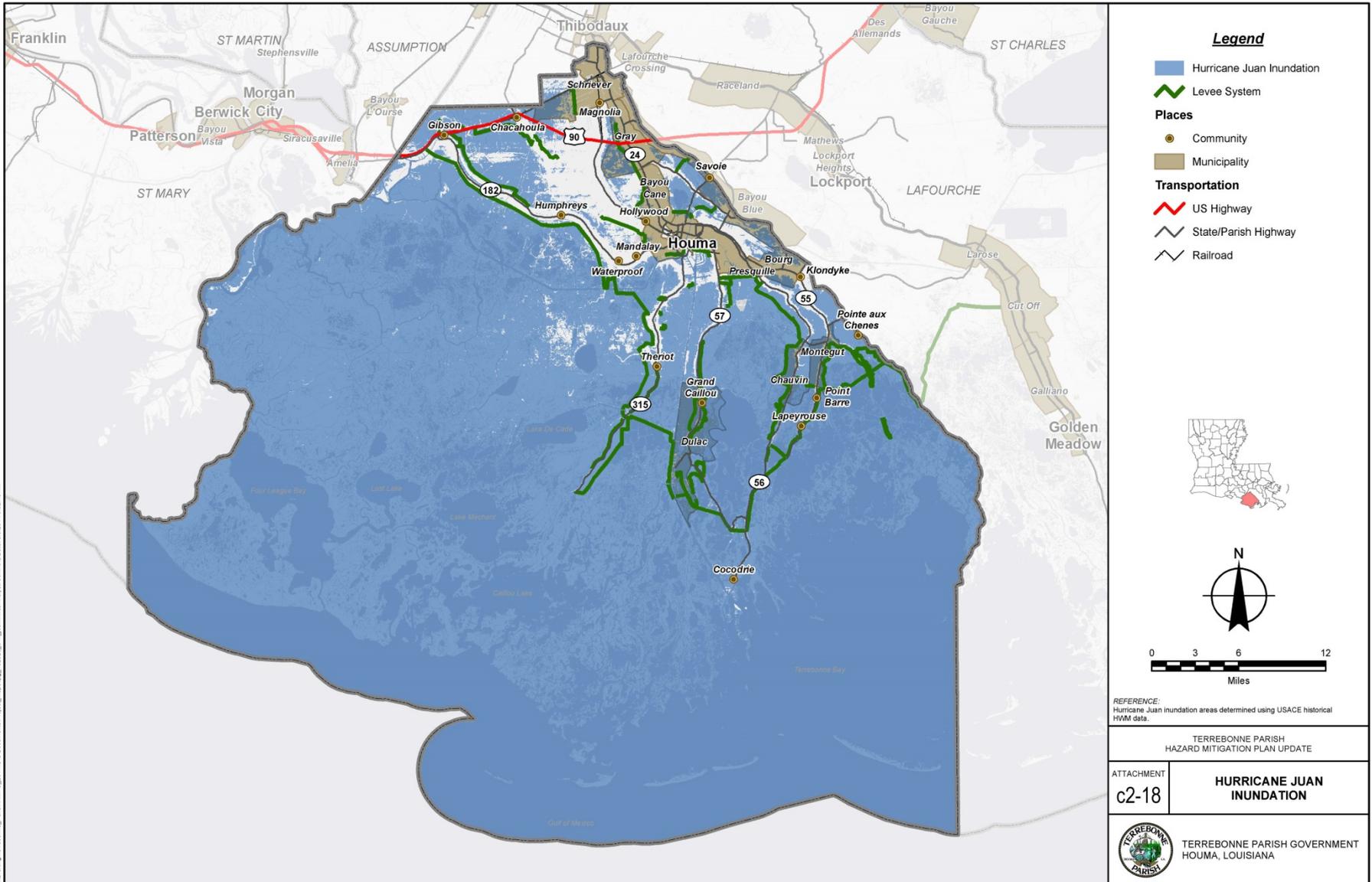
I:\Working\Terbonne_Parish\MapU_2014\GIS Documents\Project_MapU_155225_006_schools.mxd; Author: bernie; Date: 6/20/14 4:25:32 AM



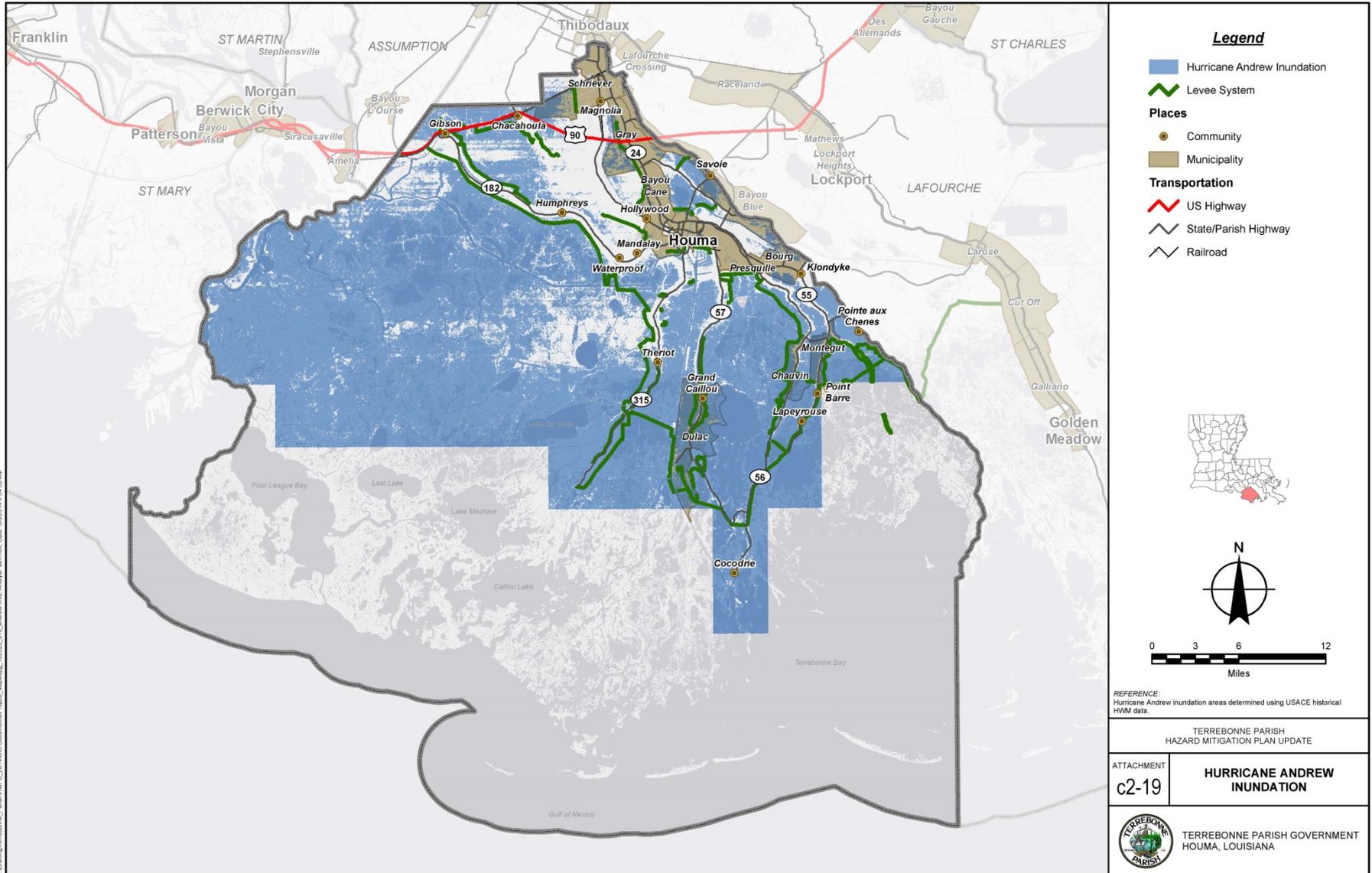
I:\Working\Terrebonne_Parish\MapU_2014\GIS Documents\Project_Maps\15226_011_police_stations.mxd Analyst: Ben Kot Date: 9/25/14 2:25:24 AM



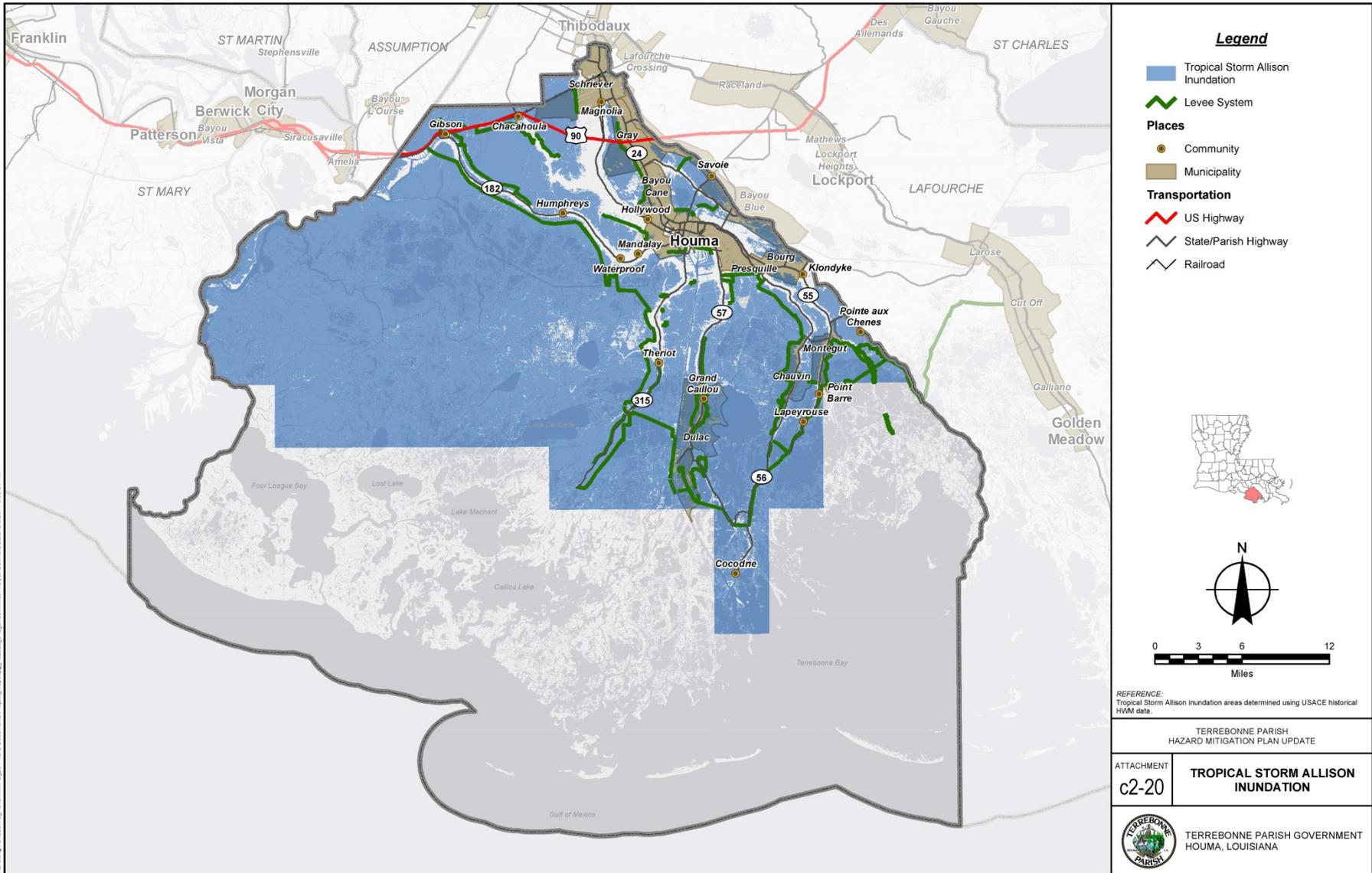
I:\Drafting\Terbonne_Parish\HMPU_2014\GIS Documents\Project_Maps\04_142526_016_Levee.mxd; Analyst: bernadette; Date: 8/26/14 10:41:36 AM



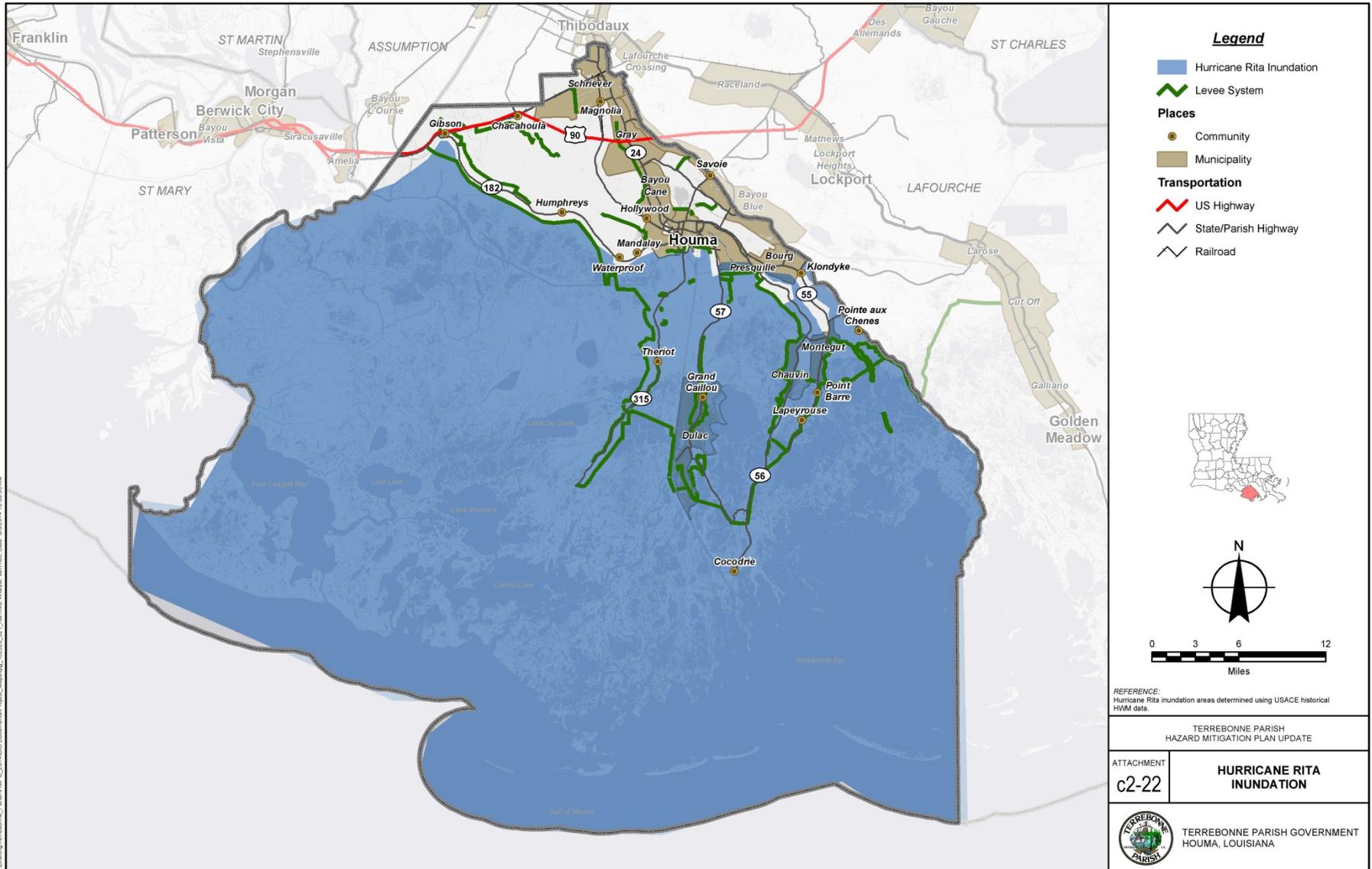
J:\Caddis\Terrebonne_Parish\HMP\1814518 Documents\Project_Materials_15252_012\Juan_inund_Analyt_ben_hot_Data_08/2014_10/22_4AM



I:\Working\Terrebonne_Parish\HMPU_2014\GIS Documents\Project_Maps\Map_152526_018_andrew_inundation_berm_hoc.docx Date: 8/20/14 9:54:59 AM



I:\Working\Terrebonne_Parish\MapU_2014\GIS Documents\Project_Maps\MapU_152526_2015_allison.mxd; Analyst: bennett; Date: 9/8/2014 9:52:14 AM



Legend

- Hurricane Rita Inundation
- Levee System
- Places**
- Community
- Municipality
- Transportation**
- US Highway
- State/Parish Highway
- Railroad



REFERENCE:
Hurricane Rita inundation areas determined using USACE historical HWM data.

TERREBONNE PARISH
HAZARD MITIGATION PLAN UPDATE

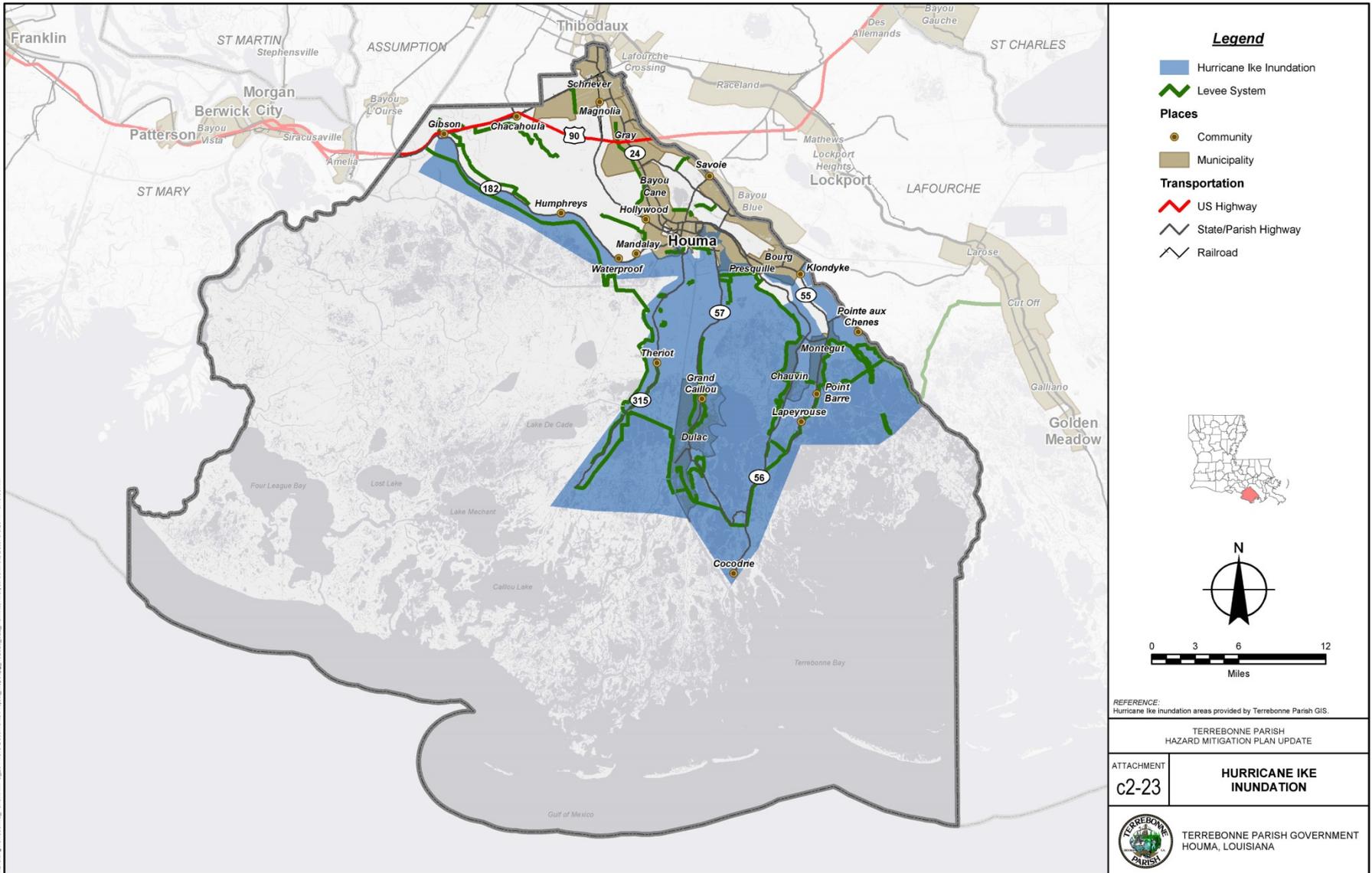
ATTACHMENT
C2-22

**HURRICANE RITA
INUNDATION**



TERREBONNE PARISH GOVERNMENT
HOUMA, LOUISIANA

I:\Working\Terrebonne Parish\HMPU_2014\GIS Documents\Project_Maps\Map_152525_021_Lib.mxd Analyst: ben.mohr Date: 8/20/14 10:38:56 AM



Legend

- Hurricane Ike Inundation
- ▬ Levee System
- Places**
- Community
- Municipality
- Transportation**
- ▬ US Highway
- ▬ State/Parish Highway
- ▬ Railroad



REFERENCE:
Hurricane Ike inundation areas provided by Terrebonne Parish GIS.

TERREBONNE PARISH
HAZARD MITIGATION PLAN UPDATE

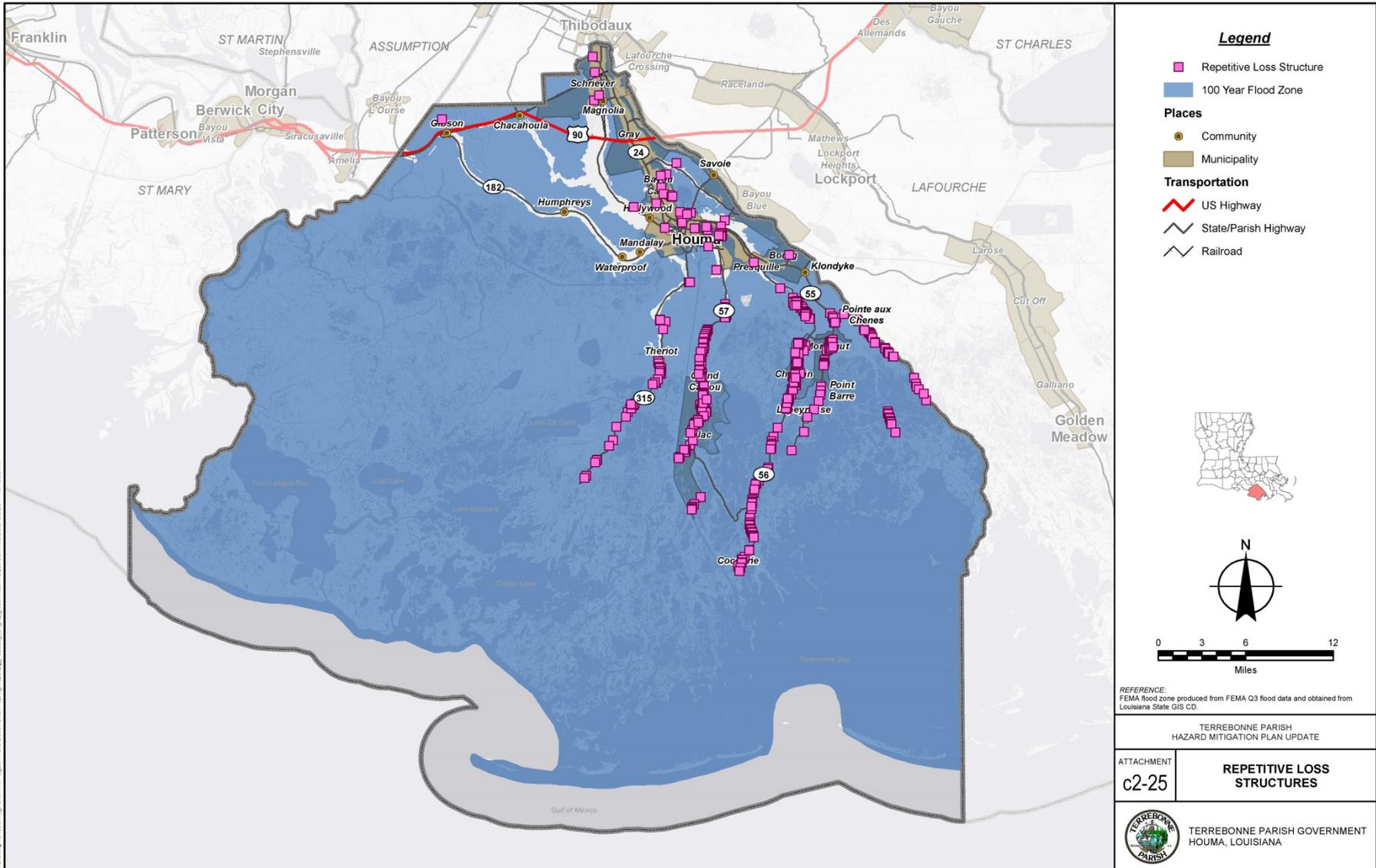
ATTACHMENT
c2-23

**HURRICANE IKE
INUNDATION**

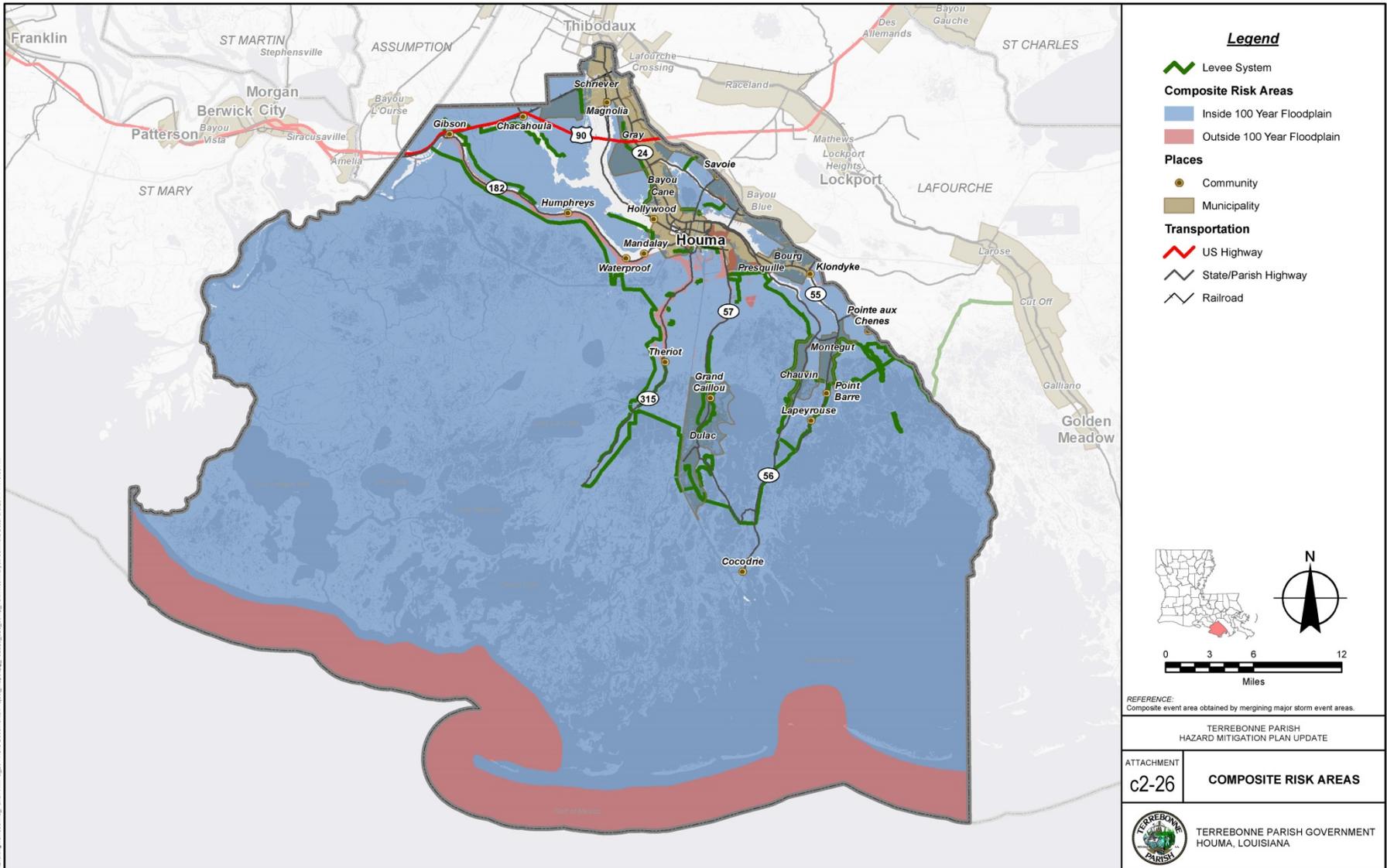


TERREBONNE PARISH GOVERNMENT
HOUMA, LOUISIANA

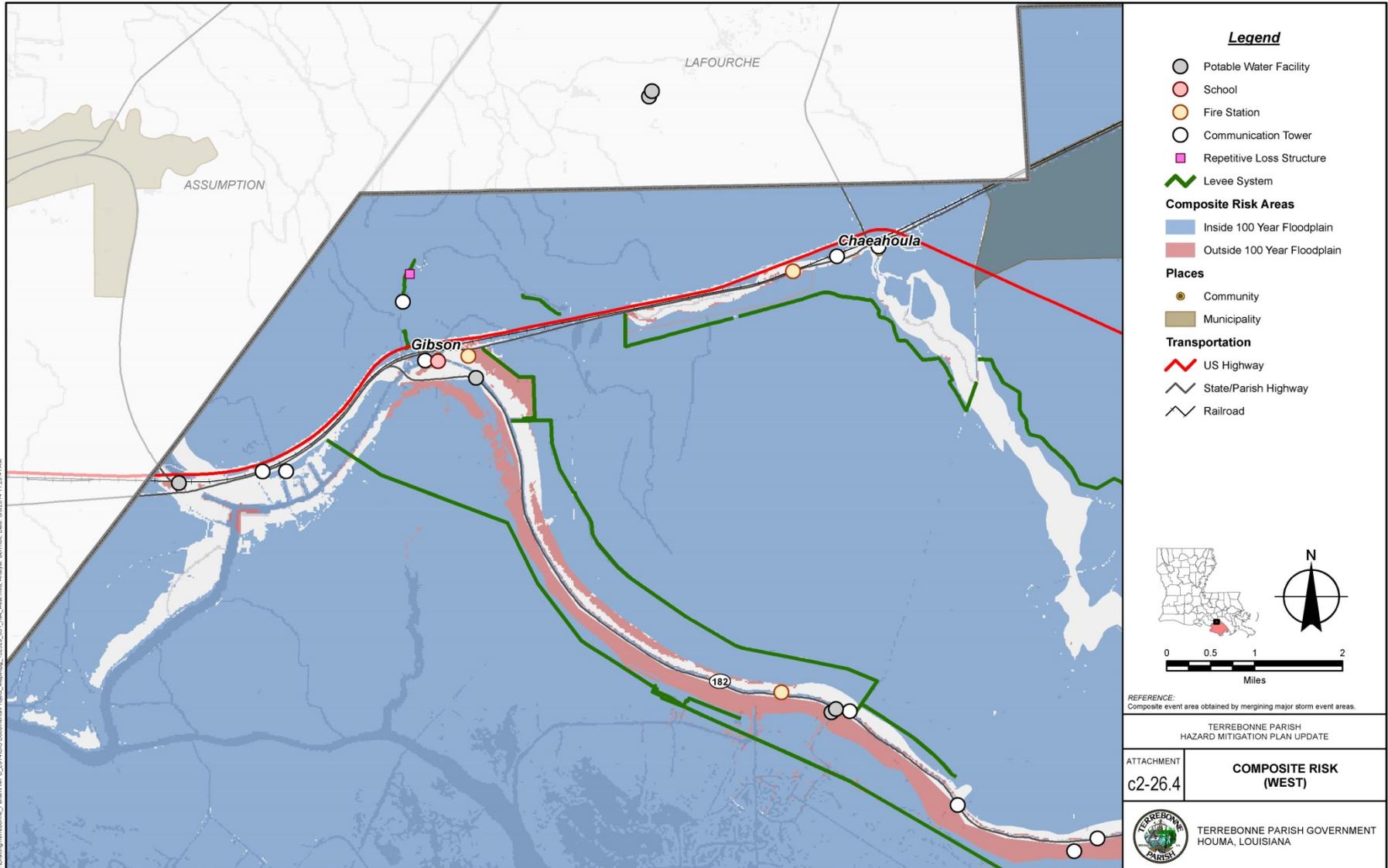
I:\Working\terrebonne_parrish\hmp\U_20160828\Documents\Project_Maps\fig_145226_022_001.mxd, August 30, 2016, Date: 8/30/16 10:10:53 AM



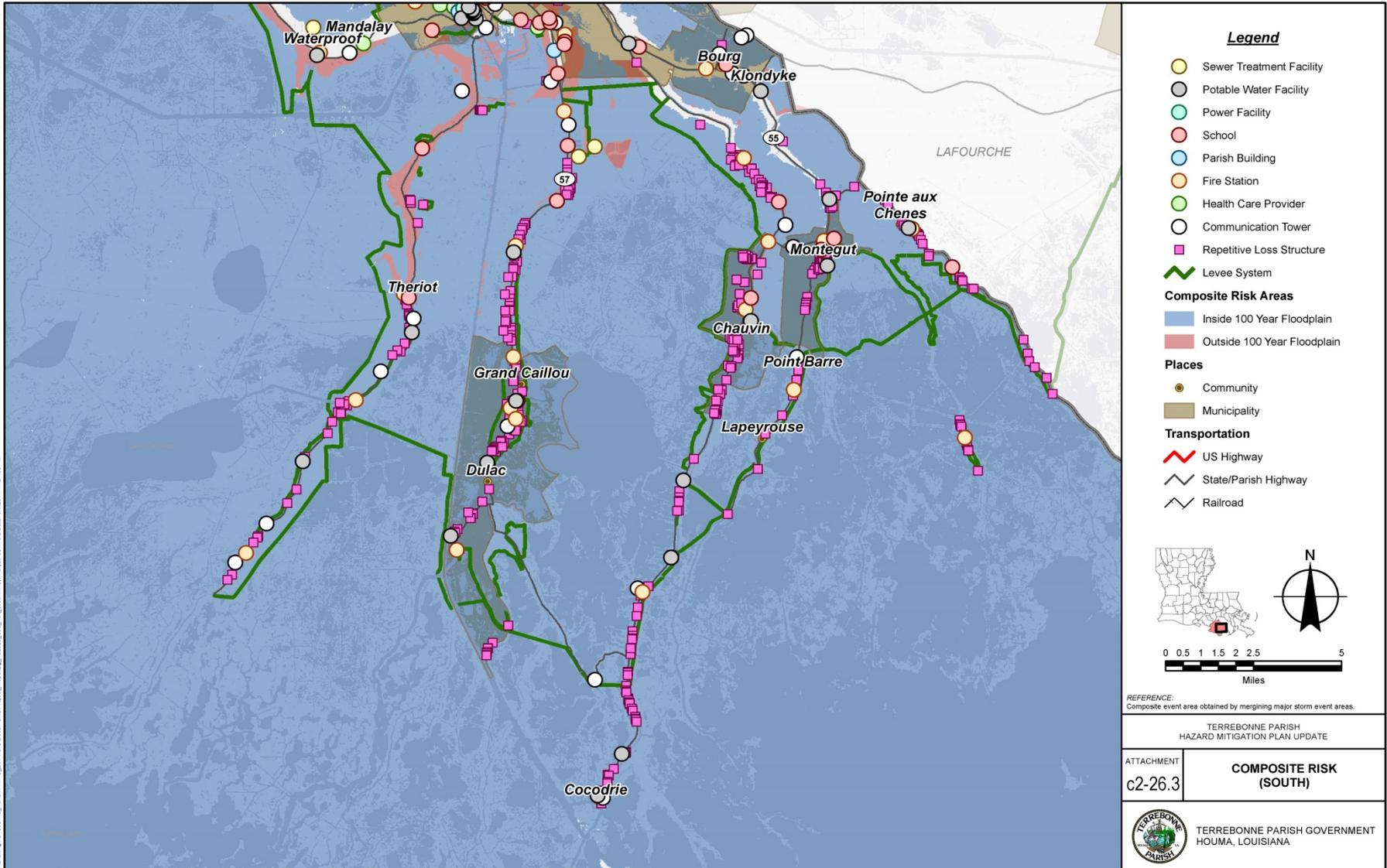
C:\Working\Terrebonne_Parish\HMP\2014\GIS Documents\Project_Metadata\152205_025_rpt_2014.mxd Analyst: km/ke Date: 6/20/14 10:15:35 AM



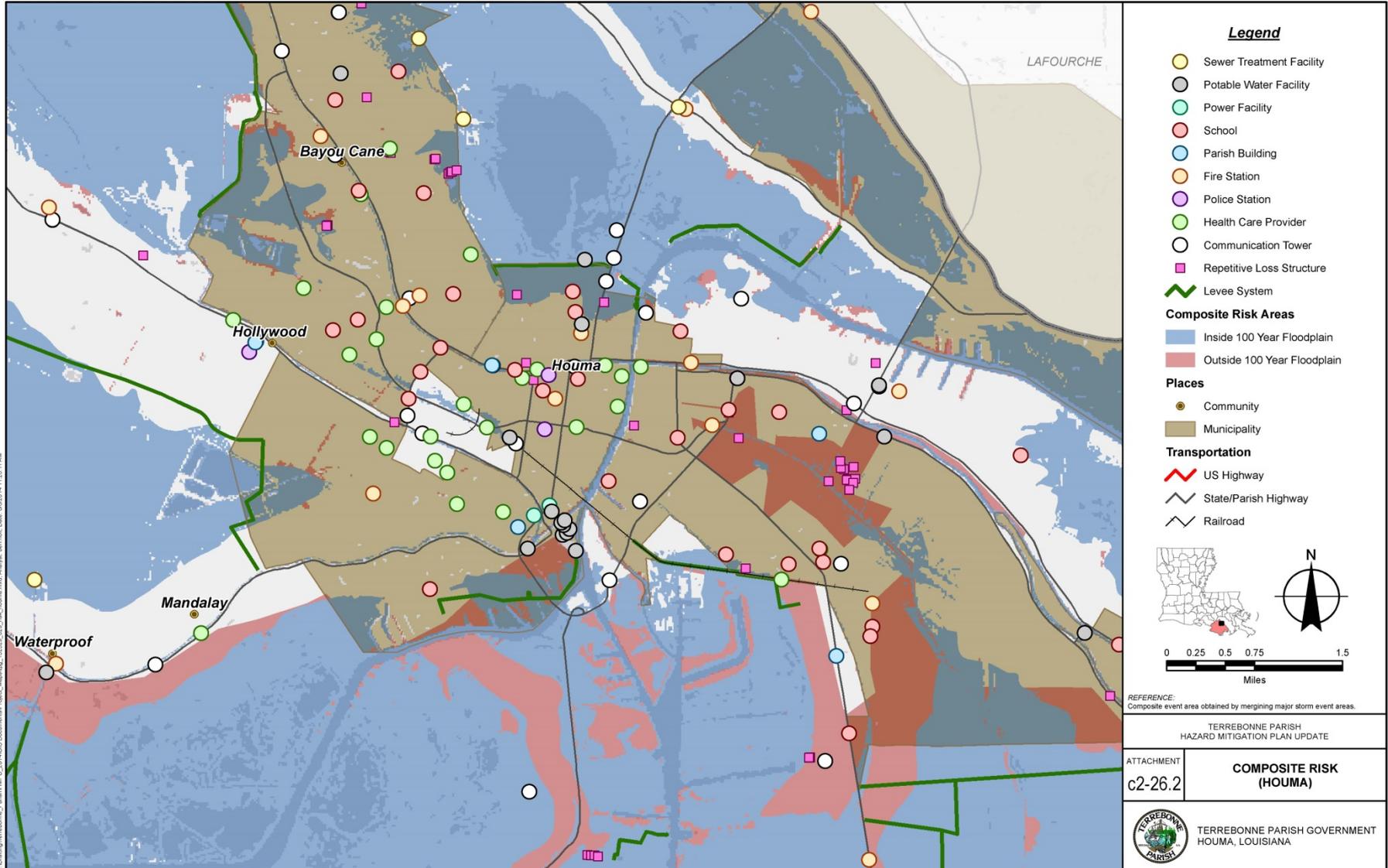
I:\Dm\GIS\terrebonne_parrish\HMPU_2016\GIS Documents\Project_Maps\100_2025_Comp_Areas.mxd, Ansys, berrich, Date: 8/20/14 11:19:54 AM



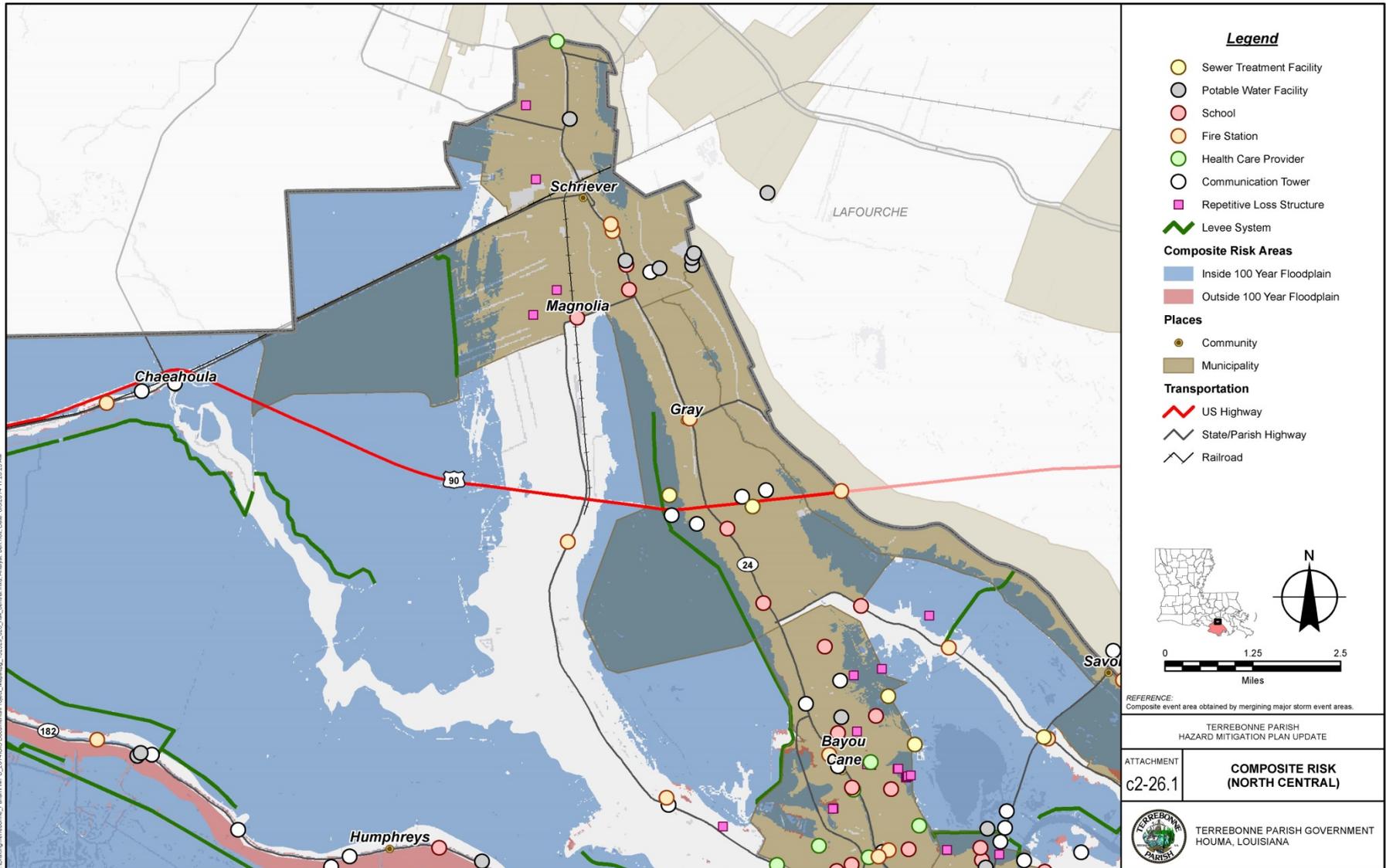
I:\Working\Inroads - Parish\HMP\2014\GIS Documents\Project_Information_10525_101_risk_west.mxd Analyst: bernie Date: 06/20/14 11:26:43 AM



I:\Working\Innovations_Parish\HMPU_2014\GIS Documents\Project_Statistics_10529_100_risk_area.mxd Analysis Date: 06/03/14 11:25:55 AM



I:\Data\Terrebonne_Parish\HMPU_2014\GIS Documents\Project_Maps\14052014_002_risk_houma.mxd Author: jerry.k. Date: 06/23/14 11:53:14 AM



I:\Data\GIS\Projects\HMPU_2014\08_Document\Project_Maps\02_025_025_risk_center_mmr_Analyse_Serials_City_060514_11:23:24.MXD

Next Phase.....

- Review Plan Update
- Next Meeting: September 12, 2014