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**Flood Loss Outreach & Awareness Taskforce (FLOAT)**

**Lake Pontchartrain, Louisiana Area CRS Users Group**

**2016 Floodplain and Stormwater Management**

**Program for Public Information (PPI)**

*Prepared by members of FLOAT with the assistance of The University of New Orleans' Center for*

*Hazards Assessment, Response & Technology (UNO-CHART)*

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## Background

The Flood Loss Outreach & Awareness Task force (FLOAT) is a Community Rating System (CRS) Users Group. The purpose of a CRS Users Group is to serve as a support and educational resource for the local communities who participate in the CRS. The Community Rating System (CRS) is a part of the National Flood Insurance Program (NFIP). It provides reductions to flood insurance premiums in participating communities. The reductions are based on community floodplain management programs, including public information activities. To keep those discounts, communities must continue to implement their programs and provide status reports to the NFIP each year.

The CRS is a voluntary program that is available to all National Flood Insurance Program (NFIP) participating communities that incentivizes them to go beyond the minimum floodplain management regulations established by the NFIP to minimize risk in their communities. By taking on CRS activities aimed at increasing floodplain regulation and mitigating existing flood hazards and risks, communities receive “points” that are added together to establish that community’s CRS Class. Each class ranking carries with it a percentage discount that is applied to the participating community’s residents’ flood insurance premiums. FLOAT is a space for community officials to come together and share their best practices and greatest struggles with the CRS program.

Since 2000, the Lake Pontchartrain Basin has been included in no less than 11 Major Presidential Disaster Declarations with the most notable and devastating being Hurricane Katrina, which occurred on August 29, 2005. Out of the soggy rubble of Katrina’s rage, the jurisdictions of Southeast Louisiana began to truly take floodplain management policymaking seriously, and began to make changes that have increased the resiliency of the entire region.

In 2011, the member jurisdictions of FLOAT decided to come together, with the invaluable help of the Office of the Louisiana State Coordinator for the NFIP, the Louisiana Region CRS Coordinator for Insurance Services Office (ISO), and the University of New Orleans’ Center for Hazards Assessment, Response and Technology (UNO-CHART). From the humble beginnings of FLOAT, only 4 years ago, the group has been able to develop a cohesive program to increase outreach to the public regarding natural hazard preparation, and to continue planning for sustainable communities in the face of the environment in which we live, work and play.

The communities of FLOAT have been active participants in CRS since 1991, and currently the jurisdictions range from 1 Class 6, 4 Class 7s, 3 Class 8s, 1 Class 9, and 1 applicant. Additionally, the 10 members of FLOAT comprise 27% of the total CRS communities in the state of Louisiana, and 42% of the total number of policies in effect in the state.

FLOAT currently has 10 participating communities: St. Tammany Parish, the City of Slidell, the City of Mandeville, the City of Covington, Tangipahoa Parish, St. John the Baptist Parish, Terrebonne Parish, the City of Houma, Orleans Parish, and Lafourche Parish, 8 of which are included in the Program for Public Information (PPI) report. FLOAT is working towards joint outreach efforts to make the southeast region of Louisiana more aware of the inherent risks associated with the area, all while making the citizenry more capable of handling and mitigating these risks. The communities in the FLOAT CRS User’s Group:

- Include only 20% of the total number of CRS Communities in the State of Louisiana
- Hold 42% of the NFIP Policies in the State of Louisiana
- Pay 44% of the NFIP Premiums in the State of Louisiana
- Earned 34% of the CRS Discounts in the State of Louisiana



FLOAT has, along with our member jurisdictions, developed educational and outreach projects over the years with input and support from environmental volunteers, numerous partners, and with the use of creative and innovative tools. With such aggressive outreach programs spread out over 10 member jurisdictions composed of 6 parishes and 4 municipalities, FLOAT wanted to assemble all of these activities, opportunities and materials in a single coordinated document.

What follows is the document produced by these efforts.

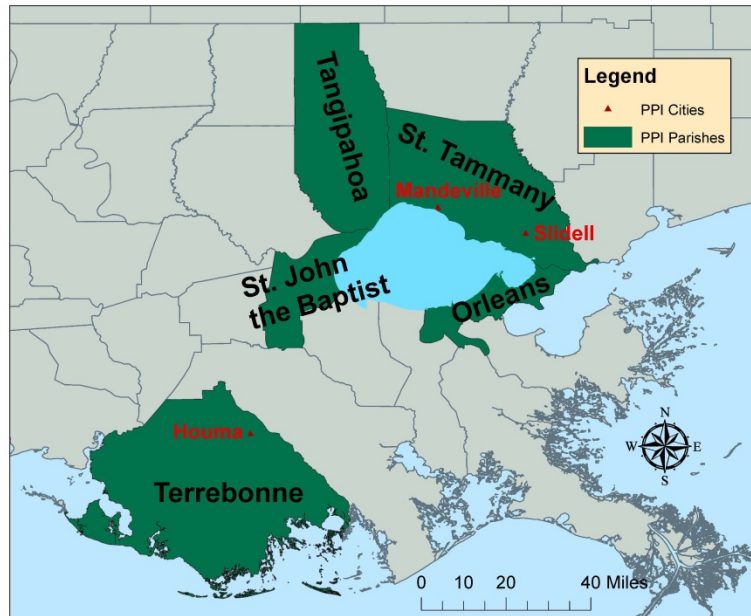


Figure 1: New Orleans Area CRS Users Group Program for Public Information Participants

## Goals of the FLOAT Multi-Jurisdictional PPI Plan

The Program for Public Information (PPI) provides participating parishes and municipalities a strategy for informing residents, especially those who are economically disadvantaged or who have a language barrier; business owners; developers; government leaders; and civic leaders about their risk from flooding and what they can do to reduce the risk. The goals of the PPI are:

1. To make the public aware of the flood threat their community may be susceptible to.
2. To promote an all-hazards approach to public outreach.
3. To educate local officials about the importance of making the public aware of flood threats and other hazards.
4. To provide the most comprehensive coverage for public outreach using the most cost effective means, including the pooling of resources by seeking private sector sponsors.
5. To provide a level of consistency in the public message disseminated from the various public entities participating in this strategy.
6. To promote public awareness of their community's Flood Insurance Rate Map.

The PPI's general Target Audiences include:

1. **Residents and Business Owners.** Residents and business owners need to know their property's risk from natural hazards, so they can make informed decisions on how much insurance they should have and what they can do to reduce their risk.
2. **Developers, Design Professionals, and Contractors.** Developers, design professionals, and contractors need to know the flood risk for the property they are working on so they can design and build structures that meet codes, are safe, and lower the property owner's risk from natural hazards.
3. **Realtors.** Realtors need to know how to determine a property's risk from natural hazards so they can inform prospective buyers, and assist them in finding out what can be done to reduce or eliminate the risk.
4. **Insurance Agents.** Insurance agents need to be able to determine a property's risk so they can assist the property owner with acquiring the right type and amount of insurance.
5. **Civic Leaders.** Civic leaders need to know the risks to their community and what they can do to reduce it, so they can influence policy and inform the public.

The PPI's specific Target Audiences include:

1. **Libraries.** Libraries can disseminate information about flood risk to multiple members of the community.
2. **Contractors and Builders (Building Officials Association of Louisiana) (Louisiana Homebuilders Association).** Contractors and builders need to know the flood risk of the property they are working on so that they can build structures that meet codes, are safe, and lower the property owner's risk from natural hazards.
3. **Realtors (Louisiana Realtors Association).** Realtors need to know how to determine a property's risk from natural hazards so they can inform prospective buyers and assist them in finding out what can be done to reduce or eliminate the risk.
4. **Chemical Plants (Reached through the EOC of St. John).** Chemical plants need to understand flood risk so that buildings are kept safe and do not contaminate the nearby community.
5. **Repetitive Flood Loss Area Residents.** Residents in repetitive flood loss areas need to understand their flood risk so that they can take steps to mitigate their homes in order to reduce their flood risk in the future.
  - a. **Severe Repetitive Loss Residents.** Residents with severe repetitive losses particularly need to understand their flood risk so that they can adequately mitigate their homes to protect them from flood risk in the future.
6. **Insurance Agents (Professional Insurance Association of Louisiana).** Insurance agents need to be able to determine a property's risk so they can assist the property owner with acquiring the right type and amount of insurance.
7. **Prospective Buyers working with LRA Realtors in the FLOAT region.** Prospective buyers need to understand flood risk so that they understand the full risks associated with the property they are looking to purchase.

8. **Floodplain Residents.** Residents in the floodplain need to understand flood risk so they mitigate their properties and know how to protect themselves and respond during a flood event.
9. **Potential Flood Insurance Policy Holders.** Potential flood insurance policy holders need to understand flood risk so that they know the cost of living in or near a floodplain.
10. **Elected Officials (Membership of the Louisiana Municipal Association).** Elected officials need to understand the flood risks in their locality so they can communicate them to their constituents.
11. **Chamber of Commerce Businesses.** Businesses need to understand flood risk so that they can adequately mitigate their buildings.
12. **Specific Areas:** Garyville, Reserve, Edgard, City of Mandeville, City of New Orleans and LaPlace

## Outreach Messages

The outreach messages included in this Program for Public Information (PPI) include:

- 1) Know your flood hazard – discover where your property is in relation to the floodplain
- 2) Insure your property for your flood hazard – even properties located outside of the floodplain should be insured for flood
- 3) Protect people from the hazard – turn around don't drown
- 4) Protect your property from the hazard – retrofit your home or business to help protect from flooding
- 5) Build responsibly – retrofit homes or businesses in flood zones, do not build in the floodway
- 6) Protect natural floodplain functions – keep ditches and culverts clear of debris
- 7) Protect yourself and your property from hurricanes – have a hurricane plan
- 8) Be prepared for natural hazards – have plans for hurricanes, tornadoes and other natural events
- 9) General flood education – find the flood history for your area

These messages are important because all of the communities in FLOAT are susceptible to natural hazards, particularly flooding and hurricanes. Educating the public about these hazards will ensure the safety and protection of all residents in each community.

## Multi-Jurisdictional PPI Committee

The FLOAT group has visited stakeholder organization meetings, events and other gatherings to spread the knowledge about its educational programs. This has helped to prepare those who were called for committee membership duty. Sixty-six stakeholders joined the FLOAT CRS User's Group to advise and enhance the PPI. Four meetings were held to work on the PPI – the first on April 10, 2014, the second on October 9, 2014, the third on March 12, 2015, and the fourth on July 9, 2015. The first meeting explained the PPI process and the role of the committee, the second meeting focused on current and future outreach projects, the third meeting included a review of the draft document, and the fourth meeting involved a review of the draft document and an in depth look at the flood insurance assessment.



Figure 2: Photographs of PPI Meetings

### St. Tammany Parish:

Dr. deEtte Smythe – Regulatory Manager, St. Tammany Parish Government

Ronnie Simpson – Director of Public Information & Intergovernmental Relations, St. Tammany Parish Government

Alan Pelegrin – Flood Plain Administrator, St. Tammany Parish Government

David Brunet – Coastal Project Manager, St. Tammany Parish Government

Jennifer Bushnell – St. Tammany Parish Public Information Office

David Doss – Senator Vitter's Office (Resident of St. Tammany)



Vickie Nieto – Coin Du Lestin Homeowners Association  
Susan Marks – Coin Du Lestin Homeowners Association  
Wayne Day – Coin Du Lestin Homeowners Association  
Dwain Meche – Timber Branch Homeowners Association  
Richard Koen – Magnolia Forest Homeowners Association  
Gil Griffin – Lazy River Estates

**City of Mandeville:**

Chris Brown – Building Official/Floodplain Manager  
Lori Spranley – Planner  
Chad Roig – Insurance  
Jeff Bernard – Banker, State Investors Bank

**City of New Orleans:**

Jerome Landry – Floodplain Manager  
Karen Fernandes – Floodplain Management Intern  
Frieda von Qualen – Health Department  
Sarah Babcock – Health Department  
Emilie Bahr – New Orleans Regional Planning Commission  
Brad Kramer – New Orleans Sewerage and Water Board  
Prisca Weems – Stormwater Manager, City of New Orleans  
Jerry V. Graves, Ph.D. – Director of Land Stewardship, The New Orleans Redevelopment Authority  
Casey O'Keefe – Oak Park Civic Association  
Kelli Walker – New Orleans Metropolitan Association of Realtors  
Melissa O'Donnell – New Orleans Metropolitan Association of Realtors  
Lauren Butner – Innovation Delivery Team Analyst, City of New Orleans  
Harry Vorhoff – Tulane Institute on Water Law  
Tim Jackson – University of New Orleans  
James Fondren – Senator Vitter's Office  
Larry Landry – Insurance

**City of Slidell:**

Eric Lundin – Planner  
Carol Franze – Louisiana Sea Grant (Resident of Slidell)  
Maria C. Guilott – Slidell Economic Development Alliance  
Ken Levy – Slidell Economic Development Alliance

**St. John the Baptist Parish:**

Phyl Cornman – Administrative Assistant  
Eric Wolverton – Floodplain Administrator  
Paige Falgoust – Communications Department  
Bryan A. Castillo – Insurance  
Carolyn Robertson – Realtor  
Fran Meyers – Realtor  
Harold J. Flynn, Jr. – Developer

**Tangipahoa Parish:**

Nicolas P. LeBlanc – Assistant Building Official  
 Angelo Giardina – Banking  
 Brad Stevens – Attorney  
 Robbie Lee – Insurance

**Terrebonne Parish:**

Lisa Ledet – Floodplain Manager  
 Geoffrey S. Large – Planner  
 Jennifer Gerbasi – Planner  
 Mary Gueniot Biegler – Bayou Grace Community Services  
 Patricia Belanger – Resident, Schriever  
 Peg Case – Terrebonne Readiness and Assistance Coalition  
 Stephanie Hebert – Insurance

**General Support:**

Katie Lea – Louisiana Sea Grant (Central)  
 Jeffery Giering – Governor’s Office of Homeland Security and Emergency Preparedness  
 Pam Lightfoot – NFIP State Coordinator  
 Josh Muller – Student (Jefferson)  
 Maggie Olivier – Floodplain Manager (Jefferson)  
 Susan Garner – UNO-CHART (Orleans)  
 Alessandra Jerolleman – National Hazard Mitigation Association (Jefferson)  
 Monica Farris – UNO-CHART (Jefferson)  
 Darla Duet – Floodplain Manager, Lafourche  
 Michelle Esposito – Solutient (St. Bernard)  
 Tara Lambeth – UNO-CHART (Orleans)  
 Race Hodges – National Hazard Mitigation Association (Orleans)

**Community Needs Assessment**

The communities in the FLOAT region include populations that may be more vulnerable than others, including individuals over 65, people living below the poverty level, those who speak English as a second language, and those who have low literacy. The percentage of the population that meets these criteria differs in each area of the FLOAT region. The population of the entire region is 930,430. Of that population, 12.1% is over 65, 20.1% is living below the poverty level, 8% speaks English as a second language (ESL), and 15% is illiterate. These numbers are similar throughout Louisiana. The table below describes the specific socio-economic data for each FLOAT area, the FLOAT region, and the state of Louisiana, based on 2012 United States Census Bureau information.

	Orleans	St. Bernard	St. John the Baptist	St. Tammany	Tangipahoa	Terrebonne	LOAT Region	State
<b>Total Population</b>	369,250	41,635	44,758	239,453	123,441	111,893	930,430	4,601,893
<b>Over 65</b>	42,095	3,789	5,102	33,045	15,060	13,427	112,518	597,750

	<b>11.4%</b>	<b>9.1%</b>	<b>11.4%</b>	<b>13.8%</b>	<b>12.2%</b>	<b>12.0%</b>	<b>12.1%</b>	<b>13.0%</b>
<b>Below the Poverty Level</b>	100,436	7,578	7,072	25,861	27,280	18,798	187,025	889,757
	<b>27.2%</b>	<b>18.2%</b>	<b>15.8%</b>	<b>10.8%</b>	<b>22.1%</b>	<b>16.8%</b>	<b>20.1%</b>	<b>19.9%</b>
<b>ESL</b>	35,780	2,873	2,954	14,607	6,419	12,081	74,714	360,579
	<b>9.7%</b>	<b>6.9%</b>	<b>6.6%</b>	<b>6.1%</b>	<b>5.2%</b>	<b>10.8%</b>	<b>8.0%</b>	<b>8.4%</b>
<b>Illiterate</b>	67,204	5,496	7,743	19,635	20,738	18,686	139,502	736,302
	<b>18.2%</b>	<b>13.2%</b>	<b>17.3%</b>	<b>8.2%</b>	<b>16.8%</b>	<b>16.7%</b>	<b>15.0%</b>	<b>16.0%</b>

Table 1: Vulnerable Populations in the FLOAT Region

### FLOAT Region’s Geography

The localities that make up the FLOAT region are situated in Southeastern Louisiana. They include St. Tammany Parish, the City of Mandeville, the City of New Orleans, the City of Slidell, St. John the Baptist Parish, Tangipahoa Parish, and Terrebonne Parish. All of the areas in the FLOAT region contain or border bodies of water, and include areas of marsh, wetland and swamp. Because of the proximity to water, much of each locality is located in the floodplain. In addition, quite a few parishes and cities within the FLOAT region have a low land elevation. Therefore, much of the FLOAT region is susceptible to flooding.

#### *St. Tammany’s Geography-*

##### Topography and Land Use

St. Tammany Parish is located in southeastern Louisiana, on the north shore of Lake Pontchartrain (see Figure 3). The Parish measures approximately 25 miles north to south and 35 miles east to west. It covers 877 square miles and is the fifth largest parish in the state.



Figure 3: St. Tammany Parish

Figure 4 identifies the municipalities and the main features of the Parish. Lake Pontchartrain borders the parish to the south. To the east is the Pearl River, the boundary between Louisiana and Mississippi. To the southeast are the City of Slidell and US Highways 11 and 90 and Interstate 10, the main roads to the eastern entry to New Orleans.

In the western part of the Parish are the cities of Covington, Mandeville, Madisonville and Abita Springs. Crossing the Lake from Mandeville is the Causeway, the 24 mile over water link to the western suburbs of New Orleans. Folsom, Sun and Pearl River are located to the north of the two larger population centers.

Most of St. Tammany Parish is geologically considered Easter Pleistocene Terrace and Gulf Coast Flatwood. In the northeast and east, the predominant landscape feature is the floodplain of the Bogue Chitto and Pearl Rivers. Along the Lake to the south, the land is mostly marsh. The three main features are upland, floodplain and marsh.



### *City of Mandeville's Geography-*

The City of Mandeville lies in southeastern Louisiana and is located in St. Tammany Parish approximately 25 miles north of the City of New Orleans. Bounded on the east by Bayou Castine, the north and west by Bayou Chinchuba, and Lake Pontchartrain to the south, water is the prominent feature of this low-lying community. The City of Mandeville consists of a total area of 6.8 square miles or 4,352 acres. The City of Mandeville is located

Figure 4: St. Tammany Parish Geography

on an ancient delta of the Mississippi River.

Landforms are produced by deltaic deposits and pumped fill from Lake Pontchartrain. Soils consist of a fine sandy loam surface layer with sandy clay loam subsoil. Relief within the City ranges from zero feet National Geodetic Vertical Datum of 1929 (NGVD) at the southern city limits near Lake Pontchartrain to approximately 20 feet NGVD at its northern limits. The topography of the City is a generally flat coastal plain and brackish marsh. Approximately 80 percent of the total land area of the City is located within FEMA's 100-year floodplain.

### *City of New Orleans' Geography-*

Orleans Parish lies in southeastern Louisiana and is bordered by Lake Pontchartrain to the north, Jefferson Parish to the west and southwest, and Plaquemines and St. Bernard Parishes and Lake Borgne to the east. Across most of the Parish, elevations vary by only a few feet. Most of Orleans Parish is below sea level and/or surrounded by flood levees. The topography of New Orleans has been particularly influenced by the natural levee of the Mississippi River. With each Mississippi River flood, water spilled out of the river, depositing its sediment to raise the natural levee to an original average of 10 to 15 feet above sea level, and one to two miles in width, sloping very gently into the back swamp. In the New Orleans area today, the Mississippi River flows 10 feet to 15 feet above sea level. The lowest elevations of the City are located in the areas of Lakeview, Gentilly, and New Orleans East.

### *City of Slidell's Geography-*

Slidell is located on the northeast shore of Lake Pontchartrain between the Pearl River Basin and Bayou Liberty. It is bisected by Bayous Bonfouca, Vincent, and Patassat and several large canals draining into the bayous, and eventually into Lake Pontchartrain.



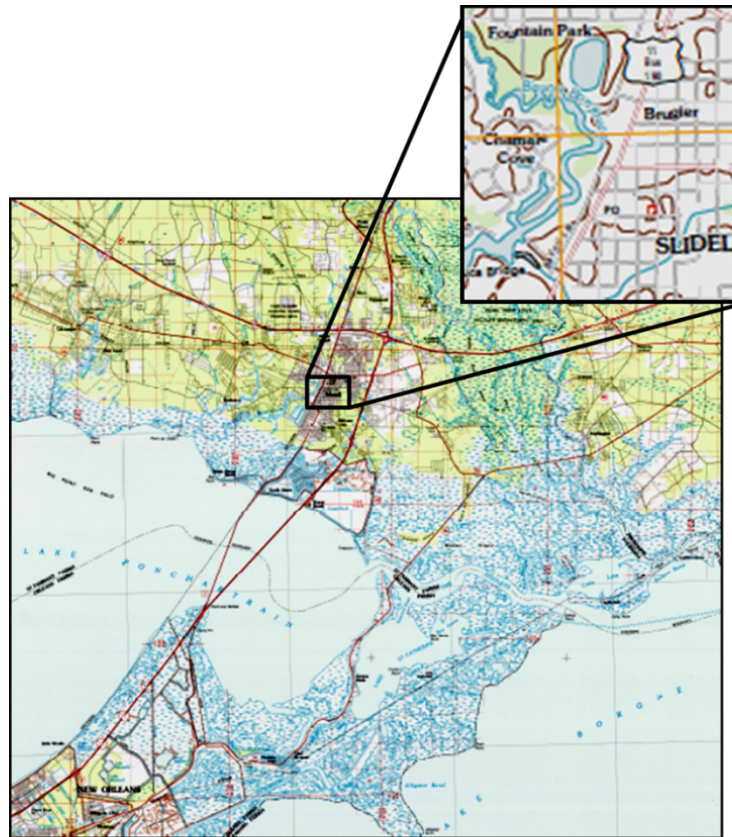


Figure 5: City of Slidell

### ***St. John the Baptist Parish's Geography***

St. John the Baptist Parish is located between Baton Rouge and New Orleans along the Mississippi River. Lake Maurepas and Pass Manchac form the watery northern border along Livingston and Tangipahoa Parishes. Lake Pontchartrain forms the eastern border with St. Charles Parish. Lac Des Allemands forms the southern border with Lafourche Parish. To the west is St. James Parish. St. John the Baptist Parish is divided into two sections by the Mississippi River, with 70% of the land east of the river and the rest on the west bank. St. John the Baptist Parish consists of an area of 219 square miles, or 140,104 acres of land and 129 square miles, or 82,529 acres of water. The parish is located in the terrace and Mississippi floodplain region of southeast Louisiana.

St. John the Baptist Parish is largely rural. Land uses within the Parish consist of industrial, commercial, and residential areas; agricultural land; woodlands; and wetlands. The majority of the industrial and commercial areas are located along the Mississippi River corridor. The residential areas are along the Mississippi River and in the northeast portion of the parish near the intersection of I-10 and I-55. Agricultural land, woodlands, and wetlands comprise the rest of the Parish's acreage.

St. John the Baptist Parish's topography is relatively flat. In the southern portion of the Parish, the land is 10 to 15 feet above sea level along the riverbanks, sloping gradually down to five feet away from the river. This sloping resulted from natural levees formed by the Mississippi River.

St. John the Baptist Parish contains four unincorporated towns: LaPlace, Reserve, Garyville, and Edgard. The total population, according to the 2012 Census, is 44,758. Most buildings are slab on grade, and therefore susceptible to flood damage from shallow flooding and drainage problems. St. John also has 54

trailer parks and approximately 991 individual trailers. St. John consists of agricultural areas, supplemented by heavy commercial, industrial, petrochemical and light manufacturing industries. Flooding in St. John Parish is due to storm surge, severe storms, flash flooding and thunderstorms.

### **Tangipahoa Parish's Geography-**

Tangipahoa Parish is located in southeast Louisiana, north of New Orleans and east of Baton Rouge. It is conveniently close to New Orleans, Baton Rouge and Mississippi. St. Tammany and Washington parishes are located to the east of the parish, while St. Helena and Livingston parishes are located to the west. The state of Mississippi is located to the north of the Parish. St. John the Baptist and Jefferson parishes are located to the south of the parish, meeting in Lake Pontchartrain. Tangipahoa Parish consists of an area of 790.3 square miles, or 505,790 acres. Tangipahoa Parish contains eight incorporated communities: Hammond, Ponchatoula, Amite, Kentwood, Independence, Roseland, Tangipahoa, and Tickfaw.

### **Topography**

The topography of the Parish extends from low flat land in the south to rolling hills in the north. It is the center of the strawberry industry in the South. The true heartland of piney woods in Tangipahoa Parish is characterized by gently rolling hill country dotted with farmsteads and small towns separated by a rich growth of pine forests and occasional hardwoods. The Parish is approximately 51 miles long and 18 miles wide. The terrain of the Parish consists of hills with elevations that range from 370 feet along the northern state boundary to 0 feet in the wetlands along Lakes Maurepas and Pontchartrain.

### **Terrebonne Parish's Geography-**

Terrebonne Parish is situated in southeast Louisiana along the state's Gulf of Mexico coastline. The parish includes approximately 2,100 square miles, and is the second largest parish in Louisiana in terms of land area. More than 85% of the parish area is made up of water and wetlands. To the east is Lafourche Parish, to the west St. Mary Parish, and to the north Assumption Parish. The highest point in Terrebonne Parish is 13 feet above sea level. Major water and cultural features include five bayous, the Intercoastal Waterway, the Houma Navigational Canal, and various canals. The map below (Figure 6) shows the communities in Terrebonne Parish, its position in the state, and its large expanse of water and wetlands.

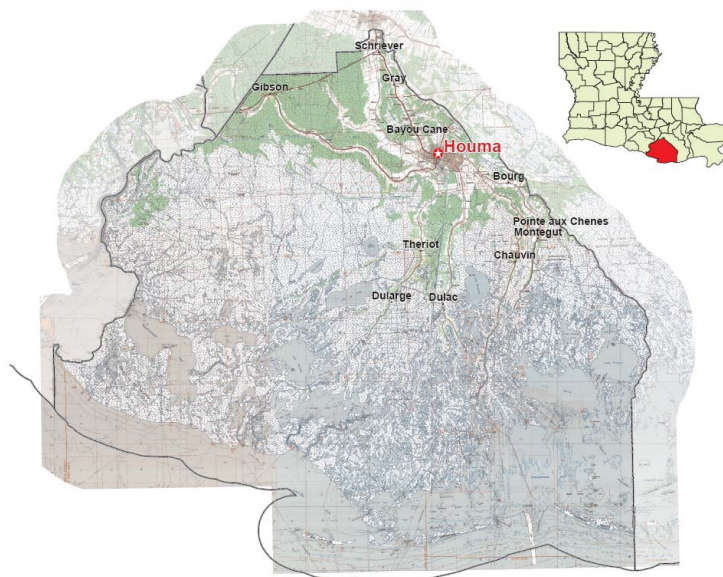


Figure 6: Terrebonne Parish

## Flood Hazards

Floodplains are lowlands, adjacent to rivers, lakes, and oceans that are subject to recurring floods. Hundreds of floods occur each year, making them one of the most common hazards in all 50 States and U.S. territories. Floods are also the most widespread of all natural disasters except fire. Flooding typically results from large-scale weather systems generating prolonged rainfall. Most communities in the United States have experienced some kind of flooding after spring rains, heavy thunderstorms, or winter snow thaws.

Flooding is defined as the accumulation of water within a water body and the overflow of excess water onto the adjacent floodplain. The floodplain is the land adjoining the channel of a river, stream, ocean, lake, or other watercourse or water body that is susceptible to flooding. Flooding is a natural event for rivers and streams (often called “overbank” flooding), and also can be the result of ponding or overland “sheet” flow when rainfall rates temporarily exceed the drainage capacity of an area. In overbank events, excess water from snowmelt, rainfall, or storm surge accumulates and overflows onto banks and adjacent floodplains. In ponding events, water temporarily accumulates in an area until normal drainage allows it to flow away. Overland, or sheet flow floods, occur when intense rainfall occurs, and water simply runs across the ground, in extreme cases at depths of more than a foot and at relatively high velocities.

The Lake Pontchartrain area is characterized as a coastal zone consisting of low, flat elevations bisected by regular and numerous slow moving rivers and bayous, which are often relied on as an integral part of the cities and parishes drainage systems. The low, flat topography and slow moving waterways combine to increase the risk to sheet flooding and ponding in low lying areas. To compensate for this challenge, cities and parishes rely heavily on pump systems for the removal of storm water from low lying areas and from areas located within flood protection barriers.

Over 80% of the Lake Pontchartrain area is located in a Special Flood Hazard Area (SFHA). Some of these areas have been provided federal, state, or local flood protection barriers. However, many of the most vulnerable areas are outside of the flood protection systems. Even those areas within flood protection systems are vulnerable to flooding when the system is overtopped or breached, as occurred during Hurricanes Karina and Isaac.

The Lake Pontchartrain area is vulnerable to flooding from storm surge, localized drainage deficiencies, and back flooding. The greatest flood threat to the area is by storm surge from tropical storms and tropical cyclones. Storm surges push large quantities of water into an area and cause both sheet and overbank flooding, and can even overtop levees and flood walls. Storm surges that overtop flood protection systems are particularly challenging, because the flood waters are then trapped inside the barrier and must be pumped out along with any rain water that also accumulated during the storm event.

A second leading cause of flooding is localized drainage issues due to insufficient or impaired drainage. The area’s low flat topography limits gravity’s effect on moving water through the drainage system. Pumps are used to augment the drainage systems ability to remove storm and flood waters, but pumps generally require human intervention to ensure they are maintained, turned on when needed, and continue to operate throughout a storm event. Another challenge is impaired drainage due to silt accumulation, litter and debris clogging pipes and culverts, and uneven/rough drainage channels. The lack of efficient flow causes local blockages or slowing which causes the water to backup, overtop the bank, and flood local areas.

A third likely cause of flooding is back flooding, since most of the drainage systems rely on bayous and rivers draining into the lakes then into the Gulf of Mexico. When Lake Pontchartrain is overfilled, the rivers and bayous cannot drain and actually begin to flow back up stream. The combination of backflow, with a continuing need to pump out storm water, overwhelms the flood protection and drainage capacity



causing flooding. The effect is often exacerbated by tidal conditions, since the majority of the area is in a coastal zone.

### St. Tammany's Flood Hazards-

#### **Hurricanes/Tropical Storms**

Tropical storms and hurricanes are large-scale systems of severe thunderstorms that develop over tropical or subtropical waters and have a defined, organized circulation. The larger storms generally form over the eastern Atlantic Ocean and move westward. The hurricane season runs from June through November, with the peak activity in September. Tropical storms and hurricanes are categorized by their wind speed. While best known for their winds, these storms can also bring flooding of coastal regions, heavy rains that cause inland flooding, thunderstorms, lightning, and tornadoes. In June and October, storms are more likely to come from the Gulf, while in July through September; they generally form in the South Atlantic. The peak recorded wind speed in the parish was 125 miles per hour during Hurricane Camille in 1969.

**Affected Area.** Tropical storms and hurricanes can affect the entire parish. Every place in St Tammany Parish is susceptible to their winds, rain, and tornadoes. Figure 7 below shows the coastal areas that will be evacuated for flooding by categories 1 through 4 storms.

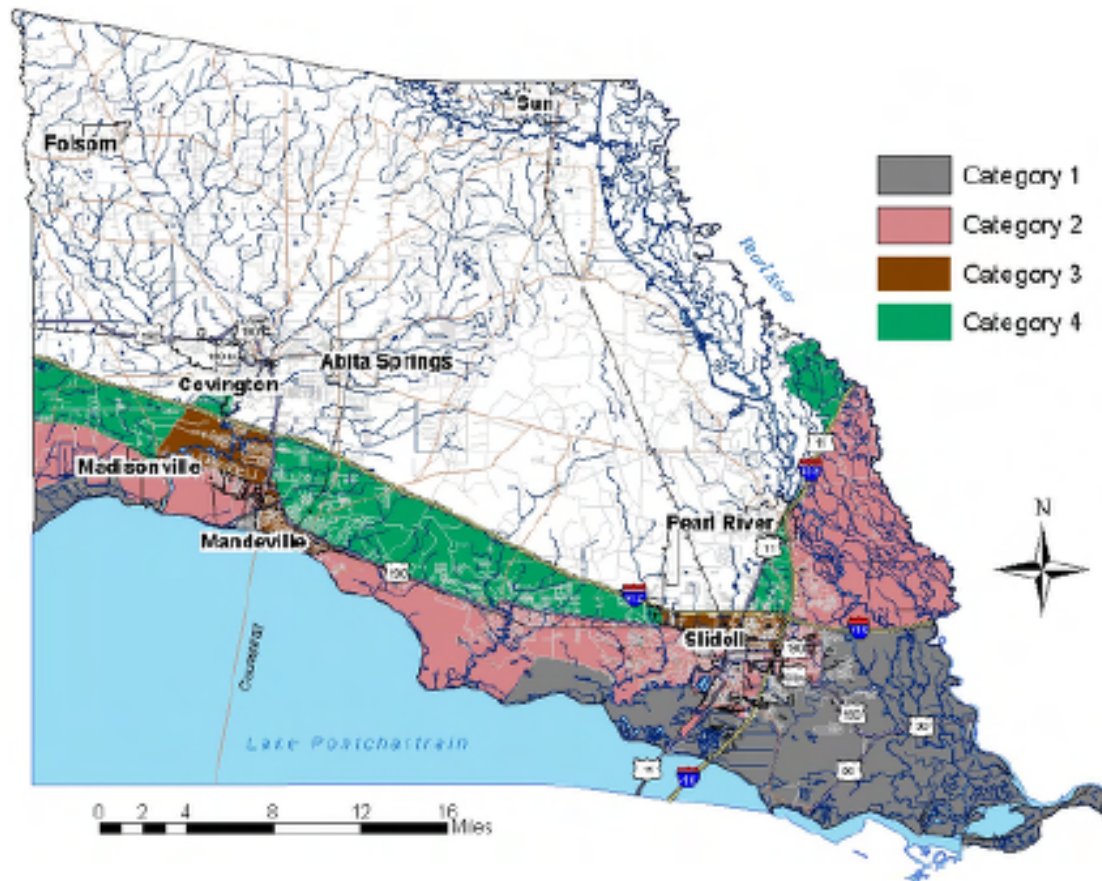


Figure 7: Evacuation of Coastal Areas per Category in St. Tammany Parish

Low lying and coastal areas south of I-12 are most subject to storm surge flooding. The 100-year storm surge elevation at the Causeway and I-10 is 11.6 feet. The flood elevation drops one foot for each 2.75 miles inland.

**Frequency.** Louisiana has had an average of 3 or 4 hurricanes each decade since detailed records have been kept. Based on historical record, a tropical storm or hurricane should be expected somewhere within the state every 1.2 years (0.83% chance). A hurricane should make landfall every 2.8 years. The odds of a severe category 4 or 5 hurricane coming closer to St. Tammany Parish are lower.

**Flooding**

Flooding is caused by more water than the drainage system can convey. Flooding is dependent on three factors: 1) precipitation, and antecedent conditions in both 2) the watershed and 3) the drainage channel.

**Precipitation.** St. Tammany Parish receives an average of 64 inches of rain each year. The rain comes from tropical storms, convective thunderstorms, and storms caused by the interaction of warm moist air with colder air from the north. The parish’s precipitation is not spread out evenly over the year. The amount

Intensity	Frequency
Category 1	8 years
Category 2	19 years
Category 3	32 years
Category 4	70 years
Category 5	180 years

Source: USGS, "Environmental Atlas of Lake Pontchartrain," in LOEP Hazard Profiles

Table 3: Frequency of Hurricanes passing within 80 Miles of New Orleans

channel, Lake Pontchartrain or the Gulf). When one of these conveyance channels receives too much water, the excess flows over its banks and into the adjacent area – causing a flood.

St. Tammany Parish has 7 major watersheds, which are shown in Figure 8. Within these major watersheds are smaller sub-watersheds that drain into the tributaries. All of these streams have adjacent floodplains that are inundated during a flood.

Decade	Hurricanes	T.S.s	Total
1850's	3	1	4
1860's	7	2	9
1870's	6	3	9
1880's	7	3	10
1890's	3	6	9
1900's	2	7	9
1910's	3	2	5
1920's	3	2	5
1930's	2	8	10
1940's	3	9	12
1950's	2	7	9
1960's	4	1	5
1970's	4	3	7
1980's	4	5	9
1990's	3	2	5
Totals	57	61	118

Source: National Weather Service

Table 2: Louisiana Storm Surge History

of rain that falls varies from storm to storm and varies over an area. Where this rain goes depends on the watershed.

**The Watershed.** A “watershed” is an area of land that drains into a lake, stream or other body of water. The runoff from rain is collected by ditches and sewers, which send the water to small streams (tributaries), then the water travels to larger channels and eventually to the lowest body of water in the watershed (the main

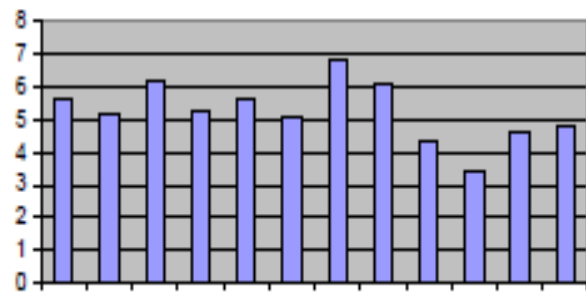


Table 4: Frequency of Hurricanes passing within 80 Miles of New Orleans

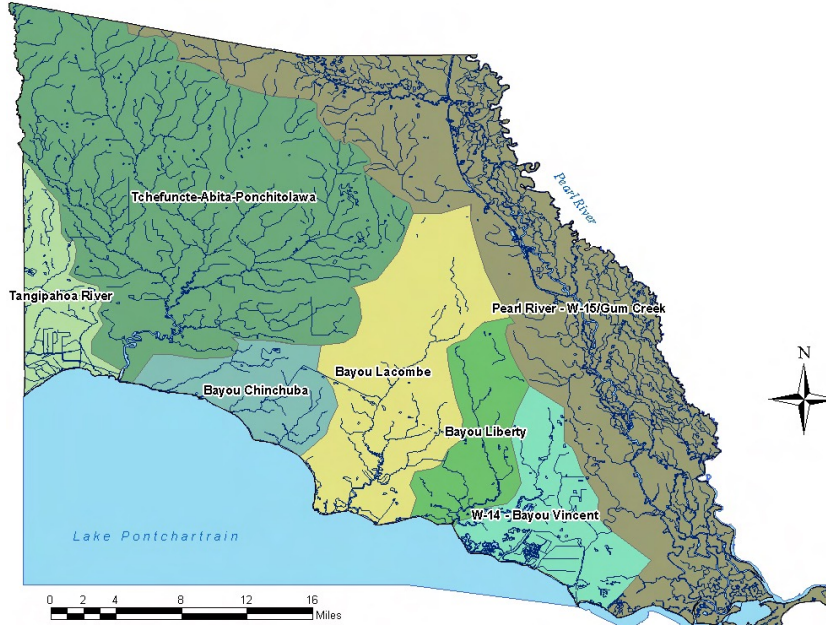


Figure 8: St Tammany Parish Watersheds

**The Channel.** Flooding can be aggravated by obstructions in the drainage system. There are two kinds: channel obstructions, such as small bridge or culvert openings or log jams, and floodplain obstructions, such as road embankments, fill and buildings. Channel obstructions will aggravate smaller, more frequent floods, while floodplain obstructions impact the larger, less frequent floods where most of the flow is overbank, outside the channel. Channel obstructions can be natural (e.g., log jams or growth) or man-made (e.g., broken culverts or debris). Channel obstructions can be cleared out by work crews or washed away during

larger floods. Floodplain obstructions tend to be more permanent.

### City of Mandeville's Flood Hazards-

#### Floods

Hundreds of floods occur each year in the United States, including overbank flooding of rivers and streams, and shoreline inundation along lakes and coasts. Flooding typically results from large-scale weather systems generating prolonged rainfall. Flooding in the City of Mandeville can be the result of the following weather events: hurricanes, thunderstorms, or winter storms.

Flooding is defined as the accumulation of water within a water body and the overflow of excess water onto adjacent floodplain lands. The floodplain is the land adjoining the channel of a river, stream, ocean, lake, or other watercourse or water body that is susceptible to flooding. According to the Federal Interagency Floodplain Management Task Force, flooding in the United States can be separated into several types: riverine flooding, including overflow from a river channel; flash floods; alluvial fan floods; local drainage or high groundwater levels; fluctuating lake levels; coastal flooding, including storm surges; debris flows; and subsidence.

### City of New Orleans' Flood Hazards-

#### **Hurricanes and Tropical Storms**

Flooding in Orleans Parish can be the result of weather events such as hurricanes, thunderstorms (convective and frontal), storm surge, and winter storms. Convective rain, or showery precipitation, occurs from convective clouds and falls as showers with rapidly changing intensity. Frontal precipitation occurs when the leading edge of a warm air mass meets a cool air mass. The warmer air is forced over the cool air. As it rises, the warm air cools, moisture in the air condenses, and clouds and precipitation result. In Orleans Parish, heavy rains can occur at any time of the year, although the rainiest months are June, July, and August, when tropical moisture is plentiful along the Gulf Coast.

**Flooding**

The City of New Orleans has minimal elevation change. As a result of this minimal elevation change, when heavy rainfall events occur, water tends to pool rather than run off rapidly. Elevations below sea level combined with little slope in topography and an extensive levee system mean that rainwater cannot flow out of the Parish, but must be pumped out.

**Drainage Systems/Pumping Stations**

The greater New Orleans metropolitan area is served by approximately 80 pumping stations in four Parishes (Orleans, Jefferson, St. Bernard, and Plaquemines) with a combined capacity of approximately 30 billion gallons per day. All stations are equipped with pumps that are either directly driven by diesel engines or by electric motors that receive their power from diesel-electric generators. The main metropolitan area (Orleans Parish) is drained by 13 pump stations, which discharge directly into Lake Pontchartrain, the 17th Street, Orleans, and New London Canals, and the Inner Harbor Navigation Channel.

***City of Slidell’s Flood Hazards-***

Slidell's coastal location, numerous bayous and canals, and low elevation and flat topography make it vulnerable to flooding from a number of causes that include hurricane generated storm surge, back flooding from an over filled Lake Pontchartrain, inundation from heavy rains during tropical storms and other storm events, and localized drainage issues. Major flooding incidents occurred during an unnamed major storm in May 1995 (\$25.4 million), Tropical Storm Allison in 2001 (\$12.8 million), Hurricane Isidore and Tropical Storm Lili in 2002 (\$12.4 Million), and Hurricane Isaac in 2012 (\$23.4 million). By far the worst event was Hurricane Katrina, a 396 year storm, which struck in August of 2005. The 4,070 flood claims for Hurricane Katrina exceeded \$369 million in claim payments and over 51% of the city’s 7,917 flood claims and 81% of the city’s \$454 million in claim payments since the National Flood Insurance Program began in 1978.

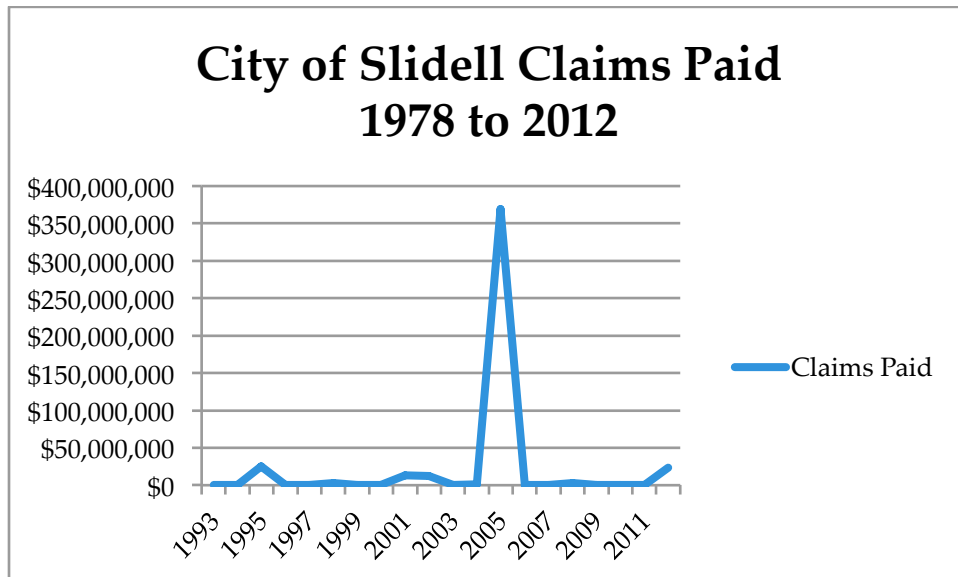


Figure 9: City of Slidell Flood Claim Payouts

### **Storm Surge and Flooding**

The southern part of the City of Slidell and those areas bordering Bayou Bonfouca are the most susceptible to flooding from storm surge and back flooding from Bayous Bonfouca, Liberty, Vincent, and Patassat. A challenge during the most recent hurricane to strike the city, Hurricane Isaac, was the inability of the city's pumps to remove rain water from inside the city's drainage area, because the pumps could not overcome the pressure of a saturated Bayou Bonfouca. The impact of regular flood events, occurring approximately every five years, has created underinvestment in the southern part of the city and has led to an increase in blighted properties, from single family homes to commercial properties.

The greatest concentration of flood vulnerable properties is located in the Palm Lake area, where houses sit on a series of canals connected to Lake Pontchartrain by way of Bayou Bonfouca. The cost of elevating and other means of protecting homes and businesses from flooding in the southern part of the city has caused increased development in the northern part. This shift has increased congestion along Gause Blvd., the main thoroughfare in the northern part of town, and increased construction. Of particular concern are homes in the Driftwood Circle and north 9th St areas. Development in these areas has overstressed the areas' drainage capacity and led to localized flooding during heavy rain and storm events. Exacerbating this problem are homes built lower than the crown of the adjacent street and silt build up in sewers lines from erosion and runoff. These factors are reminders that even areas outside of the Special Flood Hazard Area are vulnerable to flooding, and programs that require retention and detention ponds to hold and release water in a controlled manner, erosion control measures during construction, landscaping, and litter and debris removal from ditches and surrounding areas are key to reducing the risk of flooding and to speeding recovery from flood events.

### **Past Hazard Mitigation Efforts**

The fact remains that the majority of the city is located in the SFHA, and there are no large scale projects underway to protect the city from flooding. Therefore, the City must mitigate against the risk of flooding through a combination of ordinances, codes, designs, and capital projects. To unify these efforts, the city is in the last stage of replacing several of its ordinances including zoning, subdivision regulation, flood prevention, and storm water management, with a Unified Development Code, which will provide for a more holistic and integrated approach to hazard mitigation.

Key to the city's efforts are its outreach programs intended to inform its residents and business owners what they can do to mitigate their individual risk and to speed their recovery from a flood event.



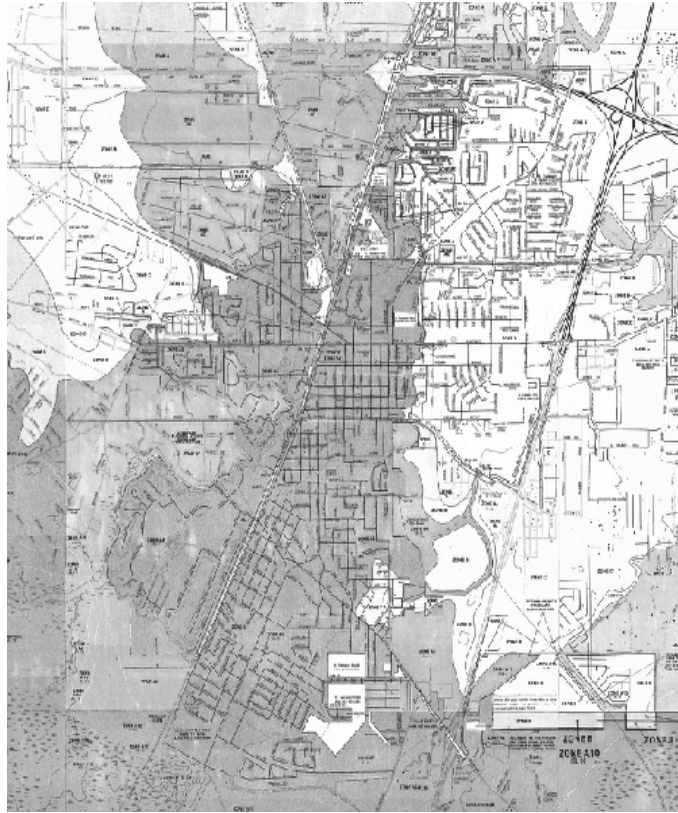


Figure 10: City of Slidell Special Flood Hazard Area

### **St. John the Baptist Parish's Flood Hazards-**

#### **Hurricanes/Tropical Storms**

During hurricanes and tropical storms, St. John the Baptist Parish is subject to heavy flooding, due to the effects associated with wetlands and Lake Pontchartrain, Lake Maurepas, and Lac Des Allemands. In St. John, flooding can occur during any season of the year. Because so much of the land is low lying, all properties may be subject to flooding. Floodwater collects in a saucer of land prone to subsidence or sinking. The low, flat ground provides little gravity drainage. When the ground is saturated and heavy rain falls quickly, the system can be overwhelmed and flooding can result.

#### **Storm Surge**

Storm surge in St. John is due mainly from Lake Pontchartrain and Maurepas, Lac Des Allemands and Pass Manchac.

Approximately 80% of the total land area of the Parish is located within FEMA's 100-year floodplain. The majority of the floodplain is found between Interstate 1-10 and the Parish's northern boundary and is south of LA 3127 to the Parish boundary.

#### **Sources of Riverine Flooding**

Locally heavy precipitation may produce flooding in areas other than delineated floodplains or along recognizable drainage channels. If local conditions cannot accommodate intense precipitation through a combination of infiltration and surface runoff ("sheet flow"), water may accumulate ("pond") and cause

flooding problems. Water levels in U.S. lakes can fluctuate on a short-term, seasonal basis or on a long-term basis over periods of months or years.

### Drainage Systems/Pumping Stations

St. John the Baptist Parish is subject to heavy flooding due to Lake Pontchartrain, Lake Maurepas, and Lac Des Allemands and the associated wetlands, as previously mentioned. When water levels are high, the area on the east side of the Mississippi River is susceptible to backwater flow through the wetlands. This prevents proper drainage of the land. All waters that extend north of U.S. Highway 61 (Airline Hwy) are subject to tidal impact, which has serious detrimental effects on volume of the canals. Tidal backwater into canals severely restricts drainage by using the available capacity of the canals. The outfall culverts at U.S. Highway 61 are in need of check valves to prevent the back flow of tidal water. According to the Master Plan for Drainage Improvements for the Parish, populated areas that have been identified as high potential flooding zones are in the community of Mt. Airy, Crevasse area, McReine Subdivision, areas north and south of LA 3217 and LA 3127, areas along U.S. Highway 61 (Airline Highway), and along UPRR tracks. St. John the Baptist Parish has a schedule for the cleaning of existing ditches year round and an active culvert and drainage permit program, along with participating in the States Backflow Prevention Program.

There are currently 22 pumps in the parish, with two more to be added to the Foxwood Subdivision in the future. The parish is planning to buy hydraulic pumps for the Red Bud and Crevasse areas in the future as well. These areas are located along the Mississippi River. Within a year, the parish should have 26 total pumps.

### Tangipahoa Parish's Flood Hazards-

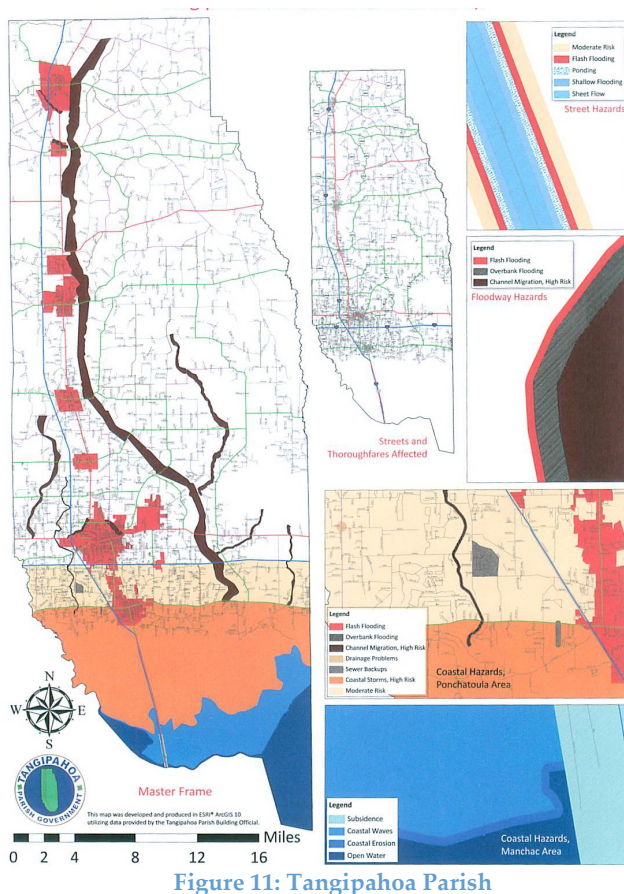


Figure 11: Tangipahoa Parish

Flooding is defined as the accumulation of water within a water body and the overflow of excess water onto adjacent floodplain lands. The floodplain is the land adjoining the channel of a river, stream, ocean, lake, or other watercourse or water body that is susceptible to flooding. According to the Federal Interagency Floodplain Management Task Force, flooding in the United States can be separated into several types: riverine flooding, including overflow from a river channel; flash floods; alluvial fan floods; local drainage or high groundwater levels; fluctuating lake levels; coastal flooding, including storm surges; debris flow; and subsidence.

### Floods

Flooding in Tangipahoa Parish can be the result of the following weather events: hurricanes, thunderstorms, or winter storms.

Approximately 45% of the total land area of Tangipahoa Parish is located within FEMA's 100-year floodplain. The majority of the floodplain is found along the

Tangipahoa River, Natalbany River, Lake Maurepas and Lake Pontchartrain shorelines, and the Tchefuncte River. The Tangipahoa River, with a drainage area of 771 square miles at Lake Pontchartrain, flows from the northwestern to the southeastern part of the Parish. The Natalbany River, with a drainage area of 218 square miles at its mouth, flows through the Parish in a southern direction near the western border of the Parish.

### Risk Assessment

Approximately 11 percent of the parish's total land area contains frequently flooded soils. These areas generally run along the Tangipahoa, Natalbany, Tchefuncte, and other creeks and rivers and are often flooded for long periods of time, usually between December and May. One-third of the parish is either wetland or subject to flooding. The wetland area is swamp or other wetlands, which have water depths of up to one foot most of the year. This area is located in the lower section of the Parish, the wetland and floodplain of Lake Pontchartrain, and accounts for approximately 14 percent of the parish.

### Terrebonne Parish's Flood Hazards-

Terrebonne Parish is mostly water and wetlands. A combination of its deltaic creation, its proximity to the Gulf of Mexico, and a historical concentration of oil and gas exploration activities (construction of man-made access canals) are responsible for greater than 85% of the parish's total acreage being represented by either water or wetlands. Generally from north to south, the wetlands include fresh marsh, intermediate brackish marsh, and salt marsh near the coast line. These marshes are intertwined with hundreds of lakes, bays, bayous, and canals. Some of the more notable water bodies within the parish include: Bayou Black, Bayou Dularge, Bayou Grand Caillou, Bayou Petit Caillou, and Bayou Terrebonne.

These bayous are significant, as they have historically provided the land-building sediment that created the highest areas of the parish. The sediment was deposited during annual flooding cycles of Bayou Lafourche. It is upon these finger-like ridges that all urban and agriculture land exist in the parish today. Because of the formation of these ridges through alluvial processes, the three-foot contour clearly defines the ridges as the "high-ground" of the parish. Virtually all land area other than these ridge areas is susceptible to frequent flooding of some, sort or would be without forced drainage systems; either stormwater, river flooding, storm surge, or backwater flooding. Flooding is both coastal, from storm surge during tropical events, and in the forced drainage areas from rain events. Approximately 90% of the parish is considered environmentally sensitive and in the Special Flood Hazard Area. The graphic below (Figure 12) depicts the ridges that form the bulk of non-flooding urban and agricultural land in the parish.

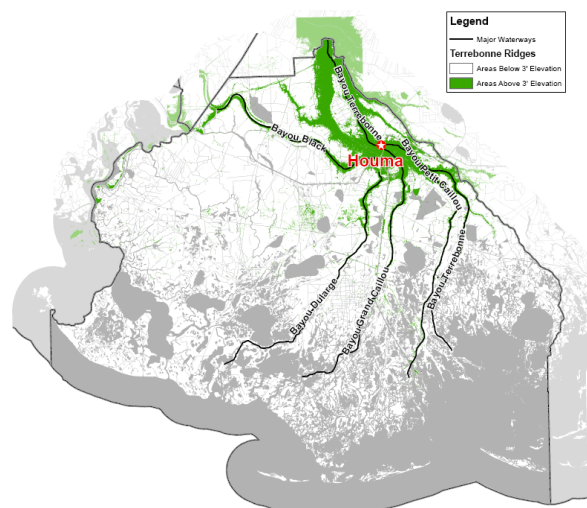


Figure 12: Ridges in Terrebonne Parish

## FLOAT Region Flood Insurance Data (Activity 370)

This section will review the flood insurance data in each of the FLOAT communities, flood insurance studies (where available), A Flood Insurance Study, or FIS, is a compilation and presentation of flood risk data for specific watercourses, lakes, and coastal flood hazard areas within a community. When a flood study is completed for the NFIP, the information and maps are assembled into an FIS. The FIS indicates flooding within the City occurs almost equally between the spring from rainfall and in the late summer from tropical cyclone events; however, flooding can occur anytime during the year. This section will also examine pre- and post- FIRM policies and level of flood insurance coverage in each community, as well as make recommendations for enhancing flood insurance coverage in each community.

According to FEMA, a pre-FIRM structure is one in which “construction or substantial improvement occurred on or before December 31, 1974 or before the effective date of an initial Flood Insurance Rate Map (FIRM).”<sup>1</sup> FEMA defines a post-FIRM structure as “a building for which construction or substantial improvement occurred after December 31, 1974 or on or after the effective date of an initial Flood Insurance Rate Map (FIRM), whichever is later.”<sup>2</sup> The table below details the initial and current FIRM dates for each community.

**Table 5: FLOAT Region Initial FIRM Dates**

Community	Initial FIRM date
<b>St. Tammany Parish</b>	2/2/83
<b>City of Mandeville</b>	9/28/79
<b>City of New Orleans</b>	8/3/70
<b>City of Slidell</b>	12/16/80
<b>St. John the Baptist Parish</b>	7/16/80
<b>Tangipahoa Parish</b>	2/2/83
<b>Terrebonne Parish</b>	11/20/70

The majority of flood insurance policies in the FLOAT region related to pre-Flood Insurance Rate Map (FIRM) structures are located in the Special Flood Hazard Area (SFHA) in St. Tammany Parish, the City of Mandeville, the City of New Orleans, and the City of Slidell. In St. John the Baptist Parish, Tangipahoa Parish, and Terrebonne Parish, the majority of the pre-FIRM structures are located in the B, C or X Zones.

The majority of flood insurance policies in the FLOAT region related to post-FIRM structures are located in the SFHA in the City of New Orleans, the City of Slidell, St. John the Baptist Parish, and Tangipahoa Parish. In St. Tammany Parish, the City of Mandeville and Terrebonne Parish the majority of the post-FIRM structures are in the B, C or X Zones.

The table below outlines the flood insurance policies in each community. See Appendix B for more detailed flood insurance information by community.

According to the Insurance Information Institute, 14% of homeowners in the United States have flood insurance, as of 2015.<sup>3</sup> As evidenced in Table 6 below, all of the communities in FLOAT have greater than 14%, which is above the national average.

<sup>1</sup> <http://www.fema.gov/national-flood-insurance-program/definitions>

<sup>2</sup> <http://www.fema.gov/national-flood-insurance-program/definitions>

<sup>3</sup> Accessed 9/1/2015; <http://www.iii.org/fact-statistic/flood-insurance>



Location	Pre-FIRM Policies in Force		Post-FIRM Policies in Force		Buildings (% of Policies)	
	SFHA	B, C & X	SFHA	B, C & X	SFHA	B, C & X
<b>St. Tammany Parish</b>	1,612	1,263	11,037	21,464	29,292 (43.2%)	66,120 (34.3%)
<b>City of Mandeville</b>	598	315	787	1020	1,521 (91.1%)	3,512 (38.0%)
<b>City of New Orleans</b>	41,943	21,149	17,634	7,817	124,339 (47.9%)	65,557 (44.2%)
<b>City of Slidell</b>	3,415	1,765	1,574	1,068	9,750 (51.2%)	1,094 (100.0%)
<b>St. John the Baptist Parish</b>	455	1,737	2,834	2,354	4,095 (80.3%)	13,415 (30.5%)
<b>Tangipahoa Parish</b>	575	458	1,151	2,338	11,448 (15.1%)	38,625 (7.2%)
<b>Terrebonne Parish</b>	2,227	2,477	3,238	5,786	14,238 (38.4%)	29,649(27.9%)

Table 6: Pre and Post-FIRM Policies in the FLOAT Region<sup>4</sup>

### ***St. Tammany Parish Flood Insurance Study***

#### **Sources of Riverine Flooding**

Floods in the parish have been caused by localized storms, rain over several days on saturated ground, and tropical storms. Over the last three decades, a flood great enough to have St. Tammany Parish declared a Federal disaster area has occurred on the average of every 3 – 4 years.

**Riverine flooding.** Flood heights on the larger rivers are recorded at individual river gages. There are seven reporting and recording gages in St. Tammany Parish. Only two gages reported flood heights since 2004 close to these records. They are too far upstream to have been impacted by Katrina’s storm surge.

Each gage has its own datum, or starting point for measuring stage or height. That datum can be converted to elevation above sea level, but many users are more comfortable with the gage’s stage figures. Some gages have a “flood stage,” which is the height when the stream goes out of banks or starts causing property damage. Some gages have been in operation for a longer time and therefore show earlier floods. These streams have flooded in every month of the year, except July and December. More years of records or looking at the top 10 floods would include those months. In other words, it can flood in St. Tammany Parish at any time of the year.

#### **Flood Zones in St. Tammany Parish**

St. Tammany Parish has a very narrow V Zone along the lakeshore and a larger one on the Gulf. Areas outside the mapped Special Flood Hazard Area are called X Zones.

<sup>4</sup> Data provided by LA Floodplain Management Program Coordinator, LADOTD. Please note that the number of policies may include multiple policies per structure and that the number includes “contents coverage only” policies.

**Advisory flood hazard maps.** Following Hurricane Katrina, FEMA concluded that some of its mapped A and V Zones understated the Special Flood Hazard Area (SFHA). In April 2006, FEMA issued the following notice:

*FEMA has completed an early assessment of the 1%-annual-chance (or 100-year) flood elevations for coastal areas and areas along Lake Pontchartrain. The analysis incorporates storm data from the past 35 years, including Hurricanes Katrina and Rita, new and existing long-term tidal gage records, and other existing engineering studies...*

*For coastal areas the results of the storm data analysis indicated that the existing 1%-annual chance flood elevations are 6 to 9 feet higher than the Stillwater Elevations (SWELs) published in the effective Flood Insurance Study (FIS). Specifically, the effective SWELs of 9.0 to 12.1 feet are increased to a uniform Advisory SWEL of 18 feet (relative to the National Geodetic Vertical Datum [NGVD] of 1929) in areas south and east of US 90 and, to account for storm reduction between the Gulf of Mexico and Lake Pontchartrain flooding sources, are increased to a uniform Advisory SWEL of 15 feet NGVD29 between Interstate 10 and US 90.*

*For areas north and west of Interstate 10 and along Lake Pontchartrain, FEMA is encouraging people to adopt freeboard and elevate structures to at least 1 foot above the current BFEs shown on the effective FIRMs.<sup>5</sup>*

With the notice came a series of advisory maps for the Lake Pontchartrain floodplain. The ABFE maps only raised the base flood elevations from storm surge along Lake Pontchartrain. The new advisory maps did not extend the floodplain boundary inland everywhere and did not affect the floodplain delineations for riverine flooding.

**DFIRM.** FEMA intends to replace both the current Flood Insurance Rate Map and the advisory maps with a new FIRM. The preliminary Standard Digital Flood Insurance Rate Map (DFIRM) for the Parish was presented to the public at an open house on October 22, 2008 at the Parish office. The maps have been under review since that time and won't become effective until sometime after 2015. The extent of the floodplain mapped by FEMA did not increase very much. While the boundaries may not have changed much, the preliminary DFIRM greatly expanded the high velocity wave action area (V Zone).

**Flood insurance data.** Altogether, the residents of the Parish have collected 1.5 billion dollars in flood insurance claim payments since 1978.

### Level of Flood Insurance Coverage in St. Tammany Parish

The below tables and narrative review the commercial and residential buildings in the Special Flood Hazard Area, the number of flood insurance policies in the parish, and map the policies to identify gaps in order to make recommendations about improving flood insurance coverage in the parish.

Table 7: St. Tammany Parish Structures in SFHA, Source: FEMA

St. Tammany Parish Structures in SFHA	
Coastal Area in SFHA	187.08
Coastal Structures in SFHA	18,933.00
Coastal Population in SFHA	42,190.00
County Total Area	900.27
County Total Structures	95,412.00
County Total Structures (2010)	95,412.00

<sup>5</sup> <http://www.fema.gov/advisory-base-flood-elevations-st-tammany-parish-louisiana>

<b>County Total Population (2010)</b>	233,740.00
<b>Data Source</b>	PMM
<b>FEMA Region</b>	Region VI
<b>NAME</b>	St. Tammany
<b>Percent of Population in SFHA</b>	29.06
<b>Percentage of Structures in SFHA</b>	30.70
<b>Riverine Area in SFHA</b>	264.76
<b>Riverine Structures in SFHA</b>	10,359.00
<b>Riverine Population in SFHA</b>	25,920.00
<b>Total Area in SFHA</b>	451.84
<b>Total Structures in SFHA</b>	29,292.00
<b>Total Population in SFHA</b>	68,110.00

St. Tammany Parish has both structures and population in the Special Flood Hazard Area. This area includes 29,292 structures, and a population of 68,110. The structures in the parish total 95,412, and the population of the parish is 233,740. Therefore, approximately 29.06% of the parish’s population lives in a Special Flood Hazard Area, and 30.7% of the structures in the parish are in a Special Flood Hazard Area.

Table 8: St. Tammany Structures by Flood Zone, Source: St. Tammany Parish

Flood Zone	Number of Structures
<b>X</b>	37,275
<b>VE</b>	848
<b>A</b>	298
<b>AE</b>	23,870
<b>0.2% Annual Chance</b>	9,319
<b>Open Water</b>	3
<b>Total Structures</b>	<b>71,613</b>

The Special Flood Hazard Area in St. Tammany Parish is made up of zones A, AE and VE. There are 848 structures in Zone VE, 298 structures in Zone A, and 23,870 structures in Zone AE. A majority of the structures in the parish are in Zone X, or the 0.2% annual chance zone, and 3 of the buildings are in open water.

Table 9: St. Tammany Parish Structures and Policies

Location	SFHA			B, C & X Zones		
	Number of Buildings	Number of Policies	Percentage (%)	Number of Buildings	Number of Policies	Percentage (%)
<b>St. Tammany Parish</b>	29,292	12,649	43.2%	66,120	22,727	34.3%

There are 29,292 structures in the SFHA, and 12,649 policies. Therefore, approximately 43.2% of the structures in the SFHA have flood insurance. In addition, there are 66,120 structures outside of the SFHA, and 22,727 policies. Therefore, approximately 34.3% of the structures in the non-SFHA have flood insurance.

Map Analysis

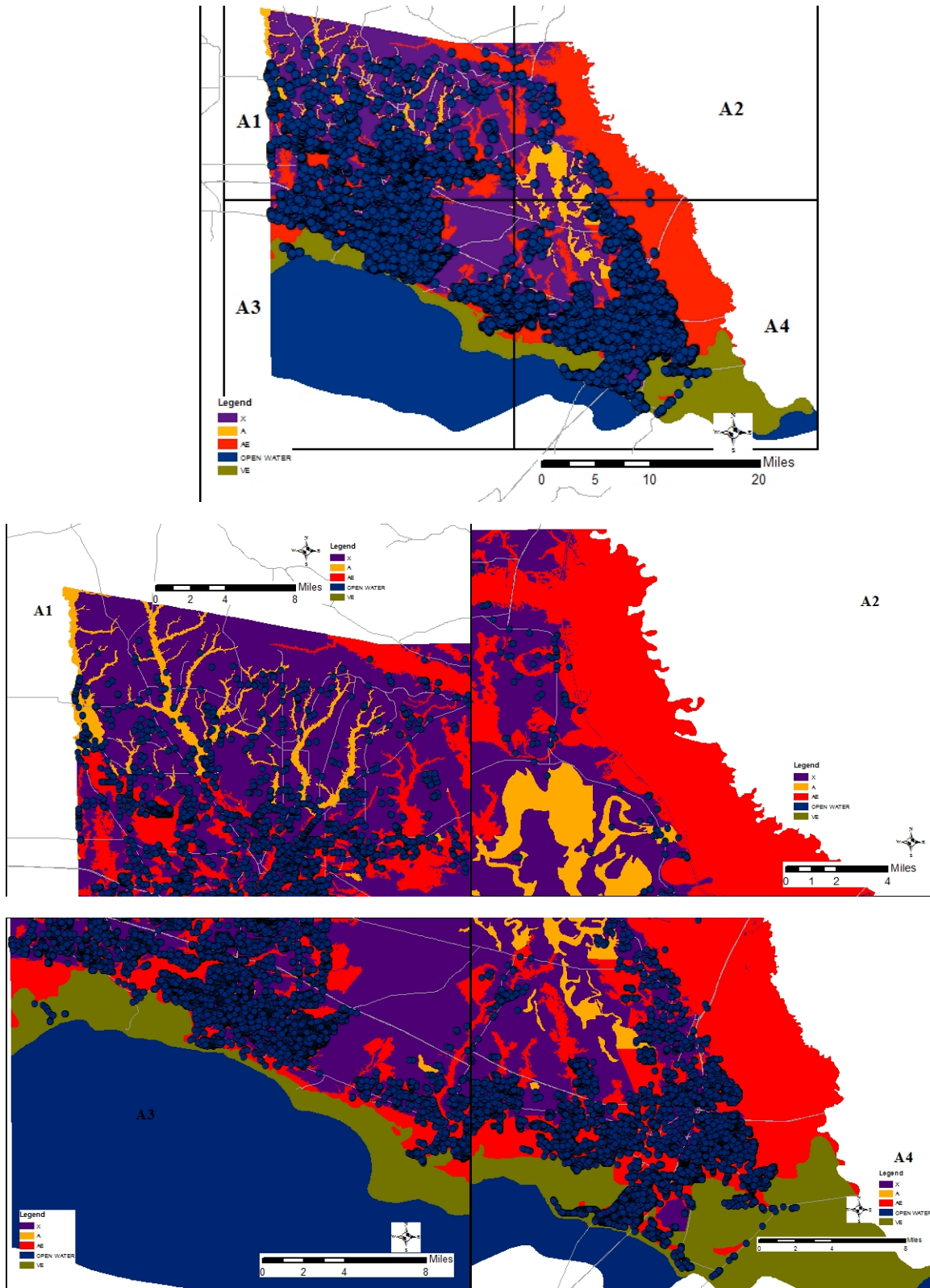


Figure 13: St. Tammany Parish Flood Insurance Policies



Much of the populated areas of the parish have flood insurance policies. The above map reveals gaps in the A, AE, and VE zones. Although there are gaps in the flood insurance policies in the current flood map, the parish expects these gaps to be resolved with the revised DFIRMs.

**St. Tammany Parish Current Coverage and Recommendations**

Approximately 30.1% of the structures in the parish are located in the SFHA, while 69.9% of the structures in the parish are located outside of the SFHA. The flood insurance policy numbers reveal that 43.2% of structures in the SFHA have flood insurance coverage, and 34.3% of structures in the non-SFHA have flood insurance coverage. Approximately 47.3% of all structures in the city have flood insurance coverage. Although flood insurance coverage is low, the parish expects this to be resolved when the DFIRMs are revised and the Special Flood Hazard Area is reduced.

**City of Mandeville Flood Insurance Study-**

The most recent Flood Insurance Study (FIS) for the City of Mandeville was published by FEMA in May of 2012. The FIS produced for the city is also supported by a Flood Insurance Rate Map (FIRM), divided into individual FIRM panels which identify the Special Flood Hazard Area (SFHA). The zones in the SFHA are Zones AE and VE in the City of Mandeville.

Based on past and recent history, certain parts of the City clearly have a high probability of flooding. As demonstrated by Hurricane Katrina, the Lakeshore Drive area along Lake Pontchartrain is vulnerable to storm surge flooding. The City is also susceptible to overbank flooding from heavy rain events along Little Bayou Castain, Ravines Aux Coquilles, and Bayou Chinchuba.

**Level of Flood Insurance Coverage in the City of Mandeville**

The below tables and narrative review the commercial and residential buildings in the Special Flood Hazard Area, the number of policies in the city, and map the policies to identify gaps in order to make recommendations about improving flood insurance coverage in the city.

Table 10: City of Mandeville Structures in SFHA

City of Mandeville Structures in SFHA	
<b>A Zone</b>	47
<b>AE Zone</b>	72
<b>V Zone</b>	1,402
<b>Total Structures in SFHA</b>	1,521
<b>City Total Structures</b>	5,932
<b>Percentage of Structures in SFHA</b>	25.64

Table 11: City of Mandeville Structure Type and Count

City of Mandeville Structure Type and Count	
<b>Miscellaneous:</b>	
Accessory Structures	1,302
Garages	137
<b>Total Miscellaneous</b>	<b>1,439</b>
<b>Residential:</b>	

Residential Homes	3,384
Duplex	71
Historic	5
Multi-Unit Buildings	458
Apartments	394
Townhouses	135
Condos	530
<b>Total Residential Units</b>	<b>4,519</b>
<b>Total Residential Structures</b>	<b>3,918</b>
Commercial	518
Churches	30
Schools	27
<b>Total Commercial</b>	<b>575</b>
<b>Total Structures</b>	<b>5,932</b>

The City of Mandeville has structures in the Special Flood Hazard Area. This area includes 47 structures in the A Zone, 72 structures in the AE Zone, and 1,402 structures in the V Zone. Therefore, a total of 1,521 structures in the city are in the SFHA. The number of structures in the city total 5,932, including 1,439 garages and accessory structures, 3,918 residential structures, and 575 commercial structures. Approximately 25.64% of the structures in the parish are in the SFHA.

**Table 12: City of Mandeville Structures and Policies**

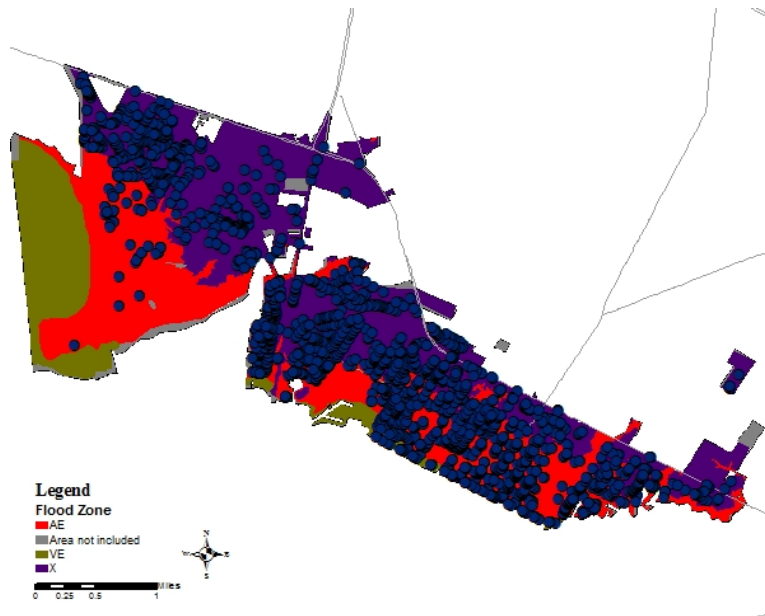
Location	SFHA			B, C & X Zones		
	Number of Buildings	Number of Policies	Percentage (%)	Number of Buildings	Number of Policies	Percentage (%)
<b>City of Mandeville</b>	1,521	1,385	91.1%	3,512	1,335	38.0%

There are 1,521 structures in the SFHA, and 1,385 policies. Therefore, approximately 91.1% of the structures in the SFHA have flood insurance. In addition, there are 3,512 structures outside of the SFHA, and 1,335 policies. Therefore, approximately 38.0% of the structures in the non-SFHA have flood insurance.

Occupancy	Number of Policies	Percentage of Total Policies	Number of Buildings	Percentage of Buildings w/ Policies	Total Coverage
<b>Residential</b>	2,424	91.1%	3,918	61.9%	\$632,819,000
<b>Non-Residential</b>	237	8.9%	2,014	11.8%	\$88,967,400
<b>Total</b>	2,661	100.0%	5,932	44.9%	\$721,786,400

There are a total of 3,918 residential structures in the City of Mandeville, 2,424 of which have insurance coverage. Therefore, 91.1% of residential structures in the city have insurance coverage. There are a total of 2,014 non-residential structures in the City of Mandeville, 237 of which have flood insurance coverage. Therefore, 8.9% of non-residential structures have insurance coverage. Throughout the city, approximately 44.9% of structures have insurance coverage.

#### *Map Analysis*



**Figure 14: City of Mandeville Flood Insurance Policies**

The City of Mandeville has a large representation of policies in its populated areas. In the southern part of the city, there are 78 acres of undeveloped land. The northwest part of the city is primarily lakefront. In addition, there are gaps in policies where Bayou Castine and the cemetery are located. There are some policy gaps in Old Mandeville, and city officials will conduct outreach to increase policies in that area.

#### **City of Mandeville Current Coverage and Recommendations**

Approximately 30.2% of the structures in the parish are located in the SFHA, while 69.8% of the structures in the parish are located outside of the SFHA. The flood insurance policy numbers reveal that 91.1% of structures in the SFHA have flood insurance coverage, and 38% of structures in the non-SFHA have flood insurance coverage. In addition, 91.1% of residential structures and 8.9% of non-residential structures have insurance. Approximately 44.9% of structures in the city have flood insurance coverage. The analysis of the mapped policies revealed that there are gaps in the Old Mandeville section of the city, so the city will conduct outreach to increase flood insurance policies in that area. The outreach project is listed in Appendix A.

#### ***City of New Orleans Flood Insurance Study-***

The most recent Flood Insurance Study (FIS) for Orleans Parish was published by FEMA in September of 1983. The FIS indicates that the past history of flooding within the City suggests that flooding may occur during any season of the year. In the cooler months, the area is subject to heavy rainfalls resulting from frontal passages. In the summer months, heavy rainfalls result from convective thundershowers. In the late summer, hurricanes accompanied by rainfall and super-elevated water-surface elevations (storm surge)

pose the largest threat of flooding in the area. The FIS indicates that the principal sources of flooding in the Parish are rainfall ponding, or hurricane or tropical storm surges from Lake Pontchartrain and Lake Borgne. Although significant enhancements and modifications have been made to pump stations and the flood defenses that protect the City since the FIS was produced in 1983, the principal causes of flooding described in the FIS appear unchanged.

### Flood Zones in the City of New Orleans

**Flood Hazard Areas (SFHAs) and the risk premium zones applicable to the community.** Heavy rains are common in New Orleans, and since a large portion of the City lies within the SFHA, a major flood will result in significant property damage to residential and non-residential structures and disruption to the lives of people who live and work in the City. Sixty-nine percent of all structures in Orleans Parish (95,197 structures) lie within the SFHA (Zone A and V) in Orleans Parish. The map also identifies Zone B, which depicts an area of moderate flood risk. The percentage of each flood zone in Orleans Parish is also provided below.

The flood zone designations are defined as follows:

**Zone A1-30.** 1 percent-annual-chance flooding. These are also known as numbered A Zones (e.g., A7 or A14).

BFEs are shown in these zones Orleans Parish includes A Zones 1-30. Forty percent of Orleans Parish is located in numbered A Zones.

**Zone V.** Coastal areas with a 1-percent or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26 percent chance of flooding over the life of a 30-year mortgage. No BFEs are shown within these zones. Forty-two percent of the land in Orleans Parish is located in Zone V.

**Zone B.** Areas of moderate flood hazard, usually the area between the limits of the 1-percent-annual-chance flood and 0.2-percent-annual-chance flood. B Zones are also used to designate base floodplains of lesser hazards, such as areas protected by levees from the 1-percent-annual-chance flood, or shallow flooding areas with average depths of less than 1 foot or drainage areas less than 1 square mile. Eighteen percent of Orleans Parish is located in Zone B.

### Level of Flood Insurance Coverage in the City of New Orleans

The below tables and narrative review the commercial and residential buildings in the Special Flood Hazard Area, the number of flood insurance policies in the parish, and map the policies to identify gaps in order to make recommendations about improving flood insurance coverage in the city.

Table 13: City of New Orleans Structures in SFHA, Source: Louisiana Sea Grant

Flood Zones by Property Type (New Orleans)	
Zone	Count
<b>Residential</b>	
<b>0.2 pct annual chance flood hazard</b>	96,018
<b>X Protected By Levee</b>	50,767
<b>Total residential buildings in non-SFHA</b>	146,785

AE	34,030
VE	16
<b>Total residential buildings in SFHA</b>	<b>34,046</b>
<b>Total residential buildings</b>	<b>180,831</b>
<b>Commercial</b>	
<b>0.2 pct annual chance flood hazard</b>	<b>9,128</b>
<b>X Protected By Levee</b>	<b>9,904</b>
<b>Total commercial buildings in non-SFHA</b>	<b>19,032</b>
AE	4,079
VE	36
<b>Total commercial buildings in SFHA</b>	<b>4,115</b>
<b>Total commercial buildings</b>	<b>23,147</b>
<b>Industrial</b>	
<b>0.2 pct annual chance flood hazard</b>	<b>2,159</b>
<b>X Protected By Levee</b>	<b>2,528</b>
<b>Total industrial buildings in non-SFHA</b>	<b>4,687</b>
AE	1,023
VE	177
<b>Total industrial buildings in SFHA</b>	<b>1,200</b>
<b>Total industrial buildings</b>	<b>5,887</b>
<b>Other</b>	
<b>0.2 pct annual chance flood hazard</b>	<b>36</b>
<b>X Protected By Levee</b>	<b>34</b>
<b>Total other buildings in non-SFHA</b>	<b>70</b>
AE	40
VE	348
<b>Total other buildings in SFHA</b>	<b>388</b>
<b>Total other buildings</b>	<b>458</b>
<b>Total buildings in non-SFHA</b>	<b>170,574</b>
<b>Total buildings in SFHA</b>	<b>39,749</b>

<b>Total buildings</b>	<b>210,323</b>
------------------------	----------------

The City of New Orleans has many structures in the Special Flood Hazard Area. This area includes 39,749 structures, made up of 34,046 residential structures, 4,115 commercial structures, 1,200 industrial structures, and 388 other structures. Approximately 18.8% of residential buildings, 17.8% of commercial buildings, 20.4% of industrial buildings, and 84.7% of other buildings are located in the Special Flood Hazard Area. The structures in the city total 210,323. Therefore, approximately 18.9% of the city's structures are located in a Special Flood Hazard Area.

**Table 14: City of New Orleans Structures and Policies**

Location	SFHA			B, C & X Zones		
	Number of Buildings	Number of Policies	Percentage (%)	Number of Buildings	Number of Policies	Percentage (%)
<b>City of New Orleans</b>	39,749	59,577	100+%	170,574	28,966	17.0%

There are 39,749 structures in the SFHA, and 59,577 policies. Therefore, over 100% of the structures in the SFHA have flood insurance. In addition, there are 170,574 structures outside of the SFHA, and 28,966 policies. Therefore, approximately 17.0% of the structures in the non-SFHA have flood insurance.

**Table 15: City of New Orleans Insurance Coverage**

Occupancy	Number of Policies	Percentage of Total Policies	Number of Buildings	Percentage of Buildings w/ Policies	Total Coverage
<b>Residential</b>	79,865	93.0%	180,831	44.2%	\$66,548,332
<b>Non-Residential</b>	6,022	7.0%	29,492	20.4%	\$15,985,079
<b>Total</b>	85,887	100.0%	210,323	40.8%	\$82,533,411

There are a total of 180,831 residential structures in the City of New Orleans, 79,865 of which have insurance coverage. Therefore, 44.2% of residential structures in the city have insurance coverage. There are a total of 29,492 non-residential structures in the City of New Orleans, 6,022 of which have insurance coverage. Therefore, 20.4% of non-residential structures have insurance coverage. Throughout the city, approximately 40.8% of structures have insurance coverage.

Map Analysis

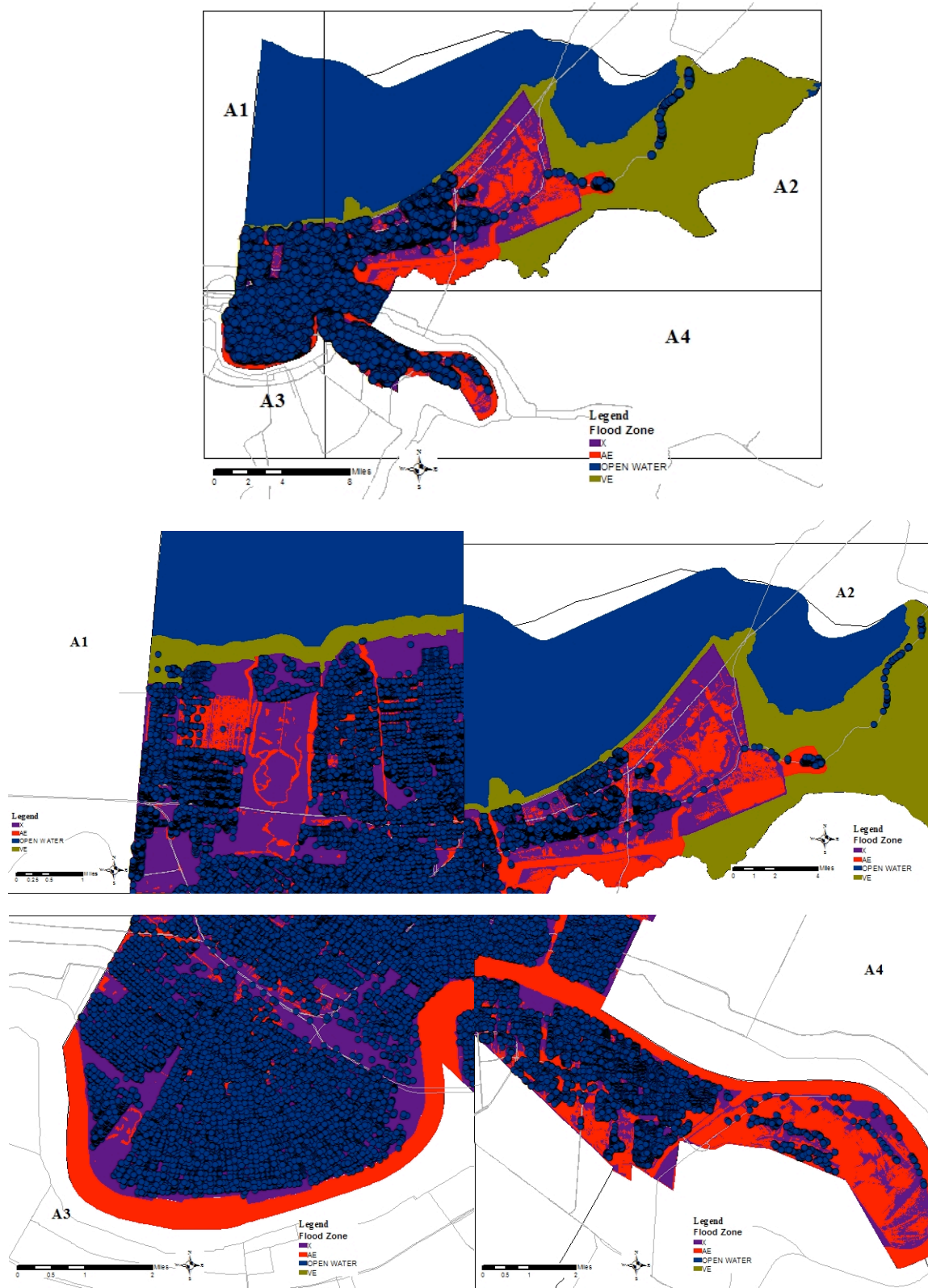


Figure 15: City of New Orleans Flood Insurance Policies



The City of New Orleans has a large representation of policies across its flood zones. However, the map above reveals gaps in the AE and VE zones. The gap in policies in the center of the city is City Park. New Orleans East, in the north eastern part of the city, does not have a lot of policies because it includes swamp, reservoir, and a federal wildlife preserve. Lower Algiers, in the south eastern part of the city, does not have policies because it is undeveloped, and the gap in policies in the Uptown section of the city is due to Audubon Park. Therefore, the most of the gaps in policies revealed on the map are due to open space. In addition, the city is currently going through an appeals process for its DFIRMs.

### **City of New Orleans Current Coverage and Recommendations**

Approximately 18.9% of the structures in the city are located in the SFHA, while 81.1% of the structures in the city are located outside of the SFHA. The flood insurance policy numbers reveal that over 100% of structures in the SFHA have flood insurance coverage, and 17.0% of structures in the non-SFHA have flood insurance coverage. In addition, 44.2% of residential structures and 20.4% of non-residential structures have insurance. Approximately 40.8% of all structures in the city have flood insurance coverage. The city is currently going through an appeals process for its DFIRMs, but will continue general outreach to all city residents about acquiring flood insurance.

### **City of Slidell Flood Overview-**

The residents of Slidell are very conscious of their vulnerability to flooding. Within the city there are 7,860 insurance policies with a total "Insurance in force" of \$1,834,689,000 and annual premium payments in excess of \$6,000,000. The majority of these policies, 5,199, are for properties in the flood zone. However, residents and business owners outside the SFHA also understand their risk, which is evident by the over 2,600 Preferred Risk Policies in the city.

### **Level of Flood Insurance Coverage in the City of Slidell**

The below tables and narrative review the commercial and residential buildings in the Special Flood Hazard Area, the number of flood insurance policies in the city, and map the policies to identify gaps in order to make recommendations about improving flood insurance coverage in the parish.

**Table 16: City of Slidell Structures in the SFHA, Source: City of Slidell**

<b>City of Slidell Structures in SFHA</b>	
<b>Residential Structures in SFHA</b>	8,580
<b>Commercial Structures in SFHA</b>	1,170
<b>Total Structures in SFHA</b>	9,750
<b>Total Residential Structures</b>	9,515
<b>Total Commercial Structures</b>	1,329
<b>Total Structures in City</b>	10,844
<b>Percentage of Structures in SFHA</b>	89.91%

The City of Slidell has both structures and population in the Special Flood Hazard Area. This area includes 8,580 residential structures, or 88% of the total structures in the city, and 1,170 commercial structures, or 12% of the total structures in the city. Overall, approximately 89.91% of the structures in the city are in the SFHA.



Table 17: City of Slidell Structures and Policies

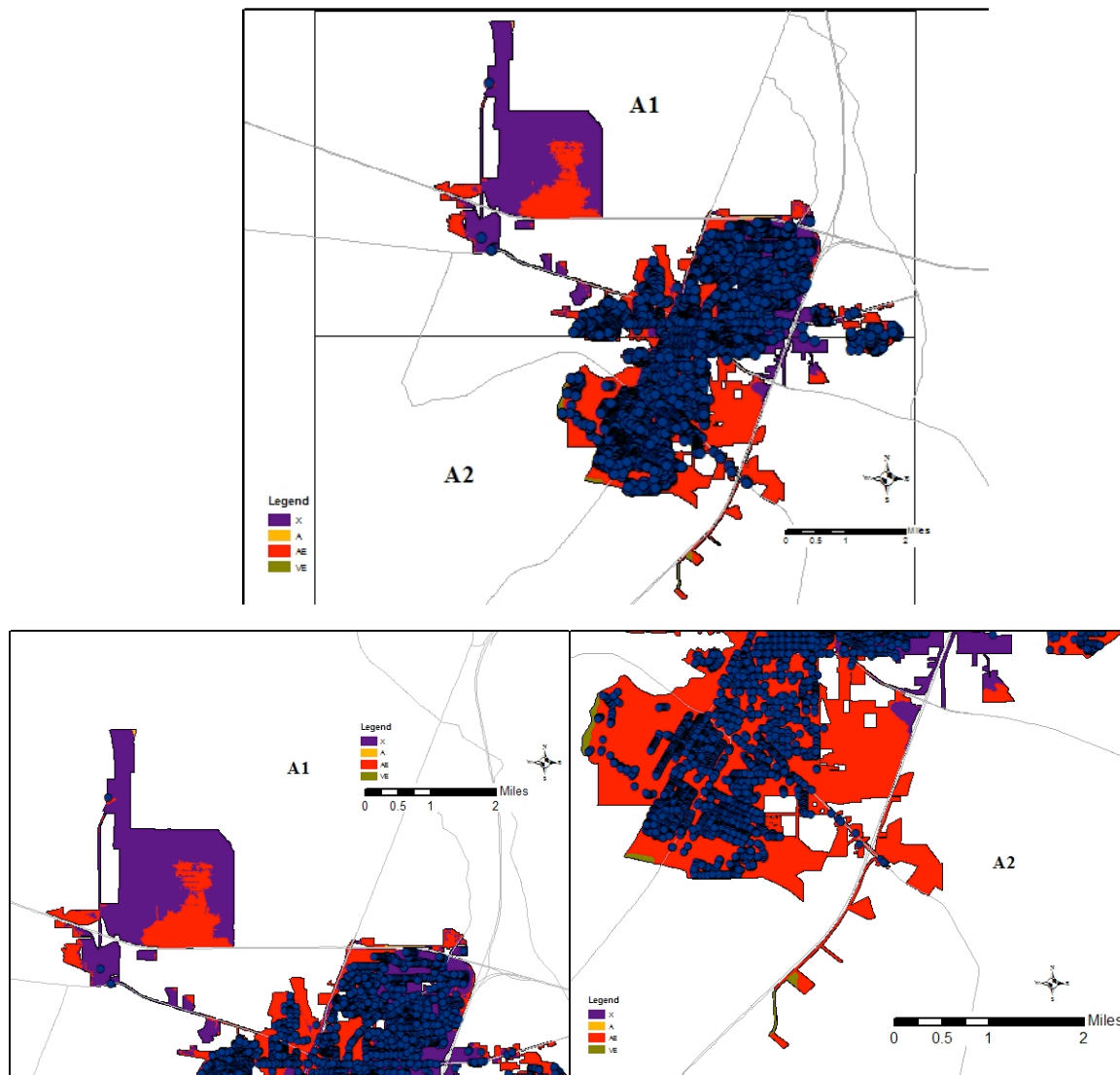
Location	SFHA			B, C & X Zones		
	Number of Buildings	Number of Policies	Percentage (%)	Number of Buildings	Number of Policies	Percentage (%)
<b>City of Slidell</b>	9,750	4,989	51.2%	1,094	2,833	100%+

There are 9,750 structures in the SFHA, and 4,989 policies. Therefore, approximately 51.2% of the structures in the SFHA have flood insurance. In addition, there are 1,094 structures outside of the SFHA, and 2,833 policies. Therefore, more than 100% of the structures in the non-SFHA have flood insurance. The greater number of policies versus buildings is due to the amount of apartment complexes in the city.

Table 18: City of Slidell Insurance Coverage

Occupancy	Number of Policies	Percentage of Total Policies	Number of Buildings	Percentage of Buildings w/ Policies	Total Coverage
<b>Residential</b>	6,590	90.2%	9,515	69.3%	\$1,469,008,100
<b>Non-Residential</b>	717	9.8%	1,329	54.0%	\$274,617,000
<b>Total</b>	7,307	100.0%	10,844	67.4%	\$1,743,625,100

There are a total of 9,515 residential structures in the City of Slidell, 6,590 of which have flood insurance coverage. Therefore, 69.3% of residential structures in the city have insurance coverage. There are a total of 1,329 non-residential structures in the City of Slidell, 717 of which have flood insurance coverage. Therefore, 54.0% of non-residential structures have insurance coverage. Throughout the city, 67.4% of structures have insurance coverage.

*Map Analysis*

**Figure 16: City of Slidell Flood Insurance Policies**

The City of Slidell has many flood insurance policies throughout its flood zones. There are also many Preferred Risk Policies in the parish. The above map reveals gaps in the AE zones. In Map A1 of Figure 16 above, the gap in policies in the Southeast quadrant is an apartment complex. Further research into the apartment complex revealed that there are policies in the complex. The northwest gap is made up of military land, wetlands, strip malls and an airport. The gap in the middle of the map is a retention pond and industrial area, and the gap in the western part of the map is a middle school. In Map A2 of Figure 16 above, the northeast gap is an industrial area and high school, the eastern gap is a new town center, and the southeast gaps are a city park and car dealerships. The gap in the southern residential area is an apartment complex, and the gaps in the west are a lake and undeveloped land. Further research revealed that this apartment complex holds many policies as well.

**City of Slidell Current Coverage and Recommendations**

Approximately 89.91% of the structures in the city are located in the SFHA, while 10.09% of the structures in the city are located outside of the SFHA. The flood insurance policy numbers reveal that 51.2% of structures in the SFHA have flood insurance coverage, and more than 100% of the structures in the non-SFHA have flood insurance coverage. In addition, 69.3% of residential structures and 54.0% of non-residential structures have insurance. Approximately 67.4% of structures in the city have flood insurance coverage. Since most of the city is located in the SFHA, Slidell will continue to target everyone in the city in general for outreach.

***St. John the Baptist Flood Insurance Study-***

St. John the Baptist Parish’s FIS was revised in 1982. This study included a wave height analysis, which revised the original study to include wave crest predictions from storm surge. The original flood insurance study, entitled “Type 5, Flood Insurance Study, Louisiana Coastal Region,” predicted still water elevations only. Because there is a pronounced tendency for buildings to be constructed to meet minimum requirements only, without thought to the additional hazard due to wave height, an additional study was conducted on potential wave damage in St. John the Baptist Parish. A recent revised FIS was adopted in November 2010. The parish is subject to heavy flooding due to Lake Pontchartrain, Lake Maurepas, and Lac Des Allemands effects and the associated wetlands. In St. John, flooding can occur during any season of the year. Because so much of the land is low lying, all properties may be subject to flooding. Floodwater collects in a saucer of land prone to subsidence or sinking. The low, flat ground provides little gravity drainage. When the ground is saturated and heavy rain falls quickly, the system can be overwhelmed and flooding can result.

**Flood Zones in St. John the Baptist Parish**

Over 87% of the total land area of St. John the Baptist has been designated by FEMA as a Special Flood Hazard Area (SFHA). These areas are assigned as zones A, AE, V, and VE, and are the areas of the parish that are at risk for flooding. Zones A, AE, V and VE are located in the 100-year floodplain. The shore of Lake Maurepas and Pontchartrain are designated as V or VE zones. The rest of the Parish is designated as X zones, or areas in the 500-year floodplain.

**Level of Flood Insurance Coverage in St. John the Baptist Parish**

The below tables and narrative review the commercial and residential buildings in the Special Flood Hazard Area, the number of flood insurance policies in the parish, and map the policies to identify gaps in order to make recommendations about improving flood insurance coverage in the parish.

**Table 19: St. John Structures in the SFHA, Source: FEMA**

<b>St. John Structures in SFHA</b>	
<b>Coastal Area in SFHA</b>	205.66
<b>Coastal Structures in SFHA</b>	3,700.00
<b>Coastal Population in SFHA</b>	10,128.00
<b>County Total Area</b>	286.08
<b>County Total Structures</b>	18,726.00
<b>County Total Structures (2010)</b>	18,726.00
<b>County Total Population (2010)</b>	45,924.00
<b>Data Source</b>	NFHL
<b>FEMA Region</b>	Region VI

<b>NAME</b>	St. John the Baptist
<b>Percent of Population in SFHA</b>	22.07
<b>Percentage of Structures in SFHA</b>	21.13
<b>Riverine Area in SFHA</b>	0.00
<b>Riverine Structures in SFHA</b>	0.00
<b>Riverine Population in SFHA</b>	0.00
<b>Total Area in SFHA</b>	205.66
<b>Total Structures in SFHA</b>	3,700.00
<b>Total Population in SFHA</b>	10,128.00

St. John the Baptist Parish has both structures and population in the Special Flood Hazard Area (SFHA). This area includes 3,700 structures, and a population of 10,128. The structures in the parish total 18,726, and the population of the parish is 45,924. Therefore, 19.8% of structures in the parish, and 22.1% of people, are located in the SFHA.

**Table 20: St. John Commercial and Residential Buildings by Flood Zone**

Flood Zone	Commercial Buildings	Residential Buildings	Total
<b>AE</b>	88	3,757	3,845
<b>VE</b>	2	248	250
<b>Total</b>	90	4,005	4,095

The SFHA in St. John is made up of Zones AE and VE. There are 88 commercial buildings in Zone AE, and 3,757 residential buildings in Zone VE. In addition, there are 2 commercial buildings in Zone VE and 248 residential buildings in Zone VE.

**Table 21: St. John Residential Policies**

Flood Zone	Residential Policies	Percentage of Number of Buildings	Number of Residences Without Policies
<b>AE</b>	3,268	87.0%	489
<b>VE</b>	21	8.5%	227

Although there are 3,757 residential buildings in Zone AE, only 3,268 (87%) have flood insurance policies. Additionally, only 21 out of the 4,005 residential buildings in Zone VE have flood insurance policies. In other words, only 8.5% of the residential buildings in Zone VE have flood insurance policies.

**Table 22: St. John the Baptist Insurance Coverage**

Occupancy	Number of Policies	Percentage of Total Policies	Number of Buildings	Percentage of Buildings with Policies	Total Coverage
<b>Residential</b>	6,494	94.7%	18,011	36.1%	\$1,689,746,400
<b>Non-Residential</b>	363	5.3%	715	50.8%	\$183,773,700
<b>Total</b>	6,857	100.0%	18,726	36.6%	\$1,873,520,100

There are a total of 18,011 residential structures in St. John the Baptist Parish, 6,494 of which have flood insurance coverage. Therefore, 36.1% of residential structures in the parish have flood insurance coverage. There are a total of 715 non-residential structures in the parish, 363 of which have flood insurance coverage. Therefore, 50.8% of non-residential structures have flood insurance coverage. Throughout the parish, approximately 36.6% of structures have insurance coverage.

### Map Analysis

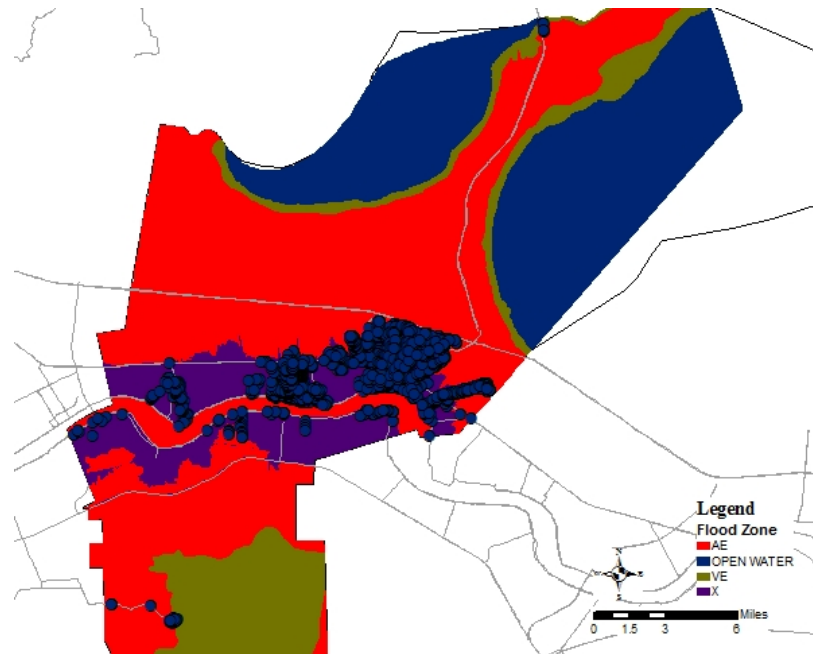


Figure 17: St. John the Baptist Parish Flood Insurance Policies

Most of the populated areas of the parish have flood insurance policies. The above map reveals gaps in the AE and VE zones. There are no policies in the north of the parish because it is made up of marsh and swamp. There is also an industrial area in the north of the parish in the X zone. The west bank of the parish is undeveloped in many areas, and is primarily an X zone in its populated areas. There are some areas of the parish that could increase their insurance policies, including Frenier, Pleasure Bend, and mobile home districts on the west bank. In Pleasure Bend, the flood zone is VE, and a small fraction of the residents have policies.

### St. John the Baptist Parish Current Coverage and Recommendations

Approximately 19.8% of the structures in the parish are in the SFHA, while 80.2% of the structures in the parish are located outside of the SFHA. The flood insurance policy numbers reveal that 80.3% of the structures in the SFHA have flood insurance coverage, and 30.5% of structures in the non-SFHA have flood insurance coverage. In addition, 36.1% of residential structures and 50.8% of non-residential structures have insurance. Approximately 36.6% of all structures in the parish have flood insurance coverage. The analysis of the mapped policies revealed that there are gaps in the Frenier and Pleasure Bend areas. Therefore, Parish officials will conduct outreach to the hunting club in the Frenier area to increase flood insurance policies, and will conduct outreach in the Pleasure Bend area and mobile home district areas as well (see Appendix A). Similarly, the flood insurance policy numbers reveal that there are gaps in the parish's VE zone. While 87% of households in the AE zone have policies, only 8.5% of



households in zone VE have policies. Outreach to VE zones throughout the parish will help to increase flood insurance coverage (see Appendix A).

### **Tangipahoa Parish Flood Insurance Study-**

The most recent Flood Insurance Study (FIS) for Tangipahoa Parish was published by FEMA in July of 2010. An FIS is a compilation and presentation of flood risk data for specific watercourses, lakes, and coastal flood hazard areas within a community. When a flood study is completed for the NFIP, the information and maps are assembled into an FIS. The FIS indicates most flooding within the Parish occurs during the winter and spring months, however flooding can occur anytime during the year. During the late summer and fall, very heavy rainfall associated with hurricanes can cause floods. Flooding along Lake Pontchartrain and Lake Maurepas can occur as a result of either headwater floods, wind-driven wave action from hurricanes, or from a combination of both.

The FIS produced for the Parish is also supported by a Flood Insurance Rate Map (FIRM), usually divided into individual FIRM panels. The FIRM is the official map of a community on which FEMA has delineated both the Special Flood Hazard Areas (SFHAs) and the risk premium zones applicable to the community. SFHAs are the areas subject to inundation by the base (1-percent annual chance) flood. These hazard zones are Zone A and V in Tangipahoa Parish.

### **Level of Flood Insurance Coverage in Tangipahoa Parish**

The below tables and narrative review the commercial, residential, agricultural and industrial buildings in the Special Flood Hazard Area, the number of flood insurance policies in the parish, and map the policies to identify gaps in order to make recommendations about improving flood insurance coverage in the parish.

**Table 23: Tangipahoa Parish Structures in SFHA, Source: Louisiana Sea Grant**

<b>Flood Zones by Property Type (Tangipahoa)</b>	
<b>Zone</b>	<b>Count</b>
<b>Residential</b>	
<b>A</b>	11,505
<b>AE</b>	6,131
<b>Total residential buildings in SFHA</b>	17,636
<b>X</b>	33,798
<b>X500</b>	3,456
<b>Total residential buildings in non-SFHA</b>	37,254
<b>Total residential buildings</b>	54,890
<b>Commercial</b>	
<b>A</b>	77
<b>AE</b>	107
<b>Total commercial buildings in SFHA</b>	184
<b>X</b>	255
<b>X500</b>	79

<b>Total commercial buildings in non-SFHA</b>	334
<b>Total commercial buildings</b>	518
<b>Industrial</b>	
<b>A</b>	98
<b>AE</b>	158
<b>VE</b>	5
<b>Total industrial buildings in SFHA</b>	261
<b>X</b>	225
<b>X500</b>	44
<b>Total industrial buildings in non-SFHA</b>	269
<b>Total industrial buildings</b>	530
<b>Agriculture, Vacant and Forested</b>	
<b>A</b>	6,458
<b>AE</b>	23,281
<b>VE</b>	851
<b>Total agriculture buildings in SFHA</b>	30,590
<b>X</b>	14,043
<b>X500</b>	1,091
<b>Total agriculture buildings in non-SFHA</b>	15,134
<b>Total agriculture buildings</b>	45,733
<b>Parcels within city boundaries not included in parish<sup>6</sup></b>	
<b>A</b>	6,890
<b>AE</b>	11,346
<b>VE</b>	90
<b>Total city parcels in SFHA</b>	18,326
<b>X</b>	27,969
<b>X500</b>	1,989
<b>Total city parcels in non-SFHA</b>	29,958
<b>Total city parcels</b>	48,284

<sup>6</sup> The Tangipahoa Parish data did not include zoning information within the urban areas of Kentwood, Amite, Independence, Hammond, Ponchatoula and Manchac. Those areas have separate zoning regulations and designations and were not available as part of this project.

<b>Total buildings in SFHA</b>	66,997
<b>Total buildings in non-SFHA</b>	82,949
<b>Total buildings</b>	149,946

Tangipahoa Parish has both structures and population in the Special Flood Hazard Area. This area includes 66,997 structures, made up of 17,636 residential structures, 184 commercial structures, 261 industrial structures, 30,590 agricultural structures, and 18,326 city parcels. Approximately 32.1% of residential buildings, 35.5% of commercial buildings, 49.2% of industrial buildings, 66.9% of agricultural buildings, and 38.0% of city parcels are located in the Special Flood Hazard Area. The structures in the parish total 149,946. Therefore, approximately 44.7% of the parish's structures are located in the Special Flood Hazard Area.

**Table 24: Tangipahoa Parish Structures and Policies**

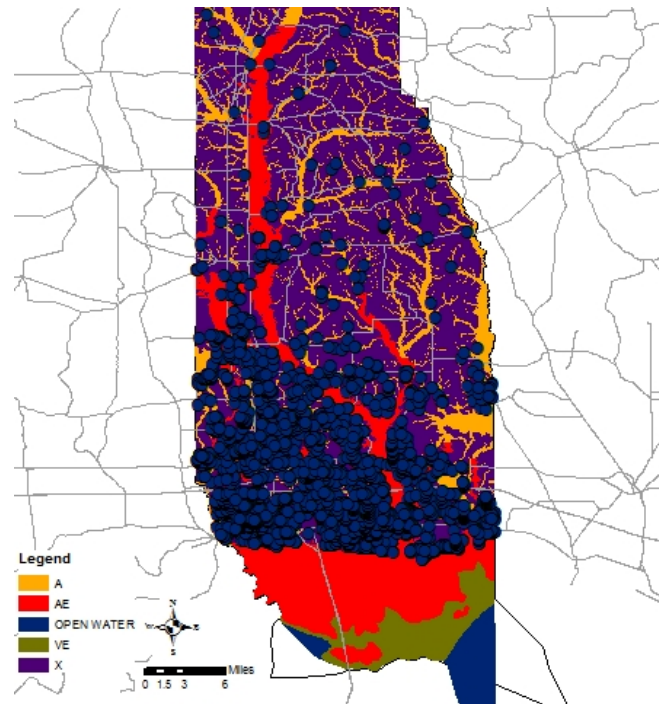
Location	SFHA			B, C & X Zones		
	Number of Buildings	Number of Policies	Percentage (%)	Number of Buildings	Number of Policies	Percentage (%)
<b>Tangipahoa Parish</b>	66,997	1,726	2.6%	82,949	2,796	3.4%

There are 66,997 structures in the SFHA, and 1,726 policies. Therefore, approximately 2.6% of the structures in the SFHA have flood insurance. In addition, there are 82,949 structures outside of the SFHA, and 2,796 policies. Therefore, approximately 3.4% of the structures in the non-SFHA have flood insurance.

**Table 25: Tangipahoa Parish Insurance Coverage**

Coverage	Number of Policies	Percentage of Total Policies	Number of Buildings	Percentage of Buildings w/ Policies	Total Coverage
<b>Residential</b>	4,374	97.2%	54,890	8.0%	\$1,082,969,863
<b>Non-Residential</b>	125	2.8%	46,597	0.2%	\$154,837
<b>Total</b>	4,499	100.0%	50,073	9.0%	\$1,083,124,700

There are a total of 54,890 residential structures in Tangipahoa Parish, 4,374 of which have insurance coverage. Therefore, 8.0% of residential structures in the parish have insurance coverage. There are a total of 46,597 non-residential structures in the parish, 125 of which have insurance coverage. Therefore, 0.2% of non-residential structures have insurance coverage. Throughout the parish, approximately 9.0% of structures have insurance coverage.

*Map Analysis*

**Figure 18: Tangipahoa Parish Flood Insurance Policies**

Tangipahoa Parish has many flood insurance policies in its populated areas. The map reveals gaps in the A, AE and VE zones. The southernmost part of the parish is made up of a 30,000 acre wildlife area, which is dead restricted by the Louisiana Department of Wildlife and Fisheries, so there are no residences in that area. There are camps along the Tangipahoa River that are secondary properties and often do not carry flood insurance. It is difficult to conduct outreach to this area, however, as it is only accessible by boat.

### **Tangipahoa Parish Current Coverage and Recommendations**

Approximately 44.7% of the structures in the parish are in the SFHA, while 55.3% of the structures in the parish are located outside of the SFHA. The flood insurance policy numbers reveal that 2.6% of structures in the SFHA have flood insurance coverage, and 3.4% of structures in the non-SFHA have flood insurance coverage. In addition, 8.0% of residential structures and 0.2% of non-residential structures have insurance. Approximately 9.0% of all structures in the parish have flood insurance coverage. The parish will target populated areas in the SFHA as well as secondary properties for flood insurance promotion (see Appendix A).

### **Terrebonne Parish Flood Insurance Study-**

The most recent official Flood Insurance Study for Terrebonne Parish is dated 1984. However, planning efforts refer to the FIS that supports the 2008 DFIRM maps. The Parish is appealing the maps to require that the non-accredited levees and other features in the floodplain are taken into account when the flood risk maps are developed. The parish has a series of 8 to 10 foot levees that have been constructed and maintained by the Parish Levee District. Many of these levees mirror the intended footprint of the Morganza to the Gulf footprint.

### Level of Flood Insurance Coverage in Terrebonne Parish

The below tables and narrative review the commercial and residential buildings in the Special Flood Hazard Area, the number of flood insurance policies in the parish, and map the policies to identify gaps in order to make recommendations about improving flood insurance coverage in the parish.

Table 26: Terrebonne Structures in SFHA, Source: Louisiana Sea Grant

Flood Zones by Property Type (Terrebonne)	
Zone	Count
<b>Residential</b>	
0.2 pct annual chance flood hazard	16,157
Total residential buildings in non-SFHA	16,157
A	1,127
AE	22,336
VE	2,671
Total residential buildings in SFHA	26,134
Total residential buildings	42,291
<b>Commercial</b>	
0.2 pct annual chance flood hazard	9,591
Total commercial buildings in non-SFHA	9,591
A	321
AE	7,582
VE	1,787
Total commercial buildings in SFHA	9,690
Total commercial buildings	19,281
<b>Industrial</b>	
0.2 pct annual chance flood hazard	841
Total industrial buildings in non-SFHA	841
A	0
AE	2,526
VE	83
Total industrial buildings in SFHA	2,609
Total industrial buildings	3,450



<b>buildings</b>	
<b>Total buildings in non-SFHA</b>	26,589
<b>Total buildings in SFHA</b>	38,433
<b>Total Buildings</b>	65,022

Terrebonne Parish has many structures in the Special Flood Hazard Area. This area includes 38,433 structures, made up of 26,134 residential structures, 9,690 commercial structures, and 2,609 industrial buildings. Approximately 61.8% of residential structures, 50.3% of commercial structures, and 75.6% of industrial structures are located in the Special Flood Hazard Area. The structures in the parish total 65,022. Therefore, approximately 59.1% of structures in the parish are in a Special Flood Hazard Area.

Table 27: Terrebonne Parish Structures and Policies

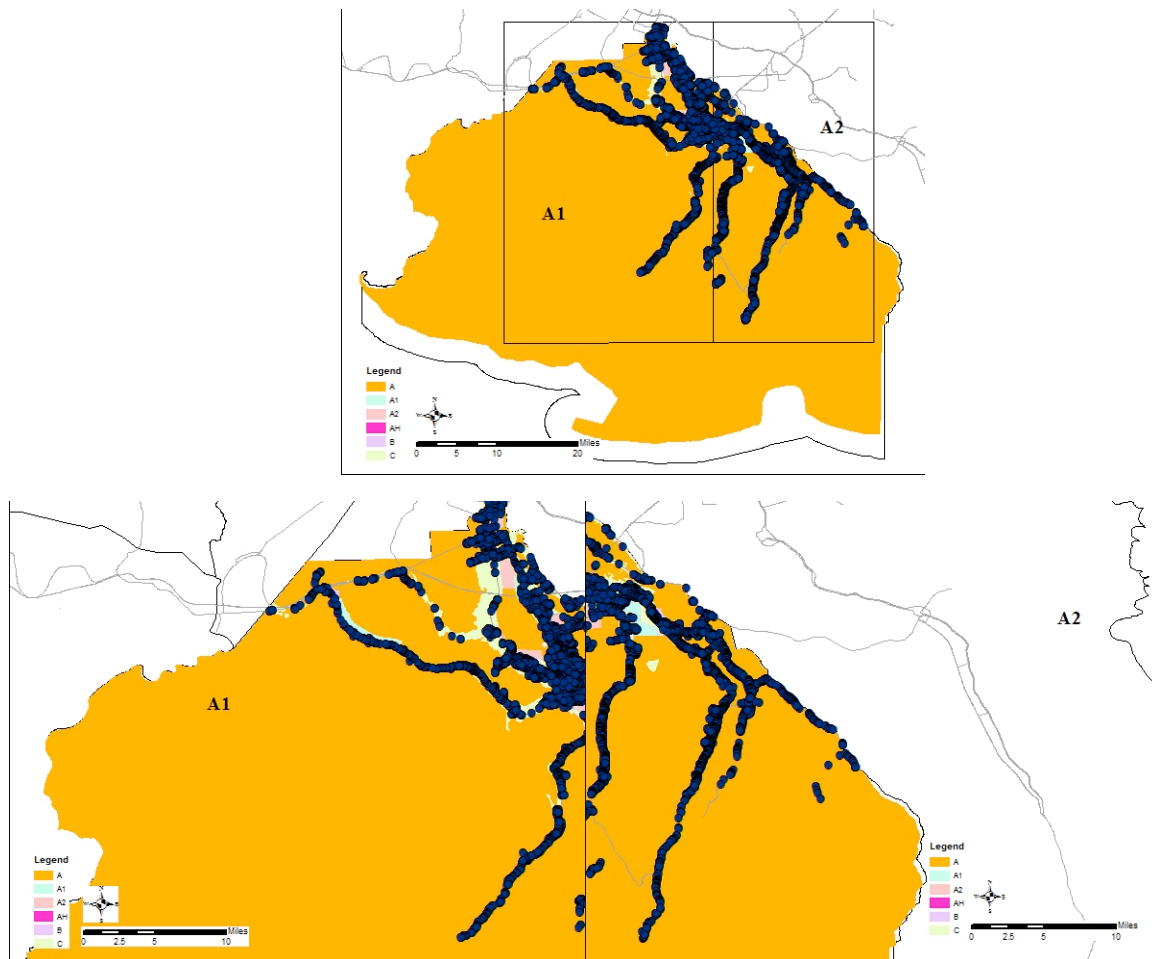
Location	SFHA			B, C & X Zones		
	Number of Buildings	Number of Policies	Percentage (%)	Number of Buildings	Number of Policies	Percentage (%)
<b>Terrebonne Parish</b>	38,433	5,465	14.2%	26,589	8,263	31.1%

There are 14,238 structures in the SFHA, and 5,465 policies. Therefore, approximately 14.2% of the structures in the SFHA have flood insurance. In addition, there are 26,589 structures outside of the SFHA, and 8,263 policies. Therefore, approximately 31.1% of the structures in the non-SFHA have flood insurance.

Table 28: Terrebonne Parish Insurance Coverage

Occupancy	Number of Policies	Percentage of Total Policies	Number of Buildings	Percentage of Buildings w/ Policies	Total Coverage
<b>Residential</b>	11,003	92.1%	42,291	26.0%	\$5,812,149
<b>Non-Residential</b>	938	7.9%	22,731	4.1%	\$1,668,127
<b>Total</b>	11,941	100.0%	65,022	18.4%	\$7,480,276

There are a total of 42,291 residential structures in the Terrebonne Parish, 11,003 of which have insurance coverage. Therefore, 26.0% of residential structures in the parish have insurance coverage. There are a total of 22,731 non-residential structures in Terrebonne Parish, 938 of which have insurance coverage. Therefore, 4.1% of non-residential structures have insurance coverage. Throughout the parish, approximately 18.4% of structures have insurance coverage.

*Map Analysis*

**Figure 19: Terrebonne Parish Flood Insurance Policies**

Although only 8% of the land in Terrebonne Parish can be developed, the parish has many flood insurance policies in its populated areas. The map reveals gaps in the A zones of the parish. In the west part of the parish, along highway 90, there are gaps in policies, as the area is sparsely populated and the commercial areas of the parish have gaps as well.

### **Terrebonne Parish Current Coverage and Recommendations**

Approximately 59.1% of the structures in the parish are located in the SFHA, while 40.9% of the structures in the parish are located outside of the SFHA. The flood insurance policy numbers reveal that 14.2% of structures in the SFHA have flood insurance coverage, and 31.1% of structures in the non-SFHA have flood insurance coverage. In addition, 26.0% of residential structures and 4.1% of non-residential structures have insurance. Approximately 18.4% of all structures in the parish have flood insurance coverage. As there are gaps in insurance coverage throughout the parish, the parish will continue to target all residents in its flood insurance outreach projects (see Appendix A).

### Flood Insurance Assessment Conclusion

While all of the communities in the FLOAT region have structures in the SFHA with flood insurance, they could all improve their insurance coverage. The communities are tackling this issue by conducting outreach projects, revising flood maps, and promoting flood insurance throughout the area.

### Repetitive Flooding

FEMA defines repetitive loss properties as those that have received repetitive flooding, in which the NFIP paid two or more claims of more than \$1,000 in flood insurance within a ten year period. FEMA defines severe repetitive loss properties as those that have received over \$20,000 in flood insurance from 4 or more claims that were greater than \$5,000 each, or properties that have flooded more than once, and in which the flood claim payments are greater than the value of the property. The localities in the FLOAT region contain both repetitive loss and severe repetitive loss properties.

#### *St. Tammany Parish Repetitive Flooding*

Some areas in St. Tammany Parish flood more frequently than others. Properties closest to the lakefront or streams, as well as those in areas with drainage problems, will be flooded more often than other properties, even more than those in the mapped 100-year floodplain. In 2004, there were 1,345 repetitive loss properties in St. Tammany Parish. This increased to 2,461 by 2008 after Hurricanes Katrina/Rita (September 2005). The majority of the repetitive flooding problem is in the unincorporated areas and Slidell.

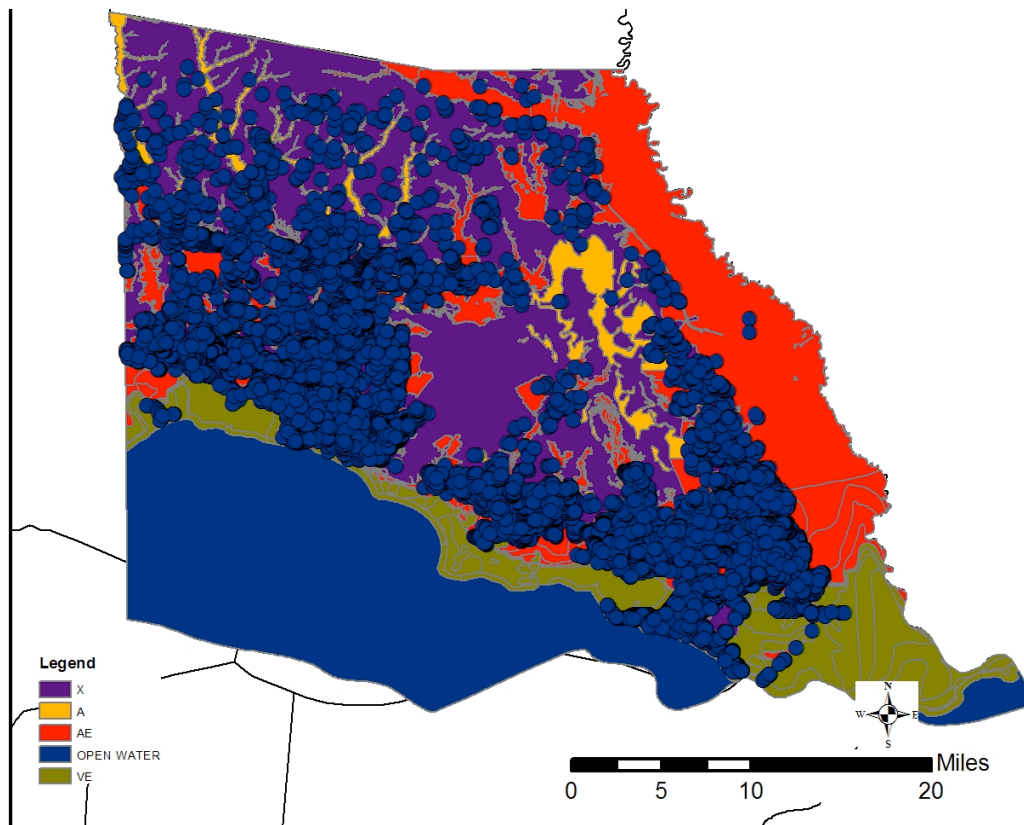


Figure 20: St. Tammany Parish Repetitive Flood Loss Properties Map

### City of Mandeville Repetitive Flooding-

As part of the process to reduce or eliminate repetitive flooding to structures across the United States, FEMA has developed an official Severe Repetitive Loss (SRL) Properties Strategy. The purpose behind the national strategy is to identify, catalog, and propose mitigation measures to reduce flood losses to the relatively few number of structures that absorb the majority of the premium dollars from the national flood insurance fund. The City of Mandeville has approximately 69 Repetitive Loss and Severe Repetitive Loss Properties. Review of the repetitive loss properties helps to identify flood prone areas within the city. Currently, 3,034 are structures located within the City of Mandeville. The city has filed insurance claims totaling approximately \$33,976,665. These repetitive loss areas have been specifically targeted for mitigation assistance through FEMA elevation and acquisition grants.

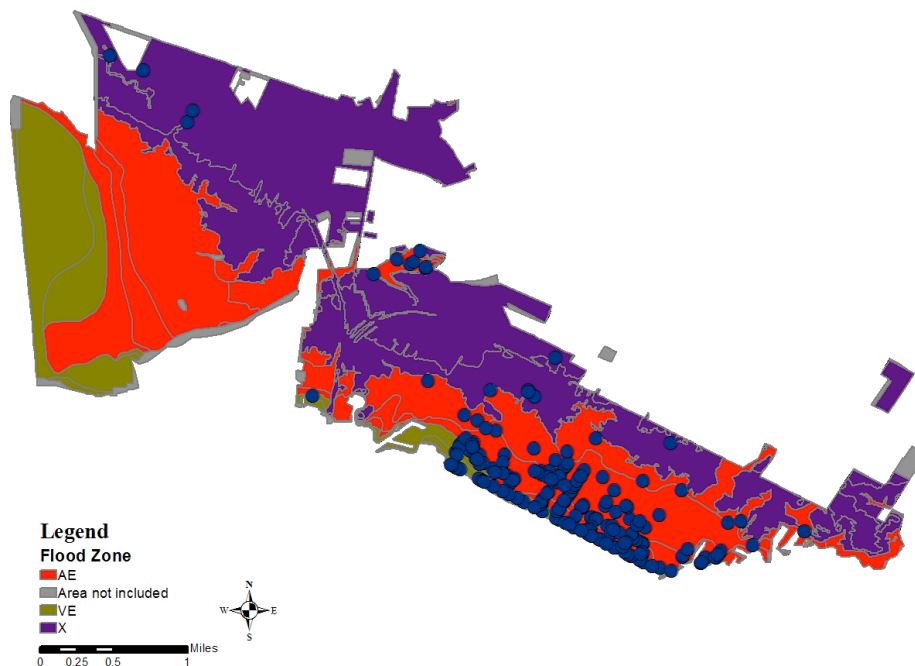


Figure 21: City of Mandeville Repetitive Flood Loss Properties Map

### City of New Orleans Repetitive Flooding

#### *Analysis of National Flood Insurance Program Repetitive Loss Records*

This flood risk assessment method is based on an analysis of NFIP data for repetitive flood loss (RL) properties. As of September 2009, Orleans Parish had 6,397 such properties, based on a query of the FEMA BureauNet NFIP interface. The query results indicated that 623 of the repetitive loss properties had been mitigated through prior action taken by Orleans Parish, GOHSEP, and/or FEMA. A column is included in the query results indicating that a site has been mitigated, but does not specify the date or type of mitigation action, such as demolition or elevation. After deducting the 623 mitigated properties, there are a total of 5,774 remaining repetitive loss properties in Orleans Parish at the date of the query. Of this total, there are 5,137 residential and 637 non-residential properties. SRL properties are discussed in greater detail further in this section. Approximately 11 percent of the repetitive loss properties in the

Parish are non-residential. The majority of the paid claims, approximately 68 percent, are associated with residential building damages. This skew in the ratio of numbers of non-residential RL properties (11 percent of sample) vs. the value of claims for those properties (32 percent of the total), is fairly typical, and is partly because the contents claims payments for nonresidential properties are about three times higher per claim than residential ones.

#### *Severe Repetitive Loss Properties*

As of January 2010, Orleans Parish had 5,972 properties on the NFIP Severe Repetitive Loss (SRL) list. NFIP Severe Repetitive Flood Loss properties are found in 71 Parish neighborhoods, although it should be recognized that both the overall number of SRL properties in the Parish and the numbers in specific neighborhoods are subject to change based on the technical definition of severe repetitive loss, and on the fact that some structures may no longer be present. As of the date of the query, the Broadmoor neighborhood had the highest number of SRL properties at 617, followed by Audubon with 461. As part of the SRL grant program, FEMA provided states with actuarial risk calculations (to show the maximum benefits of mitigation) for 30-year and 100-year planning horizons. The data provided by FEMA includes more details about claims histories at the policy level, but that information is not included here due to data confidentiality restrictions.

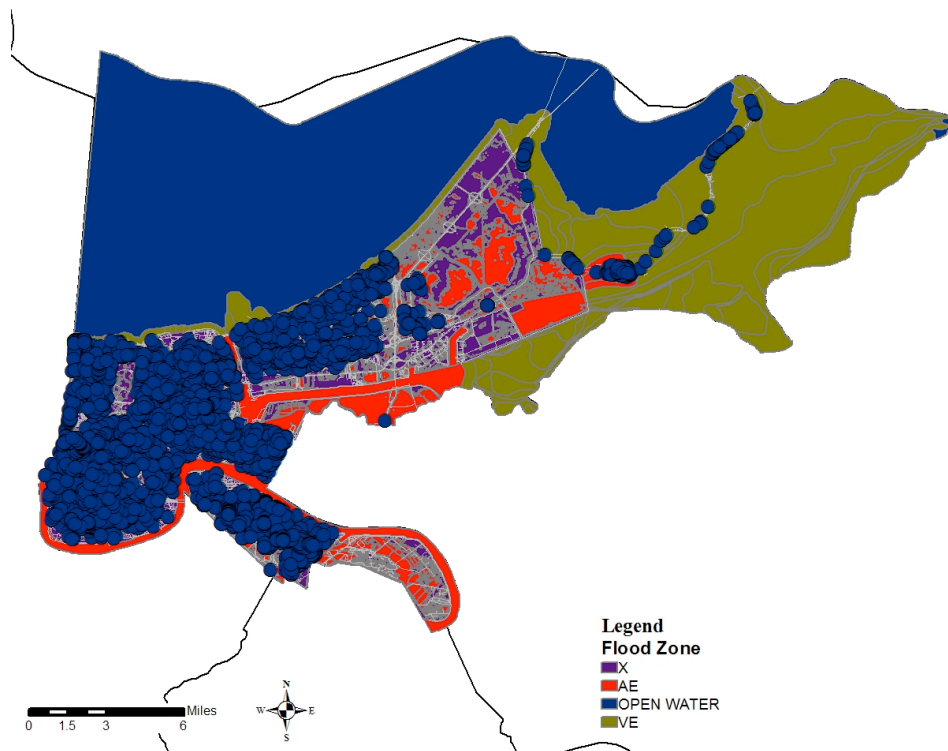


Figure 22: City of New Orleans Repetitive Flood Loss Properties Map

#### ***City of Slidell Repetitive Flooding-***

One of the City of Slidell's challenges is repetitive losses. As of September 2013, the city has 678 repetitive loss properties, of which 295 are severe repetitive losses. Because of these high numbers, the City is pursuing several methods to reduce risk, including assisting residents to apply for home elevation grants; acquisition and demolition of at risk properties; construction of new local government and privately built levees; new pumping capacity and flood gates at Bayou Patassat; capital improvements to drainage canals; and an aggressive litter abatement program.



The fact remains that the majority of the city is located in the SFHA and there are no large scale projects to protect the city from flooding underway. Therefore, the City must mitigate against the risk of flooding through a combination of ordinances, codes, design, and capital projects. To unify these efforts, the city is in the last stage of replacing several of its ordinances, to include, zoning, subdivision regulation, flood prevention, and storm water management, with a Unified Development Code, which will provide for a more holistic and integrated approach to hazard mitigation.

Key to the city's efforts remains its outreach programs intended to inform its residents and business owners what they can do to mitigate their individual risk and to speed their recovery from a flood event.

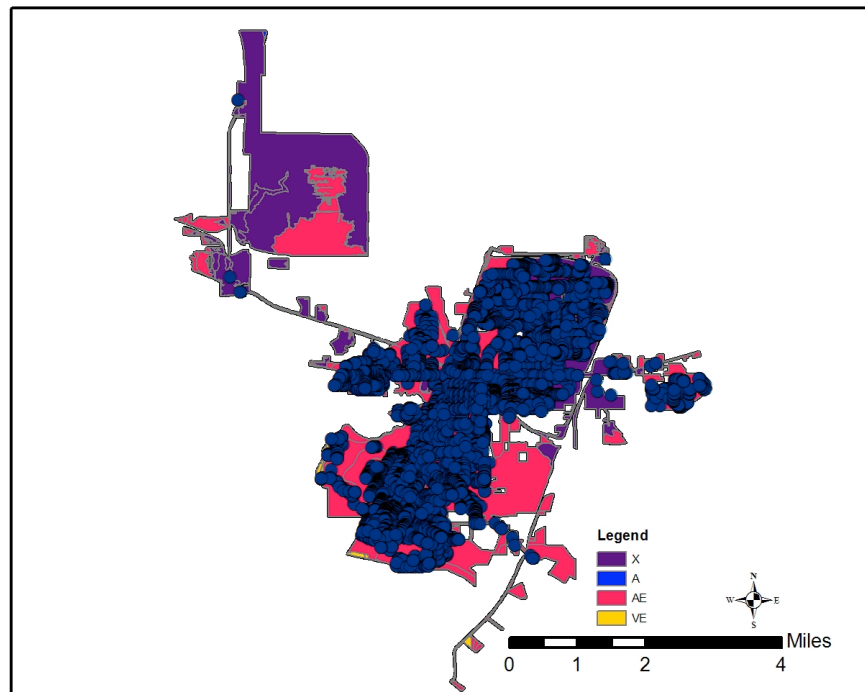


Figure 23: City of Slidell Repetitive Flood Loss Properties Map

### ***St. John the Baptist Parish Repetitive Flooding-***

St. John presently lists 216 repetitive loss properties, 11 of which are severe repetitive loss properties. Prior to Hurricane Isaac, which occurred in August 2012, the repetitive loss property list consisted of 79 properties. Due to this event, funding has been allotted for the proposed West Shore Lake Pontchartrain Levee. St. John is also taking advantage of FEMA grant funds for elevation and acquisition, along with recently entering into a contract to perform canal repair, clearing, and drainage work for twenty individual drainage canals. St. John was also awarded a \$1,332,604 Gustav/Ike Community Development Block Grant (CDBG) to improve water runoff within the target areas. In addition to the in-house maintenance schedule for canal cleaning, St. John has partnered with various state entities, such as the Lafourche Basin Levee District and the U.S. Coast Guard, to clean other canals throughout the parish. The weed control program implemented in the summer of 2013 will continue to address forty-six canals simultaneously with the canal cleaning project. These projects, combined with the systematic assessment and cleaning of storm drains in target areas, will improve parish-wide drainage. Additional drainage projects are under discussion in order to address remaining drainage issues exposed during Hurricane Isaac.

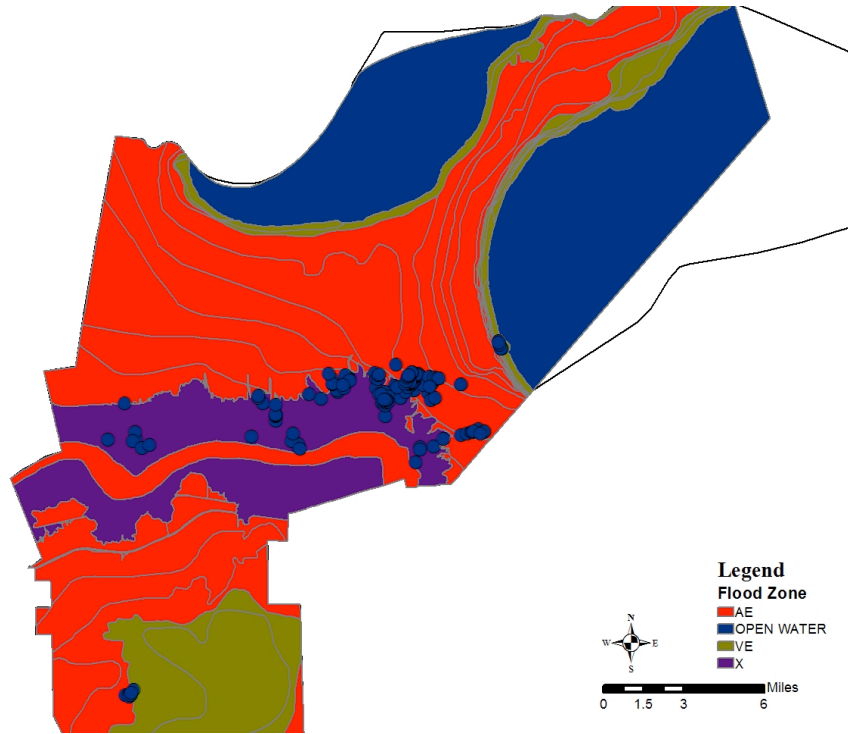


Figure 24: St. John the Baptist Parish Repetitive Flood Loss Properties Map

### **Tangipahoa Parish's Repetitive Flooding-**

As part of the process to reduce or eliminate repetitive flooding to structures across the United States, FEMA has developed an official Severe Repetitive Loss (SRL) Properties Strategy. The purpose behind the national strategy is to identify, catalog, and propose mitigation measures to reduce flood losses to the relatively few number of structures that absorb the majority of the premium dollars from the national flood insurance fund. Tangipahoa Parish has approximately 154 Repetitive Loss and Severe Repetitive Loss Properties. These areas have been specifically targeted for mitigation assistance through FEMA elevation and acquisition grants.

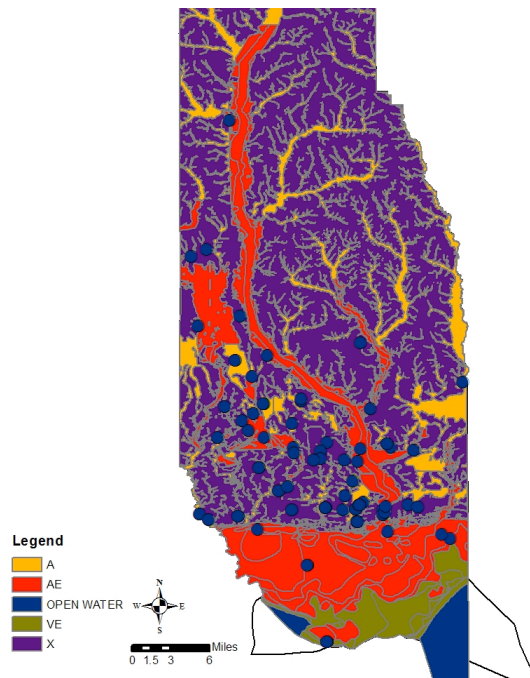


Figure 25: Tangipahoa Parish Repetitive Flood Loss Properties Map

### ***Terrebonne Parish's Repetitive Flooding-***

Terrebonne Parish suffered 2,500 flooded residential structures in each of hurricanes Rita and Ike, following damages from hurricanes Lili and Andrew and tropical storms Isidore and Allison. After aggressively pursuing home elevation projects, the parish has approximately 1,368 mitigated and 633 unmitigated repetitive loss structures, according to the latest lists provided from FEMA. This does not reflect the uninsured losses to the parish, which are very difficult to establish. The parish targets recruitment efforts for funding to elevate or demolish homes on the repetitive loss list, or those structures on record as substantially damaged that will be required by law to come into compliance with the parish Flood Damage Prevention Ordinance.

The parish is pursuing multiple lines of defense to reduce flood and wind risks, including options to provide affordable flood insurance, promotions of flood insurance, building codes, enforcement of the flood ordinance, enhanced pump station capacities, generators for resilience, flood gates, and improved and integrated levees.

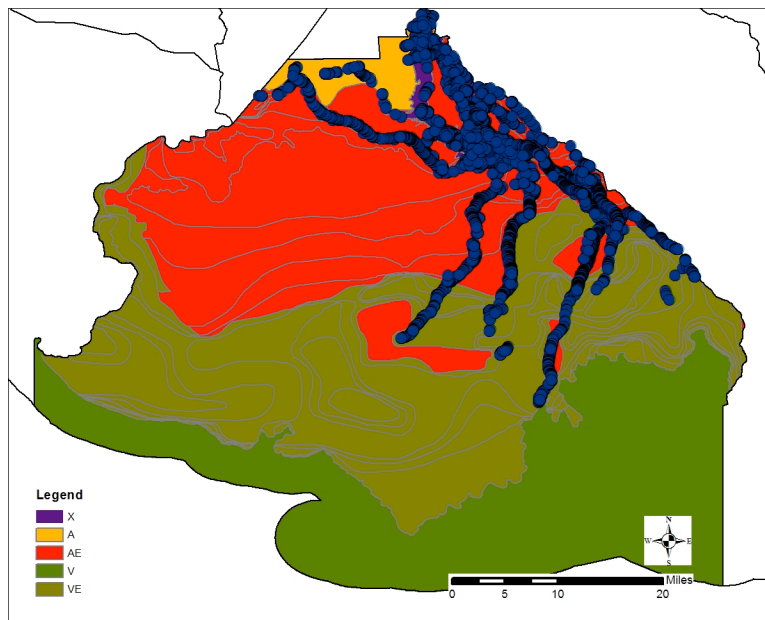


Figure 26: Terrebonne Parish Repetitive Flood Loss Properties Map

## Other Public Information Efforts

The outreach projects for the FLOAT PPI are listed in Appendix A. The current ongoing projects are listed first, and they are organized by community. The stakeholder projects and new projects, which are FLOAT-wide, are listed below the current ongoing projects. Each project includes details about the parish, the project itself, the project mechanism, the office, the subject matter, the frequency, the target audience, the activity, the message, and the desired message outcome.

There are also outreach projects that fall under other public information initiatives, including Activity 320 – Map Information Service, Activity 340 – Hazard Disclosure, Activity 350 – Flood Protection Information Website, Activity 360 – Flood Protection Assistance, Activity 370 – Flood Insurance Assessment, Activity 540 – Drainage System Maintenance, and Activity 610 – Flood Warning and Response. The outreach projects that fall under those activities include the following.

### Activity 320 – Map Information Service

Activity 320 refers to map information service, and includes mapped information of flood zones, target audiences for the service, and the best ways to reach that audience. The outreach projects that qualify for Activity 320 are listed below:

SJ14, SJ20 – St. John the Baptist Parish provides mapping information by displaying their map throughout the parish. The map includes flood zone information, drainage, and repetitive loss territories. Parish officials will conduct outreach to the hunting club in the Frenier area to increase flood insurance policies, and will conduct outreach in the Pleasure Bend area and mobile home district areas as well.

NO21 – The City of New Orleans provides GIS mapping information through the Nola.gov property viewer. The viewer includes information on flood maps, drainage maps, and repetitive loss territories. The city encourages all of its residents to use the viewer.

STK1 – LSU AgCenter provides an online map tool located at [floodmaps.lsuagcenter.com](http://floodmaps.lsuagcenter.com). The website offers flood zone information of both the FIRM and DFIRM maps throughout Louisiana. All residents of Louisiana are encouraged to visit the map and learn about their flood zone.

FL4 – Floodplain managers from across Louisiana attend the New Orleans Home and Garden Show to share LSU AgCenter’s website, [floodmaps.lsuagcenter.com](http://floodmaps.lsuagcenter.com). The floodplain managers looked up properties for interested attendees, and explained the flood maps to the residents.

### **Activity 340 –Hazard Disclosure**

Activity 340 involves the disclosure of flood hazards, particularly that real estate agents should disclose those hazards to potential homebuyers. The outreach projects that qualify for Activity 340 are listed below:

NO24 – The City of New Orleans promotes hazard disclosure by offering property disclosure forms to the Realtor Association. These forms allow realtors to inform potential homeowners if they are in a flood zone, and encourage homeowners to purchase flood insurance.

NO27 – The City of New Orleans provides brochures to realtors at luncheons. These brochures contain information about flood insurance and retrofitting homes for better flood protection. The realtors are encouraged to give these brochures to potential homeowners.

FL12 – All FLOAT members notify their realtors about hazard disclosure with an email that contains a brochure. This brochure details flood insurance and retrofitting information for prospective homebuyers. The realtors are encouraged to give these brochures to potential homeowners.

### **Activity 350 – Flood Protection Information Website**

Activity 350 includes flood protection websites which contain flood protection messages and warning, safety and evacuation information. The below websites cover the 6 CRS priority topics, as well as the additional topics mentioned in the PPI: protect yourself and your property from hurricanes, be prepared for natural hazards, as well as general flood education.

The outreach projects that qualify for Activity 350 are listed below:

SJ6 – St. John the Baptist Parish’s Facebook, Twitter, and main website all contain information on preparing for natural hazards such as flooding and hurricanes, and protecting life and property from those hazards. The website and social media aim to increase the number of policies and retrofits in the parish.

SJ7 – St. John’s First Call Emergency Notification is a weather notification alert system that alerts residents of emergency weather conditions year round. The goal of the system is to keep residents safe from weather hazards by increasing the number of people who are aware of the hazard.

NO19 – The City of New Orleans’ website, NolaReady, provides hazard mitigation flood awareness and assistance. The website details how to protect life and property from natural hazards. The goal of the website is to increase the number of policies and retrofitted homes in the city.

NO22 – The City of New Orleans’ flood safety website includes information on flood safety and warnings, flood protection measures and drainage system maintenance. The aim of the website is to increase the number of policies and retrofitted homes in the parish.

STK1 – LSU AgCenter provides an online map tool located at [floodmaps.lsuagcenter.com](http://floodmaps.lsuagcenter.com). The website offers flood zone information of both the FIRM and DFIRM maps throughout Louisiana. All residents of Louisiana are encouraged to visit the map and learn about their flood zone. In addition to flood zone information, the website contains information on base flood elevations, and how to retrofit your home to be above the base flood.



STK5 – UNO-CHART’s website [floodhelp.uno.edu](http://floodhelp.uno.edu) contains information on preparing and responding to floods, insurance, drainage, and floodplain management. The website includes messages 1-6.

STK6 – Louisiana Sea Grant’s Homeowners Handbook, located at [seagrant.noaa.gov](http://seagrant.noaa.gov), includes information on insurance, building responsibly, making a plan for hazards, and retrofitting you home for hazards. The goal of the handbook is to decrease the amount of damage following a flood event.

STK7 – National Sea Grant’s Resilience Toolkit, located at [seagrant.noaa.gov](http://seagrant.noaa.gov), includes information on protecting property from hazards, making a plan for hazards, and retrofitting homes for hazards. The aim of the toolkit is to decrease the amount of damage following a flood event.

STK10 – CPRA’s website, [cims.coastal.louisiana.gov/floodrisk](http://cims.coastal.louisiana.gov/floodrisk), includes risk and resilience information, specifically coastal restoration projects. The website details flood hazards throughout southeast Louisiana now and in the future. The goal of the website is to protect the citizens of Louisiana from future flood hazards.

STK12 – INCOSE Resilient Systems Working Group’s website, [extremefloodsafety.org](http://extremefloodsafety.org), includes information on protecting people and property from flood hazards, building responsibly, protecting communities from hurricanes, as well as general preparedness and flood education. The website aims to increase the number of institutions in Orleans and Jefferson who look for systems engineering services to address their flood risks.

STK13 – The Greater New Orleans Water Plan, located at [gnoinc.org/initiatives/the-greater-new-orleans-water-plan](http://gnoinc.org/initiatives/the-greater-new-orleans-water-plan), addresses groundwater and storm water as critical factors in shaping a safer, more livable, and economically vibrant Southeast Louisiana. The website contains information on flood hazards, protecting people and property from the hazards, building responsibly, protecting natural floodplain functions, protecting communities from hurricanes, as well as general preparedness and flood education. The website aims to increase the use of green infrastructure projects and stormwater management projects, at the local, neighborhood and city/parish level.

STK15 – The Coalition for Sustainable Flood Insurance’s website, [www.facebook.com/CSFIUSA](http://www.facebook.com/CSFIUSA); [csfi.info](http://csfi.info), was created to ensure that flood insurance rates are kept affordable. It includes information on flood hazards, insuring property from flood hazards, protecting people and property from the flood hazard and building responsibly. The aim of the site is to keep flood insurance affordable in order to increase the number of flood insurance policies in the community.

FL3 – The Realtor’s Association website, [www.nomar.com](http://www.nomar.com), contains flood insurance information, including flood hazards, insuring for flood hazards, and contacting officials about the hazard. The website aims to increase the members of NOMAR and the general public who visit the website to get information on flood insurance, find their risk, and get contact information for local and state floodplain officials.

### **Activity 360 – Flood Protection Assistance**

Activity 360 includes information on flood protection assistance and how that assistance will be conducted. The outreach projects that qualify for Activity 360 are listed below:

SL6 – The City of Slidell advises residents and business owners of their risk and how to mitigate it, as required for major projects. The city offers information on flood hazards, insuring for flood hazards, protecting people from the hazard, and building responsibly. The city aims to increase the number of inquiries related to flood designation of properties, and increase the number of inquiries related to retrofitting methods.

FL13 – The FLOAT communities advise residents and business owners of their risk and how to mitigate it, as required for major projects. They offer information on flood hazards, insuring for flood hazards, protecting people from the hazard, and building responsibly. Ways to protect property from flood damage include demolish the building or relocate it out of harm's way, elevate the building above the flood level, elevate damage-prone components, such as the furnace or air conditioning unit, dry floodproof the building so water cannot get into it, wet floodproof portions of the building so water won't cause damage, construct a berm or redirect drainage away from the building, maintain nearby streams, ditches, and storm drains so debris does not obstruct them, correct sewer backup problems. They aim to increase the number of inquiries related to flood designation of properties, and increase the number of inquiries related to retrofitting methods. Each community publicizes its property protection service on the web, and a community official is available to do site visits and provides advice on financial assistance programs that may be available. The FLOAT group will hold an annual PPI meeting to discuss site visits.

### **Activity 370 – Flood Insurance Assessment**

Activity 370, flood insurance assessment, includes outreach activities specifically on flood insurance. Additionally, as part of the credit for these outreach activities, a parish official must encourage flood insurance. The outreach projects that qualify for Activity 370 are listed below:

FL7 – All of the FLOAT members will dedicate one month to NFIP related messages on social media. The social media month will serve to promote flood insurance and advise residents on how to reduce their rates. The goal of the month is to increase the number of flood insurance policies in the area.

FL8 – All of the FLOAT members will send out a second utility bill mailer dedicated to flood insurance, in order to promote flood insurance and advise residents on how to reduce their rates. The goal of the mailer is to increase the number of flood insurance policies in the area.

FL9 – All of the FLOAT members will distribute a video of an elected parish official discussing the importance of flood insurance through their website, social media, and other methods during the flood awareness month, in order to further promote flood insurance. This outreach project aims to increase the number of flood insurance policies in the area.

### **Activity 420 – Open Space Preservation**

Activity 420 includes open space preservation, deed restrictions, natural functions open space, special flood-related hazards open space, open space incentives, low-density zoning, and natural shoreline protection.

FL16 – The FLOAT communities inform the general public about protection natural floodplain functions through providing information on preserving natural open space, such as wetlands, and providing educational materials and encouraging visits to those locations.

### **Activity 540 – Drainage System Maintenance**

Activity 540 includes drainage system maintenance, and the outreach project points require that the community publicize that maintenance. The outreach projects that qualify for Activity 540 are below:

SJ2 – St. John the Baptist Parish institutes a biannual parish-wide clean up day. This Clean Sweep is publicized in the newspaper and on their website, and encourages residents to keep debris and trash out of ditches and streams. The aim of the outreach project is to publicize the stream dumping regulations in the parish and improve drainage in the parish by increasing the number of clean drains and culverts.

FL14 – The FLOAT communities encourage ditch and culvert clean outs. The aim of the outreach project is to publicize the stream dumping regulations in the area and improve drainage in the parish by increasing the number of clean drains and culverts.

### **Activity 610 – Flood Warning and Response**

Outreach points for Activity 610 are given for outreach projects that detail how the public will be warned about flood hazards, as well as the safety measures they should take. The outreach projects that qualify for Activity 610 are below:

SJ7 – St. John the Baptist Parish’s Call Emergency Notification website, stickers and flyers, [https://alertregistration.com/atstwww/?FC\\_NOTES=CR\\_Internal\\_Website/stickers/flyers](https://alertregistration.com/atstwww/?FC_NOTES=CR_Internal_Website/stickers/flyers), are a weather notification alert system that protect people and property from flood hazards, and encourage residents to be prepared for natural hazards. The notification website, stickers and flyers serve to keep residents safe from weather hazards by increasing the number of people who are aware of the hazard.

### **Draft Review**

The draft was sent to Mark Lujan, the FEMA Region 6 insurance liaison, for review.

### **Annual Evaluation**

The Multi-Jurisdictional PPI Committee will meet at least once a year, to evaluate the Plan and incorporate any needed revisions. The evaluation will cover:

- A review of the projects that were completed
- Progress toward the desired outcomes
- Recommendations regarding projects not completed
- Changes in the target audiences

The jurisdictions should refresh their CRS Community Self-Assessment at least once every two years, and bring the results to the Annual Evaluation. The communities will coordinate and facilitate this meeting, and afterward, provide a summary and updated PPI worksheet reflecting the Committee’s decisions. The outcomes and revisions will be submitted as part of the annual CRS recertification package for the parishes St. John the Baptist, St. Tammany, Terrebonne, Tangipahoa and the cities Slidell, Mandeville, and New Orleans. An evaluation report will be sent to the appropriate governing body of each jurisdiction for their information.

### **Plan Adoption**

Each of the PPI communities had to adopt this document on an individual basis. The adoption process for each community will be carried out by the appropriate governing body of each jurisdiction.

#### **St. Tammany Parish-**

The Multi- jurisdictional Program of Public Information will be introduced as a resolution at the St. Tammany Parish council meeting by the floodplain coordinator, and thence approved by the City Council Members by a simple vote.

**City of Mandeville-**

The Multi- jurisdictional Program of Public Information will be introduced as a resolution at the City of Mandeville council meeting by the floodplain coordinator, and thence approved by the City Council Members by a simple vote.

**City of New Orleans-**

The Multi- jurisdictional Program of Public Information will be introduced as a resolution at the City of New Orleans council meeting by The Department of Safety & Permits, and thence approved by the City Council Members by a simple vote.

**City of Slidell-**

The Multi- jurisdictional Program of Public Information will be introduced as a resolution at the City of Slidell council meeting by the Mayor, and thence approved by the City Council Members by a simple vote.

**St. John the Baptist Parish-**

The Multi- jurisdictional Program of Public Information will be introduced as a resolution at the St. John the Baptist Council Meeting by the Parish President, and thence approved by the Council Members by a simple vote.

**Tangipahoa Parish-**

The Multi- jurisdictional Program of Public Information will be introduced as a resolution at the Tangipahoa Parish council meeting by the floodplain coordinator, and thence approved by the City Council Members by a simple vote.

**Terrebonne Parish-**

The Multi-jurisdictional Program of Public Information (MJ-PPI) will be introduced at a Terrebonne Parish Council meeting by Resolution, and thence approved by the Council Members by a single vote. Once the MJ-PPI is introduced and adopted, a copy of the Terrebonne Parish Council Meeting Minutes will be attached as Appendix E.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
<b>CURRENT ONGOING PROJECTS</b>											
St. Tammany											
ST1	St. Tammany	"Cheaper Flood Insurance: 5 Ways to Lower the Cost of Your Flood Insurance Premium"	FEMA Brochure	STP Permit Office	Flood insurance	Ongoing	Homeowners	370	Insure your property for your flood hazard	Relocation, raising utilities, installing flood openings, and elevating are options to reduce the cost of flood insurance.	To increase the number of flood insurance policies in the community.
ST2	St. Tammany	"Increased Cost of Compliance Coverage: Creating a Safer Future"	FEMA Brochure	STP Permit Office	Increased Cost of Compliance	Ongoing	Homeowners	330	Protect your property from the hazard	Elevating, relocating and floodproofing are ways to reduce future flood loss.	To increase the number of elevated homes in the community.
ST3	St. Tammany	"Flood Insurance Claims Handbook"	FEMA NFIP Brochure	STP Permit Office	Flood Insurance	Ongoing	Homeowners	370	Protect your property from the hazard	Flood insurance can protect your home and/or business.	To increase the number of flood insurance policies in the community.
ST4	St. Tammany	"Myths and Facts about the NFIP"	FEMA NFIP Brochure	STP Permit Office	Flood Insurance	Ongoing	Homeowners	370	Insure your property for your flood hazard; General flood education	Who needs flood insurance? Everyone! All areas are susceptible to flooding, and both renters and owners can purchase flood insurance.	To increase the number of flood insurance policies in the community.
ST5	St. Tammany	"Louisiana Homeowners Handbook to Prepare for Natural Hazards"	LA Sea Grant Brochure	STP Permit Office	Preparing for natural hazards	Ongoing	Homeowners	330	Protect people from the hazard; Protect your property from the hazard	It is important to protect yourself and your home from hurricanes, tornadoes, and floods.	To increase the number of flood insurance policies and retrofitted homes in the community.
St. John											
SJ1	St. John	Hurricane Education	Table - Coloring books and school supplies	Parish Administration	Be Prepared Be Flood Aware - Know Your Risk!; NFIP - Facts - Insurance Benefits; Survival In a Hurricane: Hazards, Mapping Information, Education on Mapping	Annually/ Opening of School	School Children/Libraries	330	Protect people from hazards; General flood education	Many areas of the parish are in the Special Flood Hazard Area; Turn around, don't drown; Hurricane season is June 1 through November 30, with peak season in September, be prepared.	To increase the number of inquiries about flood zones and increase the number of insurance policies in the parish.
SJ2	St. John	Protect Drains & Culverts	Parish wide clean up day. Clean Sweep - Notice in newspaper & Website	Administration	Keep Debris & Trash out of Ditches & Streams	Spring/Fall	Parish Residents	540	Protect natural floodplain functions	Keeping ditches and streams clear of trash and debris help drainage in the parish, which helps to prevent flooding.	To publicize the stream dumping regulations in the parish and improve drainage in the parish by increasing the number of clean drains and culverts.
SJ3	St. John	Outreach to individual communities in parish	Literature passed out/ First call magnets give away	Health & Human Services	Health & Social Services	Annually	Community	330	Know your flood hazard	The parish is susceptible to flooding, and the St. John Office of Emergency Preparedness uses the First Call system to notify residents of the parish in times of emergency.	To increase the number of flood insurance policies in the community.
SJ4	St. John	Land Use Plan	All meetings documented with minutes & sign in sheets	Planning & Zoning Office	Land/building	Annually	Land Developers	330	Know your flood hazard; General flood education	Development in the floodplain leads to flooding.	To stop developers from placing harmful development in the floodplain.
SJ5	St. John	Emergency Preparedness	Flyers in each Department	Parish Communications Office	Hurricane Preparedness	Year Round	Parish Wide	330	Know your flood hazard; Protect people from the hazard; Protect your property from the hazard; Protect yourself and your property from hurricanes; Be prepared for natural hazards	It is important to have a family disaster plan, an emergency supplies kit and evacuation plan for hurricanes, floods, and tornadoes.	To increase the number of homeowners who are prepared for hurricanes in the community, and to increase the number of flood insurance policies in the community.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
SJ6	St. John	Flood Protection Year Round	St. John Facebook/Twitter Website: <a href="https://www.facebook.com/sjbparish">https://www.facebook.com/sjbparish</a> ; <a href="https://twitter.com/sjbpgov">https://twitter.com/sjbpgov</a>	Emergency Operations Center	Get A Game Plan	Year Round	Parish Residents	350	Protect people from the hazard; Protect your property from the hazard; Make a plan for the hazard; Retrofit your home for the hazard; Protect yourself and your property from hurricanes; Be prepared for natural hazards; Protect yourself and your property from hurricanes; Be prepared for natural hazards; General flood education	There is possible rain, hurricanes, tornadoes in the area which can lead to flooding; remain aware of dangerous situations; make a family plan for emergencies; elevating utilities helps protect them from flooding; purchase flood insurance; conserve wastewater to prevent overflow of drainage system.	To increase website hits on the parish Facebook and Twitter, in order to get more residents to purchase flood insurance, prepare for hurricanes, and retrofit their homes.
SJ7	St. John	First Call Emergency Notification: <a href="https://alertregistration.com/atwww/?FC_NOTES=CR_Internal">https://alertregistration.com/atwww/?FC_NOTES=CR_Internal</a>	Website/stickers/flyers	Communications Dept./Emergency Preparedness	Weather notification alert system	Year Round	Parish Residents	610	Protect people from the hazard; Protect yourself and your property from hurricanes; Be prepared for natural hazards	The parish is susceptible to flooding, and the St. John Office of Emergency Preparedness uses the First Call system to notify residents of the parish in times of emergency.	To increase the number of people who sign up for the weather notification alert system and decrease the damage incurred by severe weather events.
SJ8	St. John	Hurricane Brochure	Hurricane Preparedness webpage	Emergency Operations Center	Stay connected this hurricane season	Year Round	Parish Residents	330	Know your flood hazard	Hurricane season is June 1 through November 30, with peak season in September, be prepared.	To increase the number of flood insurance policies in the community.
SJ9	St. John	Public Service Messages and Information	Emergency Channel Message	<b>Television - Channel 15</b>	Flood ready info & disaster assistance announcements	Hurricane Season/Year Round	Public	330	Protect people from the hazard; Protect your property from the hazard; Protect yourself and your property from hurricanes; Be prepared for natural hazards; General flood education	Hurricane season is June 1 through November 30, with peak season in September, be prepared; purchase flood insurance; information on incoming storms and recovery from storms.	To increase the number of people who sign up for the weather notification alert system, and to increase the number of flood insurance policies in the community.
SJ10	St. John	Flood Verification Letters	Mailing	Planning & Zoning Office	Flood Zone Verification	Year Round	Parish Wide	330	Know your flood hazard; General flood education	This is your flood zone and these are ways you can protect yourself and your home from flooding.	To increase the number of flood insurance policies in the community.
SJ11	St. John	Repetitive Loss Notice to Public	Mailing	Planning & Zoning	Notification of Repetitive Loss Property	Annual	Rep Loss Properties & Territory	330	Know your flood hazard; General flood education	Your property is a repetitive loss property, and this is the definition of a repetitive loss property.	To increase the number of flood insurance policies in the community.
SJ12	St. John	Community Assistance Visit - letters to Public	Mailing	Planning & Zoning Office	CAV Letter notification of permit needed	FEMA Cycle Visit	Properties needing Additional Assistance Permits, etc.	330	Protect your property from the hazard	Your flood retrofit requires a permit.	To increase the number of flood retrofit permits in the community.
SJ13	St. John	Telephone Blue Pages	Public delivery	Planning & Zoning Office	Flood Information and assistance provided by the parish	Year Round	Parish Wide	330	Know your flood hazard; Insure your property for your flood hazard	The principal source of floodwater in St. John Parish is rain and lakes Pontchartrain and Maurepas. Contact the floodplain administrator for more information about flooding.	To increase the number of flood insurance policies in the community.
SJ14	St. John	GIS - Mapping Information	Map displayed throughout parish	GIS Department	Flood Maps, Drainage maps, Rep Loss maps (Territory & Properties)	Year Round	Parish Wide	330	Know your flood hazard	Your property may be in a flood zone and these are the flood zones in the parish. Contact the floodplain administrator for more information about flooding.	To increase the number of flood insurance policies in the community.
SJ15	St. John	Hurricane Info Included in Utility Bill mailings	Mailing	Department of Utilities	Emergency Numbers, State Emergency Alert System, Contraflow Instructions, Evacuation Shelters, First Call	Annual	Parish Wide	330	Know your flood hazard; Protect people from the hazard; Protect your property from the hazard; Protect yourself and your property from hurricanes; Be prepared for natural hazards	Hurricane season is June 1 through November 30, with peak season in September, be prepared; purchase flood insurance; information on incoming storms and recovery from storms; the St. John Office of Emergency Preparedness uses the First Call system to notify residents of the parish in times of emergency.	To increase the number of people who sign up for the weather notification alert system, and to increase the number of flood insurance policies in the community
SJ16	St. John	Outreach Project to Community	Table At Festival	Andouille Festival	Be Prepared Be Flood Aware - Know Your Risk!; NFIP - Facts - Insurance Benefits; Survival In a Hurricane: Hazards, Mapping Information, Education on Mapping	Annual - October	Parish Wide/Outreaching	330	Know your flood hazard; Protect people from the hazard; Protect your property from the hazard; Protect yourself and your property from hurricanes; Be prepared for natural hazards	Many areas of the parish are in the Special Flood Hazard Area; Turn around, don't drown; Hurricane season is June 1 through November 30, with peak season in September, be prepared.	To increase the number of people who sign up for the weather notification alert system, and to increase the number of flood insurance policies in the community



#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
SJ17	St. John	Outreach Information for Pet Owners	Flyer	Animal Shelter	Pet Info -Pets Need Protection Too!!	Year Round	Pet Owners	330	Protect people from the hazard; Protect yourself and your property from hurricanes; Be prepared for natural hazards	Hurricane season is June 1through November 30, with peak season in September, be prepared and prepare your pets.	To increase the number of people who sign up for the weather notification alert system, and to increase the number of flood insurance policies in the community
SJ18	St. John	Outreach to Builders and Consumers	Table At Store	<b>Home Depot</b>	Build Responsibly	Year Round	Builders - Parish Consumers	330	Build responsibly	There are many ways to retrofit homes to better protect homes and homeowners from hurricanes, tornadoes and flooding.	To increase the number of retrofit permits in the community
SJ19	St. John	Placed in Building Dept. area	Table At Store	<b>Ace Hardware</b>	Literature: Swap out material during year; Coastal Bldg. Material; Use of Connectors & Brackets, Foundations in Coastal Areas; House wrap; Load Paths; Moisture Barrier System; Protect Utilities; Repair, Remodeling, Additions & Retrofitting; Roof Underlayment for Asphalt Shingle Roofs; Shutter Alternatives	Year Round	General Public	330	Build responsibly	There are many ways to retrofit homes to better protect homes and homeowners from hurricanes, tornadoes and flooding.	To increase the number of retrofit permits in the community
SJ20	St. John	Storm Ready Community	Signage	Emergency Preparedness Office	Signs placed around community advertising it is Storm Ready	Ongoing	General Public	330	Protect yourself and your property from hurricanes; be prepared for natural hazards	The community is prepared for storms and will communicate when a storm is near, in order to advise residents when to evacuate or shelter in place.	To increase the number of people who sign up for the weather notification alert system.

Terrebonne											
TE1	Terrebonne	FloodSafe Minute	Email/Web Post	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Flood/building safety	Monthly	Council/Public	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	Erosion control, how to update a Hazard Mitigation Plan, how to talk to kids about preparing for a storm, types of trees that improve drainage, etc.	To increase the number of flood insurance policies and retrofit permits in the community.
TE2	Terrebonne	SRL Recruitment	Mailing	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Elevation	Bi-Annual	SRL Owners	330	Protect your property from the hazard	Your property is a severe repetitive loss property, and this is the definition of a severe repetitive loss property.	To increase the number of flood insurance policies in the community.
TE3	Terrebonne	SD Recruitment	Mailing	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Substantial Damage Elevation	Annual	SDL Owners	330	Protect your property from the hazard	If a structure has insurance claims worth more than 50% of the assessors value of the property, it would be determined by the National Flood Insurance Program to be substantially damaged and eligible for Increased Cost of Compliance (ICC) insurance benefits (up to \$30,000). These can be used to elevate, relocate, or demolish a structure or to match other programs for those activities. FEMA programs generally require a 25% match and the ICC benefits can be used for that match.	To increase the number of elevated homes in the community.
TE4	Terrebonne	Library Outreach	Library Assets	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Mitigation Options	Year Round	Public/Builder	330	Protect your property from the hazard; Build responsibly; General flood education	There are multiple ways to mitigate your home from flooding.	To increase the number of retrofitted homes in the community.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
TE5	Terbonne	Program Publication	TPTV Announcement	Floodplain Management Office, Recovery Assistance and Mitigation Planning	All funding options	Ongoing	Public	330	Protect your property from the hazard	There is funding available to mitigate your home, either through elevation or retrofits.	To increase the number of elevated and retrofitted homes in the community.
TE6	Terbonne	NFIP education	Insurance Promotion	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Insurance and benefits	Year Round	Public	370	Insure your property for your flood hazard	Who needs flood insurance? Everyone! All areas are susceptible to flooding, and both renters and owners can purchase flood insurance.	To increase the number of flood insurance policies in the community.
TE7	Terbonne	ICC Promotion	ICC Flier Posting	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Funding for Sub Dam	Year Round	Public	330	Insure your property for your flood hazard	If a structure has insurance claims worth more than 50% of the assessors value of the property, it would be determined by the National Flood Insurance Program to be substantially damaged and eligible for Increased Cost of Compliance (ICC) insurance benefits (up to \$30,000). These can be used to elevate, relocate, or demolish a structure or to match other programs for those activities. FEMA programs generally require a 25% match and the ICC benefits can be used for that match.	To increase the number of flood insurance policies and elevated homes in the community.
TE8	Terbonne	Handbook Provision	Homeowner Handbook	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Natural Hazard Prep	Year Round	Public	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	It is important to protect yourself and your home from hurricanes, tornadoes, and floods.	To increase the number of retrofitted homes in the community.
TE9	Terbonne	Emergency Prep Guide	Post Emergency Prep	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Storm Readiness	Seasonally	Public	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard	Hurricane season is June 1 through November 30, with peak season in September, be prepared; purchase flood insurance; information on incoming storms and recovery from storms; the Terrebonne Parish Office of Emergency Preparedness uses the First Call system to notify residents of the parish in times of emergency.	To increase the number of retrofitted homes in the community.
TE10	Terbonne	Mitigation Options	Website	Floodplain Management Office, Recovery Assistance and Mitigation Planning	All manner of mitigation	Year Round	Public/Builder	330	Protect your property from the hazard; Build responsibly	What to do before and after a flood; there are numerous ways to retrofit your home to mitigate flood.	To increase the number of retrofit permits in the community.
TE11	Terbonne	Outreach to media, leaders, real estate	Mailing	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Availability of floodplain information	Annual	Media Leaders/Real Estate Agents	330	Know your flood hazard; General flood education	Hurricane season is June 1 through November 30, with peak season in September, be prepared; purchase flood insurance; information on incoming storms and recovery from storms; the Terrebonne Parish Office of Emergency Preparedness uses the First Call system to notify residents of the parish in times of emergency.	To increase the number of flood insurance policies in the community.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
TE12	Terbonne	Residents in SFHA	Mailing	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Flood safety & warnings, Flood Protection Measures, Drainage System Maintenance	Annual	SFHA Property Owners	330	Protect people from the hazard	You are located in a Special Flood Hazard Area; there are ways to protect yourself and your home from flooding; keep culverts and drains clear of debris.	To increase the number of retrofit and elevation permits in the community; to increase the number of flood insurance policies in the community
TE13	Terbonne	Flyer in lobby of permit office	Flyer	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Flood protection information	Year Round	Public	330	Know your flood hazard	What to do before and after a flood; there are numerous ways to retrofit your home to mitigate flood.	To increase the number of retrofit and elevation permits in the community.
TE14	Terbonne	Open forum style meetings at 7 different locations in parish	Town Hall Meetings	Floodplain Management Office, Recovery Assistance and Mitigation Planning	General information including flood safety & info	Bi-annual	Public	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	Hurricane season is June 1 through November 30, with peak season in September, be prepared; purchase flood insurance; the Terrebonne Parish Office of Emergency Preparedness uses the First Call system to notify residents of the parish in times of emergency; flooding can occur anywhere in the parish.	To increase the number of policies and retrofitted homes in the community.
TE15	Terbonne	Storm Ready Community	Signage	Emergency Preparedness Office	Signs placed around community advertising it is Storm Ready	Ongoing	General Public	330	Protect yourself and your property from hurricanes; be prepared for natural hazards	The community is prepared for storms and will communicate when a storm is near, in order to advise residents when to evacuate or shelter in place.	To increase the number of people who sign up for the weather notification alert system.

Tangipahoa											
TA1	Tangipahoa	Flyer and Technical Bulletins	Pamphlet	Permit Office	Flood risk/preparation/coping/insurance	Every Building Packet; Ongoing	Home Builders	370	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly	Purchase flood insurance; flooding can occur anywhere in the parish; there are ways to mitigate your property to protect it from flooding.	To increase the number of policies and retrofitted homes in the community.
TA2	Tangipahoa	Flood Safety	Website	Permit Office	Flood protection information	Year Round	Average Citizen	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	Purchase flood insurance; flooding can occur anywhere in the parish; there are ways to mitigate your property to protect it from flooding.	To increase the number of policies and retrofitted homes in the community.
TA3	Tangipahoa	Flood outreach message	Phone Book Page	Permit Office	Flood prep/protection/contact Floodplain manager for help	Annual	Average citizen	330	Know your flood hazard; Protect people from the hazard; Protect your property from the hazard; Protect natural floodplain functions	Purchase flood insurance; flooding can occur anywhere in the parish; there are ways to mitigate your property to protect it from flooding; call the floodplain manager for more information.	To increase the number of policies and retrofitted homes in the community; to increase the number of calls to the floodplain manager
TA4	Tangipahoa	Rep Loss Mail-out	Rep Loss Letter	Permit Office	update AW 501	Annual	Rep Loss Properties	330	Know your flood hazard	Your property is a repetitive loss property, and this is the definition of a repetitive loss property.	To increase the number of flood insurance policies in the community.
TA5	Tangipahoa	Rep Loss Mail-out	Rep Loss Property Flood Fact Sheet	Permit Office	Explains flooding/hurricane prep/insurance	Annual	Rep Loss area	330	Insure your property for your flood hazard; Protect your property from the hazard; Build responsibly	Your property is a repetitive loss property, and this is the definition of a repetitive loss property; Hurricane season is June 1 through November 30, with peak season in September, be prepared; purchase flood insurance.	To increase the number of flood insurance policies and retrofit and elevation permits in the community.
TA6	Tangipahoa	Flood Insurance for Secondary Homes	Website	Permit Office	Flood insurance for secondary homes	Year Round	Homeowners with Secondary Homes	370	Insure your property for your flood hazard	It is important to also insure secondary homes from flooding.	To increase the number of flood insurance policies on secondary homes in the community.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
TA7	Tangipahoa	Rep Loss Mail-out	Rep Loss Property Update for Community Projects	Permit Office	Update of parish activities	Annual	Rep Loss Properties	330	Insure your property for your flood hazard; Protect your property from the hazard; Build responsibly	Your property is a repetitive loss property, and this is the definition of a repetitive loss property; purchase insurance; mitigate your home from flooding.	To increase the number of flood insurance policies and retrofit and elevation permits in the community.

City of New Orleans											
NO1	City of New Orleans	Flyers and Technical Bulletins	Flyer in lobby of permit office	Safety & Permits - Floodplain Management	Flood protection information	Year Round	Public	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	Most of the city is in a Special Flood Hazard Area; purchase insurance; there are multiple ways to mitigate flooding in your home and community; elevation and retrofits protect your home; improve drainage on your property.	To increase the number of policies and retrofit and elevation permits in the community.
NO2	City of New Orleans	Open forum	Neighborhood Association	Safety & Permits - Floodplain Management	General information including flood safety & info	Ongoing	Public	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; General flood education	Most of the city is in a Special Flood Hazard Area; purchase insurance; there are multiple ways to mitigate flooding in your home and community; elevation and retrofits protect your home; improve drainage on your property; turn around, don't drown.	To increase the number of flood insurance policies in the community.
NO3	City of New Orleans	SD Recruitment	Mailing	Safety & Permits - Floodplain Management	Substantial Damage Elevation, ICC	Annual	SDL Owners	330	Protect people from the hazard; Protect your property from the hazard; Build responsibly	If a structure has insurance claims worth more than 50% of the assessors value of the property, it would be determined by the National Flood Insurance Program to be substantially damaged and eligible for Increased Cost of Compliance (ICC) insurance benefits (up to \$30,000). These can be used to elevate, relocate, or demolish a structure or to match other programs for those activities. FEMA programs generally require a 25% match and the ICC benefits can be used for that match.	To increase the number of elevation permits in the community.
NO4	City of New Orleans	SFHA Rep Loss Mail-out	Sewage & Water Board Billings	Safety & Permits - Floodplain Management	Information on repetitive loss properties	Annual	City Wide	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	Your property is a repetitive loss property, and this is the definition of a repetitive loss property; purchase insurance; mitigate your home from flooding.	To increase the number of insurance policies and retrofit and elevation permits in the community.
NO5	City of New Orleans	Homeowner Handbook	Homeowner Handbook	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Natural Hazard Prep	Year Round	Public	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	It is important to protect yourself and your home from hurricanes, tornadoes, and floods; there are multiple ways to mitigate your home.	To increase the number of retrofit permits in the community.
NO6	City of New Orleans	Emergency Prep Guide	Post Emergency Prep	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Storm Readiness	Seasonally	Public	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard	Make a hurricane plan; gather supplies, get informed; prepare seniors and people with disabilities; prepare children and pets; mitigate your home and business.	To increase the number of retrofit permits in the community.
NO7	City of New Orleans	Mitigation Options	Mitigation Website	Floodplain Management Office, Recovery Assistance and Mitigation Planning	All mitigation measures	Year Round	Public/Builder	330	Protect your property from the hazard; Build responsibly	What to do before and after a flood; there are numerous ways to retrofit your home to mitigate flood.	To increase the number of retrofit and elevation permits in the community.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
NO8	City of New Orleans	Outreach to Media, Leaders, Real Estate	Email	Floodplain Management Office, Recovery Assistance and Mitigation Planning	Availability of floodplain information	Annual	Media Leaders/Real Estate Agents	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	Most of the city is in a Special Flood Hazard Area; purchase insurance; there are multiple ways to mitigate flooding in your home and community; elevation and retrofits protect your home; contact the floodplain manager for more information.	To increase the number of flood insurance policies and elevation and retrofit permits in the community.
NO9	City of New Orleans	Library Outreach	Flyer in Library	Safety & Permits - Floodplain Management	Mitigation Options	Year Round	Public/Builder	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	What to do before and after a flood; there are numerous ways to retrofit your home to mitigate flood.	To increase the number of retrofit and elevation permits and the number of flood insurance policies in the community, and to increase the number of flyers picked up annually.
NO10	City of New Orleans	Water Bill Insert	Mailing	Safety & Permits - Floodplain Management	Flood Safety & Warnings, Flood Protection Measures, Drainage System Maintenance	Bi-Annual	SFHA Property Owners	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	You are located in a Special Flood Hazard Area; there are ways to protect yourself and your home from flooding; keep culverts and drains clear of debris.	To increase the number of retrofit and elevation permits in the community; to increase the number of flood insurance policies in the community
NO11	City of New Orleans	NFIP education	Insurance Promotion	Safety & Permits - Floodplain Management	Insurance and Benefits	Year Round	Public	370	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly	Who needs flood insurance? Everyone! All areas are susceptible to flooding, and both renters and owners can purchase flood insurance.	To increase the number of flood insurance policies in the community.
NO13	City of New Orleans	PONTILLY- Water Management Project Outreach	Door-to-Door Outreach	NORA	Water Mitigation, Water Management, Drainage Maintenance	Monthly	Pontchartrain Park and Gentilly Woods Area	330	Protect your property from the hazard; build responsibly; protect natural floodplain functions	Improve drainage on your property through green infrastructure; keep ditches and culverts clean of debris.	To increase the use of green infrastructure projects in the community.
NO14	City of New Orleans	"Cheaper Flood Insurance: 5 Ways to Lower the Cost of Your Flood Insurance Premium"	FEMA Brochure	Orleans Floodplain Management Office and Permit Office	Flood insurance	Always Available	Homeowners and Contractors	370	Insure your property for your flood hazard	Relocation, raising utilities, installing flood openings, and elevating are options to reduce the cost of flood insurance.	To increase the number of flood insurance policies in the community.
NO15	City of New Orleans	"Increased Cost of Compliance Coverage: Creating a Safer Future"	FEMA Brochure	Orleans Floodplain Management Office and Permit Office	Increased Cost of Compliance	Always Available	Homeowners and Contractors	330	Protect your property from the hazard	Elevating, relocating and floodproofing are ways to reduce future flood loss.	To increase the number of elevation and floodproofing permits in the community.
NO16	City of New Orleans	"Flood Insurance Claims Handbook"	FEMA NFIP Brochure	Orleans Floodplain Management Office and Permit Office	Flood Insurance	Always Available	Homeowners and Contractors	370	Protect your property from the hazard	Flood insurance can protect your home and/or business.	To increase the number of flood insurance policies in the community.
NO17	City of New Orleans	"Myths and Facts about the NFIP"	FEMA NFIP Brochure	Orleans Floodplain Management Office and Permit Office	Flood Insurance	Always Available	Homeowners and Contractors	370	Insure your property for your flood hazard	Who needs flood insurance? Everyone! All areas are susceptible to flooding, and both renters and owners can purchase flood insurance.	To increase the number of flood insurance policies in the community.
NO18	City of New Orleans	"Louisiana Homeowners Handbook to Prepare for Natural Hazards"	LA Sea Grant Brochure	Orleans Floodplain Management Office and Permit Office	Preparing for natural hazards	Always Available	Homeowners and Contractors	330	Protect people from the hazard; Protect your property from the hazard	It is important to protect yourself and your home from hurricanes, tornadoes, and floods.	To increase the number of flood insurance policies and elevation and retrofit permits in the community.
NO19	City of New Orleans	NolaReady	Email/Website: <a href="http://www.nola.gov/ready/">http://www.nola.gov/ready/</a>	Homeland Security - Hazard Mitigation	Flood Awareness & Assistance	Monthly	Parish Wide	350	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions; Be prepared for the hazard; Retrofit your home for the hazard; General flood education	It is important to have a family disaster plan, an emergency supplies kit and evacuation plan for hurricanes, floods, and tornadoes; Elevating, relocating and floodproofing are ways to reduce future flood loss.	To increase the number of flood insurance policies and retrofit and elevation permits in the community, and increase the amount of website hits.
NO20	City of New Orleans	Rep Loss mail-out	Mailing	Safety & Permits - Floodplain Management	Elevation	Bi-Annual	Parish Wide	330	Insure your property for your flood hazard; Protect your property from the hazard; Build responsibly	Your property is a repetitive loss property, and this is the definition of a repetitive loss property; Hurricane season is June 1 through November 30, with peak season in September, be prepared; purchase flood insurance.	To increase the number of flood insurance policies in the community.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
NO21	City of New Orleans	GIS - Mapping Information	Map displayed throughout Orleans	Nola.gov - Property Viewer	Flood Maps, Drainage maps, Rep Loss maps	Year Round	Parish Wide	330	Know your flood hazard	Your property may be in a flood zone and these are the flood zones in the parish. Contact the floodplain administrator for more information about flooding.	To increase the number of flood insurance policies in the community.
NO22	City of New Orleans	Flood Safety	Website	Safety & Permits - Floodplain Management	Flood Safety & Warnings, Flood Protection Measures, Drainage System Maintenance	Year Round	Public/Builder	350	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions, Retrofit your home for the hazard; Keep drainage areas clean	Flooding can occur during anytime of the year; your property may be in a Special Flood Hazard Area; information on flood warning systems, flood insurance; floodplain development permits; maintaining the drainage system; do not drive through flooded measures; elevate or floodproof buildings.	To increase the number of flood insurance policies and elevation and retrofit permits in the community, and increase the amount of website hits.
NO23	City of New Orleans	Outreach to Realtors about Flood Zone disclosure recommendation; brochure provided to give out to homeowners	Mailing	Safety & Permits - Floodplain Management	Availability of floodplain information	Annual	Real Estate Agents	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard	Disclose flood zones to potential homeowners.	To increase the number of inquiries related to the flood designation of properties in the community and increase the number of flood insurance policies in the community.
NO24	City of New Orleans	Property Disclosure Forms	Forms	Realtor Association	Property disclosure	Ongoing	State Wide	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard	Disclose flood zones to potential homeowners.	To increase the number of inquiries related to the flood designation of properties in the community and increase the number of flood insurance policies in the community.
NO25	City of New Orleans	INCOSE Resilient Systems Working Group	Class at the University of New Orleans	Resilient Systems Engineering	Systems engineering essentials for urban planners	Annual	UNO Students	330	Know your flood hazard; protect people from the hazard; protect your property from the hazard; build responsibly; hurricane protection, general preparedness and flood education	Use systems engineering services to address flood risk.	To increase the number of institutions who look for systems engineering services to address their flood risks.
NO26	City of New Orleans	Water Wise NOLA	Water Wise Workshops	Global Green USA	Mitigating flooding and subsidence through the use of green infrastructure	Ongoing	Pontilly, Hollygrove, Treme, 7th Ward and Gentilly Residents	330	Protect your property from the hazard; build responsibly; protect natural floodplain functions	Improve drainage on your property through green infrastructure; keep ditches and culverts clean of debris.	To increase the use of green infrastructure projects in the community.
NO27	City of New Orleans	Flood Insurance for Realtors	Brochures at Luncheons	Safety & Permits - Floodplain Management	Flood Insurance	Year Round	Realtors	340	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard	Disclose flood zones to potential homeowners.	To increase the number of inquiries related to retrofitting methods, and decrease the amount of damage following a flood event.
NO28	City of New Orleans	Hurricane Preparedness	Presentation	Health Department	Preparing for hurricanes and evacuation	Annual	Latino Forum	330	Protect people from the hazard; Protect yourself and your property from hurricanes; Be prepared for natural hazards	Hurricane season is June 1 through November 30, with peak season in September, be prepared; purchase flood insurance; check Nola Ready for hurricane information; residents can use City Assisted Evacuation and Evacuspots to evacuate the city; call 311 for more information.	To increase website hits to Nolaready evacuation information; to increase 311 inquiries about evacuation.
NO29	City of New Orleans	Storm Ready Community	Signage	Emergency Preparedness Office	Signs placed around community advertising it is Storm Ready	Ongoing	General Public	330	Protect yourself and your property from hurricanes; be prepared for natural hazards	The community is prepared for storms and will communicate when a storm is near, in order to advise residents when to evacuate or shelter in place.	To increase the number of people who sign up for the weather notification alert system.

City of Mandeville



#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
MA1	Mandeville	Mandeville Flood Facts	Mailing	Building, Permitting, and Enforcement	Flood warning, property protection measures, flood insurance, flood services	Annual	City Wide	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions; General flood education	Keep abreast of weather conditions and evacuation plans by television, radio or internet; A general update will be kept on our city website, www.cityofmandeville.com; When a flood threatens, evacuations are ordered in areas expected to flood; Flooding to properties can be minimized through temporary and permanent retrofitting techniques; Remember: Even if the last flood missed you or you have done some flood proofing, the next flood could be worse; Flood insurance covers all surface floods.	To increase the number of flood insurance policies and elevation and retrofit permits in the community.
MA2	Mandeville	SFHA Letter (reploss mail-out)	Mailing	Building, Permitting, and Enforcement	Information on repetitive loss properties	Annual	City Wide	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	Your property is a repetitive loss property, and this is the definition of a repetitive loss property; purchase insurance; mitigate your home from flooding.	To increase the number of insurance policies and retrofit and elevation permits in the community.
MA3	Mandeville	Ebriefs	Website	Mayor	Flood warning mapping info; health and social soc	Three times a year	Community	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	The Interactive Mapping tool allows you to plug in your address, see your prior elevation, your proposed elevation, and additional information regarding the process of adopting the maps.	To increase the number of inquiries related to flood designation of properties in the community.
MA4	Mandeville	Outreach to Old Mandeville	Mailing	Building, Permitting, and Enforcement	Obtain flood insurance	Annual	Old Mandeville	370	Insure your property for your flood hazard	Your property may be in a flood zone and these are the flood zones in Old Mandeville. Contact the floodplain administrator for more information about flooding.	To increase the number of flood insurance policies in the community.
MA5	Mandeville	Messages on Water Bills	Mailing	Building/Permitting	Flood and Building Safety	Bi-Annual	Community	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Build responsibly; Protect natural floodplain functions	Keep abreast of weather conditions and evacuation plans by television, radio or internet; A general update will be kept on our city website, www.cityofmandeville.com; When a flood threatens, evacuations are ordered in areas expected to flood; Flooding to properties can be minimized through temporary and permanent retrofitting techniques; Remember: Even if the last flood missed you or you have done some flood proofing, the next flood could be worse; Flood insurance covers all surface floods.	To increase the number of inquiries related to retrofitting methods, and decrease the amount of damage following a flood event.

City of Slidell											
SL1	Slidell	Booths at Home Builders Association Meetings	Table at meeting	Planning Department	Flood risk and mitigation, City's Flood Prevention Ordinance	Year Round	Builders	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Protect natural floodplain functions	The flood hazard areas of the city are subject to periodic inundation which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.	To increase the number of inquiries related to flood designation of properties, increase the number of inquiries related to retrofitting methods, and decrease the amount of damage following a flood event.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
SL2	Slidell	Community/Civic Association Meetings	Speech	Planning Department	Flood Risk and Mitigation	Year Round	Civic Association	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Protect natural floodplain functions	The flood hazard areas of the city are subject to periodic inundation which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare.	To increase the number of inquiries related to flood designation of properties, increase the number of inquiries related to retrofitting methods, and decrease the amount of damage following a flood event.
SL3	Slidell	Library	Pamphlets	Planning Department	Flood risk and mitigation; resident specific info, flood plain manager and CRS coordinator contact info	Year Round	Library Visitors	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Protect natural floodplain functions	The flood hazard areas of the city are subject to periodic inundation which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare. Please contact the Planning & Zoning Department at 985-646-4320 for more information.	To increase the number of inquiries related to flood designation of properties, increase the number of inquiries related to retrofitting methods, and decrease the amount of damage following a flood event.
SL4	Slidell	Pamphlet in Water Bill	Mailing	Planning Department	Flood risk and mitigation; resident specific info, flood plain manager and CRS coordinator contact info	Annual	Residents	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Protect your property from the hazard; Protect natural floodplain functions; General flood education	The flood hazard areas of the city are subject to periodic inundation which can result in loss of life and property, health and safety hazards, disruption of commerce and governmental services, and extraordinary public expenditures for flood protection and relief, all of which adversely affect the public health, safety and general welfare. Please contact the Planning & Zoning Department at 985-646-4320 for more information.	To increase the number of inquiries related to flood designation of properties, increase the number of inquiries related to retrofitting methods, and decrease the amount of damage following a flood event.
SL5	Slidell	Activity 320 - Map Information Service	Development permit/building permit/response to inquiry	Dept. of Engineering, Dept. of Planning	Know your flood risk, build accordingly	Permit application inquiry; Ongoing	New builders, renovations, improvements	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Build responsibly	Your property is in a Special Flood Hazard Area, you are required to have insurance and you may want to retrofit your new/renovated home. Contact the floodplain administrator for more information about flooding.	To increase the number of inquiries related to flood designation of properties, and increase the number of inquiries related to retrofitting methods.
SL6	Slidell	Activity 360 - Flood Protection Assistance	Permit official - advise residents and business owners	Dept. Engineering, Dept. of Planning	Advise on risk and how to mitigate	Ongoing	Owners, Businesses	360	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Build responsibly	Your property is in a Special Flood Hazard Area, you are required to have insurance and you may want to retrofit your new/renovated home. Ways to protect property from flood damage include demolish the building or relocate it out of harm's way, elevate the building above the flood level, elevate damage-prone components, such as the furnace or air conditioning unit, dry floodproof the building so water cannot get into it, wet floodproof portions of the building so water won't cause damage, construct a berm or redirect drainage away from the building, maintain nearby streams, ditches, and storm drains so debris does not obstruct them, correct sewer backup	To increase the number of inquiries related to flood designation of properties, and increase the number of inquiries related to retrofitting methods.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
STK1	All	Know your flood hazard online map tool	Website: floodmaps.lsuagcenter.com	LSU Ag Center	Flood zone information	Ongoing	General Public	350	Know your flood hazard; Retrofit your home for the hazard; Know your flood hazard in the future; General flood education	Flood insurance may be required. If you use this property as collateral for a loan, federal law requires that a flood zone determination be completed to determine if the STRUCTURE is in the SFHA and, if so, to require flood insurance on the structure. Flood insurance coverage is recommended, even when it is not required. Contact your property insurer to review your coverage for flood damage. Go to FloodSmart.gov to find an agent or explore flood coverage options and rates. Any development at this location will require a permit and will be subject to regulations designed to reduce future flood damage. See the minimum NFIP requirements. Contact your community official for help with building and development requirements.	Increase number of inquiries related to flood designation of property and increase flood insurance policies in the community.
STK2	All	Realtors Association email	Email, through the association	Realtor Association	Flood insurance information	Annually	Member of Association of Realtors	330	Know your flood hazard	In general, brokers and agents owe buyers duty to disclose adverse material features, conditions, or aspects of property of which they have actual knowledge. If a broker or agent has actual knowledge that a property being marketed for sale is in an area where flood insurance is required or has specific knowledge that flood insurance has been required for that particular property in the past, those facts should be disclosed to the buyer. If the broker or agent has actual knowledge that the area in which the property is located has experienced flooding or is subject to flood risks that cause many or most owners to purchase flood insurance those facts should also be disclosed.	To increase the number of inquiries related to property flood designation, particularly for first time homebuyers, increase the number of inquiries related to retrofitting methods, decrease amount of damage following a flood event ,and increase the number of policies throughout the community.
STK3	All	Realtors Association Email	Email, through the association	Realtor Association	Flood insurance information	Annually	Member of the Greater New Orleans Association of Realtors - Active Residential Agents	330	Know your flood hazard	In general, brokers and agents owe buyers duty to disclose adverse material features, conditions, or aspects of property of which they have actual knowledge. If a broker or agent has actual knowledge that a property being marketed for sale is in an area where flood insurance is required or has specific knowledge that flood insurance has been required for that particular property in the past, those facts should be disclosed to the buyer. If the broker or agent has actual knowledge that the area in which the property is located has experienced flooding or is subject to flood risks that cause many or most owners to purchase flood insurance those facts should also be disclosed.	To increase the number of inquiries related to property flood designation, particularly for first time homebuyers, increase the number of inquiries related to retrofitting methods, decrease amount of damage following a flood event ,and increase the number of policies throughout the community.
STK4	All	Annual Insurance Mail-out	mail-out	Louisiana Companies	Flood insurance information	Annually	Neighborhoods in SFHA with low insurance coverage	370	Insure your property for your flood hazard	Your property is in a Special Flood Hazard Area, you are required to have insurance and you may want to retrofit your new/renovated home. Contact the floodplain administrator for more information about flooding.	To increase the number of inquiries related to flood designation of properties, and increase the number of inquiries related to retrofitting methods.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
STK5	All	UNO-CHART Website	Website: floodhelp.uno.edu	<b>UNO-CHART</b>	Repetitive loss portal	Ongoing	General Public	350	Insure your property for your flood hazard	Flood insurance is highly recommended. Remember, even if the last storm or flood missed you and even if your home has been floodproofed, the next flood could be worse. Local insurance agents can sell a flood insurance policy under rules and rates set by the Federal government through the National Flood Insurance Program (NFIP). Separate coverage can be obtained for the building's structure and for its contents (except for money, valuable papers, and the like).The Community Rating System (CRS) is an NFIP program designed to reward communities that go over and beyond minimum NFIP standards in floodplain management. Under the CRS, flood insurance premium rates are adjusted to reflect the reduced flood risk resulting from community activities that meet the three goals of the CRS.	To increase the number of inquiries related to flood designation of property and increase flood insurance policies in the community.
STK6	All	Homeowners Handbook	Website: <a href="http://seagrants.noaa.gov/">http://seagrants.noaa.gov/</a>	<b>Louisiana Sea Grant</b>	Preparing for natural hazards	Ongoing	General Public	350	Protect people from the hazard; Protect your property from the hazard	It is important to protect yourself and your home from hurricanes, tornadoes, and floods.	To increase the number of flood insurance policies and retrofitted homes in the community.
STK7	All	Resilience Toolkit	Website: seagrants.noaa.gov	<b>National Sea Grant</b>	Preparing for natural hazards	Ongoing	General Public	350	Protect your property from the hazard; Make a plan for the hazard; Retrofit your home for the hazard	As the cost of insurance continues to increase along the coast, local communities have been pushed to find ways to reduce the expenses to local residents. One incentive for communities to mitigate for future conditions is through the National Flood Insurance Program's Community Rating System (NFIP CRS).	To decrease the amount of damage following a flood event.
STK8	City of New Orleans	NORA Outreach	Flyer	<b>New Orleans Redevelopment Authority</b>	Raingardens	Ongoing	General Public	330	Protect your property from the hazard	NORA is leading the way in green infrastructure, including new raingardens on formerly vacant lots, which collect water from the streets during rain events and capture it onsite with native landscaping. NORA encourages homeowners and neighborhood organizations to make use of green infrastructure in order to reduce flooding and better manage stormwater.	To increase the use of green infrastructure projects in the community.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
STK9	All	WWL Hurricane Guide	Television	WWL TV	Hurricane information and preparedness	Ongoing	General Public	330	Know your flood hazard; Insure your property for your flood hazard; Protect yourself and your property from hurricanes; Be prepared for natural hazards	Whenever severe weather threatens, put your family disaster plan into action and continue watching WWL-TV or log onto wwltv.com for the latest storm updates. WWL-TV's PinPoint 3-D shows you storms in three dimensions, giving you a detailed look at each layer of the storm, and can also detect developing tornadoes, hail, and strong winds. PinPoint 3-D's Tornado Tracker combines data from WWL's live PinPoint Doppler radar with four regional National Weather Service radars to instantly detect dangerous twisting or rotating winds during tropical activity. It can be up to 5 to 10 minutes faster than standard Doppler radar, and during times of severe weather those minutes can be critical to your safety. PinPoint Doppler is the fastest, most powerful, and most accurate severe weather forecasting tool in southeast Louisiana.	To increase the number of homeowners who are prepared for hurricanes in the community, and to increase the number of flood insurance policies in the community.
STK10	All	CPRA Website	Website: cims.coastal.louisiana.gov/floodrisk	Coastal Protection and Restoration Agency	Risk and resilience information, including coastal restoration projects	Ongoing	General Public	350	Know your flood hazard; Insure your property for your flood hazard	Learn more about how flood risk impacts communities today and in the future, as well as how to make your community safer and more resilient. This viewer integrates and displays the results from CPRA's 2012 Coastal Master Plan, along with additional coast-wide data that allow for a broad examination of how flood risk impacts communities. It is not appropriate for site-specific decision making.	To increase the number of flood insurance policies and elevation and retrofit permits in the community.
STK11	Orleans; Jefferson	INCOSE Resilient Systems Working Group	GNO Horizon Initiative Water Committee Meeting	Resilient Systems Engineering	Using systems engineering services to address flood risk	Monthly	Members of the Water Committee	330	Know your flood hazard; protect people from the hazard; protect your property from the hazard; build responsibly; hurricane protection, general preparedness and flood education	Use systems engineering services to address flood risk.	To increase the number of institutions who look for systems engineering services to address their flood risks.
STK12	Orleans; Jefferson	INCOSE Resilient Systems Working Group	Website: extremefloodsafety.org	Resilient Systems Engineering	Using systems engineering services to address flood risk	Ongoing	General Public	350	Know your flood hazard; protect people from the hazard; protect your property from the hazard; build responsibly; hurricane protection, general preparedness and flood education	Use systems engineering services to address flood risk.	To increase the number of institutions who look for systems engineering services to address their flood risks.
STK13	All	The Greater New Orleans Water Plan	Website: gnoinc.org/initiatives/the-greater-new-orleans-water-plan	GNO Inc.	Addresses groundwater and storm water as critical factors in shaping a safer, more livable, and economically vibrant Southeast Louisiana.	Ongoing	General Public	350	Know your flood hazard; protect people from the hazard; protect your property from the hazard; build responsibly; protect natural floodplain functions; hurricane protection, general preparedness and flood education	The Greater New Orleans Urban Water Plan is a resiliency planning study to develop sustainable strategies for managing the water resources of St. Bernard and the East Banks of Jefferson and Orleans Parishes. The project addresses three basic issues: flooding caused by heavy rainfall, subsidence caused by the pumping of stormwater, and wasted water assets. The plan provides solutions for homeowners, neighborhoods and the city to better manage stormwater.	To increase the use of green infrastructure permits and projects and stormwater management projects, at the local, neighborhood and city/parish level.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
STK14	All	Market the business case for coastal restoration in Louisiana	Advocacy ( <a href="http://gnoinc.org/initiatives/gno-inc-initiatives/ccre/">http://gnoinc.org/initiatives/gno-inc-initiatives/ccre/</a> )	<b>Coalition for Coastal Resilience and Economy (CCRE)</b>	An informed, educated voice of advocacy for sustainable restoration efforts in Louisiana's wetlands, river, delta and coastline.	Ongoing	Businesses in Southeast Louisiana; General Public	330	Know your flood hazard; protect people from the hazard; protect your property from the hazard; build responsibly; protect natural floodplain functions; hurricane protection, general preparedness and flood education	CCRE is a business-led group whose mission is to: market the business case for coastal restoration in Louisiana. Maximize RESTORE and other federal funds that are allocated to Louisiana. Ensure that RESTORE and other funds are spent on their intended purposes (LA Coastal Master Plan). Leverage RESTORE to secure other revenue streams (e.g. WRDA, revenue sharing.). Create opportunities to engage local businesses and workforce in the implementation.	To increase the number of businesses involved in coastal restoration and maximize RESTORE and other federal funds allocated to Louisiana.
STK15	All	Coalition for Sustainable Flood Insurance	Website: <a href="http://www.facebook.com/CSFIUSA">www.facebook.com/CSFIUSA</a> ; <a href="http://csfi.info">csfi.info</a>	<b>Coalition for Sustainable Flood Insurance (CSFI)</b>	To ensure that flood insurance rates are kept affordable.	Ongoing	General Public	350	Know your flood hazard; insure your property for your flood hazard; protect people from the hazard; protect your property from the hazard; build responsibly	The Coalition for Sustainable Flood Insurance (CSFI) works to ensure that flood insurance offered through the National Flood Insurance Program is affordable for primary residential and commercial properties while assuring that the NFIP is run in an efficient, fiscally sound manner. Keeping flood insurance affordable encourages homeowners to purchase flood insurance.	To keep flood insurance affordable in order to increase the number of flood insurance policies in the community.
STK16	City of New Orleans	Water Wise NOLA	Water Wise Workshops	<b>Global Green USA</b>	Mitigating flooding and subsidence through the use of green infrastructure	Ongoing	Central City, Lower 9th Ward, Mid-City, Algiers and Broadmoor Residents	330	Protect your property from the hazard; build responsibly; protect natural floodplain functions	After the devastation of Hurricane Katrina, Global Green USA made a dedicated commitment to the sustainable rebuilding of New Orleans. In 2006, Global Green broke ground on its LEED Platinum Holy Cross Project, a catalytic sustainable village in the Lower Ninth Ward and the result of an international design competition that has been toured by over 25,000 visitors since 2008. Programs like Build It Back Green and the Green Schools Initiative have helped residents recover in more sustainable and resilient ways. Current New Orleans programs like Water Wise NOLA and NOLA Wise help residents use green infrastructure techniques and save energy,	To increase green infrastructure permits and projects in the community.



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STK17	City of Mandeville	The Ponthchartrain-Maurepas Surge Consortium	Workshops	Lake Pontchartrain Basin Foundation	Regional collaboration to reduce storm surge	Ongoing	Professionals in the storm surge field	330	Protect people from the hazard; Protect your property from the hazard	Storm surge in Lakes Pontchartrain and Maurepas is a common threat to residents, communities, and businesses around the broad perimeter of these lakes. With sea-level rise and loss of wetlands, the surge risk is increasing, both in terms of deeper flood waters and in terms of a wider area subject to inundation. Solutions are multiple and include both local and more regional projects, and they should be led by local parishes, levee boards, etc. However, surge water knows no political boundaries. A flooding solution for one place may actually exacerbate a flooding problem somewhere else. The physics of the surge should be considered regionally, but the current political subdivisions do not lend themselves to fostering a regional, watershed approach to storm surge management. For this reason, LPBF hopes to help fill this gap with the Pontchartrain-Maurepas Surge Consortium (PMSC) with the intention of supporting flood protection for all residents of the region. To make it successful, we are pursuing robust participation that taps into local knowledge and expertise. The Lake Pontchartrain Basin Foundation invites all organizations with a storm surge management role to participate in this new initiative aimed at bolstering the sustainability.	To increase collaboration between storm surge professionals in order to reduce storm surge damage in the area.

**NEW PROJECTS**

FLOAT Wide

FL1	All	Congressional Delegation email	Email; Newsletter	Congressional Delegation	Flood zone information	Annually	General Public	330	Know your flood hazard	You are located in a Special Flood Hazard Area; there are ways to protect yourself and your home from flooding. Contact the floodplain administrator for more information about flooding.	To increase the number of inquiries related to flood designation of property.
FL2	City of New Orleans	Sewerage and Water Board Survey	Survey	Sewerage and Water Board	TBD	TBD	TBD	TBD	TBD	TBD	TBD
FL3	All	Realtors Website	Website: www.nomar.com	Realtor Association	Flood insurance information	Ongoing	General Public; Realtors	350; 370	Know your flood hazard; Insure your property for your flood hazard; Contact officials about your flood hazard	In general, brokers and agents owe buyers duty to disclose adverse material features, conditions, or aspects of property of which they have actual knowledge. If a broker or agent has actual knowledge that a property being marketed for sale is in an area where flood insurance is required or has specific knowledge that flood insurance has been required for that particular property in the past, those facts should be disclosed to the buyer. If the broker or agent has actual knowledge that the area in which the property is located has experienced flooding or is subject to flood risks that cause many or most owners to purchase flood insurance those facts should also be disclosed.	To increase the members of NOMAR and the general public who visit the website to get information on flood insurance, find their risk, and get contact information for local and state floodplain officials.

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FL4	All	New Orleans Home and Garden Show	Booth with flood map data	New Orleans Home and Garden Show	Flood zone information	Ongoing	General Public	370	Know your flood hazard; Insure your property for your flood hazard	You may be located in a Special Flood Hazard Area; flood insurance and other mitigation measures can protect yourself and your property from flooding. We'll check and tell you if your property is in the SFHA and give you the contact information for your local floodplain administrator so you can learn more about your flood hazard (see FL15).	To increase the number of flood insurance policies in the Greater New Orleans area.
FL5	St. Tammany	High Water Marks	Sign	St. Tammany Parish Public Information Office	Historic floods	Year Round	Residents	330	Know your flood hazard; General flood education	This area was flooded up to this line at one time.	To publicize flood depths in the parish in order to increase the number of flood insurance policies in the Greater New Orleans area.
FL6	City of New Orleans	WEB Project	Vacant lot in Broadmoor and other New Orleans neighborhoods; brochure	Land Trust for Louisiana; Sewerage & Water Board; City of New Orleans	Demonstrating green infrastructure techniques on a vacant lot	Ongoing	Broadmoor Improvement Association residents; teachers and students at Wilson Elementary School	330	Know your flood hazard; protect people from the hazard; protect your property from the hazard; protect natural floodplain functions	NORA is leading the way in green infrastructure, including new raingardens on formerly vacant lots, which collect water from the streets during rains events and capture it onsite with native landscaping. NORA encourages homeowners and neighborhood organizations to make use of green infrastructure in order to reduce flooding and better manage stormwater.	To increase green infrastructure permits and projects in the community.
FL7	All	Dedicate one month to NFIP related messages on social media (e.g. importance of purchasing flood insurance, how you can reduce your rates, etc.)	Social Media	Floodplain Management Office	To promote flood insurance and advise residents on how to reduce their rates	Ongoing	General Public	370	Insure your property for your flood hazard	El Niño + April Showers = a strong chance of flooding! Here's how to stay #FloodSmart. April showers bring May flowers and spring #flooding. Learn about your flood risk here. Floods are the #1 natural disaster in the U.S. Learn your risk for flooding—it happens more than you might think! The first step to protecting what matters is #flood insurance. The next steps? Preparing your house and beyond.	To increase the number of flood insurance policies in the Greater New Orleans area.
FL8	All	Mailer - 2nd utility bill mailer dedicated to flood insurance	Mailer	Floodplain Management Office	To promote flood insurance and advise residents on how to reduce their rates	Ongoing	General Public	370	Insure your property for your flood hazard	Flood insurance is highly recommended. Remember, even if the last storm or flood missed you and even if your home has been floodproofed, the next flood could be worse. Local insurance agents can sell a flood insurance policy under rules and rates set by the Federal government through the National Flood Insurance Program (NFIP). Separate coverage can be obtained for the building's structure and for its contents (except for money, valuable papers, and the like).	To increase the number of flood insurance policies in the Greater New Orleans area.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
FL9	All	Video blurb of elected parish official discussing importance of flood insurance posted on website, FB, etc. during flood awareness month	Video	Floodplain Management Office	To promote flood insurance and advise residents on how to reduce their rates	Ongoing	General Public	370	Insure your property for your flood hazard	Flooding is a major concern to [community name]. Sources of flooding include riverine, flash flooding following a heavy rain, ponding related to drainage issues, backwater flooding, urban flooding and coastal flooding [include those most appropriate to your community]. Every resident and business owner in [community name] is at some level of flood risk; and flood insurance is available to help reduce the financial impact of a flood whether your building is in a high flood risk area (or the Special Flood Hazard Area) or not. Just a few inches of flood water can cause tens of thousands of dollars in damage to your home or business and nearly 20% of flood insurance claims come from moderate to low risk areas (or outside of high risk areas). While most disasters are covered under a standard homeowner's policy, flooding is not, and remember, there's a 30 day waiting period from the date of purchase before your policy goes into effect. Therefore, NOW is the best time to buy flood insurance. Flood insurance claims are paid even when federal disaster assistance is not available. The costs of a flood policy vary depending on how much insurance is purchased, what it covers and the property's flood risk. You can speak to a licensed insurance agent to get more information.	To increase the number of flood insurance policies in the Greater New Orleans area.
FL10	All	Where Do Floods Come From; Disaster Preparedness Coloring Book; Hurricane Awareness for School Children	Library and website	Floodplain Management Office	Explains the origin of floods, how to prepare for disaster, and awareness of hurricanes	Ongoing	School children	330	Know your flood hazard; Protect yourself and your property from hurricanes; Be prepared for natural hazards	Floods can happen any place. Any time. Even very small streams, gullies, creeks, culverts, dry streambeds or low-lying ground that may appear harmless in dry weather can flood. If you come upon flood waters, stop. Turn around and go another way. Climb to higher ground. During a hurricane, watch, we'll listen regularly to the radio or television for official instructions. Assemble disaster supplies kits with your children.	To increase the number of families who are prepared for floods and hurricanes in the area.
FL11	City of New Orleans	High Water Mark Initiative	Signage	<b>Water Collaborative</b>	Showing high water marks of historic floods in public places throughout the city	Ongoing	General Public	330	Know your flood hazard; General flood education	This area was flooded up to this line at one time.	To increase the number of flood insurance policies, retrofits and other flood damage reduction techniques in the Greater New Orleans area.

#	Parish	Project	Project Mechanism	Office	Subject Matter	Frequency	Target Audience	Activity	Topic	Message	Desired Message Outcome
FL12	All	Notification to realtors of importance of sharing flood zones with potential homeowners	Brochure	Floodplain Management Office	Know your flood hazard	Ongoing	Realtors	340	Know your flood hazard	In general, brokers and agents owe buyers duty to disclose adverse material features, conditions, or aspects of property of which they have actual knowledge. If a broker or agent has actual knowledge that a property being marketed for sale is in an area where flood insurance is required or has specific knowledge that flood insurance has been required for that particular property in the past, those facts should be disclosed to the buyer. If the broker or agent has actual knowledge that the area in which the property is located has experienced flooding or is subject to flood risks that cause many or most owners to purchase flood insurance those facts should also be disclosed.	To ensure realtors disclose flood zones to prospective homebuyers.
FL13	All	Activity 360	Advise residents and business owners	Dept. Engineering, Dept. of Planning	Each community publicizes its property protection service on the web, and a community official is available to do site visits and provides advice on financial assistance programs that may be available. The FLOAT group will hold an annual PPI meeting to discuss site visits.	Ongoing	Owners, Businesses	360	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Build responsibly	Your property is in a Special Flood Hazard Area, you are required to have insurance and you may want to retrofit your new/renovated home. Ways to protect property from flood damage include demolish the building or relocate it out of harm's way, elevate the building above the flood level, elevate damage-prone components, such as the furnace or air conditioning unit, dry floodproof the building so water cannot get into it, wet floodproof portions of the building so water won't cause damage, construct a berm or redirect drainage away from the building, maintain nearby streams, ditches, and storm drains so debris does not obstruct them, correct sewer backup problems.	To increase the number of inquiries related to flood designation of properties, increase the number of inquiries related to retrofitting methods, and increase the number of retrofit permits in the area.
FL14	All	Protect Drains & Culverts	Notice in newspaper and website	Administration	Keep Debris & Trash out of Ditches & Streams	Ongoing	Residents	540	Protect natural floodplain functions	Keeping ditches and streams clear of trash and debris help drainage in the parish, which helps to prevent flooding	To publicize the stream dumping regulations in the area and improve drainage in the area by increasing the number of clean drains and culverts.
FL15	All	Home and Garden Show Brochures	Brochure	New Orleans Home and Garden Show	Know your flood hazard	Annual	General Public	330	Know your flood hazard; Insure your property for your flood hazard; Protect people from the hazard; Build responsibly	Your property is in a Special Flood Hazard Area, you are required to have insurance and you may want to retrofit your new/renovated home. Ways to protect property from flood damage include demolish the building or relocate it out of harm's way, elevate the building above the flood level, elevate damage-prone components, such as the furnace or air conditioning unit, dry floodproof the building so water cannot get into it, wet floodproof portions of the building so water won't cause damage, construct a berm or redirect drainage away from the building, maintain nearby streams, ditches, and storm drains so debris does not obstruct them, correct sewer backup problems.	To increase the number of inquiries related to flood designation of properties, increase the number of inquiries related to retrofitting methods, and increase the number of retrofit permits in the area.
FL16	All	Educational materials on open space parcels	Brochures, signs, websites	Floodplain Management Office	Natural functions open space	Ongoing	General Public	420	Protect natural floodplain functions	Our community protects natural floodplain functions by preserving natural open space such as wetlands, and these are the open space locations you can visit.	To increase the number of open space parcels in the community.

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FL17	All	Flood response preparations	Brochures, signs, websites	Floodplain Management Office	Pre-flood plan for public information activities ready for the next flood	Ongoing	General Public	330	Know your flood hazard; protect people from the hazard; protect your property from the hazard	Our community publicizes evacuation routes, shelter locations, mitigation opportunities, and information on mitigation grants. Visit our website our contact your local floodplain official for more information.	To increase the number of inquiries related to flood designation of properties, increase the number of inquiries related to retrofitting methods, and increase the number of retrofit permits in the area.
FL18	All	Southeast Louisiana Floodplain Authority Outreach	Television - WWL-TV and WVUE-TV	Southeast Louisiana Floodplain Authority	Explanation of hurricane risk reduction system and personal risk reduction responsibilities	Annual	General Public	330	Protect people from the hazard; hurricane protection	The Authority is tasked with ensuring the operational integrity and maintenance of the regional flood risk reduction system. We are also always reaching out to the public to inform them about the realities of flood risk reduction. However, residents should consider risk reduction a personal responsibility. Should an evacuation order be issued, residents should follow their predetermined evacuation plan and all directions and warnings given by local authorities.	To increase the number of evacuees during a hurricane event.
FL19	All	Flood insurance brochure	Brochure	Floodplain Management Office	Protect yourself with flood insurance	Annual	General Public	370	Protect people from the hazard	Get information on your flood risk and prepare now with an emergency plan, which should include purchasing flood insurance to protect property and possessions from flood damage.	To increase the number of flood insurance policies in the Greater New Orleans area.
FL20	All	Flood insurance awareness month	Web campaign	Floodplain Management Office	Protect yourself with flood insurance	Annual	General Public	370	Protect people from the hazard	Get information on your flood risk and prepare now with an emergency plan, which should include purchasing flood insurance to protect property and possessions from flood damage.	To increase the number of flood insurance policies in the Greater New Orleans area.
FL21	All	DMV Poster	Poster	DMV	Turn around don't drown	Ongoing	New drivers	330	Protect people from the hazard	Turn around don't drown. A car can be swept away in 2 feet of swiftly moving water.	To decrease the number of flood related car accidents/deaths in the Greater New Orleans area.