



ASCENSION

PARISH HAZARD MITIGATION

UPDATE - 2015



ACKNOWLEDGMENTS

This 2015 Ascension Parish Hazard Mitigation Plan Update was coordinated by the Ascension Parish Hazard Mitigation Plan Update Steering Committee, in collaboration with the participating jurisdictions as well as community stakeholders and the general public. The participating jurisdictions are made up of the following communities:

Ascension Parish
City of Gonzales
City of Donaldsonville
Town of Sorrento.

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Section 1: Introduction

Hazard Mitigation is defined as sustained actions taken to reduce or eliminate long-term risk from hazards and their effects. Hazard Mitigation Planning is the process through which natural hazards that threaten communities are identified, likely impacts of those hazards are determined, mitigation goals are set, and appropriate strategies that would lessen the impacts are determined, prioritized, and implemented.

In that regard, this plan (a) documents the Ascension Parish Hazard Mitigation Plan Update (HMPU) process; (b) identifies natural hazards and risks within the parish; and (c) identifies the parish's hazard mitigation strategy to make Ascension Parish less vulnerable and more disaster resistant. Information in the plan will be used to help guide and coordinate mitigation activities and local policy decisions affecting future land use.

The Ascension Parish HMPU is a multi-jurisdictional plan that includes the unincorporated areas of the parish as well as the following incorporated communities which participated in the planning process:

1. City of Gonzales
2. City of Donaldsonville
3. Town of Sorrento

Localized but unincorporated settlements within the parish include Prairieville, Darrow, Burnside, Geismar, Galvez, and St. Amant. This plan also includes additional intra-parish districts and organizations within Ascension Parish that participated in the planning process.

This plan addresses natural hazards only. The HMPU Committee agreed at its first meeting not to pursue human-caused hazards in this update. Although the Federal Emergency Management Agency (FEMA) encourages integration of human-caused hazards into the mitigation planning process, the scope of this effort did not address these human-caused hazards for three reasons. First, planning activities for mitigation of and emergency response to human-caused hazards are the responsibility of specially designated organizations. Secondly, the Disaster Mitigation Act of 2000 (DMA) requires extensive public information and input conflicting with security and confidentiality issues associated with elements such as chemical hazards deemed to be particularly vulnerable to terrorist acts.

FEMA, now under the Department of Homeland Security, has made reducing losses from natural disasters one of its primary goals. The Hazard Mitigation Plan (HMP) and subsequent implementation of recommended projects, measures, and policies is the primary means to achieving these goals. Mitigation planning and project implementation has become even more significant in a post-Hurricanes Katrina and Rita environment in south Louisiana.

The DMA requires state and local governments to develop and periodically update hazard mitigation plans to maintain eligibility for certain federal disaster assistance and hazard mitigation funding programs. Compliance with these requirements will maintain continued eligibility for certain hazard mitigation grant programs from FEMA for each organization participating in this planning process.

Location

This plan will identify cost effective and environmentally sound mitigation strategies that will reduce or eliminate long-term risk to human life and property from natural hazards. Implementation of this plan can reduce the enormous cost of disasters to property owners and all levels of government. Mitigation

strategies often include protecting critical community facilities, reducing exposure to liability and minimizing community disruption. Land development planning, adoption of building codes, elevation of homes, and acquisition and relocation of homes away from floodplains are just a few examples of mitigation strategies.

Ascension Parish covers 289.98 square miles and is located in southeast Louisiana as indicated on the map below in Figure 1-1, with an estimated population of 114,393¹. It is bound on the north by Bayou Manchac and East Baton Rouge Parish; on the northeast by the Amite River, Bayou Pierre, Petite Amite River, Blind River, and Livingston Parish; on the east by St. John the Baptist Parish; on the south by St. James and Assumption Parishes; and on the west by Iberville Parish. Ascension is divided into two regions by the Mississippi River with 80% of the land east of the river and the balance on the west bank.

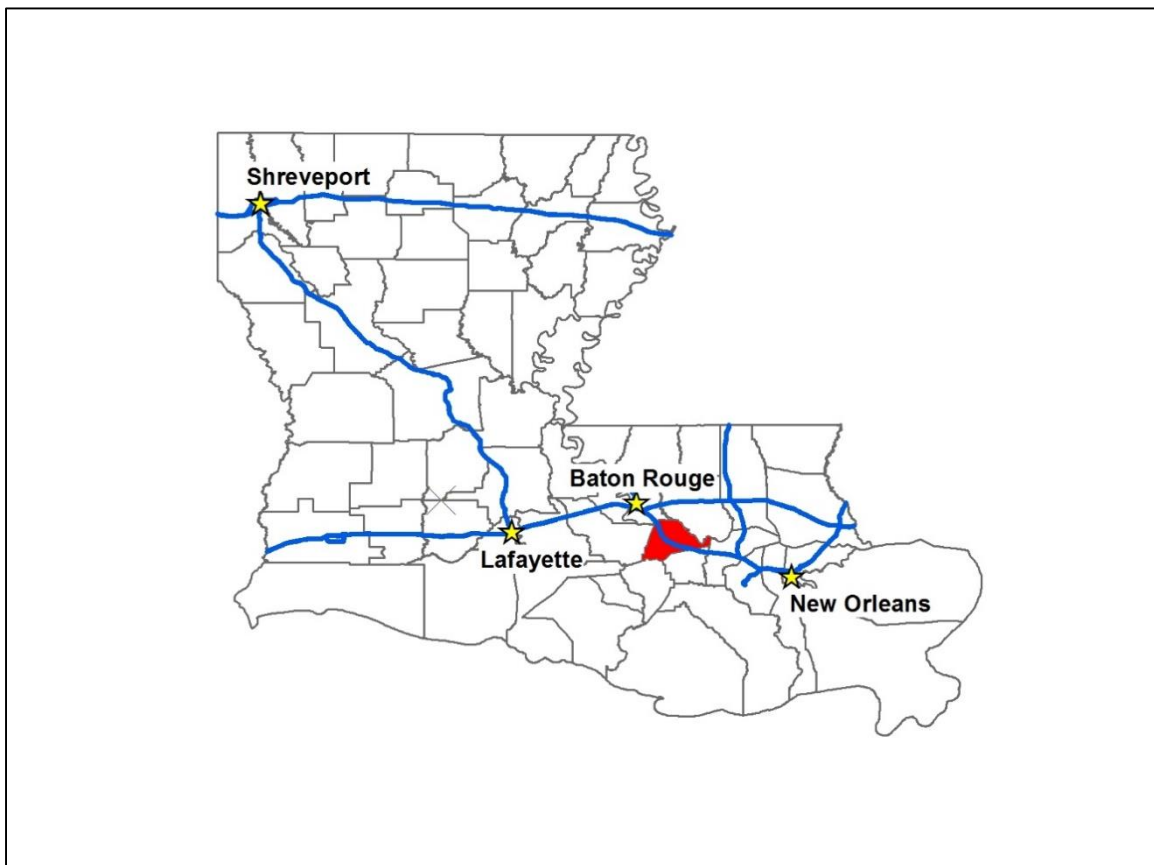


Figure 1-1: Ascension Parish Location Map

While the parish seat is in Donaldsonville, parish government offices are also located in Gonzales. Bi-weekly parish council meetings are alternated between both cities.

Physiography

Ascension Parish has a large portion of its land located above coastal storm surge inundation elevations yet its topography is relatively flat. In the southern portion of the parish, land is fifteen-twenty feet above sea level along river banks, sloping gradually down to five feet and lower away from the river and toward

¹ U.S. Census Bureau Data.

backwater swamp areas. This sloping resulted from natural levees created by overbank flooding. Going north, the elevation begins to rise again, reaching 20-25 feet in the northern portion of the parish. The only extensive lowland areas are in the east-southeast sector, which is subject to storm surge from Lake Maurepas via Lake Pontchartrain and northwest portions of the parish which flood as a function of the Amite River and Bayou Manchac.

Land east of the Mississippi River drains to the Amite and Lake Maurepas watersheds as a function of the Lake Pontchartrain Basin. More than 1,200 square miles of surface area north of Ascension Parish drains into the Amite River eventually flowing through the region. The remainder of the parish, i.e. west of the Mississippi River, is drained by former Mississippi River distributaries located in west and east central Louisiana coastal watersheds, specifically in the Terrebonne and Barataria watersheds, southward to the Gulf of Mexico. Sheet flow drainage in the parish west of the Mississippi River is to canals and low lying swampy areas to the west and south. Ascension Parish is located contiguous to, but outside of, the designated coastal zone of Louisiana.

Climate

Ascension Parish enjoys a complete seasonal cycle with pleasant spring and fall seasons. Winter months are usually mild with cold spells of short duration. Rainfall averages 61" per year. The summer months are warm with an average daily maximum temperature in July and August of 91°F. The parish is within the Gulf Coast hurricane impact zone and is therefore subject to heavy winds and rain. Structural design wind speeds range from 100-120 mph for the parish.

Demography

Recent demographic data and projections are shown in the following table (US Census 2013):

Table 1-1: Ascension Parish Demographic Statistics

	2000 Census	2005 Census	2010 Census	2013 Estimate	Percent Change 2005 -2010	Percent Change 2010 -2013
Total Population	76,627	88,138	107,215	114,393	21.64%	6.70%
Population Density (Pop/Sq Mi)	253	291	325.7	369.70	11.90%	13.50%
Total Households	29,172	34,865	40,784	42,976	17.9%	5.3%

Economy

When compared to other counties and parishes throughout the United States, Ascension Parish has a relatively high household income of \$67,688. This median is 34 percent higher than the median in Louisiana of \$44,673, which is 12.4 percent higher than the U.S. median of \$51,017. Economic business data for Ascension Parish (2013) is shown in the following table (U.S. Census Bureau).

Table 1-2: Ascension Parish Business Patterns

2012 Parish Business Patterns – Ascension, LA					
Industry Code	Industry Code Description	Number of Employees	Payroll (\$1,000)		Total Establishments
			1 st Quarter	Annual	
	Total	33,221	374,829	1,536,080	2,058
11----	Agriculture, Forestry, Fishing, and Hunting	20-99	*n/a	*n/a	4
21----	Mining, Quarrying, and Oil and Gas Extraction	375	8,930	31,037	11
22----	Utilities	138	1,684	7,261	9
23----	Construction	4,717	56,681	265,841	206
31----	Manufacturing	4,550	116,054	433,988	102
42----	Wholesale Trade	2,131	28,736	118,515	162
44----	Retail Trade	5,563	31,501	132,058	372
48----	Transportation and Warehousing	1,259	19,103	77,352	80
51----	Information	247	2,026	7,150	20
52----	Finance and Insurance	996	9,840	41,355	128
53----	Real Estate and Rental and Leasing	492	6,099	26,855	87
54----	Professional, Scientific, and Technical Services	856	12,037	55,847	161
55----	Management of Companies and Enterprises	327	5,759	24,933	16
56----	Administrative and Support of Waste Management Remediation Services	2,557	21,662	89,182	109
61----	Educational Services	433	3,278	11,760	19
62---	Health Care and Social Assistance	3,419	25,592	107,885	180
71----	Arts, Entertainment and Recreation	515	1,874	8,066	27
72----	Accommodation and Food Services	3,123	10,152	43,450	174
81----	Other Services (except Public Administration)	1,437	13,140	50,513	191

*Information withheld to avoid disclosing data for individual companies; data are included in higher level totals.

Retail trade is the largest employment base in Ascension Parish. It is followed closely by the Construction and then Manufacturing industries. These three economic sectors constitute nearly 45% of parish wide employment.

Hazard Mitigation

To fully understand hazard mitigation efforts in Ascension Parish and throughout Louisiana, it is first crucial to understand how hazard mitigation relates to the broader concept of emergency management. In the early 1980s, the newly-created Federal Emergency Management Agency (FEMA) was charged with developing a structure for how the federal, state, and local governments would respond to disasters. FEMA developed the *four phases of emergency management*, an approach which can be applied to all disasters. The four phases are as follows:

- **Hazard Mitigation**—described by FEMA and the Disaster Mitigation Act of 2000 (DMA 2000) as “any sustained action taken to reduce or eliminate long-term risk to life and property from a hazard event.” The goal of mitigation is to save lives and reduce property damage. Besides significantly aiding in the obviously desirous goal of saving human lives, mitigation can reduce the enormous cost of disasters to property owners and all levels of government. In addition, mitigation can protect critical community facilities and minimize community disruption, helping communities return to usual daily living in the aftermath of disaster. Examples of mitigation involve a range of activities and actions including the following: land-use planning, adoption and enforcement of building codes, and construction projects (e.g., floodproofing homes through elevation, or acquisition or relocation away from floodplains).
- **Emergency Preparedness**—includes plans and preparations made to save lives and property and to facilitate response operations in advance of a disaster event.
- **Disaster Response**—includes actions taken to provide emergency assistance, save lives, minimize property damage, and speed recovery immediately following a disaster.
- **Disaster Recovery**—includes actions taken to return to a normal or improved operating condition following a disaster.

Figure 1-2. Illustrates the basic relationship between these phases of emergency management. While hazard mitigation may occur both before and after a disaster event, it is significantly more effective when implemented before an event occurs. This is one of the key elements of this Plan and its overall strategy: reduce risk before disaster strikes in order to minimize the need for post-disaster response and recovery.



Figure 1-2: The four phases of emergency management and their relation to future hazard mitigation
(Source: Louisiana State Hazard Mitigation Plan 2014).

General Strategy

Part of the ongoing integration process is that GOHSEP encourages the parishes and the local municipalities with independent hazard mitigation plans to utilize the same plan format and methodologies as the State Hazard Mitigation Plan in order to create continuity of information from local to state mitigation plans and programs.

The 2015 Ascension Parish Hazard Mitigation Plan (HMP) maintains much of the information from the 2006 and 2010 plan versions, but it now reflects the order and methodologies of the 2014 Louisiana State Hazard Mitigation Plan. The sections in the 2010 Ascension HMP were as follows:

- Section One Prerequisites – Formal Plan Adoption with Foreword
- Section Two Parish Profile
- Section Three The Planning Process
- Section Four Plan Content
- Section Five Hazard Mitigation Strategies
- Section Six Plan Maintenance Procedures
- References
- Attachments

This plan update now also coheres with the Plain Writing Act of 2010, which requires federal agencies to use clear communication that is accessible, consistent, understandable, and useful to the public. While the State of Louisiana and its political subdivisions are not required to meet such standards, the Act aligns with best practices in hazard mitigation. Since successful hazard mitigation relies on full implementation and

cooperation at all levels of government and community, a successful hazard mitigation plan must also be easily used at all of these levels. Nevertheless, the Ascension Parish Hazard Mitigation Planning Committee was not ignorant or dismissive of the successful analysis and mitigation planning executed in previous plan updates. This plan update remains coherent with those documents, retaining language and content when needed, deleting it when appropriate, and augmenting it when constructive.

2015 Plan update

This 2015 plan update proceeds with the five previous goals of the Ascension Parish hazard mitigation plan. The current goals are as follows:

Goal 1: Identify and pursue preventative structural and non-structural measures that will reduce future damages.

Goal 2: Enhance public awareness and understanding of disaster preparedness.

Goal 3: Reduce repetitive flood losses in parish and municipalities.

Goal 4: Facilitate sound building practices in the parish and municipalities so as to reduce or eliminate the potential impact of hazards.

Goal 5: Improve the ability of the parish and municipalities to rapidly recover and restore facilities and services to the public.

This plan update makes a number of textual changes throughout. But the most obvious changes are data related and structural. First, the Spatial Hazard Events and Losses Database for the United States (SHELDUS) was used as a data source for hazard identification because it incorporates all storm event data from the National Climatic Data Center (NCDC) Storm Events Database used in previous plans, as well as storm event data from other sources including the NOAA Storm Prediction Center, National Hurricane Center, and U.S. Fire Administration. Furthermore, all of the sections were updated to reflect the most current information and the most current vision of the plan update. In addition, the present plan update has four sections and five appendices. The most significant changes are the newly developed hazard profiles and Risk Assessments, the removal of much repetition between sections from the previous plan updates. The 2015 plan update is organized generally as follows:

- Section One Introduction
 - Section Two Hazard Identification and Parishwide Risk Assessment
 - Section Three Capability Assessment
 - Section Four Mitigation Strategies
-
- Appendix A Planning Process
 - Appendix B Plan Maintenance
 - Appendix C Ascension Parish Essential Facilities
 - Appendix D Plan Adoption
 - Appendix E State Required Worksheets

Table 1-3: Plan Change Crosswalk

2010 Plan	Revised Plan (2015)
Section 1: Prerequisites	Section 1: Introduction
Section 2: Parish Profile	Section 2: Hazard Identification and Parishwide Risk Assessment
Section 3: The Planning Process	Appendix A: Planning Process
Section 4: Plan Content	Section 3: Capability Assessment
Section 5: Hazard Mitigation Strategies	Section 4: Mitigation Strategies
Section 6: Plain Maintenance Procedures	Appendix B: Plan Maintenance
References	Appendix C: Ascension Parish Essential Facilities
Attachments	Appendix D: Plan Adoption, Appendix E: State Required Worksheets

Despite numerous changes in this plan update, the plan remains consistent in its emphasis on the few types of hazards that pose the most risk to loss of life, injury, and property in Ascension Parish and its municipalities. The extent of this risk is dictated primarily by its geographic location. Most significantly, Ascension Parish remains at high risk of water inundation from various sources, including storm surge caused by tropical storms and hurricanes, backwater flooding, and failure of dams/levees and forced drainage systems. The entire parish is also at high risk of damages from high winds and wind-borne debris caused by various meteorological phenomena.

Section 2: Hazard Identification and Parishwide Risk Assessment

This section assesses the various hazard risks Ascension parish faces in order to identify a strategy for mitigation. Having identified the categories of hazards, emergencies, disasters, and catastrophes, this section details the major climatological and natural/human-influenced hazards by (1) defining them, (2) explaining how they are measured, (3) describing their geographic extent, (4) surveying their previous occurrences, and (5) evaluating their future likelihood of occurrences.

The table below provided an overview of the hazards that had been previously profiled in the Ascension Parish Hazard Mitigation plan published in 2010, as well as the hazards that were identified in the State's 2014 Hazard Mitigation Plan that were considered to be of High or Medium risk for the parish by the State. Those hazards identified as high or medium risk by the state or previously identified as a risk by the parish, have been determined to provide a risk to the parish and will be profiled in this section. In addition, due to the frequency of winter weather storms since the last update, the planning committee decided to add winter weather storms as a hazard that can impact the parish and its jurisdictions.

Table 2-1: Hazard Profile Summary.

Hazard	Profiled in Last Plan	Considered Medium or High Risk in the State's HM Plan	Profiled in the 2015 Update
Levee	X	X	X
Drought			
Expansive Soils			
Flooding	X	X	X
Tropical Cyclones	X	X	X
Sinkhole		X	
Subsidence		X	X
Winter Weather			X
Thunderstorms (Hail, Lightning & Wind)		X	X
Tornado	X		X
Wildfires			

Prevalent Hazards to the Community

While many of the hazards in the previous section occur in the parish, their occurrence was not merited for further study by the planning committee. The determination was made to focus attention and resources on the most prevalent hazards which include the four hazards previously profiled along with sinkholes, subsidence, thunderstorms and winter weather:

- a) **Flooding (backwater, storm surge, riverine, localized stormwater event)**
- b) **Tropical Cyclones (flooding and high winds)**
- c) **Sinkhole**
- d) **Subsidence**
- e) **Levee Failure (also a flooding threat)**

- f) **Tornadoes**
- g) **Thunderstorms**
- h) **Winter Weather.**

For analysis purposes, the impact of the critical and prevalent hazards is summarized as follows:

- Flooding from rivers and waterways, rain storms, tropical storms, and hurricanes in the following forms:
 - a) Riverine
 - b) Stormwater
 - c) Surge
 - d) Back water flooding (as the result of river flooding and surge)
- High wind damage most commonly resulting from hurricanes, thunderstorms and tornadoes
- Levee failure (Mississippi River as a function of riverine flooding and surge barriers as a function of backwater flooding in the easternmost areas of the parish).
- Subsiding and the potential formation of sinkholes are also profiled in this section.

The issue of flooding was determined to be the most prevalent and the most frequent hazard to the parish. Seven presidential flood declarations to date validate this hazard.

Hurricanes, tropical storms, and heavy storms are fairly common occurrences and resultant wind damage is of utmost concern. With Hurricane Andrew in 1992, for example, wind damage was the cause of virtually all hurricane induced destruction. Damage from high winds can include roof damage, destruction of homes and commercial buildings, downed trees and power lines, and damage and disruption to services caused by heavy debris.

Heavy winds associated with hurricanes, tornadoes, and other storms necessitate large debris removal efforts. Federal officials removed over 26,000 cubic yards of debris from Ascension Parish by the end of October 2005. A wind map for Ascension Parish is included as Figure 2-48.

Levee failure was also identified as a significant threat to the parish. One levee/dam failure occurred near Bayou Manchac during Tropical Storm Allison (2001), which inundated the surrounding area in the northern part of the parish with flood water. The USACE is responsible for the construction and engineering of the levee system along the Mississippi River since the Flood Control Act of 1928. The USACE has participated in other flood control studies and projects in Ascension, but the parish often takes the initiative to institute flood protection measures. According to one USACE report, feasibility studies proposed for Ascension Parish in 1985 were eliminated because the parish constructed flood control measures on its own.

The positions of the levees are shown Figure 2-25 later in this section under the levee profile. The longest levee system is along both banks of the Mississippi River in the western and eastern sides of the parish. The second longest vertical protection barrier system in the parish is along Laurel Ridge Canal, Saverio Canal, and Bayou Francois. In addition, weir systems exist along Bayou Manchac/Alligator Bayou in the northeastern part of the parish and along Bayou Conway south of the Town of Sorrento.

Subsidence is a major concern along the Louisiana coastline and that concern also extends beyond just the coastal parishes. Sinkholes are not a very common occurrence in Louisiana; however, if they do occur they have the potential to cause enormous damage that cannot be mitigated once in place. The most infamous sinkhole in Louisiana, the Bayou Corn sinkhole, is located next to an adjacent parish from Ascension.

Previous Occurrences

The parish has a history of damage linked to hurricanes and stormwater events. Since 1965, fourteen major hurricanes and tropical storms have caused great damage to the parish. Major flood damage resulted from these hurricanes and storms. Flood inundation maps for Hurricane Betsy, the 1977 storm, 1983 storm, Hurricane Andrew, Tropical Storm Allison, Hurricane Katrina, Hurricane Rita and Hurricane Isaac are presented later in this section.

A table summarizing federal disaster declarations for Ascension Parish in the last fifty years is noted in this section. Information includes names, dates, and impact to the area.

Table 2-2: Ascension Parish Major Disaster Declarations.

Storm Event	Date	Impact	Winds / Rain	Hurricane Category	Property Damage	Benchmark Storm? (Yes/No)
Hurricane Isaac	8/28/2012	Flooding, high winds	58 mph winds, 4.47"	Category 1	\$1.1M	No
Louisiana Flooding	4/25/2011	Flood Preparations	Mississippi River Pass Flood Stage	--	--	No
Hurricane Gustave	8/29/2008	High Winds	Max Wind 56	Category 3	6.4M	No
Hurricane Rita*	9/24/2005	Backwater flooding	4" rain	--	\$48M**	Yes
Hurricane Katrina	8/29/2005	High winds	5.5" rain	Category 3	\$16.9B**	Yes
Hurricane Ivan	9/15/2004	Flooding, high winds	60 mph winds, 2"	Category 3	\$20.5 M	
Hurricane Lili	10/3/2002	High winds, high water	4-8" rain	Category 1	\$415 M**	
Tropical Storm Allison	6/6/2001	Flooding	20-24" rain	--	\$500,000	Yes
Tropical Storm Frances and	9/30/1998	Flooding, high winds	Max winds 103 mph	Category 2	\$50.9 M	
Rain/Storm, Flooding	5/8/1995	Flooding, roads closed	Intense rain	--	402 homes (\$585 M**)	
Severe Storm, Flooding	2/2/1993	Flooding, high water, roads	Heavy rains	--	-	
Hurricane Andrew	8/25/1992	Heavy rains, high winds, 35% loss sugar cane crop	80 mph winds, 9"	Category 3	\$25 B**	Yes
Hurricane Juan	11/1/1985	Flooding, high winds	10" rain	Category 1	\$46.5 M**	
Severe Storm, Flooding	4/20/1983	Flooding, roads flooded, power loss	Heavy rains	--	\$104 M	Yes
Severe Storm, Flooding	5/2/1979	Flooding, debris	13" rain	--	500 homes, 15 public	
Severe Storm, Flooding	5/2/1977	Flooding, roads flooded	10" rain	--	n/a	Yes
Drought and Freezing***	1/31/1977	Drought, Freezing	n/a	--	n/a	
Severe Storm, Flooding	4/27/1973	Flooding, crop damage	6" rain	--	n/a	
Hurricane Edith	10/13/197	Flooding, high winds, crop losses	2-3" rain	Category 2	\$25 M**	
Hurricane Betsy	9/10/1965	Flooding, high winds	92 mph	Category 3	\$1 M	Yes

* Classified as a tropical storm for Ascension Parish by NCDC

** Includes areas outside Ascension Parish

*** Emergency Declaration

Probability of Future Hazard Events

The probability of a hazard event occurring in Ascension Parish is estimated below. The percent chance of an event happening during any given year was calculated by posting past events and dividing by the time period. The primary source for historical data used throughout the plan is the Spatial Hazards Events and Losses Database (SHELDUS) which provides historical hazard data from 1960 to 2014. In addition, the

National Climatic Data Center (NCDC) was also used to help identify hazard data specific to the municipalities as it contains specific data for cities, whereas SHELDUS is limited to just parishes.

Non-geographical or wide-ranging events such as drought, winter weather, tropical cyclones, and tornadoes were considered to have the same occurrence probability across the parish. Floods and levee failures were assessed for each jurisdiction. Sinkholes and subsidence were not found to impact any of the municipalities and are thus focused exclusively on to provide a risk for areas in the unincorporated part of the parish. The following table shows the annual probability for each hazard occurring across the parish and in separate jurisdictions.

Table 2-3: Probability of Future Hazard Reoccurrence.

(Sources: SHELDUS, NCDC, Ascension Parish Homeland Security and Emergency Preparedness, the Advocate Newspaper in Baton Rouge)

Hazard	Probability			
	Ascension Parish (unincorporated)	Donaldsonville	Gonzales	Sorrento
Floods	23%	22%	32%	20%
Sinkhole	1%	0%	0%	0%
Subsidence	100%	100%	0%	100%
Levee Failure	2.5%	1%	2.5%	2.5%
Thunderstorms - Hailstorms	12.5%	12.5%	12.5%	12.5%
Thunderstorms - Lightning	16%	16%	16%	16%
Thunderstorms - High Winds	100%	100%	100%	100%
Tornado	20%	20%	20%	20%
Tropical Cyclones	36%	36%	36%	36%
Winter Weather	27%	27%	27%	27%

As shown in the Table 2-3, thunderstorms and wind have the highest chance of occurrence in the parish (100%), followed by floods from all sources (20%-32%), hailstorms (12.5%), and lightning (22%). The annual chances of a tropical cyclone occurring based on fifty-four years of data is 34%. Winter Weather has a 27% chance, tornadoes have a 20% chance, and levee failure has a 2.5% chance based on the Tropical Storm Allison (Bayou Manchac) levee failures along with a 1% chance for Donaldsonville based on 1927 (Mississippi River) which would have not flooded with today's river protection system in place.

Inventory of Assets for the Entire Parish

As part of the Risk Assessment, the planning team identified essential facilities throughout the parish. Several methods were used to assist in identifying all essential facilities including field data collected by the Louisiana Governor's Office of Homeland Security and Emergency Preparedness on critical infrastructure from a previous hazard mitigation project.

Within the entire planning area, a total of 45,715 structures were identified with an estimated value of \$5,930,706,765 throughout the parish. An estimated 32,915 structures with a value of \$4.3 billion are in the levee failure hazard areas. According to the U.S. Census Bureau, Ascension Parish has a 2013 census population of 114,393 with 51%, or 58,340, residing in the levee failure hazard area.

Residential

The residential classification of Ascension Parish is the largest building group within the parish. There are approximately 42,976 buildings (dwelling units) with an estimated value of \$4,847,024,069. Of these buildings, 71% are located in the levee failure hazard area with an estimated value of \$3.4 billion.

Commercial

Commercial buildings number 1,654 in the parish. The estimated value of these buildings is \$685,819,622, and 72% of the buildings are located in the levee failure hazard area. The values of these buildings is estimated at \$555 million.

Industrial

The industrial classification of the parish consists of 510 buildings with an estimated value of \$251,242,564. Of the buildings noted, approximately 80% are in the levee failure hazard area with an estimated value of \$231 million.

Agricultural / Pasture

In the agricultural class, 171 buildings exist with an estimated value of \$30,773,635. Of these, approximately 97% are in the levee failure hazard area and have an estimated value of \$30 million.

Religious / Non-Profit

The religious / non-profit buildings total 121 with an estimated value of \$51,811,968. In this classification, it was estimated that 85% of the buildings are in the levee failure hazard area with an estimated value of \$47 million.

Government

Government buildings in the parish total about 250 with an estimated value of \$33,992,465. It was estimated that 74% of the buildings are located in the levee failure hazard area and have an estimated value of \$28 million.

Educational

Thirty-three educational structures exist within the parish with an estimated value of \$30,042,442. Thirty-one or 94% of the buildings are within the levee failure hazard area with an estimated valued of \$28 million.

Essential Facilities of the Parish.

Below are the locations and names of the essential facilities within the parish.

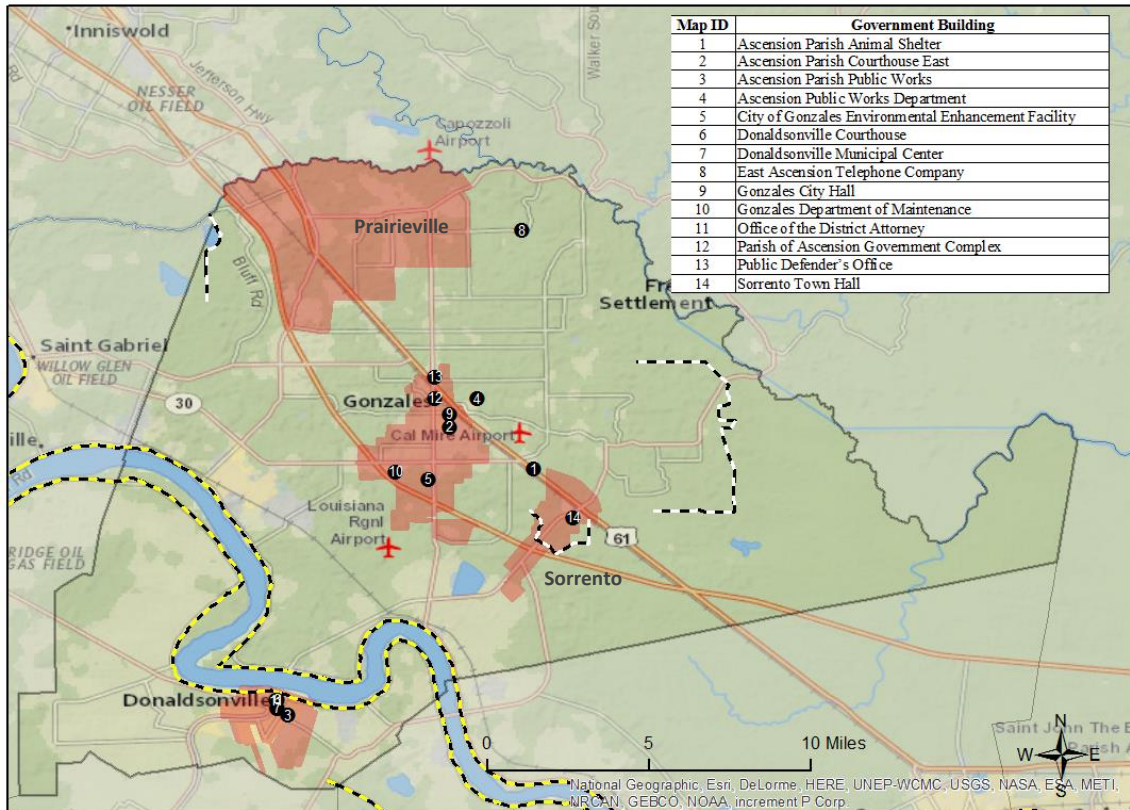


Figure 2-1: Ascension Parish Government Structures.

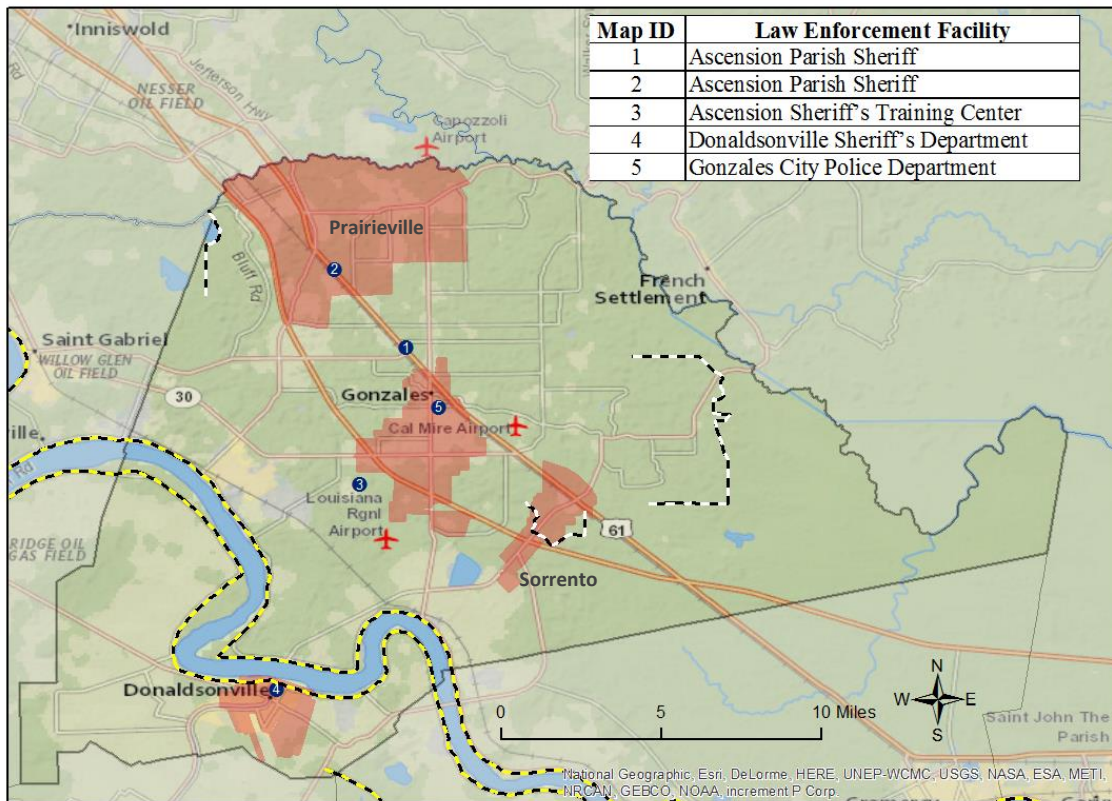


Figure 2-2: Ascension Parish Law Enforcement Facilities.

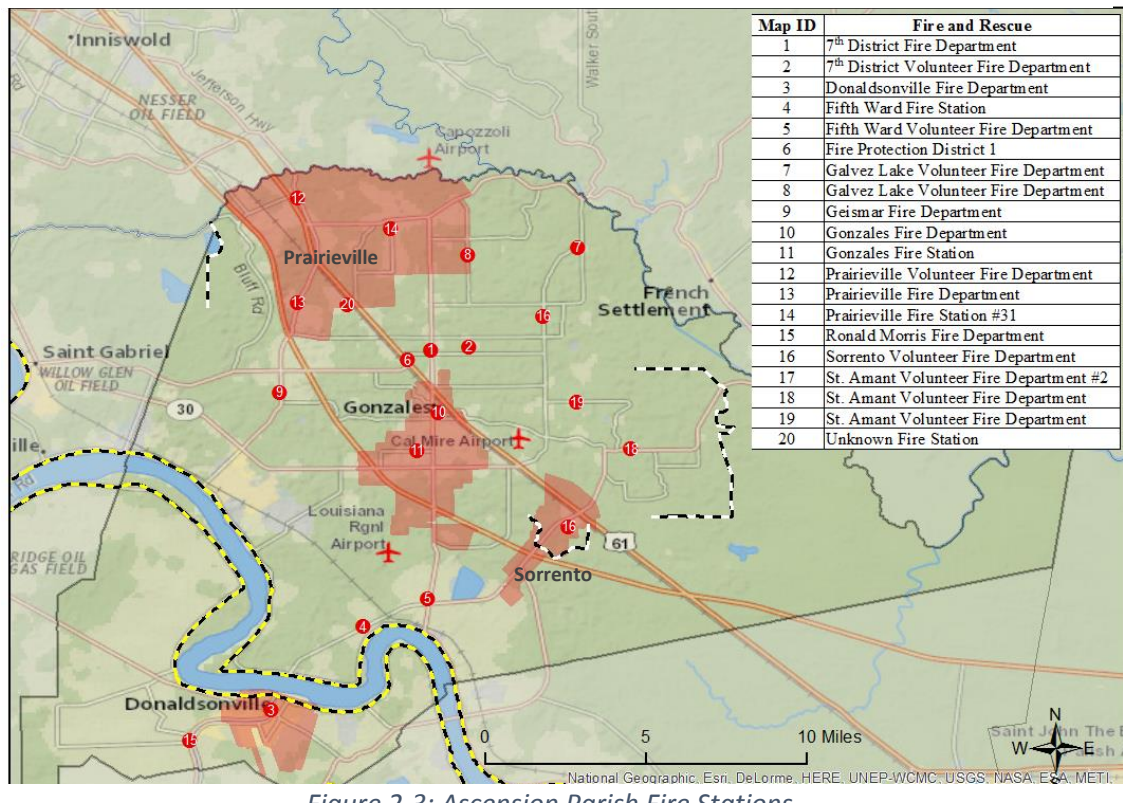


Figure 2-3: Ascension Parish Fire Stations.

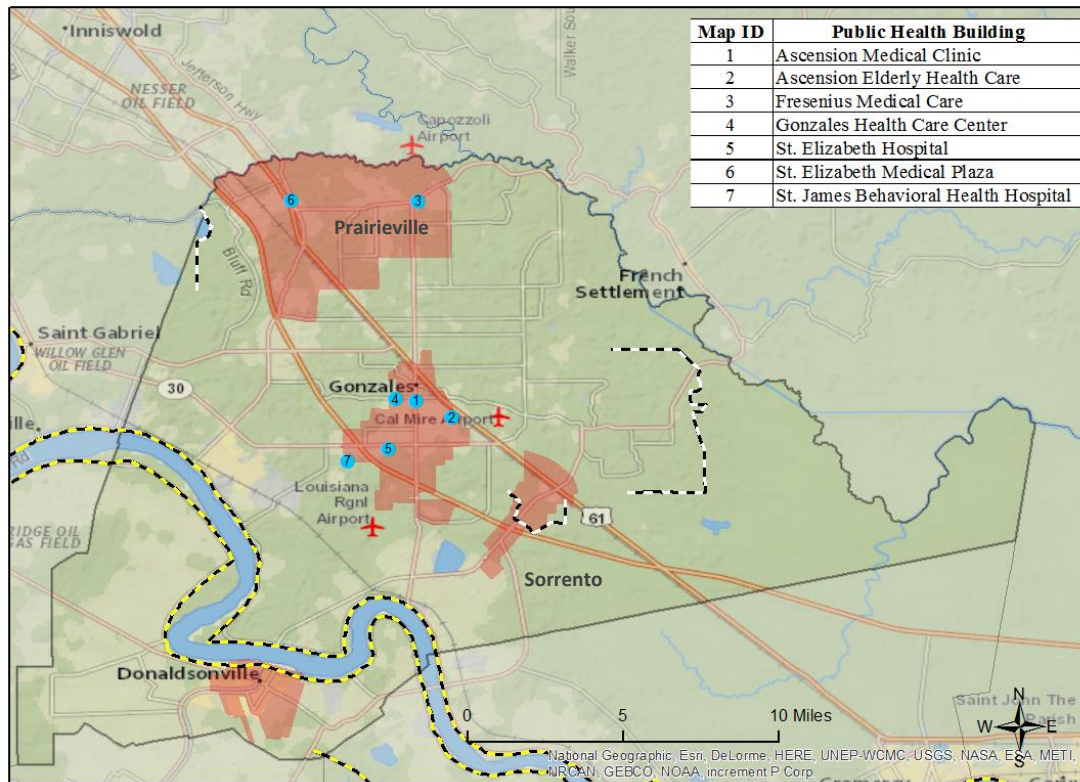


Figure 2-4: Ascension Parish Medical Facilities.

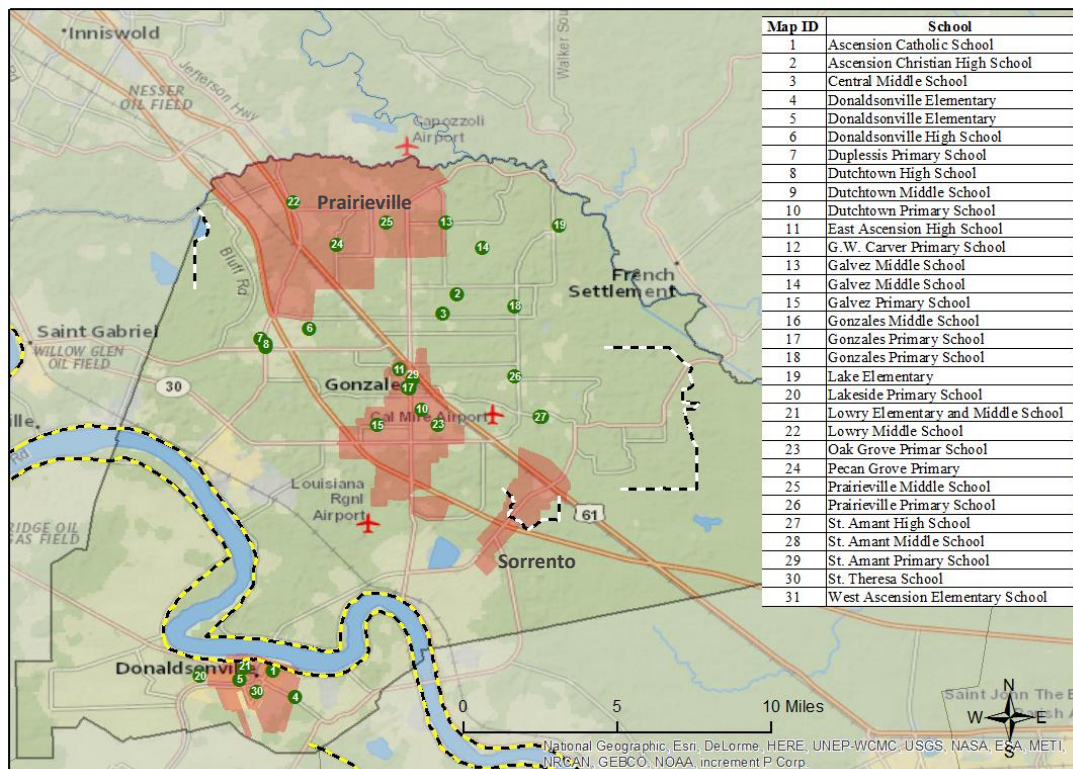


Figure 2-5: Ascension Parish Schools.

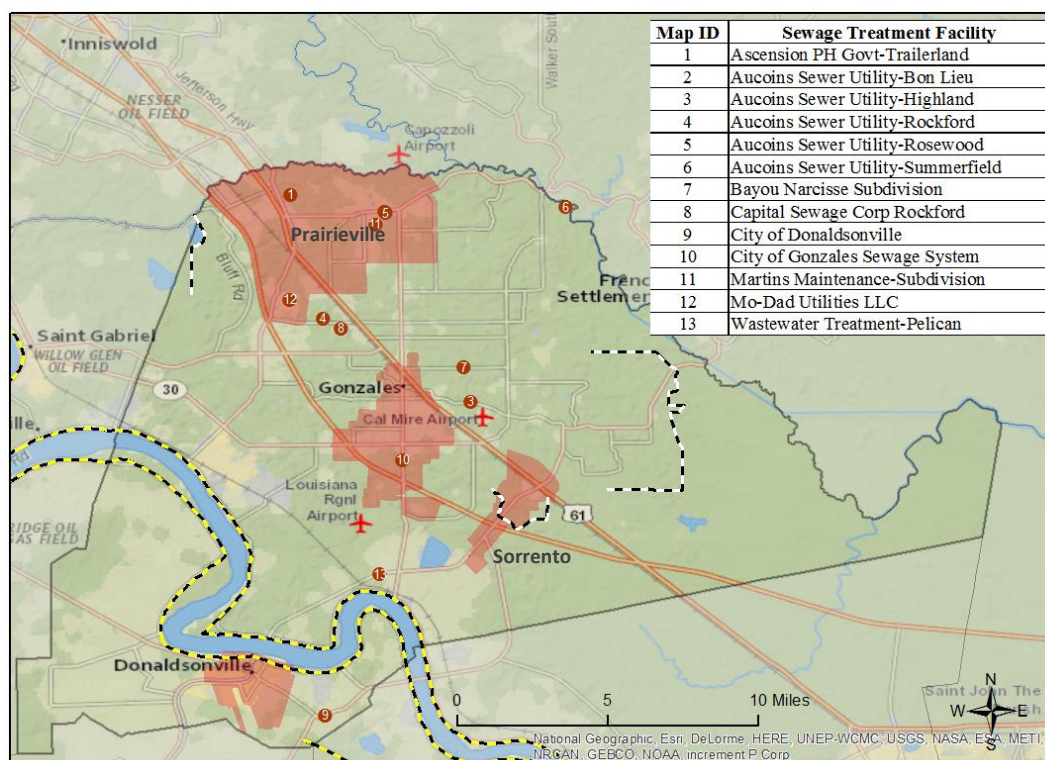


Figure 2-6: Ascension Parish Sewage Treatment Facilities.

Hazard Impact – Summary

The overall hazard summary for Ascension parish and its jurisdictions can be seen in Table 2-4. The assignment of low, medium and high are based on the planning committee's perception of the risk and not based on actual occurrences or potential to cause significant losses to property and people. Each member of the planning committee was given an opportunity to express their opinion on the severity of each hazard for people and property. At the Ascension Parish public meetings, members of the community were also granted an opportunity to participate in this exercise. Table 2-4 below summarizes the general perception of the committee of what hazards they believe pose the greatest risks.

Table 2-4: Ascension Parish Hazard Summary.

[illegible]

Hail	Low	Low	Low	Low	Low	Low	Low	Low
Wind	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Winter Weather	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium

Based on the composite Risk Assessment for the parish it is clear that the planning committee feels that the two most dangerous hazards faced by Ascension parish and its jurisdictions are floods and tropical cyclones. Tropical Cyclones, particularly hurricanes, have the potential to cause flooding damage throughout over 70% of the parish while the entire parish is susceptible to localized inland flooding and heavy winds. The overall damage to property is assessed as being high, while the potential damage to people is assessed as low because of advanced warnings that are now available through the National Hurricane Center. Flooding is also considered a high risk to property, although it is considered low to Donaldsonville. While Donaldsonville does experience localized flooding, it historically has not been susceptible to storm surge, nor does it lie within the 100 year flood plain.

Levee failure is considered a medium risk which is strictly a result of the vast amount of property damage that such an event would cause. An overtopping of the Mississippi levee could bring an excess of thirty feet of water in low lying areas of the parish. In addition, the Sorrento Levee and the Laurel Ridge Levee have been overtopped in the past and have resulted in significant amounts of flooding in the communities they protect.

Winter weather, lightning and heavy winds from thunderstorms are also assessed as a medium risk to both people and property. While historically lightning and heavy winds from thunderstorms have not caused significant damages or injuries, they are experienced throughout the year and are considered a medium risk because of their reoccurrence. Winter weather is considered a medium risk because of the disruption it causes through the parish as parishes in South Louisiana are typically not prepared to deal with snow and ice. Hail and tornadoes are considered a low risk because of their relatively low return frequency.

While subsidence is occurring in Ascension parish, the potential for a sinkhole to develop is unlikely. While there is definitely land being reclaimed and lost throughout the southeast part of the parish, there is little direct impact on the residents who are near the area. Two salt dome scenarios are presented later in this section—also considered unlikely, although there is potential to cause significant disruptions.

Future Development Trends

The majority of parish growth is expected to take place near Prairieville and Gonzales in the northern and central portions of the parish. The remainder of the parish is not expected to undergo development pressure and the parish does not anticipate any significant changes in land use. Ascension Parish's population grew by more than 26,000 between 1980 and 2000, from 50,058 to 76,627 persons, a growth rate of 53% over the ten year period and on average a rate of 4.4% annually. The parish added another 30,000 in the following ten year period with a 2010 population of 107,215. While the growth rate from 2000 – 2010 was not nearly as fast as the previous decade, it still represented a growth rate of 40% or 4% annually. Since the 2010 census, the 2013 population for Ascension parish is estimated to be at 114,393 people. While some of the recent growth resulted from the influx of storm evacuees following Hurricane Katrina, the parish continues to experience suburban growth pressures from East Baton Rouge Parish to the north. In summary, the parish and incorporated areas are growing at significant

levels. Based on population growth, one would expect to see continued infrastructure growth in Ascension Parish and in the incorporated communities.

Although the exact number of future buildings and structures is unknown at this time, construction of any new proposed buildings, infrastructure, and critical facilities must take the different types of hazards that will impact the community into consideration and these structures must be built to code. In 1993, the Ascension Parish Government adopted an ordinance establishing building regulation in the parish. In November 2005, Louisiana enacted legislation requiring that all new construction adhere to the International Building Code (IBC), which Ascension Parish has subsequently adopted (IBC 2003 version). See the table and chart below for residential and commercial building permits issued over the past nineteen years. As of this report writing 2013 building permit data was available only for the unincorporated part of the parish.

Table 2-5: Ascension Parish Building Permits.

Year	Residential Building Permits Issued	Commercial Building Permits Issued
1994	575	62
1995	639	78
1996	831	76
1997	705	106
1998	841	114
1999	1,049	222
2000	767	108
2001	920	115
2002	968	90
2003	1,123	120
2004	1,167	120
2005	1,674	111
2006	1,706	217
2007	878	152
2008	538	124
2009	745	116
2010	657	132
2011	609	156
2012	817	144
2013	811	139

The future population and number of buildings can be estimated using U.S. Census Bureau housing and population data. The tables below show population and housing unit estimates from 2000 to 2013.

Table 2-6: Population Growth Rate for Ascension Parish.

Total Population	Donaldsonville	Gonzales	Sorrento	Ascension Unincorporated
April 1, 2000	7,605	8,156	1,255	76,627
April 1, 2010	7,436	9,781	1,401	107,215
July 1, 2012			1,482	114,393
July 1, 2013	7,473	10,301		
Population Growth between 2000 – 2010	-2%	20%	12%	40%
Average Annual Growth Rate between 2000 – 2010	-.02%	2%	1.2%	4%
Population Growth between 2010 – 2013	.5%	5.3%	5.7%	6.7%
Average Annual Growth Rate between 2010 – 2013	.02%	1.8%	2.9%	2.23%

Table 2-7: Housing Growth Rate for Ascension Parish.

Total Housing Units	Donaldsonville	Gonzales	Sorrento	Ascension Unincorporated
April 1, 2000	2,936	3,343	515	29,172
April 1, 2010	3,011	4,034	578	40,784
July 1, 2013	3,197	4,254	706	42,976
Housing Growth between 2000 – 2010	2.5%	20.7%	12%	40%
Average Annual Growth Rate between 2000 – 2010	.2%	2%	1.2%	4%
Housing Growth between 2010 – 2013	6.1%	5.4%	22%	5.3%
Average Annual Growth Rate between 2010 – 2013	2%	1.8%	7%	1.7%

As shown in the Tables 2-6 and 2-7, Ascension Parish population and housing have grown at similar rates. Population rates grew at a staggering 40% between 2000 – 2010 and 6.7% in population between 2010 – 2013, while housing grew at a little slower rate at 5.3%. The parish as a whole grew at a much faster rate than the incorporated municipalities, with Sorrento growing by 12%, Gonzales by 20%, and Donaldsonville actually losing .02% of its population between 2000 – 2010. While the annual growth rate in the last three years is continuing to grow, the overall trend is for the parish to not be growing as fast as it has in previous years. Sorrento and Donaldsonville have actually experienced a slightly higher growth rate in the last three years.

Future Hazard Impacts

Hazard impacts were estimated for five years and ten years in the future (2019 and 2024). Yearly population and housing growth rates were applied to parish inventory assets for composite flood, levee failure, and high wind events. Commercial structures were estimated to increase by about 10% each year based on past rates, industrial structures had no increase, and other structures were increased at 1% per year to reflect modest growth. Average growth rates were estimated at 1.7% for housing and 2.23% for population based on past growth rates in the parish. A summary of estimated future impacts is shown in the table below.

*Table 2-8: Estimated Future Hazard Impacts, 2019-2024.
(Source: Ascension Parish Tax Assessor, HAZUS, US Census Bureau)*

Hazard / Impact	Total in Parish (2014)	Hazard Area (2014)	Hazard Area (2019)	Hazard Area (2024)
Flood Damage				
Structures	45,715	31,544	34,867	38,848
Value of Structures	5,930,706,765	4,221,126,037	4,523,366,028	5,039,776,341
# of People	114,393	60,628	67,929	76,108
Levee Failure				
Structures	45,715	32,915	36,889	41,100
Values of Structures	5,930,706,765	4,312,354,322	\$4,785,590,145	\$5,331,937,289
# of People	114,393	58,340	65,365	73,236
Wind Damage				
Structures	45,715	4,549	5,028	5,602
Value of Structures	5,930,706,765	590,105,323	652,282,492	726,750,356
# of People	114,393	10,867	12,752	14,288

Zoning and Land Use

Ascension Parish has extensive zoning regulations, which address use and height of buildings, density of population, open space limitation, and lot and occupancy requirements. The zoning ordinances are consistent with the parish comprehensive plan. Before the Parish Council enacts or amends development regulations or takes any land use action, and before the Zoning Board may make any recommendation to the Parish Council regarding a proposed development regulation or land use action, the Planning Department, or other department responsible for providing findings, recommendations, papers, correspondence, and records related to the regulation, amendment, or action shall provide a written recommendation to the Council and Zoning Board regarding the consistency with the plan. The zoning ordinances address many different types of districts in the parish ranging from suburban, conservation, and mixed-use to industrial.

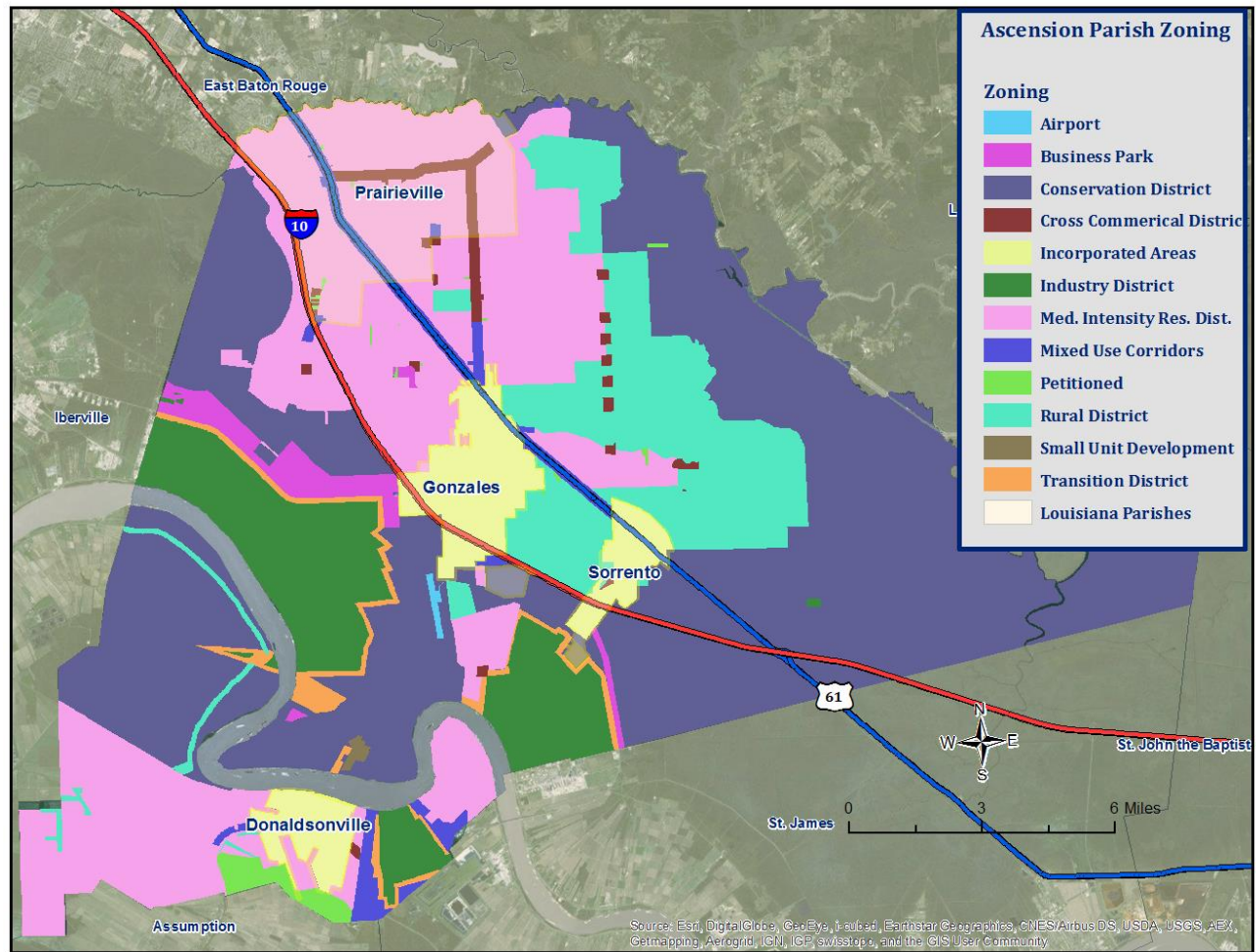


Figure 2-7: Ascension Parish Zoning.

As evident from the Ascension Parish Land Use table below, residential, commercial and industrial areas account for only 11% of the parish's land use. Agricultural and cropland is the largest category with nearly 74,000 acres (39%), followed by wetlands (26%), and forest land (21%).

Table 2-9: Ascension Parish Land Use.
(Source: USGS Land Use Map)

Land Use	Acres	Percentage
Agricultural Land, Cropland, and Pasture	73,605	38%
Wetlands	50,477	26%
Forest land (not including forested wetlands)	40,650	21%
Residential, and Other Urban	13,597	7%
Water	6,343	4%
Industrial, Transportation, Communications, and Services	6,335	3%
Commercial	1,291	1%

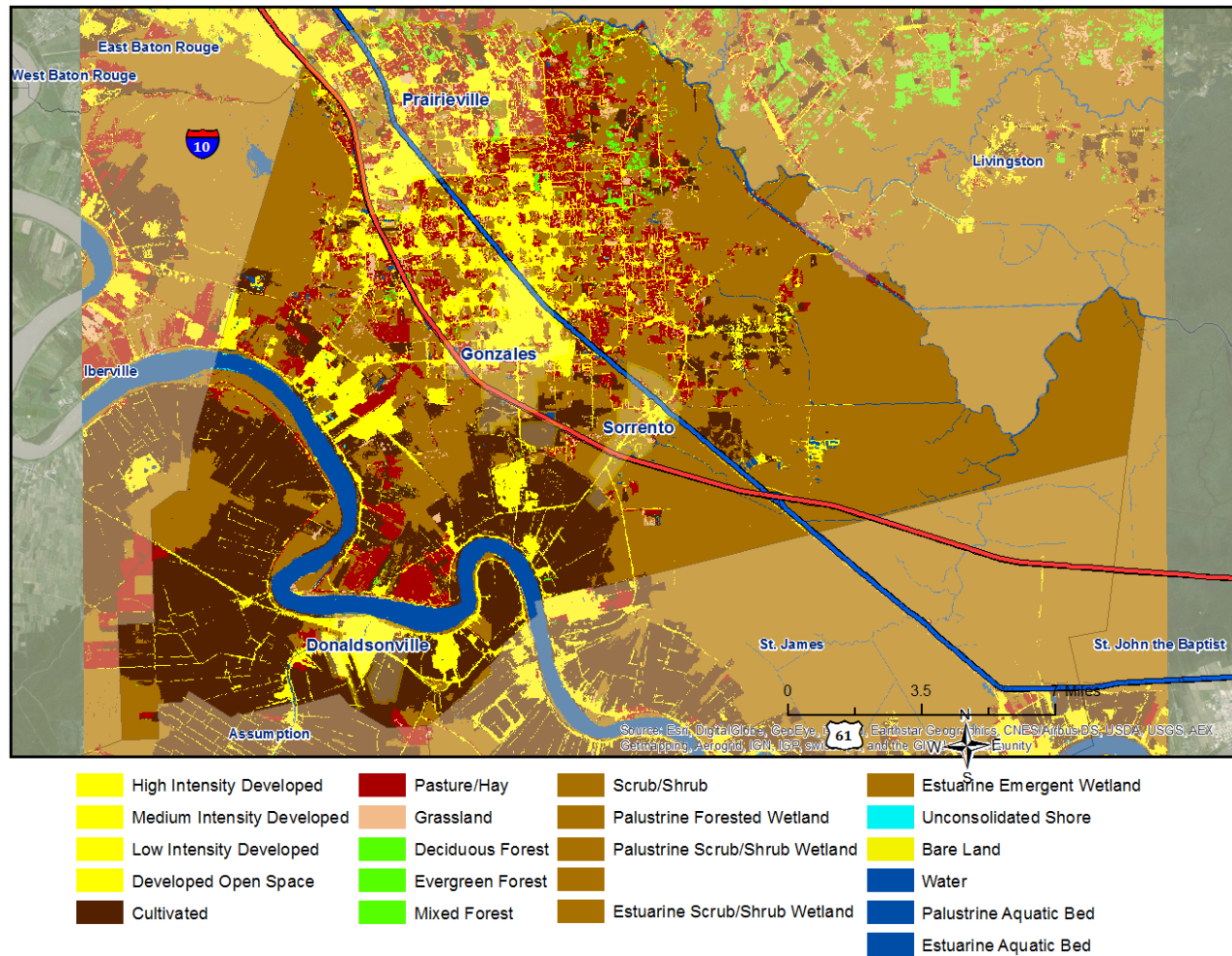


Figure 2-8: Ascension Parish Land Use Map.
(Source: USGS Land Use Map)

Ascension Parish's location in south Louisiana makes it susceptible to hurricanes, flooding and thunderstorms with lightning and high winds. As noted previously, Ascension Parish has experienced at least fourteen hurricane or tropical storm events and twenty-one flooding events. Each flood event caused extensive damage to homes, businesses, crops, roads, marshes, levees, culverts, and bridges.

Hazard Profiles

Flooding

A flood is the overflow of water onto land that is usually not inundated. The National Flood Insurance Program defines a flood as:

A general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties from overflow of inland or tidal waves, unusual and rapid accumulation or runoff of surface waters from any source, mudflow, or collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above.

Factors influencing the type and severity of flooding include natural variables such as precipitation, topography, vegetation, soil texture, and seasonality, as well as anthropogenic factors such as urbanization (extent of impervious surfaces), land use (e.g., agricultural and forestry tend to remove native vegetation and accelerate soil erosion), and the presence of flood-control structures such as levees and dams.

Excess precipitation, produced from thunderstorms or hurricanes, is often the major initiating condition for flooding, and Louisiana can have high rainfall totals at any time of day or year. During the cooler months, slow-moving frontal weather systems produce heavy rainfalls, while the summer and autumn seasons produce major precipitation in isolated thunderstorm events (often on warm afternoons) that may lead to localized flooding. During these warmer seasons, floods are overwhelmingly of the flash flood variety, as opposed to the slower-developing river floods caused by heavy stream flow during the cooler months.

In cooler months, particularly in the spring, Louisiana is in peak season for severe thunderstorms. The fronts that cause these thunderstorms often stall while passing over the state, occasionally producing rainfall totals exceeding 10 in. within a period of a few days. Since soil tends to be nearly saturated at this time (due to relatively low overall evaporation rates), spring typically becomes the period of maximum stream flow across the state. Together, these characteristics increase the potential for high water, and low-lying, poorly drained areas are particularly prone to flooding during these months.

In Louisiana, six specific types of floods are of main concern: riverine, flash, ponding, backwater, urban, and coastal.

- **Riverine flooding** occurs along a river or smaller stream. It is the result of runoff from heavy rainfall or intensive snow or ice melt. The speed with which riverine flood levels rise and fall depends not only on the amount of rainfall, but even more on the capacity of the river itself and the shape and land cover of its drainage basin. The smaller the river, the faster water levels rise and fall. Thus, the Mississippi River levels rise and fall slowly due to its large capacity. Generally, elongated and intensely-developed drainage basins will reach faster peak discharges and faster falls than circular-shaped and forested basins of the same area.
- **Flash flooding** occurs when locally intense precipitation inundates an area in a short amount of time, resulting in local stream flow and drainage capacity being overwhelmed.
- **Ponding** occurs when concave areas (e.g., parking lots, roads, and clay-lined natural low areas) collect water and are unable to drain.
- **Backwater flooding** occurs when water slowly rises from a normally unexpected direction where protection has not been provided. A model example is the flooding that occurred in LaPlace (as well as Ascension Parish) during Hurricane Isaac. Although the town was protected by a levee on the side

facing the Mississippi, floodwaters from Lake Maurepas crept into the community on the side of town opposite the Mississippi River.

- **Urban flooding** is similar to flash flooding but is specific to urbanized areas. It takes place when storm water drainage systems cannot keep pace with heavy precipitation, and water accumulates on the surface. Most urban flooding is caused by slow-moving thunderstorms or torrential rainfall.
- **Coastal flooding** can appear similar to any of the other flood types, depending on its cause. It occurs when normally dry coastal land is flooded by seawater, but may be caused by direct inundation (when the sea level exceeds the elevation of the land), overtopping of a natural or artificial barrier, or the breaching of a natural or artificial barrier (i.e., when the barrier is broken down by the sea water). Coastal flooding is typically caused by storm surge, tsunami, and gradual sea level rise.

In Ascension parish, all six types of flooding have historically been observed. For purposes of this assessment, ponding, flash flood and urban flooding are considered to be flooding as a result of storm water from heavy precipitation thunderstorms. Areas that have been historically susceptible to flooding include the following:

- **Backwater Flooding** – The area along River Ridge Road is susceptible to backwater flooding from Bayou Manchac and Alligator Bayou. The areas along Bayou Manchac near Camp Drive and Manchac Acres Drive are susceptible to backward flooding from the Amite River.
- **Riverine Flooding** – In Ascension parish, the New River, Amite River, and Comite Rivers generate the greatest flooding concern. The flood of 1995 flooded 402 homes, and the Amite and Comite Rivers reached flood stage.
- **Storm Surge** – Ascension parish is affected indirectly when storm surge enters Lake Pontchartrain and Lake Maurepas. The easternmost water drainage systems in Ascension Parish cannot drain into Lake Maurepas when storm surge has raised water levels. When the lakes experience storm surge, Ascension Parish is vulnerable to backwater flooding. This type of event occurred during Hurricane Rita. Storm surge events primarily affect Sorrento and areas in the parish to the east and south as these locations are lower in elevation and closer to Lake Maurepas.

Based on stream gauge levels and precipitation forecasts, the National Weather Service (NWS) posts flood statements watches and warnings. The NWS issues the following weather statements with regard to floods:

- **Flood Categories**
 - Minor Flooding: Minimal or no property damage, but possibly some public threat.
 - Moderate Flooding: Some inundation of structures and roads near streams. Some evacuations of people and/or transfer of property to higher elevations.
 - Major Flooding: Extensive inundation of structures and roads. Significant evacuations of people and/or transfer of property to higher elevations.
 - Record Flooding: Flooding which equals or exceeds the highest stage or discharge at a given site during the period of record keeping.
- **Flood Warning**
 - Issued along larger streams when there is a serious threat to life or property.
- **Flood Watch**
 - Issued when current and developing hydrometeorological conditions are such that there is a threat of flooding, but the occurrence is neither certain nor imminent.

Floods are measured mainly by probability of occurrence. A 10-yr flood event, for example, is an event of small magnitude (in terms of stream flow or precipitation) but with a relatively high annual probability of recurrence (10%). A 100-yr flood event is larger in magnitude, but it has a smaller chance of recurrence (1%). A 500-yr flood is significantly larger than both a 100-yr event and a 10-yr event, but it has a lower probability than both to occur in any given year (0.2%). It is important to understand that an x-yr flood event does not mean an event of that magnitude occurs only once in x years. Instead, it means that on average, we can expect a flood event of that magnitude to occur once every x years. Given that such statistical probability terms are inherently difficult for the lay population to understand, the Association of State Floodplain Managers (ASFPM) promotes the use of more tangible expressions of flood probability. The ASFPM also expresses the 100-yr flood event as has having a 25% chance of occurring over the life of a 30-yr mortgage.

It is essential to understand that the magnitude of an x-yr flood event for a particular area depends on the source of flooding and the area's location. The size of a specific flood event is defined through historic data of precipitation, flow, and discharge rates. Consequently, different 100-yr flood events can have very different impacts. The 100-yr flood events in two separate locations have the same likelihood to occur, but they do not necessarily have the same magnitude. For example, a 100-yr event for the Mississippi River means something completely different in terms of discharge values (ft^3/s) than, for example, for the Amite River. Not only are the magnitudes of 100-yr events different between rivers, they can be different along any given river. A 100-yr event upstream is different from one downstream since river characteristics (volume, discharge, and topography) change. As a result, the definition of what constitutes a 100-yr flood event is specific to each location, river, and time, since floodplain and river characteristics change over time. Finally, it is important to note that each flood event is unique. Two hypothetical events at the same location, given the same magnitude of stream flow, may still produce substantially different impacts, if there were different antecedent moisture characteristics, different times of day of occurrence (which indicates the population's probable activities at the flood's onset), or other characteristic differences.

The 100-yr event is of particular significance since it is the regulatory standard that determines the obligation or lack thereof to purchase flood insurance. Flood insurance premiums are set depending on the flood zone as modeled by National Flood Insurance (NFIP) Rate Maps. The NFIP and FEMA suggest insurance rates based on special flood hazard areas (SFHAs), as diagrammed in Figure 2-9.

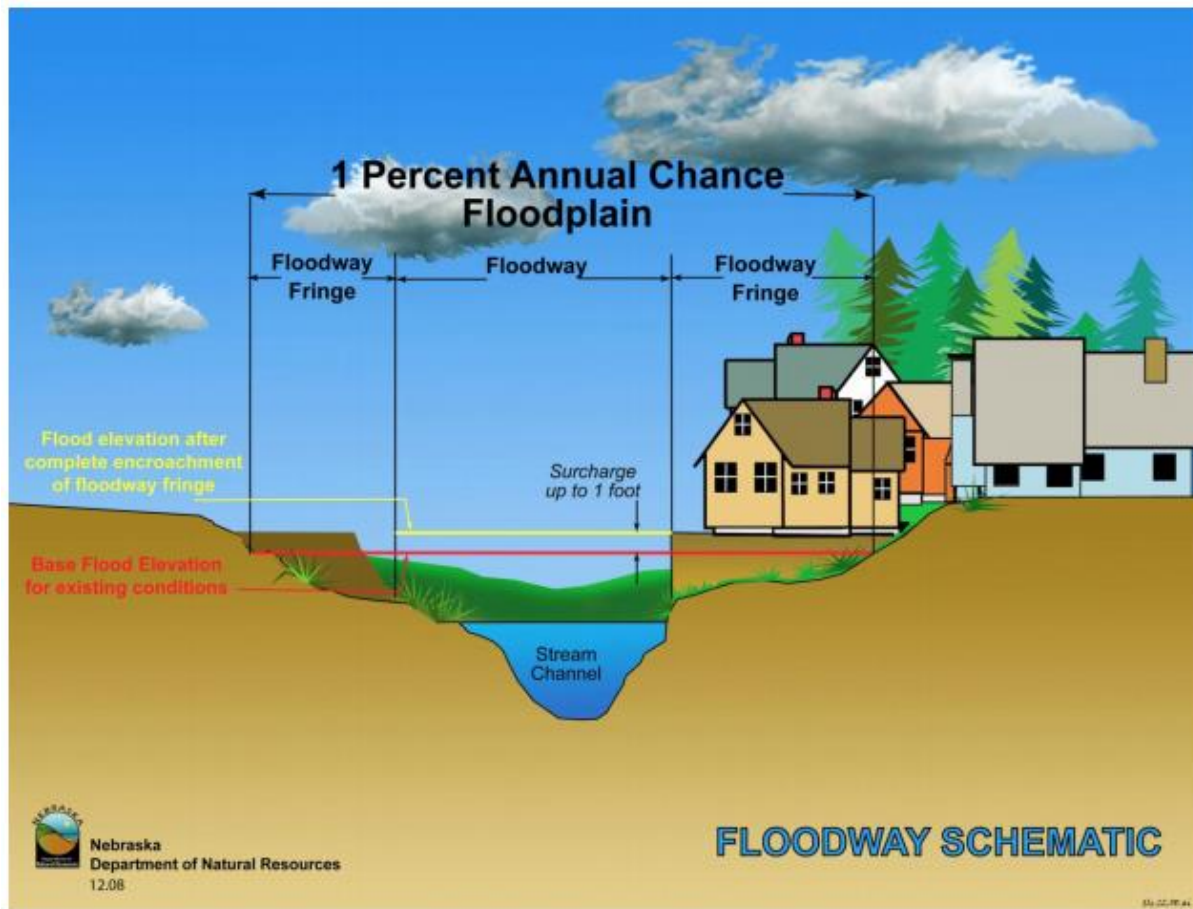


Figure 2-9: Schematic of 100-yr floodplain. The special hazard area (SFHA) extends to the end of the floodway fringe.

(Source: Nebraska Department of Natural Resources Desk Reference).

A SFHA is the land area covered by the floodwaters of the base flood (red line in Figure 2-9), where the NFIP's floodplain management regulations must be enforced and the area where the mandatory purchase of flood insurance applies.

Property Damage

The depth and velocity of flood waters are the major variables in determining property damage. Flood velocity is important because the faster water moves, the more pressure it puts on a structure and the more it will erode stream banks and scour the earth around a building's foundation. In a few situations, deep and fast moving waters will push a building off its foundation. Structural damage can also be caused by the weight of standing water (hydrostatic pressure).

Another threat to property from a flood is called soaking. When soaked, many materials change their composition or shape. Wet wood will swell, and if dried too quickly, will crack, split, or warp. Plywood can come apart and gypsum wallboard has the potential to fall apart if it is bumped before it has time to completely dry. The longer these materials are saturated, the more moisture, sediment, and pollutants they absorb.

Soaking can also cause extensive damage to household goods. Wooden furniture may become warped, making it unusable while other furnishings such as books, carpeting, mattresses, and upholstery usually are not salvageable. Electrical appliances and gasoline engines will flood, making them worthless until they are professionally dried and cleaned.

Many buildings that have succumbed to flood waters may look sound and unharmed after a flood, but water has the potential to cause severe property damage. Any structure that experiences a flood should be stripped, cleaned and allowed to dry before being reconstructed. This is an extremely expensive and time consuming effort.

Repetitive Loss Properties

Repetitive loss structures are structures covered by a contract for flood insurance made available under the NFIP that:

- a. Has incurred flood-related damage on two occasions, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event; and
- b. At the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.

Severe Repetitive Loss (SRL) is defined by the Flood Insurance Reform Act of 2004 and updated in the Biggert-Waters Flood Insurance Reform Act of 2012. For a property to be designated SRL, the following criteria must be met:

- a. Is covered under a contract for flood insurance made available under the NFIP; and
- b. Has incurred flood related damage:
 - 1) For which four or more separate claims payments have been made under flood insurance coverage with the amount of each claim exceeding \$5,000 and with the cumulative amount of such claims payments exceeding \$20,000; or
 - 2) For which at least two separate claims payments have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

Repetitive loss properties for Ascension Parish are provided below:

Table 2-10: Repetitive Loss Structures for Ascension Parish.

Jurisdiction	Number of Structures	Total Claims	Total Claims Paid	Average Claim Paid
Ascension Parish (Not Incorporated)	216	744	\$12,008,727	\$16,140
Donaldsonville	1	2	\$22,805	\$11,402
Gonzales	35	125	\$1,303,477	\$10,428
Sorrento	1	2	\$56,509	\$28,254
Ascension Parish Total	253	873	\$13,391,518	\$15,339

Of the 253 repetitive loss structures, 249 were able to be geocoded to provide an overview of where the repetitive loss structures are located throughout the parish. Figure 2-10 shows the approximate location of the 249 structures, while Figure 2-11 shows where the highest concentration of repetitive loss structures are located. Through the density map, it is clear that there are two primary concentrated areas of repetitive loss

structures. The most significant repetitive flooding structures are located in the Prairieville area. This flooding is clearly a function of riverine and backwater flooding, especially from the Amite and Comite Rivers along with Bayou Manchac and Alligator Bayou. The second area is located in Gonzales. The Gonzales area topography ranges generally from 5 to 10 foot elevation and experiences riverine flooding from the New River, as well as problems from stormwater and inland drainage issues. Another element that stands out with the repetitive loss structures is the large number of structures that are outside the 100 year floodplain. These areas tend to be subjected to localized drainage problems during heavy precipitation events.

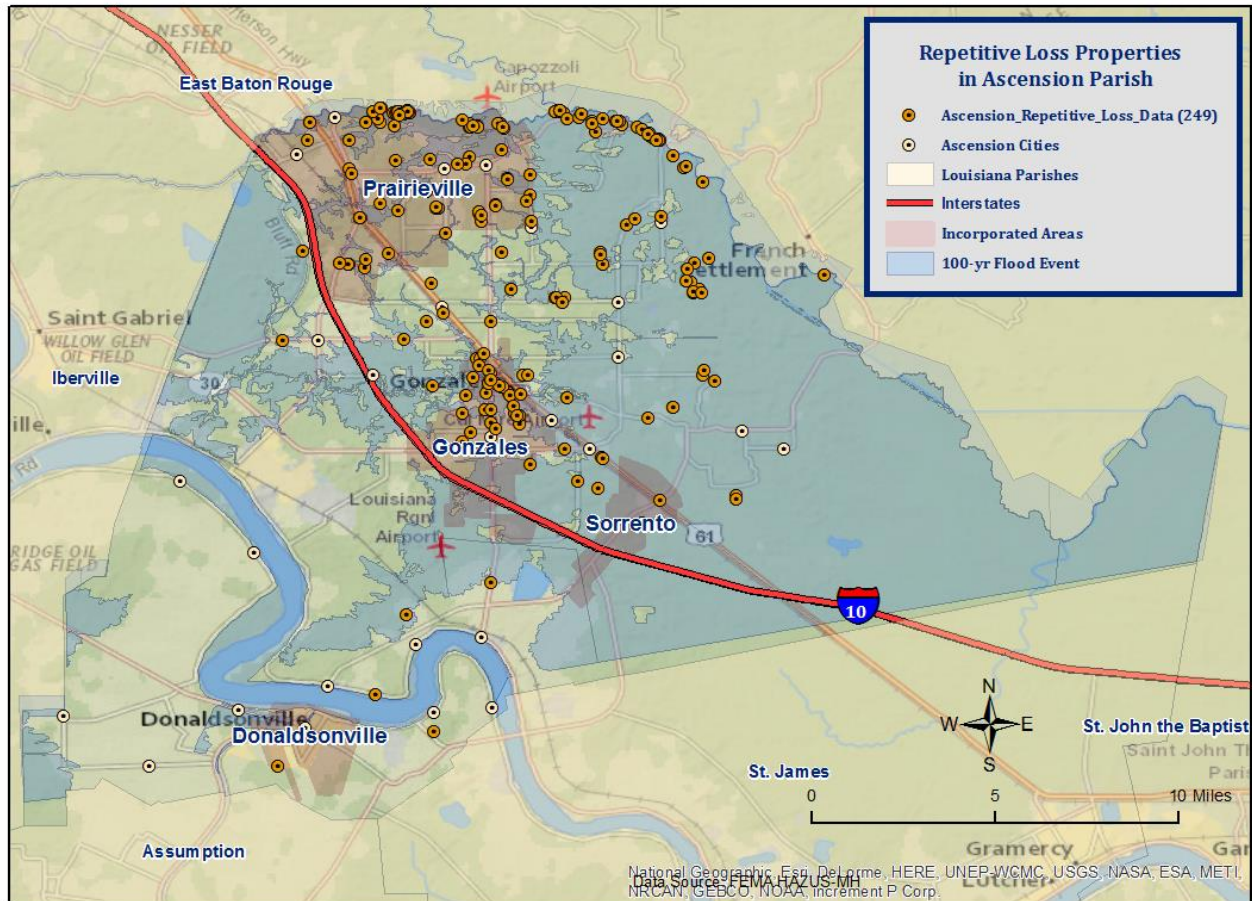


Figure 2-10: Repetitive Loss Properties in Ascension Parish.

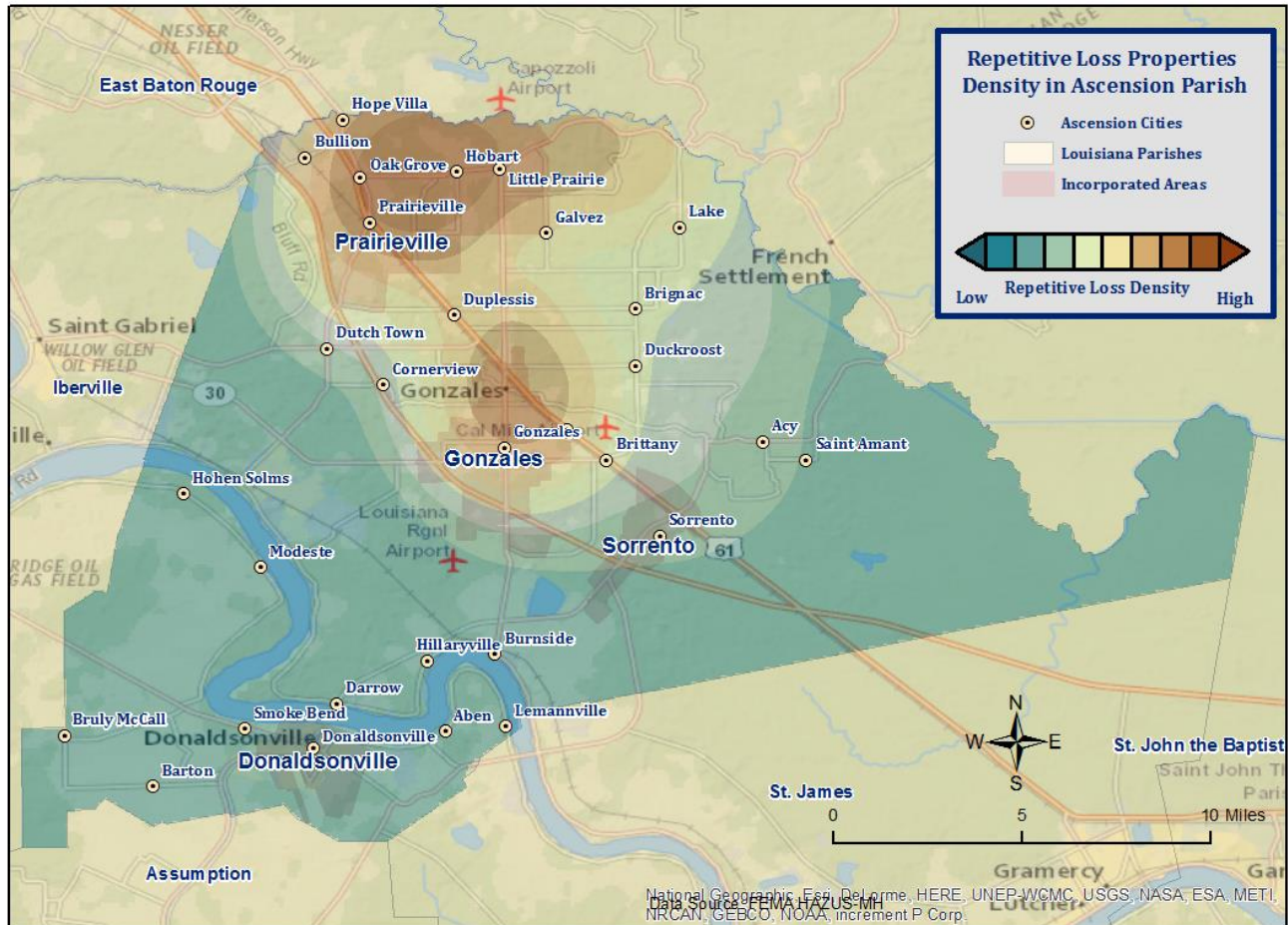


Figure 2-11: Repetitive Loss Property Densities in Ascension Parish.

National Flood Insurance Program

Flood insurance statistics indicate that Ascension Parish has over 10,850 flood insurance policies with the NFIP with total annual premiums in excess of \$7 million, which has almost doubled since the previous update of this plan in 2010. Ascension Parish, the City of Donaldsonville, the City of Gonzales, and the Town of Sorrento are all participants in the NFIP. Flood insurance statistics and additional NFIP participation details for the unincorporated part of Ascension Parish and incorporated municipalities are provided in the tables to follow.

Table 2-11: Summary of NFIP Policies for Ascension Parish.

Location	No. of Insured Structures	Total Insurance Coverage Value	Annual Premiums Paid	No. of Insurance Claims Filed Since 1978	Total Loss Payments
Ascension (unincorporated)	9,350	\$2,213,609,500	\$5,901,041	2,205	\$23,467,829
Donaldsonville, City of	264	\$59,518,600	\$146,488	24	\$289,433
Gonzales, City of	1,008	\$231,684,900	\$818,962	346	\$3,651,006
Sorrento, Town of	259	\$41,558,500	\$180,120	49	\$273,905
Total	10,881	\$2,546,371,500	\$7,046,611	2,624	27,682,173

Table 2-12: Summary of Community Flood Maps for Ascension Parish.

CID	Community Name	Initial FHBM Identified	Initial FIRM Identified	Current Effective Map Date	Date Joined the NFIP	Tribal
220013	Ascension Parish	12/12/1978	9/2/1981	8/16/2007	9/2/1981	No
220014	Donaldsonville, City of	6/7/1974	5/15/1980	8/16/2007	5/15/1980	No
220015	Gonzales, City of	9/14/1973	8/16/1982	8/16/2007(M)	8/16/1982	No
220016	Sorrento, Town of	6/28/1974	6/1/1978	8/16/2007	6/1/1978	No

Ascension Parish along with Gonzales and Sorrento also participate in the Community Rating System (CRS). Table 2-13 provides details regarding CRS Participation.

Table 2-13: Summary of the Community Rating System (CRS) Participation for Ascension Parish.

Community Number	Name	CRS Entry Date	Current Effective Date	Current Class	% Discount for SFHA	% Discount for Non-SFHA	Status
220013	Ascension Parish	10/1/1992	5/1/2008	8	10	5	C
220015	Gonzales, City of	10/1/1992	5/1/2012	8	10	5	C
220016	Sorrento, Town of	10/1/1992	5/1/2008	9	5	5	C

Threat to People

Similar to the threat of property damage, depth and velocity are major factors in determining the threat posed to people by flooding. It takes very little depth or velocity for flood waters to become dangerous. A car will float in less than two feet of moving water and can be swept downstream into deeper waters, trapping the passengers within the vehicle. Victims of floods have often put themselves in perilous situations by entering flood waters they believe are safe or by ignoring travel advisories.

Major health concerns are also associated with floods. Floodwaters can transport materials such as dirt, oil, animal waste, and chemicals (e.g., farm, lawn and industrial), that may cause illnesses of various degrees when coming in contact with humans. Floodwaters can also infiltrate sewer lines and inundate wastewater treatment plants, causing sewage to backup and creating a breeding ground for dangerous bacteria. This infiltration may also cause water supplies to become contaminated and undrinkable.

Flooding in Ascension Parish

Ascension parish has experienced significant flooding in its history and can expect more in the future. Areas along major rivers are the most susceptible to flooding within Ascension Parish. Generally, floods with higher flood stages have a lower chance of occurring. Minor flooding is virtually a yearly occurrence for a number of rivers and tributaries, and major flooding can be considered a regular occurrence.

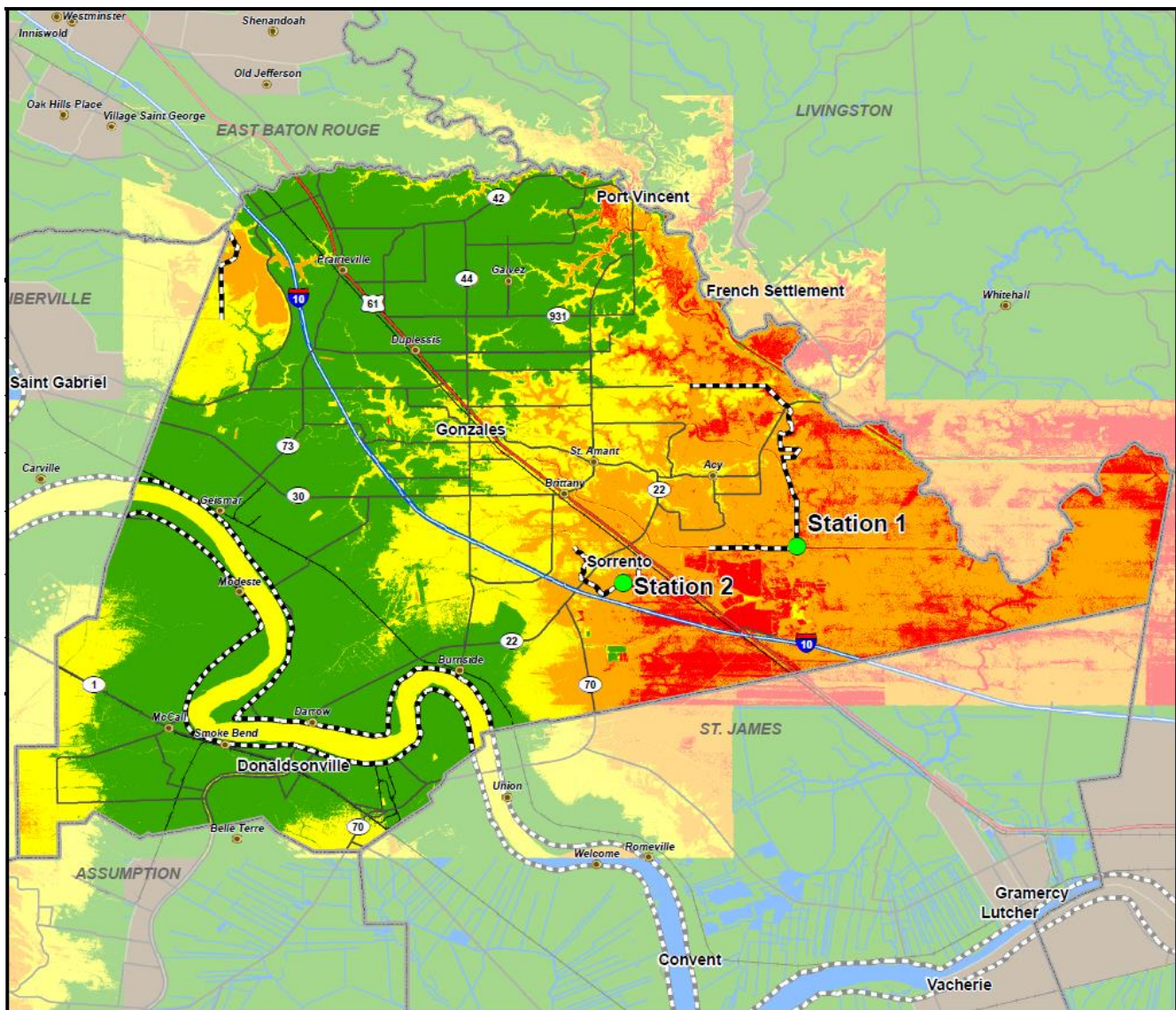


Figure 2-12: Elevation throughout Ascension Parish.
(Source: 2010 Ascension Parish Hazard Mitigation Plan)

Looking at the digital elevation model (DEM) in Figure 2-12 for Ascension is instructive in visualizing where the low lying and risk areas are for the parish. The Ascension DEM, which is based on LIDAR captured by FEMA as part of a hazard mitigation project, shows that the elevations in the eastern third of the parish are five feet and under (areas in orange in Figure 2-12) with some areas below one foot (areas in red on in Figure 2-12). Another low lying area (elevation of 1 to 5 feet) is also located in the northwestern part of the parish near Bayou Manchac. The Town of Sorrento is adjacent to low lying areas as are the unincorporated communities of Brittany, St. Amant, and Acy, north of Sorrento, and the unincorporated community of Lake in the northeastern part of the parish.

Areas at higher elevations (5 to 10 feet and above 10 feet) represent the western two-thirds of the parish and contain much of the residential, commercial, and industrial development in the parish. As shown in the floodplain map (Figure 2-13) portions of these “higher” elevations are within the floodplain because of the relative lack of terrain change and the drainage difficulties inherent in flat areas near waterways.

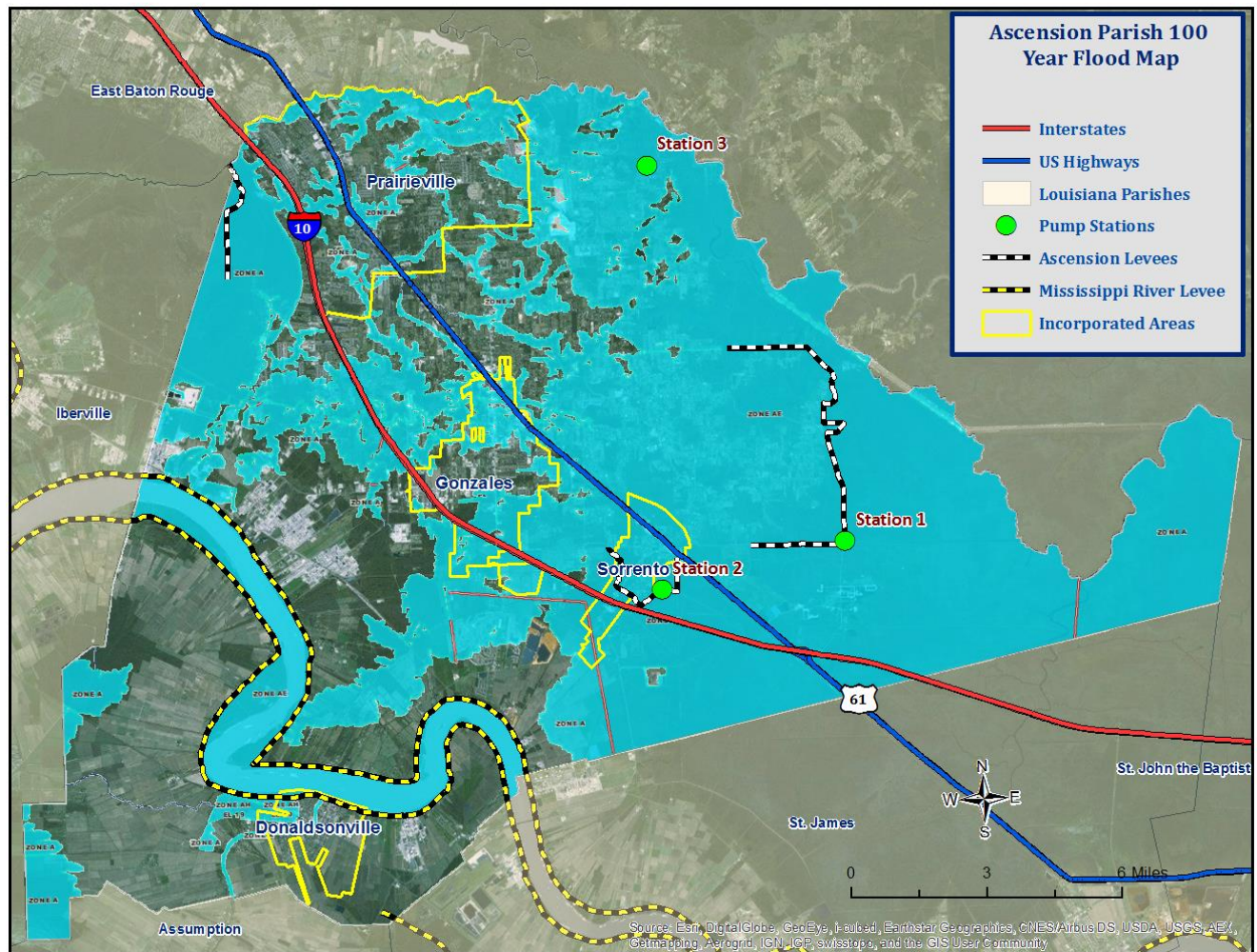


Figure 2-13: The 100 Year Floodplain for Ascension Parish with Levee Systems.

Communities in the 100-year floodplain include the Town of Sorrento, Brittany, St. Amant, Acy and Lake. Those near or partially in the floodplain are the City of Gonzales, City of Donaldsonville, Geismar, Prairieville, and Galvez. Communities completely outside the 100-year floodplain include McCall and Modeste on the west side of the Mississippi River, Darrow and Burnside on the east side of the river, and Duplessis in the north part of the parish (south of Prairieville). Except for Donaldsonville, areas near the river are mostly industrial or agricultural and are largely outside the floodplain because of the Mississippi River levees.

The portion of Ascension Parish east of the Mississippi River is contained within the Mississippi River—Lake Maurepas Basin. The east bank of Ascension Parish has a history of extensive flooding. Most flood problems stem from the parish's low topographic relief.

Flooding in Ascension Parish is caused by headwater overflow of the Amite River, New River, Black Bayou, Bayou Narcisse, Bayou Francois, and Bayou Conway. Backwater flooding occurs along the lower reaches of these streams and along Bayou Manchac and is particularly severe when the Amite River floods.

Three areas in Ascension Parish are identified that experience chronic local flooding problems. The Gonzales area has flooding from the headwater overflow as well as high backwater stages from the Amite River. The

Sorrento area experiences considerable flooding during major floods on the Amite River. In the northwest portion of East Ascension on Bluff Swamp, sections are subject to backwater flooding from Bayou Manchac and also rainwater runoff from East Baton Rouge Parish. Even with a flood control structure in place, locally heavy rainfall can cause the swamp to fill.

The portion of Ascension Parish located south and west of the Mississippi River is contained in the Mississippi River Basin. The area consists of alluvial ridges along the west bank of the Mississippi River and along both sides of Bayou Lafourche. In this area, drainage in agricultural areas is provided by ditches which are generally perpendicular to the Mississippi River or to Bayou Lafourche. Rainwater in the area north and west of Bayou Lafourche is drained by a system of canals and by Bayou McCall.

Water from the area south and west of Bayou Lafourche is drained principally through Bayou Verret. This area is also subject to backwater effects of tidal influence from the Gulf of Mexico. High backwater levels prevent the rapid runoff of incident rainfall, causing some lower lying agricultural areas along the edges of the swamps to flood. The rural areas in this part of the Parish are subject to backwater effects from Lake Verret, which, when high, retards drainages from agricultural areas.

Location

Ascension parish has experienced significant flooding in its history and can expect more in the future. Areas east of the Mississippi River have a tendency to be more susceptible to flooding. The best indication of areas that are at risk of flooding can be found in the 100 year flood plain map for Ascension parish seen in Figure 2-13. Below are enlarged maps of the three incorporated areas showing the areas within each jurisdiction that are at risk to flooding.

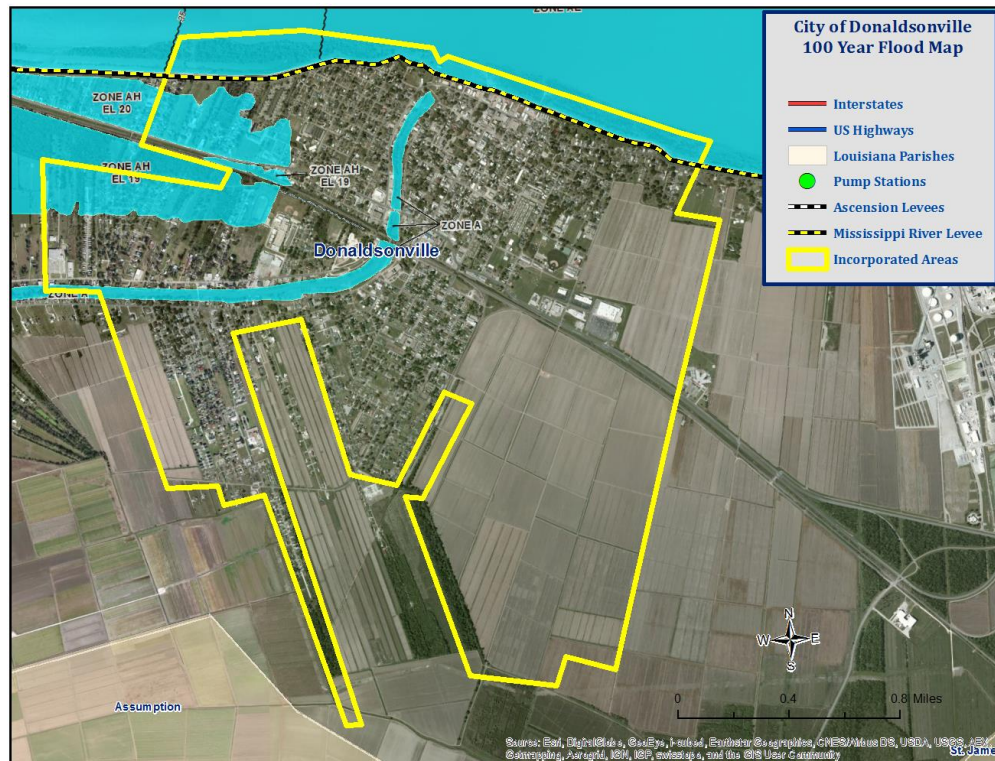


Figure 2-14: Donaldsonville areas within 100 Year Flood Plain.

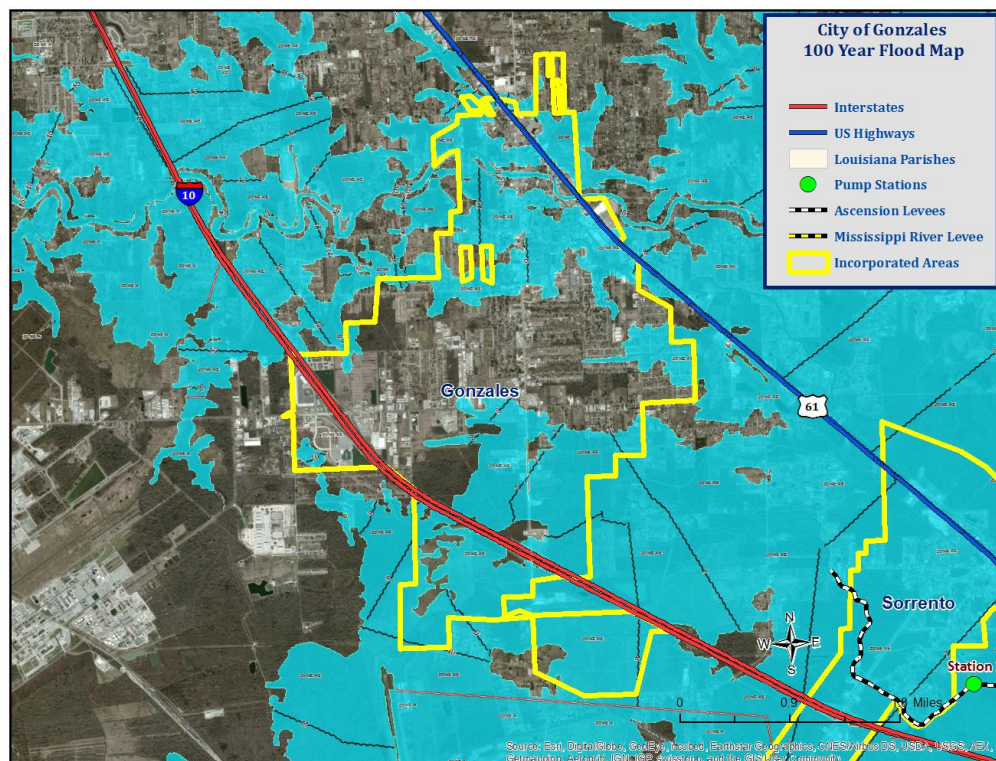


Figure 2-15: Gonzales areas within the 100 Year Flood Plain.

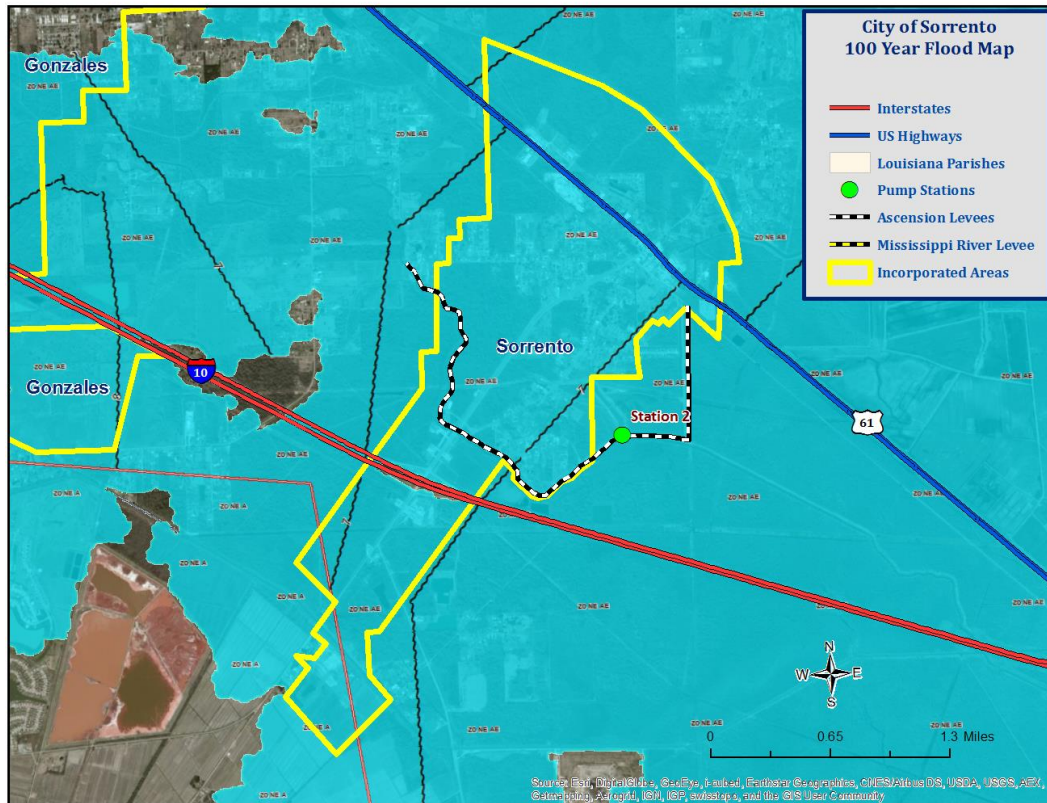


Figure 2-16: Sorrento areas that are within the 100 Year Flood Plain.

Previous Occurrences and Extents

Historically, there have been two major storm events and two hurricanes that have created significant flooding in Ascension parish.

Thunderstorms of 1977

Heavy storms after severe drought conditions in January 1977 and further storms in April of that year caused flooding parishwide. Over ten inches of rain fell during late April, closing schools and flooding homes, businesses and streets. Many properties were damaged both by flooding and by floating debris. The Amite River and Bayou Manchac Point crested at 17.38 feet, more than eight feet over flood stage. The full extents of the flooding from this event can be seen in Figure 2-17.

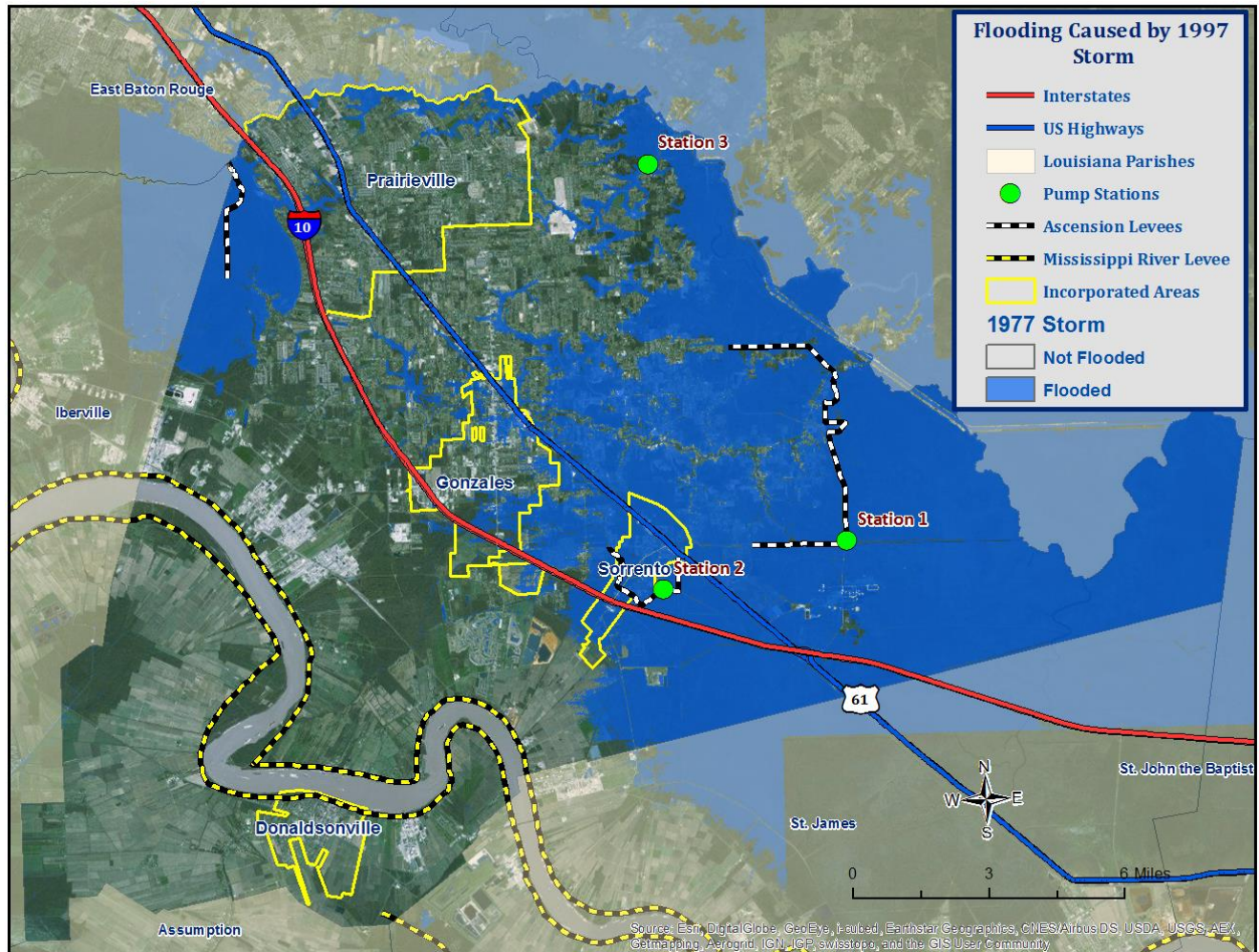


Figure 2-17: Extent of flooding caused by thunderstorms that struck Ascension in April 1977.

Thunderstorms of 1983

Heavy rainfall events in January and April 1983 caused extensive flooding in Ascension parish. On April 20, 1983 heavy rains in the span of a few hours caused flash flooding, downed trees and power lines, and flooded streets, especially in the Port Vincent and French Settlement areas. The Amite River reached one of its highest levels since 1961 with a flood stage level of 41.5 feet recorded near Denham Springs (base flood stage 29 feet) and a flood stage level of 18.85 feet at Bayou Manchac. These and similar storms illustrate that Ascension Parish is vulnerable to flooding well outside the official hurricane season of June 1 to November 30. The full extent of flooding from this event can be seen in Figure 2-18.

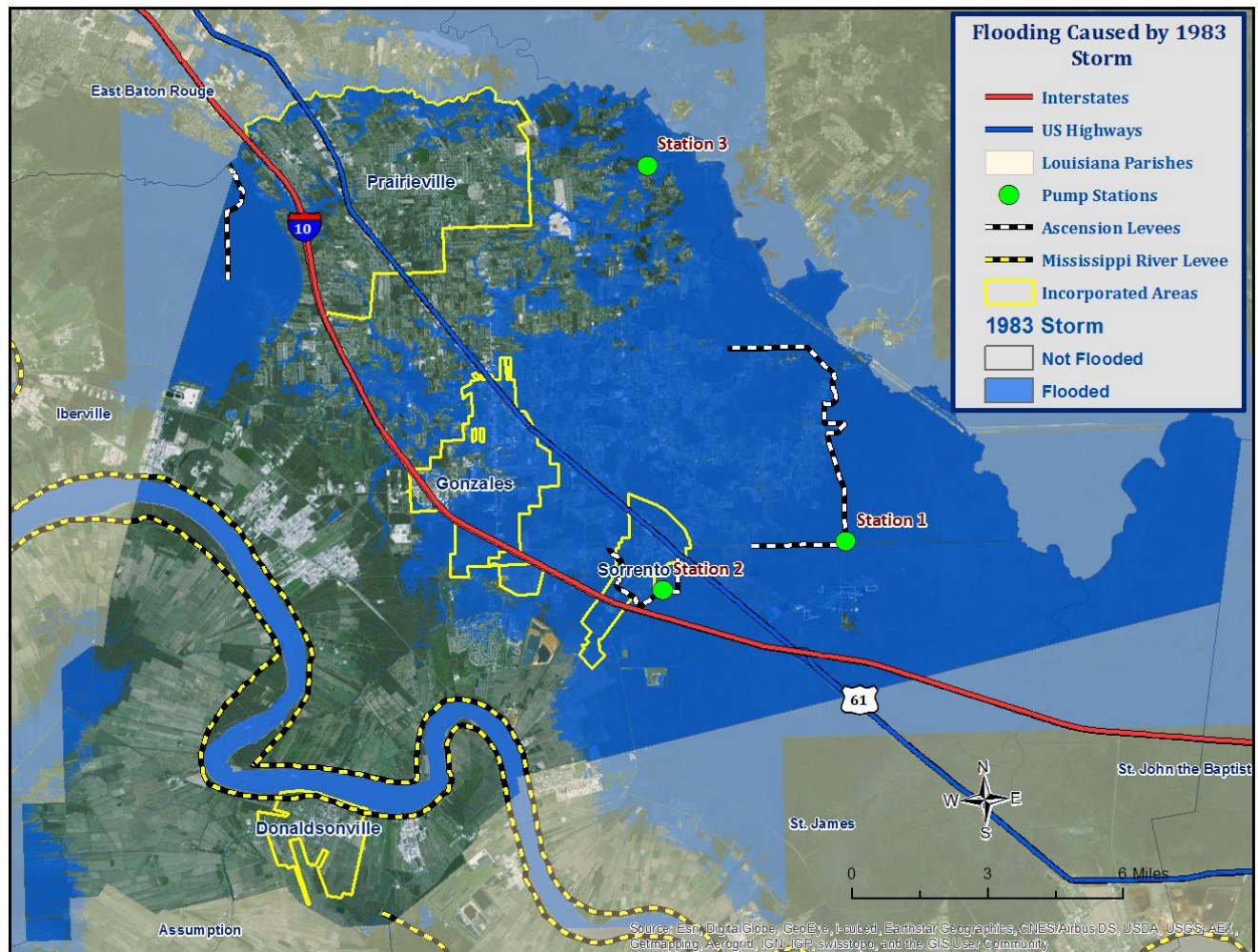


Figure 2-18: Extent of flooding caused by thunderstorm that struck Ascension Parish in April 1983.

Tropical Storm Allison of 2001

Outer rainbands on the eastern periphery of the circulation of Tropical Storm Allison, which moved slowly across southeast Texas, affected southeast Louisiana beginning late on June 5th, producing heavy rainfall over much of southeast Louisiana. The areas from Baton Rouge extending south to Thibodaux were particularly hard hit on June 6th and June 7th. By early June 8th, many locations had received ten to eighteen inches of rain. Periods of torrential rain overwhelmed local drainage and created severe ponding of water that flooded numerous roadways and low lying areas, with many houses and some businesses flooded. Northern Lafourche Parish was particularly hard hit by flash flooding and severe ponding of water, with hundreds of houses flooded. Another round of heavy rainfall developed on June 10th and June 11th as the remnant circulation of Tropical Storm Allison moved over southeast Louisiana and intensified. The flash flooding on those dates is described in a separate event listed below. Wind and tornado damage caused by Tropical Storm Allison is also included in a separate episode below.

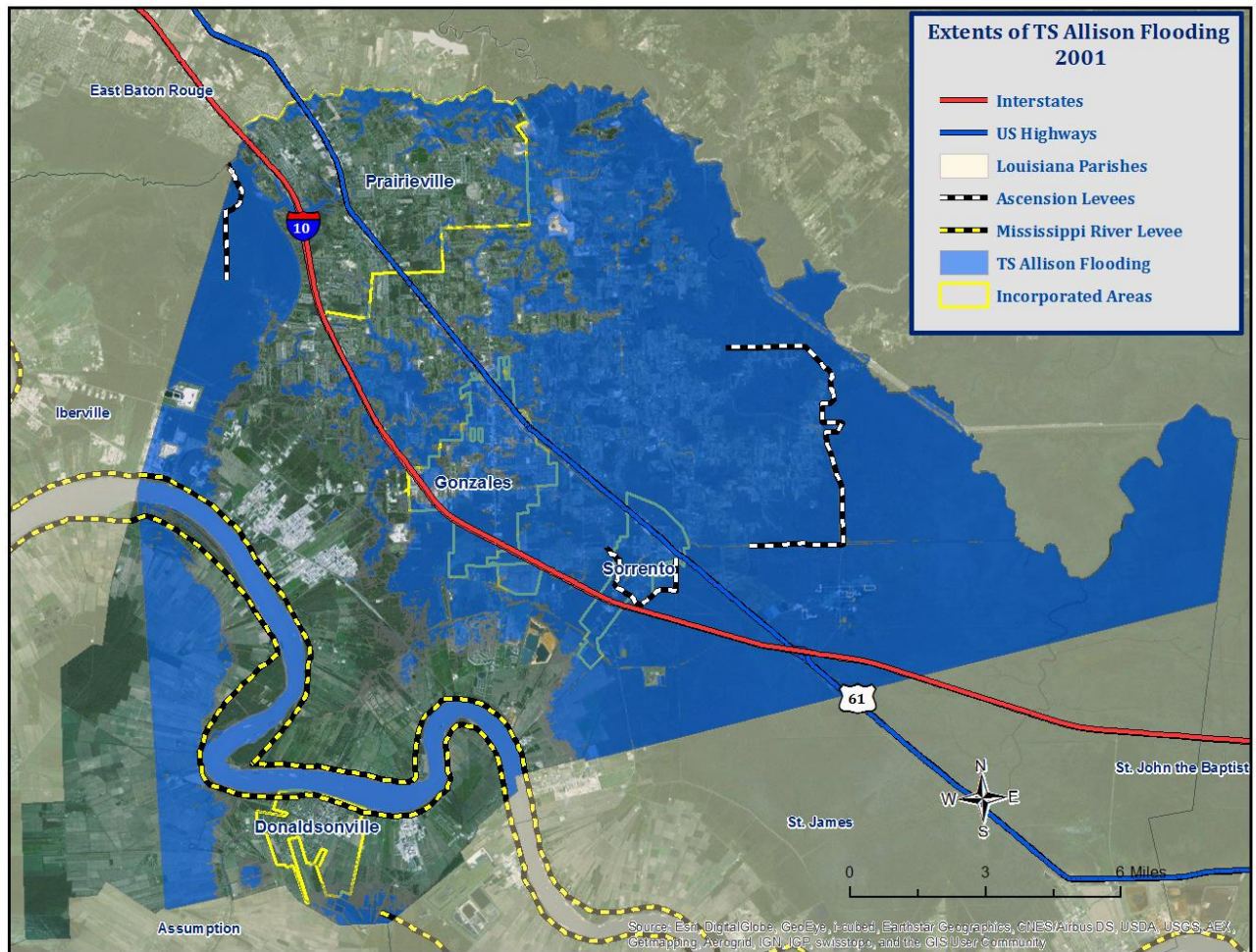


Figure 2-19: Extent of Tropical Storm Allison Flooding in June 2001.

By the end of the event on June 11th, storm total rainfall of fifteen to 25 inches was common with some locations reporting up to nearly thirty inches near Thibodaux. Moderate to major river flooding occurred on the lower portions of the Amite and Comite Rivers, with the highest waters levels observed since 1983. Approximately 1800 people were reported to have left their homes in East Baton Rouge Parish due to flooding or the threat of flooding. Hundreds of homes were flooded in East Baton Rouge, Livingston, and Ascension Parishes. Significant flooding also occurred along Bayou Manchac, affecting Ascension and Iberville Parishes. A levee broke along Bayou Manchac early on June 11th, resulting in considerable on low land acreage and roadways, cutting off access to many houses.

Hurricane Isaac of 2012

Hurricane Isaac entered the Gulf of Mexico as a tropical storm on August 26, moving northwest after crossing Haiti, Cuba, and the Florida Straits. Isaac strengthened into a hurricane on the morning of the 28th, when it was 75 miles south-southeast of the mouth of the Mississippi River. Isaac made landfall in Plaquemines Parish as a Saffir-Simpson Category 1 hurricane near Southwest Pass of the

Mississippi River on the evening of the 28th. Significant impacts occurred around Lakes Pontchartrain and Maurepas with a storm tide of five to nine feet. Five to ten thousand homes were flooded in low lying areas bordering these lakes in the following parishes: St. Tammany, Tangipahoa, Livingston, Ascension, St. James and St. John the Baptist. Many areas of southeast Louisiana received eight to twelve inches of rain with a few locations having fifteen inches of rain or more. Rainfall recorded in Ascension parish over the two day period was approximately 1" across the parish. Flooding in the southwestern part of the parish (Figure 2-20) mostly resulted from the backwater flooding from Lake Maurepas.

Maximum storm total rainfall was 20.66 inches at the New Orleans Carrollton gauge on the Mississippi River. Rainfall runoff produced moderate to major flooding on the Tangipahoa, Tchefuncte, Tickfaw, Amite, Pearl, Bogue Chitto and Bogue Falaya Rivers. Storm surge and high tides restricted outflow of the rivers near the coast and lakes, exacerbating flooding in those areas.

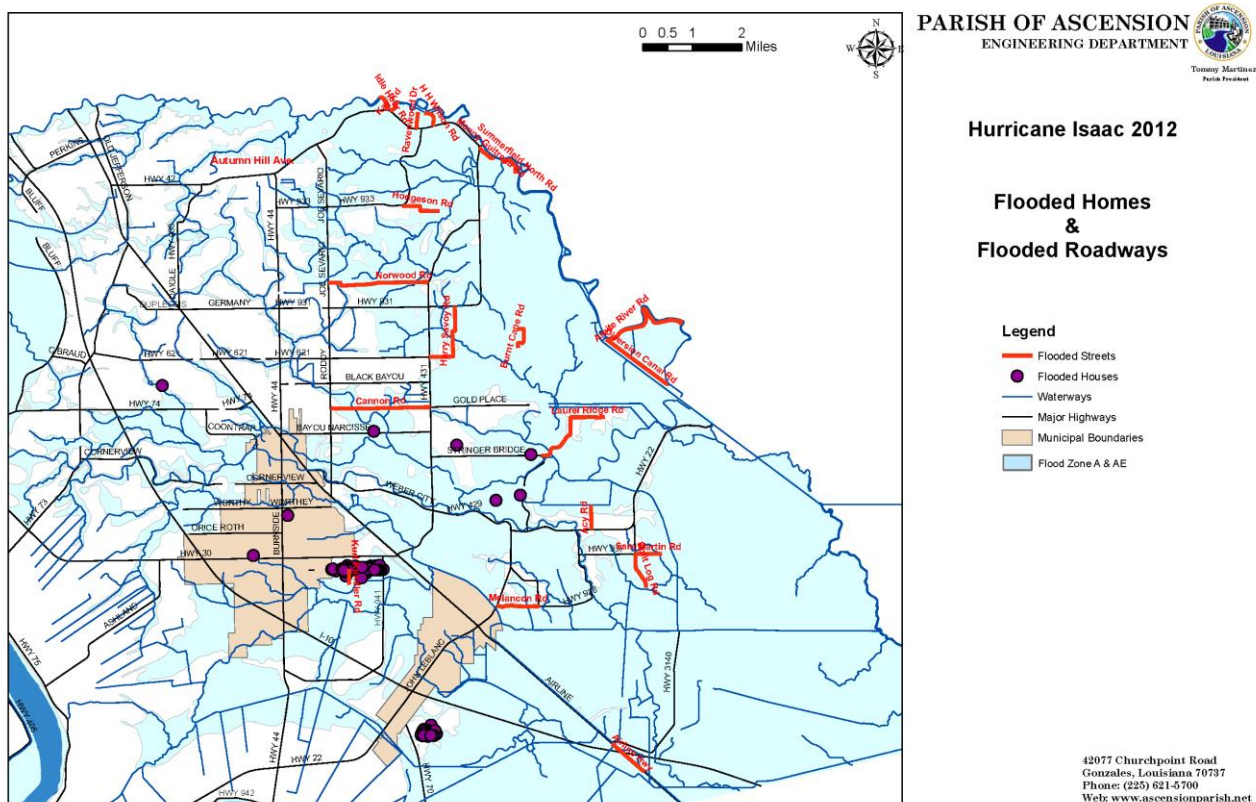


Figure 2-20: Location of flooded streets (depicted as red) and homes (purple colored circles) caused by Hurricane Isaac in August 2012.

(Source: Ascension Parish)

Localized Flooding

In addition to the four historically significant flooding events, Ascension parish also experiences routing localized flooding during heavy precipitation events. Through meetings with the planning committee members and the public, the following roads were identified as routinely flooding during heavy rain events in Gonzales and Donaldsonville. Flooding in Gonzales is attributed to the backwater of Bayou Conway and impacts local areas of Silver Leaf, Southwood Village, Park Vista and along Hodgenson Road. In the City of Donaldsonville, Opelousas Street, West 7th Street, and St. Patrick Street along with all city underpasses

regularly flood. Flooding is attributed to backwater flooding from Bayou Lafourche, Bayou Verette, and Bayou Napoleon.

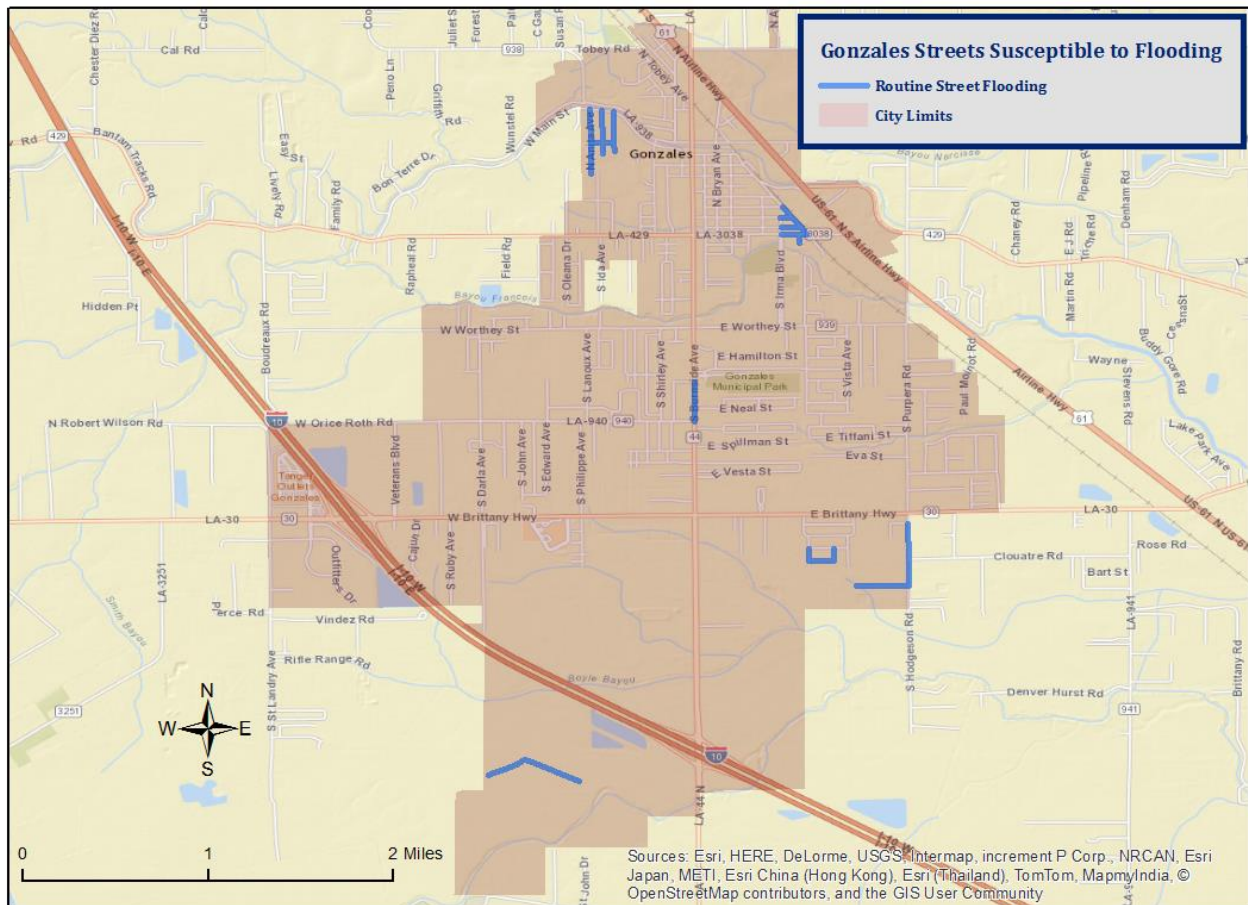


Figure 2-21: Streets susceptible to flooding in the City of Gonzales.

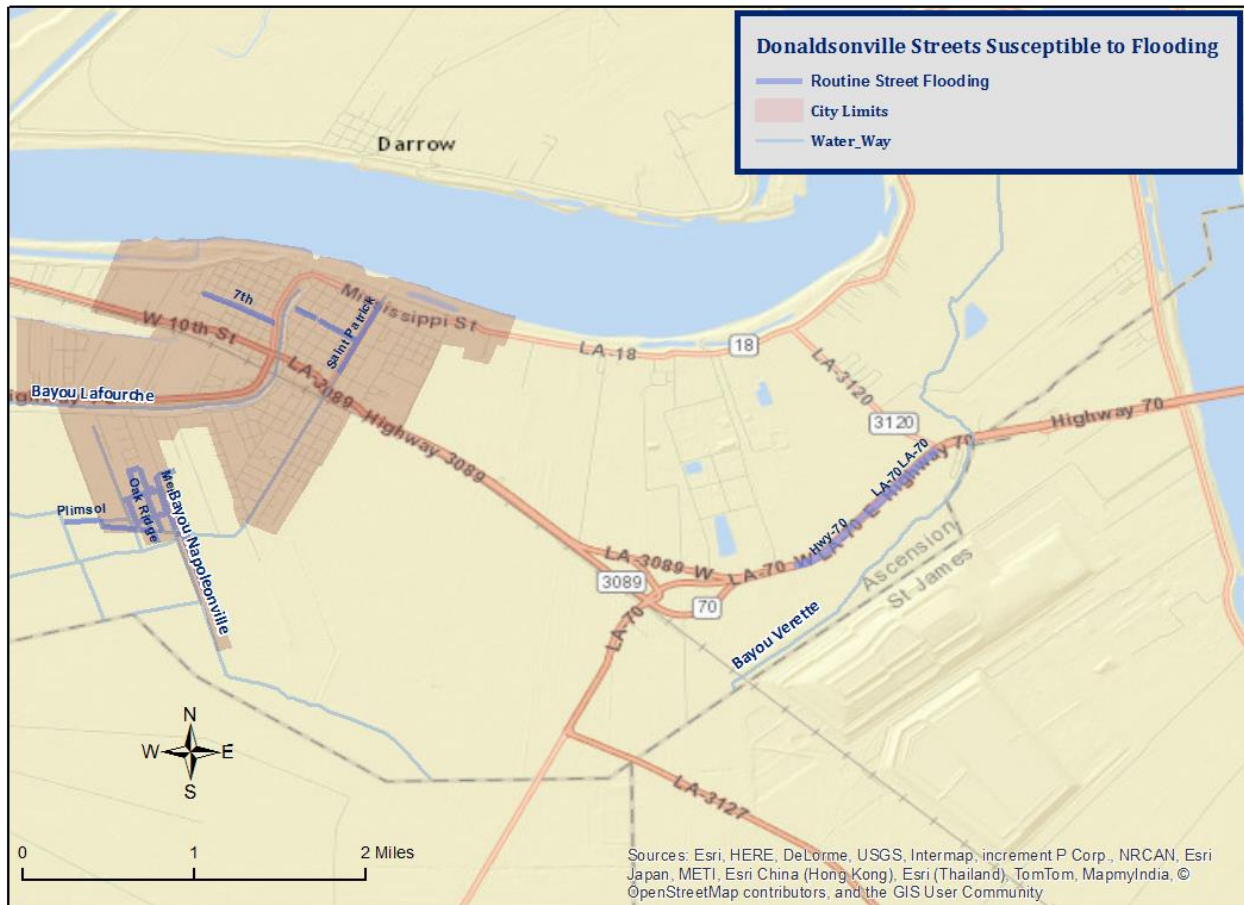


Figure 2-22: Streets susceptible to flooding in Donaldsonville.

In addition to the major flooding events previously listed, there have been several flooding events that have occurred in Ascension Parish since the last update. Below is a brief synopsis of each flooding event that has occurred since the parish's last planning update.

Table 2-14: Historical floods in Ascension Parish with locations from 2003 - 2014.

Date	Extents	Estimated Damages	Location
December 14, 2009	4.4" / Minor Road Flooding	\$0	Gonzales
May 2, 2012	2.5" / Minor Flooding that impacted 13 homes	\$25,000	Prairieville (Unincorporated Ascension Parish)
August 28, 2012	1" Precipitation / Extensive backwater flooding that impacted 199 Homes	\$1,131,332	Gonzales (2 homes)
			Sorrento* (20 homes)
			Unincorporated Ascension (177 homes)
August 29, 2012	The railroad underpass on St. Patrick Street was closed due to flooding. Ascension Catholic Church and Donaldsonville Elementary School received minor flooding.		Donaldsonville
January 9, 2013	6.02" Precipitation / Minor Road Flooding	\$0	Gonzales
January 10, 2013	2.6" Precipitation / Minor Road Flooding	\$10,000	Gonzales
May 28, 2014	6.94" Precipitation / 12-18" of Flooding impacting 13 homes and one individual drowned	\$200,000	Gonzales

**Damage Assessments teams counted 20 homes with flooding with a Sorrento address; however, all 20 of these homes were co-located southwest outside of the actual Sorrento city limits. For the purposes of flooding caused by Isaac, there was no significant flooding in Sorrento.*

There have not been any significant flooding events within the city limits of Sorrento since the last plan update in 2010. Hurricane Isaac is representative of a near worst-case scenario for flooding in Ascension Parish. Hurricane Isaac was a slow-moving storm that dropped an extensive amount of water south of the parish, causing a large amount of backwater flooding throughout the parish. Had the storm not turned north, it had the potential of causing significantly more flooding in the parish. Based on Hurricane Isaac and assuming a similar slow-moving tropical cyclone had a path going through the parish, Ascension Parish could expect flood depths of two to three feet, including areas in Sorrento.

Frequency / Probability

While other parts of this plan along with the State's Hazard Mitigation Plan, have relied on the SHELDES database to provide the annual probability, because Ascension parish has multiple jurisdictions it was necessary to assess the historical data found in the National Climatic Data Center's to properly determine probability for future flood events. The table below shows the probability and return frequency for each jurisdiction.

Table 2-15: Flood annual probabilities for Ascension Parish

Jurisdiction	Annual Probability	Return Frequency
Ascension Parish (Unincorporated)	23%	3 Years
Donaldsonville	22%	4 – 5 Years
Gonzales	32%	3 Years
Sorrento	20%	5 Years

Estimated Potential Losses

Using Hazus-MH Flood Model, the 100 year flood scenario was analyzed to determine losses from this worst-case scenario. Table 2-16 shows the total economic losses that would result from this occurrence.

Table 2-16: Estimated losses in Ascension Parish from a 100 year flood event.

Jurisdiction	Estimated total Losses from 100 Year Flood Event
Ascension Parish (Unincorporated)	\$1,350,853,951
Donaldsonville	\$45,546,322
Gonzales	\$145,804,726
Sorrento	\$87,402,000
Total for the Parish	\$1,629,606,699

The Hazus-MD Flood model also provides a breakdown by jurisdiction for seven primary sectors (Hazus occupancy) throughout the parish. The losses for each jurisdiction by sector are listed in the tables below.

Table 2-17: Estimated 100 year flood losses for unincorporated Ascension Parish by sector.
(Source: HAZUS-MH)

Ascension Parish (Unincorporated Areas)	Estimated total Losses from 100 Year Flood Event
Agricultural	\$ 7,009,398
Commercial	\$156,211,086
Government	\$ 7,742,560
Industrial	\$ 57,226,233
Religious / Non-Profit	\$11,801,359
Residential	\$1,104,020,460
Schools	\$6,842,852
Totals	\$1,350,853,951

*Table 2-18: Estimated 100 year flood losses for Donaldsonville by sector.
(Source: HAZUS-MH)*

Donaldsonville	Estimated total Losses from 100 Year Flood Event
Agricultural	\$139,490
Commercial	\$5,494,906
Government	\$467,347
Industrial	\$1,155,911
Religious / Non-Profit	\$1,141,570
Residential	\$35,634,077
Schools	\$1,513,023
Totals	\$45,546,322

*Table 2-19: Estimated 100 year flood losses for Gonzales by sector.
(Source: HAZUS-MH)*

Gonzales	Estimated total Losses from 100 Year Flood Event
Agricultural	\$235,223.04
Commercial	\$45,812,424.71
Government	\$2,700,025.44
Industrial	\$3,408,674.62
Religious / Non-Profit	\$1,706,747.97
Residential	\$90,776,637.34
Schools	\$1,164,993.16
Totals	\$145,804,726.28

*Table 2-20: Estimated 100 year flood losses for Sorrento by sector.
(Source: HAZUS-MH)*

Sorrento	Estimated total Losses from 100 Year Flood Event
Agricultural	\$216,380.15
Commercial	\$15,342,945.76
Government	\$1,201,207.45
Industrial	\$3,023,369.90
Religious / Non-Profit	\$22,950,913.86
Residential	\$966,182.89
Schools	\$43,701,000.00
Totals	\$87,402,000.00

Threat to People

The total population within the parish that is susceptible to a flood hazard are shown in the table below.

*Table 2-21: Number of people potentially exposed to a 100 year flood event.
(Source: HAZUS-MH)*

Number of People Exposed to Flood Hazards			
Location	# in Community	# in Hazard Area	% in Hazard Area
Parish (Unincorporated)	95,137	71,382	75%
Gonzales	10,301	5,473	53%
Donaldsonville	7,473	1,439	19%
Sorrento	1,482	1,482	100%
Total	114,393	79,776	70%

The HAZUS-MH flood model was also extrapolated to provide an overview of vulnerable populations throughout the jurisdictions in the tables below:

*Table 2-22: Vulnerable populations susceptible to a 100 year flood event in unincorporated Ascension parish.
(Source: HAZUS-MH)*

Ascension Parish (Unincorporated)		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	71,382	100%
Persons Under 5 years	5,210	7.3%
Persons Under 18 years	19,915	27.9%
Persons 65 Years and Over	7,066	9.9%
White	53,108	74.4%
Minority	18,273	25.6%

*Table 2-23: Vulnerable populations susceptible to a 100 year flood event in Donaldsonville.
(Source: HAZUS-MH)*

Donaldsonville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,439	100%
Persons Under 5 years	96	6.7%
Persons Under 18 years	347	24.1%
Persons 65 Years and Over	191	13.3%
White	913	63.5%
Minority	525	36.5%

Table 2-24: Vulnerable populations susceptible to a 100 year flood event in Gonzales.

(Source: HAZUS-MH)

Gonzales		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	5,473	100%
Persons Under 5 years	389	7.1%
Persons Under 18 years	1,379	25.2%
Persons 65 Years and Over	668	12.2%
White	2,671	48.8%
Minority	2,802	51.2%

Table 2-25: Vulnerable populations susceptible to a 100 year flood event in Sorrento.

(Source: HAZUS-MH)

Sorrento		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,482	100%
Persons Under 5 years	104	7%
Persons Under 18 years	387	26.1%
Persons 65 Years and Over	187	12.6%
White	1,187	80.1%
Minority	286	19.9%

Vulnerability

See Appendix C-1 to C-2 for parish and municipality buildings that are susceptible to flooding due to proximity within the 100 year flood plain.

Sinkholes

Sinkholes are areas of ground—varying in size from a few square feet to hundreds of acres, and reaching in depth from one to more than 100 ft.—with no natural external surface drainage. Sinkholes are usually found in karst terrain—that is, areas where limestone, carbonate rock, salt beds, and other water-soluble rocks lie below the Earth’s surface. Karst terrain is marked by the presence of other uncommon geologic features such as springs, caves, and dry streambeds that lose water into the ground. In general, sinkholes form gradually (in the case of cover subsidence sinkholes), but they can also occur suddenly (in the case of cover-collapse sinkholes).

Sinkhole formation is a very simple process. Whenever water is absorbed through soil, encounters water-soluble bedrock, and then begins to dissolve it, sinkholes start to form. The karst rock dissolves along cracks; as the fissures grow, soil and other particles fill the gaps, loosening the soil above the bedrock. As the soil sinks from the surface, a depression forms, which draws in more water, funneling it down to the water-soluble rock. The increase of water and soil in the rock pushes open the cracks, again drawing more soil and water into it. This positive feedback loop continues, unless clay plugs into the cracks in the bedrock, at which time a pond may form. A sudden cover-collapse sinkhole occurs when the top soil above dissolving bedrock does not sink, but forms a bridge over the soil that is sinking beneath it.

Both kinds of sinkholes can occur naturally or through human influence. While sinkholes tend to form naturally in karst areas, sinkholes can form in other geological areas that have been altered by humans such as mining, sewers, hydraulic fracture drilling, groundwater pumping, irrigation, or storage ponds. In all of these cases, and others, the cause for the sinkhole is that support for surface soil has been weakened or substantially removed.

In the United States, 20% of land is susceptible to sinkholes. Most of these areas lie in Florida, Texas, Alabama, Missouri, Kentucky, Tennessee, and Pennsylvania. In Louisiana, the majority of sinkholes are precipitated by the human-influenced collapse of salt dome caverns. The collapse of a salt dome is usually a slow process; however, it may occur suddenly and without any advanced warning.

Location

Currently, there are two identifiable salt dome locations in Ascension Parish. Figure 2-23 displays the locations of these salt domes with their relative location to the nearest jurisdiction. As depicted in Figure 2-23, the sinkhole is only a hazard of concern for unincorporated Ascension Parish, as a two mile buffer around the three salt domes that influence the parish does not impact the city limits of Ascension’s three municipalities.

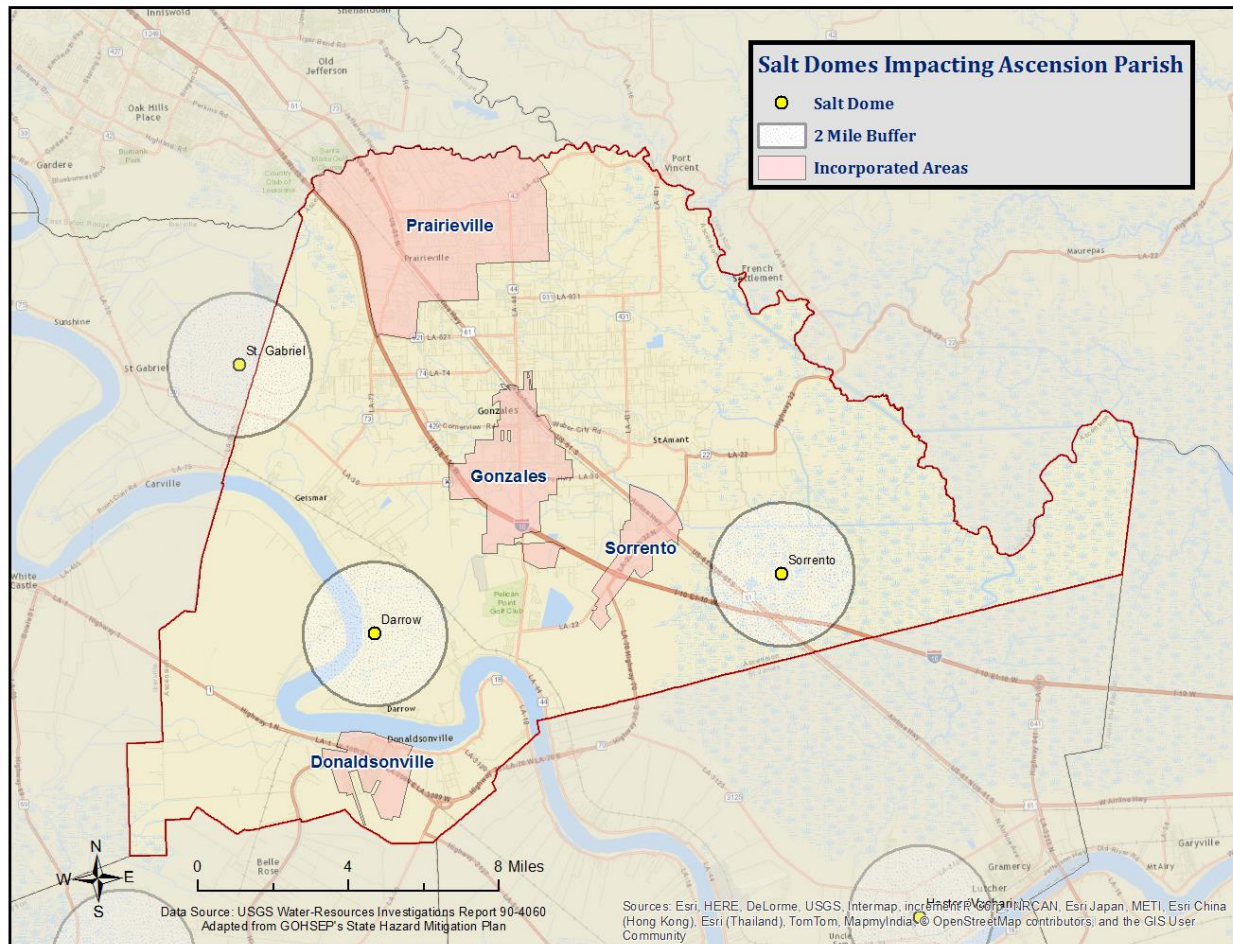


Figure 2-23: Salt dome locations in Ascension Parish relative to jurisdictions.

Previous Occurrences / Extent

There have been no recorded incidents of sinkholes or salt dome collapses in unincorporated Ascension Parish to date. There have been two notable sinkhole incidents in Louisiana, Bayou Corne in neighboring Assumption Parish in 2012, and the Lake Piegneur sinkhole in Iberia Parish in 1980. The Bayou Corne consumed approximately thirty acres or 0.05 square miles and the Lake Piegneur sinkhole consumed 65 acres or 0.1 square miles. Based on these two previous sinkholes, the area in danger of being immediately consumed by a sinkhole in Louisiana is between 0.05 and 0.1 square miles.

Frequency

Because a sinkhole is a rare occurrence and has never occurred in Ascension Parish, the probability of sinkhole in unincorporated Ascension parish is 1%. The probability of a sinkhole occurring in Donaldsonville, Gonzales, and Sorrento is assessed at 0%.

Estimated Potential Losses

Each of the three salt domes that influence Ascension parish were analyzed to determine the number of people and houses that are potentially susceptible to losses from a sinkhole materializing from one of the salt domes. The following tables are based on conducting a two mile buffer around the center of the salt dome. The values were determined based on data provided by the Ascension Parish Assessor's Office. The Sorrento Salt Dome contained a total of nine camps with the remainder of the land undeveloped. The Salt

Dome that poses the greatest risk is the Darrow Salt Dome, which has a buffer that extends into two neighborhoods in Darrow and Modesto. There are also five commercial facilities along with several religious properties within the two mile buffer of the Darrow Salt Dome. The St. Gabriel Salt Dome, located in Iberville Parish, affects Ascension Parish but has no built up structures within a two mile buffer. All parcels are owned and maintained by commercial industries with the exception being the St Gabriel Wildlife Refuge & Botanical Gardens and Spanish Lake Restoration LLC.

*Table 2-26: Estimated Potential Losses from a Sinkhole formation.
(Source: Ascension Parish Assessor Data)*

Name	Total Property Value	Residential	Non-Residential	Non-Developed Land
Sorrento Salt Dome	\$365,470,000	\$3,971,000	\$0	\$361,499,000
Darrow Salt Dome	\$1,333,370,000	\$501,380,000	\$200,010,000	\$631,980,000
St. Gabriel Salt Dome	\$439,050,000	\$0	\$0	\$439,050,000

Isolated locations of the sinkholes results in little to no risk to people, with the exception being the Darrow Sinkhole. There are approximately 186 people that are located within the two mile buffer of the Darrow Sinkhole. While there are nine structures in the two mile buffer of the Sorrento salt dome, these structures are camps and not permanent residences.

Vulnerability

See Appendix C-1 to C-2 for parish and municipality buildings that are susceptible to sinkholes because of proximity within two miles of a salt dome.

Subsidence

Subsidence is the sinking of land over time, as a result of natural and/or human-caused actions. Subsidence results from a number of factors, including:

- Compaction/consolidation of shallow strata caused by the weight of delta deposit from the Mississippi River, soil oxidation, and aquifer draw-down (shallow component)
- Consolidation of deeper strata (intermediate component)
- Tectonic effects (deep component).

This last element has only been recently quantified, and research indicates that it may account for 50% or more of subsidence.

Geology and soil types do not have a direct effect on subsidence rates. Other causes like human occupancy, buildings and infrastructure, oil and gas extraction, and lowering the water table due to groundwater extraction have much more of an effect. Human acceleration of natural processes through levying rivers, draining wetlands, dredging channels, and cutting canals through marshes exacerbates the subsidence hazard.

Subsidence has not been identified as a significant *acute* contributor to direct disaster damages in Louisiana. However, it is certainly one of the main drivers of land loss in Louisiana, and thus it dramatically increases flood risk—which is one of the most dangerous hazards the state faces. One of the very few hazard events to be documented as a direct result of subsidence is the appearance of sinkholes over a mining operation in Weeks Island. The repeated removal of underground materials (originally salt and later oil) resulted in the formation of a sinkhole in 1992. The Weeks Island facility was decommissioned as a result of this discovery.

The highest rate of subsidence is occurring at the Mississippi River Delta (estimated at greater than 3.5 ft./century). Subsidence rates tend to decrease inland, and they also vary across the coast.

Subsidence creates three distinct problems in Louisiana:

- By lowering elevations in coastal Louisiana, subsidence accelerates the effects of saltwater intrusion and other factors that contribute to land loss
- By lowering elevations elsewhere in Louisiana, subsidence may make structures more vulnerable to flooding
- By destabilizing elevations in general, subsidence undermines the accuracy of surveying benchmarks (including those affecting levee heights, coastal restoration programs, surge modeling, BFEs, and other engineering inputs), which can contribute to additional flooding problems if construction occurs at lower elevations than anticipated or planned.

Location:

Subsidence in Ascension Parish occurs primarily in the southern part of the parish, impacting mostly wet lands. However, a large portion of Donaldsonville as well as a small portion of Sorrento are experiencing subsidence. Figure 2-24 displays the areas in Ascension Parish that experience annual subsidence. Because of its isolated nature, subsidence is only considered at risk in unincorporated Ascension Parish, Donaldsonville and Sorrento.

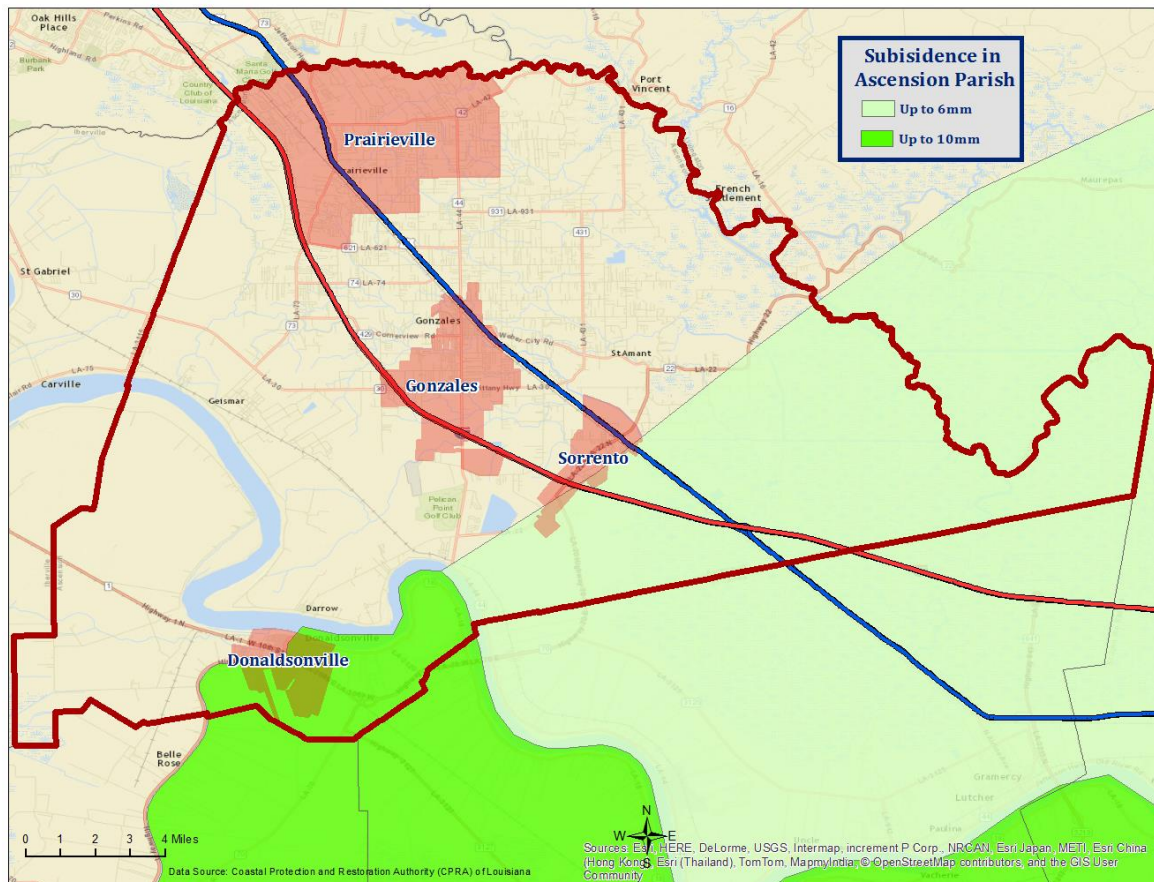


Figure 2-24: Ascension Parish subsidence from 1932 - 2010.
(Source: Louisiana Coastal Master Plan)

Previous Occurrences / Extent

For the most part, subsidence is a slow-acting process with effects that are not as evident as hazards associated with a discrete “event.” Subsidence is considered to be a “creeping” hazard event that occurs over an extreme length of time making it difficult to identify a single occurrence. However, subsidence in Ascension is limited to unoccupied areas and no known previous hazard events involving subsidence exist. While subsidence is taking place on an annual basis, its occurrence is measured in centimeters and not readily visible without scientific instruments. According to the Louisiana Coastal Protection and Restoration Authority (CPRA), portions of Donaldsonville, Sorrento and SE Ascension Parish (unincorporated) experience annual subsidence of 2-10 mm per year.

Frequency / Probability

Because of the ongoing nature of subsidence in Ascension Parish, the probability of subsidence in the unincorporated area of Ascension parish, Donaldsonville and Sorrento is 100%.

Summary

Ascension Parish has a relatively low progression of annual subsidence. Based on this and the historical data, it is determined that the risk associated with a subsidence event to people and property is determined to have a low impact for the entire Ascension Parish planning area and is discounted. Ascension Parish has an annual subsidence rate of ten mm or less within the populated areas of the parish. Less than 1% of the total building inventory for the parish is located in the subsidence areas. Areas that are currently experiencing subsidence, primarily consist of uninhabited areas in the southeastern portion of the parish and typically consist of wetlands. Even in areas that CPRA indicates are experiencing subsidence, the rate of subsidence is not visible to the naked eye and there are no known events, including the Town of Donaldsonville and the Village of Sorrento. Based on this and historical data, it is determined that the impact is minimal on people and property for the entire Ascension Parish planning area and is discounted.

Levees

Levees and floodwalls are flood control barriers constructed of earth, concrete, or other materials. For the purposes of this plan, levees are distinguished from smaller flood barriers (such as berms) by their size and extent. Berms are barriers that only protect a small number of structures, or at times only a single structure. Levees and floodwalls are barriers that protect significant areas of residential, commercial, or industrial development; at a minimum, they protect a neighborhood or small community. Levee failure involves the overtopping, breach, or collapse of the levee. Levee failure is especially destructive to nearby development during flood and hurricane events.

The northern half of Louisiana is protected by levees on the Ouachita River, under the authority of the Vicksburg District of the United States Army Corp of Engineers (USACE). The Vicksburg District encompasses 68,000 mi² in the states of Arkansas, Mississippi and Louisiana. They manage seven drainage basins, including the Yazoo, Pearl, Big Black, Red, Ouachita, and Mississippi Rivers; twelve locks and dams on the Pearl, Red, and Ouachita Rivers; 1,808 miles of levees, including 468 miles along the Mississippi River; and multiple lakes with 1,709 miles of shoreline.

Coastal and southern Louisiana are protected by an extensive levee system under the authority of the New Orleans District of the USACE. This system includes 30,000 mi² of Louisiana south of Alexandria, including 961 miles of river levees in the Mississippi River and Tributaries Project, 449 miles of river levees in the Atchafalaya Basin, and 340 miles of hurricane-protection levees. Other levees have been built along stretches of rivers throughout Louisiana by local levee districts and private citizens. The data regarding these non-federal levees are managed by the individual entity responsible for construction and subsequent maintenance and are not kept in a consistent format for comprehensive hazard analysis.

The locations of the levees located in Ascension Parish are shown in Figure 2-27. The longest and most important levee system is located along both banks of the Mississippi River in the western portion of the parish—the Mississippi River Levee system. The east bank of the Mississippi River Levee system falls under the jurisdiction of the Pontchartrain Levee District, which maintains responsibility for 115 miles of the levee from East Baton Rouge Parish to St. Charles Parish. The west bank of the river falls under the jurisdiction of the Atchafalaya Basin Levee District (Figure 2-26), which maintains responsibility for 110 miles of the levee from Pointe Coupee Parish to St. James Parish. The second largest vertical protection barrier system in the parish is along Laurel Ridge Canal, Saveiro Canal, and Bayou Francois. The Laurel Ridge Levee provides immediate flood protection for approximately 2,027 people and 831 homes that are directly protected by the levee according to the 2010 Census. The Town of Sorrento is also protected by the Sorrento levee, which provides flood protection on the south side of the town. The Sorrento levee provides immediate flood protection for approximately 1,400 people and 596 homes. Located along the Sorrento and Laurel Ridge Levees are two pumping stations that are utilized to remove any standing water from within the levee system. The pumps are designed to work in conjunction with the levees and collectively serve as a flood protective system. Capital improvements and maintenance of pump stations are functions of the two draining districts, namely the East Ascension Consolidated Drainage District and Donaldsonville. In addition a weir system is in place along Bayou Manchac and Alligator Bayou in the northeastern part of the parish, which offers some flood protection for Prairieville.

The effects of a levee failure on property is similar to that of a flood, as discussed in the flooding section. The one difference is the velocity of water is increased in the area of the breach, so the potential for property damage is higher in these areas.

A levee failure occurs during high water events, so the populace is normally alerted to the potential danger. Levees are normally monitored during these events and the population in danger is alerted to a possible

levee failure. However, if people consider themselves safe once a levee has been breached and do not evacuate, the results could be deadly.

The Mississippi River Levee system is constantly monitored during high water events by federal, state and parish officials. Any potential failure of the Mississippi river would be observed long before a failure took place. Once observed, it would be mitigated to prevent any failure in the levee. As a slowly developing hazard, there is significant lead time to warn and evacuate the population in the event of a potential failure. The more likely scenario involving a potential levee failure would be an overtopping event for a major precipitation event taking place during a tropical storm or hurricane, similar to Tropical Storm Allison in 2001. An event of this nature is less likely to produce an early warning and most likely to subject more people to flooding.



Levee Districts of Louisiana

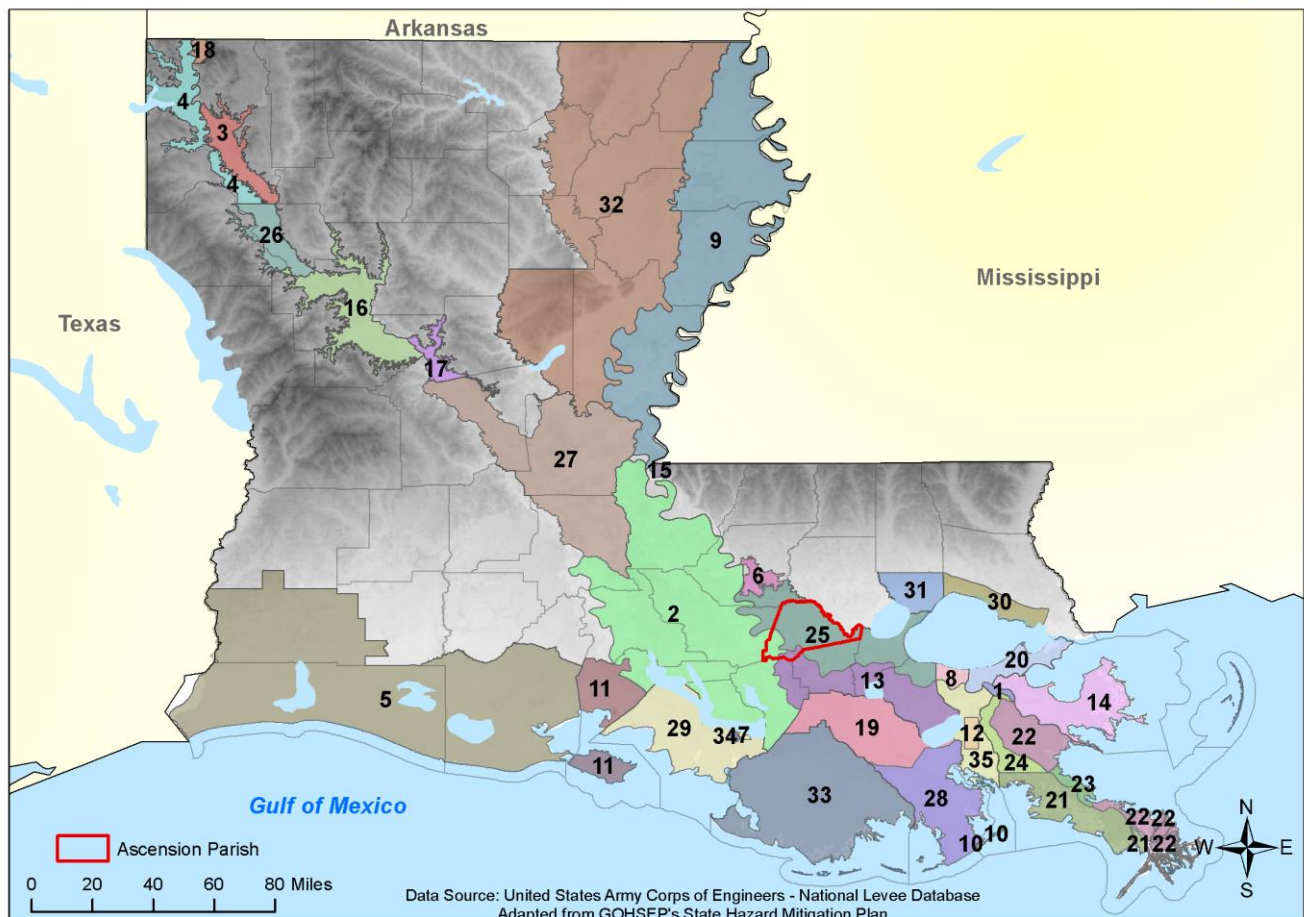


Figure 2-25: State of Louisiana Levee Districts.
(Source: State of Louisiana Hazard Mitigation Plan)

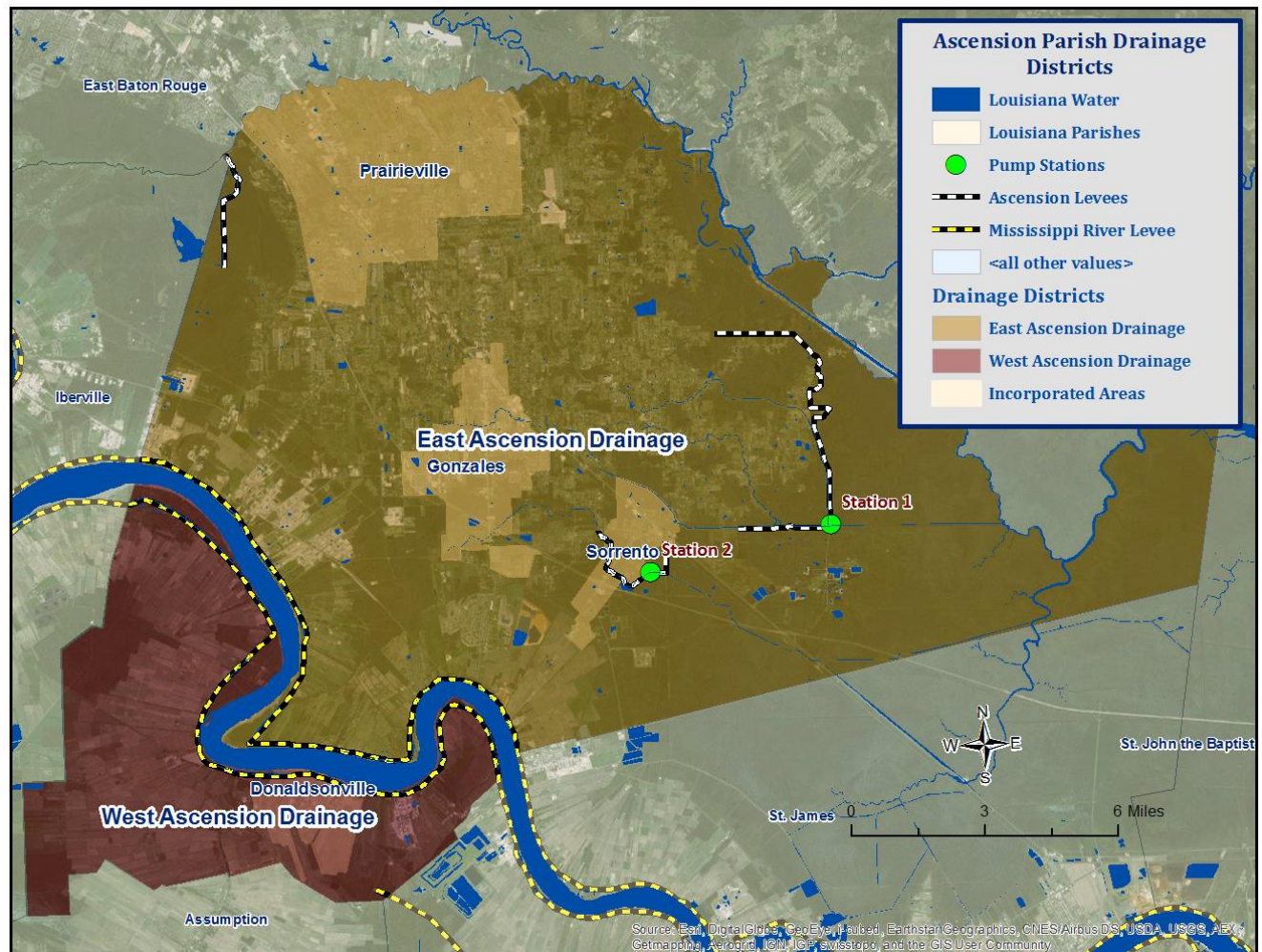


Figure 2-26: Local Levee Districts in Ascension Parish.

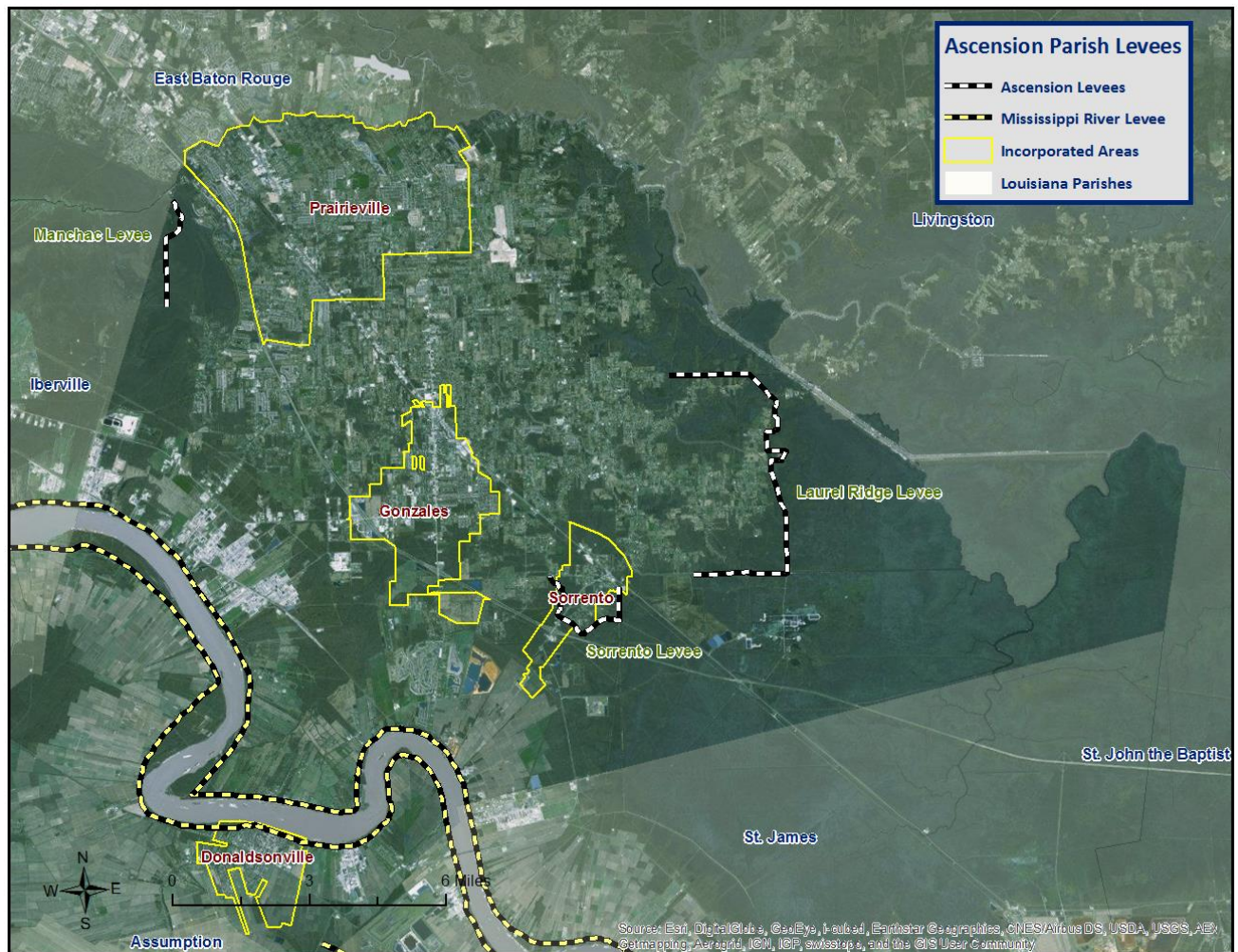


Figure 2-27: Ascension parish levee locations in relation to incorporated areas.

Levee Profile

Location

Much of Ascension Parish is protected by a levee system. There are currently four levee alignments that exist within the parish:

- Mississippi River Levee (east and west banks)
- Manchac Levee (Parish Maintained Levee)
- Sorrento Levee (Parish Maintained Levee)
- Laurel Ridge Levee (Parish Maintained Levee).

These levees are tested anytime a high water event such as a tropical cyclone or heavy rain storm occurs. The Federal and Parish levees located in Ascension parish are shown in Figure 2-27.

Previous Occurrences / Extent

Ascension Parish has experienced two levee failures. The first occurred in 1927 along the Mississippi River and was part of the Great Mississippi Flood event that devastated Southern Louisiana. During this event, the Mississippi River Levee system did not exist as it does today and relied on natural and local barriers to minimize flooding. The second occurred during Tropical Storm Allison in 2001 when water topped the Bayou Manchac Levee, the Laurel Ridge Levee, and the levee surrounding Sorrento. The flood extents for Tropical Storm Allison are shown in Figure 2-28. During Tropical Storm Allison, approximately 10" to 18" of flooding was experienced in Sorrento, Gonzales and other incorporated areas on the eastern side of the parish. In the last five years there have not been any levee failures experienced in the planning area.

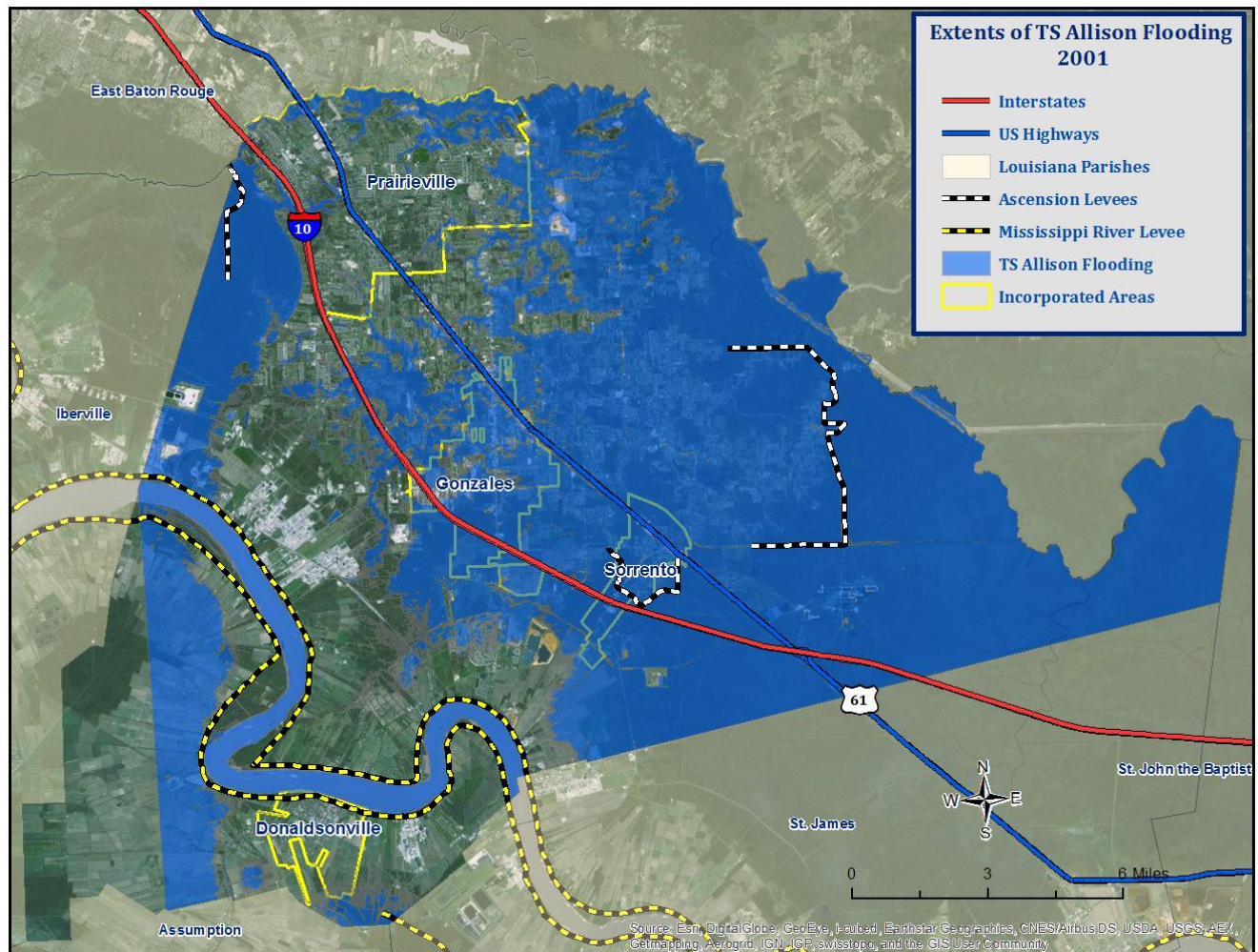


Figure 2-28: Extents of flooding caused by Tropical Storm Allison on June 11, 2001.

Frequency

Levee failures are a rare occurrence within Ascension Parish with an annual chance of occurrence calculated at 2.5% for Ascension Parish unincorporated, Gonzales and Sorrento. This calculation was determined based on one event (Tropical Storm Allison) in which parish levees were overtopped in the last fifty years. The probability for Donaldsonville is assessed at 1% chance annually due to the unlikely event that the Mississippi River will fail. The natural berm barriers of the Mississippi River were easily over topped in 1927; however, the levee system that is now built along the River is much less likely to experience an overtopping or failure.

Estimated Potential Losses

Property damage due to levee failures in Ascension Parish is largely unknown since the 2001 event was part of a tropical cyclone event and the data for the 1927 event is broad and not parish specific.

For purposes of assessing risk for a potential levee failure, a worst-case scenario of failure of the Mississippi River Levee and the three parish-maintained levees was conducted. For the Mississippi River Levee, an interpolated depth surface was developed from examining USGS and USACE historic gauge readings and high water marks from previous flooding events. A failure of the levee system of the Mississippi River Levee on both sides was assessed in an effort to establish the potential threat to a levee failure (Figure 2-29). To determine the risk to the parish and the three incorporated cities to a levee failure resulting from a tropical cyclone, overtopping of the parish levees was also evaluated assuming all three levees would be overtopped during the same event (Figure 2-30). To determine the estimated losses from a levee failure event, both depth grids were combined to create a worst-case scenario levee failure in which the Mississippi River levee, along with the three parish levees, would have either a failure or overtopping (Figure 2-31).

Areas at risk for levee failure are those near the river extending up to and beyond Gonzales (Figure 2-32) and Sorrento (Figure 2-33). If Mississippi River flood waters were impeded, Donaldsonville (Figure 2-34) could suffer catastrophic flooding with inundation depths up to ten feet (36' in the flood over ground elevation of 25' and below). Inundation levels in communities along the river such as Darrow and Geismer could be impacted at up to ten feet. More heavily populated areas such as Gonzales and Sorrento could experience flood depths of up to four feet and to two feet, respectively. Communities farther east such as St. Amant could experience flood levels up to two feet. Prairieville and areas south of Gonzales would suffer little flooding from a Mississippi River levee failure with the exception of two schools with Prairieville addresses (Galvez Primary and St. Amant Baptist). It is noteworthy; however, that much of the impact resulting from levee failure along the Mississippi River is dependent upon the location of the break and the elevation of the river at that time, with elevations dropping as waters move further away from the river.

The parish levee failure from a naturally occurring tropical cyclone with heavy precipitation would also result in significant flooding throughout the parish. The entire city of Sorrento would experience flooding with some areas receiving as much as eight feet of flooding, and a majority of the area receiving six to eight feet. The remainder of the jurisdiction could expect to experience two to four feet of flooding. Gonzales would also receive flooding with some areas near the bayous experiencing more than eight feet of flooding in the northern part of the city. Nearly all of the city, with the exception of the south central part, could expect to receive one to eight feet of flooding. Donaldsonville, which is on the west bank of the Mississippi River would not expect to receive any flooding. Nearly all of the flooding would be expected on the east bank of the Mississippi River with all of the eastern sides of the parish being completely inundated with two to four feet of flooding, with some areas east of Sorrento experiencing up to eight feet of flooding. The northeast part of the parish, especially near the Comite River, would also expect to see extensive flooding with the potential for it to exceed eight feet in some areas.

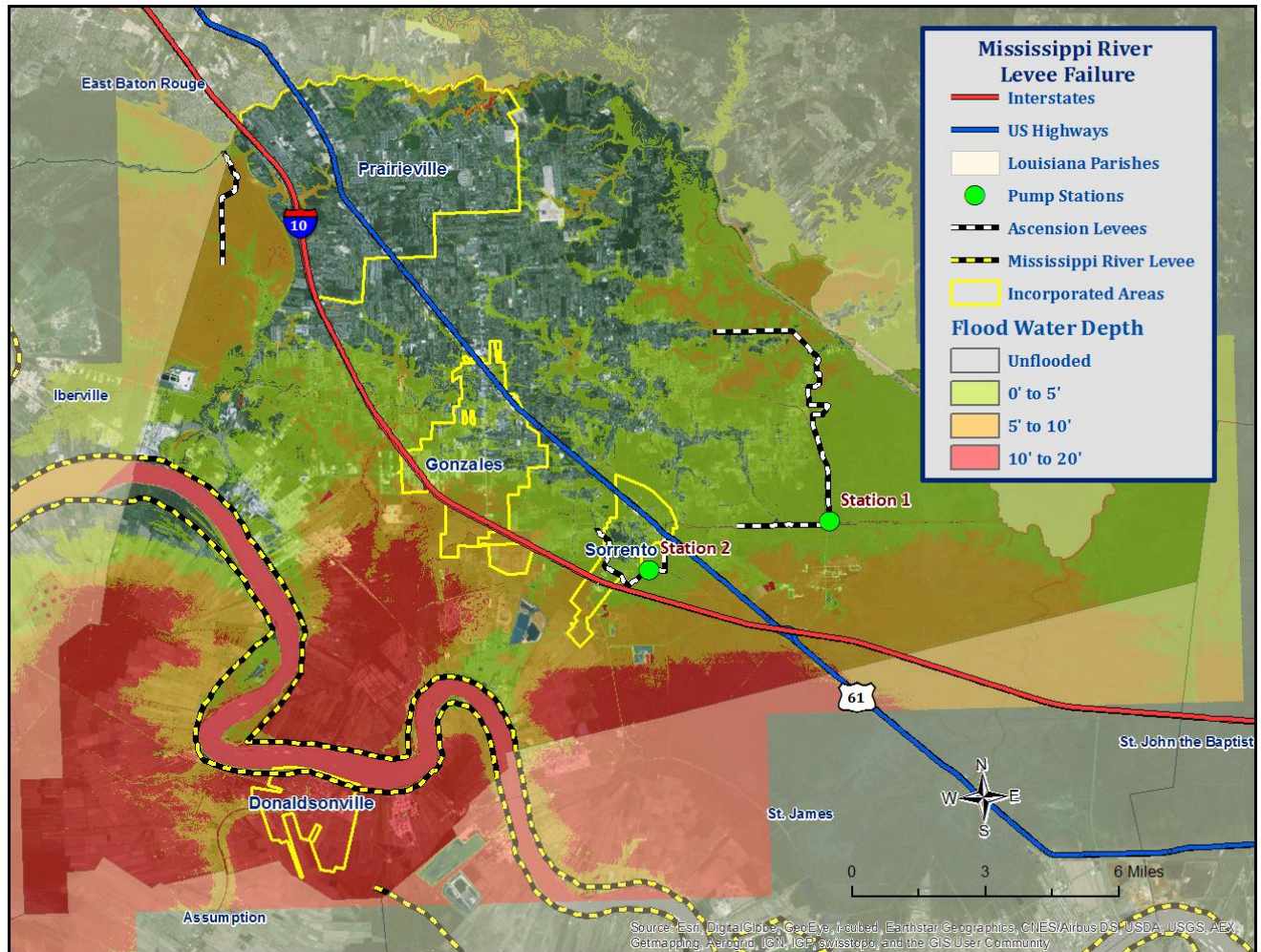


Figure 2-29: Areas at risk from a levee failure of the Mississippi River Levee.
(Source: 2010 Ascension Parish Hazard Mitigation Plan)

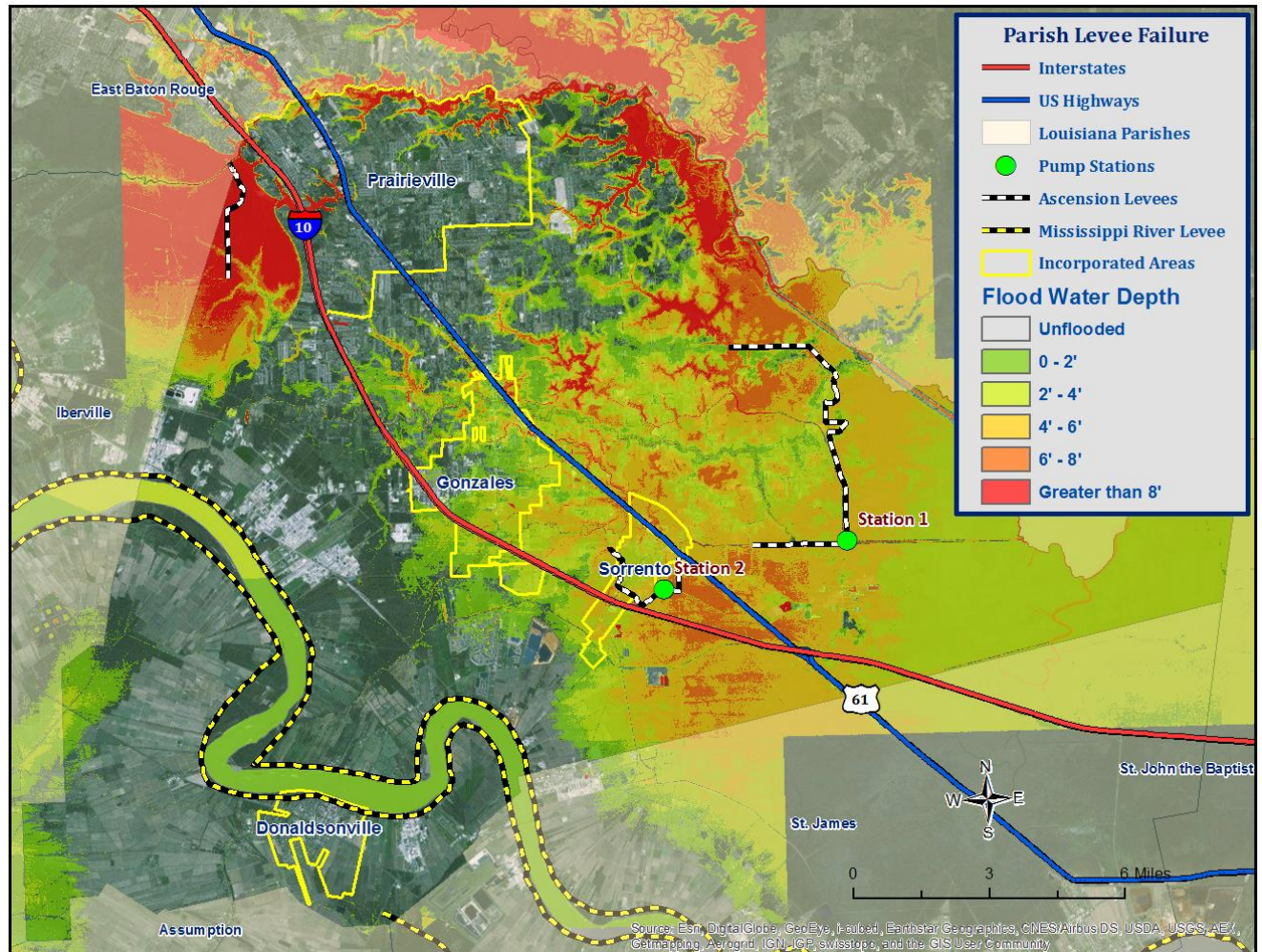


Figure 2-30: Areas at risk from an overtopping of all three parish levees.
(Source: 2010 Ascension Parish Hazard Mitigation Plan)

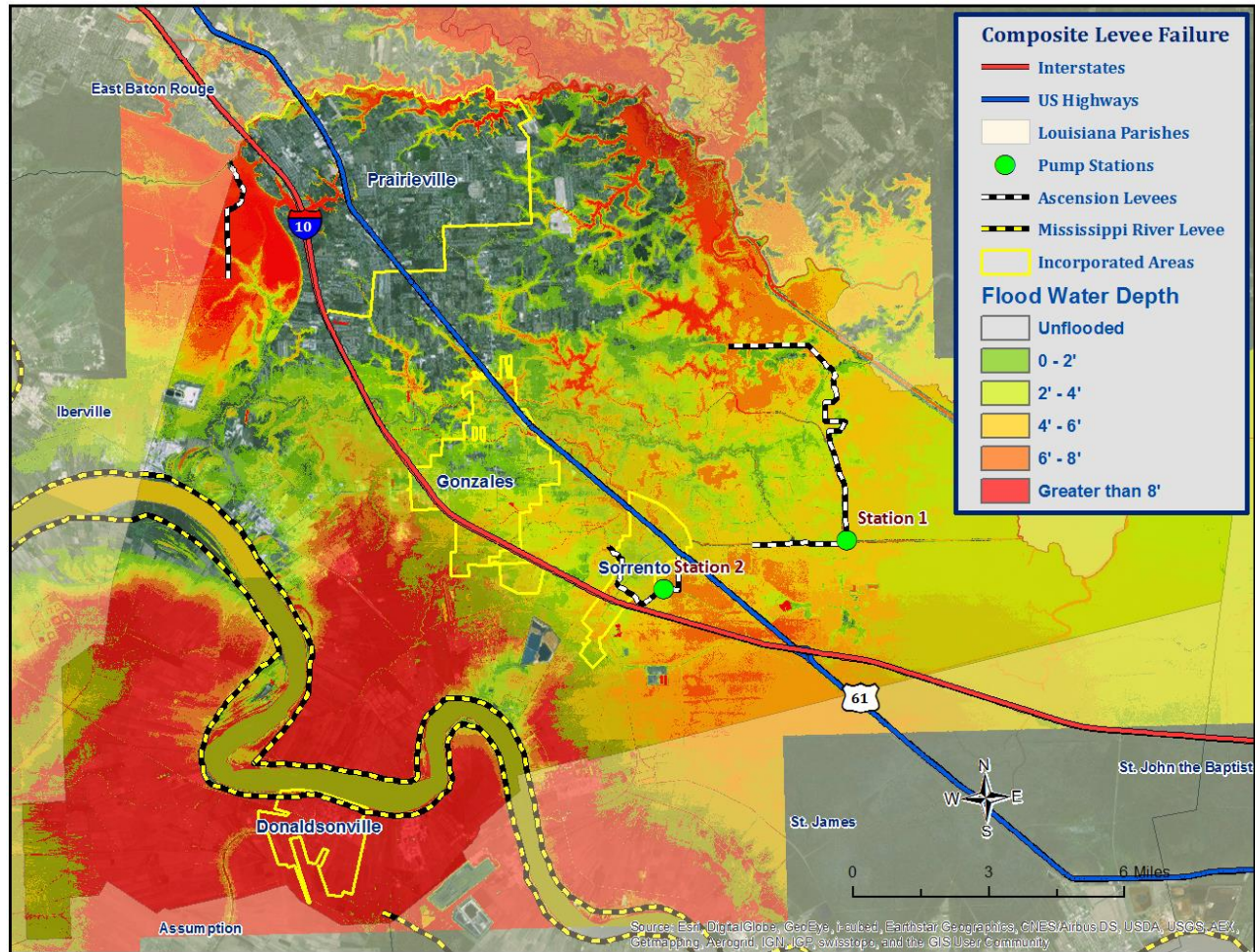


Figure 2-31: Flooding from worst case scenario of a Mississippi River failure followed by a Parish Levee failure.

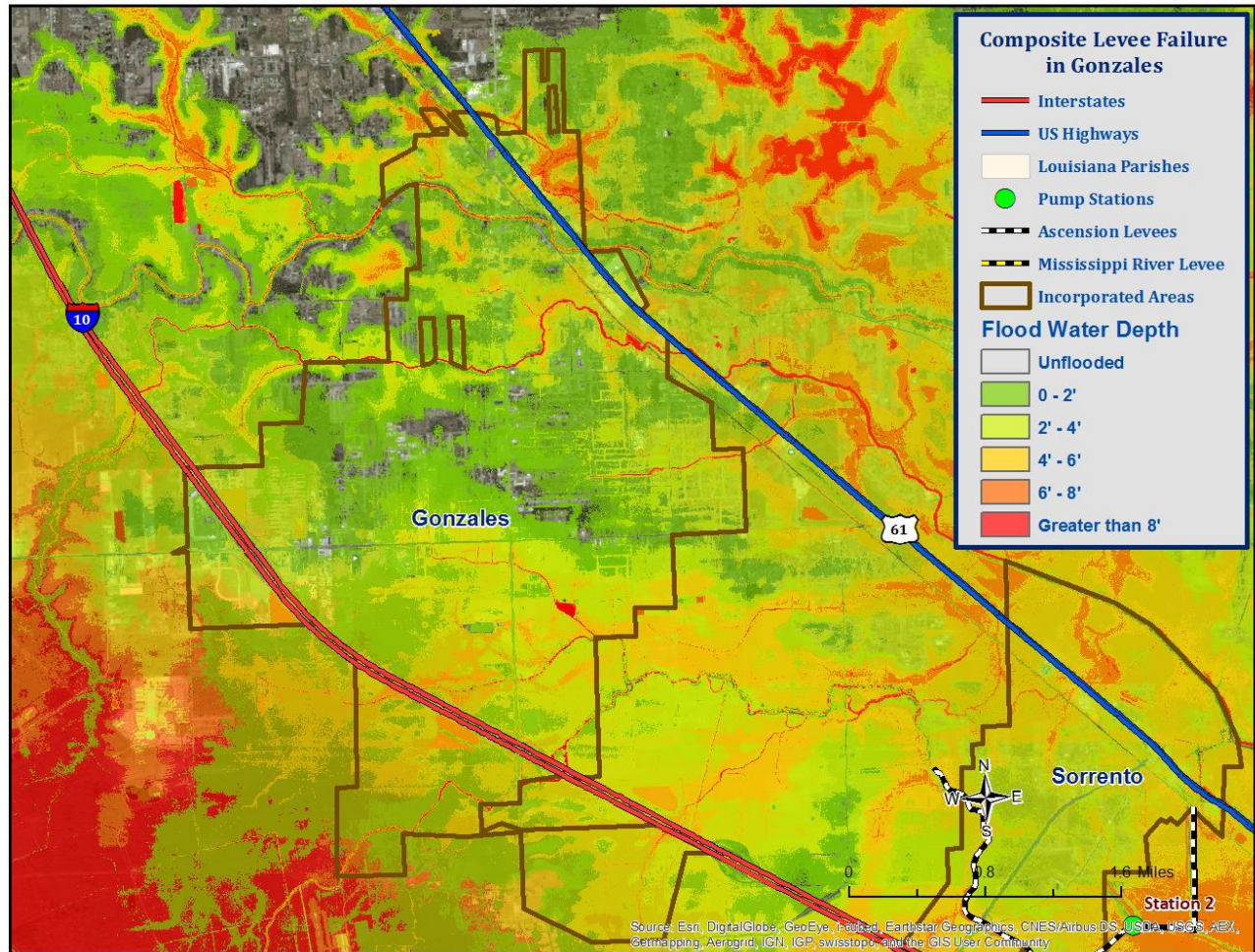


Figure 2-32: Areas in Gonzales susceptible to flooding from a composite levee failure.

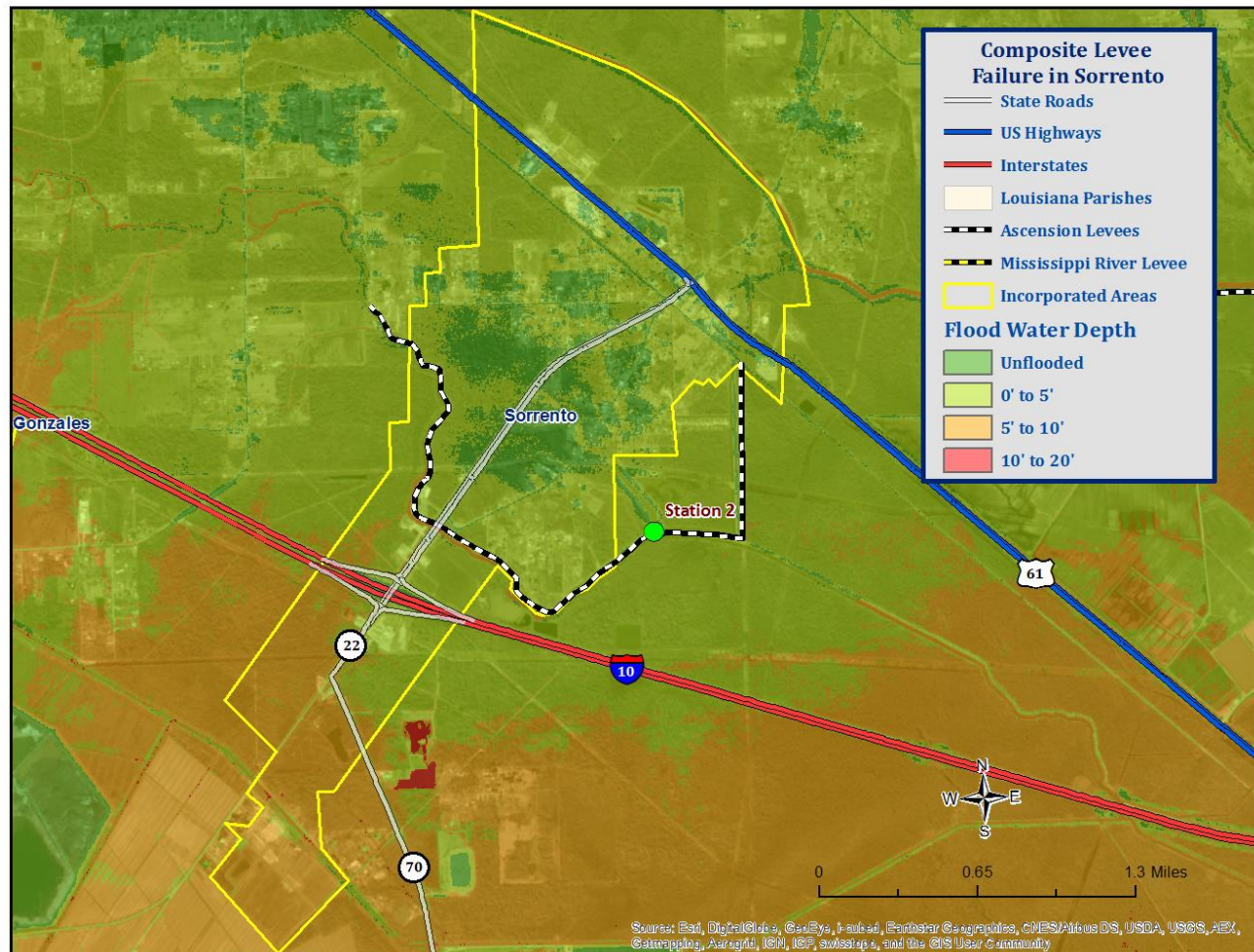


Figure 2-33: Areas at risk from an overtopping of all three parish levees and the Mississippi River levee in Sorrento.

(Source: 2010 Ascension Parish Hazard Mitigation Plan)

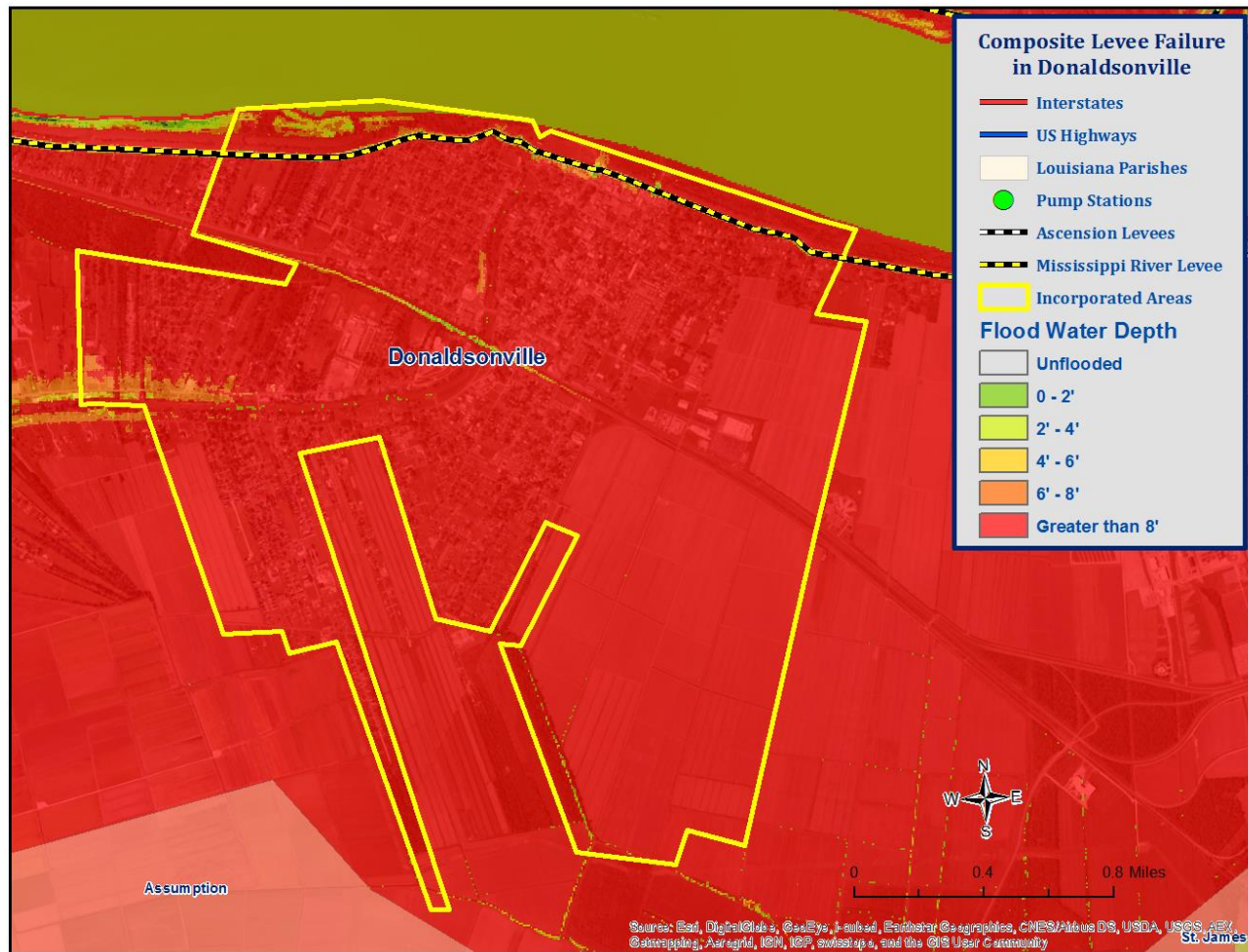


Figure 2-34: Areas at risk from a Mississippi River Levee and parish levee failures in Donaldsonville.
(Source: 2010 Ascension Parish Hazard Mitigation Plan)

Using the Hazus-MH model, the composite levee failure scenario was analyzed to determine losses from this worst-case scenario. Table 2-27 shows the economic losses that would result from this occurrence.

Table 2-27: Total estimated losses from worst-case scenario levee failures.
(Source: HAZUS-MH)

Jurisdiction	Estimated total Losses from Worst-Case Scenario Levee Failure
Ascension Parish (Unincorporated)	\$1,068,608,000
Donaldsonville	\$382,286,410
Gonzales	\$172,299,402
Sorrento	\$41,543,474
Ascension Parish Total	\$1,664,608,000

The Hazus-MD model also provides a breakdown by jurisdiction for seven primary sectors (HAZUS occupancy) throughout the parish. The losses for each jurisdiction by sector are listed in the tables below.

Table 2-28: Total estimated losses for unincorporated Ascension Parish in worst-case scenario levee failures.

(Source: HAZUS-MH)

Ascension Parish (Unincorporated Areas)	Estimated total Losses from Worst-Case Scenario Levee Failure
Agricultural	\$5,544,192
Commercial	\$123,557,562
Government	\$6,124,097
Industrial	\$45,263,970
Religious / Non-Profit	\$9,334,467
Residential	\$873,241,968
Schools	\$5,412,459
Totals	\$1,068,478,714

Table 2-29: Total estimated losses for Donaldsonville in worst-case scenario levee failures.

(Source: HAZUS-MH)

Donaldsonville	Estimated total Losses from Worst-Case Scenario Levee Failure
Agricultural	\$1,170,786
Commercial	\$46,120,688
Government	\$3,922,605
Industrial	\$9,701,967
Religious / Non-Profit	\$9,581,604
Residential	\$299,089,421
Schools	\$12,699,338
Totals	\$382,286,410

Table 2-30: Total estimated losses for Gonzales in worst-case scenario levee failures.

(Source: HAZUS-MH)

Gonzales	Estimated total Losses from Worst-Case Scenario Levee Failure
Agricultural	\$277,966.22
Commercial	\$54,137,157.28
Government	\$3,190,656.31
Industrial	\$4,028,076.56
Religious / Non-Profit	\$2,016,886.99
Residential	\$107,271,970.96
Schools	\$1,376,688.06
Totals	\$172,299,402.38

*Table 2-31: Total estimated losses for Sorrento in worst-case scenario levee failures.
(Source: HAZUS-MH)*

Sorrento	Estimated total Losses from Worst-Case Scenario Levee Failure
Agricultural	\$102,848.71
Commercial	\$7,292,730.87
Government	\$570,951.81
Industrial	\$1,437,052.79
Religious / Non-Profit	\$10,908,911.53
Residential	\$459,241.13
Schools	\$20,771,736.84
Totals	\$41,543,473.68

Threat to People

The total population within the parish that is susceptible to a levee failure hazard are shown in the table below.

*Table 2-32: Number of people in Ascension parish exposed to a worst-case scenario levee failure.
(Source: HAZUS-MH)*

Number of People Exposed to Worst-Case Scenario Levee Failure			
Location	# in Community	# in Hazard Area	% in Hazard Area
Parish (Unincorporated)	95,137	76,956	81%
Gonzales	10,301	9,038	88%
Donaldsonville	7,473	7,473	100%
Sorrento	1,482	1,482	100%
Ascension Parish Total	114,393	94,949	83%

The HAZUS-MH worst-case scenario levee failure was also extrapolated to provide an overview of vulnerable populations throughout the jurisdictions in the tables below:

Table 2-33: Vulnerable populations in a worst-case scenario levee failure in unincorporated Ascension parish.

(Source: HAZUS-MH)

Ascension Parish (Unincorporated)		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	76,956	100%
Persons Under 5 years	5,618	7.3%
Persons Under 18 years	21,471	27.9%
Persons 65 Years and Over	7,619	9.9%
White	57,255	74.4%
Minority	19,701	25.6%

*Table 2-34: Vulnerable populations in a worst-case scenario levee failure in Donaldsonville.
(Source: HAZUS-MH)*

Donaldsonville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	7,473	100%
Persons Under 5 years	501	6.7%
Persons Under 18 years	1,801	24.1%
Persons 65 Years and Over	994	13.3%
White	4,745	63.5%
Minority	2,727	36.5%

*Table 2-35: Vulnerable populations in a worst-case scenario levee failures in Gonzales.
(Source: HAZUS-MH)*

Gonzales		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	9,038	100%
Persons Under 5 years	642	7.1%
Persons Under 18 years	2,278	25.2%
Persons 65 Years and Over	1,103	12.2%
White	4,411	48.8%
Minority	4,627	51.2%

*Table 2-36: Vulnerable populations in a worst-case scenario levee failure in Sorrento.
(Source: HAZUS-MH)*

Sorrento		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,482	100%
Persons Under 5 years	104	7%
Persons Under 18 years	387	26.1%
Persons 65 Years and Over	187	12.6%
White	1,187	80.1%
Minority	286	19.9%

Vulnerability

See Appendix C-1 to C-2 for parish and municipality buildings that are susceptible to levee failures.

Thunderstorms

The term “thunderstorm” is usually used as a catch-all term for several kinds of storms. In this plan “thunderstorm” is defined to include any precipitation event in which thunder is heard or lightning is seen. Thunderstorms are often accompanied by heavy rain and strong winds and, depending on conditions, occasionally hail or snow. Thunderstorms form when humid air masses are heated, which causes them to become convectively unstable and therefore rise. Upon rising, the air masses’ water vapor condenses into liquid water and/or deposits directly into ice when they rise sufficiently to cool to the dew-point temperature.

Thunderstorms are classified into four main types (single-cell, multicell, squall line, and supercell), depending on the degree of atmospheric instability, the change in wind speed with height (called wind shear), and the degree to which the storm’s internal dynamics are coordinated with those of adjacent storms. There is no such interaction for single-cell thunderstorms, but there is significant interaction with clusters of adjacent thunderstorms in multicell thunderstorms and with a linear “chain” of adjacent storms in squall line thunderstorms. Though supercell storms have no significant interactions with other storms, they have very well-organized and self-sustaining internal dynamics, which allows them to be the longest-lived and most severe of all thunderstorms.

The life of a thunderstorm proceeds through three stages: the developing (or cumulus) stage, the mature stage, and the dissipation stage. During the developing stage, the unstable air mass is lifted as an updraft into the atmosphere. This sudden lift rapidly cools the moisture in the air mass, releasing latent heat as condensation and/or deposition occurs, and warming the surrounding environment, thus making it less dense than the surrounding air. This process intensifies the updraft and creates a localized lateral rush of air from all directions into the area beneath the thunderstorm to feed continued updrafts. At the mature stage, the rising air is accompanied by downdrafts caused by the shear of falling rain (if melted completely), or hail, freezing rain, sleet, or snow (if not melted completely). The dissipation stage is characterized by the dominating presence of the downdraft as the hot surface that gave the updrafts their buoyancy is cooled by precipitation. During the dissipation stage, the moisture in the air mass largely empties out.

The Storm Prediction Center, in conjunction with the National Weather Service (NWS), has the ability to issue advisory messages based on forecasts and observations. The following are the advisory messages that may be issued with definitions of each:

- *Severe Thunderstorm Watch:* Issued to alert people to the possibility of a severe thunderstorm developing in the area. Expected time frame for these storms is three to six hours.
- *Severe Thunderstorm Warning:* Issued when severe thunderstorms are imminent. This warning is highly localized and covers parts of one to several counties (parishes).

A variety of hazards might be produced by thunderstorms, including lightning, hail, tornadoes or waterspouts, flash floods, and high-speed winds called downbursts. Nevertheless, given all of these criteria,

the National Oceanic and Atmospheric Administration (NOAA) characterizes a thunderstorm as severe when it produces one or more of the following:

- Hail of one inch in diameter or larger
- Wind gusts to 58 mph or greater
- One or more tornadoes.

Tornadoes and flooding hazards have been profiled within this report; therefore, for the purpose of thunderstorms, the sub hazards of hail, high winds, and lightning will be profiled.

Thunderstorms occur throughout Louisiana at all times of the year, although the types and severity of those storms vary greatly, depending on a wide variety of atmospheric conditions. Thunderstorms generally occur more frequently during the late spring and early summer when extreme variations exist between ground surface temperatures and upper atmospheric temperatures.

Hazard Description

Hailstorms

Hailstorms are severe thunderstorms in which balls or chunks of ice fall along with rain. Hail develops in the upper atmosphere initially as ice crystals that are bounced about by high-velocity updraft winds. The ice crystals grow through deposition of water vapor onto their surface, fall partially to a level in the cloud where the temperature exceeds the freezing point, melt partially, get caught in another updraft whereupon re-freezing and deposition grows another concentric layer of ice, and fall after developing enough weight, sometimes after several trips up and down the cloud. The size of hailstones varies depending on the severity and size of the thunderstorm. Higher surface temperatures generally mean stronger updrafts, which allow more massive hailstones to be supported by updrafts, leaving them suspended longer. This longer time means larger hailstone sizes. Table 2-37 displays a spectrum of hailstone diameters and their everyday equivalents.

Table 2-37: Spectrum of hailstone diameters and their everyday description.

(Source: National Weather Service)

Spectrum of Hailstone Diameters	
Hail Diameter Size	Description
1/4"	Pea
1/2"	Plain M&M
3/4"	Penny
7/8"	Nickle
1" (severe)	Quarter
1 1/4"	Half Dollar
1 1/2"	Ping Pong Ball / Walnut
1 3/4"	Golf Ball
2"	Hen Egg / Lime
2 1/2"	Tennis Ball
2 3/4"	Baseball
3"	Teacup / Large Apple
4"	Softball
4 1/2"	Grapefruit
4 3/4" – 5"	Computer CD-DVD

Hailstorms can cause widespread damage to homes and other structures, automobiles, and crops. While the damage to individual structures or vehicles is often minor, the cumulative cost to communities, especially across large metropolitan areas, can be quite significant. Hailstorms can also be devastating to crops. Thus, the severity of hailstorms depends on the size of the hailstones, the length of time the storm lasts, and where it occurs.

Hail rarely causes loss of life, although large hailstones can cause bodily injury.

High Winds

In general, high winds can occur in a number of different ways, within and without thunderstorms. The Federal Emergency Management Agency (FEMA) distinguishes these as shown in Table 2-38.

Table 2-38: High winds categorized by source, frequency, and duration.

(Source: Making Critical Facilities Safe from High Wind, FEMA)

High Winds Categories			
High Wind Type	Description	Relative Frequency in Louisiana	Relative Maximum Duration in Louisiana
Straight-line Winds	Wind blowing in straight line; usually associated with intense low-pressure area	High	Few-minutes – 1 day
Downslope Winds	Wind blowing down the slope of a mountain; associated with temperature and pressure gradients	N/A	N/A
Thunderstorm Winds	Wind blowing due to thunderstorms, and thus associated with temperature and pressure gradients	High (especially in the spring and summer)	~Few minutes – several hours
Downbursts	Sudden wind blowing downward due to downdraft in a thunderstorm; spreads out horizontally at the ground, possibly forming horizontal vortex rings around the downdraft	Medium-to-High(~5% of all thunderstorms)	~15 – 20 minutes
Northeaster (nor'easter) Winds	Wind blowing due to cyclonic storm off the east coast of North America; associated with temperature and pressure gradients between the Atlantic and land	N/A	N/A
Hurricane Winds	Wind blowing in spirals, converging with increasing speed toward eye; associated with temperature and pressure gradients between the Atlantic, Gulf, and land	Low-to-Medium	Several days
Tornado Winds	Violently rotating column of air from base of a thunderstorm to the ground with rapidly decreasing winds at greater distances from center; associated with extreme temperature gradient	Low-to-Medium	Few minutes – few hours

The only high winds of present concern are thunderstorm winds and downbursts. Straight-line winds are common but are a relatively insignificant hazard (on land) compared to other high winds. Downslope winds are common but relatively insignificant in the mountainous areas of Louisiana where they occur. Nor'easters are cyclonic events that have at most a peripheral effect on Louisiana, and none associated with high winds. Winds associated with hurricanes and tornadoes will be considered in their respective sections.

Table 2-39 presents the Beaufort Wind Scale, first developed in 1805 by Sir Francis Beaufort, which aids in determining relative force and wind speed based on the appearance of wind effects.

Table 2-39: Beaufort Wind Scale.

(Source: NOAA's SPC)

Beaufort Wind Scale			
Force	Wind (MPH)	WMO Classification	Appearance of Wind Effects on Land
			Calm, smoke rises vertically
1	1-3	Light Air	Smoke drift indicates wind direction, still wind vanes
2	4-7	Light Breeze	Wind felt on face, leaves rustle, vanes begin to move
3	8-12	Gentle Breeze	Leaves and small twigs constantly moving, light flags extended
4	13-17	Moderate Breeze	Dust, leaves, and loose paper lifted, small tree branches move
5	18-24	Fresh Breeze	Small trees and leaves begin to sway
6	25-30	Strong Breeze	Larger tree branches moving, whistling in wires
7	31-38	Near Gale	Whole trees moving, resistance felt walking against wind
8	39-46	Gale	Twigs breaking off trees, generally impedes progress
9	47-54	Strong Gale	Slight structural damage occurs, slate blows off roofs
10	55-63	Storm	Seldom experienced on land, trees broken or uprooted, "considerable structural damage"
11	54-73	Violent Storm	
12	74+	Hurricane	

Major damage directly caused by thunderstorm winds is relatively rare, while minor damage is common and pervasive, and most noticeable when it contributes to power outages. These power outages can have major negative impacts such as increased tendency for traffic accidents, loss of revenue for businesses, increased vulnerability to fire, food spoilage, and other losses that might be sustained by a loss of power.

Power outages may pose a health risk for those requiring electric medical equipment and/or air conditioning.

Lightning

Lightning is a natural electrical discharge in the atmosphere that is a by-product of thunderstorms. Every thunderstorm produces lightning. There are three primary types of lightning: intra-cloud, cloud-to-ground, and cloud-to-cloud. Cloud-to-ground lightning has the potential to cause the most damage to property and crops, while also posing as a health risk to the populace in the area of the strike.

Damage caused by lightning is usually to homes or businesses. These strikes have the ability to damage electrical equipment inside the home or business and can also ignite a fire that could destroy homes or crops.

Lightning continues to be one of the top three storm-related killers in the United States per FEMA, but it also has the ability to cause negative long-term health effects to the individual that is struck.

NOAA has developed a Lightning Activity Level (LAL) to measure the number of lightning strikes per fifteen minutes. Table 2-40 provides an overview of the LAL.

Table 2-40: NOAA's Lightning Activity Level

Lightning Activity Level (LAL)		
LAL	Cloud and Storm Development	Lightning Strikes / 15 minutes
1	No thunderstorms.	-
2	Cumulus clouds are common but only a few reach the towering cumulus stage. A single thunderstorm must be confirmed in the observation area. The clouds produce mainly virga, but light rain will occasionally reach the ground. Lightning is very infrequent.	1-8
3	Towering cumulus covers less than two-tenths of the sky. Thunderstorms are few, but two to three must occur within the observation area. Light to moderate rain will reach the ground, and lightning is infrequent.	9-15
4	Towering cumulus covers two to three-tenths of the sky. Thunderstorms are scattered and more than three must occur within the observation area. Moderate rain is common and lightning is frequent.	16-25
5	Towering cumulus and thunderstorms are numerous. They cover more than three-tenths and occasionally obscure the sky. Rain is moderate to heavy and lightning is frequent and intense.	>25
6	Similar to LAL 3 except thunderstorms are dry.	

Hazard Profile

Hailstorms

Location

Because hailstorms are a climatological based hazard and have the same probability of occurring in Ascension parish as all of the adjacent parishes, the entire planning area for Ascension Parish is equally at risk for hailstorms.

Previous Occurrences / Extents

The SHELDUS database reports a total of two significant hailstorms occurring within the boundaries of Ascension Parish between the years of 1988-2013. The hailstorm diameters experienced in the Ascension Parish planning area have ranged from .75 inches to three inches according to the National Climatic Data Center. Figure 2-35 displays the density of hailstorms in the Ascension parish planning area. Hail events that have occurred since the plan was last updated are provided in the Table 2-41. Thunderstorms that produce hail are a relatively common occurrence in the planning area and

routinely go undocumented or do not cause significant damages. The recorded observations in the last five years did not result in significant damage. There were no recorded observations in Sorrento or Donaldsonville over the last five years. It is expected that Ascension Parish will continue to experience hail storms with the most prevalent size of hail over the last 25 years experienced being 1.75". However, as a worst case Ascension Parish can potentially experience hail up to 3" diameter which occurred in 1962.

Table 2-41: Previous Occurrences of Hail in Ascension Parish from 2010 - 2014.

Date	Recorded Hail Size	Location
February 25, 2013	1.75"	Prairieville (Unincorporated Ascension Parish)
March 31, 2013	1"	Gonzales
February 24, 2014	2"	Gonzales
February 24, 2014	1.25"	Prairieville (Unincorporated Ascension Parish)



Ascension Parish Hail Density

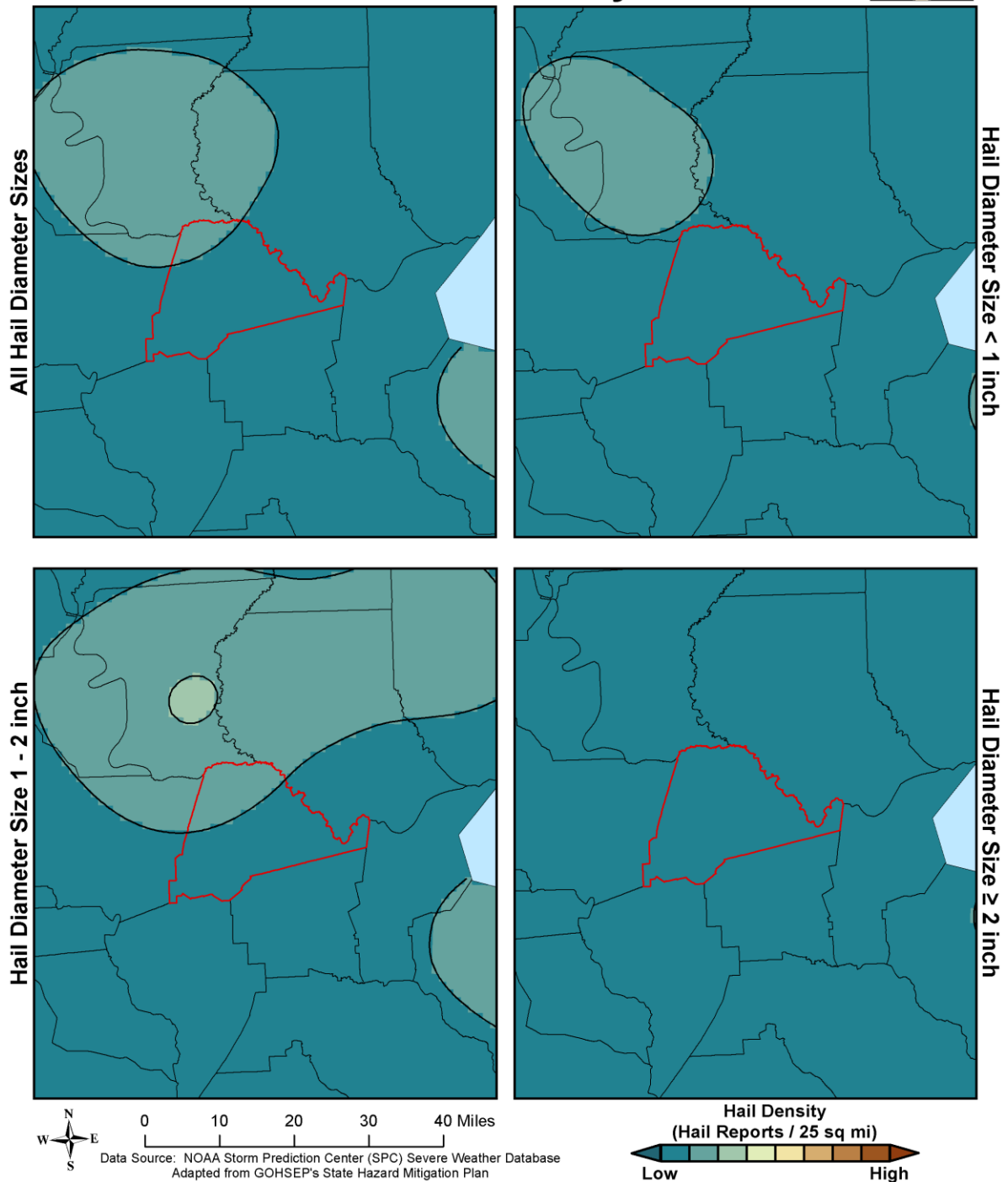
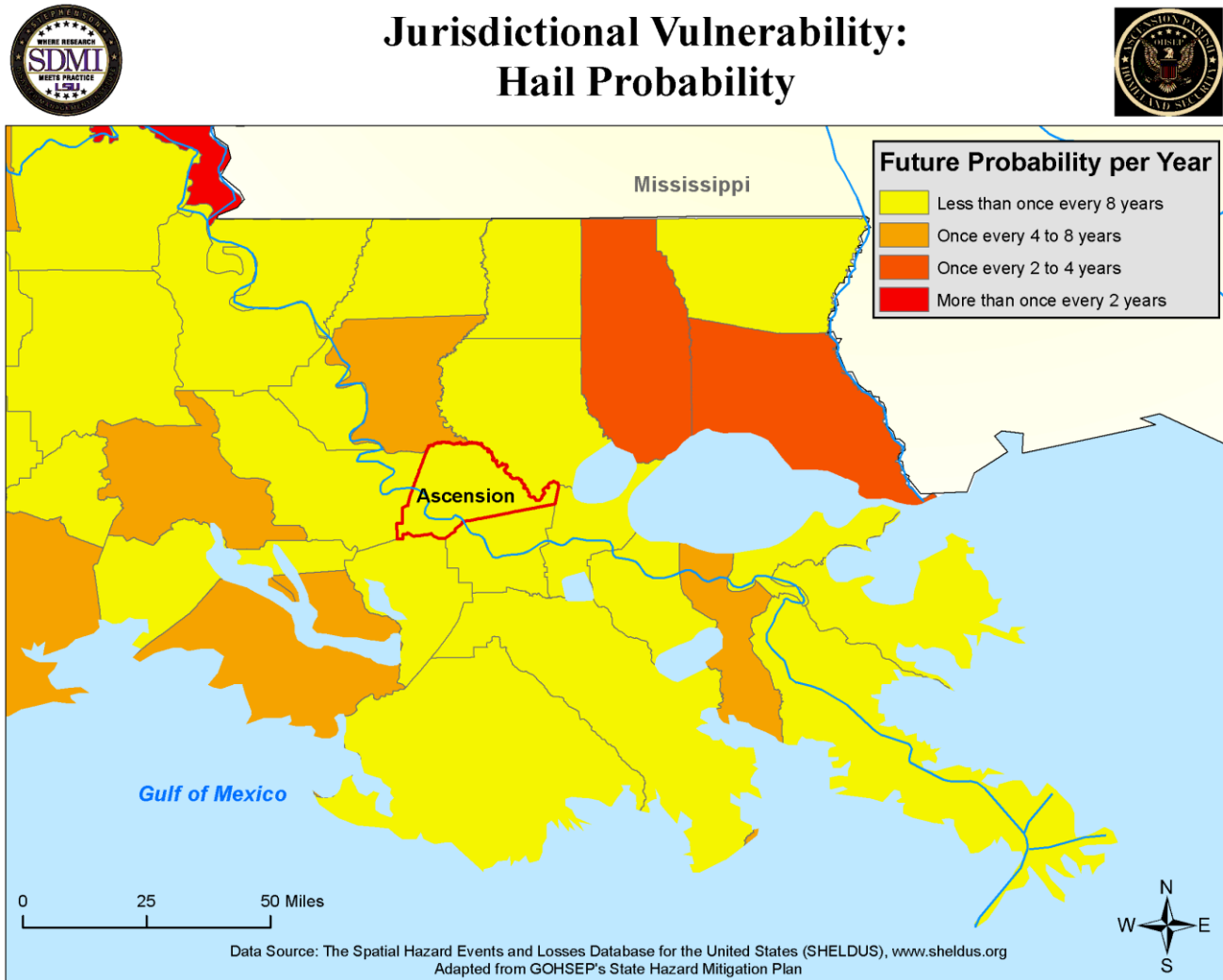


Figure 2-35: Density of hailstorms by diameter from 1950-2014.
(Source: State of Louisiana Hazard Mitigation Plan)

Frequency

The State of Louisiana Hazard Mitigation plan assessed the probability of hailstorms as low with a return frequency of eight or more years, the lowest probability that was assessed in the State plan for the hailstorm hazard. The probability was determined based on a review of significant hail data that has caused damages in the last twenty-five years, in which Ascension parish has had two recorded events (Figure 2-36). The probability of a hailstorm producing significant or substantial damage is 12.5% annually.



*Figure 2-36: Probability of significant hailstorm events in Ascension Parish from 1987-2012.
(Source: State of Louisiana Hazard Mitigation Plan 2014)*

Estimated Potential Losses

According to the SHELDUS database, property damage due to significant hailstorms in Ascension Parish have totaled approximately \$303,500 since 1960. A list of total damages by event can be

found in Table 2-42. To estimate the potential losses of a severe weather event on an annual basis, the total damages recorded for hailstorms was divided by the total number of years of available hailstorm data in SHELDUS (1960 – 2014). This provides an annual estimated potential loss of \$5,620. To assess potential losses to the participating jurisdictions, the 2010 Census population was used to assign the estimated potential losses proportionally across the jurisdictions. Based on the 2010 Census data, the following table provides an estimate of potential property losses for Ascension Parish:

*Table 2-42: Property damage caused by hailstorms in Ascension Parish.
(Source: SHELDUS)*

Date	Property Damage
April 1962	\$3,013
July 1963	\$1,982
April 1964	\$202,545
June 1967	\$1,816
July 1967	\$1,362
July 1968	\$17
March 1971	\$11,234
March 1972	\$3,496
November 1972	\$1,088
May 1974	\$315
May 1975	\$11,276
June 1981	\$80
May 1985	\$1,546
May 1991	\$427
March 2003	\$63,303

Table 2-43: Estimated annual property losses in Ascension Parish from hailstorms.

Hailstorm Estimated Annual Potential Losses for Ascension Parish			
Unincorporated Ascension Parish (83% of Population)	Donaldsonville (7% of Population)	Gonzales (9% of Population)	Sorrento (1% of Population)
\$4,639	\$389	\$512	\$77

The Parish has suffered no deaths or injuries due to hailstorms from 1950 – 2013.

Vulnerability

See Appendix C-1 to C-2 for parish and municipality buildings that are susceptible to damages from significant hailstorms.

High Winds

Location

Because high winds are a climatological based hazard and have the same probability of occurring in Ascension parish as all of the adjacent parishes, the entire planning area for Ascension Parish is equally at risk for high winds.

Previous Occurrences / Extents

The SHELDUS database reports a total of 63 high wind events occurring within the boundaries of Ascension Parish between the years of 1960-2014. The 63 previous occurrences contained significant wind speeds throughout the Ascension Parish planning area, ranging from a wind speed of 51 mph to 70 mph. The most frequently observed wind speed has been 57 mph (11 recordings), 69 mph (9 recordings), and 52 mph (4 recordings). It is expected that Ascension Parish will continue to experience wind speeds at the 70 mph level and below.

For purposes of determining whether or not a wind event is significant, a baseline of 39 mph was established which equates to Gale force winds according to the Beaufort Wind Scale. Since the previous update there have been many occasions in the last five years in which sustained wind speeds reached at least 39 mph in Ascension parish. One of the most notable events occurred on August 29, 2012 when sustained high winds of 39 mph from Hurricane Isaac affected the parish. The National Weather Service official Post Isaac report stated that 250 homes in Ascension received some damage due to sustained high winds.

In the last five years, the National Center for Climatological Data has sixteen events that impacted the Ascension Parish planning area. Winds experienced throughout the Ascension parish planning area caused property and crop damages. The table below provides a full list of all recorded significant wind events in the last five years. There were no significant wind events observed in Donaldsonville over the last five years.

For purposes of assessing a risk to high winds, this plan uses Gale force winds as a baseline; however, even winds that do not reach the level of Gale force winds can still cause havoc and disruptions. A prime example of this is when the Hot Air Balloon Championships that are held annually in Ascension Parish had to be cancelled due to high winds on September 27 – 28, 2014. These winds were less than Gale force winds and are thus not considered significant.

Table 2-44: Recorded High Wind Events

Location	Date	Recorded Wind Speeds	Property Damage	Crop Damage
Prairieville	1/5/2011	60 mph	\$1,000	\$517
Sorrento	3/5/2011	69 mph	\$5,000	\$4,142
Gonzales		60 mph	\$0	
Gonzales		69 mph	\$2,000	
Galvez		69 mph	\$1,000	
Duplessis	4/4/2011	69 mph	\$25,000	\$28,480
Weber City		69 mph	\$10,000	
Duckroost		63 mph	\$5,000	
Gonzales Airport		63 mph	\$10,000	
Oak Grove	6/4/2011	69 mph	\$2,000	\$6,000
Gonzales	6/8/2011	69 mph	\$10,000	
Smoke Bend	5/31/2012	69 mph	\$20,000	\$10,146
Brittany	12/20/2012	64 mph	\$10,000	\$5,073
St. Amant	5/10/2013	60 mph	\$1,000	\$500
Gonzales Airport	10/13/2014	69 mph	\$0	\$0

Frequency

High winds are a fairly common occurrence within Ascension Parish; however, only one or two wind events annually will cause significant damage. According to the State Hazard Mitigation Plan, Ascension parish has a future probability of experiencing one to two wind events annually, as seen in Figure 2-37 for an annual probability of occurrence of 100%.



Jurisdictional Vulnerability: High Wind Probability

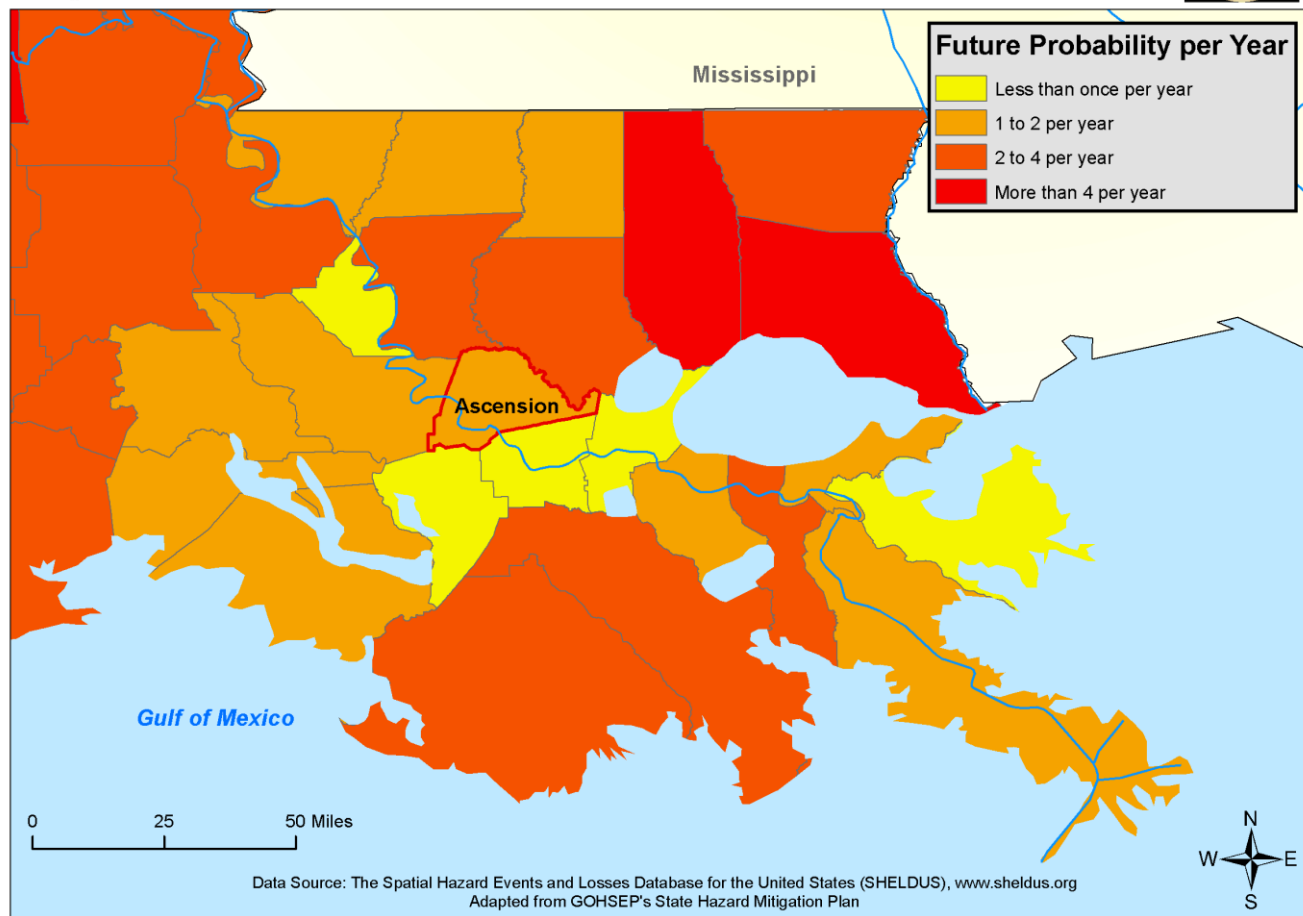


Figure 2-37: Probability of high wind events in Ascension and adjacent parishes.
(Source: State of Louisiana 2014 Hazard Mitigation Plan)

Estimated Potential Losses

Since 1960, there have been 63 significant wind events that have resulted in property damages according to the SHELDUS database. The total property damages associated with those storms have totaled \$490,830. To estimate the potential losses of a wind event on an annual basis, the total damages recorded for wind events was divided by the total number of years of available wind data in SHELDUS (1960 – 2014). This provides an annual estimated potential loss of \$9,089. To assess potential losses to the participating jurisdictions, the 2010 Census population was used to assign the estimated potential losses proportionally across the jurisdictions. Based on the 2010 Census data, the following table provides an estimate of potential property losses for Ascension Parish:

Table 2-45: Estimated annual property losses in Ascension parish resulting from wind damage.

Wind Estimated Annual Potential Losses for Ascension Parish			
Unincorporated Ascension Parish (83% of Population)	Donaldsonville (7% of Population)	Gonzales (9% of Population)	Sorrento (1% of Population)
\$7,503	\$630	\$829	\$125

Vulnerability

See Appendix C-1 to C-2 for parish and municipality buildings that are susceptible to damages from significant high wind events.

There have not been any reported injuries or deaths as a result of a wind event over the 54 year record.

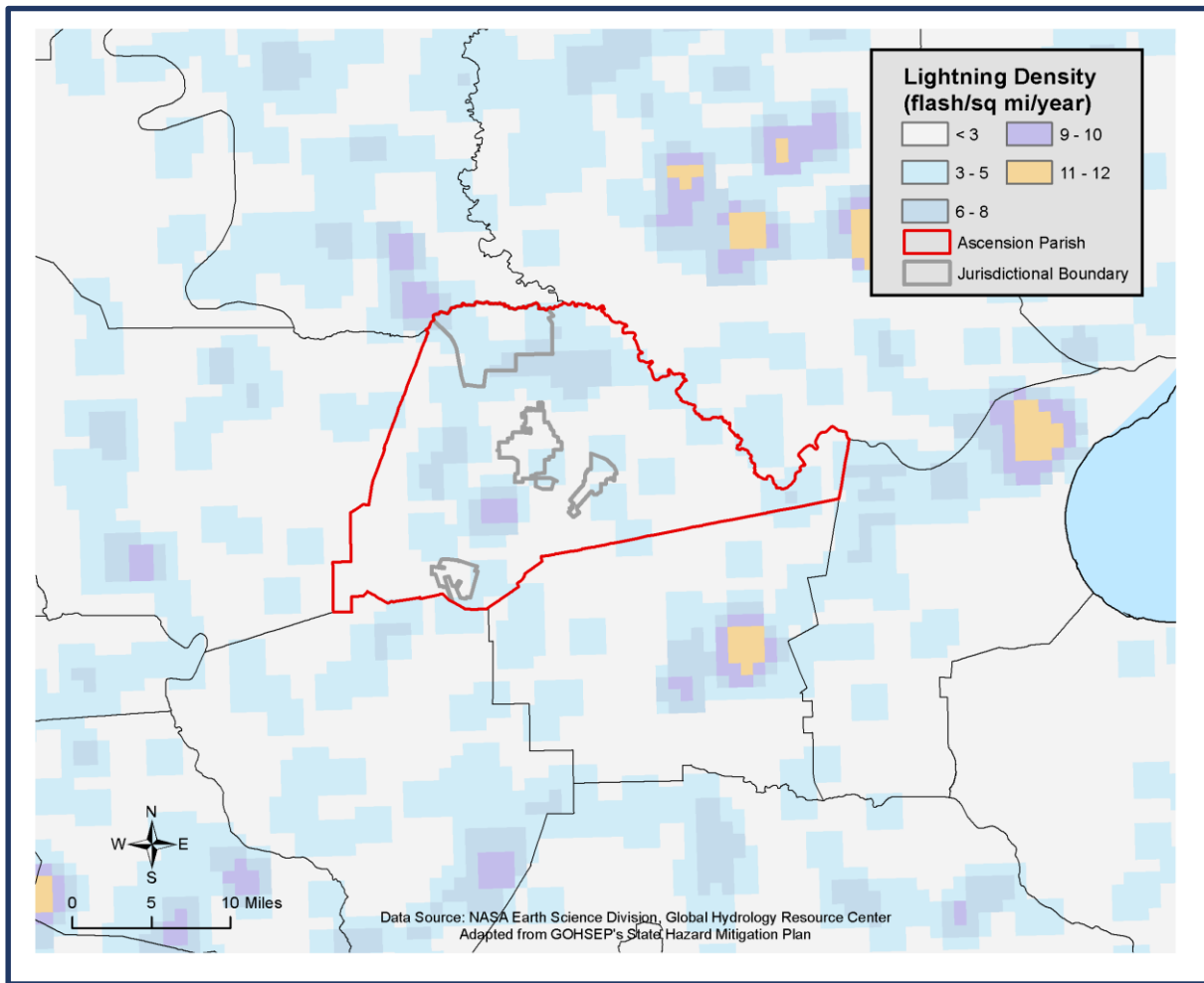
Lightning

Location

Like hail and high winds, lightning is a climatological based hazard and has the same probability of occurring throughout the entire planning area for Ascension Parish, making all jurisdictions equally at risk for lightning.

Previous Occurrences / Extent

An extensive search of lightning strikes to have any significant impact to property or people in the Ascension Parish planning area over the last five years returned one incident. On August 25, 2011, a lightning strike made contact with an apartment building in Gonzales that displaced four families because of a ruptured water line caused by the strike. No significant lightning events were found for the unincorporated areas of Ascension Parish, Donaldsonville or Sorrento.



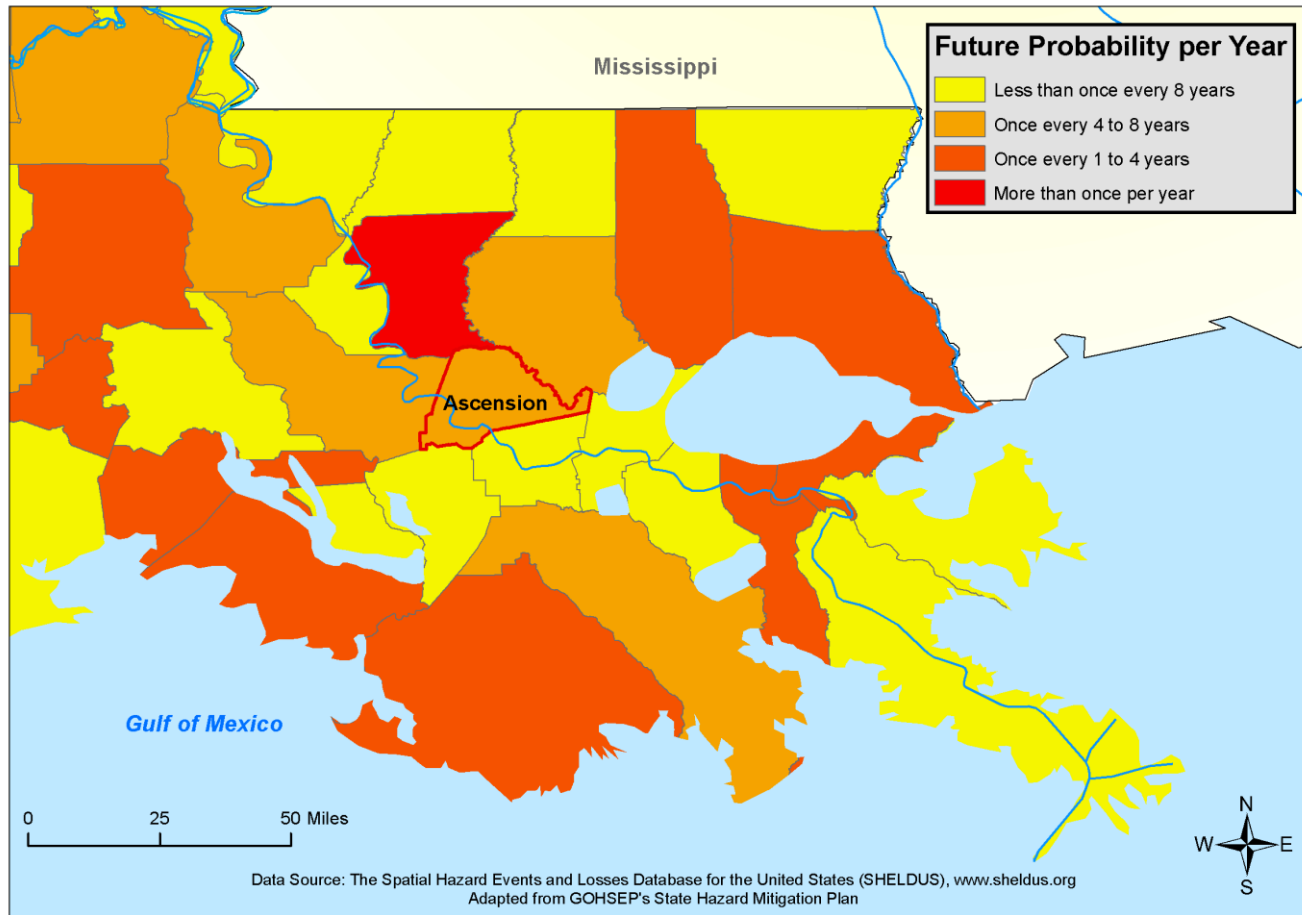
*Figure 2-38: Lightning Density for Ascension Parish
(Source: State of Louisiana Hazard Mitigation Plan)*

Frequency

Lightning can strike anywhere and is produced by every thunderstorm, so the chance of lightning occurring in Ascension Parish is high. However, lightning that meets the definition that is used by SHELDUS and the NCDC that actually results in damages to property and injury or death to people is a less likely event. According to the State Hazard Mitigation Plan, a major lightning strike in Ascension parish is likely to occur every four to eight years as depicted in Figure 2-39. Since 1989 there have been four significant lightning strikes that have impacted Ascension parish. The annual probability of a lightning strike is 16%.



Jurisdictional Vulnerability: Lightning Probability



*Figure 2-39: Probability of lightning events in Ascension and adjacent parishes.
(Source: State of Louisiana Hazard Mitigation Plan)*

Estimated Potential Losses

Since 1989, there have been four significant lightning events that have resulted in property damages according to the SHELDUS database. The total property damages associated with those events have totaled \$16,111. To estimate the potential losses of a lightning event on an annual basis, the total damages recorded for lightning events was divided by the total number of years of available major lightning strike data in SHELDUS (1989 – 2014). This provides an annual estimated potential loss of \$644. To assess potential losses to the participating jurisdictions, the 2010 Census population was used to assign the estimated potential losses proportionally across the jurisdictions. Based on the 2010 Census data, the following table provides an estimate of potential property losses for Ascension Parish:

Table 2-46: Estimated annual property losses in Ascension Parish from lightning.

Lightning Estimated Annual Potential Losses for Ascension Parish			
Unincorporated Ascension Parish (53% of Population)	Donaldsonville (7% of Population)	Gonzales (9% of Population)	Sorrento (1% of Population)
\$534	\$45	\$58	\$6

There has been one reported injury as a result of a lightning strike over the 25 year record. There have been no deaths for Ascension Parish relating to lightning events within recent history.

Vulnerability

See Appendix C-1 to C-2 for parish and municipality building exposure to lightning hazards.

Tornadoes

Tornadoes (also called twisters and cyclones) are rapidly rotating funnels of wind extending between storm clouds and the ground. Because of their size tornadoes are considered the most severe storms—70% of the world’s reported tornadoes occur within the continental United States, making them one of the most significant hazards Americans face. Tornadoes and waterspouts form during severe weather events, such as thunderstorms and hurricanes, when cold air overrides a layer of warm air and causes the warm air to rise rapidly, which usually occurs in a counterclockwise direction in the northern hemisphere. The updraft of air in tornadoes always rotates because of wind shear (differing speeds of moving air at various heights) and rotation can be in either a clockwise or counterclockwise direction; clockwise rotations (in the northern hemisphere) will sustain the system, at least until other forces cause it to die seconds to minutes later.

Since February 1, 2007, the Enhanced Fujita (EF) Scale has been used to classify tornado intensity. The EF Scale classifies tornadoes based on their damage pattern rather than wind speed; wind speed is then derived and estimated. This contrasts with the Saffir-Simpson scale used for hurricane classification, which is based on measured wind speed. Table 2-47 shows the EF scale in comparison with the old Fujita (F) Scale, which was used prior to February 1, 2007. When discussing past tornadoes, the scale used at the time of the hazard is used. Adjustment between scales can be made using Table 2-47.

Table 2-47: Comparison of the Enhanced Fujita (EF) Scale to the Fujita (F) Scale.

Wind speed (mph)	Enhanced Fujita Scale					
	EF0	EF1	EF2	EF3	EF4	EF5
	65-85	86-110	111-135	136-165	166-200	>200
	Fujita Scale					
	F0	F1	F2	F3	F4	F5
	<73	73-112	113-157	158-206	207-260	>261

The National Weather Service (NWS) has the ability to issue advisory messages based on forecasts and observations. The following are the advisory messages that may be issued with definitions of each:

- Tornado Watch:** Issued to alert people to the possibility of a tornado developing in the area. A tornado has not been spotted but the conditions are favorable for tornadoes to occur.
- Tornado Warning:** Issued when a tornado has been spotted or when Doppler radar identifies a distinctive “hook-shaped” area within a thunderstorm line.

Structures within the direct path of a tornado vortex are often reduced to rubble. Structures adjacent to the tornado’s path are often severely damaged by high winds flowing into the tornado vortex, known as inflow winds. It is here, adjacent to the tornado’s path, that the building type and construction techniques are critical to the structure’s survival. Although tornadoes strike at random and make all buildings vulnerable, mobile homes, homes on crawlspaces, and buildings with large spans are more likely to suffer damage.

The major health hazard from tornadoes is physical injury from flying debris or being in a collapsed building or mobile home. Within a building, flying debris or missiles are generally stopped by interior walls. However, if a building has no partitions, any glass, brick, or other debris blown into the interior is life threatening. Following a tornado, damaged buildings are a potential health hazard due to instability, electrical system damage, and gas leaks. Sewage and water lines may also be damaged.

Peak tornado activity in Louisiana occurs during the spring, as it does in the rest of the United States. Nearly one-third of observed tornadoes in the United States occur during April. About half of those in Louisiana, including many of the strongest, occur between March and June. Fall and winter tornadoes are less frequent, but the distribution of tornadoes throughout the year is more uniform in Louisiana than in locations farther north.

Location

While there is a significant tornado record in Ascension parish with actual locations, tornadoes in general are a climatological-based hazard and have the same approximate probability of occurring in Ascension parish as all adjacent parishes, with the only exception being East Baton Rouge and particularly the city of Baton Rouge. However, this is a little misleading as there is a trend for increased tornadoes to be reported where there are large population centers.

As part of the Risk Assessment, tornadoes were assessed as a risk that places the entire parish equally as equally vulnerable. For example, Sorrento has never experienced an actual tornado strike; however, there have been several tornadoes touchdown near the city limits. Based on an interpolated spatial density of tornado touchdowns, unincorporated Ascension Parish, Gonzales, Sorrento, and Donaldsonville all experience a similar number of tornadoes, although Prairieville may have a slightly higher density driven primarily to its proximity to East Baton Rouge, which has historically experienced more tornadoes. While Sorrento itself has not experienced a tornado touchdown in recent history, the risk of Sorrento experiencing a tornado in the future is approximately equal to the risk of a tornado touchdown in other areas of the parish based on spatial interpolation of historic data. Because a tornado has a similar probability of striking anywhere within the planning area for Ascension parish, all jurisdictions are equally at risk for tornadoes.

Previous Occurrences / Extent

Ascension Parish has not experienced any federally declared disasters due to a tornado alone. The National Climatic Data Center reports a total of eleven tornadoes or waterspouts occurring within the boundaries of Ascension Parish between the years of 1960-2014 (Table 2-40). The tornadoes experienced in the Ascension Parish planning area have been EF1s on the EF scale and ranged from F0 to F3 on the F scale. There have been no reported tornadoes in Donaldsonville, Sorrento and Gonzales in the past five years.

The tornado that caused the most damage to property and resulted in the most injuries was an F2 that occurred on January 25, 1976. On April 12, 1969, a F3 tornado destroyed Galvez High School and more recently an EF1 on March 21, 2012 destroyed one house and damaged another in the Silverstone subdivision in Prairieville. On December 10, 2012, an EF1 tornado caused damage in two areas of Ascension Parish. The first area was along Black Bayou Road near U.S. Highway 61 and the second was the 7th District Fire Station on Louisiana Highway 44. Based on previous occurrences, Ascension Parish is most likely to experience a

tornado of the EF1 magnitude; however, as a worst-case scenario, Ascension Parish should prepare for a tornado of the EF3 magnitude.

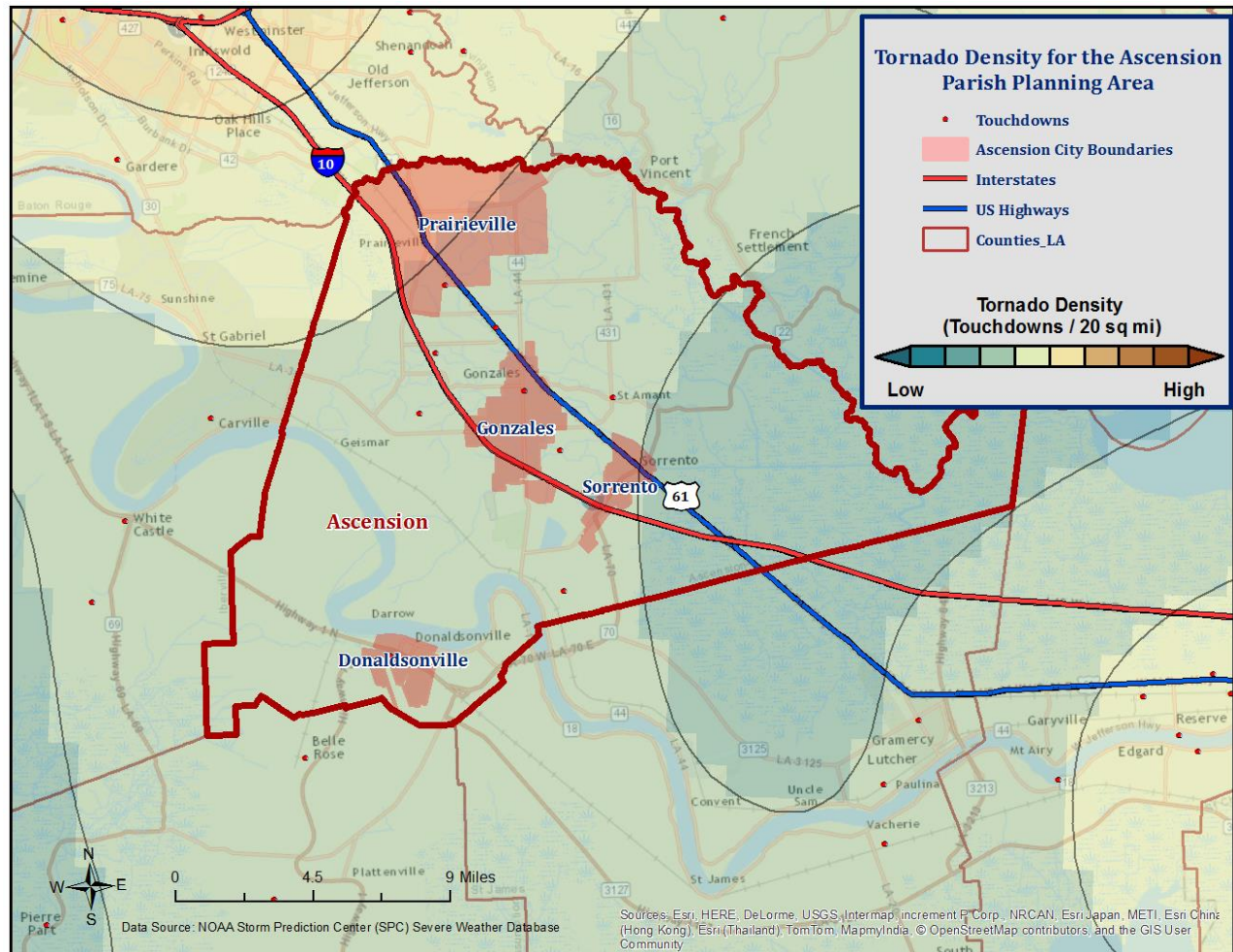


Figure 2-40: Tornado Density for Ascension Parish.

Table 2-48: Historical tornadoes in Ascension Parish with locations from 1960-2013.

Date	Impacts	Property Damage	Location	Magnitude
January 22, 1965	1 mile path with a width of 267 yards	\$373,470	Unincorporated Area	F2
April 12, 1969	10.7 mile path with a width of 100 yards	\$317,380	Unincorporated Area	F3
March 1971	Unknown – No Information Available	\$11,234	Unknown	Unknown
January 25, 1976	1.1 mile path with a width of 33 yards / 7 people were injured. The gym at the Junior High School in Donaldsonville was	\$2,047,073	Unincorporated Area	F2

	destroyed. 16 homes and 10 trailers were damaged or destroyed.			
September 5, 1977	1 of 6 tornadoes in Louisiana that were recorded as a result of Hurricane Babe.	\$600,652	Unincorporated	F1
November 19, 1983	.5 mile path with a width of 100 yards. Damaged two mobile homes and injured 7 people.	\$11,694	Unincorporated Area	F1
May 28, 2000	.1 mile path with a width of 20 yards	\$338	Gonzales	F0
April 7, 2003	1 mile path with a width of 40 yards. Damaged homes and blew down several trees.	\$63,303	Donaldsonville	F1
March 26, 2009	1.75 mile path with a width of 50 yards. 10 structures received severe damage and 20 structures moderate damage in St. Amant	\$130,303	Weber City	EF1
March 21, 2012	4.22 mile path with a width of 50 yards. Several homes received significant roof damage and many trees uprooted.	\$202,929	Prairieville	EF1
December 10, 2012	1.39 mile path with a width of 30 yards. Damaged several homes and buildings.	\$202,929	Duplessis	EF1

Since the last plan update, Ascension parish has had three tornadoes touch down. The following is a brief synopsis of those three events:

March 26, 2009 – EF1 Tornado in Weber City

Several episodes of widespread severe weather and heavy rainfall occurred from March 26th through the 28th, as a series of strong upper air disturbances impacted the central gulf region when a meandering and nearly stationary frontal boundary drifted back and forth across the area. Property damage experienced as a result of the tornado totaled \$130,303.

March 21, 2012 – EF1 in Prairieville

A slow moving cold front provided a focus for several waves of thunderstorms and heavy rain over a three-day period. Several reports of tornadoes and flash flooding were received during the period. A NWS storm survey team confirmed a tornado touched down and tracked through portions of Prairieville. The tornado initially touched down along Duplessis Road and tracked approximately three miles before lifting after crossing near the intersection of Highways 42 and 930. Several homes received significant roof damage and many trees were uprooted or snapped. The path width was

approximately fifty yards with an estimated wind speed of 110 mph. Property damage experienced as a result of the tornado totaled \$202,929.

December 10, 2012 – EF1 in Duplessis

A cold front moving through southeast Louisiana produced several reports of severe weather, including at least two tornadoes. A tornado touched down near the intersection of Airline Highway and Black Bayou Road. It ripped a metal roof off a boat dealership and shattered the windshields of ten cars at a car dealership. An eyewitness also saw a small pickup truck lifted into the air about twenty feet, landing on its wheels. The tornado tracked to the east along Black Bayou Road, causing sporadic tree damage and minor roof damage to a few residences. Before the tornado crossed Highway 44, it impacted a fire station, blowing in two large overhead doors, and blowing out three large overhead doors on the opposite side of the building. A nearby metal frame building was heavily damaged. The tornado continued to the east and lifted before reaching Ott Road. The maximum wind was estimated at 90 mph. Property damage experienced as a result of the tornado totaled \$202,929.

Frequency / Probability

Tornadoes are a sporadic occurrence within Ascension Parish with an annual chance of occurrence calculated at approximately 20%. Based on the State Hazard Mitigation Plan, the overall probability of a tornado touching down in the Ascension Parish planning area is one tornado is likely to occur no more than once every four years as indicated in Figure 2-41.



Jurisdictional Vulnerability: Tornado Probability

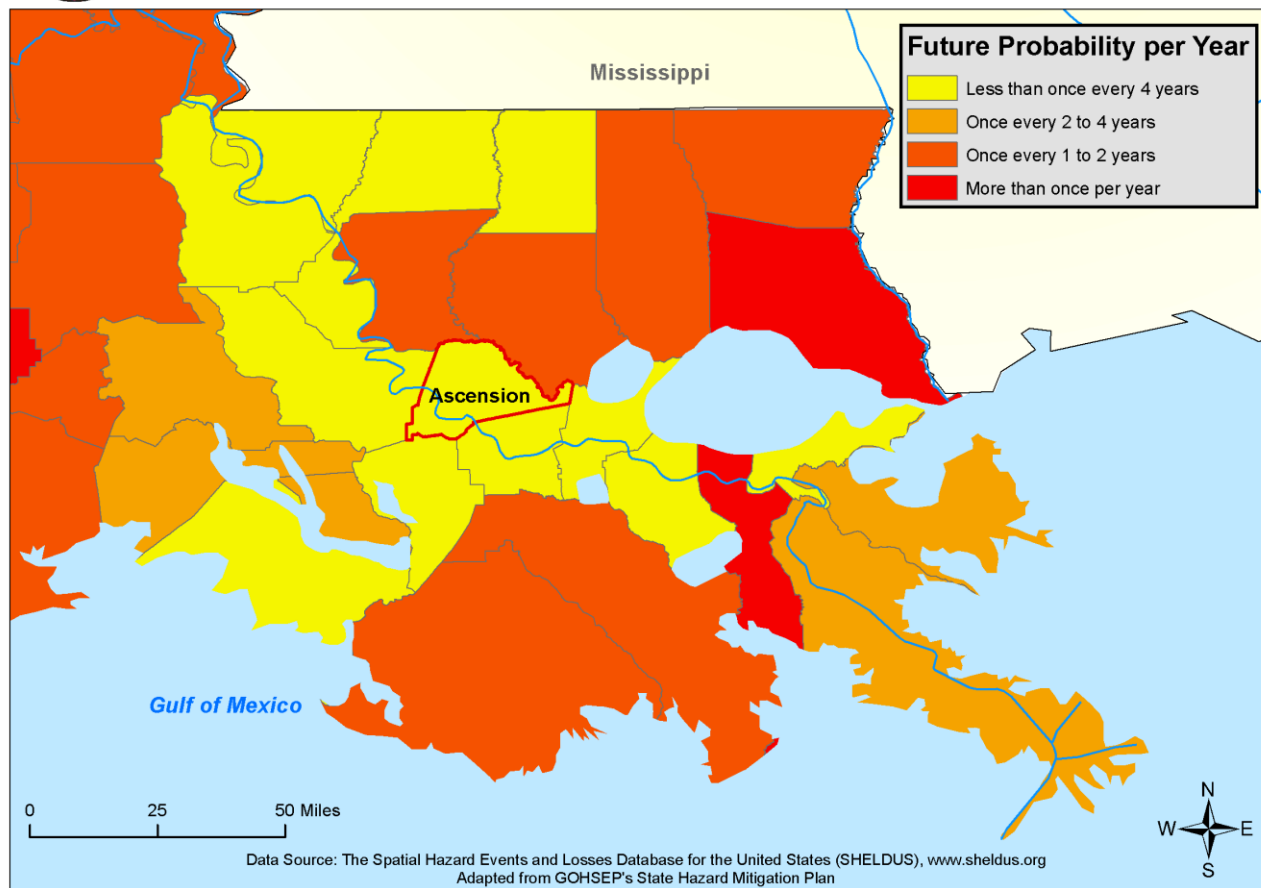


Figure 2-41: Probability of tornado events in Ascension Parish based on data from 1987-2012.
(Source: State of Louisiana Hazard Mitigation Plan)

Estimated Potential Losses

According to the SHELDUS database, there have been eleven tornadoes that have caused some level of property damage. The total damage from the actual claims for property is \$3,961,305 with an average cost of \$360,118 per tornado strike. When annualizing the total cost over the 54 year record, total annual losses based on tornadoes are estimated to be \$73,357. To provide an estimated annual estimated potential loss per jurisdiction, the 2010 Census population was used to assign the estimated potential losses proportionally across the jurisdictions. Based on the 2010 Census data, Table 2-49 provides an annual estimate of potential losses for Ascension parish.

Table 2-49: Estimated annual losses for tornadoes in Ascension Parish.

Tornado Estimated Annual Potential Losses for Ascension Parish			
Unincorporated Ascension Parish (83% of Population)	Donaldsonville (7% of Population)	Gonzales (9% of Population)	Sorrento (1% of Population)
\$60,559	\$5,088	\$6,694	\$1,014

Table 2-50 presents an analysis of building exposure that are susceptible to tornadoes by general occupancy type for Ascension Parish, along with the percentage of building stock that are mobile homes.

*Table 2-50: Building exposure by General Occupancy Type for Tornadoes in Ascension Parish.
(Source: State of Louisiana Hazard Mitigation Plan)*

Building Exposure by General Occupancy Type for Tornadoes							
Exposure Types (\$1,000)							
Residential	Commercial	Industrial	Agricultural	Religion	Government	Education	% Mobile Homes
11,107,747	2,419,973	1,186,650	51,686	309,422	111,001	102,942	19.4

The Parish has suffered through a total of three days in which tornadoes or waterspouts have accounted for zero deaths and fifteen injuries during this 54 year period (Table 2-51). All fifteen injuries occurred in unincorporated areas and averaged 2.1 injuries per event with an overall average for the 54 year period of 1.4 injuries per event.

Table 2-51: Tornadoes in Ascension Parish by magnitude that caused injuries or deaths.

Date	Magnitude	Deaths	Injuries
April 12, 1969	F3	0	1
January 25, 1976	F2	0	7
November 19, 1983	F1	0	7

In assessing the overall risk to population, the most vulnerable population throughout the parish are those residing in manufacturing housing. Approximately 19.4% of all housing in Ascension parish consists of manufactured housing. Based on location data collected in a previous hazard mitigation project, there are 24 known locations where manufactured housing is concentrated. Those 24 locations have an overall number of manufactured houses ranging from seven to 202. The location and density of manufactured houses can be seen in Figure 2-42.

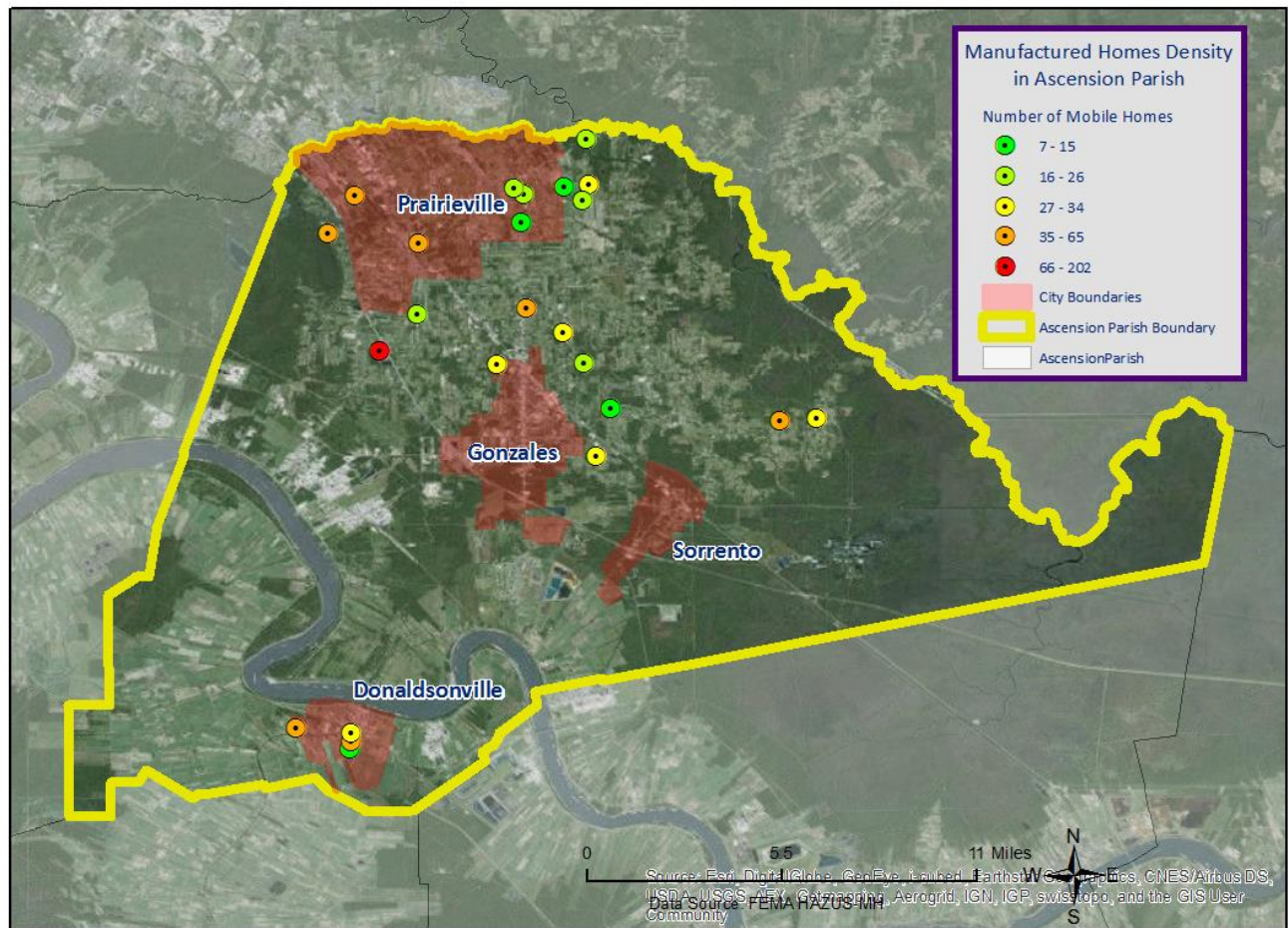


Figure 2-42: Location and approximate number of units in manufactured housing locations throughout Ascension Parish.

Vulnerability

See Appendix C-1 to C-2 for parish and municipality building exposure to tornado hazards.

Tropical Cyclones

Tropical cyclones are among the worst hazards Louisiana faces. These spinning, low-pressure air masses draw surface air into their centers and attain strength ranging from weak tropical waves to the most intense hurricanes. Usually, these storms begin as clusters of oceanic thunderstorms off the western coast of Africa, moving westward in the trade wind flow. The spinning of these thunderstorm clusters begins because of the formation of low pressure in a perturbation in the westerly motion of the storms associated with differential impacts of the Earth's rotation. The west-moving, counterclockwise-spinning collection of storms-now called a tropical disturbance-may then gather strength as they draw humid air toward the low-pressure center, forming a tropical depression (defined when the maximum sustained surface wind speed is 38 mph or less), then a tropical storm (when the maximum sustained surface wind ranges from 39 mph to 73 mph), and finally a hurricane (when the maximum sustained surface wind speeds exceed 73 mph). Table 2-51 presents the Saffir-Simpson Hurricane Wind Scale, which categorizes tropical cyclones based on sustained winds.

Table 2-521: Saffir-Simpson Hurricane Wind Scale.

SAFFIR-SIMPSON HURRICANE WIND SCALE			
Category	Sustained Winds	Pressure	Types of Damage Due to Winds
Tropical Depression	<39 mph	N/A	
Tropical Storm	39-73 mph	N/A	
1	74-95 mph	>14.2 psi	Very dangerous winds will produce some damage: well-constructed frame homes could have damage to roofs, shingles, vinyl siding, and gutters. Large branches of trees will snap and shallow-rooted trees may be toppled, especially after the soil becomes waterlogged. Extensive damage to power lines and poles likely will result in power outages that could last several days.
2	96-110 mph	14-14.2 psi	Extremely dangerous winds will cause extensive damage: well-constructed frame homes could sustain major roof and siding damage. Many shallow-rooted trees will be snapped or uprooted, especially after the soil becomes waterlogged, and block numerous roads. Near total power loss is expected with outages that could last from several days to weeks.
3	111-129 mph	13.7 -14 psi	Devastating damage will occur: well-built framed homes may incur major damage or removal of roof decking and gable ends. Many trees will be snapped or uprooted, especially after the soil becomes waterlogged, blocking numerous roads. Electricity and water will be unavailable for several days to weeks after the storm passes.
4	130-156 mph	13.3-13.7 psi	Catastrophic damage will occur: well-built framed homes can sustain severe damage with loss of most of the roof structure and/or some exterior walls. Most trees will be snapped or uprooted especially after the soil becomes waterlogged, and power poles downed. Fallen trees and power poles will isolate residential areas. Power outages will last weeks to possibly months. Most of the area will be uninhabitable for weeks or months.

5	157 mph or higher	<13.7 psi	Catastrophic damage will occur: A high percentage of framed homes will be destroyed, with total roof failure and wall collapse. Fallen trees and power poles will isolate residential areas. Power outages will last for weeks to possibly months. Most of the area will be uninhabitable for weeks to months.
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Many associated hazards can occur during a hurricane, including heavy rain, flooding, high winds, and tornadoes. A general rule of thumb in coastal Louisiana is that the number of inches of rainfall to be expected from a tropical cyclone is approximately 100 divided by the forward velocity of the storm in mph; therefore, a fast-moving storm (twenty mph) might be expected to produce five inches of rain while a slow-moving (five mph) storm could produce totals of around twenty inches. However, no two storms are alike and such generalizations have limited utility for planning purposes. Hurricane Beulah, which struck Texas in 1967, spawned 115 confirmed tornadoes. In recent years, extensive coastal development has increased the impact of storm surge resulting from these storms so much that it has become the greatest natural hazard threat to property and loss of life in the state. Storm surge is a temporary rise in sea level generally caused by reduced air pressure and strong onshore winds associated with a storm system near the coast. Although storm surge can technically occur at any time of the year in Louisiana, surges caused by hurricanes can be particularly deadly and destructive. Such storm surge events are often accompanied by large, destructive waves exceeding 10 m in some places that can inflict high numbers of fatalities and economic losses. In 2005, Hurricane Katrina clearly demonstrated the destructive potential of this hazard, as it produced the highest modern-day storm surge levels in the state of Louisiana, reaching up to 18.7 feet in St. Bernard Parish, near Alluvial City.

Property can be damaged by the various forces that accompany a tropical storm. High winds can directly impact structures in three ways: wind forces, flying debris and pressure. By itself, the force of the wind can knock over trees, break tree limbs and destroy loose items, such as television antennas and power lines. Many things can be moved by high winds. As winds increase, so does the pressure against stationary objects. Pressure against a wall rises with the square of the wind speed. For some structures, this force is enough to cause failure. The potential for damage to structures is increased when debris breaks the building "envelope" and allows the wind pressures to impact all surfaces (the building envelope includes all surfaces that make up the barrier between the indoors and the outdoors, such as the walls, foundation, doors, windows, and roof). Buildings needing maintenance and mobile homes are most subject to wind damage. High winds often create bigger waves, in which extended pounding by these waves can demolish any structure not properly designed. These large waves also erode sand beaches, roads, and foundations. When foundations are undermined, the building will collapse.

Nine out of ten deaths during hurricanes are caused by storm surge flooding. Falling tree limbs and flying debris caused by high winds have the ability to cause injury or death. Downed trees and damaged buildings are a potential health hazard due to instability, electrical system damage, broken pipelines, chemical releases, and gas leaks. Sewage and water lines may also be damaged as a result of hurricanes. Salt water and fresh water intrusions from storm surge send animals, such as snakes, into areas occupied by humans.

Location

Hurricanes are the single biggest threat to all of south Louisiana. With any single hurricane having the potential to devastate multiple parishes during a single event, the risk of a tropical cyclone has the probability of impacting anywhere within the planning area for Ascension parish. As a result, all jurisdictions are equally at risk for tropical cyclones.

Previous Occurrences / Extent

The central Gulf of Mexico coastline is among the most hurricane-prone locations in the United States, affecting every part of the state. The SHEL DUS database reports a total of eighteen tropical cyclone events occurring within the boundaries of Ascension Parish between the years 1960-2013 (Table 2-53). The previous update to the hazard mitigation plan included five significant tropical cyclone events that impacted the parish. The tropical cyclone events experienced in Ascension Parish include depressions, storms, and hurricanes.

*Table 2-53: Historical tropical cyclone events in Ascension Parish from 1960 - 2013.
(Source: SHEL DUS)*

Date	Name	Storm Type While Impacting Ascension Parish
September 18, 1960	Ethel	Hurricane – Cat 1
September , 1961	Carla	Tropical Storm
September 10, 1965	Betsy	Hurricane – Cat 2
September , 1969	Camille	Hurricane – Cat 3
August , 1978	Debra	Tropical Storm
November 1, 1985	Danny	Tropical Storm
August 25, 1992	Andrew	Hurricane – Cat 2
September 30, 1998	Georges	Tropical Storm
June 5, 2001	Allison	Tropical Storm
September 25, 2002	Isidore	Tropical Storm
October 2, 2002	Lili	Tropical Storm
August 28, 2005	Katrina	Hurricane – Cat 1
September 23, 2005	Rita	Tropical Storm
August 24, 2008	Fay	Tropical Depression
September 1, 2008	Gustav	Hurricane – Cat 1
September 11, 2008	Ike	Tropical Storm
September 2, 2011	Lee	Tropical Storm
August 28, 2012	Isaac	Tropical Storm

Hurricane Betsy (1965)

Hurricane Betsy made landfall in September 1965 as a Category 3 hurricane and caused extensive damage in Ascension Parish. Winds were measured at up to 92 mph, and an estimated \$1,000,000 of damage occurred. Many injuries occurred and 74 fatalities were recorded statewide.

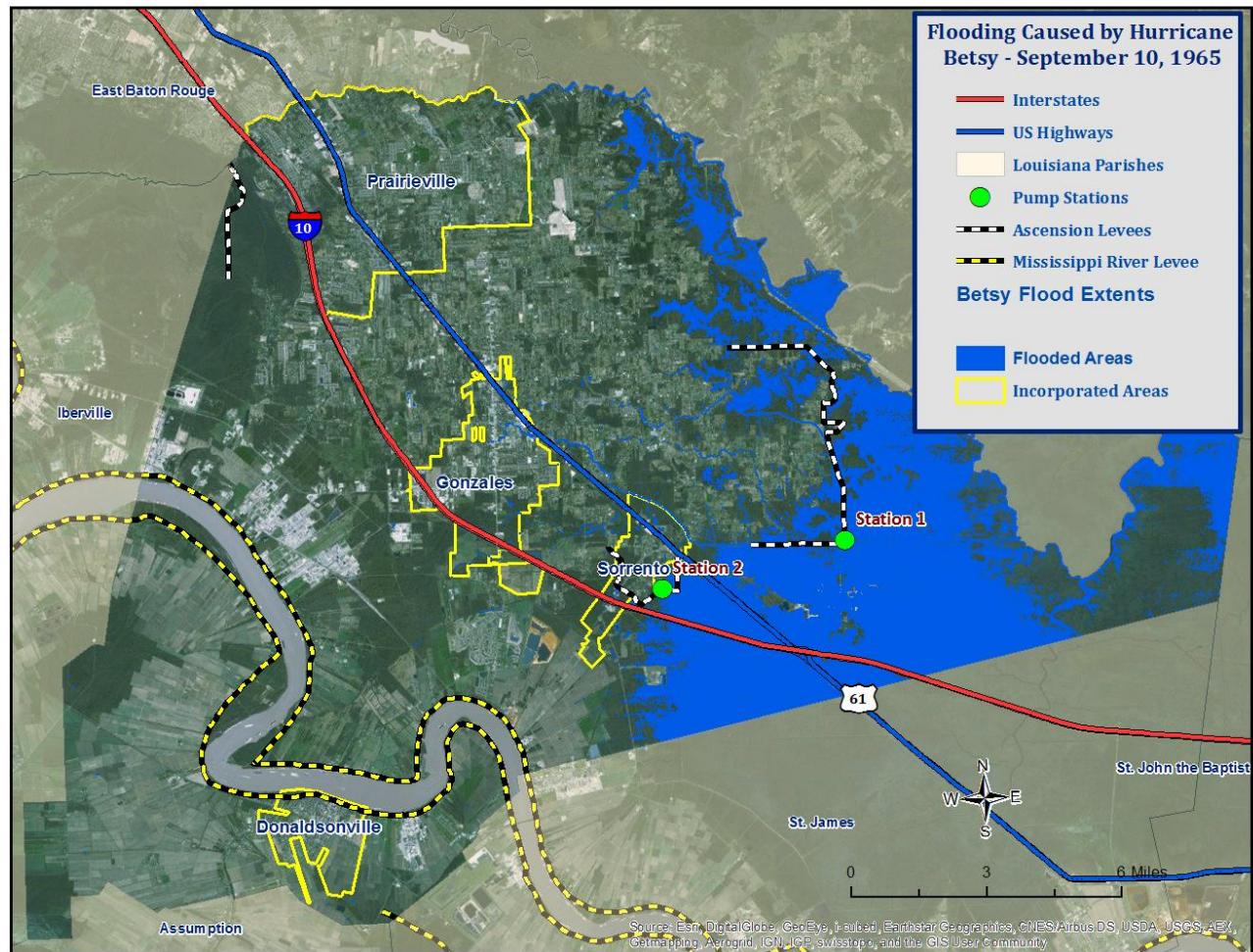


Figure 2-43: Extent of flooding caused by Hurricane Betsy in Ascension Parish.

Hurricane Andrew (1992)

Hurricane Andrew came ashore in Louisiana August 26, 1992, as a Category 3 storm. As it traveled through Ascension Parish, it brought heavy rains and winds up to 80 mph. Many houses, mobile homes, and businesses suffered extensive damage, and schools closed for two days. The heavy winds downed trees and power lines and damaged over a third of the sugar cane crop, as well as vegetable and soybean crops. Before Hurricanes Katrina and Rita hit in 2005, Andrew was considered the most costly storm in U.S. history with damage totals nearing \$25 billion.

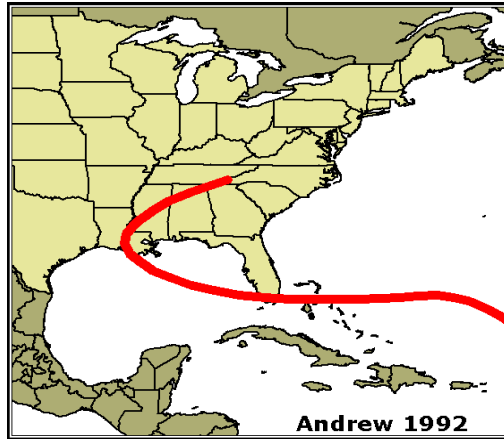


Figure 2-44: Hurricane Andrew Path and satellite image taken on 25 August 1992.

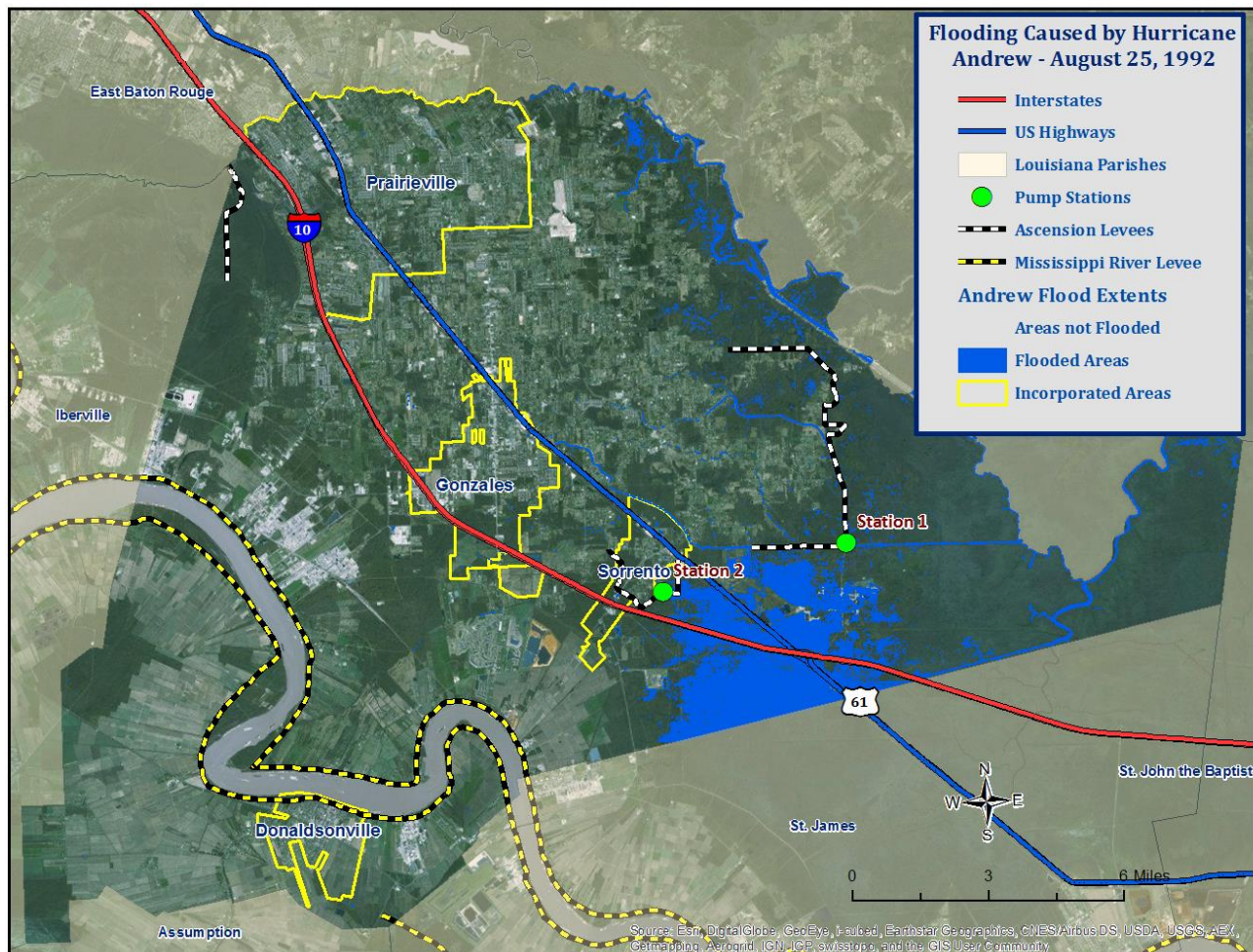


Figure 2-45: Flooding caused by Hurricane Andrew in Ascension Parish.

Tropical Storm Allison (2001)

Tropical Storm Allison caused minor problems along coastal sections of southwest Louisiana, but eventually resulted in catastrophic flood losses farther inland. The system's winds never reached hurricane strength; however, the storm acted as a slow moving front which stalled, moved on, and then returned to the area. This action resulted in over 23 inches of rain in Ascension Parish over six days and caused the parish's worst flooding in twenty years. Massive flooding occurred along Bayou Manchac and parish officials scrambled to build a four foot high, three mile long sandbag levee to protect Gonzales. This storm was a dramatic illustration of the effects of heavy rains with no accompanying winds.

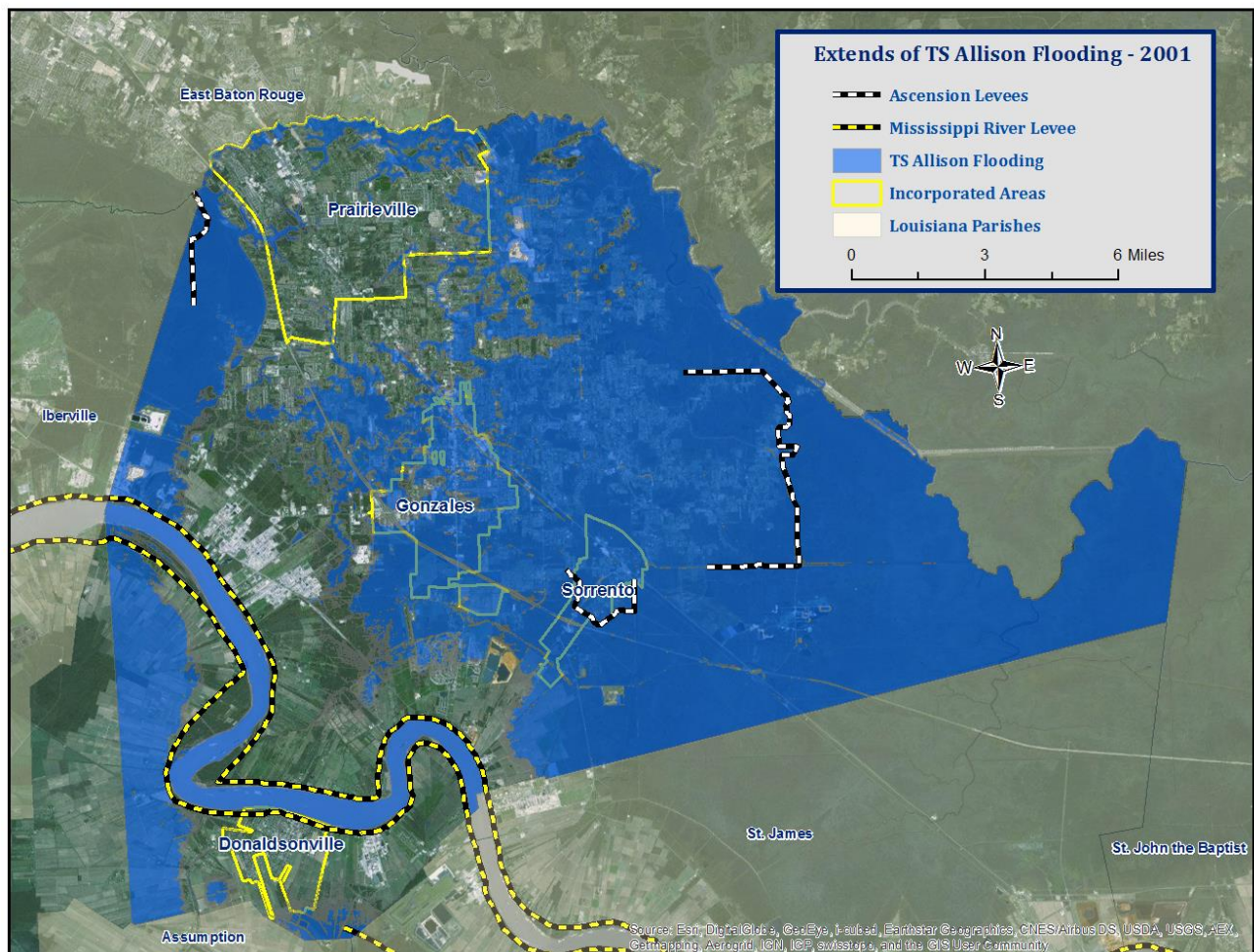


Figure 2-46: Extends of flooding caused by Tropical Storm Allison throughout Ascension Parish.

Hurricane Katrina (2005)

Hurricane Katrina was one of the strongest and most destructive hurricanes on record to impact the coast of the United States. The National Hurricane Center ranked Katrina as the costliest storm (both before and after adjusting for inflation) and the third deadliest in the U.S. since 1851. The hurricane made landfall in Plaquemines Parish on August 29, 2005, as a Category 3 storm and continued on a north northeast track with a second landfall occurring near the Louisiana and Mississippi border. Maximum sustained winds were estimated at 121 mph and rainfall amounts varied from seven to fourteen inches. Impacts in the

parish included flooding, heavy winds, downed trees, and power outages along with a large number of evacuees from more heavily affected areas to the south. Schools were closed for one week, business services were disrupted, and the Corps of Engineers removed more than 39 million cubic yards of hurricane debris from across the Gulf Coast region.

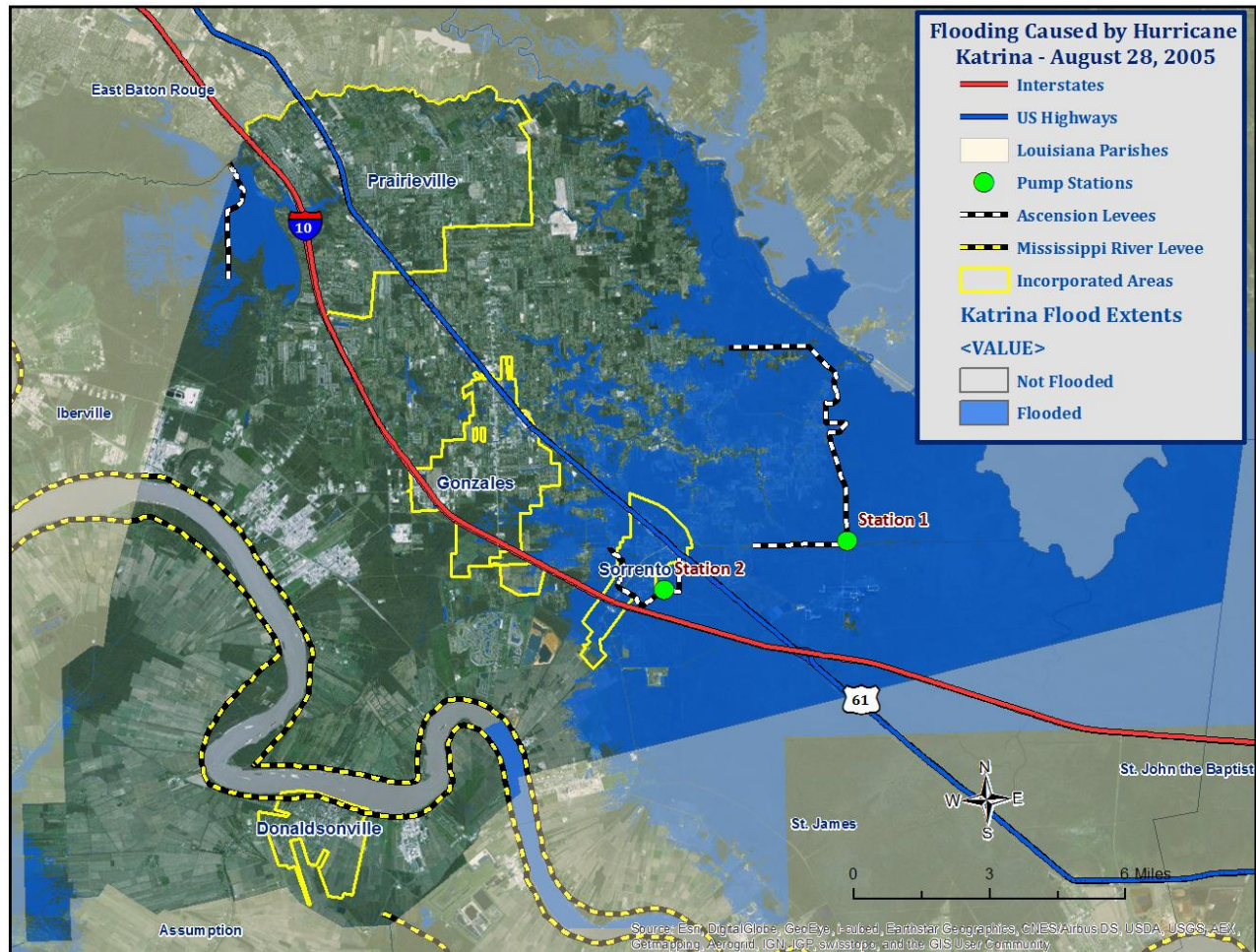


Figure 2-47: Extent of flooding caused by Hurricane Katrina throughout Ascension Parish.

Hurricane Rita (2005)

While Hurricane Katrina and its resulting levee failures captured headlines worldwide, lesser known but just as destructive Hurricane Rita wreaked havoc on southwestern Louisiana less than a month later. The storm made landfall as a Category 3 hurricane but impacted Ascension Parish as a tropical storm. Because of the size and extent of Hurricane Rita, many inland parishes such as Ascension were affected. Storm surge into Lakes Pontchartrain and Maurepas kept high water levels elevated, resulting in backwater flooding along the Amite River and the southwestern portion of the parish.

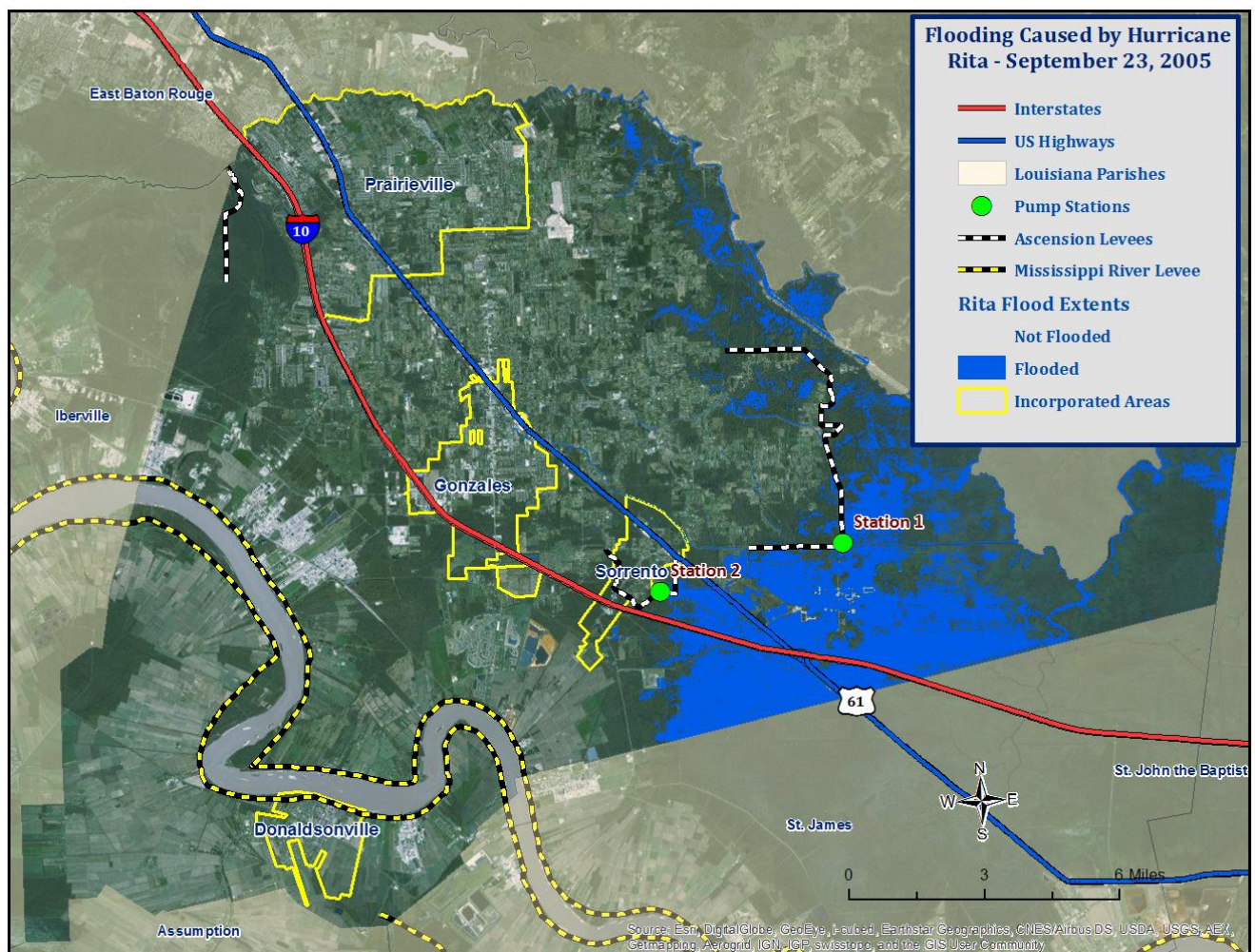


Figure 2-48: Extents of flooding caused by Hurricane Rita.

Hurricane Gustav (2008)

Hurricane Gustav emerged into the southeast Gulf of Mexico as a major Category 3 hurricane on August 31st after developing in the Caribbean Sea and moving across western Cuba. Gustav tracked northwestward across the Gulf toward Louisiana and made landfall as a Category 2 hurricane near Cocodrie, Louisiana during the morning of September 1st. Gustav continued to move northwest across

south Louisiana and weakened to a Category 1 storm over south central Louisiana later that day. The storm diminished to a tropical depression over northwestern Louisiana on September 2nd.

The highest wind gust recorded was 102 knots or 117 mph at a USGS site at the Houma Navigational Canal and at the Pilot Station Est C-MAN at near the Southwest Pass of the Mississippi River. The highest sustained wind of 91 mph was recorded at the Pilot's Station East C-MAN site. However, because of equipment failure at some observation sites, higher winds may have occurred during the storm. The minimum sea level pressure measured was 951.6 millibars at a USGS site at Caillou Lake southwest of Dulac and 954.5 millibars at the LUMCON facility near Dulac. Rainfall varied considerably across southeast Louisiana ranging from around four inches to just over eleven inches.

Gustav produced widespread wind damage across southeast Louisiana, especially in the area from Houma and Thibodaux through the greater Baton Rouge area, including Ascension Parish. Hurricane force wind gusts occurred across the inland areas through the Baton Rouge area and surrounding parishes. A peak wind gust of 91 mph was recorded at the Baton Rouge (Ryan Field) Airport at 112 PM CST. This was only one mph less than the highest wind gust recorded during Hurricane Betsy in 1965. The electric utility serving most of southeast Louisiana reported 75 to 100 percent of utility customers were without power after the storm from Lafourche and Terrebonne Parishes northwest through the Baton Rouge area to southwest Mississippi and central Louisiana. Considerable damage occurred to many houses and structures after large tree limbs and trees were toppled by the hurricane force winds. Preliminary estimates from the American Red Cross indicated that around 13,000 single family dwellings were damaged by the hurricane in southeast Louisiana, as well as several thousand more apartments and mobile homes. Early estimates from Louisiana Economic Development indicated that Gustav at least \$4.5 billion in property damage in Louisiana, including insured and uninsured losses.

Rainfall run-off was great enough to produce moderate flooding at some locations along the Amite and Comite Rivers in the Baton Rouge area, and along the Bogue Falaya River in the Covington area.

[Tropical Storm Lee \(2011\)](#)

Tropical Storm Lee initially developed as Tropical Depression Thirteen in the middle of the Gulf of Mexico on Thursday evening September 1st, 2011. The depression moved slowly north and gradually strengthened, eventually reaching tropical storm strength just south of the Louisiana coast on Friday afternoon September 2nd, 2011. Tropical Storm Lee made only slow and haltingly northward progress over the next 24 hours, eventually moving onshore on the coast of Louisiana Saturday night, September 3rd, 2011, with a maximum sustained wind estimated around sixty mph. Lee moved slowly inland to the north of Baton Rouge late Sunday September 4th, 2011, and eventually weakened to a tropical depression Sunday evening.

Tropical Depression Lee then moved steadily northeast throughout Monday, September 5th, 2011, taking on extra-tropical characteristics over the next 24 hours as it interacted with an upper level disturbance moving through the region. The maximum wind observed in Louisiana was a southerly wind of forty kts (46 mph) sustained, fifty kts (58 mph) gust at New Orleans Lakefront Airport on September 4th, 2012 at 0528CST. The lowest minimum central pressure was 993.2 mb at Baton Rouge Ryan Field at Sept 4, 2012 at 0959CST. As Tropical Depression Lee was moving northeast and taking on mid-latitude characteristics, strong northerly winds were experienced across the region, occasionally gusting to higher levels than

experienced when Lee was characterized as a tropical storm. No fatalities or injuries were associated with any Tropical Storm Lee hazards.

Tropical Storm Lee (2011)

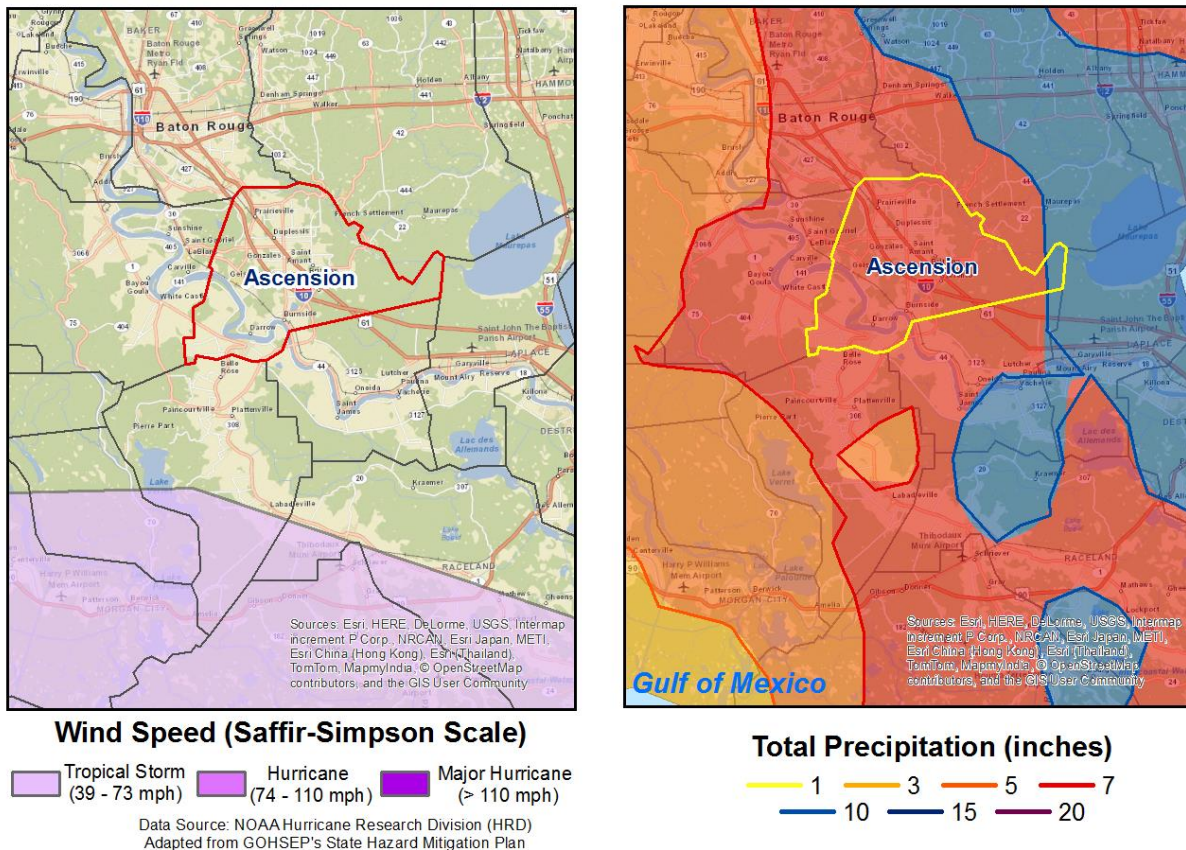


Figure 2-49: Tropical Storm Lee Recorded Wind and Precipitation

The main impacts associated with Tropical Storm Lee were associated with storm surge and rainfall. Both of these impacts were related to its slow forward speed as it crossed the region, which allowed the circulation to linger over the area for several days. Storm surge associated with Lee caused storm tides three to five feet above normal, causing lowland flooding. Additional detailed information about Tropical Storm Lee's storm surge is contained in the separate storm surge report. Four day total rainfall ranged between seven and fifteen inches across the area. A maximum of 15.48 inches was recorded near Holden in Livingston Parish. Because of dry antecedent conditions, river flooding was minimal for the amount of rainfall that occurred. Wind impacts were generally minimal due to only tropical storm strength winds being recorded, resulting in tree limbs being blown down, and weak trees toppling, causing power outages.

Effects from the landfall of Tropical Storm Lee were felt in different areas throughout Ascension Parish and its incorporated jurisdictions. The parish as a whole was included in the overall Tornado Watch area as well as the Flash Flood Watch as the storm approached and made landfall. According to the National Weather Service, the following statistics were recorded in association with Tropical Storm Lee:

- **Rainfall totals:** Gonzales – 8.82 inches, Donaldsonville – 9.01 inches
- **Overall synopsis:** Zero deaths or injuries; storm surge flooding in the far east portion of the parish; significant flooding on the Amite River; several roads in unincorporated areas of Ascension parish were flooded, along with several roads in Donaldsonville.

- Source: National Weather Service Post Tropical Cyclone Report

In Ascension Parish, overall there were no reports of damage to residences or infrastructure. However, with the onset of rising water, local waterways were closed to boating traffic throughout the parish including the Amite River and the Diversion Canal. Flood gates were also closed in East Ascension and pumps were running. Several residences and businesses throughout the parish experienced power outages because of high winds. Parish crews were responsible for removing fifteen downed trees, also because of high winds.

Multiple road closures took place during Tropical Storm Lee including the following locations: South Summerfield and Amite River Road in unincorporated Ascension Parish. Highway 308/Underpass, Evangeline Drive, and St. Patrick Street in Donaldsonville experienced flooding. Additional barricaded roads included: South Hodgeson Road, Orleans Drive, Lake Harbour, and Astroland Subdivision near or in Prairieville, which is included in unincorporated Ascension parish. Sorrento and Gonzales experienced localized street flooding with upwards of eight inches of rainfall total in the Ascension Parish jurisdictions. The aftermath of Lee resulted in doubling of mosquito control efforts.

[Hurricane Isaac \(2012\)](#)

Isaac entered the Gulf of Mexico as a tropical storm on August 26, moving northwest after crossing Haiti, Cuba and the Florida Straits. Isaac strengthened into a hurricane on the morning of the 28th when it was 75 miles south-southeast of the mouth of the Mississippi River. Isaac made landfall in Plaquemines Parish as a Category 1 Hurricane near Southwest Pass of the Mississippi River on the evening of the 28th. A second landfall occurred near Port Fourchon the following morning. The storm weakened to a tropical storm on the afternoon of the 29th about fifty miles west southwest of New Orleans, and weakened further to a tropical depression on the afternoon of the 30th near Monroe, Louisiana.

The highest wind gust recorded on land in Louisiana was 75 knots, or 86 mph, measured by a portable weather station (Texas Tech University) near Buras on the evening at August 28. The maximum sustained wind in Louisiana was 65 knots, or 75 mph, at the same portable weather station near Buras on the evening of August 28. There were several marine observations near the coast that had slightly higher wind readings, but their observation heights were generally eighty feet or higher.

Due to Isaac's very large size, and slow forward speed, tropical storm force winds lasted in excess of 48 hours in many areas of coastal southeast Louisiana. Occasional hurricane gusts of 70 to 85 mph were recorded across southeast Louisiana during the night of the August 28th and early on the 29th, especially south of Lake Pontchartrain. Interior areas of southeast Louisiana such as around Baton Rouge and northward experienced tropical storm force winds. Widespread power outages occurred across the area.

Local utility companies reported over 700,000 customers were without power at the peak of the storm in southeast Louisiana. Generally, most of the wind damage was limited to downed trees and power lines, and roof damage caused by wind and falling trees and tree limbs.

Significant impact also occurred around Lakes Pontchartrain and Maurepas with a storm tide of five to nine feet. Five to ten thousand homes were flooded in low lying areas of that border these lakes of the following parishes: St. Tammany, Tangipahoa, Livingston, Ascension, St James and St John the Baptist. Laplace in St. John the Baptist was especially hard hit with over 5,000 homes flooded by storm surge. An additional storm surge fatality occurred in St. Tammany Parish on the morning of the 30th when a 75 year old man drove his car into a storm surge filled ditch. Storm surge flooding also affected areas south and southwest of New Orleans with a storm tide of four to seven feet. Roadways and low lying property were flooded. Local levees around Lafitte and Myrtle Grove were overtopped and/or breached resulting in flooding of numerous houses and property in this area.

Many areas of southeast Louisiana received eight to twelve inches of rain with a few locations having fifteen inches of rain or more. Maximum storm total rainfall was 20.66 inches at the New Orleans Carrollton gauge on the Mississippi River. Rainfall run-off produced moderate to major flooding on the Tangipahoa, Tchefuncte, Tickfaw, Amite, Pearl, Bogue Chitto and Bogue Falaya Rivers. Storm surge and high tides restricted outflow of the rivers near the coast and lakes exacerbating flooding in those areas.

Overall impacts of Isaac resulted in at least \$600 million in damages in southeast Louisiana, three direct fatalities, and two indirect fatalities. Storm surge flooding accounted for the bulk of damage, estimated around \$500 million and the three direct storm surge fatalities in Louisiana. Winds accounted for a much lesser amount of slightly more than a \$100 million.

Ascension Parish and its jurisdictions were directly affected by Isaac and its impacts. According to the National Weather Service, the following statistics were recorded for Ascension Parish in association with Hurricane Isaac:

- **Rainfall totals:** Gonzales – 12.26 inches, Dutchtown – 10.88 inches, Donaldsonville – 7.80 inches
- **Inland flooding:** Amite River near Lake Maurepas: Flood Category – Major, crest height 7.48 feet (flood stage 4.0 feet)
- **Storm surge totals:** Gonzales – 6.5 feet
- **Overall synopsis:** Zero deaths or injuries; storm surge flooding in the far east portion of the parish; significant flooding on the Amite River; ten homes impacted by flooding in the St. Amant area; 20 near Sorrento, 2 in Gonzales, and 177 structures within the unincorporated areas of Ascension Parish. Over 250 structures experienced wind damage due to prolonged high winds. *(Source: National Weather Service Post Tropical Cyclone Report)*

Storm surge during Hurricane Isaac occurred in the far east of the parish, affecting areas surrounding the Amite River. This flooding as well as flooding that took place on Lake Maurepas resulted in the issuance of voluntary evacuations for parts of the parish including Sorrento, as waters were anticipated to continue rising in the aftermath of the storm. Shelter facilities were established at the Lamar-Dixon Expo Center's Trade Mart building for those needing refuge during the evacuation. According to the Louisiana Isaac Master Action Plan, 1,073 owner-occupied structures in Ascension Parish were damaged during Hurricane Isaac from high winds or flooding.

Hurricane Isaac (2012)

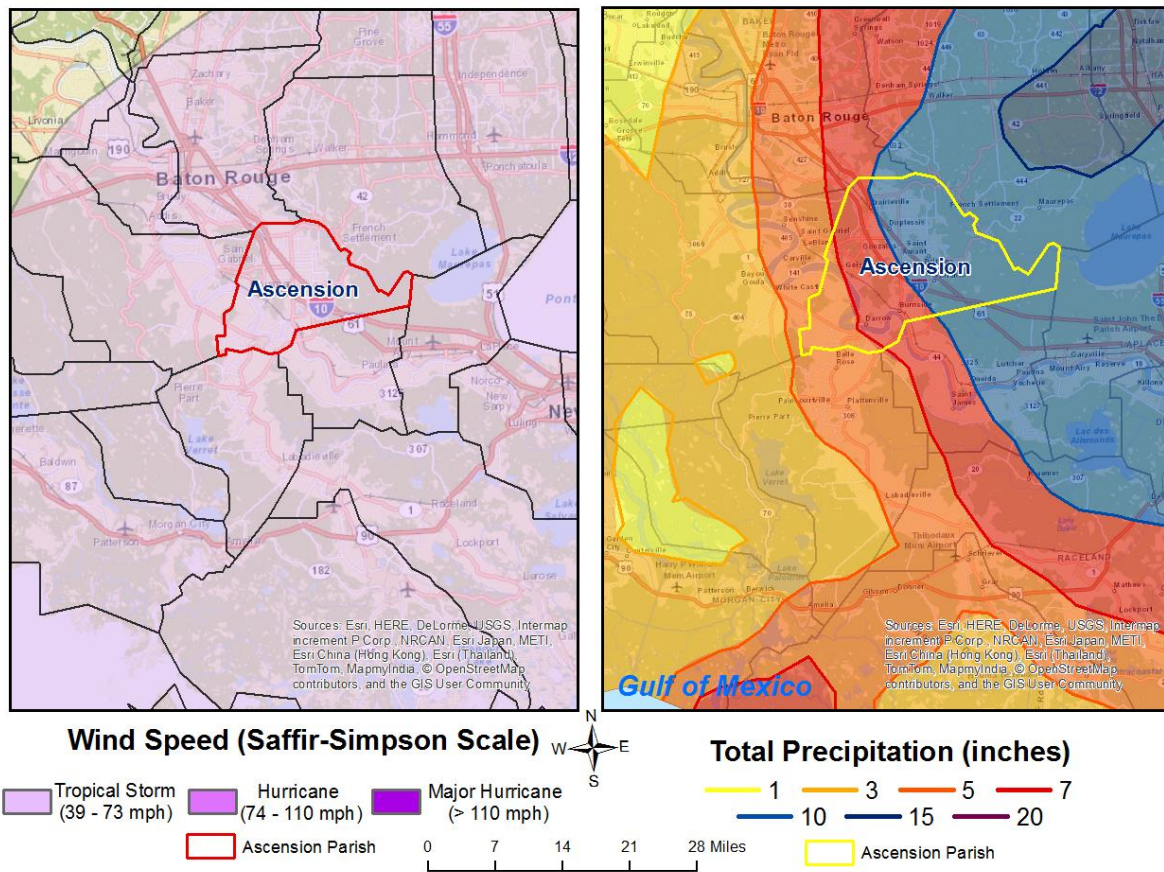


Figure 2-50: Hurricane Isaac Recorded Wind Speed and Total Precipitation

Partial closures of Interstate 10 in Ascension Parish took place due to rising floodwaters, which occurred as a result of both rainfall inundation and storm surge. Streets throughout the parish became impassible and neighborhoods experienced devastation from the rising floodwaters. Local neighborhoods were affected by long lasting flooding in which residents had to fill sand bags and install pumps to attempt to block the water from entering their homes. In the aftermath of the storm, debris removal was necessary for all of Ascension Parish and its jurisdictions. High winds during and excessive standing water after the storm resulted in an overabundance of mosquitos throughout the parish. Extra action was taken by the city to control this issue. In Donaldsonville, the railroad underpass on St. Patrick Street was closed due to flooding. Ascension Catholic Church and Donaldsonville Elementary School received minor flooding.

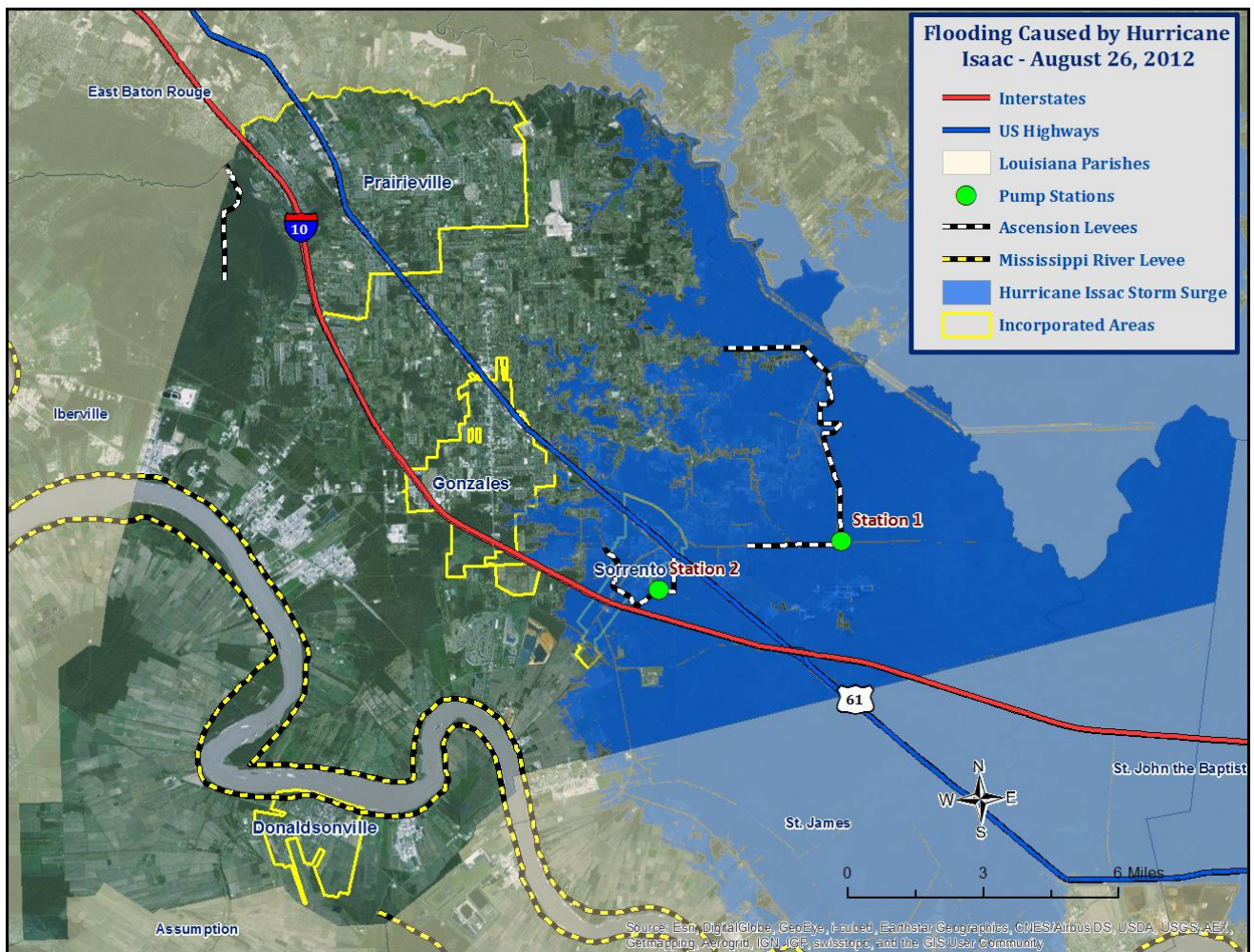


Figure 2-51: Extents of flooding caused by Hurricane Isaac throughout Ascension Parish.

Figure 2-50 displays the wind zones that affect Ascension Parish in relation to critical facilities throughout the Parish and Figures 2-51 and 2-52 show the amount of precipitation and wind the parish received from four major tropical cyclones that struck the Louisiana coast.

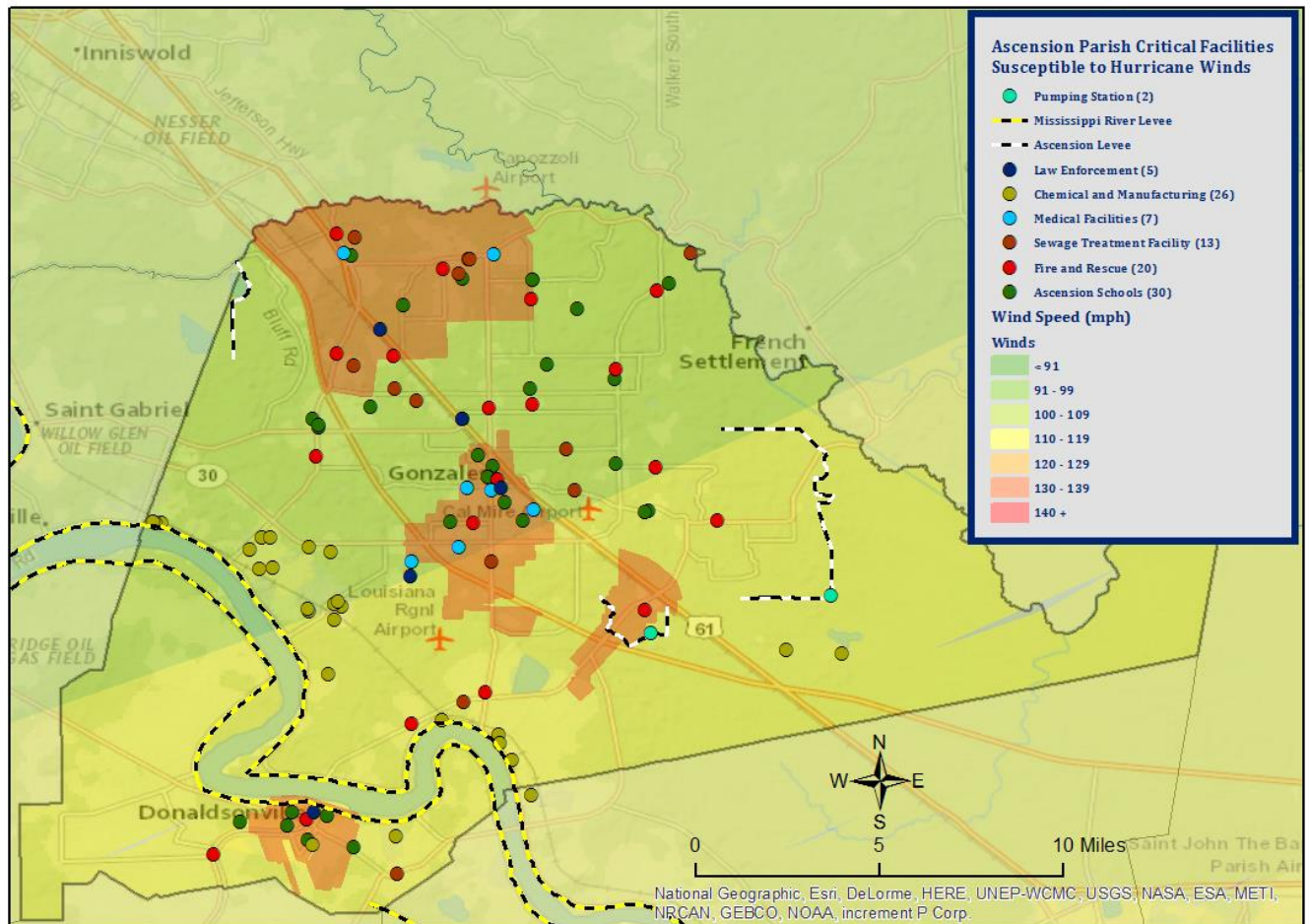


Figure 2-52: Winds zones for Ascension Parish in relation to critical facilities.

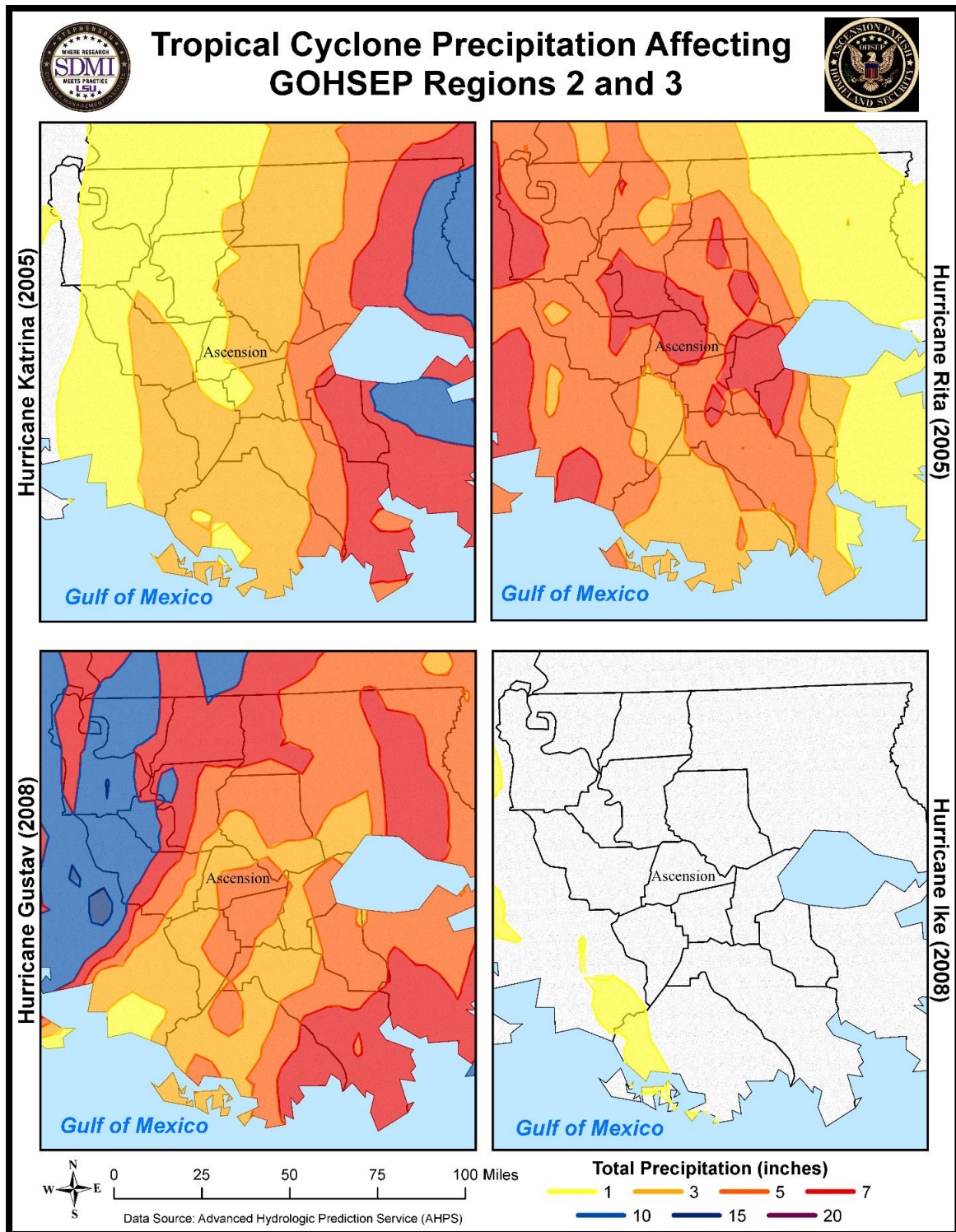


Figure 2-53: Precipitation totals from Hurricane Katrina, Hurricane Rita, Hurricane Gustav, and Hurricane Ike for Ascension Parish.

(Source: State of Louisiana Hazard Mitigation Plan)

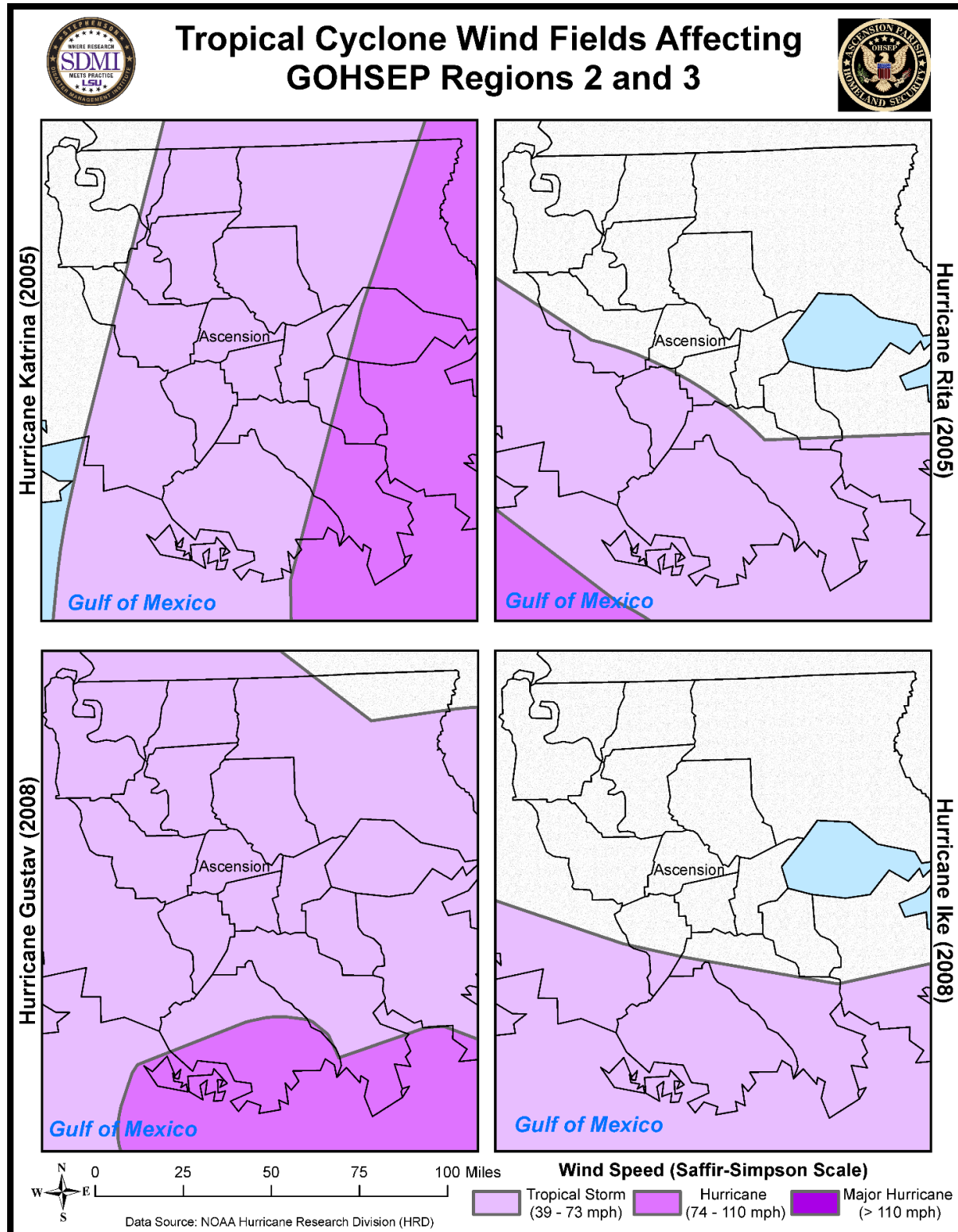


Figure 2-54: Maximum sustained winds from Hurricane Katrina, Hurricane Rita, Hurricane Gustav, and Hurricane Ike.

(Source: State of Louisiana Hazard Mitigation Plan)

Frequency / Probability

Tropical cyclones are large natural hazard events that occur regularly within Ascension Parish. The annual chance of occurrence for a tropical cyclone occurrence is estimated at 36% percent for Ascension parish and its municipalities.

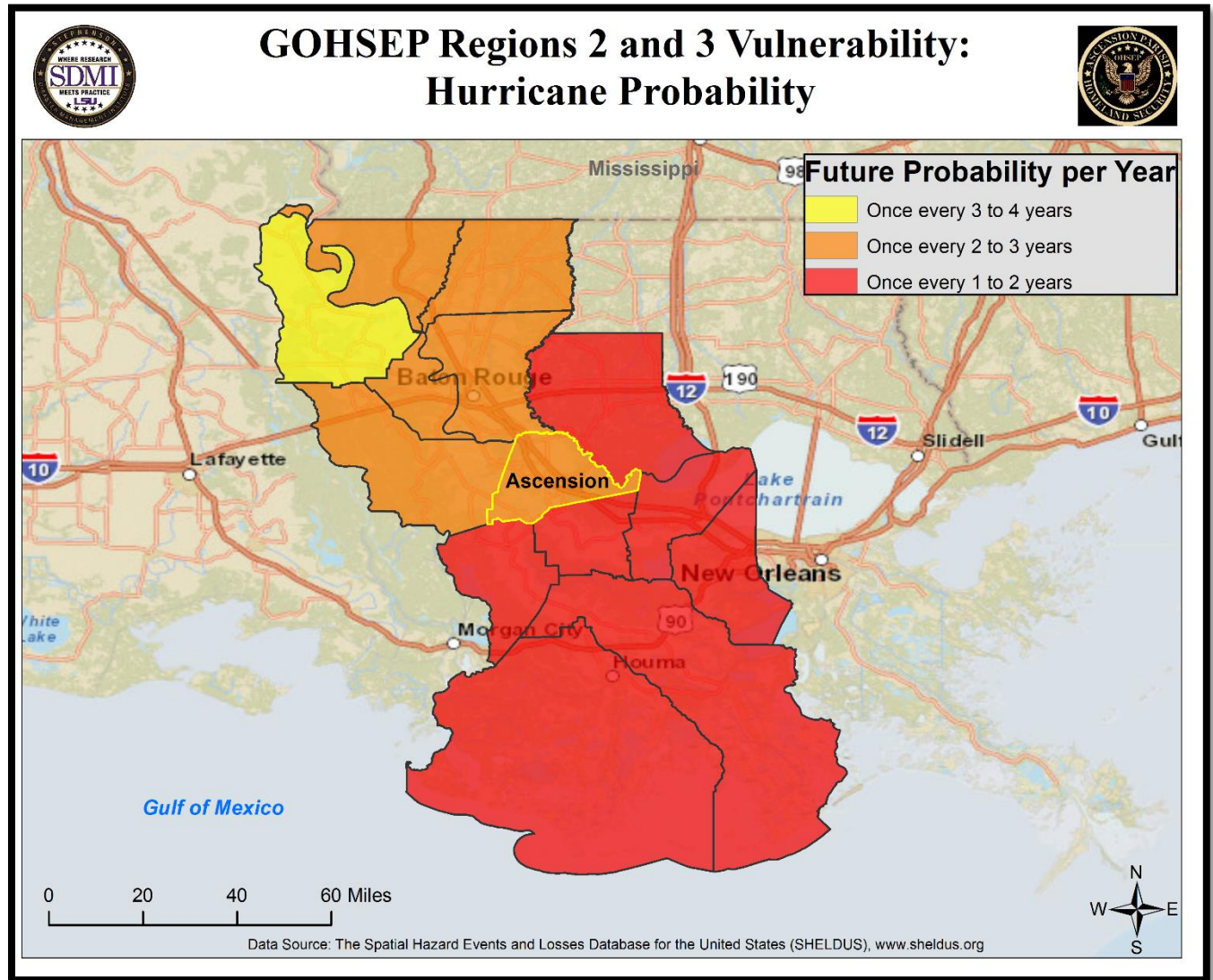


Figure 2-55: Probability of Tropical Cyclones impacting Ascension Parish.
(Source: State of Louisiana Hazard Mitigation Plan)

The tropical cyclone season for the Atlantic Basin is from June 1st through November 30th with most of the major hurricanes (Saffir-Sipson Categories 3,4,5) occurring between the months of August and October. Based on geographical location alone, Ascension Parish is highly vulnerable to tropical cyclones. This area has experienced several tropical cyclone events in the past and can expect more in the future. Based on historical record, illustrated in Figure 2-53, the probability of future occurrence of tropical cyclones in Ascension Parish is approximately one event every two to three years.

Estimated Potential Losses

Using Hazus-MH 100 year hurricane model, the 100 year hurricane scenario was analyzed to determine losses from this worst-case scenario. Table 2-54 shows the total economic losses that would result from this occurrence.

Table 2-54: Total estimated losses for a 100 Year Hurricane Event.

(Source: HAZUS-MH)

Jurisdiction	Estimated total Losses from 100 Year Hurricane Event
<i>Ascension Parish (Unincorporated)</i>	<i>\$1,350,853,951</i>
<i>Donaldsonville</i>	<i>\$45,546,322</i>
<i>Gonzales</i>	<i>\$145,804,726</i>
<i>Sorrento</i>	<i>\$87,402,000</i>
<i>Total</i>	<i>\$1,629,606,999</i>

The Hazus-MH hurricane model also provides a breakdown by jurisdiction for seven primary sectors (Hazus occupancy) throughout the parish. The losses for each jurisdiction by sector are listed in the tables below.

Table 2-55: Estimated losses in unincorporated Ascension Parish for a 100 year hurricane event.

(Source: HAZUS-MH)

Ascension Parish (Unincorporated Areas)	Estimated total Losses from 100 Year Hurricane Event
Agricultural	\$626,939
Commercial	\$13,971,931
Government	\$692,515
Industrial	\$5,118,465
Religious / Non-Profit	\$1,055,545
Residential	\$98,746,498
Schools	\$612,043
Totals	\$120,823,936

*Table 2-56: Estimated losses in Donaldsonville for a 100 year hurricane event.
(Source: HAZUS-MH)*

Donaldsonville	Estimated total Losses from 100 Year Hurricane Event
Agricultural	\$91,129
Commercial	\$3,589,870
Government	\$305,321
Industrial	\$755,166
Religious / Non-Profit	\$745,797
Residential	\$23,280,055
Schools	\$988,471
Totals	\$29,755,813

*Table 2-57: Estimated losses in Gonzales for a 100 year hurricane event.
(Source: HAZUS-MH)*

Gonzales	Estimated total Losses from 100 Year Hurricane Event
Agricultural	\$35,096
Commercial	\$6,835,514
Government	\$402,861
Industrial	\$508,596
Religious / Non-Profit	\$254,657
Residential	\$13,544,469
Schools	\$173,824
Totals	\$21,755,021

*Table 2-58: Estimated losses for Sorrento for a 100 year hurricane event.
(Source: HAZUS-MH)*

Sorrento	Estimated total Losses from 100 Year Hurricane Event
Agricultural	\$4,518
Commercial	\$320,409
Government	\$25,085
Industrial	\$63,137
Religious / Non-Profit	\$479,287
Residential	\$20,176
Schools	\$912,615
Totals	\$1,825,230

Threat to People

The total population within the parish that is susceptible to a hurricane hazard are shown in the table below.

Table 2-59: Number of people susceptible to a 100 year hurricane event in Ascension Parish.
(Source: HAZUS-MH)

Number of People Exposed to Hurricane Hazards			
Location	# in Community	# in Hazard Area	% in Hazard Area
Parish (Unincorporated)	95,137	95,137	100%
Gonzales	10,301	10,301	100%
Donaldsonville	7,473	7,473	100%
Sorrento	1,482	1,482	100%

The HAZUS-MH hurricane model was also extrapolated to provide an overview of vulnerable populations throughout the jurisdictions in the tables below:

Table 2-60: Vulnerable populations in unincorporated Ascension Parish for a 100 year hurricane.
(Source: HAZUS-MH)

Ascension Parish (Unincorporated)		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	95,137	100%
Persons Under 5 years	6,945	7.3%
Persons Under 18 years	26,543	27.9%
Persons 65 Years and Over	9,418	9.9%
White	70,782	74.4%
Minority	24,355	25.6%

Table 2-61: Vulnerable populations in Donaldsonville for a 100 year hurricane.
(Source: HAZUS-MH)

Donaldsonville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,439	100%
Persons Under 5 years	501	6.7%
Persons Under 18 years	1,801	24.1%
Persons 65 Years and Over	994	13.3%
White	4,745	63.5%
Minority	2,727	36.5%

*Table 2-62: Vulnerable populations in Gonzales for a 100 year hurricane.
(Source: HAZUS-MH)*

Gonzales		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	731	100%
Persons Under 5 years	2,596	7.1%
Persons Under 18 years	1,257	25.2%
Persons 65 Years and Over	5,027	12.2%
White	5,274	48.8%
Minority	731	51.2%

*Table 2-63: Vulnerable populations in Sorrento for a 100 year hurricane.
(Source: HAZUS-MH)*

Sorrento		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,482	100%
Persons Under 5 years	104	7%
Persons Under 18 years	387	26.1%
Persons 65 Years and Over	187	12.6%
White	1,187	80.1%
Minority	286	19.9%

Vulnerability

See Appendix C-1 to C-2 for parish and municipality buildings that are susceptible to hurricanes.

Winter Weather

For Louisiana and other parts of the southeastern United States, a severe winter storm occurs when humid air from the Gulf of Mexico meets a cold air mass from the north. As the temperature falls once the cold air mass crosses Louisiana, precipitation may fall in the form of snow or sleet. If the ground temperature is cold enough but air temperature is above freezing, rain can freeze instantly on contact with the surface, causing massive ice storms.

The winter weather events that affect the state of Louisiana are ice storms, freezes, and snow events. Each event can affect any part of Ascension parish. Of the winter weather types listed above, ice storms are the most dangerous. Ice storms occur during a precipitation event when warm air aloft exceeds 32°F while the surface remains below the freezing point. Ice will form on all surfaces when precipitation originating as rain or drizzle contacts physical structures. These ice storms are usually accompanied by freezing temperatures and occasionally snow.

Winter storms can be accompanied by strong winds creating blizzard conditions with blinding wind-driven snow, severe drifting, and dangerous wind chill. These types of conditions are very rare in Louisiana – even north Louisiana- but ice storms are more common. The climatic line between snow and rain often stalls over north Louisiana creating ideal conditions for ice accumulation.

In a typical winter weather event, homes and buildings are damaged by ice accumulation, either directly by the weight of the ice on the roofs or by trees and/or limbs falling on buildings. While this type of damage can occur in Louisiana, it is not very prevalent in the state, even in north Louisiana, where it is more likely to occur. Effects of winter weather are more likely to occur in Louisiana, especially south Louisiana, including extreme temperatures which can cause waterlines to freeze and sewer lines to rupture, especially in mobile homes since cold air is able to access more of the building's infrastructure. Winter weather can also have a devastating effect on agriculture, particularly on crops (like citrus) that are dependent on warm weather. Long exposures to low temperatures can kill many kinds of crops, and ice storms can weigh down branches and fruit.

Winter storms are not only a direct threat to human health through conditions like frostbite and hypothermia, but they are also an indirect threat to human health due to vehicle accidents and loss of power and heat which can be disrupted for days. These impacts are rarely seen in Louisiana, including north Louisiana. As people use space heaters and fireplaces to stay warm, the risk of household fires and carbon monoxide poisoning increases.

Winter weather events occur throughout Louisiana usually during the colder calendar months of December, January, and February. Severe weather events do not occur with the same frequency within all parts of Louisiana. The northern quarter of Louisiana has historically experienced the most severe winter events between 1987 and 2014. The central and, to an even greater extent, the southern parts of the state such as Ascension Parish experienced the fewest winter events.

Location

Because the Winter Weather Hazard is a climatological-based hazard and has the same probability of occurring in Ascension parish as all of the adjacent parishes, the entire planning area for Ascension Parish is equally at risk for winter weather.

Previous Occurrences / Extent

December 11, 2008 – Heavy Snow

Two to four inches of snow and sleet fell throughout Ascension Parish in mid-December 2008. Falling limbs and trees as a result of snow accumulation left approximately 200 people in the St. Amant and approximately 1,000 people in the Prairieville areas without power. All primary schools in the parish, including Gonzales, Donaldsonville, and Sorrento, were closed and the middle and high schools released children early. Motorists were warned to stay at home and to avoid traveling due to deteriorating road conditions.

February 2, 2011 – Ice Storm

A winter storm moved across Louisiana and Mississippi and produced numerous reports of freezing rain. Approximately a half inch of freezing rain was recorded in Gonzales. With a low temperature of 19° F, a coat of ice covered several areas of Interstate 10 in Ascension parish. Interstate 10 between Exit 177 (Gonzales and Highway 30 Exit) and Exit 182 (Sorrento and Highway 22 Exit), were closed in both directions due to the interstate being covered in ice. Wind gusts up to 31 mph were also recorded. While temperatures continued to drop to 12° F the following day, there was no recorded precipitation and wind gusts were considerably less, with top speeds being recorded at 17 mph. No other damages or closings were reported.

January 2014 – Winter Storm Event

On January 24, a severe winter weather storm moved across the State of Louisiana. The southwestern and south central (including Ascension Parish) half of the state experienced a mix of sleet/freezing rain/snow beginning the night before. Temperatures reached a low of 29° F, which, coupled with a recorded precipitation of 0.04 inches throughout Ascension parish, was sufficient to create icy roads. Maximum wind speeds recorded for the 24th reached 24 mph. Conditions remained in place throughout the 25th and began improving on the 26th. An emergency declaration was issued on January 25, 2014 for 38 parishes including Ascension Parish, when extreme winter weather in the form of ice and extreme cold temperatures posed a threat to property and lives. The storm forced a closure of Interstate 10 in Ascension Parish and several major arterial roads such as Louisiana 429 and Denham Road. The Sunshine Bridge that connects St. James Parish with Ascension Parish was closed due to icy conditions in addition to the Port Vincent Bridge (between Ascension and Livingston Parish), Palo Alto Bridge, and the Cy-Bean Bridge. Schools throughout the parish, including Gonzales, Donaldsonville, and Sorrento, were closed on the 24th (a Friday) since it was impossible for buses to operate in the icy conditions and the temperatures were far too extreme for children to be subjected to. Schools were reopened on the 27th of January when normal daily operations occurred throughout the parish.

Ascension Parish can expect to encounter future winter weather events with up to two to four inches of sleet and snow. The worst-case scenario for Ascension Parish to anticipate is up to two to four inches of sleet and snow over a three to four day period, which would significantly prohibit vehicular and economic activity in the parish with the potential for power disruptions to occur at the same time.

Frequency / Probability

While Louisiana is far less likely to have heavy snow and ice accumulation than most other states, winter weather is expected to occur at least once each winter within the state. For Ascension Parish, the State's Hazard Mitigation Plan assesses the risk of a winter weather storm occurring approximately every eight years. However, since two of the more recent severe weather events were not captured in the State's probability, the planning team decided to go with the full SHELDUS record of 54 years, instead of the 25 year period used by the state. This results in the chance of occurrence for a winter weather storm as 27% annually.

Ascension Parish has a relatively low frequency of extreme winter weather events. Despite the relatively low frequency, due to the potential to cause significant disruptions to the parish, including road closures for Interstate 10, other major arteries such as Highway 61, and closure to schools and parish offices, the parish planning committee elected to carry winter weather hazards forward.

Estimated Potential Losses

Since 1960, there have been fifteen winter weather events that have resulted in property and/or crop damages according to the SHELDUS database. The total property damages associated with those storms have totaled \$6,632,880. To estimate the potential losses of a severe weather event on an annual basis, the total damage recorded for winter weather events was divided by the total number of years of available winter weather data in SHELDUS (1960 – 2014). This provides an annual estimated potential loss of \$122,831. To assess potential losses to the participating jurisdictions, the 2010 Census population was used to assign the estimated potential losses proportionally across the jurisdictions. Based on the 2010 Census data, the following table provides an estimate of potential property losses for Ascension Parish:

Table 2-64: Estimated Annual Losses in Ascension Parish to Winter Weather

Winter Weather Estimated Annual Potential Losses for Ascension Parish			
Unincorporated Ascension Parish (% of Population – 83%)	Donaldsonville (% of Population – 7%)	Gonzales (% of Population - 9%)	Sorrento (% of Population – 1%)
\$101,948	\$8,598	\$11,055	\$1,228

There have been no reported injuries or deaths for Ascension Parish relating to winter storm events within recent history.

Vulnerability

See Appendix C-1 to C-2 for parish and municipality building exposure to winter weather hazards. While critical buildings are not susceptible to structural damage from winter weather, they are vulnerable to power disruptions, which is why they are included as being vulnerable.

People within the parish, particularly the elderly and the very young are the most vulnerable populations to winter weather as they are most likely to suffer from exposure to extremely low temperatures. The total population within the parish that is susceptible to a hurricane hazard are shown in the table below.

Table 2-65: Number of people susceptible to Winter Weather.

Number of People Exposed to Hurricane Hazards			
Location	# in Community	# in Hazard Area	% in Hazard Area
Parish (Unincorporated)	95,137	95,137	100%
Gonzales	10,301	10,301	100%
Donaldsonville	7,473	7,473	100%
Sorrento	1,482	1,482	100%

The HAZUS-MH hurricane model was also extrapolated to provide an overview of vulnerable populations throughout the jurisdictions in the tables below:

Table 2-66: Vulnerable populations in unincorporated Ascension Parish to Winter Weather.

Ascension Parish (Unincorporated)		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	95,137	100%
Persons Under 5 years	6,945	7.3%
Persons Under 18 years	26,543	27.9%
Persons 65 Years and Over	9,418	9.9%

Table 2-67: Vulnerable populations in Donaldsonville to Winter Weather.

Donaldsonville		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,439	100%
Persons Under 5 years	501	6.7%
Persons Under 18 years	1,801	24.1%
Persons 65 Years and Over	994	13.3%

Table 2-68: Vulnerable populations in Gonzales to Winter Weather.

Gonzales		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	731	100%
Persons Under 5 years	2,596	7.1%
Persons Under 18 years	1,257	25.2%

Persons 65 Years and Over	5,027	12.2%
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Table 2-69: Vulnerable populations in to Winter Weather.

Sorrento		
Category	Total Numbers	Percentage of People in Hazard Area
Number in Hazard Area	1,482	100%
Persons Under 5 years	104	7%
Persons Under 18 years	387	26.1%
Persons 65 Years and Over	187	12.6%

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Section 3: Capability Assessment

This section summarizes all efforts to develop policies, programs, and activities that directly or indirectly support hazard mitigation. It also provides information on resources and gaps in the participating jurisdictions' infrastructure, as well as relevant changes in its law since the last Plan Update, in order to suggest a mitigation strategy.

Through this assessment strengths that could be used to reduce losses and reduce risk throughout the community are identified. In addition, areas where mitigation actions might be used to supplement current capabilities and create a more resilient community before, during and after a hazard event are outlined.

POLICIES, PLANS, AND PROGRAMS

Ascension Parish and its jurisdictions' capabilities are unique to the parish as a whole, including planning, regulatory, administrative, technical, financial, and education and outreach resources. There are a number of mitigation-specific acts, plans, executive orders, and policies that lay out specific goals, objectives, and policy statements which already support or could support pre- and post-disaster hazard mitigation. Many of the ongoing plans and policies hold significant promise for hazard mitigation, and take an integrated and strategic look holistically at hazard mitigation in all jurisdictions to continually propose ways to improve it. These tools are valuable instruments in pre and post disaster mitigation as they facilitate the implementation of mitigation activities through the current legal and regulatory framework.

As of the 2015 Hazard Mitigation Plan Update, Ascension Parish and its jurisdictions ensure that all building codes adopted are enforced and in compliance, relating to the construction of any within the boundaries of the parish. Building code, permitting, and inspections capabilities in place within Ascension Parish and its incorporated jurisdictions can be found in the following tables.

Some jurisdictions have extensive zoning regulations, which address use and height of buildings, density of populations, open space limitation, and lot and occupancy requirements. The zoning ordinances are consistent with the parish comprehensive plan. Before the Parish Council enacts or amends development regulations or takes any land use action, and before the Zoning Board may make any recommendation to the Parish Council regarding a proposed development regulation or land use action, the Planning Department, or other department responsible for providing findings, recommendations, papers, correspondence, and records related to the regulation, amendment, or action shall provide a written recommendation to the Council and Zoning Board regarding the consistency with the plan. The following tables demonstrate land use, zoning, and ordinance requirements that address many different types of districts in the parish and its incorporated jurisdictions, ranging from suburban, conservation, and mixed-use to industrial.

Table 3-1: Planning and Regulatory Capabilities

Planning and Regulatory					
Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.					
	Ascension Parish	Gonzales	Donaldsonville	Sorrento	Comments
Plans	Yes / No				
Comprehensive / Master Plan	Y	Y	N	N	
Capital Improvements Plan	Y	Y	N	N	
Economic Development Plan	Y	Y	N	N	
Local Emergency Operations Plan	Y	Y	N	N	
Continuity of Operations Plan	Y	N	N	N	
Transportation Plan	Y	N	N	N	
Stormwater Management Plan	Y	Y	N	N	Updated annually
Community Wildfire Protection Plan	N	N	N	N	
Other plans (redevelopment, recovery, coastal zone management)	N	N	N	N	
Building Code, Permitting and Inspections	Yes / No				
Building Code	Y	Y	N	N	IBC and IRC 2012
Building Code Effectiveness Grading Schedule (BCEGS) Score	N	N	N	N	
Fire Department ISO/PIAL rating	Y	Y	N	N	PIAL Ratings
Site plan review requirements	Y	Y	N	N	
Land Use Planning and Ordinances	Yes / No				
Zoning Ordinance	Y	Y	N	N	
Subdivision Ordinance	Y	Y	N	N	
Floodplain Ordinance	Y	Y	N	N	
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	Y	Y	N	N	
Flood Insurance Rate Maps	Y	Y	N	N	
Acquisition of land for open space and public recreation uses	Y	N	N	N	
Other					

Some programs and policies, such as the ones just described, might use complementary tools to achieve a common end, but fail to coordinate with or support each other. Thus, coordination among local mitigation policies and programs is essential to hazard mitigation.

ADMINISTRATION, TECHNICAL, AND FINANCIAL

As a community, Ascension Parish and its jurisdictions have administrative and technical capabilities in place that may be utilized in reducing hazard impacts or implementing hazard mitigation activities. Such capabilities include staff, skillset, and tools available in the community that may be accessed to implement mitigation activities and to effectively coordinate resources. The following are resources in place in Ascension Parish and its incorporated jurisdictions:

Table 3-2: Administrative and Technical Capabilities

Administration and Technical					
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.					
	Ascension Parish	Gonzales	Donaldsonville	Sorrento	Comments
Administration	Yes / No				
Planning Commission	Y	Y	P	P	L=Local; P=Parish
Mitigation Planning Committee	Y	N	P	P	L=Local; P=Parish
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Y	Y	P	L/P	L=Local; P=Parish
Staff	Yes / No; FT/PT; % Hazard Mitigation				
Chief Building Official	Y/FT/10%	Y/FT/80%	N	N	
Floodplain Administrator	Y/FT/50%	Y/FT/30%	N	N	
Emergency Manager	Y/FT/20%	Y/FT/75%	N	N	L=Local; P=Parish
Community Planner	Y/FT/10%	Y/FT/10%	N	N	
Civil Engineer	Y/FT/10%	Y/FT/40%	N	N	C=Contractor
GIS Coordinator	Y/FT/10%	Y/FT/40%	N	N	
Grant Writer	Y/FT/15%	Y/FT/40%	N	N	
Other	Y/FT/75%	N	N	N	Drainage
Technical	Yes / No				
Warning Systems / Service (Reverse 911, outdoor warning signals)	Y	Y	N	N	1st Call Networks; Media Overrides
Hazard Data & Information	Y	Y	N	N	
Grant Writing	Y	Y	N	N	
Hazus Analysis	Y	N	N	N	
Other	N	N	N	N	

Financial capabilities are the resources that Ascension Parish and its incorporated jurisdictions have access to or are eligible to use in order to fund mitigation actions. The follow resources are available to fund mitigation actions in Ascension Parish and its incorporated jurisdictions:

Table 3-3: Financial Capabilities

Financial					
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.					
	Ascension parish	Gonzales	Donaldsonville	Sorrento	Comments
Funding Resource	Yes / No				
Capital Improvements project funding	Y	Y	N	N	
Authority to levy taxes for specific purposes	Y	Y	N	N	
Fees for water, sewer, gas, or electric services	Y	Y	N	N	
Impact fees for new development	N	Y	N	N	
Stormwater Utility Fee	N	N	N	N	
Community Development Block Grant (CDBG)	Y	Y	N	N	
Other Funding Programs	N	Y	N	N	

Ascension Parish and its incorporated jurisdictions have existing programs to implement mitigation activities as well as communicate risk. The existing programs are as follows:

Table 3-2: Education and Outreach Capabilities

Education and Outreach					
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.					
	Ascension parish	Gonzales	Donaldsonville	Sorrento	Comments
Program / Organization	Yes / No				
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Y	Y	N	N	
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	N	Y	N	N	
Natural Disaster or safety related school program	N	Y	N	N	
Storm Ready certification	N	Y	N	N	
Firewise Communities certification	N	N	N	N	
Public/Private partnership initiatives addressing disaster-related issues	N	Y	N	N	
Other					

The following municipalities and entities are recognized by the Parish of Ascension under the Hazard Mitigation Plan allowing them to apply for available hazard mitigation funding for as long as these municipalities and entities notify the Parish of their intentions and the Parish concurs:

Municipalities:

- Parish of Ascension
- City of Gonzales
- City of Donaldsonville
- Town of Sorrento

Unincorporated Settlements:

- Prairieville
- Darrow
- Burnside
- Geismar
- Galvez
- St. Amant

Section 4: Mitigation Strategy

Introduction

A Hazard Mitigation Strategy has a common guiding principle and is the demonstration of the jurisdictions' commitment to reduce risks from hazards. The Strategy also serves as a guide for decision makers as they commit resources to reducing the effects of hazards.

The mitigation actions and projects in this 2015 HMP update are a product of analysis and review of the each participating jurisdiction under the coordination of the Ascension Parish Office of Homeland Security and Emergency Preparedness.

A crucial component of successful mitigation is analysis of previous actions. The success or failure of mitigation actions implemented before an event should be evaluated. Self-analysis should take place during the recovery and mitigation phases of emergency management when the community can take stock of how well it prepared for an event and to what degree it needed to responded.

An online public opinion survey was conducted of Ascension Parish residents between September and November 2014. The 25 question survey was completed by 151 parish residents over the age of 18. The survey was designed to capture public perceptions and opinions regarding natural hazards in Ascension Parish. In addition, the survey collected information regarding the methods and techniques preferred by the respondents for reducing the risks and losses associated with local hazards.

When asked to gage from a list which categories were more susceptible to impacts caused by natural hazards, the top three categories selected were:

1. Infrastructure (Damage or loss of bridges, utilities, schools, etc.)
2. Human (Loss of life and/or injuries)
3. Economic (Business closures and/or job losses).

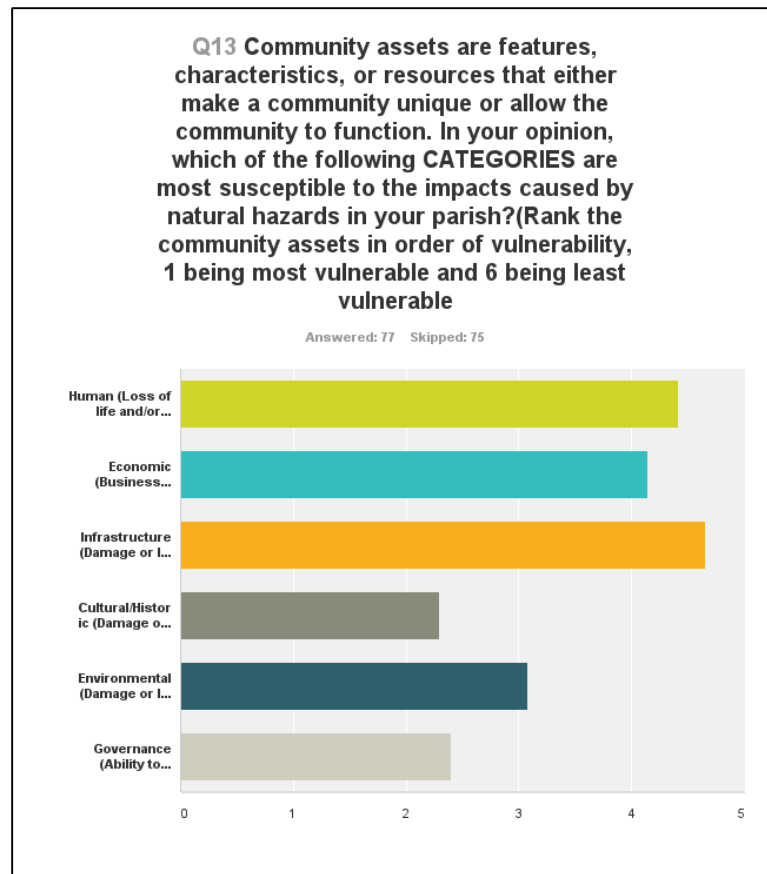


Figure 4-1: Public Opinion Survey - Community Perception of Vulnerability

Respondents to the public opinion survey ranked their top five types of community assets to be the following:

1. Hospitals
2. Fire/Police Stations
3. Major Bridges
4. Schools (K-12)
5. Nursing Homes/Assisted Living Facilities.

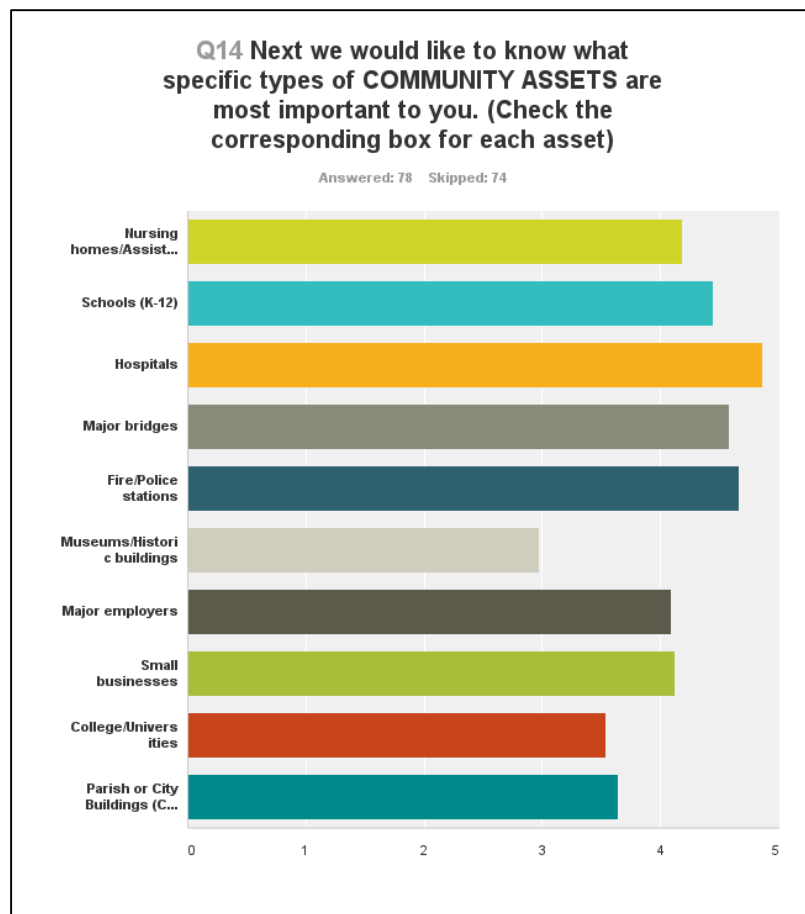


Figure 4-2: Importance of Community Assets

Conducting the public opinion survey activity qualifies that the goals and action items developed by the participating jurisdictions are representative of the outlook of the community at large.

Goals

The goals represent the guidelines the parish and its communities want to achieve with this plan update. To help implement the strategy and adhere to the mission of the Hazard Mitigation Plan, the preceding section of the Plan Update was focused on identifying and quantifying the risks faced by the residents and property owners in Ascension Parish from natural and manmade hazards. By articulating goals and objectives based on the Risk Assessment results, and intending to address those results, this section sets the stage for identifying, evaluating, and prioritizing feasible, cost effective, and environmentally sound actions to be promoted at the parish and municipal level – and to be undertaken by the state for its own property and assets. By doing so, each jurisdiction can make progress toward reducing identified risks.

For the purposes of this Plan Update, goals and action items are defined as follows:

- **Goals** are general guidelines that explain what the parish wants to achieve. Goals are expressed as broad policy statements representing desired long-term results.
- **Action Items** are the specific steps (projects, policies, and programs) that advance a given Goal. They are highly focused, specific, and measurable.

The current goals of the Ascension Parish Hazard Mitigation Plan Update steering committee represent long-term commitments by the participating jurisdictions. After assessing these goals, the committee has decided that the current five goals are valid.

The goals are as follows:

Goal 1: Identify and pursue preventative structural and non-structural measures that will reduce future damages from hazards.

Goal 2: Enhance public awareness and understanding of disaster preparedness.

Goal 3: Reduce repetitive flood losses in parish and municipalities.

Goal 4: Facilitate sound building practices in the parish and municipalities so as to reduce or eliminate the potential impact of hazards.

Goal 5: Improve the ability of the parish and municipalities to rapidly recover and restore facilities and services to the public.

All of the activities in the Mitigation Action Plan will be focused on helping the parish and its municipalities in developing and funding projects that are not only cost effective but also meet the other DMA 2000 criteria of environmental compatibility and technical feasibility.

Due to changes in priorities in Ascension Parish and its jurisdictions, the Hazard Mitigation Plan Update Committee for each jurisdiction reviewed and evaluated the potential project list, in which consideration was given to a variety of factors. Such factors include determining a project's eligibility for federal mitigation grants as well as its ability to be funded. This process required evaluation of each project's engineering feasibility, cost effectiveness, and environmental and cultural factors. The high priority projects determined by the Hazard Mitigation Plan Update Committee:

1. Elevation/acquisition projects
2. Wind retrofit of critical facilities
3. Drainage improvement projects
4. Lamar Dixon Hardening/Community Safe Room Project
5. DHS 5% generator project
6. Human Resources, governmental complex wind hardening project.

After vigorous review of each goal, the committee established a consensus on the validity of the goals because of their coverage of all the committee's action items and priorities. Action Items from the original Hazard Mitigation Plan have been identified as being completed, ongoing, New, projects ranked, and projects scoped. The projects from the previous Plan Update have been marked complete, ongoing, New, or removed have multiple locations where some of the locations have been completed and others have not.

Mitigation Actions

Each participating jurisdiction identified several projects that would reduce and/or prevent future damage. In that effort, each group focused on a comprehensive range of specific mitigation actions and

projects specific to their jurisdiction. These actions and projects were identified in thorough fashion by the consultant team, the steering committee, and committee by way of frequent and open communications and meetings held throughout the planning process.

As outlined in the Local Mitigation Planning Handbook the following are eligible types of Mitigation Actions:

1. **Local Plans and Regulations** – These actions include government authorities, policies, or codes that influence the way land and buildings are developed and built.
2. **Structure and Infrastructure Projects** – These actions involve modifying existing structures and infrastructure to protect them from a hazard or remove them from a hazard area, and also includes projects to construct manmade structures to reduce the impact of hazards.
3. **Natural System Protection** – These actions minimize the damage and losses and also preserve or restore the functions of natural systems.
4. **Education and Awareness Programs** – These actions inform and educate citizens, elected officials, and property owners about hazards and potential ways to mitigate them.

The established and agreed upon actions relative to the established goals are as follows:

Table 4-1: Ascension Parish Unincorporated

Ascension Parish - Unincorporated							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
A1: Flood Plain Management Partnerships	Effectively communicate and coordinate all flood mitigation issues.	HMPG; PDM; FMA, local budgets	1-5 years	Ascension OHSEP	Flooding, Tropical Cyclone	2, 5	New
A2: Construct Safe Rooms to protect parish employees	n/a	HMGP	n/a	Ascension OHSEP and Public Works	Tornadoes	n/a	In Progress
A3: Inter-Jurisdictional Flood Risk Assessments	Effectively assess the risk from backwater, headwater, and storm surge flooding through the use of surge and inundation models.	HMGP	1-5 years	Ascension OHSEP	Flooding, Tropical Cyclone	2, 3, 5	New

Ascension Parish - Unincorporated							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
A4: Storm Surge and Inundation Modeling	Determine changes in storm surge threats due to surge inundation through Lakes Pontchartrain and Maurepas, as well as into the McElroy Swamp.	HMGP, local budgets	1 year	Ascension OHSEP	Tropical Cyclone	2, 3, 5	New
A5: Improve NFIP Compliance	Maintain Parish NFIP compliance by conducting to ensure protocols are followed and actions are taken to improve NFIP ratings in all jurisdictions.	HMGP	1 year	Ascension OHSEP	Flooding, Dam/Levee Failure	2. 5	New
A6: Wind harden municipal and parish structures including new buildings and infrastructure	n/a	HMGP, local, federal, regional	n/a	Ascension Parish OHSEP	Tropical Cyclone, Tornadoes, Thunderstorms	n/a	New
A7: Build tornado safe rooms and maintain hurricane shelters	n/a	HMGP, local, federal, regional	n/a	Ascension Parish OHSEP	Tropical Cyclone, Tornadoes	n/a	New
A8: Continue parish and municipal participation and compliance (Parish of Ascension, Donaldsonville, Gonzales, and Sorrento) in NFIP	n/a	Local, regional, and federal	n/a	Ascension Parish OHSEP	Flooding	n/a	Ongoing

Ascension Parish - Unincorporated							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
A9: Improve Stormwater Management Planning	Complete drainage study to improve stormwater management in areas subject to flooding during flash floods.	HMPG; PDM; FMA, local budgets	0-6 months	Ascension OHSEP	Flooding, Tropical Cyclone, Dam/Levee Failure	1. 3. 4. 5	New
A10: Safe Room Construction	Retrofit Existing Structures or construct new structures to act as emergency safe-rooms during severe weather events.	HMGP	1-2 years	Ascension OHSEP	Tornadoes, Tropical Cyclone,	1, 4	New
A11: Water Works Generators	Provide backup power to parish-owned water works – ACUD 1.	HMGP	1-2 years	Ascension OHSEP	Tropical Cyclone, Thunderstorms	3, 4, 5	New
A12: Sewer Auxiliary Power	Provide backup generator power to sewage plants throughout parish to ensure continuous operations during severe weather events.	HMGP	1-2 years	Ascension OHSEP	Tropical Cyclone, Thunderstorms, Tornadoes	3, 4, 5	New
A13: General Population Shelter Auxiliary Power	Provide backup generator power to sheltering facilities to include schools and the Lamar Dixon Expo Center to ensure the parish can meet extended sheltering requirements.	HMGP	0–6 months	Ascension OHSEP	Tropical Cyclone, Tornadoes, Winter Weather	3, 4, 5	New

Ascension Parish - Unincorporated							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
A14: Retrofit Public Buildings	Retrofit public buildings to reinforce them against damages from high velocity wind events.		1 year	Ascension OHSEP	Tropical Cyclone, Thunderstorms, Tornadoes	1, 3, 4, 5	New
A15: Ascension/St. James Auxiliary Power	Add auxiliary generator power to the Ascension Parish Airport for use during an emergency.		1-5 years	Ascension OHSEP	Tropical Cyclone, Thunderstorms, Winter Weather	3, 4, 5	New
A16: Mitigation Public Outreach	Develop a parishwide outreach and educational campaign, to provide educational materials to libraries, schools, and other public facilities including mitigation measures for all hazards including flooding, levee failure, sinkholes, hail, heavy winds, winter weather, lightning, tornadoes, and tropical cyclones.	HMPG, local budgets	1-5 years	Ascension OHSEP	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	2, 5	Ongoing
A17: Elevate or acquire all RL and SRL structures in Ascension Parish in flood zones and/or potential levee failure areas	n/a	HMGP, PDM, FMA	n/a	Ascension Parish OHSEP	Flood, Tropical Cyclone, Levee	n/a	New
A18: Ensure that future development does not increase hazard losses	n/a	No additional funds requested	n/a	Ascension Parish OHSEP	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing

Ascension Parish - Unincorporated							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
A19: Guide future development away from hazard areas while maintaining other parish goals such as economic development and improving the quality of life	n/a	No additional funds requested	n/a	Ascension Parish OHSEP	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
A20: Enforce the International Building Code requirements for all new construction to strengthen buildings against high wind damage	n/a	No additional funds requested	n/a	Ascension Parish OHSEP	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
A21: Provide safe locations for files, records, and computer equipment	n/a	No additional funds requested	n/a	Ascension Parish OHSEP	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
A21: Participate in existing programs at the state and federal levels oriented to environmental enhancement and conservation	n/a	Local, regional, and federal	n/a	Ascension Parish OHSEP	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
A21: Purchase additional radios for first responders	n/a	Local, regional, and federal	n/a	Ascension Parish OHSEP	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
A24: Purchase generators for critical facilities	n/a	Local, regional, and federal	n/a	Ascension Parish OHSEP	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical	n/a	Ongoing

Ascension Parish - Unincorporated							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
					Cyclones, Winter Weather		
A25: Maintain Lamar Dixon and the South Louisiana State Fairgrounds in Donaldsonville as Emergency Management Staging Areas and Points of Distribution to be utilized immediately after a storm event	n/a	Local, regional, and federal	n/a	Ascension Parish OHSEP	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
A26: Drainage system upgrades	Widen drainage ditches and upgrade culverts.	HMGP, local and regional	n/a	Ascension Parish OHSEP	Flooding, Tropical Cyclone	n/a	New
A27: Conduct study on effects of sinkholes to surrounding areas.	n/a	Local, regional, and federal	n/a	Ascension Parish OHSEP	Sinkholes	n/a	New

Table 4-2: Donaldsonville

Donaldsonville							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Agency	Hazard	Goal	Status
D1: Upgrade drainage under three railroad crossings	n/a	HMGP, local, and federal	n/a	City of Donaldsonville	Flooding, Tropical Cyclone	n/a	New

Donaldsonville							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Agency	Hazard	Goal	Status
D2: Upgrade existing culverts to increase stormwater conveyance	n/a	HMGP, local, and regional	n/a	City of Donaldsonville	Flooding, Tropical Cyclone	n/a	New
D3: Continue parish and municipal participation and compliance (Parish of Ascension, Donaldsonville, Gonzales, and Sorrento) in NFIP	n/a	Local, regional, and federal	n/a	Ascension OHSEP, City of Donaldsonville	Flooding	n/a	Ongoing
D4: Generators	Installation of permanent generators at Pump Station 1 and ACUD 1.	HMGP	1 year	City of Donaldsonville	Flooding, Tropical Cyclone	4, 5	New
D5: Wind Hardening of the Lemann Center and City Hall	Retrofit Lemann Center, City Hall, and other facilities for use as a shelter, staging center, and point of commodity distribution during a disaster.	HMGP	1 year	City of Donaldsonville	Tropical Cyclone, Thunderstorm, Tornado	1, 4, 5	New
D6: Radio Communication	Radios need to establish frequency for communication during an emergency.	HGMP; local budgets	0-6 months	City of Donaldsonville	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	4, 5	New
D7: Safe Room Construction	Retrofit Existing Structures or construct new structures to act as emergency safe-rooms during severe weather events.	HMGP	1-2 years	Ascension OHSEP, City of Donaldsonville	Tornadoes, Tropical Cyclone	1, 4	New

Donaldsonville							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Agency	Hazard	Goal	Status
D8: Flood Risk – Infrastructure Improvements	Drainage improvements for high risk flooding areas, including Opelousas Street, West 7th Street, St. Patrick Street, and all City underpasses.	HMPG; PDM; FMA, local budgets	1-3 years	City of Donaldsonville	Flooding, Tropical Cyclone, Levee, Thunderstorm	1, 3, 4, 5	New
D9: Bayou Stormwater Management	Dredging of waterways in surrounding parishes alleviate flooding in 3 surrounding parishes.	HMPG; PDM; FMA, local budgets	1-2 years	City of Donaldsonville	Flooding, Tropical Cyclone	1, 3, 4, 5	New
D10: Pumping Stations at Lafourche Street and Railroad Tracks	Addition of pumping stations at Lafourche Street and railroad crossing.	HMPG; PDM; FMA, local budgets	1-5 years	City of Donaldsonville	Flooding, Tropical Cyclone	1, 3, 4, 5	New
D11: Elevate or acquire all RL and SRL structures in Ascension Parish in flood zones and/or potential levee failure areas	n/a	HMGP, PDM, FMA	n/a	Ascension Parish OHSEP, City of Donaldsonville	Flood, Tropical Cyclone, Levee	n/a	New
D12: Ensure that future development does not increase hazard losses	n/a	No additional funds requested	n/a	Ascension OHSEP, City of Donaldsonville	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing

Donaldsonville							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Agency	Hazard	Goal	Status
D13: Guide future development away from hazard areas while maintaining other parish goals such as economic development and improving the quality of life	n/a	No additional funds requested	n/a	Ascension OHSEP, City of Donaldsonville	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
D14: Enforce the International Building Code requirements for all new construction to strengthen buildings against high wind damage	n/a	No additional funds requested	n/a	Ascension OHSEP, City of Donaldsonville	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
D15: Provide safe locations for files, records, and computer equipment	n/a	No additional funds requested	n/a	Ascension OHSEP, City of Donaldsonville	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
D16: Purchase generators for critical facilities	n/a	Local, regional, and federal	n/a	Ascension Parish OHSEP, City of Donaldsonville	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing

Table 4-3: Gonzales

Gonzales							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
G1: Continue parish and municipal participation and compliance (Parish of Ascension, Donaldsonville, Gonzales, and Sorrento) in NFIP	n/a	Local, regional, and federal	n/a	Ascension Parish OHSEP, City of Gonzales	Flooding	n/a	Ongoing
G2: City Hall Radios	Radios for interoperable communications between the OHSEP liaison and the city fueling coordinator.	HMGP; local budgets	0-6 months	City of Gonzales	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	4, 5	New
G3: Sandbagging Location Covers	Cover second sandbag location as well as obtain a sand shaker to produce sandbags at the same rate as its covered counterpart.	HMGP; local budgets	1 year	City of Gonzales	Flooding, Tropical Cyclone	1, 3, 4	New
G4: Sewer Lift Station Generators – Gonzales	Install generator at lift stations to alleviate sewage backup during an incident.	HMGP	1-3 years	City of Gonzales	Tropical Cyclone, Thunderstorm	1, 3, 4, 5	New
G5: Drainage System	Widen drainage ditches and upgrade culverts in coordination with other jurisdictions and parishes to ensure waterways are sufficient to move flooding from the jurisdiction.	HMGP	1-2 years	City of Gonzales	Flooding	1, 3, 4, 5	New

Gonzales							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
G6: Safe Room Construction	Retrofit Existing Structures or construct new structures to act as emergency safe-rooms during severe weather events.	HMGP	1-2 years	Ascension OHSEP, City of Gonzales	Tornadoes, Tropical Cyclone	1, 4	New
G7: Elevate or acquire all RL and SRL structures in Ascension Parish in flood zones and/or potential levee failure areas	n/a	HMGP, PDM, FMA	n/a	Ascension Parish OHSEP, City of Gonzales	Flood, Tropical Cyclone, Levee	n/a	New
G8: Ensure that future development does not increase hazard losses	n/a	No additional funds requested	n/a	Ascension OHSEP, City of Gonzales	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
G9: Guide future development away from hazard areas while maintaining other parish goals such as economic development and improving the quality of life	n/a	No additional funds requested	n/a	Ascension OHSEP, City of Gonzales	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
G10: Enforce the International Building Code requirements for all new construction to strengthen buildings against high wind damage	n/a	No additional funds requested	n/a	Ascension OHSEP, City of Gonzales	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing

Gonzales							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
G11: Provide safe locations for files, records, and computer equipment	n/a	No additional funds requested	n/a	Ascension OHSEP, City of Gonzales	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
G12: Wind retrofit of parish facilities	Wind retrofit of parish facilities	HMGP	1 year	Ascension OHSEP, City of Gonzales	Tropical Cyclone, Thunderstorm, Tornado	1, 4, 5	New

Table 4-4: Sorrento

Sorrento							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
S1: Continue parish and municipal participation and compliance (Parish of Ascension, Donaldsonville, Gonzales, and Sorrento) in NFIP	n/a	Local, regional, and federal	n/a	Ascension Parish OHSEP, Town of Sorrento	Flooding	n/a	Ongoing

Sorrento							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
S2: Sewer System	A drainage project between St. James Parish and Ascension Parish to clear and maintain Bayou Conway will help alleviate repetitive loss areas and the sewer problems in Sorrento.	HMGP	1 year	Town of Sorrento	Flooding	1, 3, 4, 5	New
S3: Drainage System	Clearing of ditches, waterways and bayous is needed to alleviate the backwater and stormwater after an incident.	HMGP	1-3 years	Town of Sorrento	Flooding, Tropical Cyclones	1, 3, 4, 5	New
S4: Radio Communication	Radios are need to establish a frequency for communication during incidents.	HGMP; local budgets	1 year	Town of Sorrento	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	4, 5	New
S5: Safe Room Construction	Retrofit Existing Structures or construct new structures to act as emergency safe-rooms during severe weather events.	HMGP	1-2 years	Ascension OHSEP, Town of Sorrento	Tornadoes, Tropical Cyclone,	1, 4	New
S6: Elevate or acquire all RL and SRL structures in Ascension Parish in flood zones and/or potential levee failure areas	n/a	HMGP, PDM, FMA	n/a	Ascension Parish OHSEP, Town of Sorrento	Flood, Tropical Cyclone, Levee	n/a	New
S7: Ensure that future development does not increase hazard losses	n/a	No additional funds requested	n/a	Ascension OHSEP, Town of Sorrento	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing

Sorrento							
Jurisdiction-Specific Action	Action Description	Funding Source	Target Completion Date	Responsible Party, Agency, or Department	Hazard	Goal	Status
S8: Guide future development away from hazard areas while maintaining other parish goals such as economic development and improving the quality of life	n/a	No additional funds requested	n/a	Ascension OHSEP, Town of Sorrento	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
S9: Enforce the International Building Code requirements for all new construction to strengthen buildings against high wind damage	n/a	No additional funds requested	n/a	Ascension OHSEP, Town of Sorrento	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
S10: Provide safe locations for files, records, and computer equipment	n/a	No additional funds requested	n/a	Ascension OHSEP, Town of Sorrento	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing
S11: Wind retrofit of parish facilities	Wind retrofit of parish facilities	HMGP	1 year	Ascension OHSEP, Town of Sorrento	Tropical Cyclone, Thunderstorm, Tornado	1, 4, 5	New
S12: Widen drainage ditches and upgrade culverts.	Widen drainage ditches and upgrade culverts.	HMGP, local and regional	n/a	Ascension Parish OHSEP, Town of Sorrento	Flooding, Tropical Cyclone	n/a	New
S13: Purchase generators for critical facilities	n/a	Local, regional, and federal	n/a	Ascension Parish OHSEP, Town of Sorrento	Flooding, Sinkhole, Levee Failure, Thunderstorms, Tornadoes, Tropical Cyclones, Winter Weather	n/a	Ongoing

Action Prioritization

During the prioritization process, each Jurisdiction and the Steering Committee as a whole considered the costs and relative benefits of each new action. Costs can usually be listed in terms of dollars, although at

times it involves staff time rather than the purchase of equipment or services that can be readily measured in dollars. In most cases, benefits, such as lives saved or future damage prevented, are hard to measure in dollars, many projects were prioritized with these factors in mind.

In all cases, the Committee concluded that the benefits (in terms of reduced property damage, lives saved, health problems averted and/or economic harm prevented) outweighed the costs for the recommended action items.

The Committee and individual jurisdictions prioritized the possible activities that could be pursued. The result were items that address the major hazards, are appropriate for those hazards, are cost-effective, and are affordable. Ascension Parish and the jurisdictions will implement and administer the identified actions based off of the proposed timeframes for each reflected in the portions of this section where actions are summarized. Actions from the previous plan were validated as having no changes in prioritization as they carry over into the current plan update process.

Appendix A: Planning Process

Purpose

The hazard mitigation plan update process prompts local jurisdictions to keep their hazard mitigation plan current and moving toward a more resilient community. The plan update builds on the research and planning efforts of previous plans while reviewing recent trends.

The Ascension Parish Hazard Mitigation Plan Update

The Ascension Parish Hazard Mitigation Plan Update process began in August 2014 with a series of meetings and collaborations between the contractor (SDMI) and the participating jurisdictions. Update activities were intended to give each jurisdiction the opportunity to shape the plan to best fit their community's goals. Community stakeholders and the general public were invited to attend and contribute information to the planning process during specific time periods or meetings.

Date	Meeting or Outreach	Location	Public Invited	Purpose
8/11/2014	Coordination Meeting	SDMI, LSU	No	Discuss with Parish HM coordinator (OHSEP Director) expectations and requirements of the project.
8/27/2014	Kick-Off Meeting	OHSEP Office, Gonzales	No	Discuss with the plan steering committee expectations and requirements of the project. Assign plan worksheets to jurisdictions.
10/6/2014	Public Meeting	Executive Council Chambers, Gonzales	Yes	The public meeting allowed the public and community stakeholders to participate and provide input into the hazard mitigation planning process. Maps of the Ascension parish communities were provide for the meeting attendees to identify specific areas where localized hazards occur.
9/10/2014	Public Survey Tool	Online	Yes	This survey asked participants about public perceptions and opinions regarding natural hazards in Ascension Parish. In addition, we asked about the methods and techniques preferred for reducing the risks and losses associated with these hazards. Survey Results: https://www.surveymonkey.com/results/SM-PT98D8QV/
9/19/2014	Planning Status Meeting	OHSEP Office, Gonzales	No	

11/20/2014	Action Strategies Meeting	SDMI, LSU	No	Discuss the mitigation actions with the Parish HM coordinator (OHSEP Director), Parish planner, and SDMI staff
12/17/2014	Action Priorities Meeting	OHSEP Office, Gonzales	No	Discuss the prioritization of the mitigation actions with the Parish HM coordinator (OHSEP Director), Parish planner, and SDMI staff
2/2/15 – 2/13/15	Public Plan Review (Digital)	OHSEP Office, Gonzales	Yes	Provide a draft copy of the plan on the Ascension Parish OHSEP website, for public review.
2/2/15 – 2/13/15	Public Plan Review (Hardcopy)	OHSEP Office, Gonzales	Yes	Provide a draft copy of the plan at the Ascension Parish OHSEP Office, for public review.

Planning

The 7-month plan update process consisted of several phases, as displayed in Table 2 below.

Planning Phase	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7
Plan review and revision							
Data collection							
Risk Assessment							
Public outreach and input			Public meetings and survey			Draft Review	
Mitigation strategy and actions							
GOHSEP plan updates review							
Plan updates review by FEMA							
Plan adoption							
Plan approval							Final

Coordination

The Ascension Parish Office of Homeland Security and Emergency Preparedness (OHSEP) oversaw the coordination of the 2015 Hazard Mitigation Plan Update Steering Committee during the update process. The OHSEP Director was responsible for identifying members for the committee.

The OHSEP Director and SDMI were jointly responsible for inviting the steering committees and key stakeholders to planned meetings and activities. SDMI assisted the OHSEP Director with press releases and social media statements for notification to the media and general public for public meetings and

public outreach activities. SDMI was responsible for facilitating meetings and outreach efforts during the update process.

Neighboring Community, Local, and Regional Planning Process Involvement

From the outset of the planning process, the Hazard Mitigation Team encouraged participation from a broad range of jurisdictional entities. The involvement of representatives from city, state, and regional agencies provided diverse prospective and mitigation ideas.

The 2015 Hazard Mitigation Plan Update Steering Committee consisted of representatives from the following parish, municipal or community stakeholders:

- Parish of Ascension
- City of Gonzales
- City of Donaldsonville
- Town of Sorrento
- Ascension Parish Public Works
- Ascension Parish Sheriff's Office
- Ascension Parish Council Office
- Ascension Parish School Board

Adjacent communities were invited by email to participate in each step of the planning process including the River Parishes of St. James, St. Charles, and Assumption. Iberville Parish was present at the Kickoff Meeting (see Meeting #2 Invite and Roster). Multiple projects included in the previous Hazard Mitigation Plan necessitate action from representatives from these parishes, especially waterway and drainage projects due to the connection of all waterways in Ascension Parish to the neighboring parishes.

Below is a detailed list of the 2015 HMPU Steering Committee:

Member/Title	Jurisdiction/Entity	Address	Phone/Email
Richard Webre, OHSEP Director	Ascension Parish	828 S. Irma Blvd., Bldg #3, Gonzales, LA 70737	225-621-8360; rwebre@apgov.us
Meredith Conger, Planning	Ascension Parish	828 S. Irma Blvd., Bldg #3, Gonzales, LA 70737	225-621-8360; mconger@apgov.us
Alvin Broussard, Public Works	City of Gonzales	120 S. Irma Blvd. Gonzales, LA 70737	225-647-9556; alvin@gonzalesla.com
Clay Stafford	City of Gonzales		225-647-9551; clay@gonzalesla.com

Bill Roux, Drainage Director	Ascension Parish	42077 Churchpoint Rd., Gonzales, LA 70737	225-450-1340; broux@apgov.us
Bobby Webre, Sheriff's Office	Ascension Parish		225-621-8337; bwebre@ascensionsheriff.com
Chad Lynch, School Board	Ascension Parish	9690 Airline Hwy., Sorrento, LA 70778	225-391-7303; chad.lynch@apsb.org
Johnny Richardson, Department of Public Works	Ascension Parish	42077 Churchpoint Rd., Gonzales, LA 70737	225-621-5724; jrichardson@apgov.us
Kent Schexnaydre, Parish Council	Ascension Parish	7140 Donaldson Dr., Gonzales, LA 70737	225-647-0455; kschexnayder@apgov.us
Lance Brock, Planning and Zoning	Ascension Parish	42077 Churchpoint Rd., Gonzales, LA 70737	225-621-5700; lbrock@apgov.us
Lavern Bourgeois, Building and Permits	Ascension Parish	42077 Churchpoint Rd., Gonzales, LA 70737	225-621-5715; lbourgeois@apgov.us
Leroy Sullivan, Mayor	City of Donaldsonville	609 Railroad Ave., Donaldsonville, LA 70346	225-473-4247; mayorofc@donaldsonville.brcoxmail.com
Marcia Shivers, Flood Plain Coordinator	Ascension Parish	42077 Churchpoint Rd., Gonzales, LA 70737	225-450-1369; mshivers@apgov.us
Sherman Jackson, Police Department	City of Gonzales	415 E. Cornerview St., Gonzales, LA 70737	225-647-9542; sjackson001@gonzalespd.org
Thomas "Moose" Pearce, Director, Department of Public Works	Ascension Parish	42077 Churchpoint Rd., Gonzales, LA 70737	225-450-1304; tpierce@apgov.us
Darrel Primeaux, Flood Plain Manager	Ascension Parish		225-450-1334; dprimeaux@apgov.us
Amanda Berot, Finance	Ascension Parish		225-621-9609; aberot@apgov.us

Brian Martinez, IT GIS Administrator	Ascension Parish		225-450-1056; bmartinez@apgov.us
Richard Compton, Director, Planning and Development	Ascension Parish	42077 Churchpoint Rd., Gonzales, LA 70737	225-450-1371; rcompton@apgov.us
Brandon ODeay, Technology Management	Ascension Parish	9039 St. Landry Road, Gonzales, LA 70737	225-621-5729; bodeay@apgov.us
Bob Horner, Civil Engineering	Ascension Parish		225-450-5190; bhorner@apgov.us
Martha Collins, Grants Officer	Ascension Parish		225-450-1122; mcollins@apgov.us
Jeff Wiley, Sheriff's Office	Ascension Parish		225-621-8322; jwiley@ascensionsheriff.com
Tommy Martinez, Parish President	Ascension Parish		225-621-5754; tmartinez@apgov.us
Mike Lambert, Mayor	Town of Sorrento	8173 Main St., Sorrento, LA 70778	225-675-5339; mrl201@eatel.net
Gwen LeBlanc, CFO	Ascension Parish		225-621-1108; gleblanc@apgov.us
Jackie Baumann, Chief Engineer	City of Gonzales	120 S. Irma Blvd., Gonzales, LA 70737	225-647-9589; jackie@gonzalesla.com

Program Integration

Local governments are required to describe how their mitigation planning process is integrated with other ongoing local and area planning efforts. This subsection describes Ascension Parish programs and planning.

A measure of integration and coordination is achieved through the HMPU participation of steering committee members and community stakeholders who administer programs such as: floodplain management under the National Flood Insurance Program (NFIP), coastal protection and restoration, parish planning and zoning and building code enforcement.

Existing plans, studies, and technical information were incorporated in the planning process. Examples include flood data from FEMA, the U. S. Army Corps of Engineers (USACE or Corps), and the U. S. Geological Survey. Much of this data was incorporated into the Risk Assessment component of the plan relative to plotting historical events and the magnitude of damages that occurred. The parish's 2005 Hazard

Mitigation Plan was also used in the planning process. Other existing data and plans used in the planning process include those listed below.

- Ascension Parish Master Plan and Land Use Plan (2003)
- Donaldsonville Hazard Mitigation Plan (2006)
- Ascension Parish Water and Sewer Plan
- Louisiana Transportation Center Plan
- East Ascension Drainage District

Documentation (Meetings and Public Outreach)

The following pages contain documentation of the agendas, attendees, and presentations, as well as any other related documents, for the meetings and public outreach activities conducted during this hazard mitigation plan update for Ascension parish. For each meeting held, agendas were distributed, sign-in sheets were collected to record attendance, and PowerPoint presentations were given. For each meeting involving the public, notification was given via newspaper, social media, press releases, and public notices.

Meeting #1: Coordination Meeting

Date: August 11, 2014

Location: SDMI, LSU Baton Rouge, LA

Purpose: Discuss with the hazard mitigation lead for the parish (OHSEP director), as well as the parish's lead planner, the expectations and requirements of the hazard mitigation plan update process and to establish and initial project timeline.

Public Initiation: No

Agenda

Agenda

Ascension Parish Hazard Mitigation Plan Update Parish Director Meeting #1

Aug 11, 2014, 9:00 a.m.

- Welcome - SDMI
- Parish Introductions
- SDMI Introductions
- Overview of Plan Update Process and Con Call Objectives
 - Objectives
 - Overview of Plan Update Process
 - Parish Expectations for Update Process
 - Discuss tentative dates for First Planning Meeting
- Plan Update Process will consist of the below main action items:
 - 1) Planning Team Meeting
 - 2) Worksheet Completion/Data Collection
 - 3) Plan Update Begins
 - 4) Public Meeting
 - 5) Public Draft Review
 - 6) Plan Update Final Draft to Parish and GOHSEP
- Planning Team Meeting
 - Select Date and Location (parish can help secure location or provide suggestions for SDMI to coordinate)
 - Parish should identifying stakeholders, provide SDMI with a list of these stakeholders to coordinate invitations
 - Worksheets will be provided at this meeting for data collection
- Worksheets
 - Parishes/Stakeholders to have 2 weeks to complete the worksheets
 - Will return completed worksheets to SDMI
- Plan Update begins – Approximately 30 days
 - SDMI will review data submitted in worksheets and update the HM plan based off of information received by parish and stakeholders. This will include:
 - Mitigation Strategy
 - Previous Occurrences
 - Mapping
 - Risk Assessment
- Public Meeting – Mitigation Plan DRAFT for public review/changes
 - Date/location
- Public Draft Review - Think about a location for this
- Plan Update from Draft to Final – Approximately 30 days
 - Submission of final plan to GOHSEP HM Officer
- Closing Remarks

Attendees

- Parish of Ascension
 - Richard Webre
 - Meredith Conger
- Contractor-LSU-SDMI
 - Brant Mitchell

- Lexie Andrews

Meeting #2: Hazard Mitigation Plan Update Kick-Off

Date: August 27, 2014

Location: Ascension Parish OHSEP, Gonzales, Louisiana

Purpose: Discuss the expectations and requirements of the hazard mitigation plan update process and to establish an initial project timeline with the Parish's Hazard Mitigation Plan Steering Committee. Assign each individual jurisdiction and the parish data collection for the plan update.

Public Initiation: No

Invite – Meeting #2


2014 HMPG Kick Off Meeting - 8/27/2014 - 1:30 pm to 3:00 pm - Message (HTML) (Read-Only)

FILE MESSAGE

Ignore Delete Reply Reply All Forward Meeting Brant To Manager Done Team Email Reply & Delete Create New Move OneNote Assign Mark Categorize Follow Up Translate Find Related Select Zoom

Delete Respond Quick Steps Move Actions Tags Editing Zoom

Wed 8/13/2014 5:05 PM

 Richard Webre <rwebre@apgov.us>

2014 HMPG Kick Off Meeting - 8/27/2014 - 1:30 pm to 3:00 pm

To: Kenneth Dawson; Bill Roux; Thomas Pearce; Lance Brock; Marcia Shivers; Darrel Primeaux; Johnny Richardson; Ami Johnson; Meredith Conger; Rachael Wilkinson; Lavern Bourgeois; Richard Compton; Charles Brown; day@gonzalesla.com; alvin@gonzalesla.com; anthony@gonzalesla.com; Gene Witek; Chuck Montero; Mark Stewart; Lynch, Chad (Chad.Lynch@apsb.org); Alexa J Andrews; Brant D Mitchell; Eric Deroche (eric.deroche@stjamesla.com); Mark Harrell (lohsep1@pgov.com); Laurie Dorian (ldorian@ibervilleparish.com); Richard Webre

Cc: Tommy Martinez; mayora@gonzalesla.com; Chief Sherman Jackson (sjackson001@gonzalespd.org); Jeff Wiley; Councilman Kent Schexnaydre; Mayor Leroy Sullivan

Message HMPG 2014-15 Update Letter.pdf (153 KB)

To all:

The parish and all municipalities must update the jurisdictional hazard mitigation plan on a four year cycle in order to remain eligible for federal mitigation and recovery funding. This year the planning process will be managed by this office and the Stevenson Disaster Management Institute at LSU. In order to accomplish this, the management team requires input from parish agencies and municipalities; therefore, we are requesting your participation in the planning process. If you are an elected official CC'd on this message you are welcome to attend; however, if you cannot I would like to request that you send a representative on your behalf. Please review the attached memorandum for more details, and thanks in advance for your time and participation.

Rick

Richard A. Webre
Director
Ascension Parish OHSEP



Office: 225.621.8360
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www.ascensionparish.net/OHSEP

Agenda-Meeting #2

Agenda

Ascension Parish Hazard Mitigation Plan Update

Steering Committee Kick-off Meeting

August 27, 2014

1:30 pm – 3:00 pm

INTRODUCTIONS AND BACKGROUND

- Officials
- Planning Steering Committee
- SDMI Team
- Governor's Office of Homeland Security

HAZARD MITIGATION PLANNING PROCESS

- Multi-jurisdictional Approach
- Federal Requirements
- Expectations
- Timeline

OUTREACH STRATEGY

COMMUNITY CAPABILITIES

RISK ASSESSMENT

- Hazard Identification
- Community Assets
- Risk Analysis
- Vulnerabilities

MITIGATION STRATEGY

PLAN APPROVAL PROCESS

PLAN ADOPTION BY JURISDICTIONS

FINAL PRODUCT

ASSIGNMENT: WORKSHEETS FOR EACH JURISDICTION (Due by October 1, 2014)

ADJORN

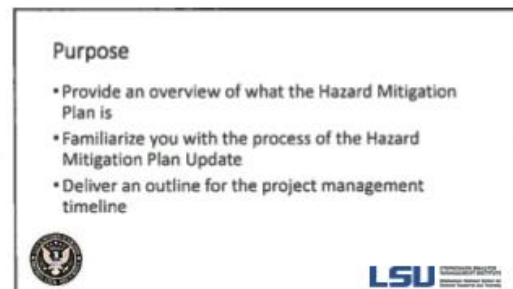
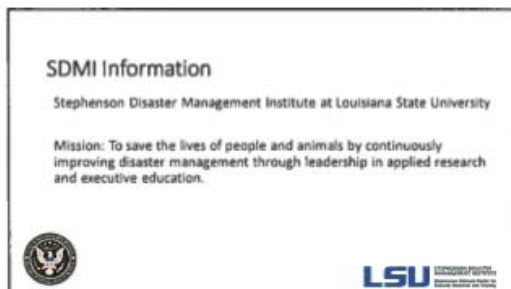
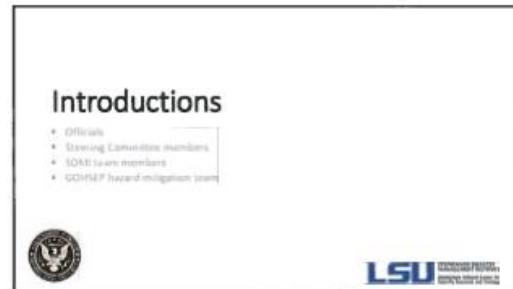
Roster-Meeting #2

ASCENSION PARISH HAZARD MITIGATION PLAN UPDATE KICK-OFF MEETING
AUGUST 27TH, 2014

Name	Organization	Email	Phone	Comments
Lauren Stevens	SDMI	lstevens@sdmi.edu	225-578-0202	—
Margaret Pierce	SDMI	mpierce@sdmi.edu	225-578-6596	—
Michael English	SDMI	Michael.English@sdmi.edu	225-267-2607	—
John Quertain	BERVILLE PARISH DPW	johnquertain@bparish-la.gov	225-776-2619	—
Alvin Brunsard	City of Gonzales	alvin@gonzalesla.com	225-802-1891	—
Anthony Keller	" "	anthony@gonzalesla.com	225-617-2811	—
Meredith Coughlin	Ascension OHSF	mcoughlin@ascn.org	225-933-0311	—
Chad Lynch	Asc. School Board	chad.lynch@ascn.org	225-323-0258	—
Dennis Domenech	Finance Dept	dennisd@ascn.org	225-450-1181	—
Brian Mathews	Utilities	brianm@ascn.org	225-450-1074	—
Bob Hermer	Engineering	bhermer@ascn.org	450-1320	—
Marcia Shivers	Floodplain	mshivers@ascn.org	450-1369	—
Patty Compton	P&Z	pcompton@ascn.org	450-1300	—
Thomas Porter	APC	tpor@ascn.org	225-779-0719	—

Name	Organization	Email	Phone	Comments
Jackie Baumann	Cinco Lanzas	jackiegonales@a.com	471-9589	
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Marta Belles	Agave	Meg.Lewis@agave.us	450-1182	
Chuck Mahoney	city of the mountains	madro@duke.edu	473-0664	
Richard Wilkinson	ARTIST	rwilkinson@agave.us	621-8360	
Amulhagen	ARTIST	amulhagen@agave.us	621-8360	
Pat Weber	ARTIST	thweber@agave.us	621-8360	
Wife Andrews	SDM	andrews@isudr	578-7034	

Presentation-Meeting #2



Hazard Mitigation Planning Process



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Hazard Mitigation Planning

Hazard Mitigation Plan Update Requirements

- The plan must be updated every five (5) years;
- Re-assess hazard identification and risk assessment
 - Consider any changes since the last plan update in 2010
 - Address events that have occurred since the last plan,
- Incorporate local planning efforts;
- Report mitigation strategy (projects) progress and discuss adjustments;
- Address any weaknesses identified in the previous plan review.



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Hazard Mitigation Planning

The Planning Team: A Multi-jurisdictional approach

- Each jurisdiction will have at least one representative on the planning team.
- This representative will need to report back to their community on a regular basis, as well as gather feedback and input into the plan.
- Utilize a council resolution or memorandum of understanding (MOU) to gain official recognition for the planning team.



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Hazard Mitigation Planning

Federal Requirements

- Disaster Mitigation Act of 2000 (DMA 2000)
 - Section 322 of the Act specifically addresses mitigation planning and requires state and local governments to prepare multi-hazard mitigation plans as a precondition for receiving FEMA mitigation project grants.
- Title 44 Code of Federal Regulations (CFR) §201.6 for FEMA approval and eligibility to apply for FEMA Hazard Mitigation Assistance



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Hazard Mitigation Planning

Expectations

Jurisdiction

- Each jurisdiction **MUST** show active participation in the planning process;
- Each jurisdiction **MUST** complete the mitigation action implementation worksheets;
- A local jurisdiction **MUST** review and revise its plan to reflect progress in local mitigation efforts;
- Each jurisdiction **MUST** adopt the final plan.



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Hazard Mitigation Planning

Expectations

Planning Team Member

- Planning team members **MUST** attend meeting(s);
- Planning team members review plan drafts;
- Planning team members **MUST** assist with public involvement and plan adoptions.



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Hazard Mitigation Planning

Expectations

SDMI (Contractor)

- SDMI WILL facilitate the process;
- SDMI WILL lend technical expertise;
- SDMI WILL draft the revised plan for GOHSEP and FEMA review;
- SDMI WILL make plan revisions as required by GOHSEP and FEMA in preparation for submission to FEMA for plan approval.



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Timeline*

Activity	Details	When
Risk self-assessment		Today
Interdisciplinary Meetings	Jurisdictions should hold 2-3 internal meetings to assess previous goals and actions, evaluate progress in implementing the action plan, and adjust actions as necessary while refining the mitigation strategy.	August 28 th – September 20 th
Jurisdiction specific workshops	Jurisdictions work to complete needed information for plan update.	Due by October 31 st
Public meeting	The general public and community stakeholders are invited to participate in the planning process. The public will be invited to participate in an online mitigation survey. Process helps to identify possible mitigation strategies.	October (2 nd - 10 th)
Plan development	SDMI will work to incorporate updates into existing plan.	October - November
Public plan review	The plan will be available to the public for review and comment for a two-week period.	November 13-14
Plan review GOHSEP	GOHSEP reviews and provides input for revisions. SDMI with jurisdictions will make edits.	Nov - Dec (21 st - 31 st)
Plan review FEMA	FEMA reviews and provides input for revisions. SDMI with jurisdictions will make edits.	December - January
Jurisdiction adoption of plan	Each jurisdiction will adopt the plan.	January - February
FEMA plan approval	The plan with attached adoptions will be submitted to FEMA for approval.	By March 15, 2015

Outreach Strategy



Community Capabilities

Primary types of capabilities for reducing long-term vulnerability through mitigation planning are:

- Planning and regulatory
- Administrative and technical
- Financial
- Educational and outreach



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Risk Assessment



Previous Occurrences – Storm Events

December 1, 2009 – present

Number of Days with Storm	22
Number of Days with Storm and Death	0
Number of Days with Storm and Death or Injury	7
Number of Days with Storm and Property Damage	13
Number of Days with Storm and Crop Damage	0
Number of Storm Types reported	6



***<http://www.ncdc.noaa.gov/biomass/>

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Risk Assessment: Hazard Identification

Type	Occurrence	Type	Occurrence
Flooding/ Repetitive Flooding	5	Wildfire	0
Hail	5	Drought	0
T-Storm wind	15	Fog	0
Tornadoes	2	Earthquake	0
Tropical Cyclone	2	Land failure	0
Ice Storm	1	Dam Failure	0
Storm Surge	1		

Risk Assessment- Community Assets

- **People**
 - Population concentration
 - Special needs (functional needs) and demographics
 - Project population growth
- **Economy**
 - Major employers
 - Dependencies between economic sectors and infrastructure
- **Built Environment**
 - Building types and age
 - Infrastructure and critical facilities
 - Future development
 - Historic and cultural significance
- **Natural Environment**
 - Areas that protect and mitigate hazards
 - Critical habitat and important environmental features

Mitigation Strategy



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Mitigation Strategy

- The plan should be updated with the status current mitigation strategies;
- According to Section 6: Plan Maintenance Procedures, the Parish Grants Officer will contact committee members during January of each in which they will each have one month to respond or initiate a meeting if updates and issues need to be addressed;
- The steering committee should identify any new strategies for their jurisdictions and work together to prioritize the updated list.



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Plan Approval Process



Adopt the Plan

- Each jurisdiction **MUST** adopt the final plan.
- As a planning team member be aware of the policies for your jurisdiction
 - Know the process for putting this plan on the docket for adoption
 - Make sure you make the required deadlines



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The Final Product

- FEMA approved Hazard Mitigation Plan
 - Meets requirements of Title 44 Code of Regulations (CFR) §201.6 for approval and eligibility to apply for FEMA Hazard Mitigation Assistance grant programs.
 - A hazard mitigation project strategy for each jurisdiction
 - A comprehensive list of jurisdiction owned properties
 - Assessment of natural disaster-related risks and vulnerabilities



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Reminder - Timeline*

Activity	Details	When
Kick off meeting		Today
Jurisdictional Meetings	Jurisdictions should hold 2-5 internal meetings to assess previous goals and actions, evaluate progress in implementing the action plan, and adjust actions as necessary while refining the mitigation strategy.	August 28 th - September 28 th
Jurisdiction specific worksheets	Jurisdictions work to complete needed information for plan updates.	Due by October 1st
Public meeting	The general public and community stakeholders are invited to participate in the planning process. The public will be invited to participate in an online mitigation survey. Process helps to identify possible mitigation strategies.	October 28 th - 10 th
Plan development	SCMH will work to incorporate updates into existing plan.	October - November
Public plan review	The plan will be available to the public for review and comment for a two-week period.	November 13-14
Plan review - GCRIF	GCRIF review and provides input for revisions. SCMH with jurisdictions will make edits.	Nov - Dec 12 th - 2014
Plan review - FEMA	FEMA reviews and provides input for revisions. SCMH with jurisdictions will make edits.	December - January
Jurisdiction adoption of plan	Each jurisdiction will adopt the plan.	January - February
FEMA plan approval	The plan with attached resolutions will be submitted to FEMA for approval.	By March 25, 2015

Plan Update Worksheet

TABS INCLUDE

- Planning Team
- Capability Assessment
- NFIP Worksheet
- Hazard Identification
- Critical Facilities/Vulnerable Population



Plan Update Worksheet – Planning Team

Plan Update Worksheet – Capability Assessment

Plan Update Worksheet – NFIP

Plan Update Worksheet – Hazard Summary

Worksheet 5.1

Location: _____

Frequency: _____

Severity: _____

Risk: _____

Notes: _____

The screenshot shows a software window titled "Plan Update Worksheet - Building Inventory". The window contains a spreadsheet-like interface with a header row and many data rows. The header row includes columns for "Building Name", "Address", "City", "State", "Zip", "Phone", "Fax", "Email", "Website", "Status", "Type", "Year Built", "Year Renovated", "Floor Area", "Square Feet", "Cubic Feet", "Volume", "Weight", "Cost", "Value", "Notes", and "Comments". The data rows are currently empty, except for a few entries in the "Notes" and "Comments" columns.

**Plan Update Worksheet –
Critical Facilities and Vulnerable Population**

Critical Facilities and Vulnerable Population Worksheet

Facility Details

Location

Population

Services

Remarks

Hazards Worksheet

Flooding

Hazard	Status	When Discovered	How Discovered	When Reported
FLOODING	Unreported	1/1/2010	1/1/2010	1/1/2010
FLOODING	Unreported	1/1/2010	1/1/2010	1/1/2010

Note for each hazard identified in state plus - value can be added or deleted.

Hazards Worksheet – Example Iberia Parish

Thunderstorms

Hazard Description

Thunderstorms are a common weather hazard in Iberia Parish. They can cause significant damage to property and infrastructure, including roofs, windows, and power lines. Thunderstorms can also cause power outages, flooding, and even fatalities. The hazard is most likely to occur during the summer months, when temperatures are high and humidity is high.

Hazard Assessment

Asset Type	Impact	Frequency	Severity
Residential	Property damage, power outages, fatalities	High	High
Commercial	Property damage, power outages, fatalities	High	High
Industrial	Property damage, power outages, fatalities	High	High
Public Works	Property damage, power outages, fatalities	High	High
Emergency Services	Property damage, power outages, fatalities	High	High

Recommendations

Implement a lightning protection system for all buildings. Install surge protectors for all electronic equipment. Develop a disaster preparedness plan that includes procedures for power outages and flooding. Conduct regular maintenance of roofs and power lines.



Mitigation Action Evaluation Worksheet

Mitigation Action	1	2	3	4	5	6	7	8	9	10	11	12
1. Mitigation Action Description												
2. Mitigation Action Description												
3. Mitigation Action Description												
4. Mitigation Action Description												
5. Mitigation Action Description												
6. Mitigation Action Description												
7. Mitigation Action Description												
8. Mitigation Action Description												
9. Mitigation Action Description												
10. Mitigation Action Description												
11. Mitigation Action Description												
12. Mitigation Action Description												

Worksheet 1.1
Mitigation Action Evaluation Worksheet
Version 1.0
October 2010



Meeting #3: Public Meeting

Date: October 6, 2014

Location: Gonzales, Louisiana

Purpose: The public meeting allowed the public and community stakeholders to participate and provide input into the hazard mitigation planning process. Maps of the Ascension parish communities were provide for the meeting attendees to identify specific areas where localized hazards occur.

Public Initiation: Yes

Invite – Meeting #3

Ascension Parish to hold Public Meeting for Hazard Mitigation Plan Update - Message (HTML) (Read-Only)

FILE MESSAGE

Ignore X Delete Reply Reply Forward More Meeting Brant Team Email To Manager Done Reply & Delete Create New Move OneNote Assign Mark Categorize Follow Up Policy Unread Tags Find Related Select Zoom

Mon 9/22/2014 4:48 PM

Lester Kenyon <lkenyon@apgov.us>


Ascension Parish to hold Public Meeting for Hazard Mitigation Plan Update

To: Ascension Citizen; 'dtailey@donaldsonvillechief.com'; 'denstorff, Darlene'; 'dbabin@weeklycitizen.com'; 'riviere@weeklycitizen.com'; David Mitchell; The Advocate; 'stronggraphics1@cox.net'; 'news@louisianaradionetwork.com'; 'news@wibrz.com'; 'news@nbc33tv.com'; 'Grady, Don'; 'Jenny Heroman'; 'editorial2@brparents.com'; 'Theresa D. Payment'; 'pastorallen@kay1590.com'; Mayor Leroy Sullivan; 'madison@donaldsonville.brcoxmail.com'; 'Mark Lambert'; 'Elie Hebert (ellie@peacockcommunications.com)'; 'davesorge@clearchannel.com'; 'margot@arceneauxcommunications.com'; 'hondeaux10@aol.com'; 'kevin@talk1073.com'; 'News@wrkf.org'; 'Amy@wrkf.org'; 'stormwatch@wjbo.com'; 'Coward, Carla'; 'elizabeth@wrkf.org'; 'Ashley Westerman'; 'charlotte@thecreole.com'; 'pcarbo@businessreport.com'; 'news@wafb.com'; 'nfoley@wafb.com'; John Connelly; Marshall Courtney; 'kelly@wrkf.org'; 'Courtney Stein'; 'wade petite'; 'ann@ascensionforward.org';

CC: Parish Employees; Council

Message Ascension Parish HM Public Meeting Press Release.pdf (376 KB)

SDMI STEPHENSON Disaster Management Institute LSU



FOR IMMEDIATE RELEASE
September 22, 2014

Ascension Parish to hold Public Meeting for Hazard Mitigation Plan Update

Baton Rouge, LA – Ascension Parish Hazard Mitigation Plan Update public meeting will be held on **Monday October 6th, from 1:30 – 3:30 PM at the Ascension Parish Government Executive Council Chambers Courthouse East, 828 South Irma BLVD, Gonzales, LA 70737.**

Natural hazards have the potential to cause property loss, loss of life, economic hardship, and threats to public health and safety. While an important aspect of emergency management deals with disaster recovery (the actions that a community takes to repair damages), an equally important aspect of emergency management involves hazard mitigation - sustained actions taken to reduce long-term risk to life and property. They are things we do today to be more protected in the future. For example, elevating buildings in flood hazard areas, installing hurricane clips and storm shutters, relocating critical facilities out of hazard areas, using fire-resistant construction materials in wildfire hazard areas, etc. Hazard mitigation actions are essential to breaking the typical disaster cycle of damage, reconstruction, and repeated damage. With careful selection, they can be long-term, cost-effective means of reducing risk and helping to create a more sustainable and disaster-resilient community.

A hazard mitigation plan describes an area's vulnerability to the various natural hazards that are typically present, along with an array of actions and projects for reducing key risks. While natural

Agenda-Meeting #3

Agenda

Ascension Parish Hazard Mitigation Plan Update
Steering Committee Public Meeting – Gonzales, LA
October 6, 2014
1:30p.m. - 3:30 p.m.

INTRODUCTIONS AND BACKGROUND

- Officials
- Planning Steering Committee
- SDMI Team
- Governor's Office of Homeland Security

HAZARD MITIGATION PLANNING PROCESS – SDMI Staff

- Federal Requirements
- Multi-Jurisdictional Approach and Timeline

RISK ASSESSMENT – SDMI Staff

- Hazard Identification - Currently Identified Ascension Parish Hazards
- Risk Analysis
- Vulnerabilities

UPDATE ON PREVIOUS/CURRENT MITIGATION PROJECTS – Ascension Parish

- Ascension Parish

PUBLIC FORUM – SDMI Staff/ Ascension Parish

- Mitigation strategies (Open Discussion)
 - ✓ Review of current Ascension Parish Goals
 - ✓ Public Input on Mitigation Actions/Action Plan
- Risk Analysis (Activity)
 - Hazard occurrences
- Identification of problems (Jurisdiction and Parish Maps)
- Completion of public survey
 - Electronic: <https://www.surveymonkey.com/s/AscensionParish>
 - Paper copy

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Meeting Public Notices-Meeting #3

11THS CHECKLEAVERS
RAISE MORE THAN
\$9,000 FOR ST. JUDE
RESEARCH HOSPITAL
▶ Page 7g

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community/schools

Ascension updating emergency preparedness plans

Advocate staff report

Ascension Parish residents will have a chance to provide comments on the parish's emergency preparedness plans during a Monday meeting in Gonzales and by completing an online survey.

The meeting, set for 1:30 p.m. to 3:30 p.m. at the Ascension Parish Government Executive Council Chambers Courthouse East, 828 South Irma Blvd., is part of the parish's efforts to update its Hazard Mitigation Plan, which describes an area's vulnerability to various natural hazards and lists actions and projects for reducing key risks.

The plan, parish officials said, includes things residents and government agencies can do to be more protected in the

future.

Examples of things that can be done to mitigate hazards are elevating buildings in flood hazard areas, installing hurricane clips and storm shutters, relocating critical facilities out of hazard areas and using fire-resistant construction materials in wildfire hazard areas, officials said in a news release. Hazard mitigation actions are essential to breaking the typical disaster cycle of damage, reconstruction and repeated damage, officials said. The Disaster Mitigation Act of 2000 requires states and local governments to have a hazard mitigation plan in order to be eligible to apply for certain types of federal hazard mitigation project grants, the release said. Hazard mitigation plans must be

implemented on an ongoing basis and updated every five years.

Ascension Parish, in collaboration with the cities of Gonzales and Donaldsonville and town of Sorrento, is in the beginning stages of updating its hazard mitigation plan.

Parish residents are asked to participate in a survey about public perceptions and opinions regarding natural hazards in the parish. The survey results will be used in the development of the plan. The Web-based survey can be found at <https://www.surveymonkey.com/AscensionParish>.

For information, call Meredith Conger, Ascension Parish Homeland Security — Planning and Intelligence Section chief, at (225) 621-8360 or email mconger@apgov.us.

OCTOBER 2



FOR IMMEDIATE RELEASE
September 22, 2014

Ascension Parish to hold Public Meeting for Hazard Mitigation Plan Update

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A hazard mitigation plan describes an area's vulnerability to the various natural hazards that are typically present, along with an array of actions and projects for reducing key risks. While natural disasters cannot be prevented from occurring, the continued implementation of mitigation strategies identified in the plan will gradually, but steadily, make our communities more sustainable and disaster-resilient.

The Disaster Mitigation Act of 2000 (DMA 2000) requires all states and local governments to have a hazard mitigation plan in order to be eligible to apply for certain types of federal hazard mitigation project grants. Hazard mitigation plans must be: (a) implemented on an ongoing basis, and (b) updated every five years to ensure that they remain applicable representations of local risk and locally-preferred risk reduction strategies.

Ascension Parish, in collaboration with the City of Gonzales, City of Donaldsonville and Town of Sorrento, is in the beginning stages of updating its hazard mitigation plan. The Public Meeting will be held on October 6th, at the Ascension Parish Government Executive Council Chambers Courthouse East, 828 South Irma BLVD, Gonzales, LA 70737 for all citizens interested in learning about and participating in discussions concerning the Ascension Parish Hazard Mitigation Plan.

Residents of Ascension Parish are asked to participate in a survey about public perceptions and opinions regarding natural hazards in the parish. The survey results will be used in the development of the plan. This short web-based survey can be found at <https://www.surveymonkey.com/s/AscensionParish>.

For more information, please contact: Meredith Conger, Ascension Parish Homeland Security – Planning and Intelligence Section Chief – (225) 621-8360 – mconger@apgov.us

Media Contact: Lauren Bourg- Manager of External Relations - SDMI - (225) 578-7668 - lbourg1@lsu.edu

Stephenson Disaster Management Institute
Louisiana State University * 3000 Business Education Complex * Baton Rouge, Louisiana 70803



ASCENSION PARISH
HAZARD MITIGATION PLAN UPDATE
PUBLIC MEETING



**THE PUBLIC IS INVITED TO PARTICIPATE BY PROVIDING INPUT
FOR THE 2015 UPDATE TO THE ASCENSION PARISH
HAZARD MITIGATION PLAN.**

Monday, October 6th

1:30– 3:30 pm

Ascension Parish Government Executive Council Chambers:

Courthouse East, 828 South Irma BLVD, Gonzales, LA 70737

For more information contact Meredith Conger, Planning & Intelligence Section Chief, Ascension Parish Office of Homeland Security and Emergency Preparedness at 225-621-8360 or email mconger@apgov.us.

Ascension Parish to hold Public Meeting for Hazard Mitigation Plan Update

BATON ROUGE – Ascension Parish Hazard Mitigation Plan Update public meeting will be held on Monday, October 6, from 1:30 p.m. to 3:30 p.m., at the Ascension Parish Government Executive Council Chambers Courthouse East, 828 South Irma Blvd., Gonzales.

Natural hazards have the potential to cause property loss, loss of life, economic hardship, and threats to public health and safety. While an important aspect of emergency management deals with disaster recovery (the actions that a community takes to repair damages), an equally important aspect of emergency management involves hazard mitigation – sustained actions taken to reduce long-term risk to life and property. They are things we do today to be more protected in the future. For example, elevating buildings in flood hazard areas, installing hurricane clips and storm shutters, relocating critical facilities out of hazard areas, using fire-resistant construction materials in wildfire hazard areas, etc. Hazard mitigation actions are essential to breaking the typical disaster cycle of damage, reconstruction, and repeated damage. With careful selection, they can be long-term, cost-effective means of reducing risk and helping to create a more sustainable and disaster-resilient community.

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For more information, please contact: Meredith Conger, Ascension Parish Homeland Security – Planning and Intelligence Section Chief – (225) 621-8360 – mconger@apgov.us.



Stephenson Disaster Management Institute (SDMI) Organization

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 What have you been up to?

 Stephenson Disaster Management Institute (SDMI) shared Ascension Parish Homeland Security (OHSEP)'s photo.
October 3

If you would like to provide any input for the 2015 update of the Ascension Parish Hazard Mitigation Plan, mark your calendar for Monday, October 6th!



Roster-Meeting #3

ASCENSION PARISH HAZARD MITIGATION PLAN UPDATE PUBLIC MEETING
Gonzales, LA October 6, 2014

Name	Organization	Email	Phone	Comments
Lauren Stevens	SDMI-LSC	lsteven@lsu.edu	578-0502	N/A
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Nic Engle	BOHSEP	nicolehe.engle@boh.gov	225-267-2607	
DARREL PRIMEAUX	ASCENSION Parish	dprimeaux@apgov.us	225-450-1300	
Mike Lambert	Town of Strydom	smoreno@townofstrydom.net	225-675-5337	
Amadea Bernd	Asc. Parish Government	abern@apgov.us	(225) 450-1009	
Steven Bellet	Asc. Parish	sbelle@apgov.us	(225) 450-1075	
Dion Marfner	Asc. Parish	bmarfner@apgov.us	225 450 1075	
Marcio Shivers	Parish of Hisc	mshivers@apgov.us	(225) 450-1349	
Peey Conrad	"	peconrad@apgov.us		
Kevin Brumard	City of Sliderville	kbrumard@sliderville.la.gov	225 447-2841	
Anthony Keller	"	anthony@gonzales.la.gov	647-3641	
Ermi Johnson	AP OHSEP	erjohnson@apgov.us	621-8560	
Name	Organization	Email	Phone	Comments

ASCENSION PARISH HAZARD MITIGATION PLAN UPDATE PUBLIC MEETING
Gonzales, LA October 6, 2014

Name	Organization	Email	Phone	Comments
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Name	Organization	Email	Phone	Comments

Presentation-Meeting #3




Ascension Parish Hazard Mitigation Plan Update Public Meeting

October 6, 2014
Gonzales, LA




Agenda

- Hazard Mitigation Planning Process - SDRB Staff
- Risk Assessment - SDRB Staff
- Update on Previous/Current Mitigation Projects - Ascension Parish
- Public Forum Breakouts - SDRB Staff/Ascension Parish

Hazard Mitigation – A Summary

- Protect public safety and prevent loss of life and injury;
- Help accomplish community objectives, such as leveraging capital improvements, infrastructure protection, open space preservation, and economic resiliency;
- Prevent damage to a community's economic, cultural and environmental assets;
- Minimize operational downtime and accelerate recovery of government and the private sector after an event;




Why are we required to have a Hazard Mitigation Plan?

- Disaster Mitigation Act of 2000 (DMA 2000)
Section 322 of the Act specifically addresses mitigation planning and requires state and local governments to prepare multi-hazard mitigation plans as a precondition for receiving FEMA mitigation project grants.
- Meet federal requirements of Title 44 Code of Regulations (CFR) §301.6 for approval and eligibility to apply for FEMA Hazard Mitigation Assistance grant programs.






- The approved Ascension Parish Hazard Mitigation Plan will allow for distribution of HM funding following future disasters.

The Planning Team: A Multi-jurisdictional approach

Each jurisdiction has at least one representative on the planning team:

- City of Gonzales
- City of Donaldsonville
- Town of Sorrento


Plan Update Timeline

Activity	Detail	When
Kick-off Meeting	Steering committee	August 2014
Jurisdiction-specific meetings and Workshops	Jurisdictions	August - September 2014
Public Meeting	Steering committee and Public	October 2014
Plan development	Committee (SOM)	October - November 2014
Public plan review	Public	November 2014
Plan review (OCHSEP)	OCHSEP	November - December 2014
Plan review (FEMA)	FEMA	December - January 2015
Jurisdiction adoption of plan	Jurisdictions	January - February 2015
FEMA plan approval	FEMA	By 28 March 2015

*Timeline subject to change



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Risk Assessment: Hazard Identification

- The plan includes descriptions of the natural hazards that affect the jurisdictions in the planning area.
- A hazards identification should include the:
 - locations affected
 - the extent or strength
 - previous occurrences
 - Probability of future events



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Risk Assessment: Analyze Risk and Summarize Vulnerability

- Risk analysis involves evaluating vulnerable assets, describing potential impacts, and estimating losses for each hazard.
- This helps the community understand the greatest risks facing the area.
- Methods can include exposure risk analysis, historical analysis and scenario analysis.
- Through the risk analysis the community should be able to verbalize or create problem statements about the identified risks.



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Flooding

- A flood is the overflow of water onto land that is usually not inundated.
- The National Flood Insurance Program defines a flood as a general and temporary condition of partial or complete inundation of two or more acres of normally dry land area or of two or more properties from overflow of inland or tidal waters, unusual and rapid accumulation or runoff of surface waters from any source, mudflow, or collapse or subsidence of land along the shore of a lake or similar body of water as a result of erosion or undermining caused by waves or currents of water exceeding anticipated cyclical levels that result in a flood as defined above.



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Flooding

Types of flooding may include the following:

- Riverine
- Flash
- Ponding
- Backwater
- Urban
- Coastal



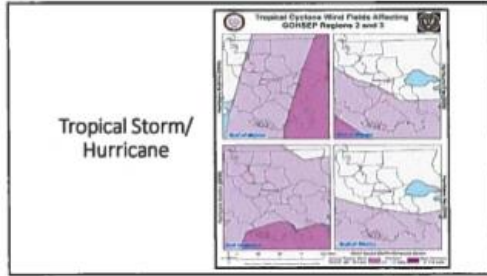
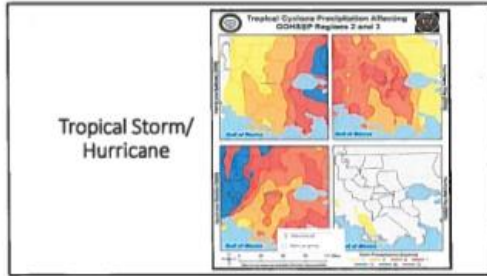
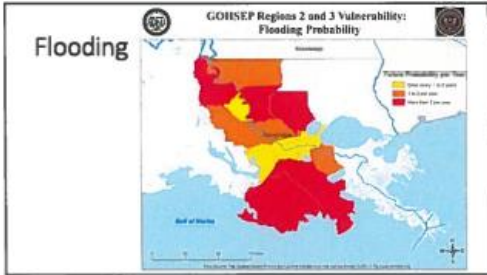
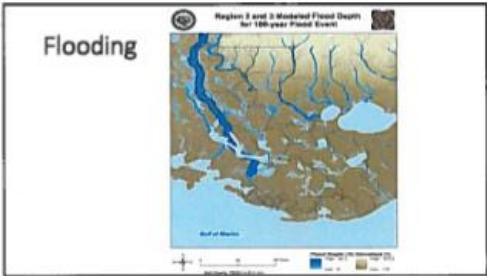
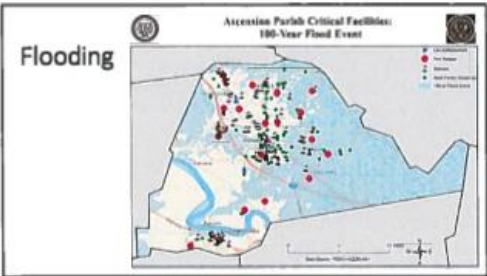
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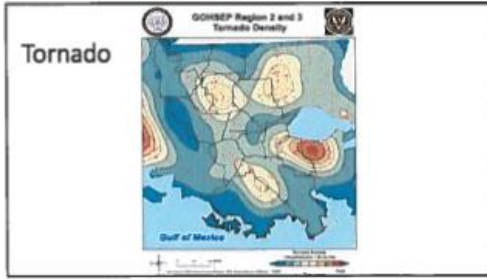
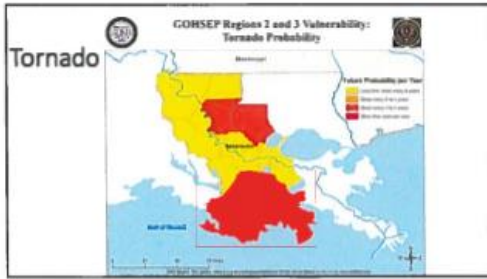
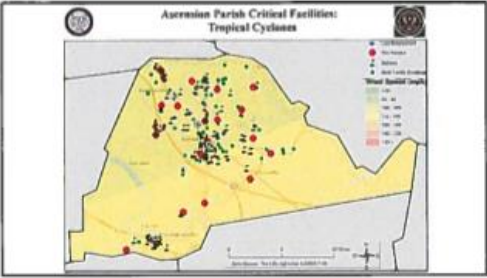
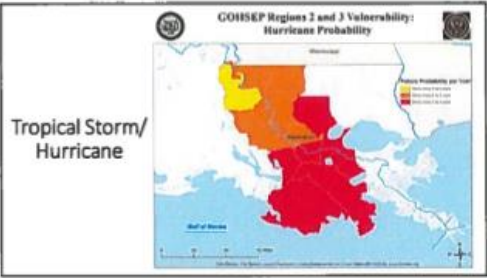
Repetitive Flooding

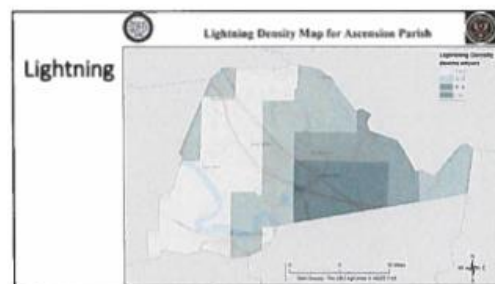
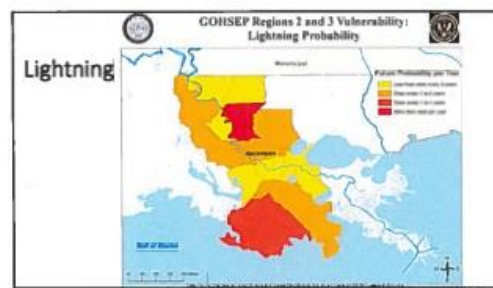
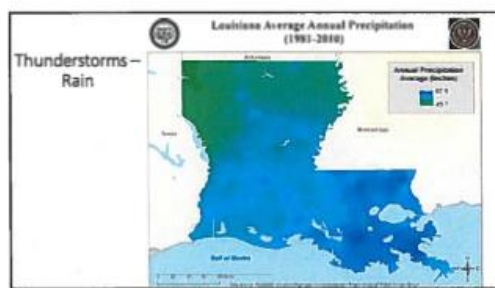
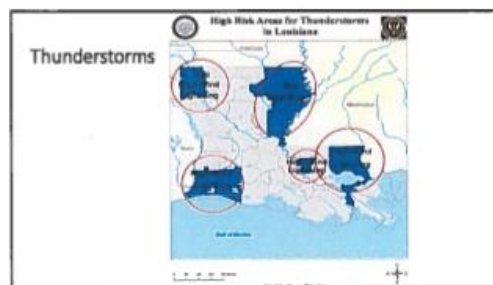
- Some areas flood more often than other properties, even more than those in the mapped 100-year floodplain.
- FEMA defines a "repetitive loss" property as one which has received two flood insurance claim payments for at least \$1,000 over any 10-year period since 1978.
- These properties are important to the National Flood Insurance Program and the Community Rating System because even though they comprise 1% of the policy base, they account for 30% of the country's flood insurance claim payments.

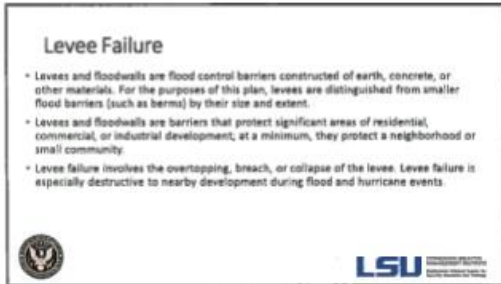
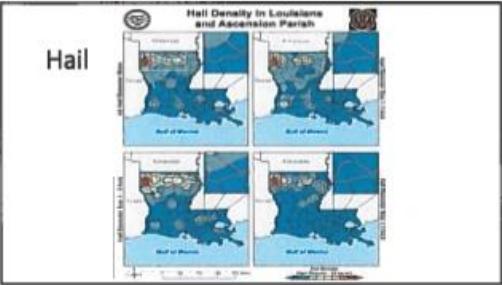


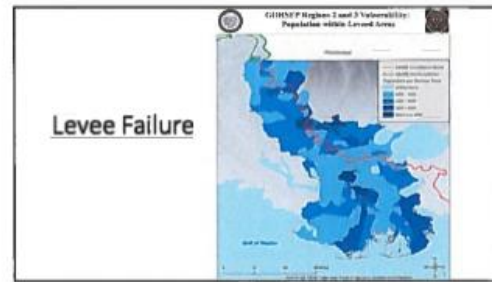
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Risk Assessment: Public Input

- Through breakout activities the community may provide input
 - Maps, project manager specialists, risk analysis activity

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Mitigation Strategy-Hazard Mitigation Goals

Goal One: Identify and pursue preventative structural and non-structural measures that will reduce future damages from hazards

Goal Two: Enhance public awareness and understanding of disaster preparedness

Goal Three: Reduce repetitive flood losses in parish and municipalities

Goal Four: Facilitate sound building practices in the parish and municipalities so as to reduce or eliminate the potential impact of hazards

Goal Five: Improve the ability of the parish and municipalities to rapidly recover and restore facilities and services to the public

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Proposed Mitigation Projects for Plan Update

Richard Webre, Ascension Parish OHSEP: Project Update Report

Projects Include:

- Elevation/acquisition projects
- Wind retrofit of critical facilities
- Drainage Improvement Projects
- Lamar Dixon Hardening/Community Safe Room Project
- OHSEP 5% Generator Project
- Human Resources, governmental complex wind hardening project

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Public Forum Breakout Sessions

- Project Manager Specialists
- Risk Analysis Activity (Hazard Occurrences)
- Problem Area Identification (Jurisdiction and Parish Maps)
- Survey



Contact Us

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Stephenson Disaster Management Institute
www.sdmil.lsu.edu



Supplemental Materials

Public Meeting
Incident/Issue Questionnaire

1. Hazard Type(s):
 - a. Flooding
 - i. Riverine
 - ii. Storm Surge
 - iii. Street
 - iv. Other (describe):
 - b. Thunderstorms
 - i. High wind
 - ii. Lightning
 - c. Tropical Cyclone
 - d. Coastal
 - i. Saltwater Intrusion
 - ii. Erosion
 - iii. Other (describe):
 - e. Dam and Levee Failure
 - f. Other: _____
2. Describe incident or issue:

3. Location:
 - a. City: _____
 - b. Address or Area: _____
 - c. Localized or dispersed: _____
4. Intensity:
 - a. Depth (flooding) or Size (hail, etc.) _____
 - b. Wind strength _____
5. Re-occurring or one-time
 - a. If re-occurring, how often? _____
6. What type of interruptions does/did the incident or issue cause? (business closure, damage, evacuation, etc.) _____

7. How long was the interruption (hours, days, weeks, etc.)? _____
8. How could this problem or impact be prevented, fixed or alleviated?

9. Can we contact you if we have further questions about this incident? Yes/No
10. Contact Information (optional)
 - a. Name: _____
 - b. City: _____

*Outreach Activity #1: Public Opinion Survey***Date:****Location:** Web survey

Purpose: Members of the HMPU Steering Committee were presented the results of the most recent Risk Assessment during this meeting. The assessment was conducted based on hazards identified during previous plans. The steering committee also reviewed hazard mitigation goals and agreed on proposed mitigation actions.

Public Initiation: Yes

Survey Tool:

Ascension Parish Hazard Mitigation Public Opinion Survey**SURVEY INFORMATION**

You have been asked to participate in this survey about public perceptions and opinions regarding natural hazards in Ascension Parish. In addition, we would like information regarding the methods and techniques you prefer for reducing the risks and losses associated with these hazards. The questionnaire should be completed by an adult, preferably the head of household. The information you provide will be used to help improve public/private coordination, mitigation, and risk reduction efforts in your parish. The survey should take less than 30 minutes to complete.

This is a public opinion survey, the results of which will inform local natural hazard mitigation planning in Louisiana.

This survey is being conducted by a division of Louisiana State University on behalf of Ascension Parish government.

CONSENT INFORMATION

This survey has 25 questions and should take about 30 minutes to complete.

Results of this study may be published, but no names or identifying information will be included in the publication. Subject identity will remain confidential unless disclosure is required by law.

This study has been approved by the LSU IRB. For questions concerning participants rights, please contact the LSU Institutional Review Board Chair, Dr. Dennis Landin at 225-578-8692 or irb@lsu.edu. The Principal Investigator for this survey, Mr. Brant Mitchell, SDMI, can be reached at or bmitch9@lsu.edu

I agree to participate in the study described above and do so by continuing to the survey by clicking the "Next" button below. I acknowledge that I may request from the investigators a hard copy of this consent form for my signature.

IRB Approval #

1. Are you EIGHTEEN (18) years old or older?

- ☐ Yes
☐ No

2. Do you live in Ascension Parish?

- ☐ Yes
☐ No

NATURAL HAZARD INFORMATION

First we would like to know about your experiences involving natural hazards and your exposure to preparedness information.

Ascension Parish Hazard Mitigation Public Opinion Survey

3. During the past five years in the parish you currently reside in, have you or someone in your household directly experienced a natural disaster such as a severe windstorm, flood, tropical storm or other type of natural disaster?

- ☐ Yes
☐ No

4. Which of these natural disasters have you or someone in your household experienced in the past five years? (Check all that apply)

- | | |
|----------------------------------------------|------------------------------------------------------|
| <input type="checkbox"/> Drought | <input type="checkbox"/> Tropical Storm or Hurricane |
| <input type="checkbox"/> Flood | <input type="checkbox"/> Severe Winter Storm |
| <input type="checkbox"/> Severe Thunderstorm | <input type="checkbox"/> Hail |
| <input type="checkbox"/> Tornado | |

Other (please specify)

5. How concerned are you about the following natural disasters affecting your parish? (Check the corresponding box for each hazard.)

	Not Concerned	Not Very Concerned	Neutral	Somewhat Concerned	Very Concerned
Drought	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Flood	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Severe Thunderstorm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tornado	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tropical Storm or Hurricane	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Severe Winter Storm	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hail	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

6. Have you ever received information about how to make members of your household and your home safer from natural disasters?

- ☐ Yes
☐ No

Ascension Parish Hazard Mitigation Public Opinion Survey**7. How recently?**

- ☐ Within the last 6 months
- ☐ Between 6 and 12 months
- ☐ Between 1 and 2 years
- ☐ Between 2 and 5 years
- ☐ 5 years or more

8. From whom did you LAST receive information about how to make members of your household and your home safer from natural disasters? (Check only one)

- | | |
|----------------------------------------------------------|-----------------------------------------------------|
| <input type="radio"/> News media | <input type="radio"/> Elected official |
| <input type="radio"/> Government agency | <input type="radio"/> American Red Cross |
| <input type="radio"/> Insurance company | <input type="radio"/> Church or civic association |
| <input type="radio"/> Utility company | <input type="radio"/> Other non-profit organization |
| <input type="radio"/> University or research institution | <input type="radio"/> Social media (Facebook, etc.) |
| <input type="radio"/> Neighbor/friend/family | <input type="radio"/> Not sure |

Other (please specify)

9. Whom would you MOST TRUST to provide you with information about how to make your household and home safer from natural disasters? (Check up to three answers)

- | | |
|-------------------------------------------------------------|--------------------------------------------------------|
| <input type="checkbox"/> News media | <input type="checkbox"/> Elected official |
| <input type="checkbox"/> Government agency | <input type="checkbox"/> American Red Cross |
| <input type="checkbox"/> Insurance company | <input type="checkbox"/> Church or civic association |
| <input type="checkbox"/> Utility company | <input type="checkbox"/> Other non-profit organization |
| <input type="checkbox"/> University or research institution | <input type="checkbox"/> Social media (Facebook, etc.) |
| <input type="checkbox"/> Neighbor/friend/family | <input type="checkbox"/> Not sure |

Other (please specify)

Ascension Parish Hazard Mitigation Public Opinion Survey

10. What is the MOST EFFECTIVE way for you to receive information about how to make your household and home safer from natural disasters? (Check up to three answers)

- | | | |
|--------------------------------------------|--------------------------------------------------------|--------------------------------------------------------------------------|
| <input type="checkbox"/> Newspaper stories | <input type="checkbox"/> Online news outlets | <input type="checkbox"/> Fact sheet/brochure |
| <input type="checkbox"/> Newspaper ads | <input type="checkbox"/> Social media (Facebook, etc.) | <input type="checkbox"/> Chamber of Commerce |
| <input type="checkbox"/> TV news | <input type="checkbox"/> Schools | <input type="checkbox"/> Library |
| <input type="checkbox"/> TV ads | <input type="checkbox"/> Billboards | <input type="checkbox"/> Public workshops/meetings |
| <input type="checkbox"/> Radio news | <input type="checkbox"/> Books | <input type="checkbox"/> Displays in public places (mall, grocery, etc.) |
| <input type="checkbox"/> Radio ads | <input type="checkbox"/> Mail | <input type="checkbox"/> University or research institution |
| <input type="checkbox"/> Email newsletters | <input type="checkbox"/> Fire department | |

Other (please specify)

11. Prior to taking this survey, were you aware of your parish's Hazard Mitigation Plan (HMP)?

- ☐ Yes
- ☐ No

12. Prior to taking this survey, were you aware that the Federal Emergency Management Agency (FEMA) requires your parish to update the hazard mitigation plan every five years in order for your parish to be eligible for federal pre- and post-disaster hazard mitigation funds?

- ☐ Yes
- ☐ No

COMMUNITY VULNERABILITIES AND HAZARD MITIGATION STRATEGIES

In order to assess community risk, we need to understand which community assets may be vulnerable to natural hazards in the region. Vulnerable assets are those community features, characteristics, or resources that may be impacted by natural hazards (e.g. populations with functional or special needs, economic components, environmental resources, etc.). The next set of questions focuses on vulnerable assets in your community and your preferred strategies to mitigate risk to those assets.

Ascension Parish Hazard Mitigation Public Opinion Survey

13. Community assets are features, characteristics, or resources that either make a community unique or allow the community to function. In your opinion, which of the following CATEGORIES are most susceptible to the impacts caused by natural hazards in your parish?

(Rank the community assets in order of vulnerability, 1 being most vulnerable and 6 being least vulnerable)

<input type="checkbox"/>	Human (Loss of life and/or injuries)
<input type="checkbox"/>	Economic (Business closures and/or job losses)
<input type="checkbox"/>	Infrastructure (Damage or loss of bridges, utilities, schools, etc.)
<input type="checkbox"/>	Cultural/Historic (Damage or loss of libraries, museums, historic sites)
<input type="checkbox"/>	Environmental (Damage or loss of forests, pastureland, waterways, etc.)
<input type="checkbox"/>	Governance (Ability to maintain order and/or provide public amenities and services)

14. Next we would like to know what specific types of COMMUNITY ASSETS are most important to you.

(Check the corresponding box for each asset)

	Not Important	Not Very Important	Neutral	Somewhat Important	Very Important
Nursing homes/Assisted-living facilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Schools (K-12)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Hospitals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Major bridges	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fire/Police stations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Museums/Historic buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Major employers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Small businesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
College/Universities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Parish or City Buildings (City Hall, Courthouse, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

Ascension Parish Hazard Mitigation Public Opinion Survey

15. A number of activities can reduce your community's risk from natural hazards. These activities can be both regulatory and non-regulatory.

(Check the box that best represents your opinion of the following COMMUNITY-WIDE STRATEGIES to reduce the risk and loss associated with natural disasters)

[illegible]

Ascension Parish Hazard Mitigation Public Opinion Survey

16. Natural hazards can have a significant impact on a community, but planning for these events can help lessen the impacts. The following statements will help determine citizen priorities regarding planning for natural disasters in your parish.

(Tell us how important each one is to you.)

	Not Important	Not Very Important	Neutral	Somewhat Important	Very Important
Protecting private property	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protecting critical facilities (transportation networks, hospitals, fire stations)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Preventing development in hazard areas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enhancing the function of natural features (bayous, rivers and wetlands)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protecting historical and cultural landmarks	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Protecting and reducing damage to utilities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Strengthening emergency services (police, fire, EMS)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Disclosing natural hazard risks during real estate transactions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promoting cooperation among public agencies, citizens, non-profits and businesses	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

MITIGATION AND PREPAREDNESS ACTIVITIES IN YOUR HOUSEHOLD

Households can mitigate and prepare for natural hazards in order to prevent damage to property, injuries, and loss of life. The precautions you take and training you receive can make a big difference in your ability to recover from a natural disaster or emergency. Access to basic services, such as electricity, gas, water, telephones and emergency care can be cut off temporarily, or you may have to evacuate at a moment's notice. The following questions focus on your household's preparedness for disaster events.

Ascension Parish Hazard Mitigation Public Opinion Survey

17. In the following list, please check those activities that you HAVE DONE in your household, PLAN TO DO in the near future, HAVE NOT DONE, or are UNABLE TO DO.

(Check one answer for each preparedness activity)

	Have Done	Plan to Do	Not Done	Unable to Do
Attended meetings or received written information on natural disasters or emergency preparedness?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Talked with members in your household about what to do in case of a natural disaster or emergency?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Developed a "Household/Family Emergency Plan" in order to decide what everyone would do in the event of a disaster?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Prepared a "Disaster Supply Kit" (stored extra food, water, batteries or other emergency supplies)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
In the last year, has anyone in your household been trained in First Aid or Cardio-Pulmonary Resuscitation (CPR)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Discussed or created a utility shutoff procedure in the event of a natural disaster?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

GENERAL HOUSEHOLD INFORMATION

Finally, we would appreciate any information you are willing to share with us about you and your household. This information will remain confidential and is for survey comparison purposes only.

18. Gender

☐ Female

☐ Male

Other (please specify)

Ascension Parish Hazard Mitigation Public Opinion Survey

19. How much total combined money did all members of your HOUSEHOLD earn last year?

- ☐ \$0 to \$9,999
- ☐ \$10,000 to \$24,999
- ☐ \$25,000 to \$49,999
- ☐ \$50,000 to \$74,999
- ☐ \$75,000 to \$99,999
- ☐ \$100,000 to \$124,999
- ☐ \$125,000 to \$149,999
- ☐ \$150,000 to \$174,999
- ☐ \$175,000 to \$199,999
- ☐ \$200,000 and up
- ☐ Prefer not to answer

20. In what ZIP code is your home located? (enter 5-digit ZIP code; for example, 00544 or 94305)

21. Do you rent or own the place where you live?

- ☐ Own
- ☐ Rent
- ☐ Neither (please specify)

22. Which category below includes your age?

- ☐ 17 or younger
- ☐ 18-20
- ☐ 21-29
- ☐ 30-39
- ☐ 40-49
- ☐ 50-59
- ☐ 60 or older

Ascension Parish Hazard Mitigation Public Opinion Survey**23. Does anyone in your household own a business or a farm?**☐ Yes☐ No**24. Which race/ethnicity best describes you? (Please choose only one.)**☐ American Indian or Alaskan Native☐ Asian / Pacific Islander☐ Black or African American☐ Hispanic American☐ White / Caucasian☐ Multiple ethnicity / Other (please specify)**25. Please feel free to provide any additional comments in the space provided:**

Meeting #4: Action Strategies

Date: November 20, 2014

Location: SDMI, LSU Baton Rouge, LA

Purpose: Discuss with the hazard mitigation lead for the parish (OHSEP director), as well as the parish's lead planner, the actions, strategies, and priorities to be outlined in the plan update.

Public Initiation: No

Meeting #5: Action Priorities

Date: December 17, 2014

Location: Gonzales, LA

Purpose: Discuss with the hazard mitigation lead for the parish (OHSEP director), as well as the parish's lead planner, the actions and priorities to be outlined in the plan update.

Public Initiation: No

Roster: Meeting #5

[illegible]

ASCENSION PARISH HAZARD MITIGATION PLAN UPDATE – Action Priorities
Gonzales, LA December 17, 2014

Presentation - Meeting #5





Ascension Parish Hazard Mitigation Plan Update Action Priorities Meeting

December 17, 2014
Gonzales, LA




Agenda

- Mitigation Strategies/Goals
- Proposed Mitigation Projects
- Mitigation Action Evaluation and Prioritization

Mitigation Strategy



GOALS: What long-term outcome do you want?

ACTIONS: What specific actions will local government, community organizations, and others take to reduce risk to hazards?

ACTION PLAN: How will the actions be prioritized and implemented?




Mitigation Strategy-Hazard Mitigation Goals

Goal One: Identify and pursue preventative structural and non-structural measures that will reduce future damages from hazards

Goal Two: Enhance public awareness and understanding of disaster preparedness

Goal Three: Reduce repetitive flood losses in parish and municipalities



Goal Four: Facilitate sound building practices in the parish and municipalities so as to reduce or eliminate the potential impact of hazards

Goal Five: Improve the ability of the parish and municipalities to rapidly recover and restore facilities and services to the public




Profiled Hazards

- Floods
- Tropical cyclones
- Thunderstorms/lightning/high winds
- Tornadoes
- Dam/levee failure
- Winter weather

Ascension Mitigation Actions

1. Floodplain management partnerships
2. Interjurisdictional flood risk assessments
3. Storm surge and inundation modeling
4. Improve stormwater management planning
5. Improve NFIP compliance
6. Water Works generators
7. Sewer auxiliary power
8. General population shelter auxiliary power
9. Retrofit public buildings
10. Education and awareness programs
11. Ascension/St. James airport auxiliary power




Donaldsonville Mitigation Actions

1. Flood risk infrastructure improvements
2. Stormwater management
3. Culvert and pump raising
4. Lafourche Street and railroad track pumping stations
5. Donaldsonville generators
6. Sewage system plugs
7. Lemann Center and City Hall wind hardening



Gonzales Mitigation Actions

1. City Hall radios
2. Sandbagging location covers
3. Sewer lift station generators
4. Recurring flooding drainage – Bayou Conway flooding



Sorrento Mitigation Actions

1. Sewer system infrastructure
2. Drainage project – Oak Street, Brittany Rd., Sorrento Lumber
3. Radio communication



Ascension Parish Mitigation Action Plan

Actions will be prioritized and agreed upon by the committee



Contact Us

Brent Mitchell, SDMI Director of Research & Operations
brent313@lsu.edu
(225) 578-5939

Lexie Andrews, HM Project Lead
landrews1@lsu.edu
(225) 578-7034

Stephenson Disaster Management Institute
www.sdmi.lsu.edu



Draft Plan – Public Comments

02/10/2015

Ascension Parish Hazard Mitigation Plan Update | TheLacrie - Online newspaper



BUSINESS COMMUNITY SPORTS EDUCATION LAGNIAPPE CLASSIFIEDS ANNOUNCEMENTS PUZZLE LETTERS OPINIONS EVENTS 02/10/2015

Ascension Parish Hazard Mitigation Plan Update

02/04/2015 by Press Release

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The Ascension Parish Hazard Mitigation Plan is currently being updated in a joint effort by the Ascension Parish Office of Homeland Security and Emergency Preparedness and the LSU Stephenson Disaster Management Institute to identify and prioritize future efforts to reduce the risk of damages from natural hazards such as flood and wind events. The plan identifies an area's vulnerability to the effects of natural hazard and the goals, objectives, and actions required to minimize future loss. Completion of this plan update will allow the parish and its participating municipalities to apply for pre and post disaster mitigation grant funding through FEMA.

The draft plan will be available for public comment for a two week period beginning Tuesday, February 3rd, 2015 and ending Tuesday, February 17th, 2015. The public may view the draft plan for the parish by visiting www.ascensionparish.net/ohsep.

Please submit all feedback to:

Meredith Conger

Planning / Intelligence Officer

Ascension Parish Office of Homeland Security and Emergency Preparedness

Ohsep-hmp@apgov.us

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OPINION

Councilman Bryan Melancon's response to ARPEC list

By admin - 2 Comments

Editor's Note: Due to a miscommunication Councilman Bryan

2015 Hazard Mitigation Plan | x You

ascensionparish.net/index.php/departments/m-z/office-of-homeland-security-and-emergency-preparedness?id=270

Ascension Parish Louisiana

Home Departments Government Meeting Agendas & Minutes Calendar Web Links

OHSEP

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- Contact Us
- 2015 Hazard Mitigation Plan - Draft

Emergency Information

- Flooding
- River Stages
- Emergency Road Closures
- School Closures
- Sand & Sandbag Locations
- Evacuation Routes
- Shelters
- Volunteer Reception Center (VRC)
- Shelter in Place (SIP)
- Emergency Preparedness Guide
- Emergency Medical Needs

Mission Statement

The mission of the Ascension Parish Office of Homeland Security and Emergency Preparedness is to serve the citizens of the Parish through effective planning for natural and man-made disasters. Our goal is to save lives and to protect property through the coordination of an integrated emergency management system with all emergency response organizations, support services and volunteers. We will be an advocate for greater community efforts, including educating the general public to mitigate and prepare for potential emergencies. We will support efforts to train and exercise emergency responders in both the public and private sectors. We will manage and coordinate efforts toward a rapid recovery from disasters with an effective disaster assistance program. This office will be the point of distribution of Homeland Security information and intelligence to agencies throughout the parish. We are committed to effective actions designed to prevent some disasters and to reduce the impact of those over which we have no control.

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AscensionParish.NET » Departments » M-Z » Office of Homeland Security and Emergency Preparedness OHSEP » OHSEP Items » 2015 Hazard Mitigation Plan - Draft

2015 Hazard Mitigation Plan - Draft

Last Updated: 02 February 2015

Click the link below to view the 2015 Hazard Mitigation Plan - Draft. This 2015 Ascension Parish Hazard Mitigation Plan Update was coordinated by the Ascension Parish Hazard Mitigation Plan Update Steering Committee, in collaboration with the participating jurisdictions as well as community stakeholders and the general public.

The 2015 Ascension Parish Hazard Mitigation Plan Update was written by the Stephenson Disaster Management Institute, Louisiana State University. Comments should be directed to the Ascension Parish Office of Homeland Security and Emergency Preparedness at 828 South Irma Boulevard, Building #3, Gonzales, LA, 70737 or by email at ohsep-HMP@apgov.us.

2015 - Hazard Mitigation Plan - Draft

Important Links

- Public Service Announcements (PSAs)
- Community Awareness Emergency Response (CAER)
- LA Governor's Office of Homeland Security & Emergency Preparedness (LAGOHSEP)
- Fire Services
- Law Enforcement Agencies
- Military
- Hospitals
- Geismar Area Mutual Aid (GAMA)
- American Red Cross (ARC)
- National Weather Service (NWS)
- Ascension Parish Inland Waterway Flood Levels
- National Hurricane Center
- Ascension Parish School Board (APSB)

[illegible]



ASCENSION PARISH
HAZARD MITIGATION PLAN UPDATE
PUBLIC MEETING

**THE PUBLIC IS INVITED TO PARTICIPATE BY PROVIDING INPUT
FOR THE 2015 UPDATE TO THE ASCENSION PARISH
HAZARD MITIGATION PLAN.**

Monday, October 6th
1:30– 3:30 pm

Ascension Parish Government Executive Council Chambers:
Courthouse East, 828 South Irma BLVD, Gonzales, LA 70737

For more information contact Meredith Conger, Planning & Intelligence Section Chief, Ascension Parish Office of
Homeland Security and Emergency Preparedness at 225-621-8360 or email mconger@apgov.us.



**Ascension Parish Homeland Security
(OHSEP)**
October 2, 2014 · 🌐

If you would like to provide any input for the 2015 update of the Ascension Parish Hazard Mitigation Plan, mark your calendar for Monday, October 6th!

Like · Comment · Share

Lexie Andrews and Tori Floyd Sears like this.

1 share

Write a comment...
Press Enter to post.

Previous Mitigation Actions – Complete and/or Removed

Ascension Parish – Unincorporated

Ascension Parish - Unincorporated		
Jurisdiction-Specific Action	Action Description	Status
1.1.1: Relocate Parish President's office floors	n/a	Removed
1.2.2 Concrete line various drainage ditches to increase stormwater conveyance	n/a	Removed
1.3.1 Elevation of road and bridge near Muddy Creek	n/a	Removed
1.3.2 Elevation of Road to Summerfield Subdivision	n/a	Removed
1.5.1: Dry or wet flood proof municipal and parish structures in flood zone and/or potential levee failure locations	n/a	Removed
2.1.1: Expand hazard early warning system	n/a	Complete
2.1.2: Purchase additional communication devices for first responders	n/a	Complete
5.3.1: Purchase Sandking 800	n/a	Complete

Sorrento

Sorrento		
Jurisdiction-Specific Action	Action Description	Status
5.4.2: Maintain Sorrento Civic Center as an Emergency Foodstamp Distribution Center	n/a	Removed

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Appendix B – Plan Maintenance

Purpose

The section of the Code of Federal Regulations (CFR) pertaining to Local Mitigation Plans lists five required components for each plan: a description of the planning process, Risk Assessments, mitigation strategies, a method and system for plan maintenance, and documentation of plan adoption. This section details the method and system for plan maintenance, following the CFR's guidelines that the Plan Update must include (1) "a section describing the method and schedule of monitoring, evaluating, and updating the mitigation plan within a five-year cycle," (2) "a process by which local governments incorporated the requirements of the mitigation plan into other planning mechanisms such as comprehensive or capital improvement plans" and (3) "discussion on how the community will continue public participation in the plan maintenance process."

Monitoring, Evaluating, and Updating the Plan

By law, the Plan must be updated every five years prior to re-submittal to the Federal Emergency Management Agency (FEMA) for re-approval. The first part of this subsection describes the whole update process, including the responsible parties, methods to be used, evaluation criteria to be applied, and, scheduling for monitoring and evaluating the plan. These descriptions are followed by an explanation of how and when the plan will be periodically updated:

- Responsible parties
- Methods to be used
- Evaluation criteria to be applied
- Scheduling for monitoring and evaluating the plan.

These descriptions are followed by an explanation of how and when the plan will be periodically updated.

Responsible Parties

The Ascension Parish Office of Homeland Security and Emergency Preparedness (OHSEP) is the parish department directly responsible for maintaining the plan. Within that department, the department Director is the individual responsible for assuring that plan monitoring and evaluating are done in accordance with the procedures outlined in this section. The Ascension Parish Hazard Mitigation Evaluation Committee, consisting of the following representation, is responsible for developing updates to the plan, initiated by the Ascension Parish OHSEP Director:

1. Ascension Parish OHSEP Director
2. Ascension Parish President
3. Ascension Parish CAO
4. Ascension Parish Director of Planning and Zoning
5. Ascension Parish Grants Officer
6. Ascension Parish Sheriff
7. Mayors of each of the three municipalities or his/her designee

8. Chairpersons of each drainage district or his engineering representative.

The following basic schedule will be undertaken for monitoring, evaluating and updating the plan:

- At a minimum, monitoring activities by the Ascension Parish OHSEP should be done on a quarterly basis;
- Notices regarding annual evaluations should be sent by the Ascension Parish OHSEP to the Ascension Parish Hazard Mitigation Evaluation Committee in December of the first four years of the plan and in August of the fifth year;
- The timetable for evaluations for the first four years is expected to last up to four months (January–April), and up to six months for the update in the fifth year for re-submittal to FEMA (November–April).

Methods for Monitoring and Evaluating the Plan

On an annual basis (and as warranted by circumstances such as a major disaster declaration), the Ascension Parish OHSEP Director will monitor the plan in order to assess the degree to which assumptions and underlying information contained in the plan may have changed. For example, the Ascension Parish OHSEP Director will look for the following:

- Changes in the information available to perform vulnerability assessments and loss estimates. For example: as the parish and municipal Risk Assessments and plans are integrated into this Plan Update, the Ascension Parish OHSEP will be soliciting feedback from parish and municipal officials about any changes in their real or perceived risks.
- Changes in laws, policies, and regulations. Changes in parish or jurisdictional departments and/or their procedures, including the Ascension Parish OHSEP and the administration of grant programs.

The results of these monitoring efforts will be made available to the Ascension Parish Hazard Mitigation Evaluation Committee as they are produced.

Using the compiled results of ongoing monitoring efforts, the plan will be evaluated annually, generally starting in the month of January (unless circumstances indicate otherwise). The Ascension Parish OHSEP Director will initiate the evaluations by contacting each of the committee members, who will in turn have a one month period to respond by initiating a meeting or addressing an issue. Should a hazard event occur and the need for update surface, a meeting may be called by the OHSEP Director or requested by a committee member through the OHSEP Director.

The initial contacts will be made no later than December of each year for the first four years and in August in the fifth year (in anticipation of the required Plan Update for FEMA re-approval). The initial contact will advise the appropriate agencies/organizations that the plan will be re-evaluated in the coming months, and request their participation in the process.

The Ascension Parish OHSEP also has the authority to evaluate and update the plan at times other than those identified in this section under the following general conditions: (1) After a major disaster declaration; (2) At the request of the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP); or (3) When significant new information regarding risks or vulnerabilities is identified.

Plan Evaluation Criteria

The evaluations will consider several basic factors which are similar to those addressed in the monitoring process, and any additional review indicated by GOHSEP or the Ascension Parish Hazard Mitigation Evaluation Committee. The factors that will be taken into consideration during these periodic evaluations of the plan include the following:

1. Changes in vulnerability assessments and loss estimations. The evaluation will include an examination of the analyses conducted for hazards identified in the plan and determine if there have been changes in the level of risk to the state and its citizens to the extent that the plan (in particular the strategies and prioritized actions the parish/jurisdiction is considering) should be modified.
2. Changes in laws, policies, ordinances, or regulations. The evaluation will include an assessment of the impact of changes in relevant laws, policies, ordinances, and regulations pertaining to elements of the plan.
3. Changes in parish/jurisdiction departments or their procedures (in particular the Ascension Parish OHSEP, which is responsible for maintaining the plan) that will affect how mitigation programs or funds are administered.
4. Significant changes in funding sources or capabilities.
5. Progress on mitigation actions (including project closeouts) or new mitigation actions that the parish/jurisdiction is considering.

Updating the Plan

Updates will follow the original planning process outlined in Appendix A. The update process will entail a detailed and structured re-examination of all aspects of the original plan, followed by recommended updates. The update process will be initiated by Ascension Parish OHSEP and assisted and tracked by the Ascension Parish Hazard Mitigation Evaluation Committee. The recommendations will be presented to the Ascension Parish Hazard Mitigation Evaluation Committee for consideration and approval. It is expected that the parish and each jurisdiction's administration will issue a letter of adoption for each update of the plan.

At a minimum, the plan will be updated and re-submitted to FEMA for re-approval every five years, as required by Disaster Mitigation Act of 2000 (DMA2K). The five-year update for FEMA re-approval requires that all the original steps outlined in Appendix A be revisited to make sure the plan assumptions and results remain valid as a basis for further decision-making and priority-setting.

Ascension Parish OHSEP will initiate, coordinate and lead all plan updates in conjunction with the SHMPC. The next two paragraphs describe the procedures for interim and five-year updates, respectively.

The nature of plan amendment will be determined by the evaluation process described above. In general, the Ascension Parish OHSEP will notify the Ascension Parish Hazard Mitigation Evaluation Committee that the parish is initiating an interim amendment, and describe the circumstances that created the need for the amendment (per the list in the Plan Evaluation Criteria section above). The Ascension Parish OHSEP Director will determine if the Ascension Parish Hazard Mitigation Evaluation Committee should be consulted regarding potential changes. If it is determined that the Ascension Parish Hazard Mitigation Evaluation Committee should be involved, the nature of the involvement will be at the discretion of Ascension Parish OHSEP.

When amendments are completed absent the involvement of the Ascension Parish Hazard Mitigation Evaluation Committee, the Ascension Parish OHSEP will advise all committee members via email that the plan has been amended, and describe the nature of the amendment. In addition, the Ascension Parish OHSEP will provide GOHSEP with a copy.

As required by the Disaster Mitigation Act of 200 (DMA2K) the plan will be updated every five years and re-submitted to FEMA for re-approval. In those years, the evaluation process will be more rigorous, and will examine all aspects of the plan in detail. It is anticipated that several meetings of the Ascension Parish Hazard Mitigation Evaluation Committee will be required and that the parish and each jurisdiction will formally re-approve the plan prior to its submission to FEMA.

Based on the five-year renewal requirements for Plan Updates, the Ascension Parish OHSEP anticipates that the submission date for the required update will be approximately [INSERT NEW PLAN DATE]. Prior to that time, the Ascension Parish OHSEP will contact the committee members and other appropriate agencies/organizations to confirm a schedule for the Plan Update.

2015 Plan Version Plan Method and Schedule Evaluation

For the current plan update, the previously approved plan's method and schedule were evaluated to determine if the elements and processes involved in the required 2015 update. Based on this analysis, the method and schedule were deemed to be acceptable, and nothing was changed for this update.

Incorporation into Existing Planning Programs

When appropriate, local governments, by way of the individuals who served on the Ascension Parish Hazard Mitigation Evaluation Committee, will address the need to incorporate requirements of the mitigation plan into their respective zoning ordinances, comprehensive plans, and/or capital improvement plans if deemed necessary and if not previously included. An effort will be made by all Hazard Mitigation Evaluation Committee members to ensure consistency in all future planning efforts with the mitigation goals and Risk Assessment presented in this plan. Consistency between all planning efforts will ensure a decrease in losses related to hazard events within future and existing developments. During the life of the plan since the previous update process, the Hazard Mitigation Evaluation Committee was not incorporated into other formal planning mechanisms as none occurred during that time period. However, goals and actions items were frequently discussed at both Parish and Municipal council meetings.

If amendments to existing ordinances or new ordinances are required, each political jurisdiction will be responsible for its respective updates. However, based upon the findings of this plan, little need exists for creating new ordinances or revising existing ordinances as the parish has been dealing with the flood mitigation issues for decades as its livelihood depends on it.

On behalf of the jurisdictions of Gonzales, Donaldsonville, and Sorrento, Ascension Parish has the authority to incorporate contents of the Hazard Mitigation Plan into the parish's existing regulatory mechanisms. Agreements are currently in place with each jurisdiction to allow for the parish incorporation mechanisms to take place.

Continued Public Participation

Responsibility for continued public participation will be that of the Ascension Parish OHSEP Director. Copies of the plan will be kept on file at the Ascension Parish OHSEP Office and with each municipality.

Contained in the plan is a list of the Hazard Mitigation Evaluation Committee that can be contacted when needed. In addition, copies of the plan and any proposed changes will be posted on the parish government website. This website will also have an email address and phone numbers in which the public can direct their comments or concerns.

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Appendix C – Ascension Parish Essential Facilities

Ascension Parish Unincorporated Essential Facilities									
Type	Name	Hurricane	Flood	Levee Failure	Tornado	Sink Hole	Hail	Lightning	Wind
Fire and Rescue	7 th District Fire Department	X			X		X	X	X
	7 th District Volunteer Fire Department	X			X		X	X	X
	Fifth Ward Fire Station	X		X	X		X	X	X
	Fifth Ward Volunteer Fire Department	X		X	X		X	X	X
	Fire Protection District 1	X			X		X	X	X
	Galvez Lake Volunteer Fire Department	X	X		X		X	X	X
	Galvez Lake Volunteer Fire Department	X	X		X		X	X	X
	Geismar Fire Department	X	X		X		X	X	X
	Prairieville Volunteer Fire Department	X	X		X		X	X	X
	Prairieville Fire Department	X			X		X	X	X
	Prairieville Fire Station #31	X			X		X	X	X
	Ronald Morris Fire Department	X		X	X		X	X	X
	St. Amant Volunteer Fire Department #2	X	X	X	X		X	X	X
	St. Amant Volunteer Fire Department	X	X	X	X		X	X	X
	St. Amant Volunteer Fire Department	X		X	X		X	X	X
	Fire Station	X			X		X	X	X
Government	Ascension Parish Animal Shelter	X	X	X	X		X	X	X
	Ascension Public Works Department	X	X	X	X		X	X	X
	East Ascension Telephone Company	X	X		X		X	X	X
	Pump Station 1	X	X	X	X	X	X		
	Pump Station 2	X	X	X	X		X		
Law Enforcement	Ascension Parish Sheriff	X	X	X	X		X	X	X
	Ascension Parish Sheriff	X			X		X	X	X
	Ascension Sheriff's Training Center	X	X	X	X		X	X	X
Public Health	Fresenius Medical Care	X			X		X	X	X
	St. Elizabeth Medical Plaza	X			X		X	X	X
	St. James Behavioral Health Hospital	X	X	X	X		X	X	X
School	Ascension Christian High School	X	X		X		X	X	X
	Central Middle School	X	X	X	X		X	X	X
	Duplessis Primary School	X			X		X	X	X
	Dutchtown High School	X			X		X	X	X
	Dutchtown Middle School	X			X		X	X	X
	Dutchtown Primary School	X	X	X	X		X	X	X
	East Ascension High School	X	X		X		X	X	X
	G.W. Carver Primary School	X	X		X		X	X	X
	Galvez Middle School	X	X	X	X		X	X	X
	Galvez Middle School	X	X	X	X		X	X	X
	Gonzales Primary School	X	X		X		X	X	X
	Lake Elementary	X	X	X	X		X	X	X
	Lakeside Primary School	X	X		X		X	X	X
	Lowry Middle School	X		X	X		X	X	X
	Oak Grove Primary School	X			X		X	X	X
	Pecan Grove Primary	X	X		X		X	X	X
	Prairieville Primary School	X			X		X	X	X
	St. Amant High School	X	X	X	X		X	X	X
	St. Amant Middle School	X	X	X	X		X	X	X
	West Ascension Elementary School	X			X		X	X	X
Sewage	Ascension PH Govt-Trailerland	X			X		X	X	X
	Aucoins Sewer Utility-Bon Lieu	X			X		X	X	X
	Aucoins Sewer Utility-Highland	X	X	X	X		X	X	X
	Aucoins Sewer Utility-Rockford	X			X		X	X	X
	Aucoins Sewer Utility-Rosewood	X			X		X	X	X
	Aucoins Sewer Utility-Summerfield	X	X		X		X	X	X
	Bayou Narcisse Subdivision	X	X	X	X		X	X	X
	Capital Sewage Corp Rockford	X	X		X		X	X	X
	Martins Maintenance-Subdivision	X			X		X	X	X
	Mo-Dad Utilities LLC	X	X		X		X	X	X
	Wastewater Treatment-Pelican	X			X		X	X	X

Donaldsonville Essential Facilities									
Type	Name	Hurricane	Flood	Levee Failure	Tornado	Sink Hole	Hail	Lightning	Wind
Fire and Rescue	Donaldsonville Fire Department	X		X	X		X	X	X
Government	Ascension Parish Public Works	X	X	X	X		X	X	X
	Donaldsonville Courthouse	X		X	X		X	X	X
	Donaldsonville Municipal Center	X		X	X		X	X	X
Law Enforcement	Donaldsonville Sheriff's Department	X		X	X		X	X	X
School	Ascension Catholic School	X		X	X		X	X	X
	Donaldsonville Elementary	X		X	X		X	X	X
	Donaldsonville Elementary	X		X	X		X	X	X
	Donaldsonville High School	X		X	X		X	X	X
	Lowry Elementary and Middle School	X		X	X		X	X	X
	St. Theresa School	X	X	X	X		X	X	X
Sewage	City of Donaldsonville	X		X	X		X	X	X

Gonzales Essential Facilities									
Type	Name	Hurricane	Flood	Levee Failure	Tornado	Sink Hole	Hail	Lightning	Wind
Fire and Rescue	Gonzales Fire Department	X		X	X		X	X	X
	Gonzales Fire Station	X		X	X		X	X	X
Government	Ascension Parish Courthouse East	X	X	X	X		X	X	X
	City of Gonzales Environmental Enhancement Facility	X	X	X	X		X	X	X
	Gonzales City Hall	X	X	X	X		X	X	X
	Gonzales Department of Maintenance	X	X	X	X		X	X	X
	Office of the District Attorney	X		X	X		X	X	X
	Parish of Ascension Government	X	X	X	X		X	X	X
	Public Defender's Office	X	X	X	X		X	X	X
Law Enforcement	Gonzales City Police Department	X	X	X	X		X	X	X
Public Health	Ascension Medical Clinic	X	X	X	X		X	X	X
	Ascension Elderly Health Care	X	X	X	X		X	X	X
	Gonzales Health Care Center	X	X	X	X		X	X	X
	St. Elizabeth Hospital	X	X	X	X		X	X	X
School	Galvez Primary School	X		X	X		X	X	X
	Gonzales Middle School	X		X	X		X	X	X
	Gonzales Primary School	X		X	X		X	X	X
	Prairieville Middle School	X		X	X		X	X	X
	St. Amant Primary School	X	X	X	X		X	X	X
Sewage	City of Gonzales Sewage System	X	X	X	X		X	X	X

Sorrento Essential Facilities									
Type	Name	Hurricane	Flood	Levee Failure	Tornado	Sink Hole	Hail	Lightning	Wind
Fire and Rescue	Sorrento Volunteer Fire Department	X	X	X	X		X	X	X
Government	Sorrento Town Hall	X		X	X		X	X	X

Appendix D – Plan Adoption

UNITED STATES OF AMERICA
STATE OF LOUISIANA
PARISH OF ASCENSION

A RESOLUTION OF THE PARISH OF ASCENSION ADOPTING THE
ASCENSION PARISH HAZARD MITIGATION PLAN – UPDATE 2015

WHEREAS the Parish of Ascension recognizes the threat that natural hazards pose to people and property within Ascension Parish; and

WHEREAS the Parish of Ascension has prepared a multi-hazard mitigation plan, hereby known as THE ASCENSION PARISH HAZARD MITIGATION PLAN – UPDATE 2015 in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS THE PARISH OF ASCENSION HAZARD MITIGATION PLAN – UPDATE 2015 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Ascension Parish from the impacts of future hazards and disasters; and

WHEREAS adoption by the Ascension Parish Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in THE ASCENSION PARISH HAZARD MITIGATION PLAN – 2015 UPDATE.

NOW THEREFORE, BE IT RESOLVED BY THE ASCENSION COUNCIL THAT:

Section 1. In accordance with Ascension Parish Home Rule Charter, the Ascension Parish Council adopts THE ASCENSION PARISH HAZARD MITIGATION PLAN – UPDATE 2015.

I hereby certify that I am the duly acting and qualified Secretary of the Ascension Parish Council and that the above and foregoing constitutes a true and correct copy of the Resolution duly adopted at a meeting of the Council held on June 18, 2015, at which meeting a quorum was present and voted in favor of said Resolution, said Resolution never having been modified or rescinded and is still in full force and effect.

Secretary, Ascension Parish Council
Date: June 18, 2015



City of Gonzales



State of Louisiana Resolution

A RESOLUTION ADOPTING THE
PARISH-WIDE HAZARD MITIGATION PLAN

RESOLUTION # 2842

WHEREAS, the Ascension Parish Office of Emergency Preparedness has prepared a Parish-Wide Hazard Mitigation Plan in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS, the City of Gonzales has participated in the process to prepare a Hazard Mitigation Plan based on the FEMA guidance available; and

WHEREAS, our community wishes to participate in the Hazard Mitigation Plan prepared by the Ascension Parish Office of Emergency Preparedness; and

WHEREAS, Ascension Parish and local city representatives and governments have participated in the mitigation planning process; and

WHEREAS, appropriate opportunity for input by public and community officials has been provided through press releases, open meetings and availability of draft documents; and

WHEREAS, the Hazard Mitigation Plan identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in the City of Gonzales from impacts of future hazards and disasters; and


WHEREAS, adoption by the City of Gonzales demonstrates a commitment to Hazard Mitigation and achieving the goals outlined in the Hazard Mitigation Plan.

NOW, THEREFORE, BE IT RESOLVED, that the City Council of the City of Gonzales, State of Louisiana, convening at its regular meeting of May 26, 2015, hereby adopts the PARISH-WIDE FLOOD HAZARD MITIGATION PLAN.

IN WITNESS WHEREOF, I have set my hand and have caused to be affixed the official Seal of the City of Gonzales, Parish of Ascension, State of Louisiana, on this the 26th of May, 2015.


Barney Arceneaux

ATTEST:


Clay A. Stafford, City Clerk



UNITED STATES OF AMERICA
STATE OF LOUISIANA
PARISH OF ASCENSION

RESOLUTION 2015-30

A RESOLUTION OF THE CITY OF DONALDSONVILLE ADOPTING THE
ASCENSION PARISH HAZARD MITIGATION PLAN – UPDATE 2015

WHEREAS the City of Donaldsonville recognizes the threat that natural hazards pose to people and property within Ascension Parish; and

WHEREAS the Parish of Ascension has prepared a multi-hazard mitigation plan, hereby known as THE ASCENSION PARISH HAZARD MITIGATION PLAN – UPDATE 2015 in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS THE PARISH OF ASCENSION HAZARD MITIGATION PLAN – UPDATE 2015 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Ascension Parish from the impacts of future hazards and disasters; and

WHEREAS adoption by the Donaldsonville City Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in THE ASCENSION PARISH HAZARD MITIGATION PLAN – 2015 UPDATE.

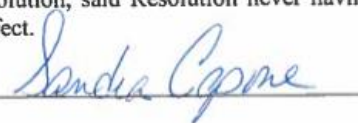
NOW THEREFORE, BE IT RESOLVED BY THE DONALDSONVILLE CITY COUNCIL THAT:

Section 1. In accordance with Donaldsonville City Home Rule Charter, the Donaldsonville City Council adopts THE ASCENSION PARISH HAZARD MITIGATION PLAN – UPDATE 2015.

I hereby certify that I am the duly acting and qualified Secretary of the Donaldsonville City Council and that the above and foregoing constitutes a true and correct copy of the Resolution duly adopted at a meeting of the Council held on May 26, 2015, at which meeting a quorum was present and voted in favor of said Resolution, said Resolution never having been modified or rescinded and is still in full force and effect.

Secretary, Donaldsonville City Council

Date: May 26, 2015



UNITED STATES OF AMERICA
STATE OF LOUISIANA
PARISH OF ASCENSION
TOWN OF SORRENTO

A RESOLUTION OF THE TOWN OF SORRENTO ADOPTING THE
ASCENSION PARISH HAZARD MITIGATION PLAN – UPDATE 2015

WHEREAS the Town of Sorrento recognizes the threat that natural hazards pose to people and property within Ascension Parish; and

WHEREAS the Town of Sorrento has prepared a multi-hazard mitigation plan, hereby known as THE ASCENSION PARISH HAZARD MITIGATION PLAN – UPDATE 2015 in accordance with the Disaster Mitigation Act of 2000; and

WHEREAS THE PARISH OF ASCENSION HAZARD MITIGATION PLAN – UPDATE 2015 identifies mitigation goals and actions to reduce or eliminate long-term risk to people and property in Ascension Parish from the impacts of future hazards and disasters; and


WHEREAS adoption by the Town of Sorrento Council demonstrates their commitment to the hazard mitigation and achieving the goals outlined in THE ASCENSION PARISH HAZARD MITIGATION PLAN – 2015 UPDATE.

NOW THEREFORE, BE IT RESOLVED BY THE SORRENTO TOWN COUNCIL THAT:

Section 1. In accordance with Ascension Parish Home Rule Charter, the Ascension Parish Council adopts THE ASCENSION PARISH HAZARD MITIGATION PLAN – UPDATE 2015.

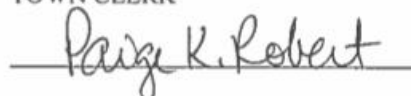
I hereby certify that I am the duly acting and qualified Secretary of the Ascension Parish Council and that the above and foregoing constitutes a true and correct copy of the Resolution duly adopted at a meeting of the Council held on June 2, 2015 at which meeting a quorum was present and voted in favor of said Resolution, said Resolution never having been modified or rescinded and is still in full force and effect.

MAYOR



DATE: June 2 2015

TOWN CLERK



Appendix E – State Required Worksheets

During the planning process (Appendix A) the Hazard Mitigation Plan Update Steering Committee was provided state-required plan update process worksheets to be filled out by each jurisdiction. The worksheets were presented at the Kickoff Meeting by the contractor as tools for assisting in the update of the Hazard Mitigation Plan. The plan update worksheets allowed for collection of information such as planning team members, community capabilities, critical infrastructure, hazard profiling, and project identification. The following pages contain documentation of the worksheets.

Ascension Parish - Building Inventory (Ascension, Donaldsonville, Sorrento, Gonzales)

Critical Facility (If Yes, Mark X)	Name of Building	Purpose of Building	Address	City	Latitude	Longitude	Assessed Value	Date Built	Constr. Type
Gonzales									
X	City Hall Municipal Building	City administrative office	120 S Irma Blvd	Gonzales	90d 54' 47.222"W	30d 13' 56.204"N	\$763,400	1996	Concrete
X	Gonzales Civic Center	Public building open for rent/holding events	219 S Irma	Gonzales	90d 54' 51.586"W	30d 13' 53.302"N	\$1,538,000	1967	Concrete
X	Police Station	holds administrative and force for GPD	415 E. Cornerview	Gonzales	90d 55' 0.111"W	30d 13' 57.033"N	\$4,000,000	2012	Metal
X	Fire Station - Caldwell	Holds ambulance, fire truck and associated personnel	325 E. Caldwell	Gonzales	90d 55' 4.741"W	30d 14' 7.866"N	\$191,000	1956	Metal
X	Fire Station - Orice Roth	Holds ambulance, fire truck and associated personnel	724 W. Orice Roth	Gonzales	90d 55' 38.806"W	30d 13' 7.099"N	\$1,000,000	2002	Metal
X	Public Safety Center	Kitchen facility and training/meeting room	736 W. Orice Roth	Gonzales	90d 55' 40.246"W	30d 13' 7.31"N	\$384,000	2004	Reinforced Masonry

ASCENSION PARISH
HAZARD MITIGATION PLAN
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	City Room	Location for River Region Art Association	1006 W. Hwy. 30	Gonzales	90d 55' 52.326"W	30d 12' 40.679"N	\$231,000		Reinforced Masonry
	Tourist Center	Central location to obtain visitor information	1006 W. Hwy. 30	Gonzales	90d 55' 51.198"W	30d 12' 40.799"N	\$110,000	2003	Reinforced Masonry
	Recreation Shop / Office	Offices and warehouses for recreation personnel	911 Meylan	Gonzales	90d 54' 45.614"W	30d 13' 16.178"N	\$200,000	1982	Reinforced Masonry
	T. Joe Museum	Museum of Gonzales history and its founder	217 W Main Street	Gonzales	90d 55' 20.748"W	30d 14' 21.025"N	200,000	1910	Unreinforced Masonry
X	Environmental Enhancement Facility Shop/Office - Equipment & Machinery	Wastewater treatment facility and personnel offices	3213 S. Burnside	Gonzales	90d 55' 20.659"W	30d 12' 12.21"N	\$560,000	1999	Concrete
	T. Joe Ballpark Concession Stand	Concession stand to service T. Joe Ballpark Fields	524 Orice Roth	Gonzales	90d 55' 36.285"W	30d 13' 11.298"N	\$100,000	2001	Concrete
	Jambalaya Park Pool House	Offices and restrooms for swimming pool occupants/workers	1015 E. Cornerview	Gonzales	90d 54' 41.301"W	30d 13' 56.241"N	\$200,000	2002	Concrete
	Jambalaya Park Ampitheatre	Open Air stage and associated seating area	1015 E. Cornerview	Gonzales	90d 54' 43.917"W	30d 13' 54.803"N	\$150,000	2002	Metal
	Pool Pump House w/ Equipment	Building houses all electrical and mechanical	1015 E. Cornerview	Gonzales	90d 54' 41.522"W	30d 13' 56.712"N	\$23,000	2002	Concrete

ASCENSION PARISH
HAZARD MITIGATION PLAN
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		equipment for Jambalaya Park							
	Warehouse / Meeting Room		1006 W. Hwy. 30	Gonzales	90d 55' 52.433"W	30d 12' 41.439"N	\$110,000	2008	Concrete
X	Chelsea St. Pumping Station	holds pumps and associated instrumentation for lift station #4	101 E. Chelsea Street	Gonzales	90d 55' 13.058"W	30d 12' 51.435"N	\$40,000	1999	Concrete
	Carver Park Rec Building	covered pavillion and restrooms	616 N. Tobey Ave	Gonzales	90d 55' 35.467"W	30d 14' 53.214"N	\$195,000	2005	Metal
X	City Maintenance Building	city field personnel offices, meeting room, mechanic shop and warehouse	2919 S. Darla	Gonzales	90d 56' 15.214"W	30d 12' 23.777"N	\$1,000,000	2006	Reinforced Masonry
	Kidz Kove Park	Recreation					\$250,000	2014	Metal
X	Gonzales Middle School	Education	1502 W ORICE ROTH	Gonzales	30.219444	90.935556	\$9,000,000	1965	Reinforced Masonry
X	East Ascension High School	Education	612 E WORTHY	Gonzales	30.228056	90.918889	\$16,000,000	1965	Reinforced Masonry
X	Gonzales Primary School	Education	521 N BURNSIDE	Gonzales	30.236944	90.923889	\$9,000,000	1936	Reinforced Masonry
X	Pecan Grove Primary School	Education	1712 S PECAN GROVE	Gonzales	30.221944	90.910556	\$12,000,000	5/20/2008	Reinforced Masonry
X	Ascension Parish Government Complex	Government Administration	Worthey Rd	Gonzales			\$10,000,000	Completion 2015	Reinforced Masonry
X	Ascension Parish	Administration	828 South Irma Blvd	Gonzales			\$9,700,000	1977	Reinforced Masonry

ASCENSION PARISH	HAZARD MITIGATION PLAN	E-13
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	Courthouse East								
Donaldsonville									
X	Donaldsonville Courthouse	Administration	300 Houmas St	Donaldsonville	30.104754	-90.990302	\$4,000,000	1889	Reinforced Masonry
	Ascension Parish Jail			Donaldsonville			\$20,000,000	1963	Reinforced Masonry
X	Donaldsonville Municipal Center	Administration	623 Railroad Ave	Donaldsonville	30.101066	-90.990347	\$1,500,000	1975	Reinforced Masonry
X	Ascension Parish Public Works	Sewerage	721 Church Street	Donaldsonville	30.097902	-90.985638	\$300,000	1951	Metal
X	Office of the District Attorney	Administration	201 Opelousas	Donaldsonville	30.104596	-90.99078	\$248,000	1979	Reinforced Masonry
X	Donaldsonville Fire Department	Emergency Response	700 Lafourche St	Donaldsonville	30.10174	-90.993011	\$920,000	1960	Reinforced Masonry
X	Ronald Morris Fire Department	Emergency Response	2801 Louisiana 1	Donaldsonville	30.088273	-91.029896	\$250,000	1978	Metal
X	Donaldsonville Elementary	Education	38210 Louisiana 3089	Donaldsonville	30.090995	-90.974597	\$5,000,000	1986	Reinforced Masonry
X	Donaldsonville High School	Education	100 Tiger Dr	Donaldsonville	30.099292	-91.0000885	\$8,000,000	1976	Reinforced Masonry

ASCENSION PARISH	HAZARD MITIGATION PLAN	E-14
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X	Lowry Elementary School	Education	2389 Louisiana 1	Donaldsonville	30.100393	91.019458	\$6,000,000	2005	Reinforced Masonry
X	Lowry Middle School	Education	2389 Louisiana 1	Donaldsonville	30.104894	90.9986665	\$6,000,000	2005	Reinforced Masonry
X	West Ascension Elementary School	Education	1200 Saint Patrick St	Donaldsonville	30.093671	90.992879	\$5,000,000	1966	Reinforced Masonry
Sorrento									
X	Sorrento Volunteer Fire Dept	Emergency Response	8096 Main St	Sorrento	30.184495	90.859613			Select One
X	Sorrento Town Hall	Administration	8173 Main St	Sorrento	30.186118	90.857913			Select One
Ascension Unincorporated									
X	Lamar Dixon Expo Center	Emergency Response	9039 St. Landry Rd.	Gonzales	30.196032	90.958111	\$17,972,357	2003	Reinforced Masonry
X	Ascension Sheriff's Training Center	Emergency Response	9094 S St Landry Ave	Burnside	30.197513	90.952259	\$3,200,000	2014	Reinforced Masonry
X	Fire District 1 Public Safety Center		13192 Airline Hwy	Prairieville	30.294797	90.963954	\$821,449	1965	Metal
X	Fifth Ward Volunteer	Emergency Response	39110 Louisiana 22	Burnside	30.151987	90.922542	\$444,073	1998	Metal

ASCENSION PARISH
HAZARD MITIGATION PLAN
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	Fire Department								
X	Geismar Fire Department	Emergency Response	12171 Louisiana 73	Geismar	30.244961	90.989306	\$207,234	1980	Metal
X	Prairieville Volunteer Fire Department	Emergency Response	17899 Old Jefferson Hwy	Prairieville	30.332197	90.981463			Metal
X	Prairieville Volunteer Fire Department	Emergency Response	14517 Highway 73	Prairieville	30.285405	90.981195			Metal
X	Galvez Lake Volunteer Fire Department	Emergency Response	16288 Joe Sevario Road	Prairieville	30.30682	90.904543	\$444,073	1978	Metal
X	Fire Station	Emergency Response	38484 Duplessis Road	Prairieville	30.284279	90.958987			Metal
X	St. Amant Volunteer Fire Department	Emergency Response	44483 Stringer Bridge Rd	St. Amant	30.240383	90.855462	\$444,073	1990	Metal
X	Prairieville Volunteer Fire Station #31	Emergency Response	17183 Louisiana 929	Prairieville	30.318426	90.939516			Metal
X	Lakeside Primary School	Emergency Response	16454 Emory Ficklin Rd	St. Amant	30.31301	90.850385	\$15,000,000	8/16/2009	Reinforced Masonry
X	St. Amant Primary School	Emergency Response	44365 LA-429	St. Amant	30.223205	90.858513	\$5,000,000	1990	Reinforced Masonry

ASCENSION PARISH		HAZARD MITIGATION PLAN							E-16
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X	St. Middle School	Emergency Response	44301 Weber City Rd	St. Amant	30.222889	- 90.859584	\$5,000,000	1937	Reinforced Masonry
X	Galvez Primary School	Emergency Response	16093 Henderson Bayou Rd	Prairieville	30.30271	- 90.886592	\$5,000,000	1986	Reinforced Masonry
X	Oak Grove Primary School	Emergency Response	17550 Old Jefferson Highway	Prairieville	30.324034	- 90.975541	\$6,000,000	1996	Reinforced Masonry
X	Prairieville Primary School	Emergency Response	40228 Parker Rd	Prairieville	30.31461	- 90.931769	\$13,000,000	7/29/2008	Reinforced Masonry
X	Prairieville Middle School	Emergency Response	16182 Daigle Rd	Prairieville	30.304142	- 90.955263	\$5,000,000	1951	Reinforced Masonry
X	Galvez Middle School	Emergency Response	42029 Louisiana 933	Prairieville	30.314233	- 90.903918	\$6,000,000	1956	Reinforced Masonry

Vulnerable Populations

Vulnerable Populations Worksheet

Ascension Parish

Name	Street	City	Zip Code	Latitude	Longitude
All Hospitals (Private or Public)					
Glory Divine Health Care	4589 Louisiana 1	Donaldsonville	70346	30.09819	-91.001287
Chateau D'Ville Rehab and Retirement	401 Vatican Drive	Donaldsonville	70346	30.094163	-90.997671
St. Elizabeth Hospital	1125 W HWY 30	Gonzales	70737	30.209167	-90.931944
Magnolia Assisted Living	1604 S BURNSIDE	Gonzales	70737	30.220556	-90.918611
Ascension Oaks Nursing & Rehab	711 W CORNERVIEW	Gonzales	70737	30.231389	-90.926944
Lake Urgent Care	1702 N Burnside Ave	Prairieville	70737	30.280834	-90.981657
Premier Medical Center	17188 Airline Highway	Prairieville	70769	30.321894	-90.977911
Ochsner Urgent Care Clinic	16250 Airline Highway	Prairieville	70769	30.303788	-90.971757
St. James Behavioral Health Hospital	39066 Vindez Road	Burnside	70737	30.203451	-90.951933
St. Michael Hospice	16260 Airline Highway	Prairieville	70769	30.304498	-90.971858
* There are no Hospitals located in the Town of Sorrento					
Nursing Homes (Private or Public)					
D'Ville House	401 Vatican Drive	Donaldsonville	70346	30.094068	-90.99756

ASCENSION PARISH	HAZARD MITIGATION PLAN	E-18
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Ascension Oaks Nursing & Rehabilitation Center	711 West Cornerview St	Gonzales	70737	30.232197	-90.926957
Gonzales Health Care Center	905 West Cornerview Street	Gonzales	70737	30.232279	-90.929623

*** There are no nursing homes located in the Town of Sorrento or Unincorporated Ascension Parish**

Mobile Home Parks					
B&B RV Park	48A Bellina Drive	Donaldsonville	70346	30.099215	-91.012902
D'Ville Lillage	1412 Peytavin Street	Donaldsonville	70346	30.909653	-90.991149
Vesta Trailer Park	2228 S BURNSIDE	Gonzales	70737	30.216111	-90.923056
Ida Street	324 S IDA	Gonzales	70737	30.232778	-90.930556
S&M Trailer Park	5 Agnes Segura Rd	Gonzales	70737	30.30613	-90.92061
Power's RV Park	11056 Airline Highway	Gonzales	70737	30.227398	-90.900544
Vista Mobile Home Park	206 East Chelsea Street	Gonzales	70737	30.214146	-90.91963
Southern Mobile Home Park	8544 South Saint Landry Ave	Burnside	70737	30.195583	-90.950958
Deer Run Mobile Home Park	8368 South Saint Landry Ave	Burnside	70737	30.191023	-90.952436
Oak Place Trailer Park	10037 Louisiana 22	St. Amant	70774	30.212489	-90.844043
Jackson's Trailer Park	44283-10 Louisiana 42	St. Amant	70769	30.337806	-90.864457
St. Amant Trailer Park	13039 Lamar Moran Rd	St. Amant	70774	30.256558	-90.852873
Countryside Mobile Home Community	10534 Louisiana 22	St. Amant	70774	30.225574	-90.799972
KTB Mobile Home Park	17140 Louisiana 44	Prairieville	70769	30.317503	-90.920929
Lynch's Trailer Park	3 West Lynch Street	Prairieville	70769	30.297664	-90.962696
Henry Road Trailer Park	38072 Henry Road	Prairieville	70769	30.306121	-90.969893
Unknown	10291 Gonzales Road	St. Amant	70774	30.251645	-90.847002
Planton Village	10474 Acy Road	St. Amant	70774	30.224743	-90.815019
Colonial Oaks	12206 Colonial Oaks Rd	Prairieville	70737	30.246521	-90.895676

ASCENSION PARISH	HAZARD MITIGATION PLAN	E-19
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ASCENSION PARISH	HAZARD MITIGATION PLAN	E-19
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ASCENSION PARISH	HAZARD MITIGATION PLAN	E-19
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Roddy Road Village	12229 Roddy Road	Prairieville	70769	30.245725	-90.904666
Wayne's Mobile Home Park	16119 Gene's Trailer Park	Prairieville	70769	30.299431	-90.913207
Mallard Point Mobile Home Park	17001 Muyrl Lane	Prairieville	70769	30.315123	-90.89566
Pine Park Village	42284 Bayou Narcisse Road	Prairieville	70737	30.248154	-90.89515
Mobile Home Park	Cobb's Trailer Park Road	Prairieville	70737	30.260856	-90.903656
Moody Dixon Place	172110 Beverly Lane	Prairieville	70769	30.320287	-90.896992
Old Galveztown Mobile Home Estate	18288 Blanche Rd	Prairieville	70769	30.340275	-90.894346
CMI Mobile RV Park	17867 Airline Highway	Prairieville	70769	30.337435	-90.990048
Achoros Trailer Park	36000 Paille Drive	Prairieville	70769	30.301377	-90.999831
Raybon's Mobile Home Park	17091 East Swamp Rd	Prairieville	70769	30.316908	-90.988804
Country Living Mobile Home Park	40506 Nicholas Melancon Road	Prairieville	70769	30.319895	-90.923929
Community Mobile Home Park	Jombri Dr	Prairieville	70769	30.32032	-90.903179
Oak Place Trailer Park	Oak Place Rd	Dutchtown	70737	30.2685	-90.963631
Twin Lakes	1237 Alex King Rd	Dutchtown	70734	30.25342	-90.979108
Lakeside Oaks	13170 Dutchtown Point Avenue	Dutchtown	70737	30.257758	-90.977525

*** There are no mobile home parks located in the Town of Sorrento.**

Ascension Parish – National Flood Insurance Program (NFIP) (Donaldsonville, Sorrento, Gonzales)

Worksheet 4.3: National Flood Insurance Program (NFIP) Worksheet**Jurisdiction: Ascension Parish**

Use this worksheet to collect information on your community's participation in and continued compliance with the NFIP, as well as identify areas for improvement that could be potential mitigation actions. Indicate the source of information, if different from the one included.

Insurance Summary	Source of Information	Comments
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	See Excel spreadsheet
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	FEMA NFIP or Insurance Specialist	See Excel Spreadsheet
How many structures are exposed to flood risk with in the community?	Community Floodplain Administrator (FPA)	About 21,000 homes are located in the Special Flood Hazard area...
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA and FEMA Insurance Specialist	None that Darrel or myself knows of.
Staff Resources		
Is the Community FPA or NFIP Coordinator certified?	Community FPA	Yes, both are Certified Floodplain Managers (CFM)
Is flood plain management an auxiliary function?	Community FPA	Yes it is under Planning and Zoning and also under EAMD
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Yes, Darrel is a CFE, PE, PLS...
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	
Compliance History		
Is the community in good standing with the NFIP?	State NFIP Coordinator or FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?		Yes, one 43426 R Daigle Rd, sent the homeowner a certified letter...waiting for return

When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact(CAC)?		The last Community Assistance Visit was October 2011. The next Community Assistance Visit will be 2016.
Is a CAV or CAC scheduled or needed? If so when?		The next visit is scheduled for Fall 2016
Regulation		
When did the community enter the NFIP?	NFIP Community Status Book: http://www.fema.gov/cis/LA.html	Initial NFIP Map date December 12, 1978, First effective FIRM September 2, 1981
Are the FIRMs digital or paper?	Community FPA	The Parish of Ascension FIRMs are Digital and on paper. We also keep copies of the historic maps on file.
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	The Parish exceeds regulations. We have a 1ft freeboard adopted in our ordinance and we also have fill regulations up to 36 inches.
Provide an explanation of the permitting process.	Community FPA; State, FEMA NFIP; Flood Insurance Manual (http://www.fema.gov/flood-insurance-manual); Community FPA, FEMA CRS Coordinator, ISO representative	All flood zones are checked if you are moving a new structure on property, if you are building a shed, garage etc. If you are doing an improvement to a structure flood zones are checked. If you are in a Special Flood Hazard area, you are required to provide an elevation certificate before any permits can be issued.
Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Yes, the Parish does participate in the CRS Program.
What is the community's CRS Class Ranking?	Flood Insurance Manual: http://www.fema.gov/flood-insurance-manual	8, With a 10% discount
What categories and activities provide CRS points and how can the class be improved.		The Parish can get points in majority of all the projects in the CRS Program. We can get points in Mapping and Flood Data, Emergency Preparedness, Implementing the PPI Document, Reducing Flood Loss, Outreach, and many other projects.
Does the plan include CRS planning requirements?	Community FPA; FEMA CRS Coordinator; ISO; CRS manual (http://www.fema.gov/media-library/assets/documents/8768)	Yes, it does. The CRS Manual was updated in 2014.

Gonzales – National Flood Insurance Program

Work Sheet 4.3 - National Flood Insurance Program (NFIP)		
Jurisdiction: Gonzales		
NFIP Topic	Source of Information	Comments
Insurance Summary		
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	1008/\$231,684,900 In-force whole/\$818,962 premium in-force
How many claims have been paid in the community? What is	FEMA NFIP or Insurance Specialist	346/\$3,651,006
How many structures are exposed to flood risk with in the community?	Community Floodplain Administrator (FPA)	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA and FEMA Insurance Specialist	Unknown
Staff Resources		
Is the Community FPA or NFIP Coordinator certified?	Community FPA	Parish
Is flood plain management an auxiliary function?	Community FPA	Yes it is under Parish Planning and Zoning and also under EAMD
Provide an explanation of NFIP administration services (e.g.,	Community FPA	Parish
What are the barriers to running an effective NFIP program in	Community FPA	Unknown
Compliance History		
Is the community in good standing with the NFIP?	State NFIP Coordinator, FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues(i.e., current	N/A	n/a
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact(CAC)?	N/A	The last Community Assistance Visit was October 2011. The next Community Assistance Visit will be 2016.
Is a CAV or CAC scheduled or needed? If so when?	N/A	The next visit is scheduled for Fall 2016
Regulation		
When did the community enter the NFIP?	NFIP Community Status Book: http://www.fema.gov/cis/LA.html	8/16/1982
Are the FIRMs digital or paper?	Community FPA	The Parish of Ascension FIRMs are Digital and on paper. We also keep copies of the historic maps on file.
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	The Parish exceeds regulations. We have a 1ft freeboard adopted in our ordinance and we also have fill regulations up to 36 inches.
Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	Yes
What is the community's CRS Class Ranking?	Flood Insurance Manual: http://www.fema.gov/flood-insurance-manual	8
Does the plan include CRS planning requirements?	Community FPA; FEMA CRS Coordinator; ISO; CRS manual (http://www.fema.gov/media-library/assets/documents/8768)	

Donaldsonville – National Flood Insurance Program

Worksheet 4.3: National Flood Insurance Program (NFIP) Worksheet**Jurisdiction: Donaldsonville**

Use this worksheet to collect information on your community's participation in and continued compliance with the NFIP, as well as identify areas for improvement that could be potential mitigation actions. Indicate the source of information, if different from the one included.

Insurance Summary	Source of Information	Comments
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	264 policies/\$59,518,600 In-force/\$146,488 Premium In-force
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	FEMA NFIP or Insurance Specialist	24 Total losses/\$289,433.01 total payments
How many structures are exposed to flood risk with in the community?	Community Floodplain Administrator (FPA)	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA and FEMA Insurance Specialist	Unknown
Staff Resources		
Is the Community FPA or NFIP Coordinator certified?	Community FPA	Parish
Is flood plain management an auxiliary function?	Community FPA	Yes it is under Parish Planning and Zoning and also under EAMD
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Parish
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	Unknown
Compliance History		
Is the community in good standing with the NFIP?	State NFIP Coordinator or FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues(i.e., current violations)?	n/a	Unknown
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact(CAC)?	Oct-11	The next Community Assistance Visit will be 2016.
Is a CAV or CAC scheduled or needed? If so when?	Fall 2016	

Regulation		
When did the community enter the NFIP?	NFIP Community Status Book: http://www.fema.gov/cis/LA.html	Initial NFIP Map date June 7, 1974, First effective FIRM May 15, 1980
Are the FIRMs digital or paper?	Community FPA	The Parish of Ascension FIRMs are Digital and on paper. We also keep copies of the historic maps on file.
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	The Parish exceeds regulations. We have a 1ft freeboard adopted in our ordinance and we also have fill regulations up to 36 inches.
Provide an explanation of the permitting process.	Community FPA; State, FEMA NFIP; Flood Insurance Manual (http://www.fema.gov/flood-insurance-manual); Community FPA, FEMA CRS Coordinator, ISO representative	All flood zones are checked if you are moving a new structure on property, if you are building a shed, garage etc If you are doing an improvement to a structure flood zones are checked. If you are in a Special Flood Hazard area, you are required to provide an elevation certificate before any permits can be issued.
Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	NO
What is the community's CRS Class Ranking?	Flood Insurance Manual: http://www.fema.gov/flood-insurance-manual	N/A
What categories and activities provide CRS points and how can the class be improved.		N/A
Does the plan include CRS planning requirements?	Community FPA; FEMA CRS Coordinator; ISO; CRS manual (http://www.fema.gov/media-library/assets/documents/876)	N/A

Sorrento – National Flood Insurance Program

Worksheet 4.3: National Flood Insurance Program (NFIP) Worksheet**Jurisdiction: Sorrento**

Use this worksheet to collect information on your community's participation in and continued compliance with the NFIP, as well as identify areas for improvement that could be potential mitigation actions. Indicate the source of information, if different from the one included.

Insurance Summary	Source of Information	Comments
How many NFIP policies are in the community? What is the total premium and coverage?	State NFIP Coordinator or FEMA NFIP Specialist	259 policies/\$41,558,500 In-force/\$180,120 Premium In-force
How many claims have been paid in the community? What is the total amount of paid claims? How many of the claims were for substantial damage?	FEMA NFIP or Insurance Specialist	957 Total losses/\$4,162,497.62 total payments
How many structures are exposed to flood risk with in the community?	Community Floodplain Administrator (FPA)	Unknown
Describe any areas of flood risk with limited NFIP policy coverage.	Community FPA and FEMA Insurance Specialist	Unknown
Staff Resources		
Is the Community FPA or NFIP Coordinator certified?	Community FPA	Parish
Is flood plain management an auxiliary function?	Community FPA	Yes it is under Parish Planning and Zoning and also under EAMD
Provide an explanation of NFIP administration services (e.g., permit review, GIS, education or outreach, inspections, engineering capability)	Community FPA	Parish
What are the barriers to running an effective NFIP program in the community, if any?	Community FPA	Unknown
Compliance History		
Is the community in good standing with the NFIP?	State NFIP Coordinator or FEMA NFIP Specialist, community records	Yes
Are there any outstanding compliance issues (i.e., current violations)?	n/a	Unknown
When was the most recent Community Assistance Visit (CAV) or Community Assistance Contact (CAC)?	Oct-11	The next Community Assistance Visit will be 2016.
Is a CAV or CAC scheduled or needed? If so when?	Fall 2016	

Regulation		
When did the community enter the NFIP?	NFIP Community Status Book: http://www.fema.gov/cis/LA.html	Initial NFIP Map date June 28, 1974, First effective FIRM June 2, 1978
Are the FIRMs digital or paper?	Community FPA	The Parish of Ascension FIRMs are Digital and on paper. We also keep copies of the historic maps on file.
Do floodplain development regulations meet or exceed FEMA or State minimum requirements? If so, in what ways?	Community FPA	The Parish exceeds regulations. We have a 1ft freeboard adopted in our ordinance and we also have fill regulations up to 36 inches.
Provide an explanation of the permitting process.	Community FPA; State, FEMA NFIP; Flood Insurance Manual (http://www.fema.gov/flood-insurance-manual); Community FPA, FEMA CRS Coordinator, ISO representative	All flood zones are checked if you are moving a new structure on property, if you are building a shed, garage etc If you are doing an improvement to a structure flood zones are checked. If you are in a Special Flood Hazard area, you are required to provide an elevation certificate before any permits can be issued.
Community Rating System (CRS)		
Does the community participate in CRS?	Community FPA, State, FEMA NFIP	YES
What is the community's CRS Class Ranking?	Flood Insurance Manual: http://www.fema.gov/flood-insurance-manual	N/A
What categories and activities provide CRS points and how can the class be improved.		N/A
Does the plan include CRS planning requirements?	Community FPA; FEMA CRS Coordinator; ISO; CRS manual (http://www.fema.gov/media-library/assets/documents/876)	N/A

Capability Assessment

Ascension Parish

Worksheet 4.1: Capability Assessment Worksheet

Local mitigation capabilities are existing authorities, policies and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.

Planning and Regulatory

Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.

Plans	Yes / No Year (1)	How often is the plan updated?
Comprehensive / Master Plan	2003	Working on update - contact: Ricky Compton
Capital Improvements Plan	2014-2016	2015-2017 Plan up for approval w/ Parish Council
Economic Development Plan	2013-2015	Ascension Economic Development - Contact: Mike Eades
Local Emergency Operations Plan	2011	Located within All Hazards Plan - Contact: R. Webre
Continuity of Operations Plan	2011	Located within All Hazards Plan - Contact: R. Webre
Transportation Plan	Oct. 2011	Contact: Jason Taylor - Engineering
Stormwater Management Plan	2013	Updated annually - Contact: Mike Petty
Community Wildfire Protection Plan	N/A	N/A
Other plans (redevelopment, recovery, coastal zone management)	N/A	N/A
Building Code, Permitting and Inspections	Yes / No	Are the codes adequately enforced?
Building Code	Yes	Version / Year: Act 12 of LA Uniform Construction Code 2012 IBC
Building Code Effectiveness Grading Schedule (BCEGS) Score	N/A	Score: Apart of the LA Uniform Construction Code
Fire Department ISO rating	Yes	Ascension Parish uses the PIAL Rating System: District FPD1 - Rating 5 District FPD2 - Rating 4 with in city limits of Donaldsonville; rating 5 in unincorporated areas of the West Bank FPD3 - Rating 4 covering Prairieville area
Site plan review requirements	Yes	All FPD's conduct reviews annually and sometimes twice a year
Land Use Planning and Ordinances	Yes / No	Is the ordinance adequately administered and enforced?
Zoning Ordinance	Yes	Currently in place
Subdivision Ordinance	Yes	Currently in place
Floodplain Ordinance	Yes	Up to date - current revisions are in the works
Natural Hazard Specific Ordinance (stormwater, steep slope, wildfire)	Yes	Covered in Chapter 8 of Ascension Parish Code of Ordinances and Emergency Management
Flood Insurance Rate Maps	Yes	Updated in accordance with FEMA and the Core of Engineers
Acquisition of land for open space and public recreation uses	Yes	Covered under the Repetitive Loss Program
Other		
How can these capabilities be expanded and improved to reduce risk?		
Increased participation in funding opportunities and mitigation programs will enhance and expand risk reduction measures.		

Administration and Technical		
Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.		
Administration	Yes / No	Comments
Planning Commission	Yes	Ascension Parish Strategic Planning Committee
Mitigation Planning Committee	Yes	Managed by the HMGP Steering Committee
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	Plans enforced and managed by DPW / Drainage Maintenance Programs
Staff	Yes / No FT/PT (2)	Percentage of time spent on hazard mitigation
Chief Building Official	Yes	L. Bourgeois - 10%
Floodplain Administrator	Yes	D. Primeaux - 50%
Emergency Manager	Yes	R. Webre - 20%
Community Planner	Yes	K. Schexnaydre - 10%
Civil Engineer	Yes	B. Horner - 10%
GIS Coordinator	Yes	B. Odeay - 10%
Grant Writer	Yes	M. Collins - 15%
Other	Yes	B. Roux - Drainage - 70%
Technical	Yes / No	Describe capability
Warning Systems / Service (Reverse 911, outdoor warning signals)	Yes	1st Call Networks, Media Overrides
Hazard Data & Information	Yes	Compiled within risk assessments
Grant Writing	Yes	Dedicated Full Time Grants Officer
Hazus Analysis	Yes	In coordination with LSU SDMI
Other		
How can these capabilities be expanded and improved to reduce risk?		
Increased participation in funding opportunities and mitigation programs will enhance and expand risk reduction measures.		

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	Yes / No	Could the resource be used to fund future mitigation actions?
Capital Improvements project funding	Yes	For construction - not yet applied for hazard mitigation except for use with drainage
Authority to levy taxes for specific purposes	Yes	Yes if needed
Fees for water, sewer, gas, or electric services	Yes	For water and sewer only
Impact fees for new development	No	
Stormwater Utility Fee	No	
		Used for the following: Sorrento Civic Center, Lemann Center Improvements, Donaldsonville DPW Building, Lamar Dixon Improvements, Sorrento Sewer Improvements, Donaldsonville Sewer Improvement, Parish Sewer Construction, Lamar Dixon Acquisition, South LA Fairgrounds, City of Gonzales Police Station, West Ascension Drainage Study, Housing Rehabilitation
Community Development Block Grant (CDBG)	Yes	
Other Funding Programs	N/A	
How can these capabilities be expanded and improved to reduce risk?		
Increased participation in funding opportunities and mitigation programs will enhance and expand risk reduction measures.		
Education and Outreach		
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.		
Program / Organization	Yes / No	Comments
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	LEPC, Ascension Mutual Aid Committee, Fire Chiefs Committee, CAER, GAMA, Rotary, Channel 21 Public Access TV
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	No	n/a
Natural Disaster or safety related school program	No	n/a
Storm Ready certification	No	n/a
Firewise Communities certification	No	n/a
Public/Private partnership initiatives addressing disaster-related issues	No	n/a
Other	No	n/a
How can these capabilities be expanded and improved to reduce risk?		
Increased participation in funding opportunities and mitigation programs will enhance and expand risk reduction measures.		

Gonzales

Worksheet 4.1

Capability Assessment Worksheet

Local mitigation capabilities are existing authorities, policies and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.

Planning and Regulatory

Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.

Plans	Yes / No	How often is the plan updated?
Comprehensive / Master Plan	Yes	master plan being updated now, update due to be complete in March 2015, first update in 12 years
Capital Improvements Plan	Yes	capital improvements are outlined in each fiscal year and updated annually
Economic Development Plan	Yes	Gonzales pays AEDC to recruit businesses and encourage development
Local Emergency Operations Plan	Yes	Fire and Police have plans in place
Continuity of Operations Plan	No	n/a
Transportation Plan	No	First transportation plan being compiled in conjunction with master plan update, due to be complete in March
Stormwater Management Plan	Yes	Updated annually for March 10th deadline
Community Wildfire Protection Plan	No	n/a
Other plans (redevelopment, recovery, coastal zone)	No	n/a
Building Code, Permitting and Inspections	Yes / No	
Building Code	Yes	IBC 2012 and IRC 2012
Building Code Effectiveness Grading Schedule (BCEGS)	No	n/a
Fire Department ISO rating	Yes	Rating 2
Site plan review requirements	Yes	enforced for every building application received in the city
Land Use Planning and Ordinances	Yes / No	Is the ordinance adequately administered and enforced?
Zoning Ordinance	Yes	enforced for every building application received in the city
Subdivision Ordinance	Yes	enforced for every subdivision of property in the city
Floodplain Ordinance	Yes	enforced for every structure in the city
Natural Hazard Specific Ordinance (stormwater, steep)	Yes	enforced on all construction activities in the city
Flood Insurance Rate Maps	Yes	enforced for every structure in a flood zone
Acquisition of land for open space and public recreation	No	n/a
Other		

How can these capabilities be expanded and improved to reduce risk?

1. Emergency management office would like to improve readiness with emergency asset staging complex for emergency operations staff and supplies.
2. Purchase 2 new radios: one for OEP liaison and one for fuel contractor.
3. Acquire fuel truck for refilling generators at water wells, lift stations, and facilities.
4. Install cover over sand stockpile to keep material dry. Purchase new sandbag machine with vibrators.
5. Install backup power at sewer lift station #14.
6. Acquire portable generator for use throughout the entire sewer system.

Administration and Technical

Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.

Administration	Yes / No	Comments
Planning Commission	Yes	city has 5 members on the commission
Mitigation Planning Committee	No	
Maintenance programs to reduce risk (tree trimming, clearing drainage systems)	Yes	ditch cleaning, grease trap inspection, inspected on routine basis
Mutual Aid Agreements	No	
Staff	Yes / No	Percentage of time spent on hazard mitigation
Chief Building Official	Yes	80
Floodplain Administrator	Yes	30
Emergency Manager	Yes	75
Community Planner	Yes	10
Civil Engineer	Yes*	40
GIS Coordinator	Yes*	40
Grant Writer	Yes*	40
Other		
Technical	Yes / No	Describe capability
Warning Systems / Service	Yes	city is included in parish OEP system
Hazard Data & Information	Yes	city is included in parish HMP
Grant Writing	Yes	Small grants are written 100% in house
Hazus Analysis		
Other		

How can these capabilities be expanded and improved to reduce risk?

* INDICATES ONE INDIVIDUAL HANDLES ALL THREE ROLES - increased staffing could improve capabilities to reduce risk.

Financial

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resource	Yes / No	Could the resource be used to fund future mitigation actions?
Capital Improvements project funding	Yes	currently budgets/spends between \$5 million and \$7 million
Authority to levy taxes for specific purposes	Yes	collects city taxes and has authority to implement more taxes
Fees for water, sewer, gas, or electric services	Yes	currently charge for sewer, water, and gas utilities
Impact fees for new development	Yes	currently charge sewer impact fees
Stormwater Utility Fee	No	not currently collecting, but has ability to do so
Community Development Block Grant (CDBG)	Yes	has used this funding source in the past
Other Funding Programs	Yes	CWEF, LGAP

How can these capabilities be expanded and improved to reduce risk?

Increased participation in funding opportunities and mitigation programs will enhance and expand risk reduction measures.

Education and Outreach

Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.

Program / Organization	Yes / No	Comments
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	Volunteer Ascension
Ongoing public education or information program (responsible water use, fire safety, household preparedness, environmental education)	Yes	Parish OEP Mailers
Natural Disaster or safety related school program	Yes	Parish OEP Mailers and advertisements
Storm Ready certification	Yes	Utility bills inserts and notes for education
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-related issues	Yes	existing contracts with fuel providers and consultants to aid after an emergency
Other		

How can these capabilities be expanded and improved to reduce risk?

Increased participation in funding opportunities and mitigation programs will enhance and expand risk reduction measures.

Donaldsonville

Worksheet 4.1

Capability Assessment Worksheet

Local mitigation capabilities are existing authorities, policies and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.

Planning and Regulatory

Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.

Plans	Yes / No	How often is the plan updated?
Comprehensive / Master Plan	No	*Based on current parish agreements, Donaldsonville has the ability to utilize the capabilities of the parish government.
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	No	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone)	No	
Building Code, Permitting and Inspections	Yes / No	*Based on current parish agreements, Donaldsonville has the ability to utilize the capabilities of the parish government.
Building Code	No	
Building Code Effectiveness Grading Schedule (BCEGS)	No	
Fire Department ISO rating	No	
Site plan review requirements	No	
Land Use Planning and Ordinances	Yes / No	Is the ordinance adequately administered and enforced? *Based on current parish agreements, Donaldsonville has the ability to utilize the capabilities of the parish government.
Zoning Ordinance	No	
Subdivision Ordinance	No	
Floodplain Ordinance	No	
Natural Hazard Specific Ordinance (stormwater, steep	No	
Flood Insurance Rate Maps	No	
Acquisition of land for open space and public recreation	No	
Other	No	

How can these capabilities be expanded and improved to reduce risk?

Increasing opportunities for funding and participation in mitigation programs will improve Donaldsonville's efforts in reducing risk. The jurisdiction has the ability to engage in agreements to utilize the capabilities of the parish government.

Administration and Technical

Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.

Administration	Yes / No	Comments
Planning Commission	No	*Based on current parish agreements, Donaldsonville has the ability to utilize the capabilities of the parish government.
Mitigation Planning Committee	No	
Maintenance programs to reduce risk (tree trimming,	No	
Mutual Aid Agreements	No	
Staff	Yes / No	Percentage of time spent on hazard mitigation
Chief Building Official	No	*Based on current parish agreements, Donaldsonville has the ability to utilize the capabilities of the parish government.
Floodplain Administrator	No	
Emergency Manager	No	
Community Planner	No	
Civil Engineer	No	
GIS Coordinator	No	
Grant Writer	No	
Other	No	
Technical	Yes / No	Describe capability
Warning Systems / Service	No	*Based on current parish agreements, Donaldsonville has the ability to utilize the capabilities of the parish government.
Hazard Data & Information	No	
Grant Writing	No	
Hazus Analysis	No	
Other	No	
How can these capabilities be expanded and improved to reduce risk?		
Increasing opportunities for funding and participation in mitigation programs will improve Donaldsonville's efforts in reducing risk. The jurisdiction has the ability to engage in agreements to utilize the capabilities of the parish government.		

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	Yes / No	Could the resource be used to fund future mitigation actions
Capital Improvements project funding	No	*Based on current parish agreements, Donaldsonville has the ability to utilize the capabilities of the parish government.
Authority to levy taxes for specific purposes	No	
Fees for water, sewer, gas, or electric services	No	
Impact fees for new development	No	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	No	
Other Funding Programs	No	
How can these capabilities be expanded and improved to reduce risk?		
Increasing opportunities for funding and participation in mitigation programs will improve Donaldsonville's efforts in reducing risk. The jurisdiction has the ability to engage in agreements to utilize the capabilities of the parish government.		
Education and Outreach		
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.		
Program / Organization	Yes / No	Comments
Local citizen groups or non-profit organizations focused	No	*Based on current parish agreements, Donaldsonville has the ability to utilize the capabilities of the parish government.
Ongoing public education or information program	No	
Natural Disaster or safety related school program	No	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster	No	
Other	No	
How can these capabilities be expanded and improved to reduce risk?		
Increasing opportunities for funding and participation in mitigation programs will improve Donaldsonville's efforts in reducing risk. The jurisdiction has the ability to engage in agreements to utilize the capabilities of the parish government.		

Sorrento

Worksheet 4.1

Capability Assessment Worksheet

Local mitigation capabilities are existing authorities, policies and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.

Planning and Regulatory

Please indicate which of the following plans and regulatory capabilities your jurisdiction has in place.

Plans	Yes / No	How often is the plan updated?
Comprehensive / Master Plan	No	*Based on current parish agreements, Sorrento has the ability to utilize the capabilities of the parish government.
Capital Improvements Plan	No	
Economic Development Plan	No	
Local Emergency Operations Plan	No	
Continuity of Operations Plan	No	
Transportation Plan	No	
Stormwater Management Plan	No	
Community Wildfire Protection Plan	No	
Other plans (redevelopment, recovery, coastal zone)	No	
Building Code, Permitting and Inspections	Yes / No	
Building Code	No	*Based on current parish agreements, Sorrento has the ability to utilize the capabilities of the parish government.
Building Code Effectiveness Grading Schedule (BCEGS)	No	
Fire Department ISO rating	No	
Site plan review requirements	No	
Land Use Planning and Ordinances	Yes / No	Is the ordinance adequately administered and enforced?
Zoning Ordinance	No	*Based on current parish agreements, Sorrento has the ability to utilize the capabilities of the parish government.
Subdivision Ordinance	No	
Floodplain Ordinance	No	
Natural Hazard Specific Ordinance (stormwater, steep	No	
Flood Insurance Rate Maps	No	
Acquisition of land for open space and public recreation	No	
Other	No	

How can these capabilities be expanded and improved to reduce risk?

Increasing opportunities for funding and participation in mitigation programs will improve Sorrento's efforts in reducing risk.
The jurisdiction has the ability to engage in agreements to utilize the capabilities of the parish government.

Administration and Technical

Identify whether your community has the following administrative and technical capabilities. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.

Administration	Yes / No	Comments
Planning Commission	No	*Based on current parish agreements, Sorrento has the ability to utilize the capabilities of the parish government.
Mitigation Planning Committee	No	
Maintenance programs to reduce risk (tree trimming,	No	
Mutual Aid Agreements	No	
Staff	Yes / No	Percentage of time spent on hazard mitigation
Chief Building Official	No	*Based on current parish agreements, Sorrento has the ability to utilize the capabilities of the parish government.
Floodplain Administrator	No	
Emergency Manager	No	
Community Planner	No	
Civil Engineer	No	
GIS Coordinator	No	
Grant Writer	No	
Other	No	
Technical	Yes / No	Describe capability
Warning Systems / Service	No	*Based on current parish agreements, Sorrento has the ability to utilize the capabilities of the parish government.
Hazard Data & Information	No	
Grant Writing	No	
Hazus Analysis	No	
Other	No	

How can these capabilities be expanded and improved to reduce risk?

Increasing opportunities for funding and participation in mitigation programs will improve Sorrento's efforts in reducing risk.
The jurisdiction has the ability to engage in agreements to utilize the capabilities of the parish government.

Financial		
Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.		
Funding Resource	Yes / No	Could the resource be used to fund future mitigation actions
Capital Improvements project funding	No	*Based on current parish agreements, Sorrento has the ability to utilize the capabilities of the parish government.
Authority to levy taxes for specific purposes	No	
Fees for water, sewer, gas, or electric services	No	
Impact fees for new development	No	
Stormwater Utility Fee	No	
Community Development Block Grant (CDBG)	No	
Other Funding Programs	No	
How can these capabilities be expanded and improved to reduce risk?		
Increasing opportunities for funding and participation in mitigation programs will improve Sorrento's efforts in reducing risk. The jurisdiction has the ability to engage in agreements to utilize the capabilities of the parish government.		
Education and Outreach		
Identify education and outreach programs and methods, already in place that could be used to implement mitigation activities and communicate hazard-related information.		
Program / Organization	Yes / No	Comments
Local citizen groups or non-profit organizations focused	No	*Based on current parish agreements, Sorrento has the ability to utilize the capabilities of the parish government.
Ongoing public education or information program	No	
Natural Disaster or safety related school program	No	
Storm Ready certification	No	
Firewise Communities certification	No	
Public/Private partnership initiatives addressing disaster-	No	
Other	No	
How can these capabilities be expanded and improved to reduce risk?		
Increasing opportunities for funding and participation in mitigation programs will improve Sorrento's efforts in reducing risk. The jurisdiction has the ability to engage in agreements to utilize the capabilities of the parish government.		