Appendix E
Repetitive Loss Strategy

Risk Assessment
Flooding is a problem for many people across the United States. Enduring the consequences of repetitive flooding can put a strain on residents and on state and local resources. When the water rises, communities face the disruption of life, damaged belongings, and the high cost of rebuilding.

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP), which pays flood claims, while also keeping the price of flood insurance at an affordable level. Repetitive and severe repetitive flood loss properties are particularly costly, with claims since 1978 reaching approximately $13 billion nationwide, and over $2 billion in Louisiana. Repetitive flood loss properties represent only 1.3% of all flood insurance policies, yet historically they account for nearly one-fourth of the claim payments. Mitigating these repeatedly flooded properties reduces the overall costs to the NFIP, the communities in which they are located, and the individual homeowners. Therefore, mitigating repeatedly flooded properties benefits the entire state.

For about 14 years, UNO-CHART worked with FEMA Region 6 and communities located throughout Louisiana to develop Repetitive Loss Area Analyses, which are flood mitigation plans for defined repetitive flood loss areas. Based on UNO-CHART's experience, the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) asked the research center to develop a statewide Repetitive Loss Strategy as part of the State Hazard Mitigation Plan update process. The goal of this Repetitive Loss Strategy is to identify actions to reduce damage to repetitive loss and severe repetitive loss properties throughout the state. GOHSEP continues to focus effort on mitigation repetitive loss and severe repetitive loss properties as a priority. By identifying these properties as a priority and including a Repetitive Loss Strategy in the Hazard Mitigation Plan, Louisiana can qualify for an increased federal cost share in FEMA's Flood Mitigation Assistance Grant Program.

The Repetitive Loss Database

Per the NFIP, a Repetitive Loss (RL) property is an insurable structure that has two or more claim payments of more than $1,000 each that have been paid within a ten-year period since 1978; two of those claims must be more than ten days apart. As defined by the Flood Insurance Reform Act of 2004 , a Severe Repetitive Loss (SRL) structure is a residential structure has had either four or more NFIP claim payments, more than ten days apart, of more than $5,000 each, and the cumulative amount of the claims exceeds $20,000. SRLs also include properties that made two separate claims that cumulatively exceed value of the property.

FEMA maintains a database of RL and SRL properties, and sends the list to states and localities periodically, so that they can understand and mitigate their flooded properties. FEMA's Flood Mitigation Assistance Grant Program (FMA) provides funding to mitigate flood damage to at least 50 percent of SRL buildings. The program defines these buildings as those that have had at least two separate claim payments that together exceed the market value of the building. The program also identifies properties as SRLs that have four or more claim payments greater than $5,000 each, or greater than $20,000 total. The FMA program also includes funding that will mitigate at least 50 percent of RL properties, which are defined as properties that have flooded on two occasions, which together equaled or exceeded 25% of the market value of the property. The funding for the program included $112 million for 2014, $150 million for 2015, $200 million in 2016, and $160 million in 2017. The Louisiana Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) receives an updated list of RLs and SRLs on a monthly basis. UNO-CHART reviewed Louisiana's list of RL and SRL properties, as well as state and local parish hazard mitigation plans, in order to analyze the repetitive flood issues in the state and make recommendations for appropriate mitigation measures.

State Data Summary

The RL and SRL properties lists, as well as the 2014 State Hazard Mitigation Plan, provide a detailed outlook on the status of repetitive losses in Louisiana. UNO-CHART mapped RLs and SRLs, total claims, average claim amount, and mitigated properties, in order to analyze the impact of repetitive flood loss on the state. As of September 2018, there are 25,522 repetitive loss properties and 1,988 severe repetitive loss properties in the state of Louisiana.

The Risk Assessment identified flooding to continue to impact Louisiana. The projected average annual statewide loss is $451,389,757.

1. https://www.fema.gov/media-library/assets/documents/20381
2. While the 2018 numbers are mentioned here, the charts, tables and maps in this strategy reflect 2017 numbers, in order to be consistent with the rest of the 2019 State Hazard Mitigation Plan Update

Figure 1
Repetitive Loss Properties

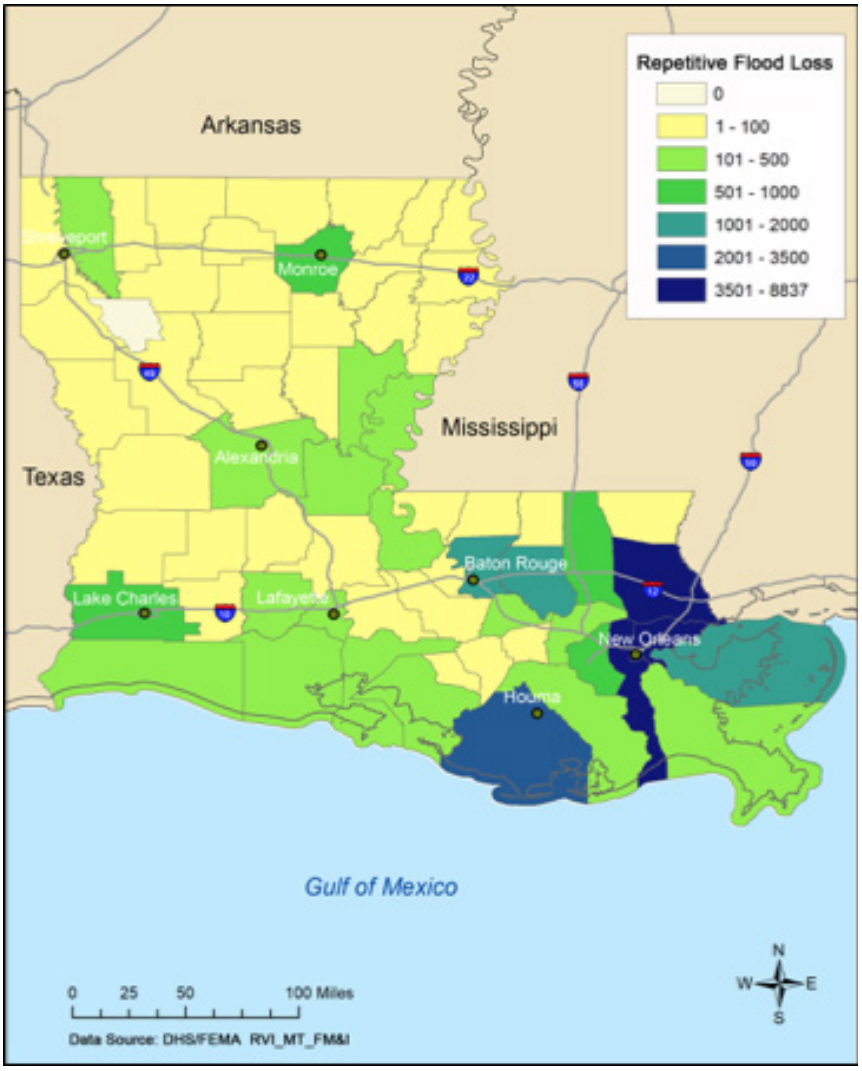


Figure 1 helps demonstrate the distribution of repetitive loss properties across the state. All but one parish has at least one repetitive loss property. Red River Parish is the only parish without repetitive loss properties. Orleans, Jefferson, and St. Tammany parishes (along with the cities in the parishes) have the highest number of repetitive loss properties. The majority of repetitive loss properties are clustered at the southern part of the state. As referenced in the 2014 plan, the largest concentrations of repetitive loss properties in the state occur in the heavily populated areas of the coastal region. In the central parishes, repetitive loss properties occur in urban areas. In the northern part of the state, there are also repetitive losses in urban areas, but the majority of the parishes in the northern region have relatively low numbers of repetitive losses.

Figure 2
Severe Repetitive Loss Properties

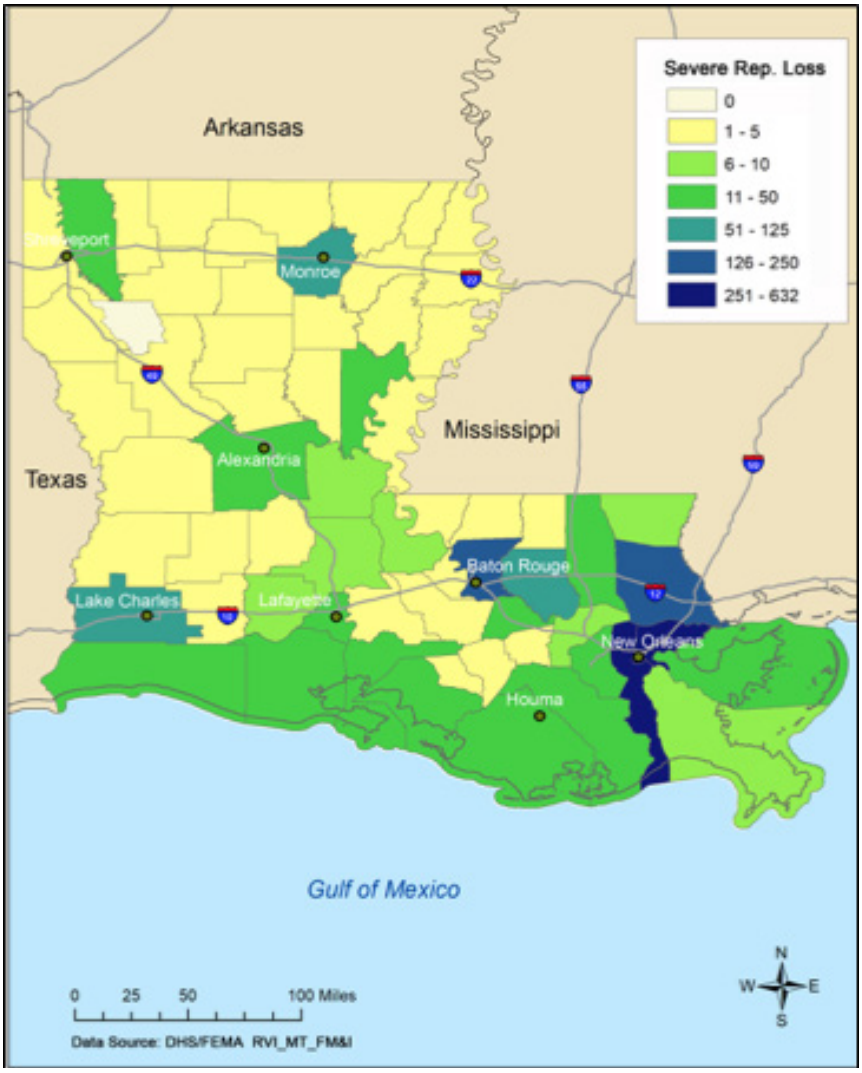


Figure 2 depicts the distribution of severe repetitive loss properties across the state. Again, Red River Parish is the only parish without severe repetitive loss properties, and Orleans and Jefferson parishes have the highest number of severe repetitive loss properties. Like repetitive loss properties, the majority of severe repetitive loss properties are in the southern part of the state. As referenced in the 2014 plan, the largest concentrations of severe repetitive loss properties in the state occur in the heavily populated areas of the coastal region. In the central parishes, severe repetitive loss properties occur in urban areas. In the northern part of the state, there are also severe repetitive losses in urban areas, but the majority of the parishes in the northern region have comparatively low numbers of severe repetitive losses.

Figure 3
Total Flood Claims

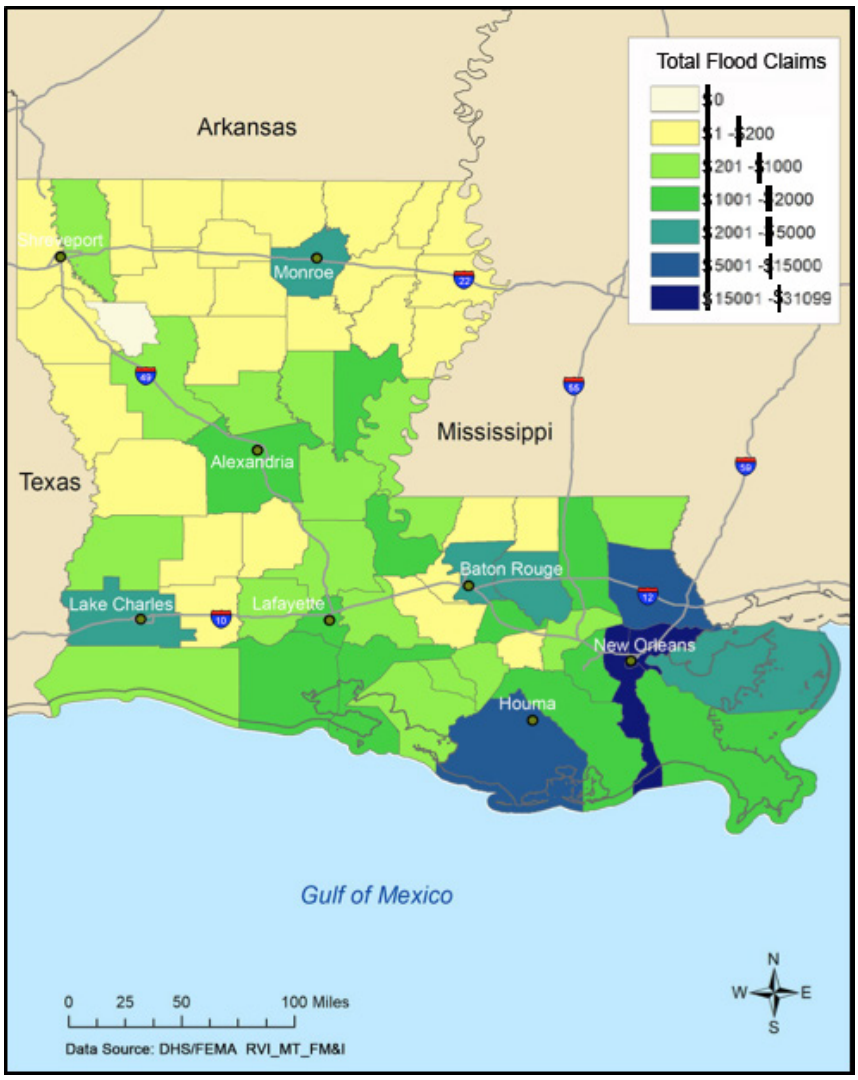


Figure 3 details the total flood claims in each parish. As in the repetitive loss and severe repetitive loss maps, the claims are concentrated in urban areas, with the majority of claims in the coastal and central regions. Orleans and Jefferson Parishes have the highest number of claims, with St. Tammany and Terrebonne Parishes close behind. The highest number of claims in a parish exceeds $30,000.

Figure 4
Average Claim Payment

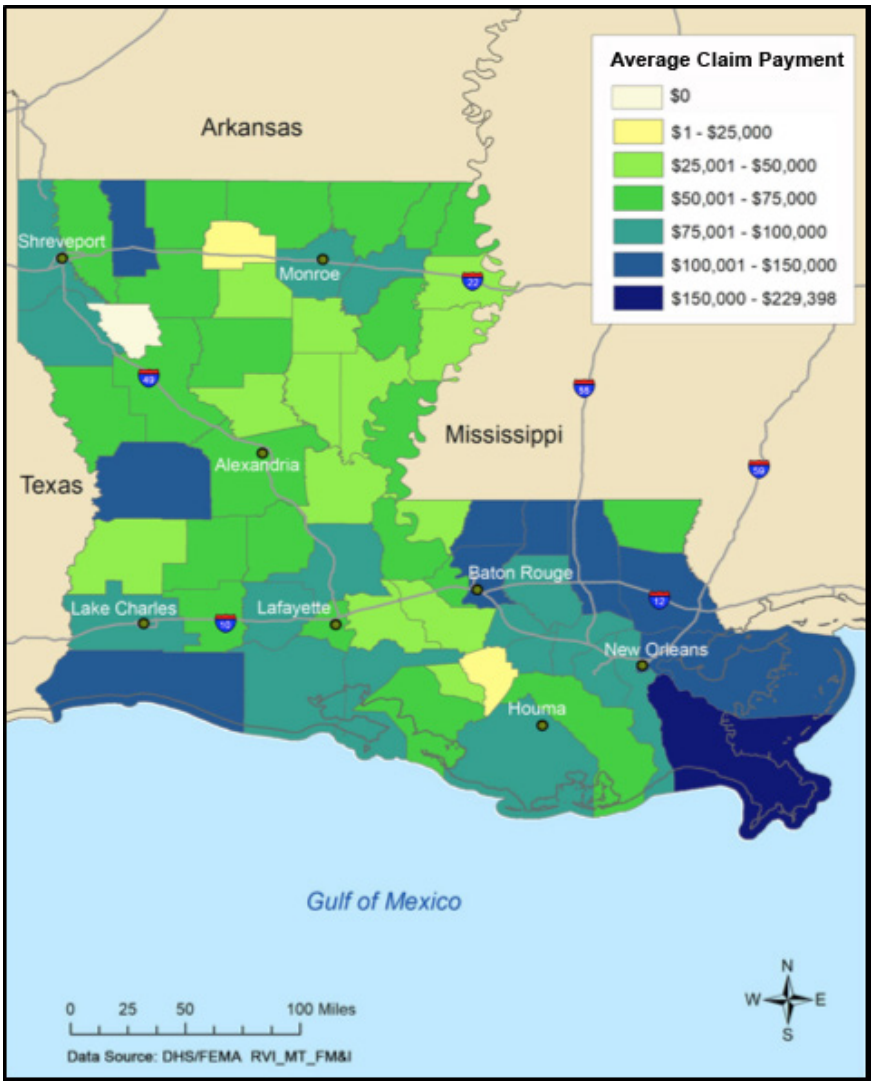
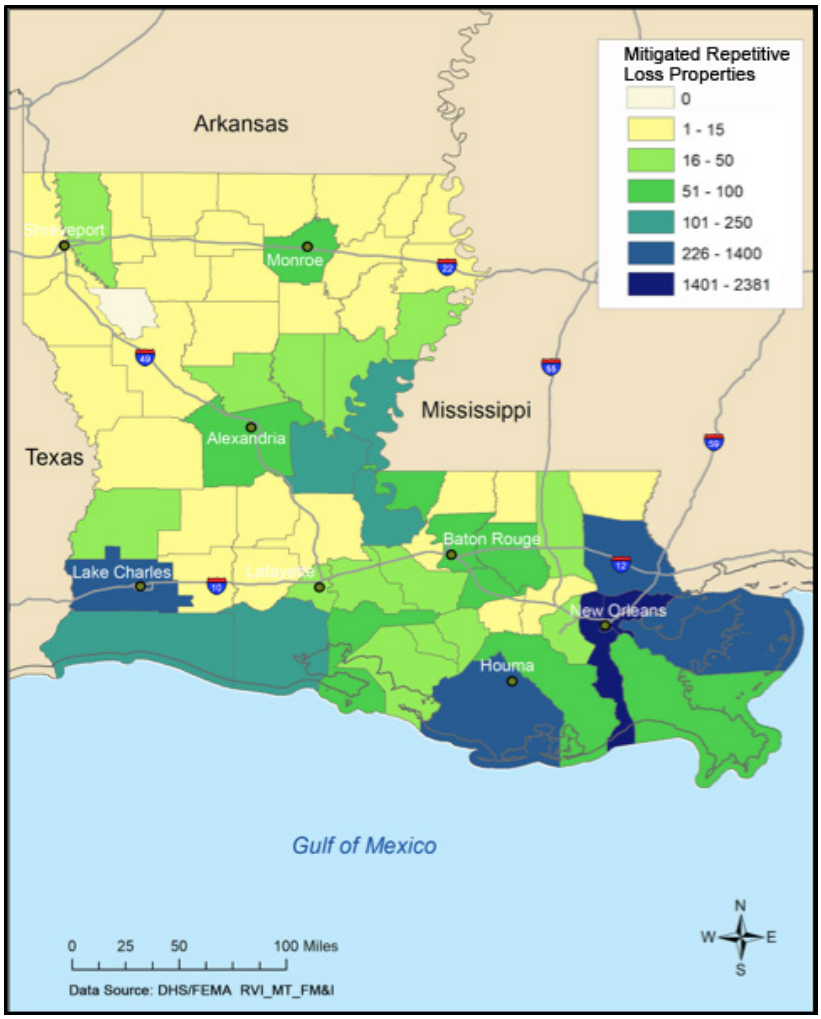


Figure 4 above breaks down the average payment amount in each parish. This map highlights the breadth and depth of the cost of flooding in the state - with even northern parishes averaging claim payments around $50,000. The highest average claim payments are in Plaquemines Parish, exceeding $200,000. East Baton Rouge, East Feliciana, St. Helena, Tangipahoa, St. Tammany, St. Bernard, Cameron, Vernon, and Webster parishes also have high average claim payments. Red River Parish has no claims, and Lincoln and Assumption parishes have average payments under $25,000.

Figure 5
Mitigated Repetitive Loss Properties

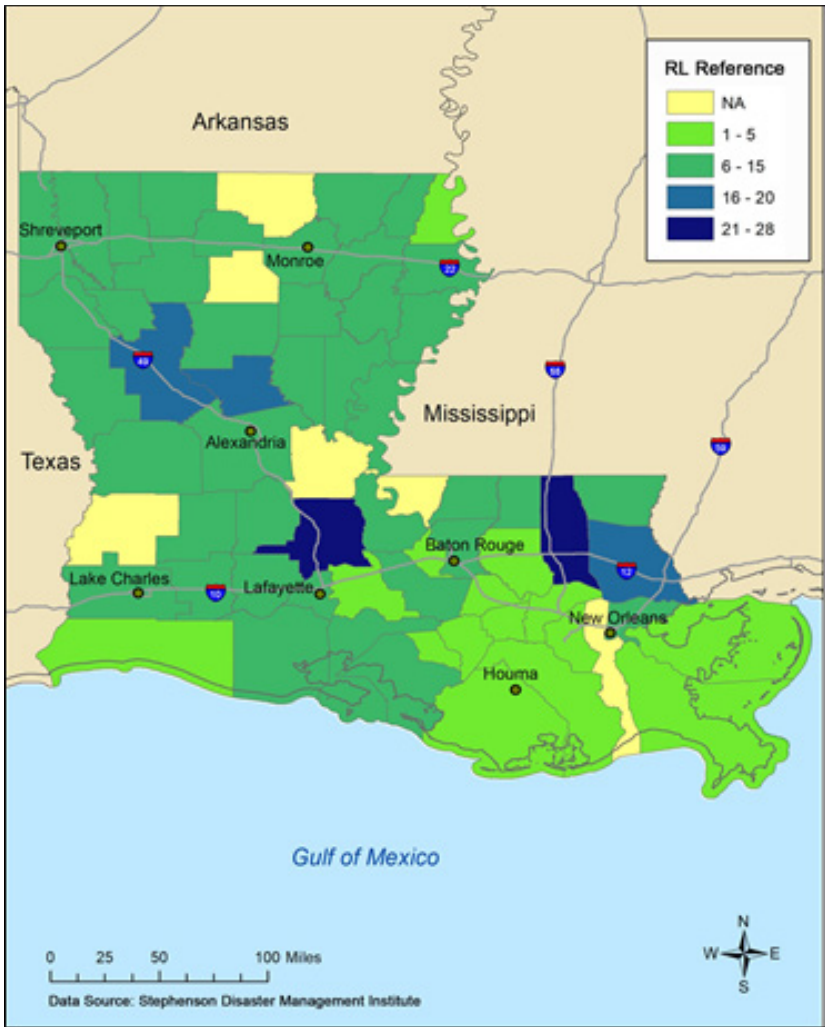


With support from the State, the municipalities in Louisiana are working to mitigate their repetitive flood losses. A total of 25% of the Repetitive Loss properties in Louisiana have been mitigated, which is more than the 18% of Repetitive Loss properties mitigated nationwide. In fact, 23% of the mitigated Repetitive Loss properties in the United States are located in Louisiana. The parishes with the highest number of mitigated properties are Orleans and Jefferson, followed by St. Bernard, St. Tammany, and Calcasieu.

Data Summaries by Parish

It is useful to note statewide trends but examining repetitive loss strategies at the parish level is helpful as well. In order to understand parish specific mitigation goals for repetitive losses, what has been accomplished, and what parishes plan to accomplish in the future, UNO-CHART reviewed the hazard mitigation plans for each parish in the state.

Figure 6
References of Repetitive Loss Properties in Parish Plans



Most of the parishes in Louisiana reference repetitive losses in their hazard mitigation plans. A total of 57 of the 64 parishes include references to repetitive loss properties. These parishes include Acadia, Allen, Ascension, Beauregard, Bienville, Bossier, Caddo, Calcasieu, Caldwell, Cameron, Catahoula, Claiborne, Concordia, Desoto, East Carroll, East Feliciana, East Baton Rouge, Evangeline, Franklin, Grant, Iberia, Iberville, Jefferson Davis, Jefferson, Lafayette, Lafourche, LaSalle, Lincoln, Livingston, Madison, Morehouse, Natchitoches, Orleans, Ouachita, Plaquemines, Rapides, Red River, Richland, Sabine, St. Mary, St. Charles, St. Martin, St. Bernard, St. Helena, St. John the Baptist, St. Landry, St. James, St. Tammany, Tangipahoa, Terrebonne, Vermillion, Vernon, Washington, West Baton Rouge, Webster, West Carroll and Winn. All but Beauregard, Lafourche, and St. Bernard Parishes also include repetitive loss properties in the action, objective, and goal sections of the hazard mitigation plans. While referencing repetitive loss properties, the parishes identify mitigation methods, funding sources, responsible parties, hazards, and project status for each goal, objective or action.

The parishes further identify mitigation methods used to mitigate these properties, including elevation, acquisition, floodproofing, reconstruction, drainage projects, maintaining an active list of repetitive loss structures, and annual review.

Figure 7
Mitigation Methods Identified in Parish Plans

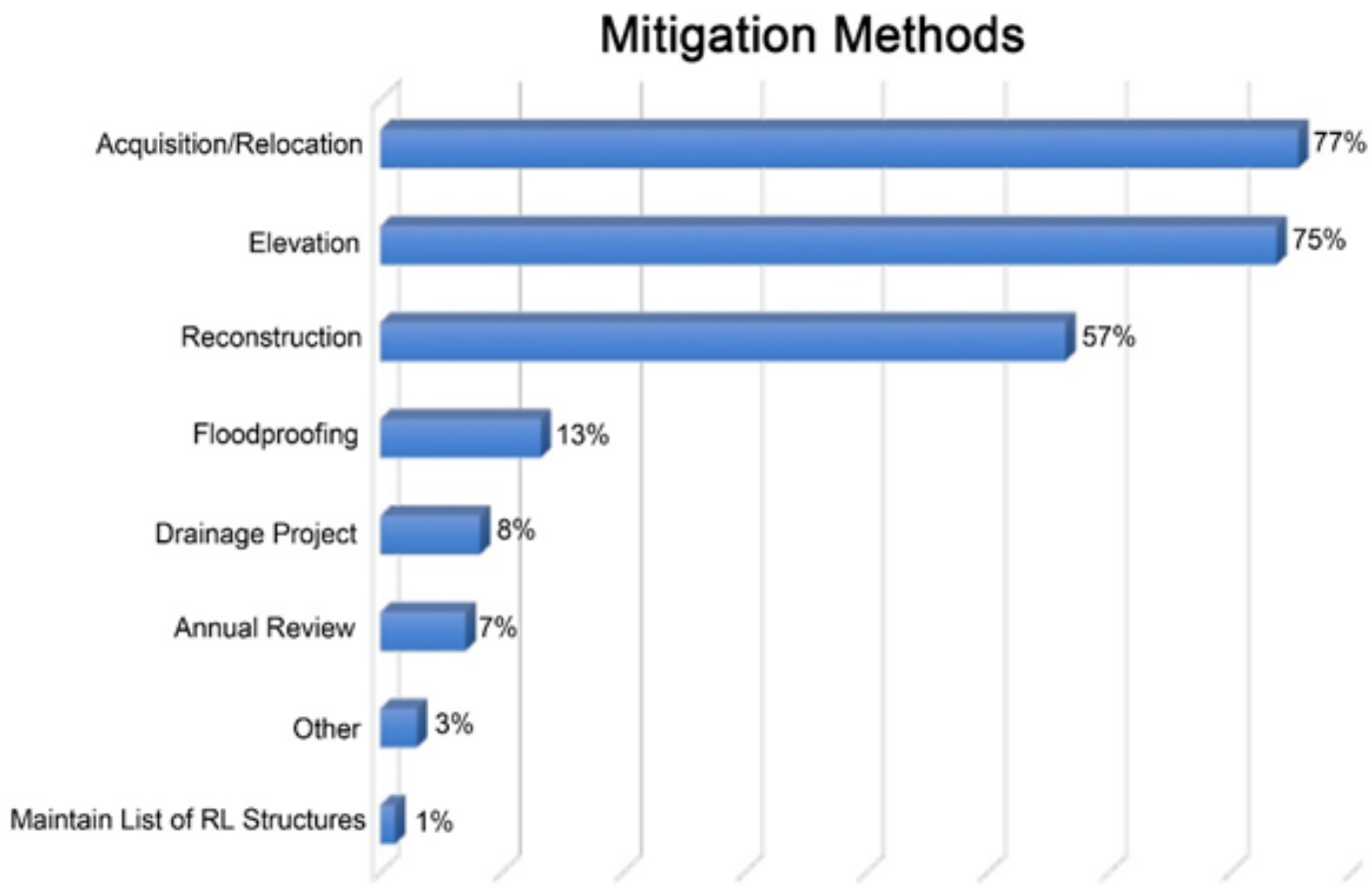
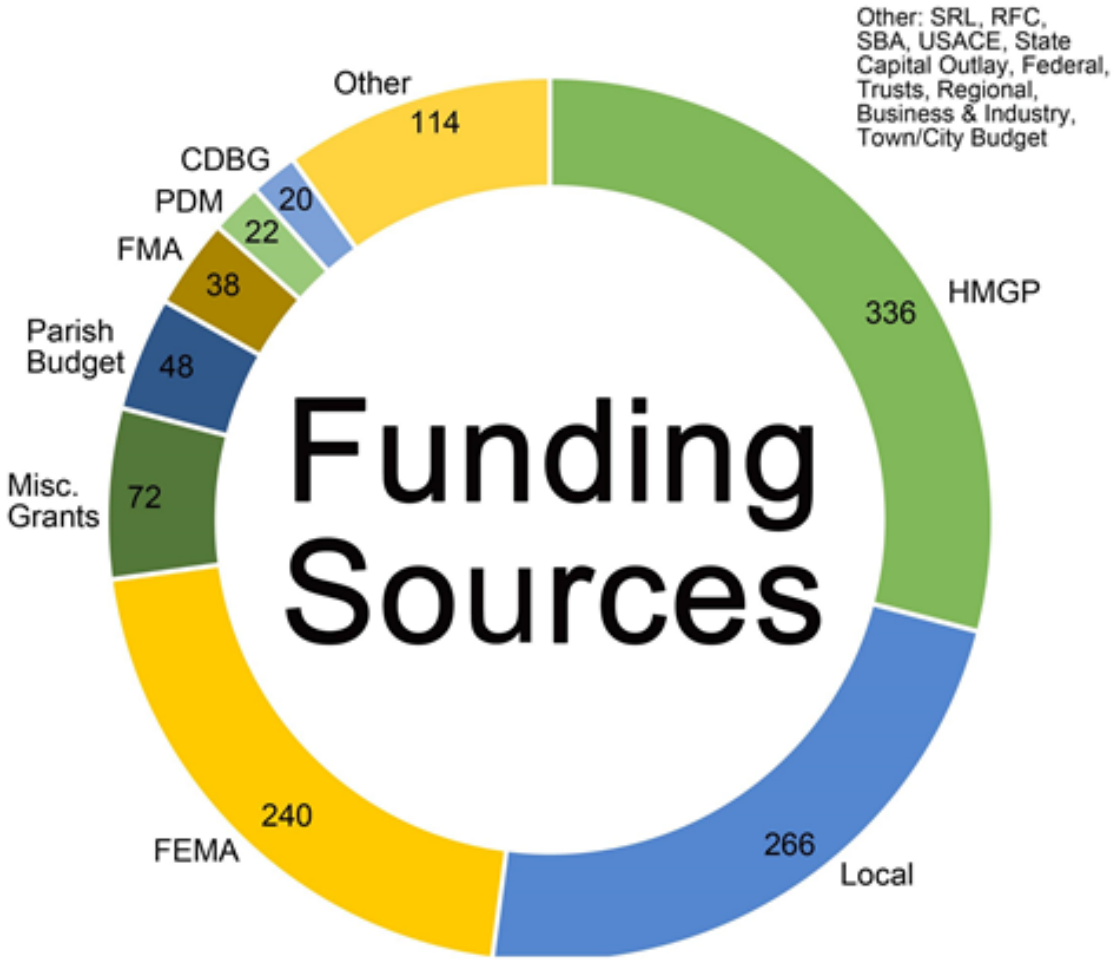


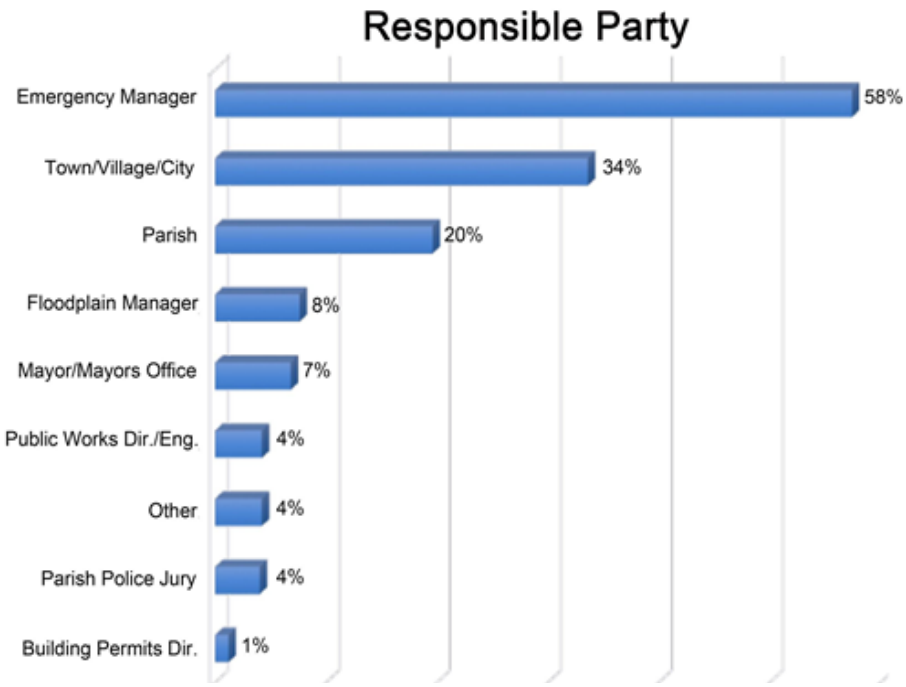
Figure 7 illustrates the mitigation methods detailed in the parish hazard mitigation plans. The majority of the parishes plan to mitigate repetitive losses through elevating properties, reconstructing buildings, and acquiring property (for the purposes of demolition/relocation). A significant number of parishes also intend to floodproof existing structures.

Figure 8
Funding Sources



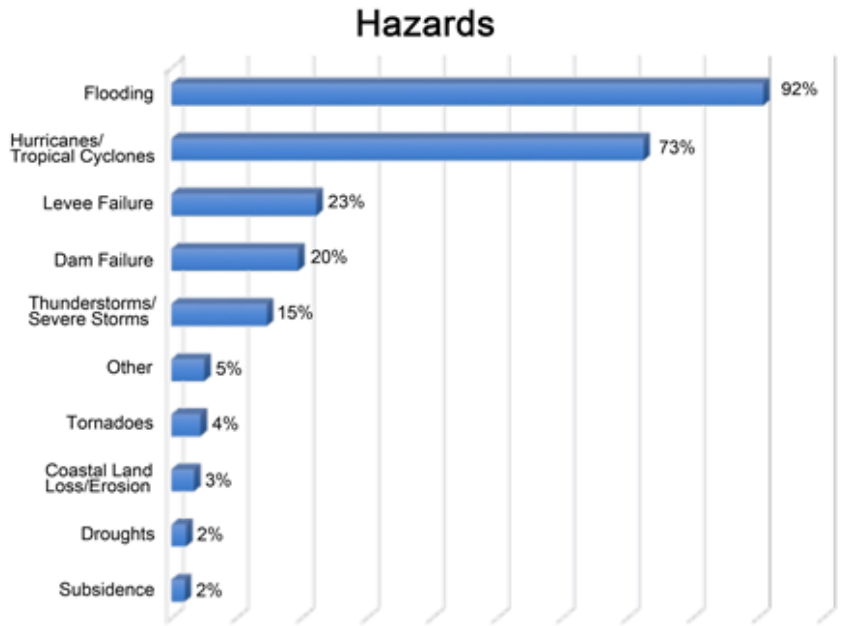
There are also funding sources listed in each plan, including parish budgets, HMGP, FEMA, CDBG, FMA, SBA, USACE, State Capital Outlay, PDM, RFC, trusts, and town/city budgets. Figure 7 depicts the funding sources used by parishes to mitigate repetitive loss properties. The most popular source is HMGP, followed by local and FEMA funds. Miscellaneous grants, parish budgets, FMA, PDM, and CDBG funding are used less often.

Figure 9 - Parish Plans & Responsible Party



The parish hazard mitigation plans designate responsible parties in charge of implementing the plan. Most commonly, parishes assign their emergency manager this responsibility. Additionally, parishes generally assign municipalities to implement the plan, and sometimes even a Parish Police Jury.

Figure 10 - Hazards Identified in Parish Plans in Reference to RL Properties



The local parish hazard mitigation plans detail the cause of damage to repetitive loss properties. Flooding is the most common hazard identified, followed by hurricanes and tropical cyclones. Some parishes identified levee and dam failure as causes as well.

Additionally, the parish level hazard mitigation plans often monitor the status of these projects, noting if they are completed, ongoing, in progress, or new.

The pie chart below shows the status of the mitigation projects listed in the parish hazard mitigation plans. Of all the action items regarding repetitive loss in the parish plans, only 12 have been completed; the vast majority are new.

For more detail on the references to repetitive loss properties in the parish hazard mitigation plans, please refer to Attachment A.

Impact of Repetitive Flooding on People and Property

While understanding parish and state level summaries and goals and objectives towards mitigation repetitive loss properties, it is also useful to delve into the financial impacts of these properties on homeowners, as well as state and local governments. Repetitive flooding has a significant impact on people and property in Louisiana. Owners of repetitive loss properties are often confronted with the stresses of associated repetitive flooding, including worry about how high the water may rise, potential loss of life, loss of personal belongings, possibility of mold, and uncertainty of return. Repeatedly damaged properties put a financial strain on individuals, families, businesses, and local and state government. To assess this cost, UNO-CHART further examined the number of claims, average claim payments, and hazard impact of RLs and SRLs in the state.

Figure 11
Mitigation Project Status in Parish Plans

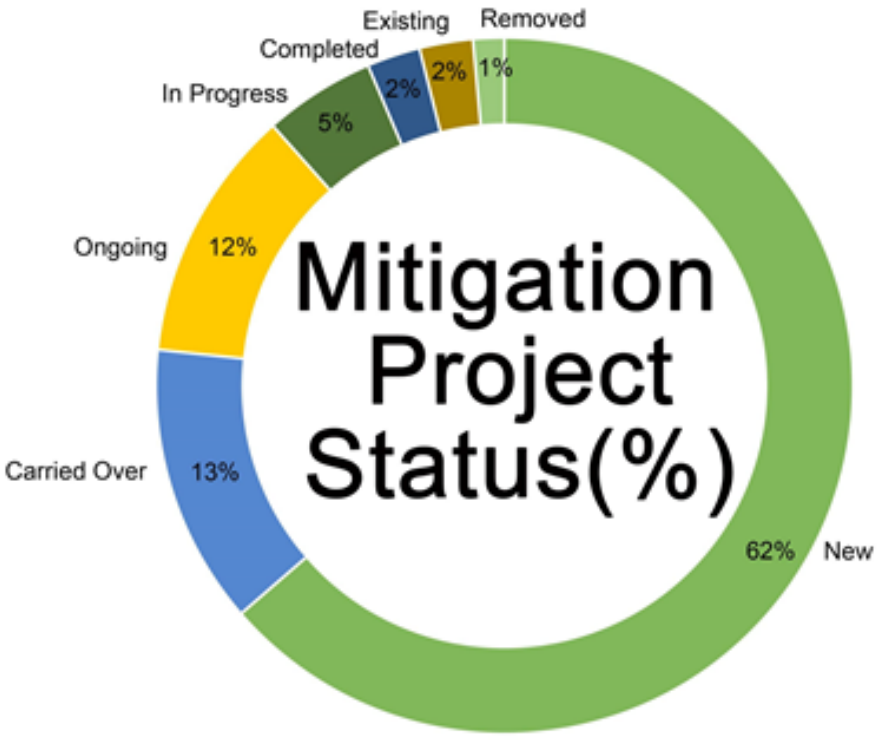
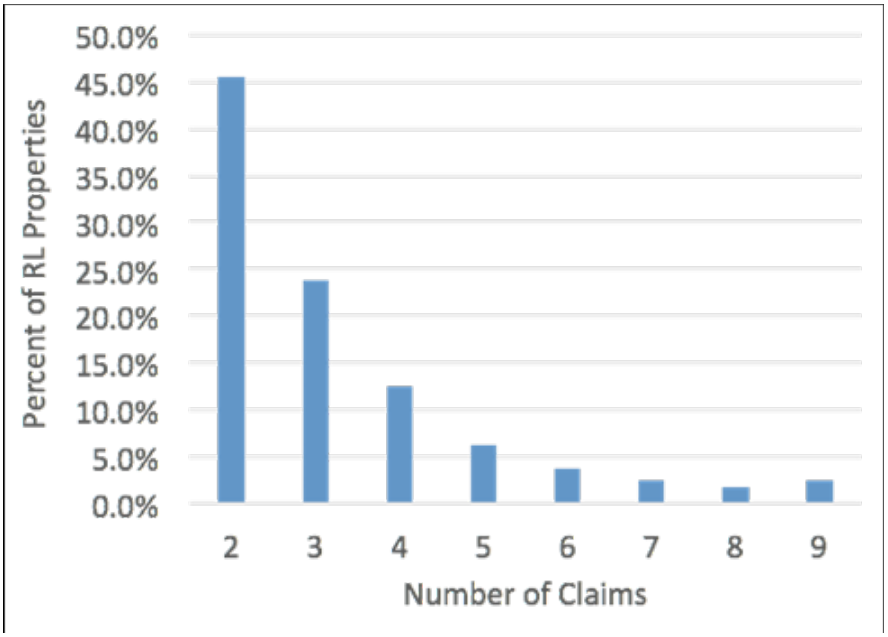


Figure 12 – Number of Claims on Repetitive Loss Properties



The number of claims on an individual property help to demonstrate the frequency of repeat flooding. A total of 45% of the 34,121 repetitive loss properties in Louisiana had only two claims. Therefore, many of the properties on the repetitive loss list do not have chronic repetitive flood problems.

Figure 13 – Average Repetitive Loss Claim Payments

The average claim payments help to demonstrate the damage done to repetitive loss properties. Approximately 80% of the Repetitive Loss properties had claims of less than $50,000, and 55% of the 34,000 Repetitive Loss properties had average claims of less than

$25,000. Roughly 9,000 properties (26%) had less than $10,000 in average claim payments. These 9,000 properties most likely flooded due to local drainage issues and/or shallow flooding. This is important information as these relatively low claim payments are not likely to trigger substantial damage requirements for these properties; hence, mitigation will not be required.

Conclusion

Repetitive and severe repetitive loss is a statewide issue, occurring in urban areas, and across the coast and central regions of the state. Repetitive loss properties put a strain on individual, local and state resources, resulting in multiple flood claims that cost thousands of dollars. Although there are multiple hazards that are multiple sources of repetitive flooding, the impacts are the same, damaging property and impacting resources across the state. Therefore, mitigating repeatedly flooded properties would benefit the entire state.

Mitigation Goals

Introduction

As repetitive flooding is a statewide issue, mitigating repetitive and severe repetitive loss properties is an essential goal. The State Hazard Mitigation Plan details this mitigation in the mitigation goals and sets the mitigation of repetitive loss properties as a main priority for mitigation funding. Refer to Chapter 4 – Mitigation Strategy on page X for more information on the goals and objectives in the State Hazard Mitigation Plan.

In 2014, Goal 4 of the plan addressed repetitive and severe repetitive loss properties. The goal read: The State of Louisiana will continue to pursue opportunities to reduce impacts to the state's manmade and natural environment through mitigation of repetitive and severe repetitive loss properties and other appropriate construction projects and related activities. In fact, the plan asserted that the primary focus in Louisiana for flood mitigation is on repetitive losses. As well, number of repetitive loss properties is listed as a criteria for funding in the 2014 plan, with jurisdictions with high numbers of repetitive loss properties given priority for mitigation funding. Since 2014, a total of 900 repetitive loss properties were mitigated statewide, including 250 SRL properties and 650 RL properties.

For the 2019 update, repetitive and severe repetitive loss properties remain a priority for the state. Goal 4 asserts: Reduce Louisiana's repetitive and severe repetitive loss property inventory. Goal 4 includes four objectives that provide more direction as to how the State may achieve this goal. The objectives are as follows:

Objective 4.1: Develop and implement the state Repetitive Loss Strategy for reducing RL and SRL properties.
Objective 4.2: Investigate possible actions to mitigate RL and SRL properties.
Objective 4.3: Update the RL and SRL inventory.
Objective 4.4: Prioritize repetitive loss properties for funding.

Changes in Priorities

From 2014 to 2019, some of the mitigation priorities changed. While the 2014 goals were similar, with mention of education and outreach, data collection, coordination, repetitive losses, and protecting buildings, the 2019 plan ranked them differently, with general mitigation planning given the most importance, followed by outreach and education, coordination with other strategies, reducing repetitive losses, and implementing the plan. Furthermore, the 2019 plan objectives contain more detail, with more measurable targets. As one committee member stated: "These represent a significant advancement over previous goals and objectives. Monitoring and achieving them is the next step."

Funding

The SHMPC had multiple discussions concerning how to prioritize funding selected mitigation projects. The committee underlined communities at highest risk as the most important priority, followed by communities with repetitive loss properties, communities undergoing development, and finally, community commitment to mitigation.

Mitigation Monitoring

The monitoring of repetitive loss mitigation efforts will mirror the monitoring procedures listed in Chapter 4 - Mitigation Strategy. Mitigation project closeouts generally occur in the following sequence, as established in the State of Louisiana Administrative Guidelines and Procedures, and in accordance with FEMA requirements for State Administrative Plans and Hazard Mitigation Grant Program (HMGP) guidelines set in the HMGP Desk Reference.

1. Sub-grantee indicates that a mitigation project is 100% complete in a quarterly project progress report
2. GOHSEP reconciles the FEMA SmartLink account for the project (by disaster)
3. GOHSEP initiates a comprehensive internal financial audit of the project
4. GOHSEP works with sub-grantees to resolve any issues discovered in the audit
5. GOHSEP sends FEMA Region VI a closeout letter that identifies the final eligible cost of the project, de-obligations that are required, and any monies that will be recovered from the sub-grantee

Over the period 1959 to 2005, Louisiana ranked 18th among the states in flood fatalities (excluding those related to Katrina), but third in flood-related injuries and in total flood casualties. Recent significant floods include the August 11-31, 2016 flood affecting southeast Louisiana (DR-4277), the March 8-April 8, 2016 flood affecting northern Louisiana (DR-4263), and the May 18-June 20, 2015 flood along the Red River in northwest Louisiana (DR-4228).

Table 1 – Mitigated RLs 2015-2018

End of Year	Non-Mitigated RLs	Mitigated RLs	Total RLs	% Mitigated
2015	24,091	7,795	31,886	24%
2016	25,515	8,119	33,634	24%
2017	25,825	8,219	34,044	24%
2018*	25,633	8,486	34,119	25%
*Data through end of July 31, 2018				

Table 1 illustrates the number of repetitive loss properties mitigated since the 2014 Hazard Mitigation Plan Update. The mitigated properties have increased each year, from 31,886 in 2015 to 34,119 in 2018. However, the flooding in Louisiana has increased as well, meaning only about a quarter of the repetitive loss properties have been mitigated each year. In order to review progress on achieving goals, GOHSEP ensures that both the annual and five-year plan evaluations include a detailed examination and analysis of the goals and various objectives under each goal. The repetitive loss strategy details one goal and 4 major objectives under that goal.

In order to review progress on the goal and objectives in the repetitive loss strategy, and as part of the yearly and five-year evaluations and updates to this plan, GOHSEP will initiate a review of all activities and projects noted in the repetitive loss strategy.

Conclusion

The State Hazard Mitigation Plan sets the mitigation of repetitive loss properties as a main priority for mitigation funding. Through four specific objectives, funding prioritization, and annual monitoring, the state aims for successful mitigation of these properties.

Repetitive Loss Mitigation Actions

Introduction

There are multiple mitigation actions that can help to reduce repeat flooding across the state. These include education and outreach, flood control measures, acquisition; retrofitting, utility protection, emergency measures, green infrastructure, higher building requirements, and, perhaps most importantly, flood insurance. More details on each of these measures are included in the following sections; the cost and feasibility of each measure are also included.

Mitigation Actions

- Education and Outreach
- Flood Control
- Drainage Improvements
- Acquisition
- Retrofitting
- Utility Protection
- Higher Building Requirements
- Flood Insurance
- Emergency Measures

Education and Outreach

Communities can use education and outreach to help mitigate repetitive loss properties. Many communities send an annual mailing to repetitive loss property owners detailing their risk and ways they can mitigate that risk. Additionally, municipalities can share information with homeowners on available funding streams available for mitigation projects. Many funding opportunities prioritize the mitigation of repetitive loss properties.

Flood Control

Large structural flood control projects, such as dams and levees, have regional or watershed-wide implications and can be very expensive. Because of this, they are often planned, funded and implemented at a regional level by agencies, such as the U.S. Army Corps of Engineers and the USDA Natural Resources Conservation Service.

There are many local levees and dams throughout the state, but the largest levee projects are in the southeastern coastal region. Authorized by U.S. Congress in 1996, the Southeast Louisiana Urban Flood Control Project (SELA) drainage program is designed to reduce flood-related damage to property and infrastructure in Orleans, Jefferson, and St. Tammany parishes. This was a federal legislative response to repetitive flood losses in the region, particularly due to the heavy rainfalls, which occurred during May 8-10, 1995. Through SELA, new pump stations and better drainage canals were installed throughout the parishes. The program was authorized and administered under a project cooperative agreement between local agencies and the U.S. Army Corps of Engineers.

Cost and Feasibility of Flood Control

The US Army Corps of Engineers funds flood control projects that are shown to have a favorable benefit/cost ratio and where a local sponsor agrees to participate. Municipalities must contribute a cost share to the projects. Corps funds are not used on an individual property basis.

Drainage Improvements

Sometimes residents can improve drainage at the household level. Some residents in Louisiana have installed drains or pipes to improve drainage. At the neighborhood level, the community can improve drainage by cleaning and maintaining drains, ensuring that they are free of debris and allowing water to flow unobstructed. Additionally, many municipalities have Public Works departments that oversee drainage in their areas.

Cost and Feasibility of Drainage Improvements

While household level drainage improvements can be relatively inexpensive, it is more costly to operate a drainage department at the municipal level. Localities must hire staff, and contribute staff time to maintenance and repairs. However, preventative maintenance is less expensive than rebuilding homes and neighborhoods after a drainage failure. Programs such as Brooms to Basins in Jefferson Parish and Adopt A Catch Basin in Orleans Parish promotes preventative maintenance (cleaning of catch basins) by residents and business owners.

Acquisition

This measure involves buying one or more properties and clearing the site. If there is no building subject to flooding, there is no flood damage. Acquisitions are usually recommended where the flood hazard is so great or so frequent that it is not safe to leave the structure on site.

Municipalities can choose to buy and clear whole subdivisions or buy out individual structures with federal funds. This approach involves purchasing and clearing the homes with lowest elevation, or the most severe repetitive losses.

If a municipality makes use of FEMA funds, three requirements apply:

1. The applicant must demonstrate that the benefits exceed the costs, using FEMA's benefit/cost methods.
2. The owner must be a willing seller.
3. The parcel must be deeded to a public agency that agrees to maintain the lot and keep it as open space permanently.

Acquisition Cost

Acquisition can be costly, and it is difficult to obtain a favorable benefit/cost ratio in shallow flooding areas. Other factors can increase the cost of this measure:

- If relying on FEMA funds, the FEMA share is 75% of the market value of the property before it was flooded. The property owner makes up the difference. In effect, the owner only receives 75% of the value of the property.
- The community must still pay for maintaining the streets, water lines, and other infrastructure to serve those who remain.
- The vacant lots must be maintained by the new owner agency (often the local government), even though the municipality does not receive taxes for the property.

Feasibility of Acquisition

Acquisitions also disrupt communities and neighborhoods. Not everyone is willing to sell their home, so a checker-board pattern of vacant and occupied lots often remains after a buyout project, leaving gaps in the neighborhood. Additionally, if the lot is only minimally maintained, its presence may reduce the property values of the remaining houses.

Retrofitting

To retrofit a structure means to make a change to protect it from hazards such as flooding or high winds. This section reviews several ways that a repetitive loss property could be retrofitted to reduce flood risk. These different measures vary in costs and feasibility.

Elevation

Raising the structure above the flood level is generally viewed as the best flood protection measure, short of removing the building from the floodplain. All damageable portions of the building and its contents are high and dry during a flood, which flows under the building instead of into the house. Houses can be elevated on posts/piles or a crawlspace. A house elevated on posts is either built or raised on a foundation of piers that rise high enough above the ground to elevate the house above the flow of flood water. A house elevated on a crawlspace is built or raised on a continuous wall-like foundation that elevates the house above the flood level. If a crawl space is used, it is important to include vents or openings in the walls that are appropriately sized: one square inch for each square foot of the building's footprint.

Cost to Elevate

Most of the cost to elevate a building is in the preparation and foundation construction. Elevation is usually most cost-effective for wood frame buildings on posts/piles or crawlspace, because it is easiest to get lifting equipment under the floor, and disruption to the habitable part of the house is minimal.

Elevating a slab house is much more costly and disruptive. The actual cost of elevating a particular building depends on factors such as its condition, whether it is brick faced, and if additions have been added on over time. According to a study conducted by Dr. Carol Friedland of LSU's Department of Construction Management, the average cost of elevating a slab on grade home utilizing HMGP funds is $83 per square foot to elevate 3 feet; $91 per square foot to elevate 6 feet; and $100 per square foot to elevate 9 feet. These costs are based on projects undertaken in Louisiana, adjusted to 2015 dollars. Because many areas of Louisiana are experiencing subsidence, it may be a good idea to elevate higher than the suggested elevation, in order to prepare for more subsidence in the future.

While the cost of elevating a home can be high, there are funding programs that can help. In most cases, a FEMA grant pays for 75% of the cost, while the owner pays the other 25%. In the case of elevating a slab foundation, the homeowner's portion could be as high as $25,000 or more. In some cases, the Increased Cost of Compliance (ICC) provision of a flood insurance claim payment can provide payment assistance. Property owners can also use ICC toward the non-federal cost-share.

Federal funding support for an elevation project requires a study that shows that the benefits of the project exceed the cost of the elevation. The cost of elevating a masonry home or a slab can cost over $100,000. Benefits are determined by such factors as building replacement value, past flood insurance claims, and displacement costs. Hence, funding is often allocated to those properties that are low in elevation and subject to frequent flooding.

Barriers

Homes that typically receive 3 feet of floodwater or less, or where the water does not remain for a considerable amount of time, can benefit from small floodwalls, levees or berms. Levees and berms are more suitable for larger lots, while small floodwalls that are located close to the house are appropriate for suburban style neighborhoods with limited front and side yard space. During shallow flooding, barriers could be an appropriate mitigation measure for some homes. However, with homes that experience flood depths greater than 2 or 3 feet, another option would be more suitable.

When considering barriers, residents who experience floodwaters that remain for several hours or days should include internal drainage provisions, as seepage can occur, and water will end up inside the barrier. The more permeable the soil, the more floodwaters seep under the barrier. It is important to have a soil sample checked by an engineer to **determine the rate of permeability.**

Figure 14 - A small flood wall stops the water from entering the house. If water overtops the wall, it collects in this basin, or sump, and is pumped out by a sump pump.

Homeowners who are interested in constructing a barrier to protect their house should consider the following requirements:

- A method to close openings; generally, this requires human intervention, as someone needs to be available and have enough time to take action prior to the flood event.
- A system to prevent sanitary sewer backup from flowing into the building.
- Internal drainage improvements, including:
- A system of drain tile (perforated pipes) that collects water that falls or seeps into the protected area and sends it to a collecting basin or sump,
- A sump pump to send the collected water outside the barrier, and
- Power to operate the sump pump around the clock during a storm.

Barrier Cost

The cost of a local barrier depends on the depth of flooding and the level of engineering needed for the design. Where flooding is only inches deep and of short duration, almost any barrier of concrete or earth will work. Regrading a yard to build a berm could cost a few hundred dollars while a long concrete floodwall will cost much more. FEMA does not fund individual floodwalls for residential properties; therefore, the homeowner must pay 100% of the cost for a floodwall. However, each person can determine how much of their own labor they want to contribute (which reduces out-of-pocket costs), and whether the cost of the wall is worth the protection that it may provide.

Barrier Feasibility

Residents interested in pursuing a retrofitting measure to protect their home or utilities should contact their local department of planning and zoning to determine whether a permit is required. Flood barriers are not recognized as a mitigation method by FEMA and will not reduce flood insurance premiums – they are strictly for flood protection. The installation of a flood barrier may cause nearby neighbors to flood, so it is best to get a renovation permit before installation. This type of mitigation should be restricted to a small area so that it does not cause negative impacts to adjacent properties. Residents cannot drain water to their neighbors' properties. Instead, the water should drain to the front of the property, or into an adjoining drainage ditch. In addition, residents cannot build a flood barrier over a servitude, right-of-way, or easement. Residents can check their plat for these issues.

Figure 15 - This home is surrounded by a floodwall that doubles as a planter. The driveway must be sandbagged during a flood event.

Dry Floodproofing

This measure prevents flood waters from entering a building with a slab foundation by modifying the structure. To dry floodproof, coat the walls with waterproofing compounds or plastic sheeting. In addition, close openings (e.g., doors, windows, and vents), permanently or temporarily, with removable shields or sandbags.

To complete a floodproofing project, a property owner must:

- Make the walls watertight. This is easiest to do for brick faced walls. Cover brick or stucco walls with a waterproof sealant and brick (or stucco) over with a veneer to camouflage the sealant. Wrap houses with wood, vinyl, or metal siding with plastic sheeting to make the walls watertight, and then cover with a veneer to camouflage and protect the plastic sheeting.
- Provide closures, such as removable shields or sandbags, for the openings. Openings include doors, windows, dryer vents, and weep holes.
- Account for sewer backup and other sources of water entering the building. For shallow flood levels, this can be accomplished with a floor drain plug or standpipe. However, a valve system is more secure.

Dry floodproofing employs the building itself as part of the barrier to the passage of flood waters, and this technique is only recommended for buildings with slab foundations that are in good condition (i.e., no cracks). The solid slab foundation prevents flood waters from entering a building from below. Also, even if the building is in sound condition, tests by the U.S. Army Corps of Engineers recommend not using floodproofing for flood depths greater than two feet over the floor, because water pressure on the structure can collapse the walls and/or buckle the floor.

Figure 16 - Flooding of this slab-on-grade house was up to **1** 1/2 feet. Damage could have been prevented by dry floodproofing.

Dry floodproofing is a mitigation technique that is appropriate for most houses with slab foundations that typically receive floodwater of less than two feet in the house. This method is only recommended for homes that have experienced flooding less than two feet deep. Property

owners interested in pursuing a retrofitting measure to protect their utilities should contact their local planning and zoning department to determine whether a permit is required.

Not all parts of a structure need to be floodproofed. It is difficult to floodproof a garage door, for example, so some owners may allow the garage flood, and floodproof the walls between the garage and the rest of the house. Elevate appliances, electrical outlets, and other damage-prone materials located in the garage above the expected flood levels.

Cost of Dry Floodproofing

The cost for a dry floodproofing project can vary according to the building's construction and condition. It can range from $5,000 to $20,000, or$10 to $20 per square foot, depending on how secure the owner wants to be. Owners can do some of the work by themselves, although an experienced contractor provides greater security. Each property owner can determine how much of its own labor they can contribute, and whether the cost and appearance of a project is worth the protection from flooding that it may provide.

Feasibility of Dry Floodproofing

As with floodwalls, floodproofing is appropriate where flood depths are shallow and are of relatively short duration. It can be an effective measure for some of the structures and flood conditions found in Louisiana. It can also be more attractive than a floodwall around a house. However, dry floodproofing has the following shortcomings as a flood protection measure:

- It usually requires human intervention, so someone must be home to close the openings.
- The success of dry floodproofing depends on the building's condition, which may not be readily evident. It is very difficult to tell if there are cracks in the slab under the floor covering.
- It requires periodic maintenance to check for cracks in the walls, and to ensure that the waterproofing compounds do not decompose.
- There are no government financial assistance programs available for the dry floodproofing of residential buildings, therefore the homeowner must pay the entire cost of the project.
- The NFIP will not offer a lower insurance rate for dry floodproofed residences, but will for nonresidential structures, if they are protected to at least the base flood elevation.

For more details on dry floodproofing, visit http://www.lsuagcenter.com.

Figure 17 - This Baton Rouge, LA home had thin facing brick placed over the waterproofing materials.

Figure 18 - This Terrebonne Parish home has a steel door to keep flood waters out.

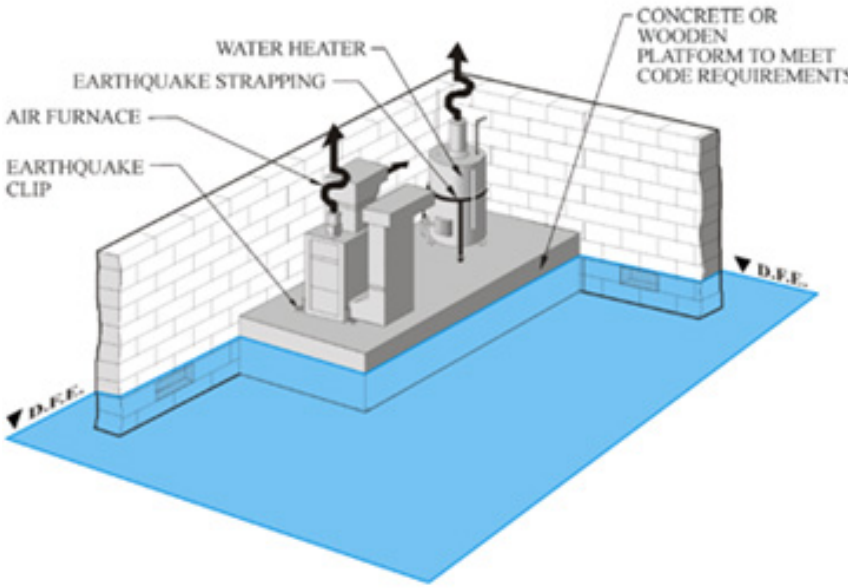
Figure 19 - This dry floodproofed building in Mandeville, LA has the walls waterproofed and removable shields placed in front of the windows.

Figure 20 - This home in Jefferson Parish, LA has permanent shields sealing the space under the windows.

Utility Protection

This measure applies to several different utilities that can be damaged by floodwaters such as: heating, ventilation, and air conditioning (HVAC) systems; fuel meters and pipes; electrical service boxes, wiring, and fixtures; sewage systems; and water systems. Damage to utilities can prevent residents from returning to their homes. Retrofitting utilities includes things as simple as raising them above the expected flood level or building small walls around furnaces and water heaters to protect from shallow flooding. FEMA document 348: Protecting Building Utilities from Flood Damage covers various ways to protect utilities, whether the building is a new construction, declared substantially damaged, or simply an existing structure in need of retrofitting.

Figure 21
Elevation of mechanical equipment, FEMA 348



Cost of Utility Protection

The cost for protecting utilities varies and is dependent upon the measure itself, and the condition of the system, structure, and foundation. Although there are methods that property owners can utilize on their own to protect utilities, it is always a good idea to consult a professional contractor and/or engineer (depending on the project). Homeowners can lower the costs by performing the retrofits as part of a repair or remodeling project. Residents interested in pursuing a retrofitting measure to protect their utilities should contact their local building department or department of planning and zoning to determine whether a permit is required.

Feasibility of Utility Protection

Since the flooding experienced by residents in Louisiana includes both shallow and deep flooding, utility protection is a recommended mitigation measure. Residents should incorporate utility protection even if the building will be protected by a levee or dry floodproofing, in order to provide an extra layer of protection.

Green Infrastructure

Another flood mitigation measure is green infrastructure. Green infrastructure maximizes stormwater storage through the use of porous surfaces and natural plants and systems. This allows rainwater to be stored rather than flooding streets, sidewalks and homes. It also removes some of the excess water from the local drainage system and reduces subsidence. Green infrastructure can be employed at the neighborhood and/ household levels.

Figure 22 - Elevation of HVAC in Terrebonne Parish

Figure 23 -Raingarden, Source: The Joy of Water

Neighborhood Level

Green infrastructure at the neighborhood level can be made up of bioswales, rain gardens, constructed wetlands, retention ponds, detention ponds, pervious pavement and structural soils.

- Bioswales are a natural culvert that moves water from one place to another. They are planted with native grasses and plants and used for stormwater management.
- Rain gardens, another type of green infrastructure, are composed of plants planted in holes of sand rather than soil to allow for maximum drainage.
- Constructed wetlands mimic natural wetlands and serve to absorb runoff from a large area.
- Retention ponds hold water over the long term, while detention ponds detain water before letting it slowly drain. It is important to install filters or other measures in order to reduce breeding grounds for insects. Retention and detention ponds need to drain or flow at a rate that prevents insect breeding.
- Pervious pavement and structural soils allow for stormwater to infiltrate the soil and reduce the burden on local drainage systems.

Household Level

French drains are a type of green infrastructure that can be installed by individual property owners. They are channels filled with rock to direct flow, while allowing much of it to filter into the surrounding ground. They act as drains that filter water and can be installed in front, back and side yards.

Another option for stormwater management at the household level is the use of rain barrels. Rain barrels collect rainwater from household gutters and store it as gray water. Gray water includes waste water that is relatively clean. It is not used for drinking water, but can be used to water gardens, lawns, etc.

Figure 24 - Pervious Pavement, Source: EPA

Cost and Feasibility

The cost of green infrastructure varies. Residents can install the household level solutions can themselves. For more information on green infrastructure projects, view The Joy of Water booklet, located at http://issuu.com/waterworksla/docs/the_joy_of_water_booklet_web. For additional information, visit the EPA's website at http://water.epa.gov/infrastructure/greeninfrastructure/gi_what.cfm. Please note that these measures will not impact storm surge flooding.

More Effective Construction Standards

There are multiple ways localities could institute more effective construction standards to further protect buildings from flooding. These include adopting flood of record data, requiring freeboard, and requiring nonconversion agreements.

Flood of record

A local municipality may adopt flood of record data to determine the extent of the regulatory floodplain, and the regulatory flood elevation where there is no base flood elevation (BFE) shown on the FIRM, or where the flood of record is higher than the BFE. This means the parish would use historical data from past floods to determine elevation, rather than the flood maps. In some cases, the flood height of the flood of record may be higher than the recommended base flood elevation.

Figure 25 - French Drain, Source: The Joy of Water

Benefits of Adopting the Flood of Record

It may be easier to convince people that the protection level is based on a real hazard that has already occurred. Also, new buildings built to the higher level will have lower flood insurance rates because the rates are based on the BFE shown on the FIRM, which is often lower than the flood of record.

Freeboard

Instead of the minimum NFIP protection standard, the BFE, new buildings could be protected to the BFE plus an additional number of feet. Many municipalities add up to three feet to the BFE for more effective flood protection. This could also apply to substantial improvements of existing buildings.

Benefits of Adopting Freeboard

Freeboard accounts for flood study errors, floods greater than 100-year floods, increased flood heights due to climate change, and development in the watershed. Additionally, new buildings built to the higher level will have lower flood insurance rates. Three feet of freeboard can substantially cut the premium on a single-family home.

Nonconversion Agreements

When a building is elevated on enclosed walls, over time the owner or new owner may forget that the lower area needs to be kept open for floodwaters and free of damage-prone equipment and materials. It is not uncommon for residents to convert the lower area to finished rooms or an apartment. Because the lower area is enclosed, the permit office is often unaware of the conversion. This higher standard requires the applicant for a permit that elevates or improves a building on walls to sign an agreement that the area will not be converted. This means no insulation, carpeting, plumbing, etc. If enforcing nonconversion agreements, communities should include a notice on the property deed to advise future buyers of the restriction.

Benefits of Nonconversion Agreements

This removes the strong temptation to occupy or finish the lower, floodable, story of an elevated building. Also, the building maintains its protection from flood damage in accordance with the permit.

Cumulative Substantial Improvement

The local municipality could add language to the Code of Ordinances defining substantial damage/improvement as restoration/reconstruction that equals or exceeds 50 percent of the market value of the structure. Additionally, the locality could add a cumulative substantial damage requirement; wherein any repairs or changes made over a 10-year period cannot equal or exceed 50% of the market value of the structure.

Benefits of Cumulative Substantial Improvement

The implantation of cumulative substantial improvement allows the use of ICC funds for more buildings and ensures that more buildings are mitigated against flooding.

Cost and Feasibility of Higher Building Requirements

The writing and adopting of ordinances only costs staff time, and the benefits to the community are quite high. Although some of these ordinances could be difficult to find political support for, FEMA has many brochures and fact sheets detailing the long term cost savings that communities can share with decision makers.

Flood Insurance

Although flood insurance is not a mitigation measure that reduces property damage from a flood, an NFIP policy does the following for the property owner or renter for the following reasons:

- A flood insurance policy covers surface flooding from the overflow of inland or tidal waters or from stormwater runoff, while homeowners insurance does not.
- Flood insurance may be the only source of assistance to help owners of flood damaged property pay for clean-up and repairs.
- Once in effect there is no need for human intervention.
- Coverage is available for the contents of a home, as well as for the structure.
- Renters can buy contents coverage, even if the building owner does not buy coverage for the structure itself.

Cost of Flood Insurance

Flood insurance rates are based on several factors, including what flood zone the building is in, the elevation of the building, and the age of the structure. Pre-FIRM buildings are structures that were built before the date of the first Flood Insurance Rate Map (FIRM) for the community. Rates on pre-FIRM buildings that are currently insured are subsidized, because the flood risk was unknown at the time of construction.

A building that is located in the Special Flood Hazard Area (SFHA) on today's FIRM and constructed, substantially improved, or substantially damaged is required to be built above the base flood elevation. It is also subject to rates based on the actual risk, rather than a subsidized rate.

Feasibility: Insurance Reform and the Community Rating System

In July 2012, Congress passed the Biggert-Waters Flood Insurance Reform Act of 2012 (BW-12). BW-12 was enacted to ensure the financial viability of the National Flood Insurance Program. Major components called for the elimination of subsidies on pre-FIRM buildings. BW-12 was amended by the Homeowner Flood Insurance Affordability Act of 2014. The major impact of this law was to slow the flood insurance premium increases for pre-FIRM buildings. However, the increases have not been eliminated.

As of April 2015, newly written and mapped policies substantially increased, and a surcharge and annual percentage increase was applied to existing policies, in order to reach actuarial rates. Therefore, it is just a matter of time for pre-FIRM buildings to be subject to the actuarial rates. That means that a home that is two or three feet below the base flood elevation could be paying much higher premiums, unless it is elevated. Any resident who wants to know more about flood insurance reform should go to: http://www.fema.gov/flood-insurance-reform. It is also important to talk with your flood insurance agent to make sure your policy is current, and to learn more about the impending changes.

The Community Rating System (CRS) is a voluntary program that recognizes NFIP participating communities that go above and beyond the minimum requirements for floodplain management. Policyholders in participating communities receive reduced insurance premiums. CRS communities receive various credits for the floodplain management activities they implement. The more credit earned, the better the class ranking of that community. The CRS has 10 classes; a class ranking of 10 has no flood insurance premium reduction, whereas a class 1 carries the maximum discount. Refer to the State of Louisiana CRS Strategy in Appendix D for more information.

Emergency Measures

Mitigation of repetitive loss properties can also include taking emergency measures during a flood. When flooding is expected, it is important to listen to the radio, television, or NOAA weather radio to stay informed. It is also a good idea to have an emergency plan and to have everything prepared to evacuate the area if the flooding gets worse. High ground is safer than lower ground during a flood. Walking or driving through floodwaters is dangerous – six inches of moving water can knock a person down, and two feet of water can sweep a vehicle away.

If the expected flooding will be three feet or less, you can install panels, sandbags, water-inflated barriers, flood wraps and shields, or pumps to protect your home. Property owners can visit http://maps.lsuagcenter.com/floodmaps/ to get more information on the ground elevation and base flood elevation for their properties.

If flooding or storms are expected, you can visit www.lsuagcenter.com/topics/family_home/hazards_and_threats/floods_hurricanes/flood_weather_watch/rivers-and-the-weather--conditions-and-forecast for information from the National Hurricane Center, Louisiana Agroclimatic Information Service, and the National Weather Service. The site also contains information on river forecasts, rainfall and the national flood outlook.

Cost and Feasibility

Preparing for hazardous events ahead of time can be less expensive than paying for damage after an event. Residents can save time and money by staying aware of hazards, preparing a disaster kit, and staying out of harm's way during an event.

Funding sources

There are several possible sources of funding for mitigation of repetitive loss structures, including FEMA grants, Increased Cost of Compliance, other federal agencies, post-disaster funding, state and local funds, and the property owners themselves.

FEMA Mitigation Funds

Most FEMA programs provide 75% of the cost of a project. In the majority of communities, the benefitting property owner pays the 25% non-FEMA share. Each program has different Congressional authorization, and slightly different rules. The state administers the grants, and communities apply on behalf of their residents. Although repetitive loss property owners cannot apply for these grants on their own, they can partner with their locality and the Governor's Office of Homeland Security and Emergency Preparedness (GOHSEP) to apply for the funds. Therefore, individual homeowners are the eventual recipients of the money.

Figure 26

Hazard Mitigation Assistance Mitigation Activity Chart, May 2018
(elegible activities are subject to change with each fiscal year's program)

Hazard Mitigation Assistance Mitigation Activity Chart			
Eligible Activities	HMGP	PDM	FMA
1. Mitigation Projects	X	X	X
2. Hazard Mitigation Planning	X	X	X
3. Technical Assistance			X
4. Management Costs	X	X	X
5 Percent Initiative Projects*	X		
Advance Assistance	X		
Aquifer and Storage Recovery**	X	X	X
Dry Floodproofing of Historic Residential Structures	X	X	X
Dry Floodproofing of Non-residential Structures	X	X	X
Flood Diversion and Storage**	X	X	X
Floodplain and Stream Restoration**	X	X	X
Generators	X	X	
Green Infrastructure**	X	X	X
Infrastructure Retrofit	X	X	X
Localized Flood Risk Reduction Projects	X	X	X
Miscellaneous/Other**	X	X	X
Mitigation Reconstruction	X	X	X
Non-Localized Flood Risk Reduction Projects	X	X	
Non-structural Retrofitting of Existing Buildings and Facilities	X	X	X
Post-Disaster Code Enforcement	X		
Property Acquisition and Structure Demolition	X	X	X
Property Acquisition and Structure Relocation	X	X	X
Safe Room Construction	X	X	
Soil Stabilization	X	X	X
Structural Retrofitting of Existing Buildings	X	X	X
Structure Elevation	X	X	X
Wildfire Mitigation	X	X	
Wind Retrofit for One- and Two-Family Residences	X	X	

NOTE:
*FEMA allows increasing the 5% Initiative amount up to 10% for a Presidential major disaster declaration under HMGP. The additional 5% Initiative funding can be used for activities that promote disaster-resistant codes for all hazards. As a condition of the award, either a disaster-resistant building code must be adopted or an improved Building Code Effectiveness Grading Schedule is required.

**Indicates that any proposed action will be evaluated on its own merit against program requirements. Eligible projects will be approved provided funding is available.

Data Source: www.fema.gov/hazard-mitigation-assistance-mitigation-activity-chart

FEMA provides mitigation funding through the Hazard Mitigation Grant Program (HMGP), the Flood Mitigation Assistance Program (FMA), and the Pre-Disaster Mitigation Program (PDM). These programs provide funding for mitigation projects, mitigation planning, green infrastructure, and property acquisition. The full list of mitigation activities funded by these programs is found in Figure 26.

The Hazard Mitigation Grant Program (HMGP)

The HMGP provides grants to states and local governments to implement long term hazard mitigation measures after a major disaster declaration. Projects must provide a long-term solution to a problem. For example, elevating a home to reduce the risk of flood damage is a long-term solution, while buying and placing sandbags is a short-term solution. Examples of eligible projects include acquisition and elevation, as well as local drainage projects – all of which can reduce repetitive flooding.

The Flood Mitigation Assistance Program (FMA)

FMA funds help states and communities implement measures that reduce or eliminate the long-term risk of flood damage to structures insured under the NFIP. FMA includes project grants to implement measures that reduce flood losses, such as elevation, acquisition, or relocation of NFIP-insured structures. These include up to 100% federal cost share for SRLs, 90% for RLs, and 75% for properties insured by the NFIP.

Pre-Disaster Mitigation Program (PDM)

The PDM program provides funds to states, territories, tribal governments, communities, and universities for hazard mitigation planning and the implementation of mitigation projects prior to a disaster event. Projects may include elevation, acquisition, relocation, etc.

Increased Cost of Compliance

There is a funding provision in the NFIP for insured buildings that have been substantially damaged by a flood called Increased Cost of Compliance (ICC). ICC coverage pays for the cost to comply with floodplain management regulations after a flood, if the building is substantially damaged. ICC will pay up to $30,000 to help cover elevation, relocation, demolition, and nonresidential floodproofing. The funding can also help pay the 25% non-federal share of a FEMA funded mitigation project. State, parishes, and cities can help to pay the 25% as well.

To make use of the funding, the building must have had flood insurance during the flood. This funding is provided in addition to the damage claim payment made under the regular policy coverage; however, the total damage claim cannot exceed $250,000. ICC claims must include a substantial or repetitive damage determination from the local floodplain administrator.

If municipalities adopt alternative language into the local floodplain management ordinance, residents with shallower flooding would have access to ICC funding. Since local ordinances determine the threshold at which substantial damage and/or repetitive claims are reached, adopting language that lowers these thresholds would benefit the homeowners of repetitive loss properties. Adopting alternative language allows for cumulative damage to reach the threshold for federal mitigation resources more quickly, allowing some of the properties in the state that sustain minor damage regularly to qualify for mitigation assistance through ICC. This alternative language would require these properties to be elevated after a degree of cumulative damage.

US Army Corps of Engineers

The US Army Corps of Engineers funds flood control projects that are shown to have a favorable benefit/cost ratio and where a local sponsor agrees to participate. Corps funds are not used on an individual property basis.

US Department of Housing and Urban Development (HUD)

HUD provides assistance after a disaster through the Community Development Block Grant (CDBG) Disaster Recovery Program. These grants serve to help rebuild and recover in the areas impacted by disasters. These funds cover a variety of activities and may have more flexible uses than other federal funds.

USDA Emergency Watershed Protection Program

The USDA's Emergency Watershed Protection Program helps communities and homeowners through maintaining and repairing infrastructure through debris removal, stream protection, and drainage facility and levee repair.

Small Business Administration Mitigation Loans

The Small Business Administration (SBA) offers mitigation loans to SBA disaster loan applicants who have not yet closed on their disaster loan. Applicants who have already closed must demonstrate that the delay in application was beyond their control. Measures eligible for SBA mitigation loans may only protect real estate property, not personal items, from the same type of future declared disaster. For example, mitigation loans made following a flood can only pay for a measure to protect against future flooding, not a tornado. If the mitigation measure existed prior to the declared disaster, an SBA mitigation loan will cover the replacement cost. If the mitigation measure did not exist prior to the declared disaster, the mitigation loan will only cover the cost of the measure if it is deemed absolutely necessary for repairing the property by a professional third party, such as an engineer.

State funds

Federal Resources

The State of Louisiana can utilize federal sources of funding, such as FEMA HMA funding, which includes HMGP, PDM, and FMA funds. The state can also make use of HUD CDBG funding. All of these funding sources are described in the previous section.

State Resources

As well, the State of Louisiana makes use of statewide funds for mitigation projects. Statewide funding includes the, State of Louisiana Capital Outlay fund, the DOTD Statewide Flood Control program funding, and private partnership funding.

Coastal Protection and Restoration Authority (CPRA) Resources

The State of Louisiana can also make use of funding from the Coastal Protection and Restoration Authority (CPRA). CPRA obtains funding from the following the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) as well as the Water Resources Development Act (WRDA). CPRA further receives funding from Natural Resource Damage Assessment (NDRA) Restoration, BP and Transocean Settlements, the Restore Act, and the Gulf of Mexico Energy Security Act (GOMESA).

Local funds

Hazard Mitigation Plans

Parishes use Hazard Mitigation Plans to identify projects and prioritize funding for mitigation. Parishes can identify repetitive and severe repetitive loss properties as priorities for mitigation funding and apply for funds through the State to mitigate these properties as they become available.

Rebates

A rebate is a grant in which the homeowner and another source, such as the local government, share the costs. The property owner receives the rebate after completing an approved project. Many communities favor it because the owner handles all the design details, contracting, and payment before the community provides funding. The owner ensures that the project meets all of the program's criteria, pays for project construction, and then goes to the community for the rebate after the completed project passes inspection. Rebates are more successful where the cost of the project is relatively small, e.g., under $5,000, because the owner can more likely afford the majority of the cost. The rebate acts as an incentive, rather than as a grant that covers most of the cost. For more information on how communities can fund mitigation, consult the Army Corps of Engineers' Local Flood Proofing Programs at https://usace.contentdm.oclc.org/digital/collection/p16021coll11/id/358/.

Property Owners

All repetitive loss property owners should purchase and maintain flood insurance. In addition, property owners can choose to invest in green infrastructure, retrofits, or other small projects to protect themselves. As well, neighborhoods can invest in larger green infrastructure projects for their area.

Other Mitigation Organizations

Other entities also provide funding for mitigation of repetitive loss properties. These include volunteer organizations, private foundations, and other fundraisers. Volunteer organizations such as religious organizations and nonprofits can help property owners with their mitigation costs. Local private foundations also can contribute to the cost of mitigation, particularly for public buildings.

State and Local Capabilities

Chapter 3, the Capability Assessment of the State Hazard Mitigation Plan, summarizes the state and local policies, programs, and activities that support a wide range of hazard mitigation actions. This section follows the same organization but does not repeat the state plan's assessment. Instead, it identifies which of the capabilities are appropriate for mitigating repetitive flood losses.

State Authorities, Policies, and Programs

Policies

Most of the state policies and programs that support hazard mitigation in general support mitigation of repetitive loss properties. The following currently have or could have provisions that would particularly impact mitigation of repetitive loss properties:

Coastal zone and floodplain land use regulations. While zoning and construction standards for hazard-prone areas primarily impact new development, they can help mitigate flood damage to existing buildings. There are two main policies/regulatory standards that do this:

- Some standards keep the flood problem from being exacerbated by new development. For example, no new development in the mapped floodway can cause an increase in the height of the base flood. Standards for seawalls and beach alterations can prevent increases in erosion or transferring erosion problems to other properties.
- All communities in the National Flood Insurance Program must adopt and enforce the substantial improvement rule, which requires buildings undergoing substantial improvements or that were substantially damaged to be brought up to the flood protection standards for new construction.

Stormwater management regulations. These prevent increases in stormwater runoff on downstream properties. These are especially important for repetitive loss areas that are subject to local drainage problems, not from overbank river or coastal flooding.

Programs

Several state programs can directly reduce flood problems in repetitive loss areas. The most important one is the Community Rating System. Here are some of the reasons why the CRS is such an important program for mitigating repetitive losses:

- Eighty percent (80%) of the State's repetitive loss properties are in CRS communities.
- The Community Rating System requires all participating communities to map and evaluate their repetitive loss areas.
- CRS communities with 50 or more repetitive loss properties are required to adopt plans that address repetitive flooding. Most such communities in Louisiana have relied on their hazard mitigation plans to fulfill this prerequisite to joining the program. Of the 391 Louisiana communities with repetitive loss properties, 86 have more than 50 such properties (FEMA 2017). Of them, 29 (34%) are in the CRS.
- The Community Rating System provides an incentive and sets criteria for actions that mitigate flood losses. In some cases, extra credit is provided for actions that address repetitive losses. The mitigation actions include:

  - Public information projects to encourage owners to take steps to protect their buildings from flood damage.
  - Providing technical assistance to people who want to take steps to protect their buildings.
  - Mapping and regulating development and redevelop¬ment in flood problem areas not shown as flood hazard areas on the community's Flood Insurance Rate Map.
  - Adopting higher standards for retrofitting existing floodprone buildings, such as tracking improvements and damage cumulatively and requiring that buildings be protected to a level higher than the base flood.
  - Expanding the number of projects affected and the level of protection for stormwater management requirements.
  - Including repetitive loss areas in the community-wide mitigation plan.
  - Preparing repetitive loss area analyses, i.e., more detailed mitigation plans for each repetitive loss area.

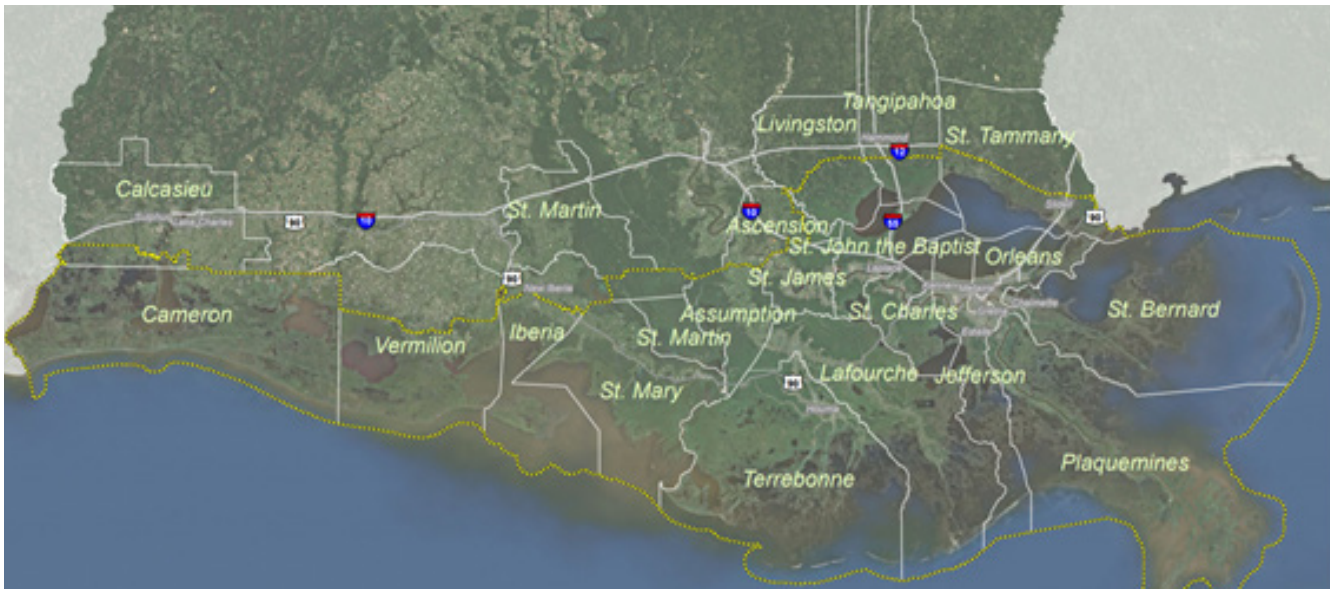
Figure 27 – The CRS Coordinator's Manual

- Removing floodprone buildings from the flood hazard area (double credit if the buildings are on the repetitive loss list, triple credit if they are severe repetitive loss properties).
- Retrofitting floodprone buildings to provide flood protection (double credit if the buildings are on the repetitive loss list, triple credit if they are severe repetitive loss properties).
- Constructing flood control or drainage improvement projects (double credit for those protected buildings that are on the repetitive loss list, triple credit if they are severe repetitive loss properties).
- Maintaining the drainage system that serves repetitive loss areas to minimize the chance of flooding due to drainage obstructions.

Other programs that can be particularly effective in mitigating repetitive losses include:

- The Statewide Flood Control Program, which manages flood control and drainage improvement projects.
- The Coastal Protection and Restoration Authority can have quite an impact as it has jurisdiction over 79 of the 205 (39%) repetitive loss communities. Those communities have had 83% of all the repetitive loss claims. CPRA's programs are given a full page of coverage in the hazard mitigation plan.

Figure 28
The Coastal Zone Boundary includes 79 repetitive loss communities that account for 83% of all repetitive loss claims



The Uniform Construction Code sets minimal standards for building codes. It could require more effective flood protection measures for existing buildings, such as tighter substantial improvement rules and freeboard.

There are several programs that preserve open space, such as the Land Acquisition Program and the Louisiana Coastal Wetland Conservation Plan. Their primary mitigation benefit is preventing increased runoff caused by new development.

The Department of Natural Resources and the Department of Transportation and Development have coastal or floodplain management programs that provide advice and assistance to communities. Such work can be very successful in encouraging communities to adopt higher standards and/or give special attention to repetitive loss properties.

Hazard Mitigation Capabilities

Personnel and Technical Capability

Although the number of repetitive loss properties continues to increase, the State has made progress in the mitigation of these properties. Per the below table, the percentage of mitigated properties remains constant even though the number of repetitive loss properties has increased since the last plan update.

Table 2 - Mitigation of Repetitive Loss Properties

End of Year	Non-Mitigated RLs	Mitigated RLs	Total RLs	% Mitigated
2015	24,091	7,795	31,886	24%
2016	25,515	8,119	33,634	24%
2017	25,825	8,219	34,044	24%
2018*	25,633	8,486	34,119	25%
*Data through end of July 31, 2018				

Repetitive loss mitigation could be more effective if more staffing were added to the programs noted in the previous section in addition to funding sources.

Financial Capability

Chapter 3, the Capability Assessment of the state Hazard Mitigation Plan, summarizes the variety of federal and state grant and funding programs. Those most appropriate for repetitive loss mitigation are:

- The FEMA pre-disaster mitigation grant programs that fund clearance or retrofitting of repetitive loss buildings, i.e., PDM and FMA.
- The FEMA post-disaster mitigation grant programs that fund clearance or retrofitting of repetitive loss buildings, i.e., HMGP and Section 406 (for buildings owned by public agencies and non-profit organizations).
- The Water Resources Development Act that authorizes Corps of Engineers flood protection projects.
- The Hurricane and Storm Damage Risk Reduction System, which appropriated funds for flood protection in the greater New Orleans area.
- The Increased Cost of Compliance provision of an NFIP flood insurance policy that covers up to $30,000 toward mitigating a structure substantially damaged by a flood.
- Community Development Block Grants, which have been used very effectively to fund building elevations and other mitigation projects. Following Hurricane Katrina, repetitive loss properties were given a priority for attention.

One funding source not listed in the Hazard Mitigation Plan is the property owner. Owners typically pay the non-federal share of FEMA grants. FEMA funds are restricted to the more effective measures, such as acquisition and elevation. These are also the more expensive measures, often costing over $100,000, so a state or federal grant is necessary.

As noted in Section 2, 55% of the state's repetitive loss properties had average claim payments of less than $25,000 and 26% had average payments less than $10,000. These payments indicate that a good portion of the problem is caused by shallow flooding and drainage issues. These issues can often be mitigated using lower cost measures, such as regrading yards and erecting barriers.

While some property owners may not be able to afford projects that cost as little as $10,000 or $20,000, they may be able to afford to pay more than 25% of cost of such projects. In other areas of the country, property owners have paid 75% of the cost of relatively inexpensive mitigation projects, such as sewer backup and basement flooding protection measures at or less than $5,000. These approaches are discussed in the Corps of Engineers' guide, Local Flood Proofing Programs located at:

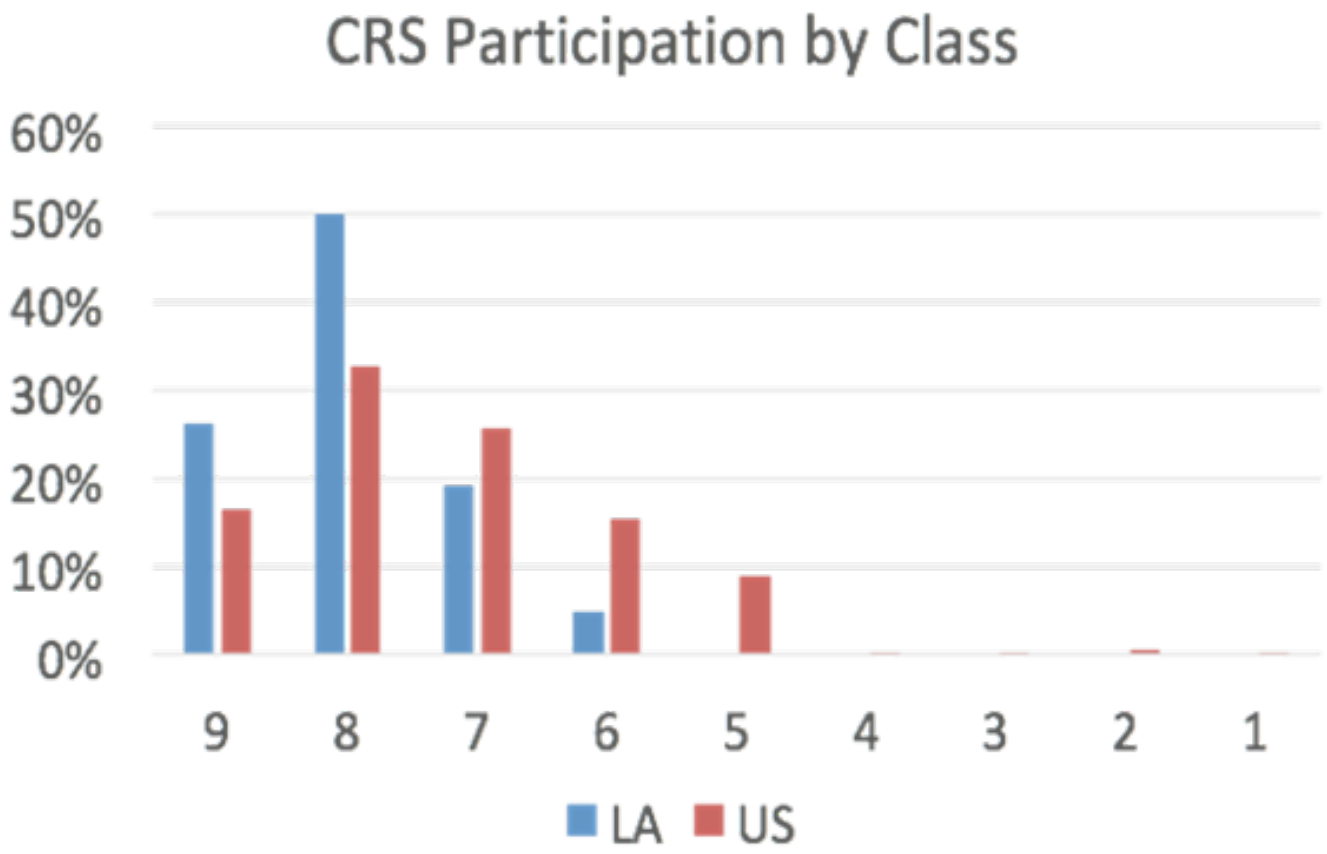
https://crsresources.org/files/300/360_local_flood_proofing_programs_2005.pdf.

Local Capacity

The State Hazard Mitigation Plan's assessment of local capabilities focuses on the demands placed on Parish Office of Emergency Preparedness staff. As shown in the local Hazard Mitigation Plan section above, communities are capable of designing extensive mitigation actions, but they have a lot to do to implement them all. This is due to both staff and financial limitations.

The State Plan states that floodplain management staff have been able to bring 39 communities into the Community Rating System. As noted earlier, CRS communities have almost 80% of the State's unmitigated repetitive loss properties and CRS requirements and incentives can do a lot to mitigate damage to repetitive loss properties.

Figure 29
CRS Participation by Class



While the 39 communities should be proud of their accomplishment, as a whole, Louisiana's CRS participation is below the national average. The comparison graph to the right shows that most Louisiana CRS communities are in the "entry level" classes, there is only one Class 6, and none are a Class 5 or better.

Providing communities with the capability to design and implement CRS-credited mitigation programs and projects would help reduce repetitive losses, strengthen floodplain management programs, and lower the cost of flood insurance for many policy holders in the State.

A separate State CRS Strategy reviews CRS participation and activities and has recommenda¬tions that are included in Appendix D. While grants might help provide support to local staffs, they are not considered a long-term solution. Instead, the Strategy recommends technical assistance from state agencies and statewide organizations and encouraging communities to help themselves (as their residents are the immediate beneficiaries of the CRS).

Coordination of Local Planning

Effective mitigation planning depends on adequate staffing, funding, and state support. These are discussed in the "Coordination of Local Planning" section in the State Hazard Mitigation Plan. Repetitive loss communities will continue to be dependent on GOHSEP's mitigation planning and grant programs. The 2014 Plan lists the priorities for such support, as "jurisdictions with repetitive loss properties" are included on the priority list. The 2019 plan continues this prioritization, as Goal 4 states "Reduce Louisiana's repetitive and severe repetitive loss property inventory."
There is an effort nationally to better coordinate mitigation planning and the floodplain management planning credited under the Community Rating System. FEMA published a bulletin and is sponsoring webinars on how to do this: https://www.fema.gov/media-library/assets/documents/171290. Such actions will help all communities by producing mitigation plans that better address flooding and repetitive losses and CRS credited plans that are better coordinated with other hazard mitigation initiatives.

Funding Projects

As noted in the previous sections, there are several different ways to protect a building from repetitive flooding, especially shallow repetitive flooding. Every building would be best protected by purchasing and moving it out of the flood problem area. However, there is not enough money to use this most effective measure and, in some cases, it would result in removing entire communities.

Each community needs to adopt a method to determine which measures are appropriate for each situation. The first step in such methods is to collect sufficient information on the local situation, i.e., the building and the flood problem. This section reviews three levels of data collection, varying from the most general to the most detailed. The next section reviews factors that should be part of the measure selection process.

Identifying Projects

Mapping Repetitive Loss Areas

The most general approach is to map the repetitive loss areas and describe the overall situation. Communities in the Community Rating System have already done this, as such maps are a prerequisite to participate in the program.

Guidance for CRS repetitive loss maps is found in Section 3 of Developing a Repetitive Loss Area Analysis. It is important to note that these maps include properties not designated as repetitive loss properties by FEMA. As noted in the guidance "If only the properties on the list are examined, then only part of the entire problem is being addressed. Therefore, it is important that all buildings with the same exposure to repetitive flooding be identified in an 'area.'"

The situation description need not be lengthy. A description for the Area #1 example (right) could read "There are six single family homes in Area #1. They are all slab-on-grade buildings that were constructed at the same time. The sites are at or lower than the level of Grace Drive and the lots flood whenever there is more than two inches of rain in 24 hours."

Figure 31 – Repetitive Loss Area Analysis

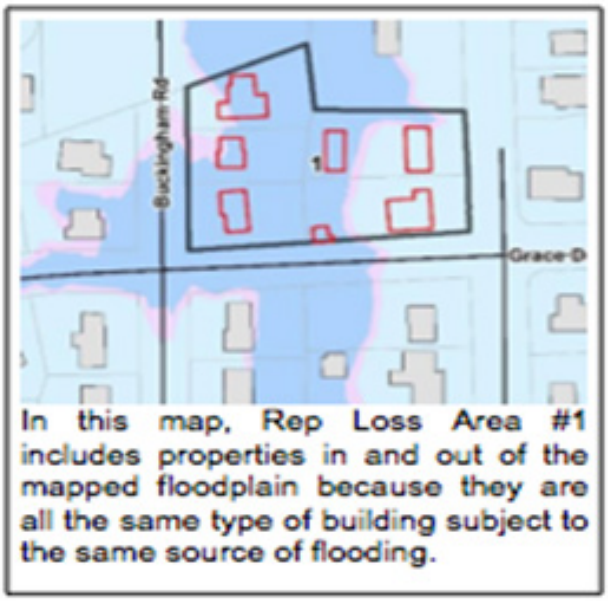
Area Analyses

Area analyses are more detailed examinations of the flood problem and possible corrective measures. Their primary audience is local decision makers, but they are also useful for the property owners. In addition to the greater level of detail, they differ from area maps by including recommendations for each building in the area.

The Community Rating System provides credit for preparing Repetitive Loss Area Analyses, so there is good guidance in FEMA and CRS materials, including Section 4 of Developing a Repetitive Loss Area Analysis and Chapter 7 of FEMA's Reducing Damage from Localized Flooding. CRS credited area analyses must be made available to the area's property owners.

The building by building reviews are usually done in tabular form, as in the example below. They should include recommendations for mitigation actions to be taken by both the local government and the property owners.

Figure 30 – Repetitive Loss Area



The University of New Orleans's Center for Hazards Assessment, Response and Technology (UNO-CHART) has prepared many repetitive loss area analyses for Louisiana communities. They are posted on CHART's repetitive loss website. CHART can also assist communities in preparing their own analyses.

Figure 32
Repetitive Loss Area Analysis

Street Name	Building number	Neighborhood	Occupied	EC Diagram	# of Stories	Elevated above grade	Elevated above street	Structure type	Mitigation Recommendations
Alexander	1504	North Arabi	Yes	8	2	2-3	3-4	M	E,B,UP
Alexander	1505	North Arabi	Yes	5	1	4-5	4-5	M	E,B,UP
Alexander	1509	North Arabi	Yes	5	1	2-3	2-3	M	E,B,UP
Alexander	1515	North Arabi	Yes	5	1	2-3	2-3	M	E,B,UP
Alexander	1516	North Arabi	Yes	5	1	1-2	1-2	W	E,B,UP
Alexander	1520	North Arabi	Yes	5	2	4-5	5-6	W	E,B,UP
Alexander	1521	North Arabi	Yes	5	1	4-5	4-5	M	E,B,UP
Alexander	1524	North Arabi	Yes	1A	1	0-1	1-2	M	B,DF,E,UP

The figure above depicts a way to take field notes on properties in repetitive loss areas, as well as show mitigation recommendations for each listed property.

Building Audits

The most detailed review of repetitive loss mitigation measures are reports on each floodprone building. There is no official format for an audit, but they should include a site visit, description of the property, and a review of alternatives. Often, they include standard language about the measures, local warning procedures, flood insurance, etc.

The audience for an audit is the property owner, who should be interviewed and otherwise involved in the preparation. Much of the information can be taken from or used to prepare an area analysis. The summary recommendations from one are shown below.

Past protection measures taken	sump pump, regraded yard, moved things out of the basement, gas powered pumps
First retrofitting recommendation	Elevate and fill in the basement/relocate
Estimated cost	Up to $30,000/up to $145,000
Second retrofitting recommendation	Barrier
Estimated cost	Up to $12,500

Selecting Projects

Once the building and the flood hazard have been reviewed and summarized in an area analysis or building audit, there should be one or more recommendations on how to mitigate the repetitive flooding problem. The mitigation options are discussed above. This section provides guidance on how to determine which options are most appropriate for each situation. The earlier discussions on the individual mitigation options provide more information on where they are appropriate and not appropriate. The worksheet on page 48 also provides a way to collate the factors such as flood hazard and building type.

Flood hazard

The first and most important selection factor is the flood hazard. Very hazardous locations include areas subject to flash flooding, deep and fast-moving flooding, wave action, or related factors, such as coastal erosion. If a major flood control project is not slated for these types of areas, the best option is to remove the building from harm's way, i.e., the acquisition or relocation measures.

If the hazard is shallow (less than one or two feet) and the water is still or slow moving, there are more options. These are less expensive, including local barriers and dry floodproofing.

In areas subject to deeper, but less dangerous, flooding, there are effective building protection measures, especially elevation. However, depending on warning time and proximity to high ground, there can still be a danger posed to the occupants that should be considered.

Flood hazard factors to account for include:

- Warning time
- Velocity
- Wave action (coastal floodplains)
- Depth
- Rate of rise and fall
- Duration
- Debris

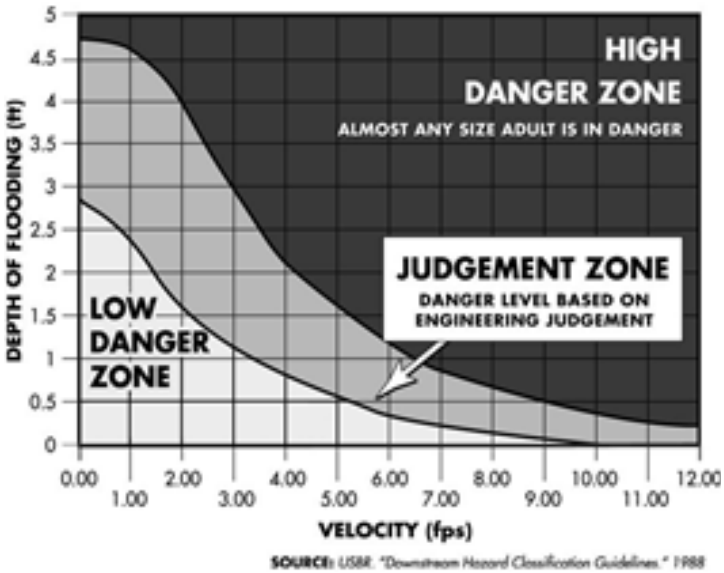
Building Type and Condition

While a mitigation measure may look appropriate for the flood hazard, it may not be appropriate for the building. Things to consider:

- Deteriorating or heavily damaged structures may not survive the relocation or retrofitting process.
- Very large buildings can be moved or elevated, but the cost may be prohibitive. Very large masonry buildings can often be protected by dry floodproofing measures, especially if there is an engineering analysis of the structure's condition.
- Slab-on-grade structures are more expensive to elevate while elevating buildings on crawlspaces can be relatively easy.
- Conversely, dry floodproofing will only work on buildings on a solid slab foundation.
- Critical facilities warrant a higher level of protection for both the structure and the occupants.
- There are legal limitations on how much an historic structure can be altered.
- Flood control and drainage improvement projects protect all types of buildings.

Figure 33
Flood Hazards

The flood hazard to people increases as velocity increases and as the flooding gets deeper. Both hazards should be considered together.



Regulatory Requirements

While a mitigation measure may be feasible for the flood hazard and the building condition, there are three types of regulations that can limit or dictate which measure is used.

If the building has been substantially damaged or the mitigation measure will cost 50% or more of the value of the building, the substantial improvement rule will govern. Local regulations must meet the requirement of the National Flood Insurance Program that the building be brought into compliance with the standards for a new building. For most residential buildings, this results in elevating the structure and/or moving equipment and ductwork out of a crawlspace. A non-residential building must elevated or dry floodproofed.

Because the cost to meet this code requirement can be so high, the owner may opt to demolish the structure and rebuild it to meet all building code and floodplain management require¬ments. On the other hand, the substantial improvement rule may encourage owners to implement a less expensive measure, which can provide less protection.

Some projects, such as drainage improvements and barriers, are not affected because they are not modifications to the structure – they are located away from the building. Projects on properties outside the regulated floodplain are also not affected.

The second regulatory constraint comes into effect if the building is located in the floodway.
The floodway is the channel of a river and the portion of the overbank floodplain that must be reserved in order to carry the base flood without cumulatively increasing the flood level by one foot. Local ordinances must meet the NFIP requirement that a project in the floodway cannot cause any increase in flood heights.

The floodway rule means that a mitigation project cannot obstruct flood flows. This means that barriers, elevating buildings on file, and some types of flood control and drainage improvements are precluded for projects located in the mapped floodway.

Some communities have enacted other higher stan¬dards, such as the ones recommended in above. Some of these may limit the freedom of choice of mitigation measures. For example, a cumulative substantial improve¬ment standard could bring the substantial improvement rule into effect for a relatively small retrofitting project.

Local Plans and Priorities

Almost every community has a land use plan and most have zoning ordinances. These documents govern what types of development are allowed in different areas of the community. Sometimes the plans call for redeveloping an area to be different than the existing development.

For example, a plan that calls for converting a developed portion of the floodplain to open space will impact proposals to retrofit buildings. If a building is substantially damaged or improved, the land use plan or zoning ordinance may prohibit continued occupancy of the site.

Even if there is no legal restrictions on retrofitting buildings, there may be a plan to expand parks or a community or neighborhood desire to stop the problems caused by repetitive flooding. In such cases, the decisions makers should try to make acquisition or relocation the mitigation measures of choice. More on local strategies for floodprone areas and redevelopment approaches can be found in Chapters 3 and 7 of FEMA's Reducing Damage from Localized Flooding located at https://www.fema.gov/media-library/assets/documents/1012.

Benefits and Costs

Sometimes the cost of a mitigation measure can exceed the benefits. Acquisition and elevation projects, for example, can cost over $100,000. Are such projects appropriate for a building subject to flooding by less than a foot of slow moving water, especially if there is another, less expensive, measure?

Reviewing the benefits and the costs is especially important when funding a project with public money. Federal funding of a project requires an analysis of the benefits and costs. FEMA's Benefit-Cost Analysis process is a good one to follow and is needed for FEMA funding of a mitigation project. Details on this process can be found at https://www.fema.gov/benefit-cost-analysis.

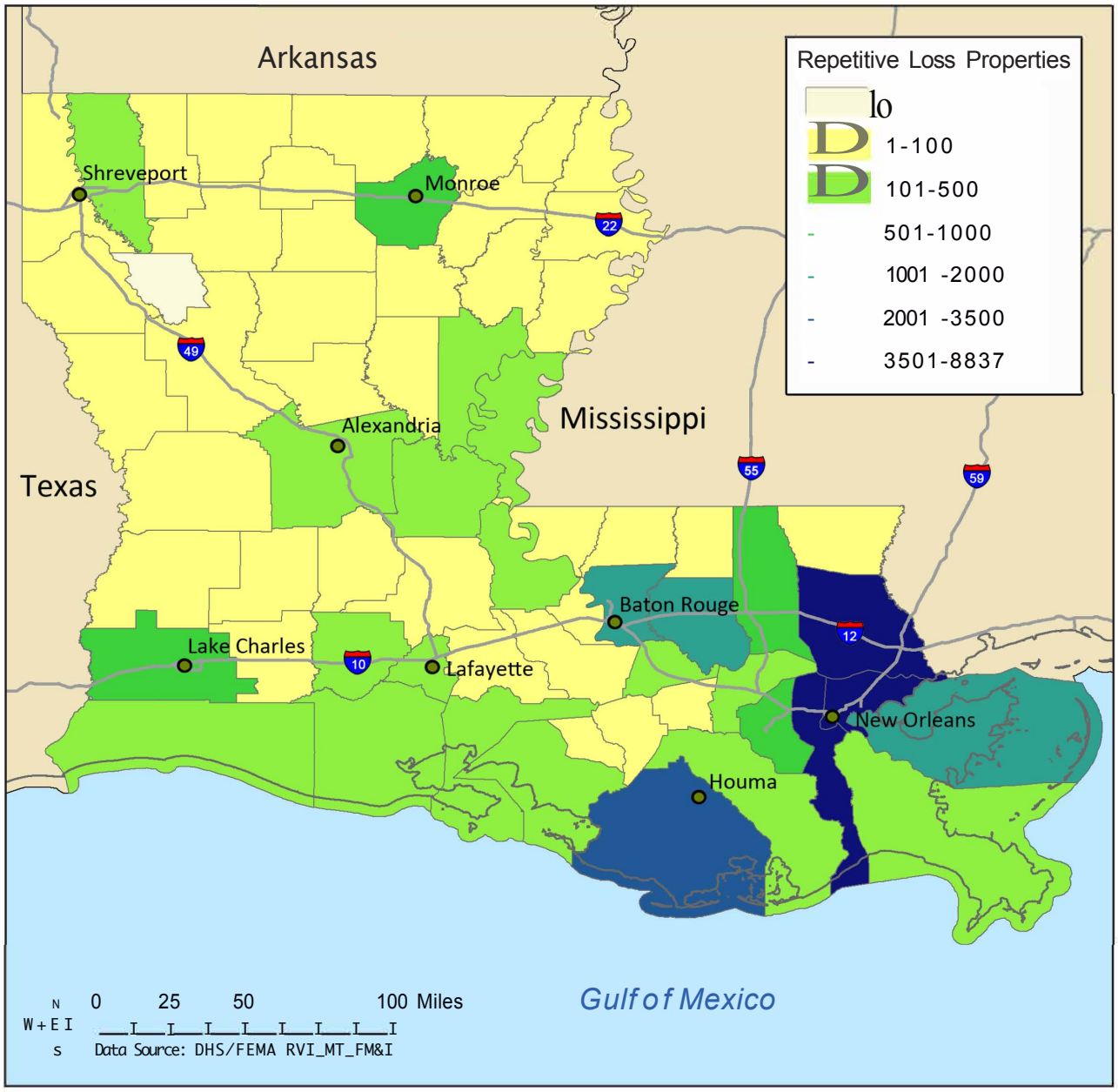
Figure 34 – St. Louis Missouri Worksheet

Address _____ 100-Year Elevation: _____ 10-Year Elevation: _____ 1st Floor Elevation: _____ Flood Protection Level: _____	Relocation	Elevation	Dry Floodproofing	Wet Floodproofing	Permanent Barriers	Emergency Barriers
Depth of flooding over first floor						
< 3 feet	5	5	3	1	4	2
3 – 6 feet	5	4	X	1	2	X
> 6 feet	5	3	X	1	0	X
In floodway	3	0	0	0	X	X
Average floodway velocity > 5 fps	5	3	1	3	1	-2
Debris	0	–3	–4	–3	–2	–5
No flood warning available	2	0	0	–2	0	X
Permeable soil	0	0	–2	0	–2	–2
Foundation						
Slab on grade – finished first floor	1	1	4	X	5	4
Slab on grade – unfinished first floor	1	3	4	4	5	4
Crawlspace	5	5	X	X	5	4
Full basement	5	3	X	4	5	4
Bilevel/trilevel	2	0	4	X	5	4
Walls						
Concrete, masonry, or brick	3	3	5	4	5	4
Wood or brick faced	5	5	2	2	5	4
Structural problems	–5	–5	–3	–2	0	0
Subtotal						
Cost multiplier						
Cost-effectiveness score						
Completed by:			*Date:*			

Example Mitigation Measure Worksheet

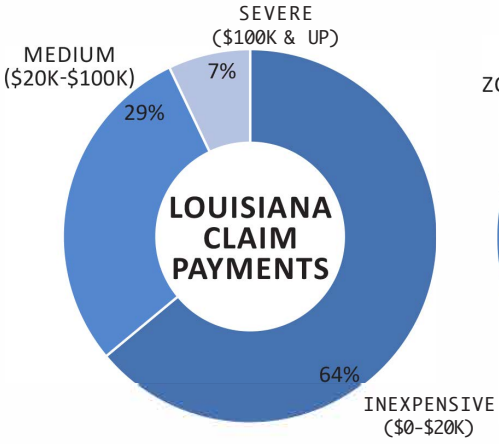
This worksheet is taken from one developed for the St. Louis, MO, Metropolitan Sewer District. The district developed a scoring system to help select mitigation measures appropriate for the flood, building, and regulatory conditions. It is completed for each property under consideration. The numbers in the columns are totaled. The higher the total, the more appropriate the measure for the flood, building, and regulatory conditions. Then additional factors are incorporated related to cost and cost-benefits.

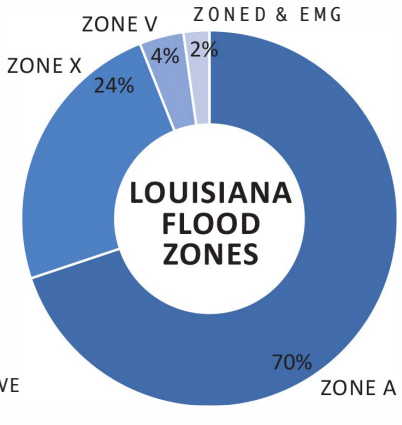
Attachment B



LOUISIANA	COUNT
RL PROPERTIES	33,993
INEXPENSIVE ($0-$20K)	70,703
MEDIUM ($20K-$100K)	31,981
SEVERE ($100K & UP)	7,843
FLOOD ZONE A	23,645
FLOOD ZONE X (B,C)	8,162
FLOOD ZONE V	1,284
FLOOD ZONED	224
EMG *	528

*NOTE: EMG is before Initial FIRM Identified





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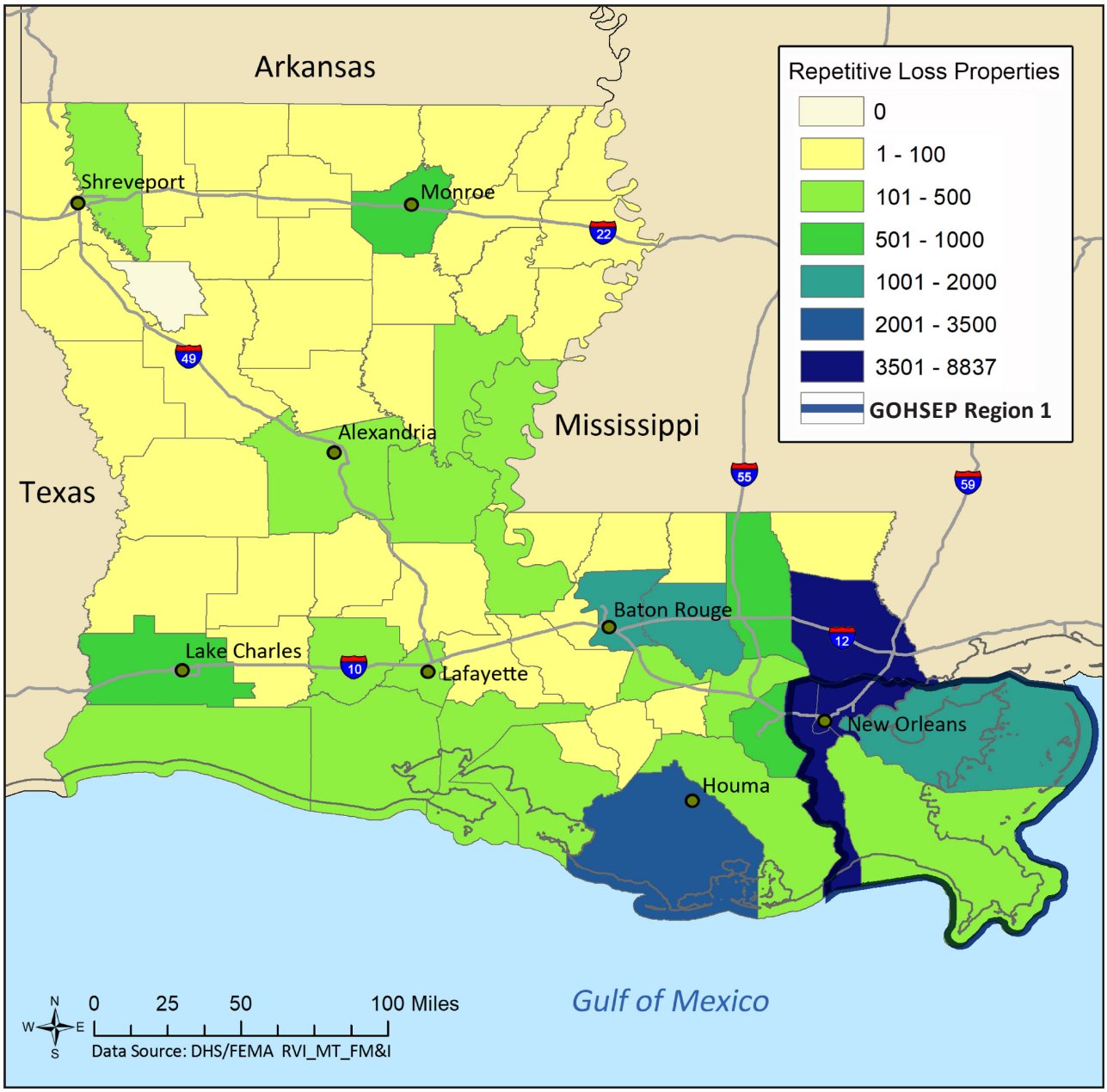
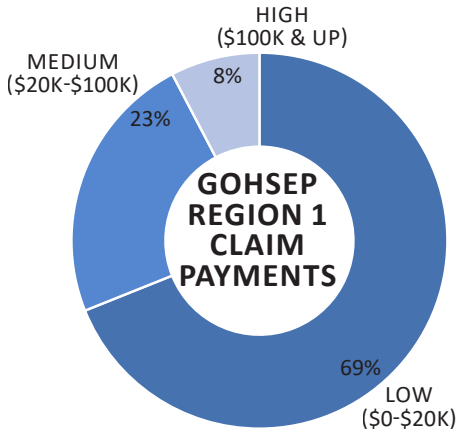
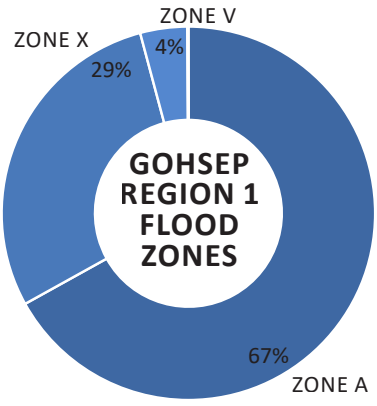


GOHSEP REGION 1	COUNT
RL PROPERTIES	16,987
LOW ($0-$20K)	41,255
MEDIUM ($20K-$100K)	14,000
HIGH ($100K & UP)	4593
FLOOD ZONE A	11,309
FLOOD ZONE X (B,C)	4,882
FLOOD ZONE V	692
FLOOD ZONE D	3
EMG*	8

*NOTE: EMG is before Initial FIRM Identified





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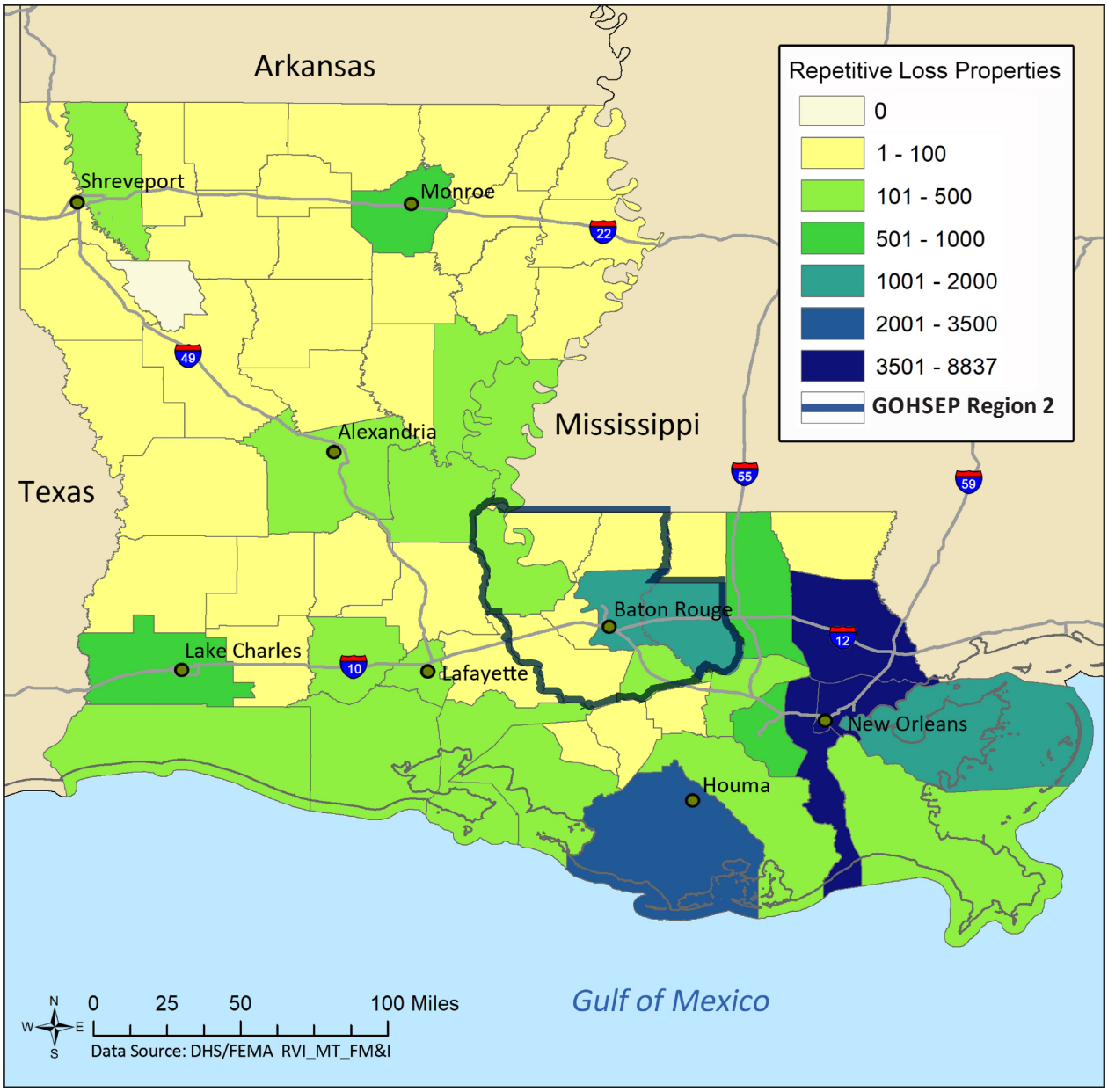
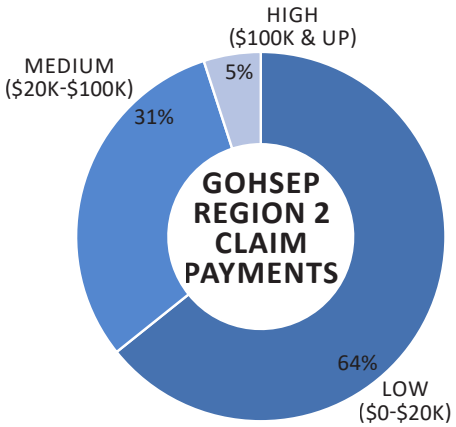
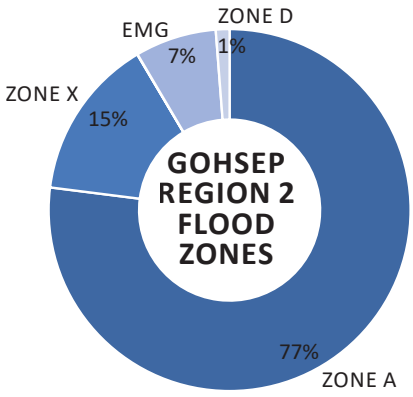


GOHSEP REGION 2	COUNT
RL PROPERTIES	3,265
LOW ($0-$20K)	7,294
MEDIUM ($20K-$100K)	3,490
HIGH ($100K & UP)	567
FLOOD ZONE A	2,511
FLOOD ZONE X (B,C)	472
FLOOD ZONE V	1
FLOOD ZONE D	25
EMG*	237

*NOTE: EMG is before Initial FIRM Identified





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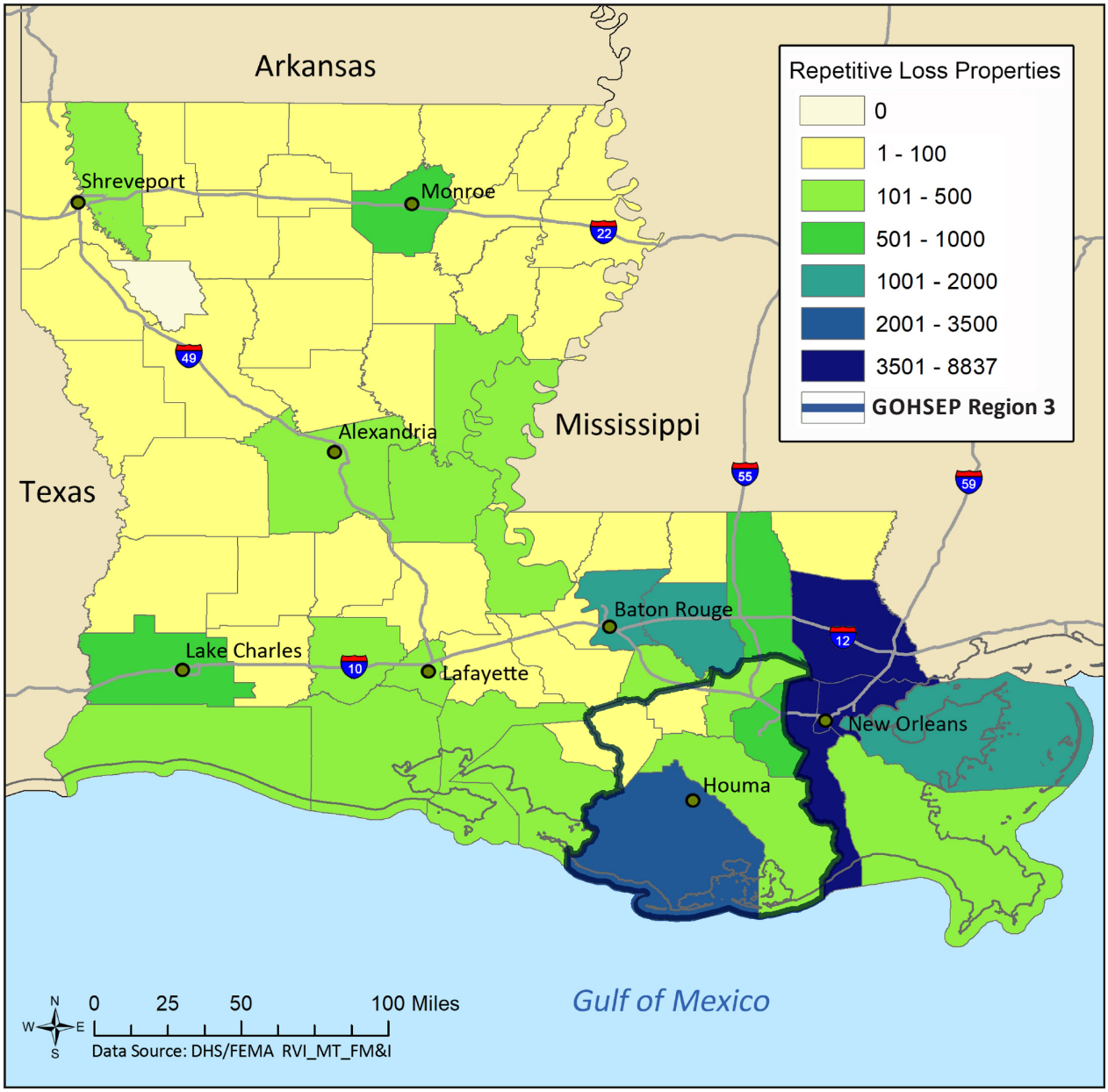
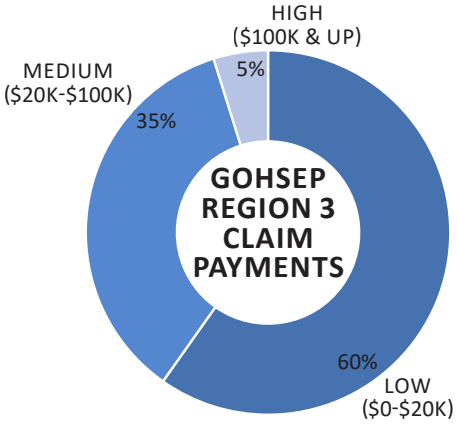
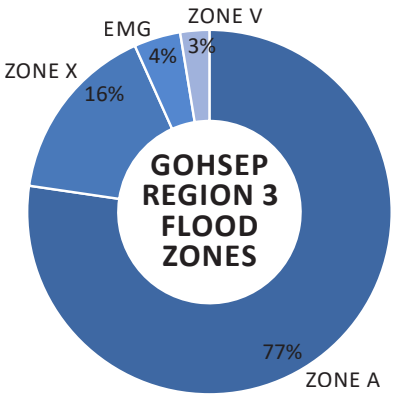


GOHSEP REGION 3	COUNT
RL PROPERTIES	6,690
LOW ($0-$20K)	12,291
MEDIUM ($20K-$100K)	7,274
HIGH ($100K & UP)	993
FLOOD ZONE A	5,129
FLOOD ZONE X (B,C)	1,060
FLOOD ZONE V	171
FLOOD ZONE D	25
EMG*	274

*NOTE: EMG is before Initial FIRM Identified





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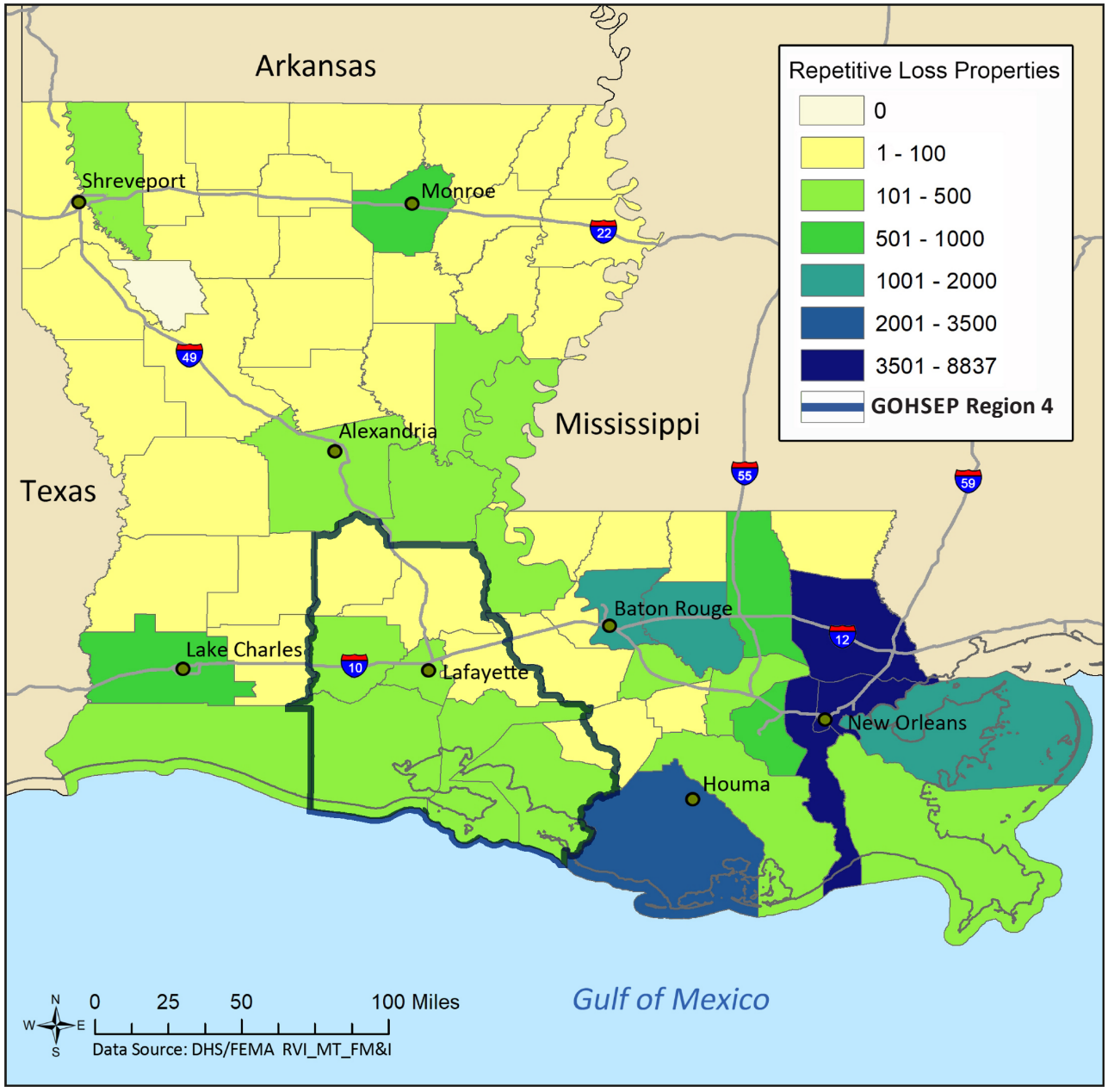
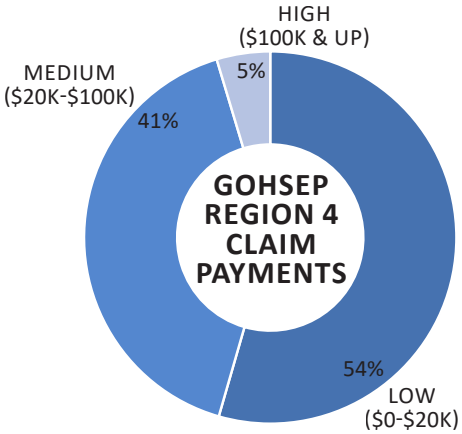
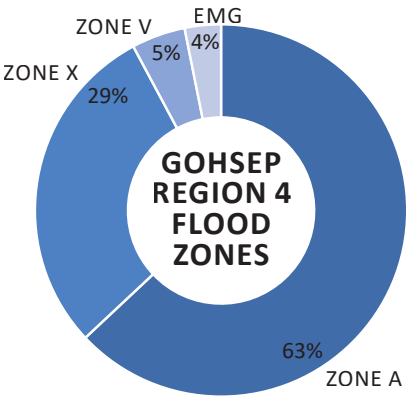


GOHSEP REGION 4	COUNT
RL PROPERTIES	1,914
LOW ($0-$20K)	2,789
MEDIUM ($20K-$100K)	2,094
HIGH ($100K & UP)	238
FLOOD ZONE A	1,201
FLOOD ZONE X (B,C)	556
FLOOD ZONE V	89
FLOOD ZONE D	3
EMG*	60

*NOTE: EMG is before Initial FIRM Identified





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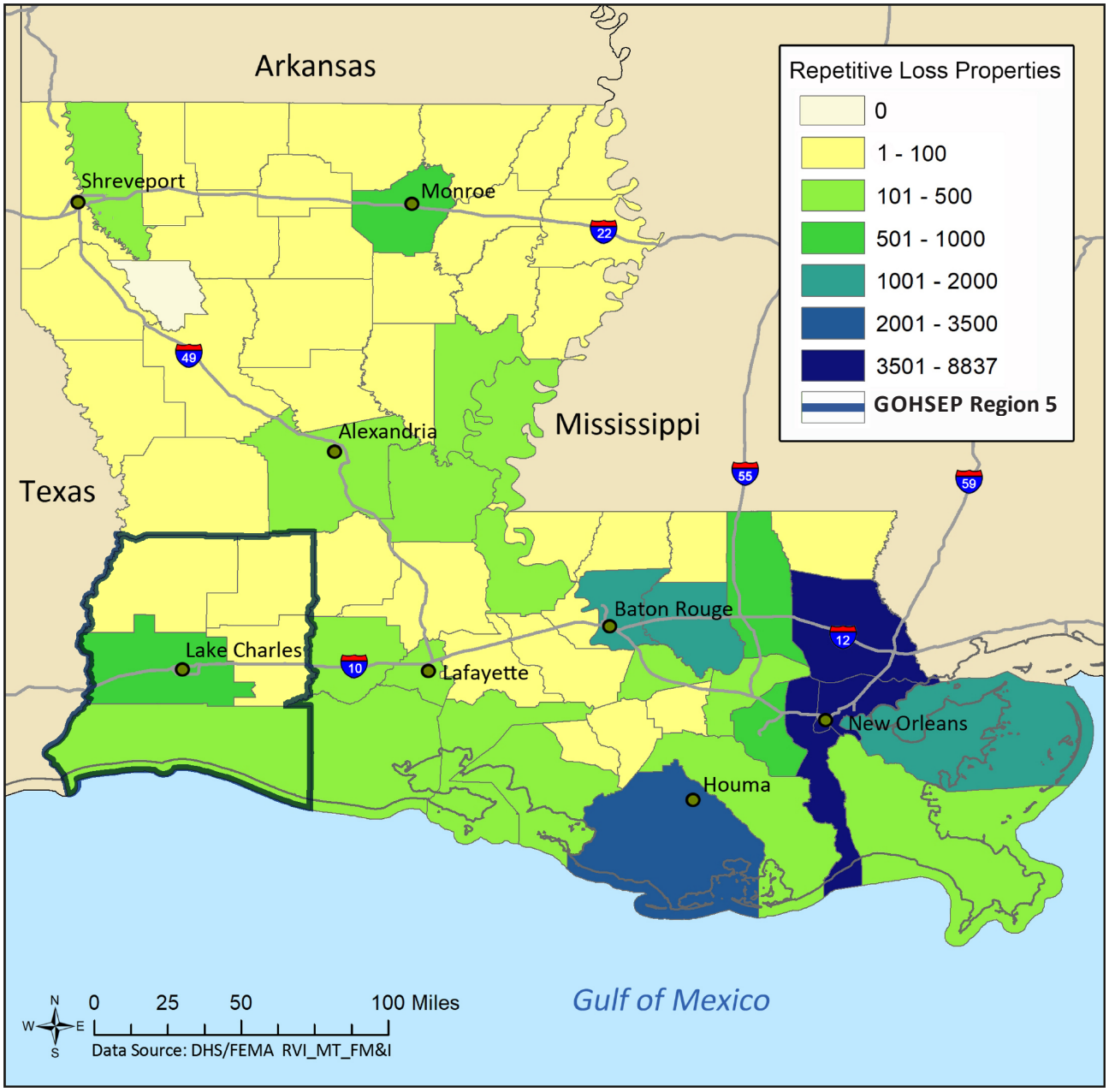
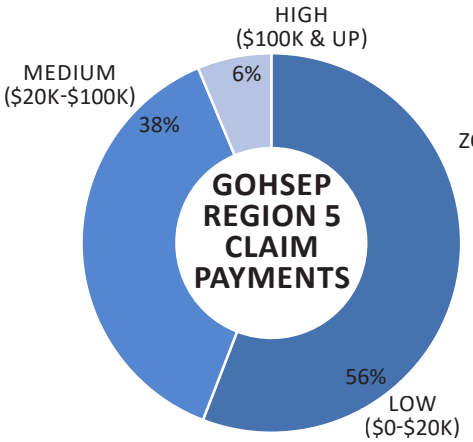
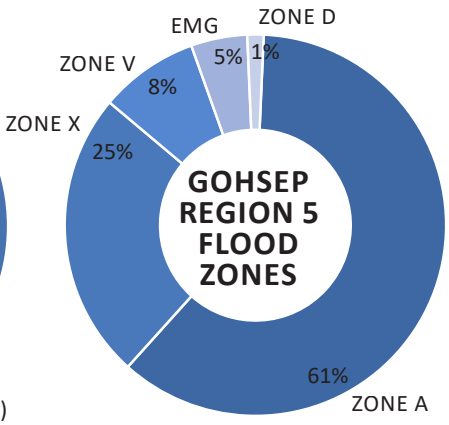


GOHSEP REGION 5	COUNT
RL PROPERTIES	3,618
LOW ($0-$20K)	5,430
MEDIUM ($20K-$100K)	3,676
HIGH ($100K & UP)	613
FLOOD ZONE A	2,211
FLOOD ZONE X (B,C)	887
FLOOD ZONE V	305
FLOOD ZONE D	31
EMG*	173

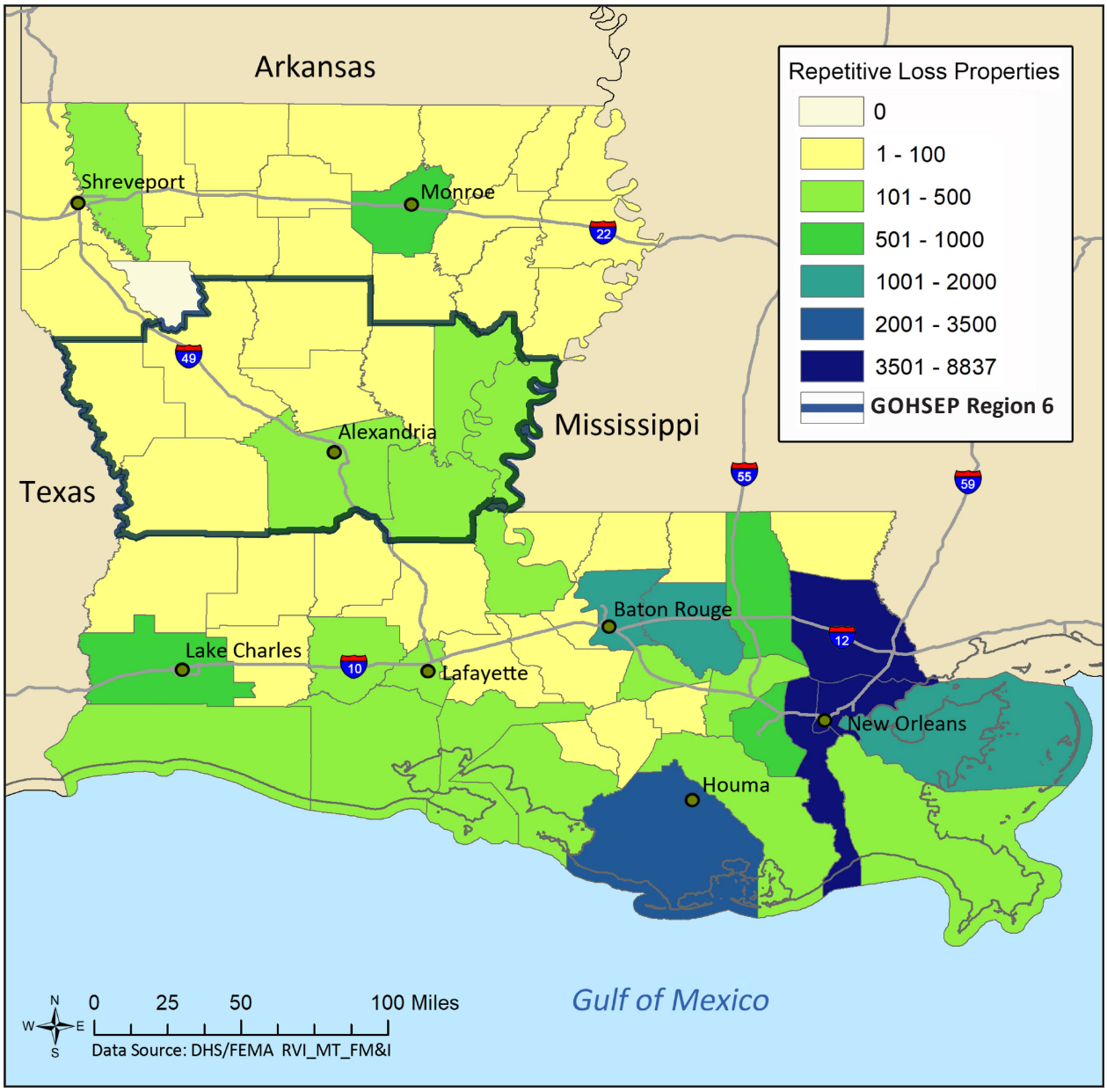
*NOTE: EMG is before Initial FIRM Identified





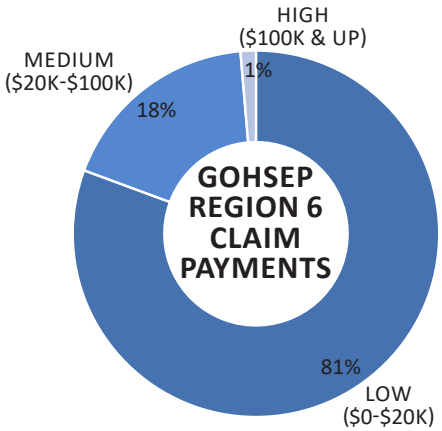
B-6

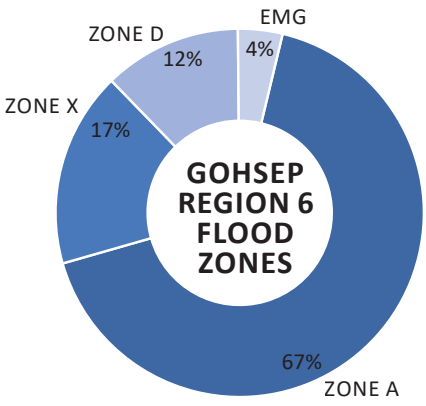
Attachment B



GOHSEP REGION 6	COUNT
RL PROPERTIES	1,309
LOW ($0-$20K)	3,571
MEDIUM ($20K-$100K)	798
HIGH ($100K & UP)	37
FLOOD ZONE A	872
FLOOD ZONE X (B,C)	224
FLOOD ZONE V	0
FLOOD ZONE D	158
EMG*	51

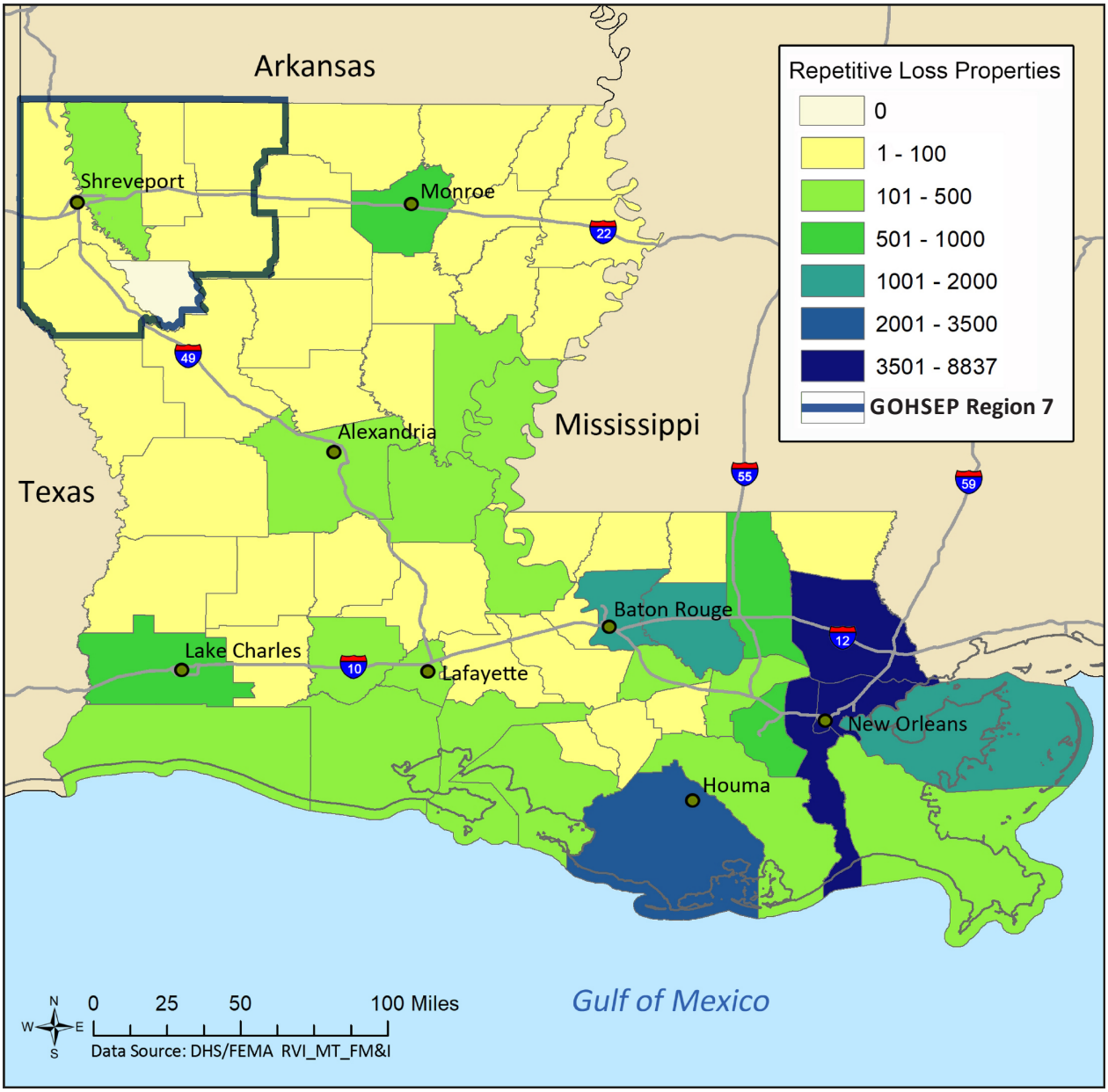
*NOTE: EMG is before Initial FIRM Identified





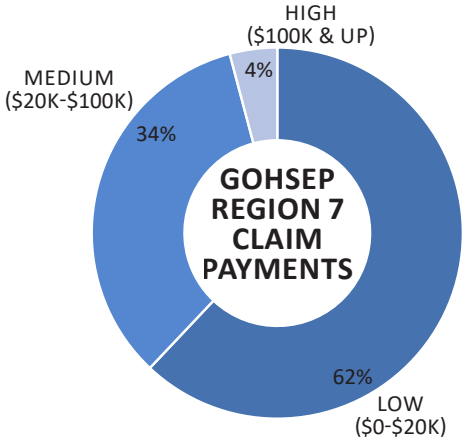
B-7

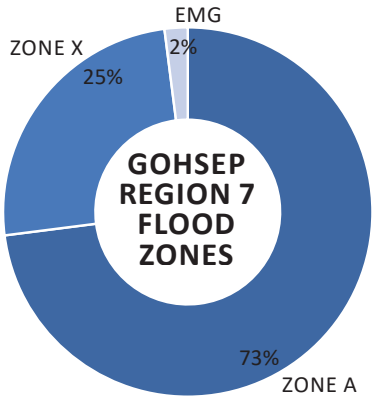
Attachment B



GOHSEP REGION 7	COUNT
RL PROPERTIES	397
LOW ($0-$20K)	721
MEDIUM ($20K-$100K)	393
HIGH ($100K & UP)	48
FLOOD ZONE A	289
FLOOD ZONE X (B,C)	99
FLOOD ZONE V	0
FLOOD ZONE D	0
EMG*	8

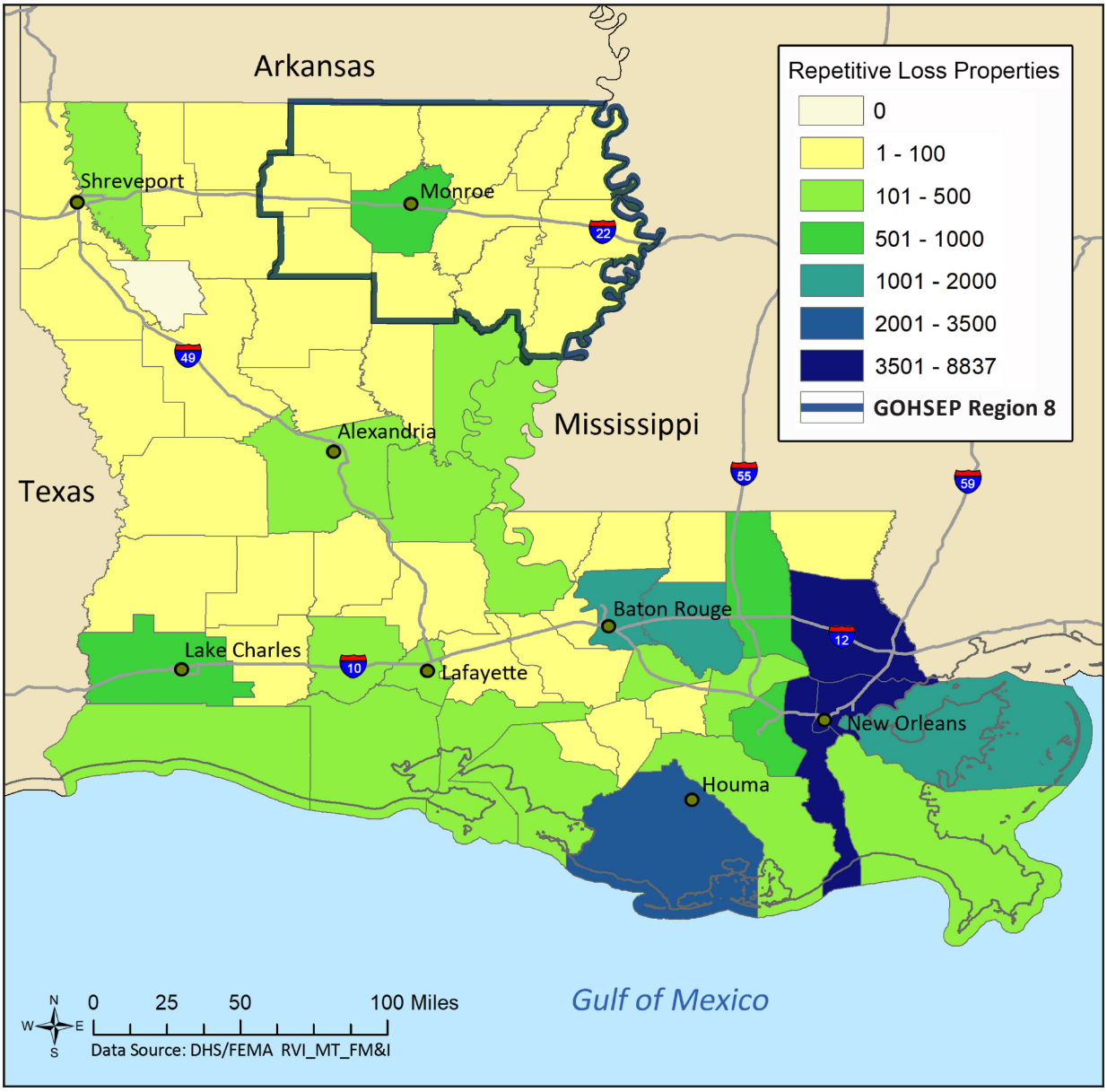
*NOTE: EMG is before Initial FIRM Identified





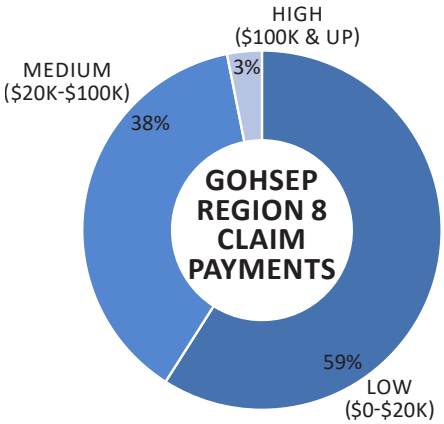
B-8

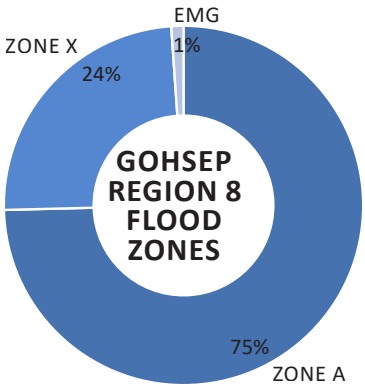
Attachment B



GOHSEP REGION 8	COUNT
RL PROPERTIES	1,012
LOW ($0-$20K)	1,852
MEDIUM ($20K-$100K)	1,188
HIGH ($100K & UP)	98
FLOOD ZONE A	752
FLOOD ZONE X (B,C)	245
FLOOD ZONE V	1
FLOOD ZONE D	1
EMG*	9

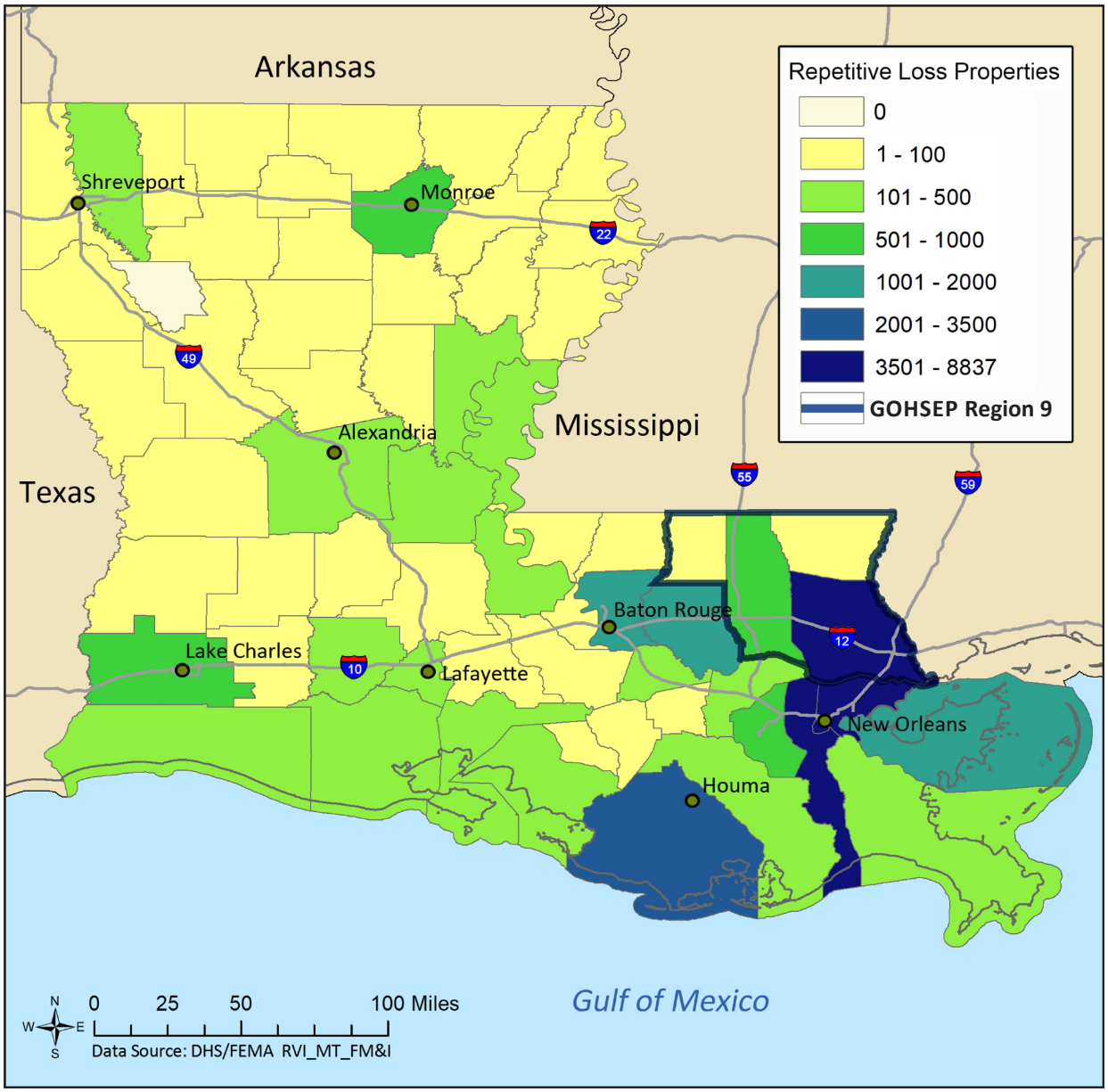
*NOTE: EMG is before Initial FIRM Identified





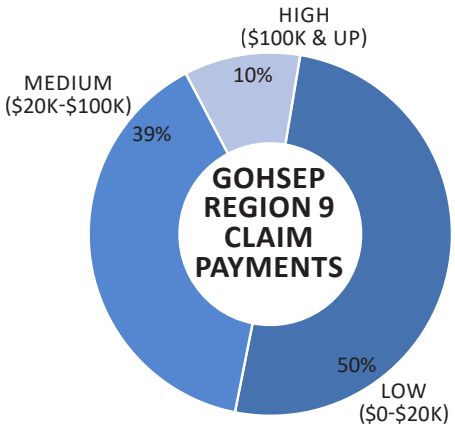
B-9

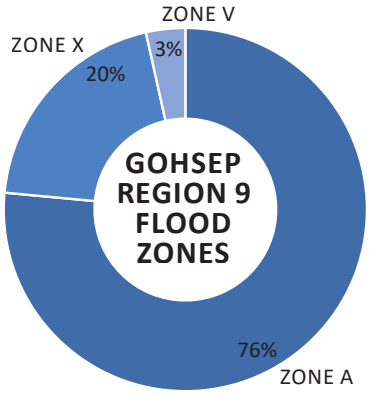
Attachment B



GOHSEP REGION 9	COUNT
RL PROPERTIES	5,135
LOW ($0-$20K)	7,664
MEDIUM ($20K-$100K)	5,947
HIGH ($100K & UP)	1,570
FLOOD ZONE A	3,900
FLOOD ZONE X (B,C)	1,021
FLOOD ZONE V	178
FLOOD ZONE D	4
EMG*	21

*NOTE: EMG is before Initial FIRM Identified





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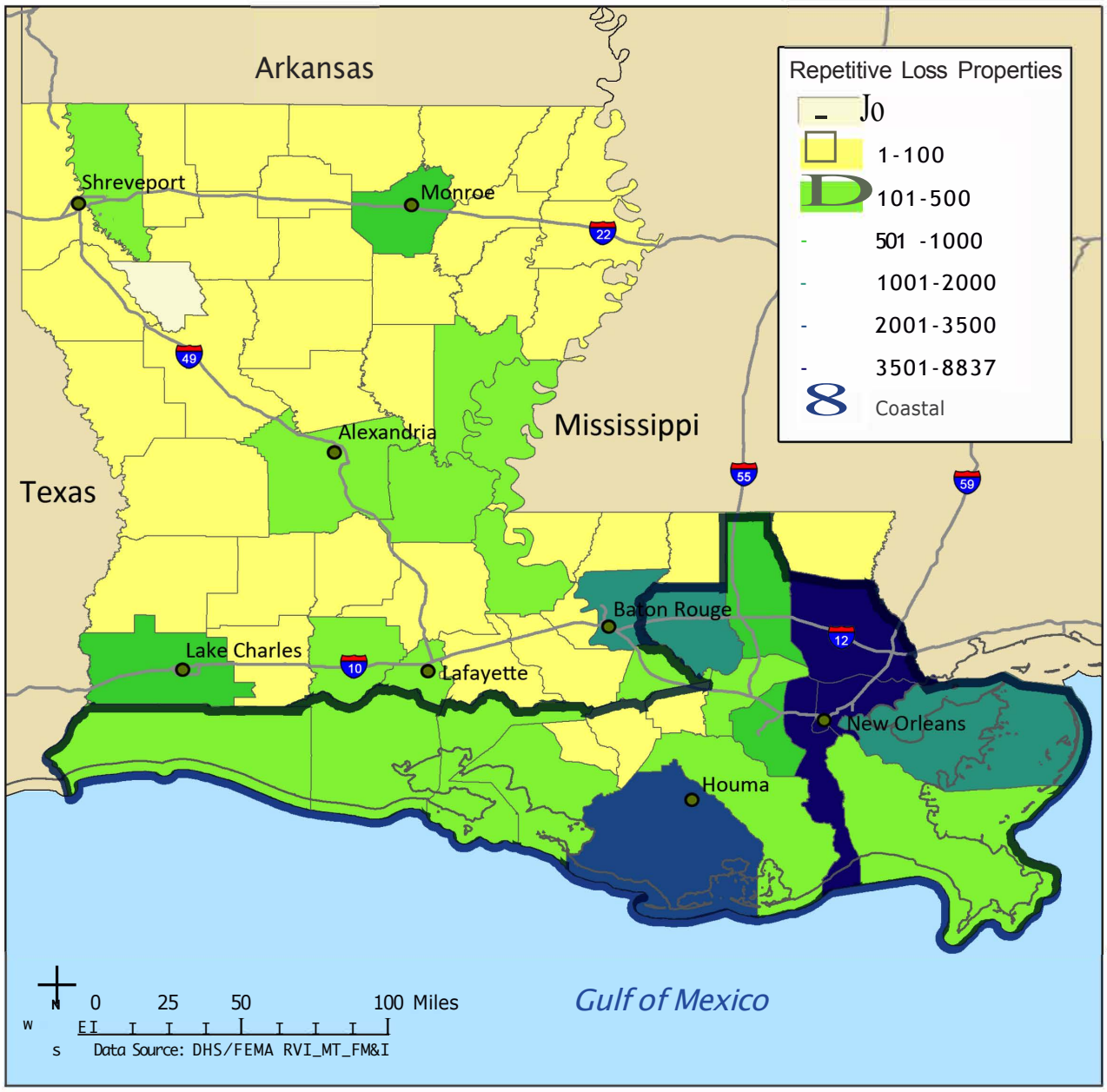
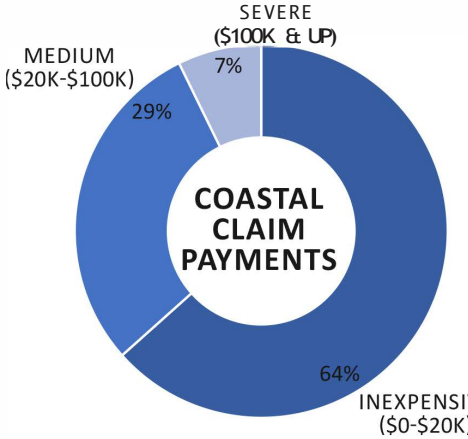
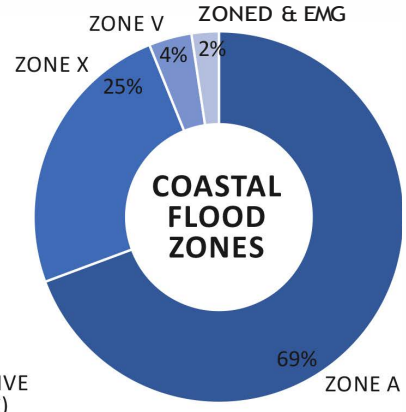


COASTAL	COUNT
RL PROPERTIES	34,962
INEXPENSIVE ($0-$20K)	72,256
MEDIUM $20K-$100K)	33,428
SEVERE ($100K & UP)	8,276
FLOOD ZONE A	24168
FLOOD ZONE X (B,C)	8,553
FLOOD ZONE V	1,303
FLOOD ZONED	166
EMG*	663

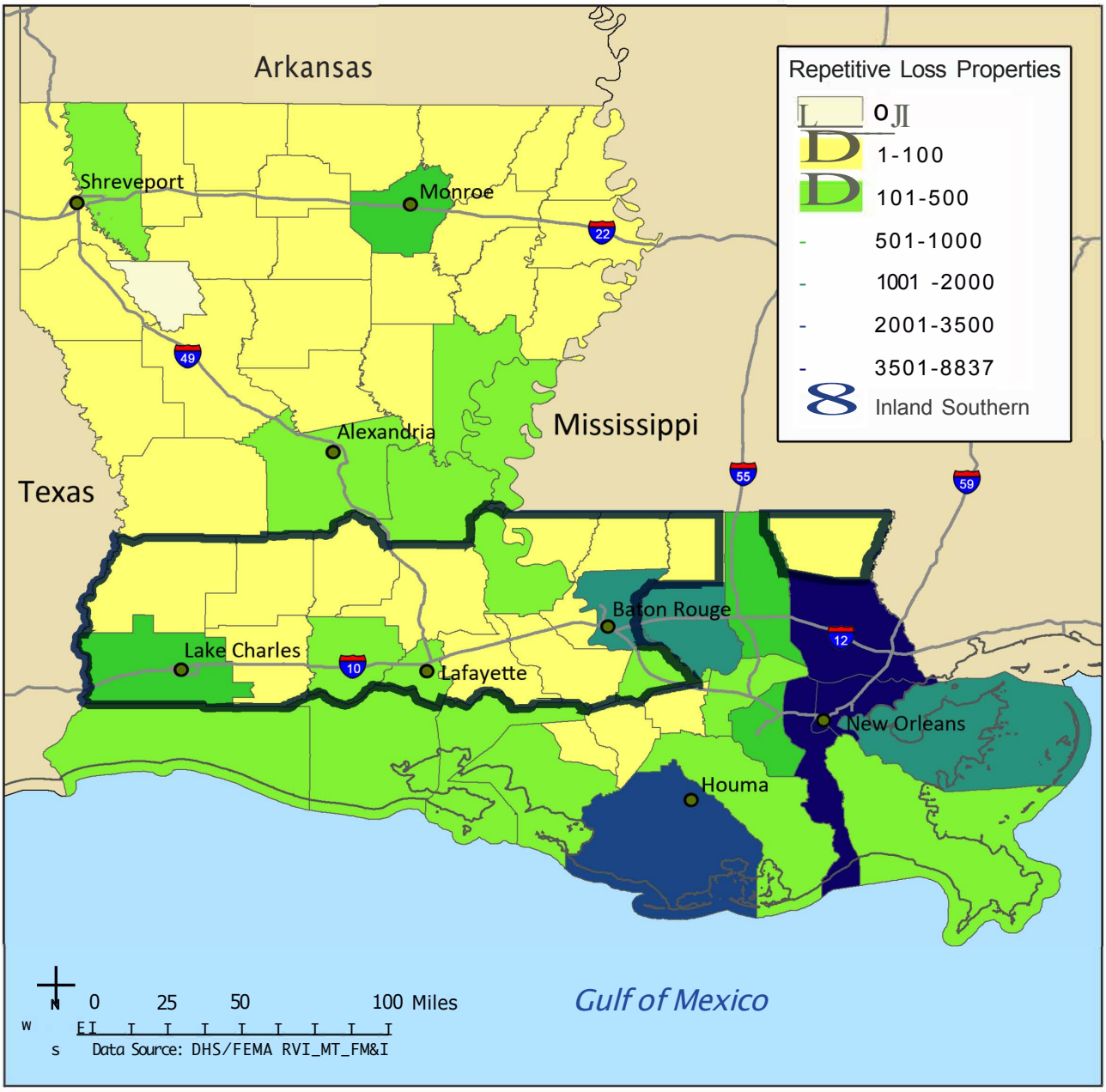
*NOTE: EMG is before Initial FIRM Identified





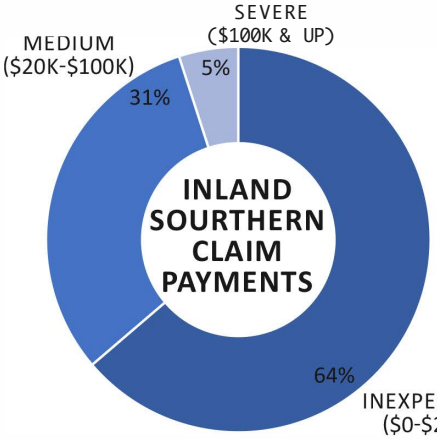
B-11

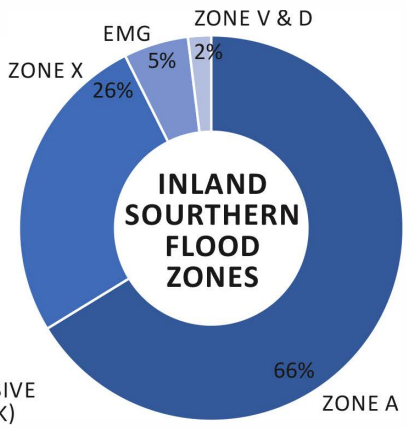
Attachment B



INLAND SOUTHERN	COUNT
RL PROPERTIES	3,819
INEXPENSIVE ($0-$20K)	7,998
MEDIUM ($20K-$100K)	3,922
SEVERE ($100K & UP)	626
FLOOD ZONE A	2,519
FLOOD ZONE X (B,C)	1,001
FLOOD ZONE V	20
FLOOD ZONED	54
EMG *	207

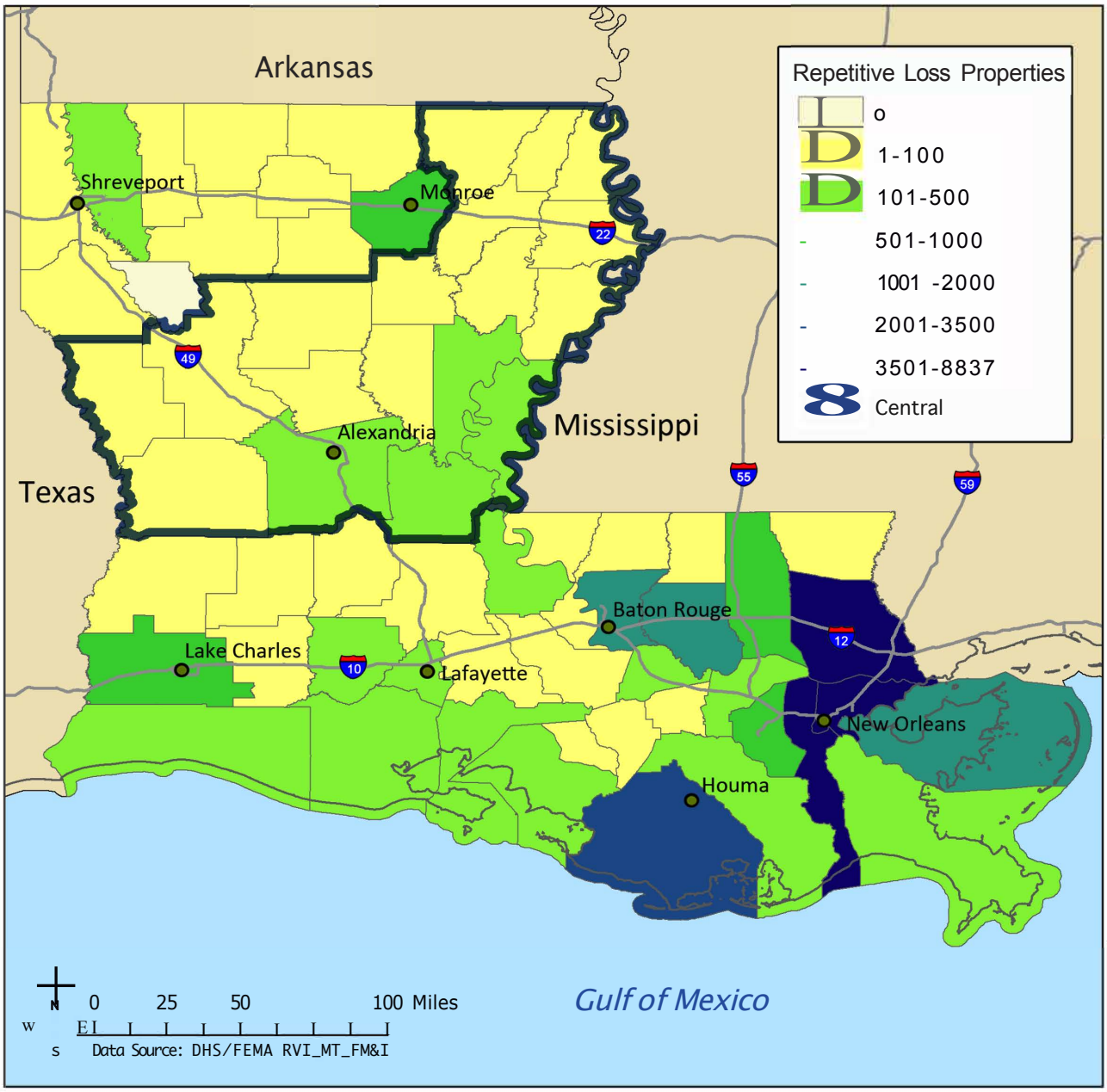
*NOTE: EMG is before Initial FIRM Identified





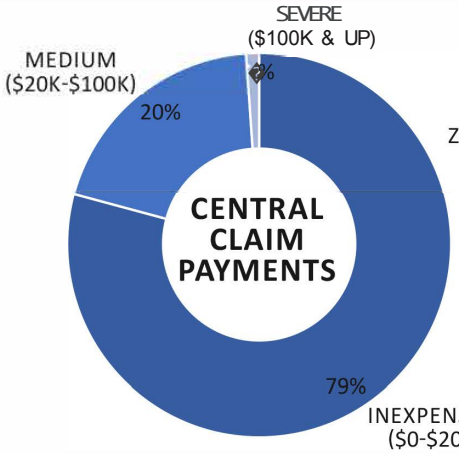
B-12

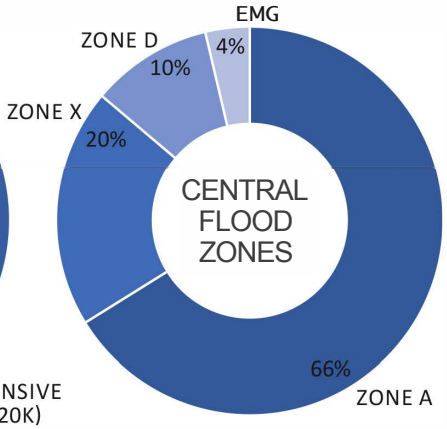
Attachment B



CENTRAL	COUNT
RL PROPERTIES	1,600
INEXPENSIVE ($0-$20K)	4,158
MEDIUM ($20K-$100K)	1,037
SEVERE ($100K & UP)	57
FLOOD ZONE A	1,056
FLOOD ZONE X (B,C)	319
FLOOD ZONE V	0
FLOOD ZONED	162
EMG *	59

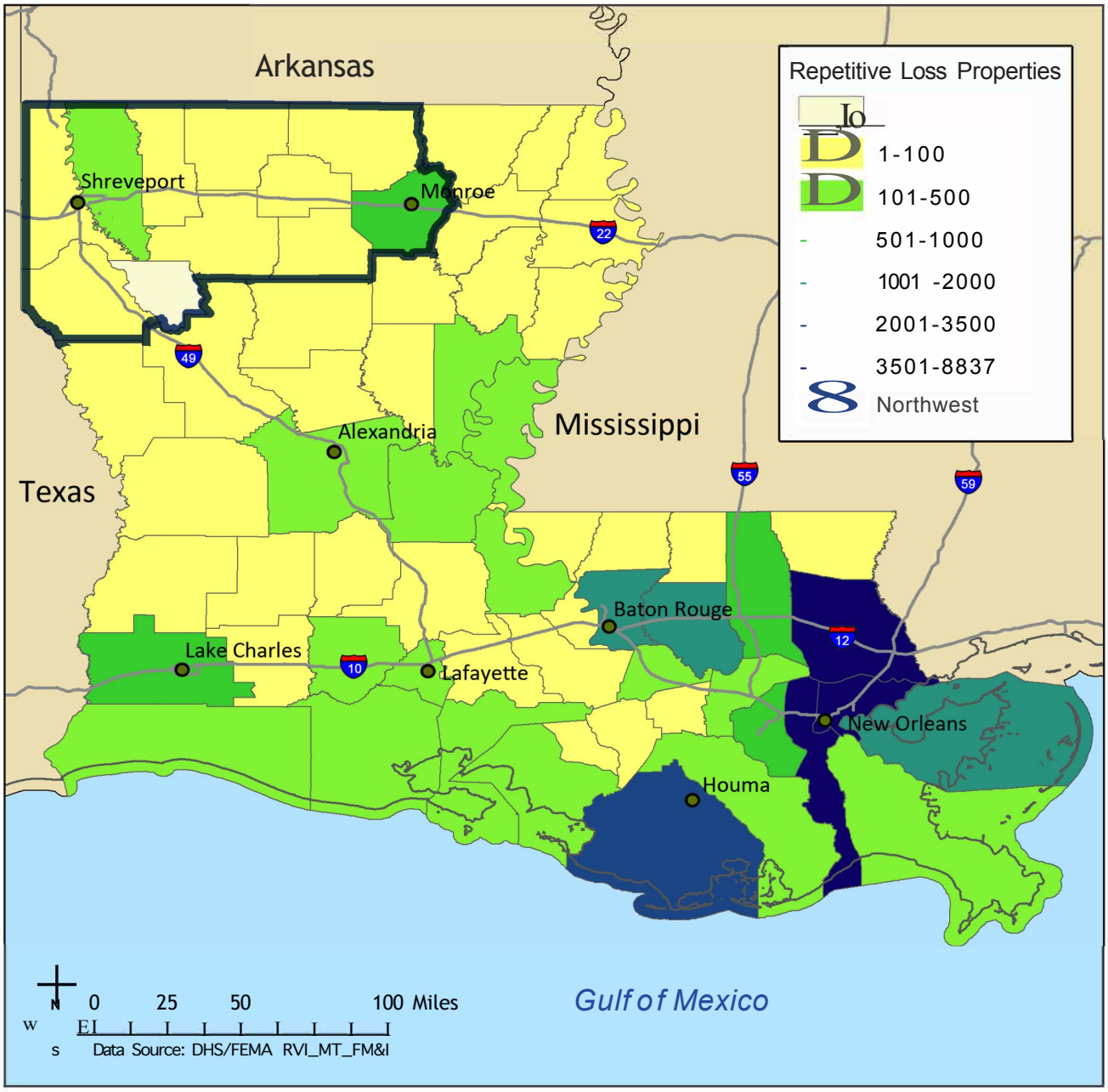
*NOTE: EMG is before Initial FIRM Identified





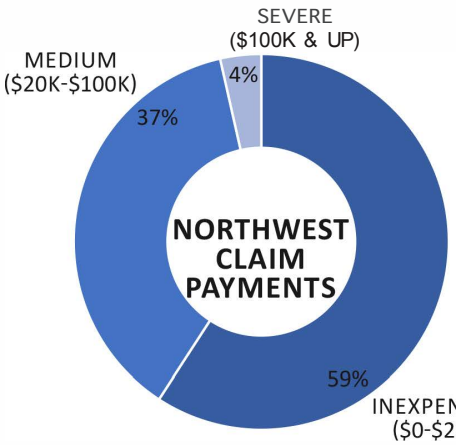
B-13

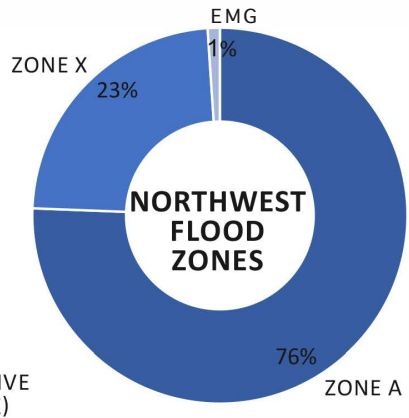
Attachment B



NORTHWEST	COUNT
RL PROPERTIES	1,247
INEXPENSIVE ($0-$20K)	2,281
MEDIUM ($20K-$100K)	1,437
SEVERE ($100K & UP)	136
FLOOD ZONE A	939
FLOOD ZONE X (B,C)	290
FLOOD ZONE V	1
FLOOD ZONED	0
EMG *	12

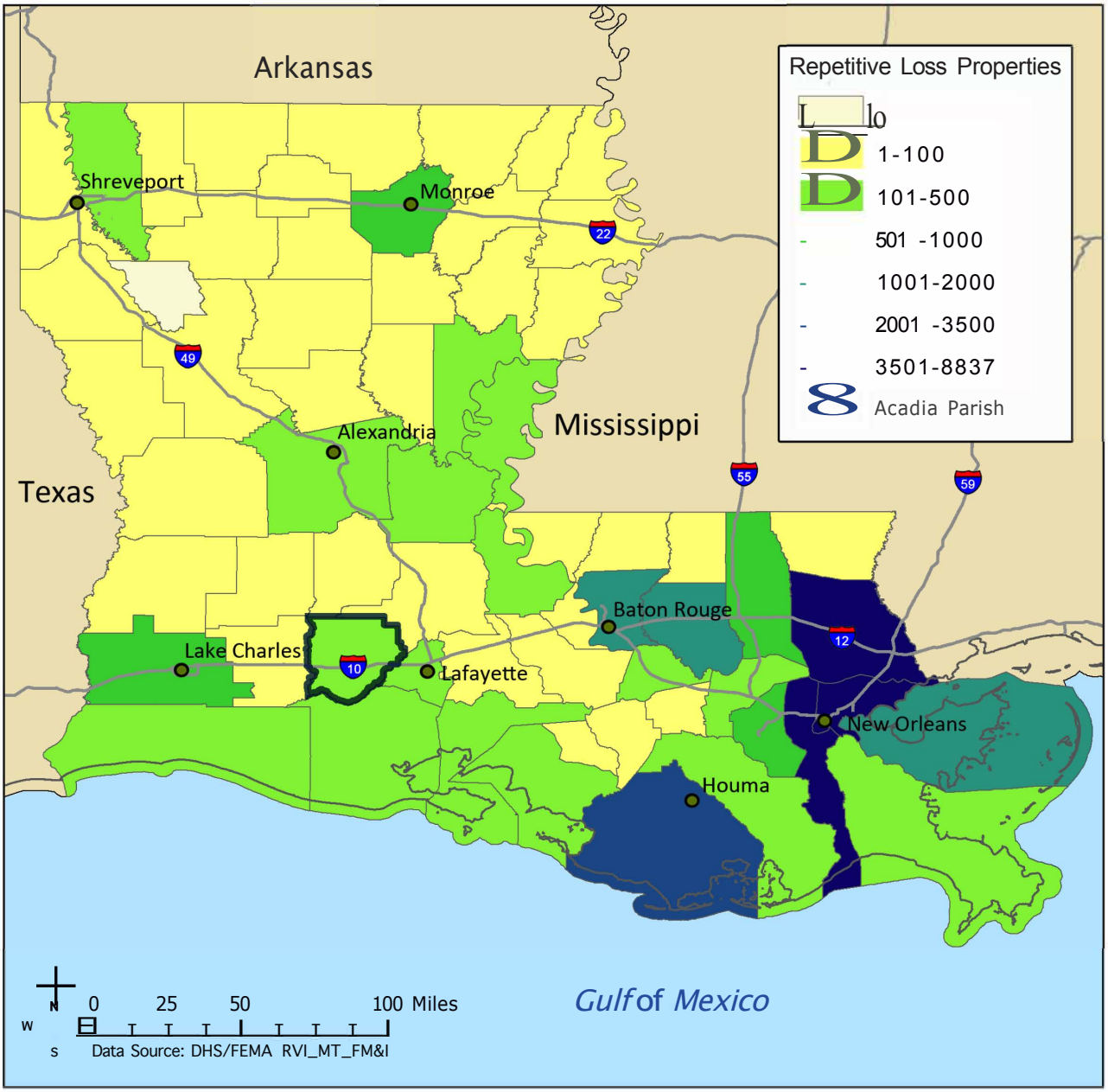
*NOTE: EMG is before Initial FIRM Identified





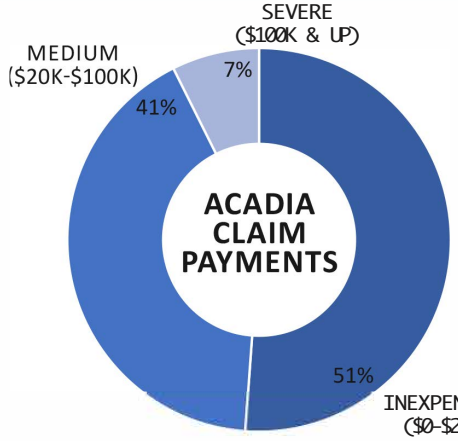
B-14

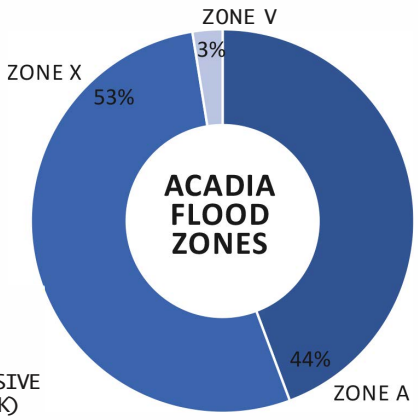
Attachment B



ACADIA PARISH	COUNT
RL PROPERTIES	157
INEXPENSIVE ($0-$20K)	201
MEDIUM $20K-$100K)	163
SEVERE ($100K & UP)	29
FLOOD ZONE A	70
FLOOD ZONE X (B,C)	84
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	4

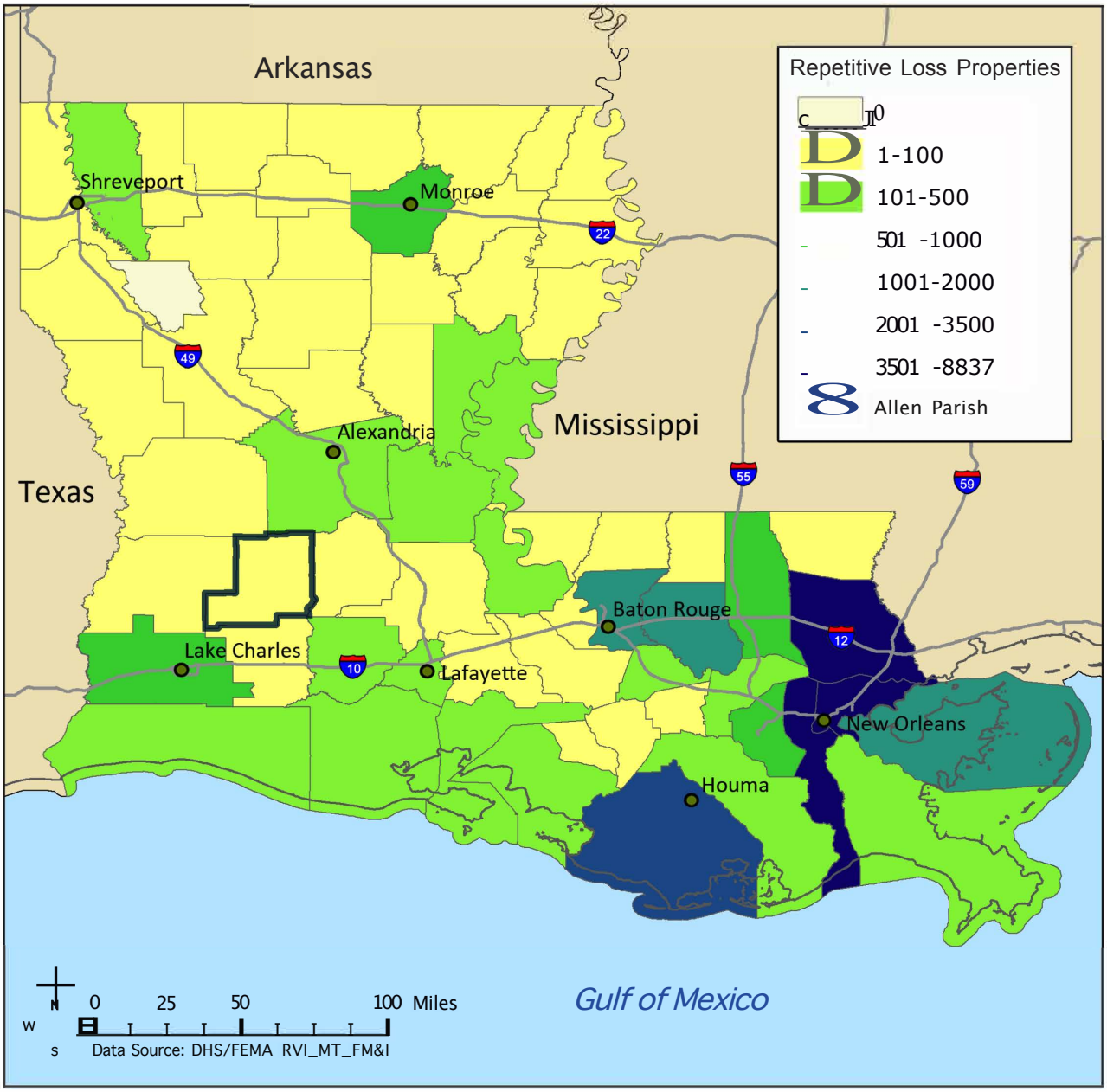
*NOTE: EMG is before Initial FIRM Identified





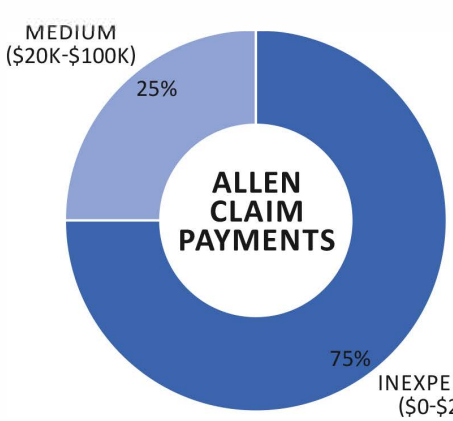
B-15

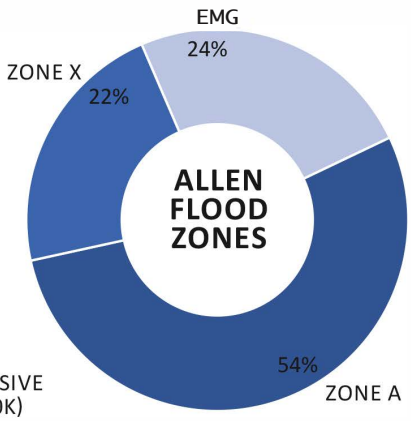
Attachment B



ALLEN PARISH	COUNT
RL PROPERTIES	43
INEXPENSIVE ($0–$20K)	108
MEDIUM $20K–$100K)	36
SEVERE ($100K & UP)	0
FLOOD ZONE A	22
FLOOD ZONE X (B,C)	9
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	10

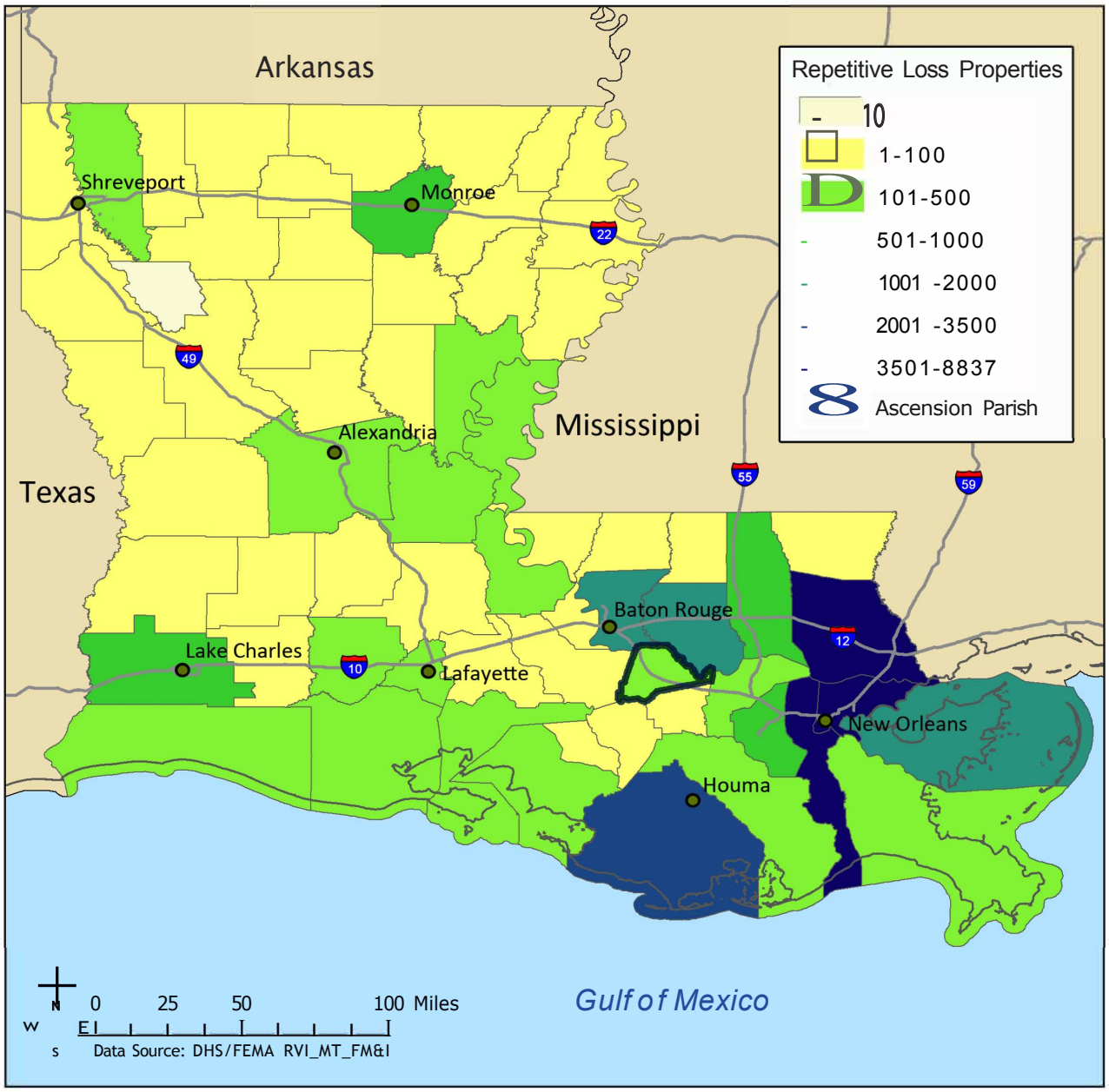
*NOTE: EMG is before Initial FIRM Identified





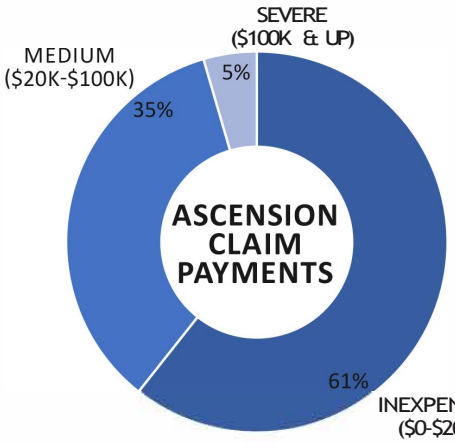
B-16

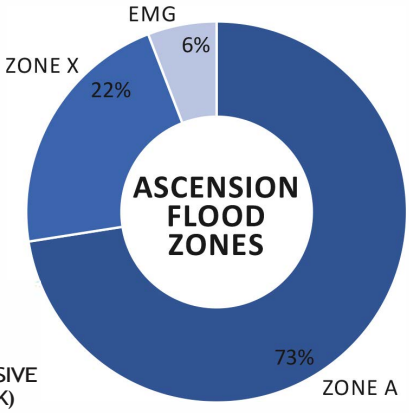
Attachment B



ASCENSION PARISH	COUNT
RL PROPERTIES	394
INEXPENSIVE ($0-$20K)	766
MEDIUM $20K-$100K)	440
SEVERE ($100K & UP)	57
FLOOD ZONE A	285
FLOOD ZONE X (B,C)	85
FLOOD ZONE V	0
FLOOD ZONE D	0
EMG*	23

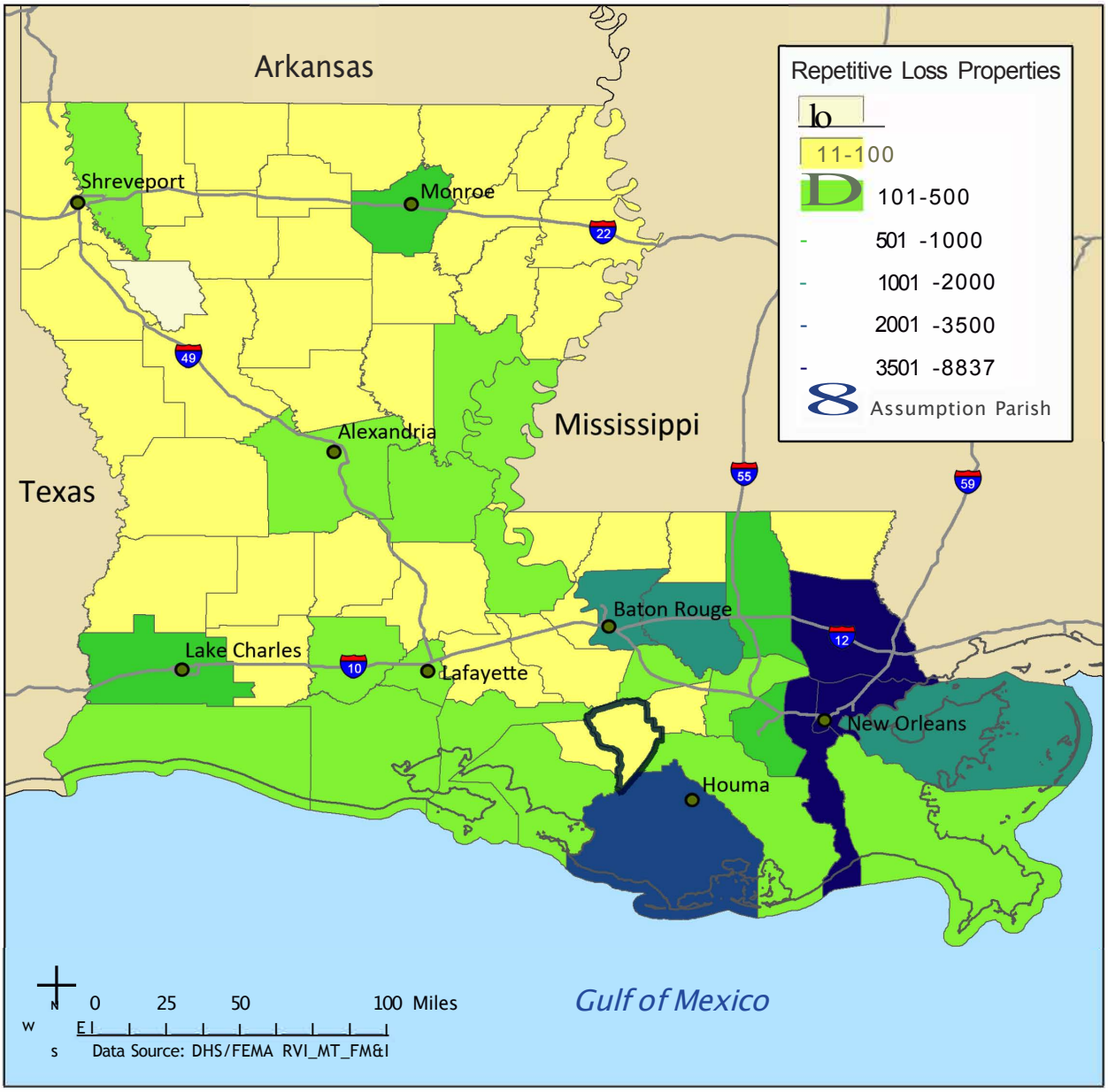
*NOTE: EMG is before Initial FIRM Identified





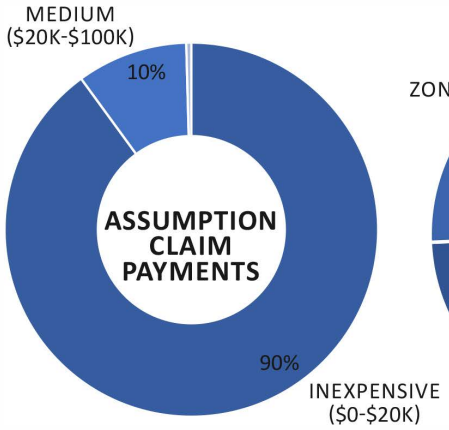
B-17

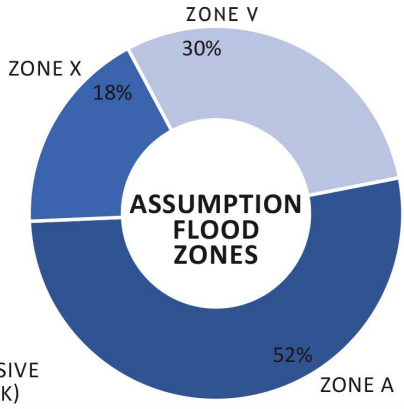
Attachment B



ASSUMPTION PARISH	COUNT
RL PROPERTIES	84
INEXPENSIVE ($0-$20K)	206
MEDIUM $20K-$100K)	22
SEVERE ($100K & UP)	1
FLOOD ZONE A	44
FLOOD ZONE X (B,C)	15
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	25

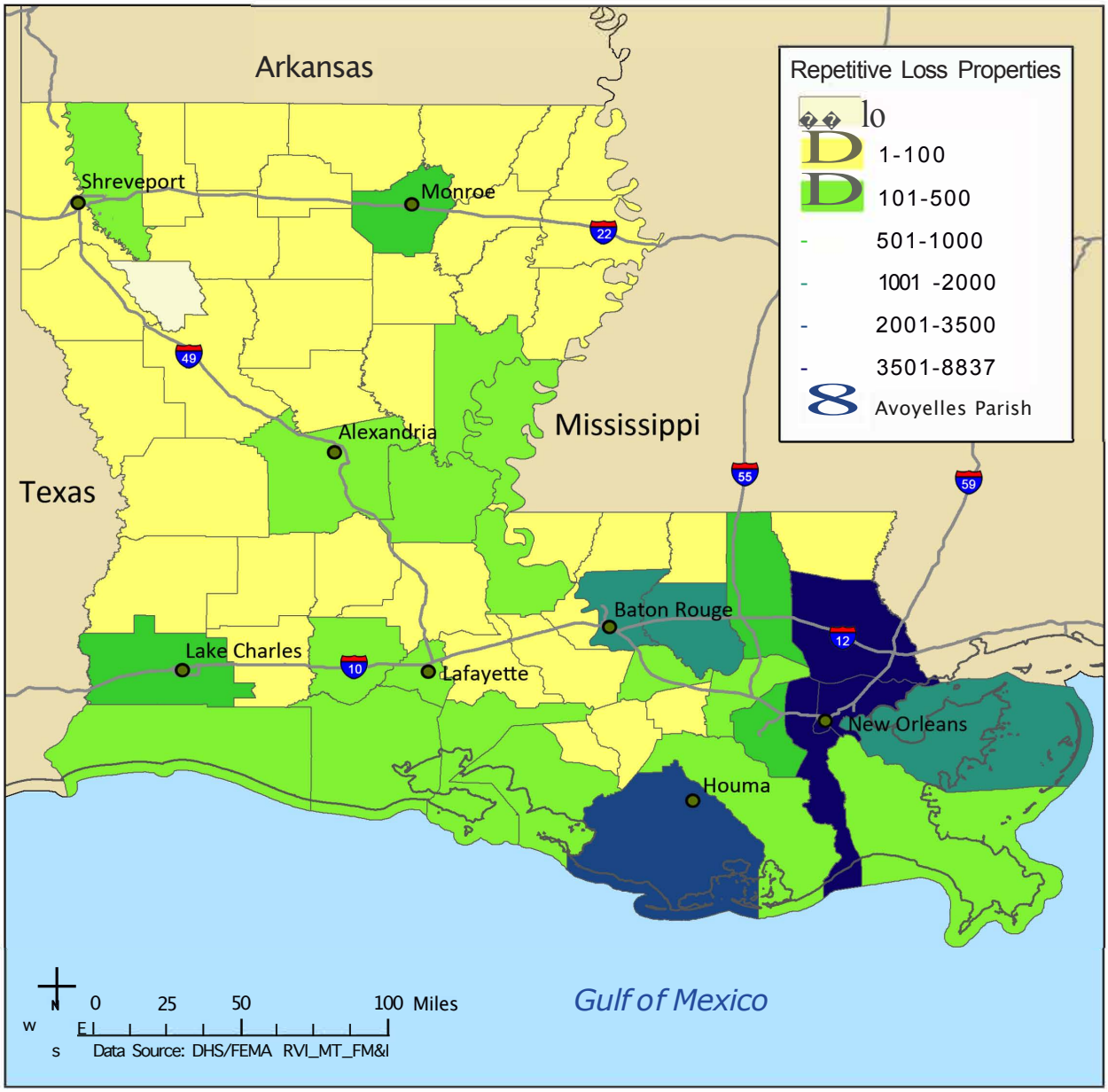
*NOTE: EMG is before Initial FIRM Identified





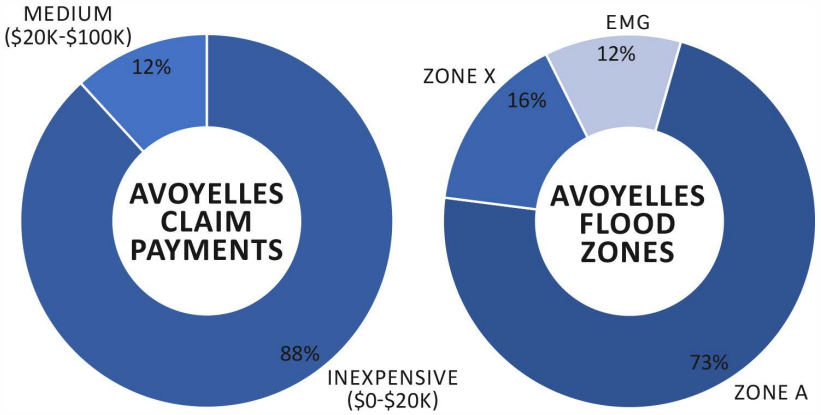
B-18

Attachment B



AVOYELLES PARISH	COUNT
RL PROPERTIES	187
INEXPENSIVE ($0–$20K)	493
MEDIUM $20K–$100K)	66
SEVERE ($100K & UP)	0
FLOOD ZONE A	135
FLOOD ZONE X (B,C)	29
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	22

*NOTE: EMG is before Initial FIRM Identified



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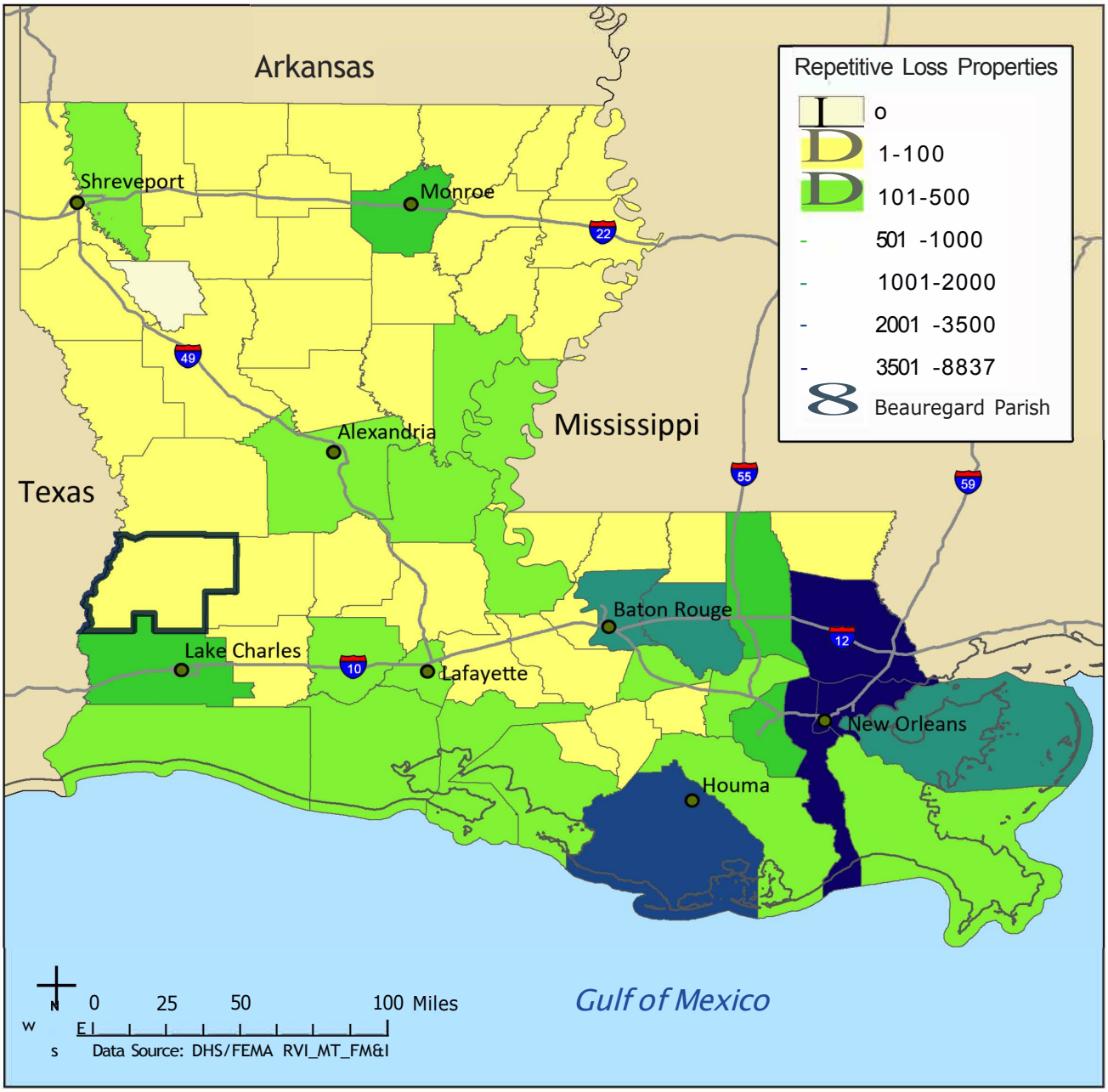
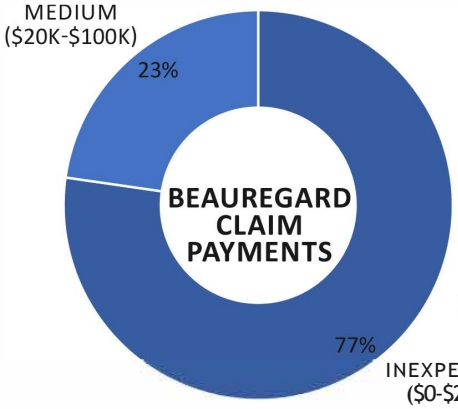
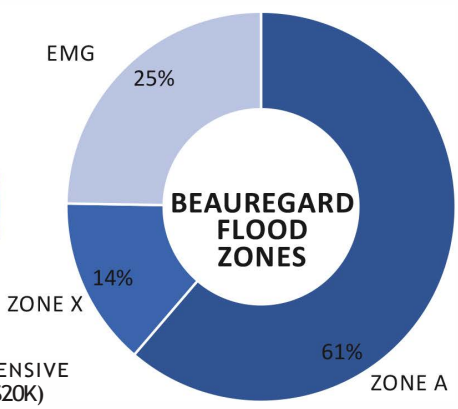
Attachment B



BEAUREGARD PARISH	COUNT
RL PROPERTIES	93
INEXPENSIVE ($0-$20K)	221
MEDIUM $20K-$100K)	65
SEVERE ($100K & UP)	0
FLOOD ZONE A	57
FLOOD ZONE X (B,C)	13
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	23

*NOTE: EMG is before Initial FIRM Identified





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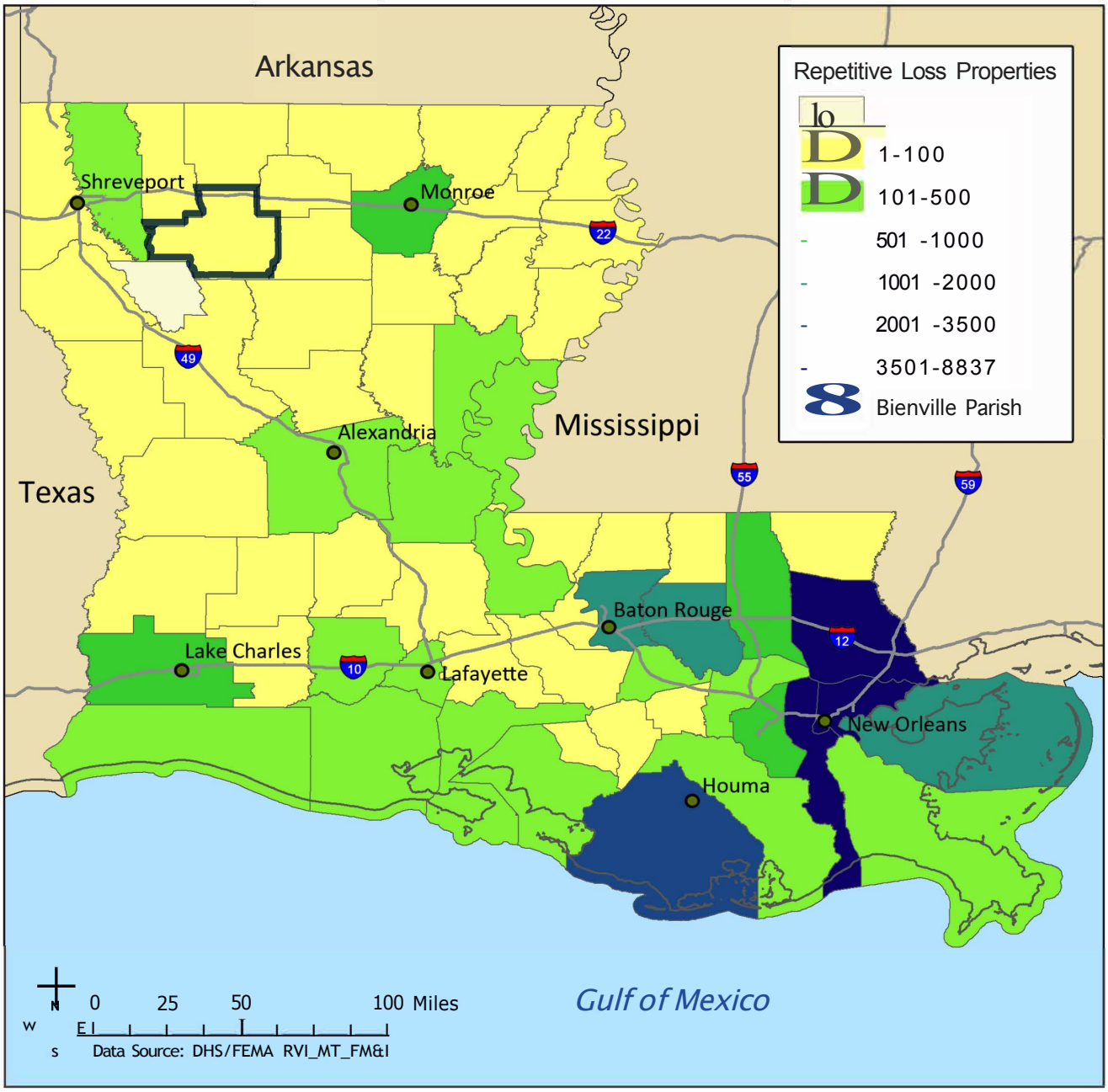
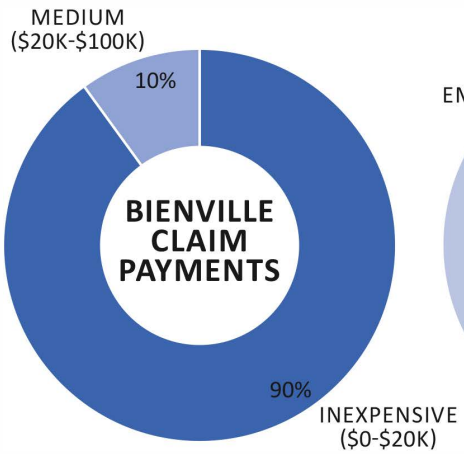
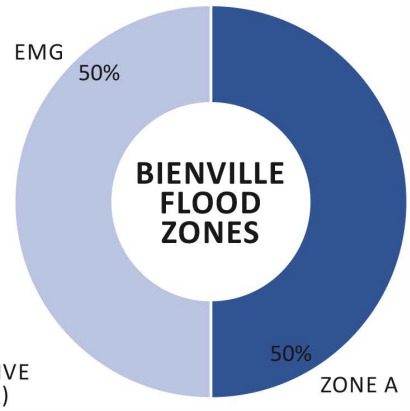
Attachment B



BIENVILLE PARISH	COUNT
RL PROPERTIES	2
INEXPENSIVE ($0-$20K)	9
MEDIUM $20K-$100K)	1
SEVERE ($100K & UP)	0
FLOOD ZONE A	1
FLOOD ZONE X (B,C)	0
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	1

*NOTE: EMG is before Initial FIRM Identified





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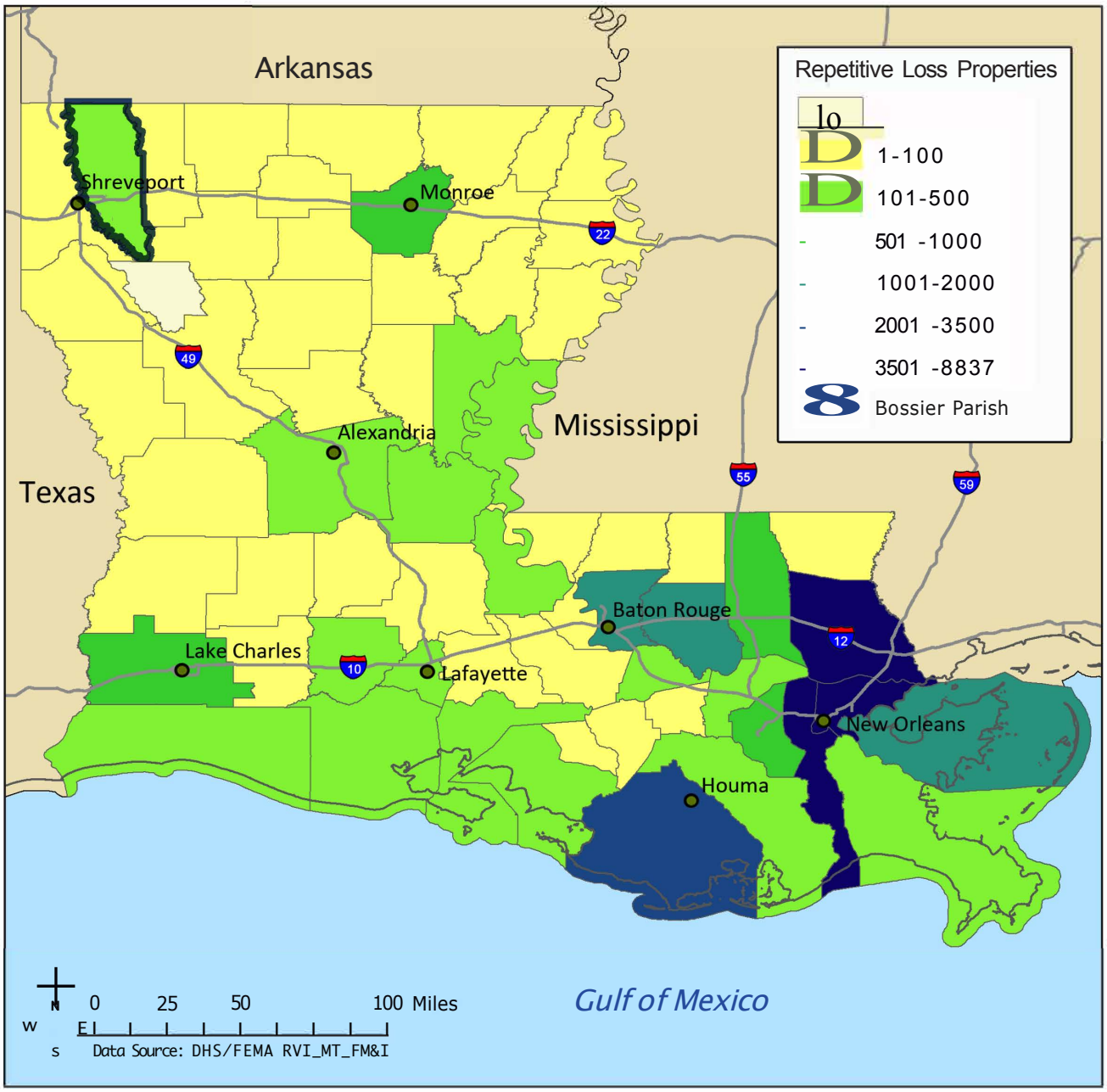
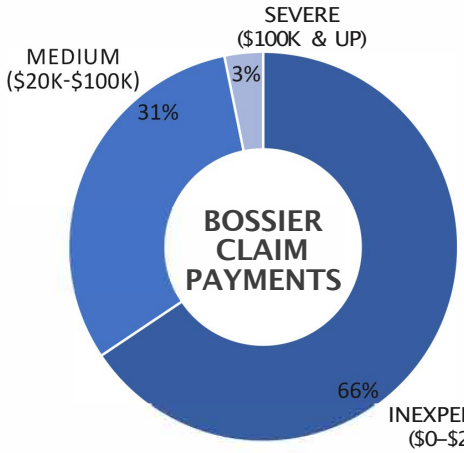
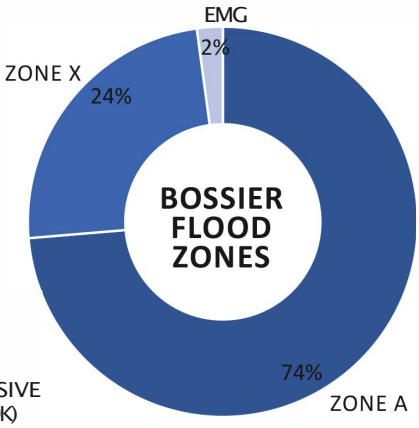
Attachment B



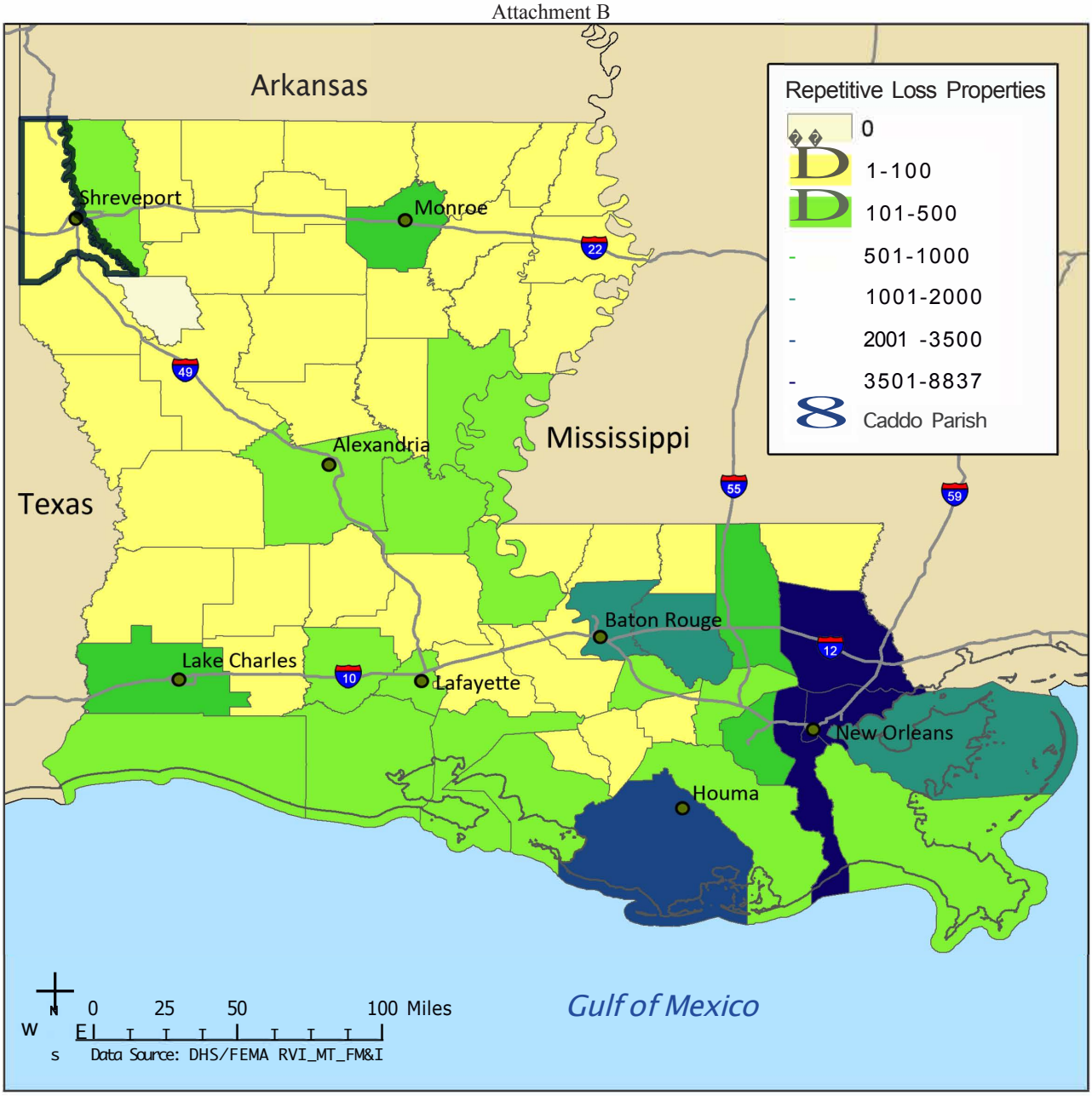
BOSSIER PARISH	COUNT
RL PROPERTIES	281
INEXPENSIVE ($0-$20K)	555
MEDIUM $20K-$100K)	264
SEVERE ($100K & UP)	27
FLOOD ZONE A	207
FLOOD ZONE X (B,C)	68
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	6

*NOTE: EMG isbefore Initial FIRM Identified



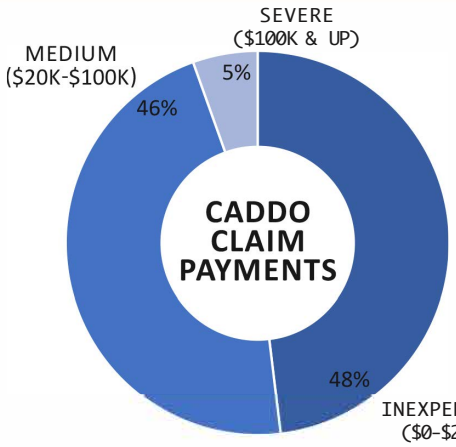


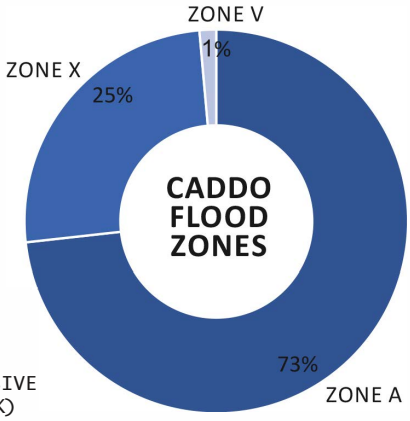
Attachment B



CADDO PARISH	COUNT
RL PROPERTIES	71
INEXPENSIVE ($0-$20K)	88
MEDIUM $20K-$100K)	85
SEVERE ($100K & UP)	10
FLOOD ZONE A	52
FLOOD ZONE X (B,C)	18
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	1

*NOTE: EMG isbefore InitialFIRM Identified





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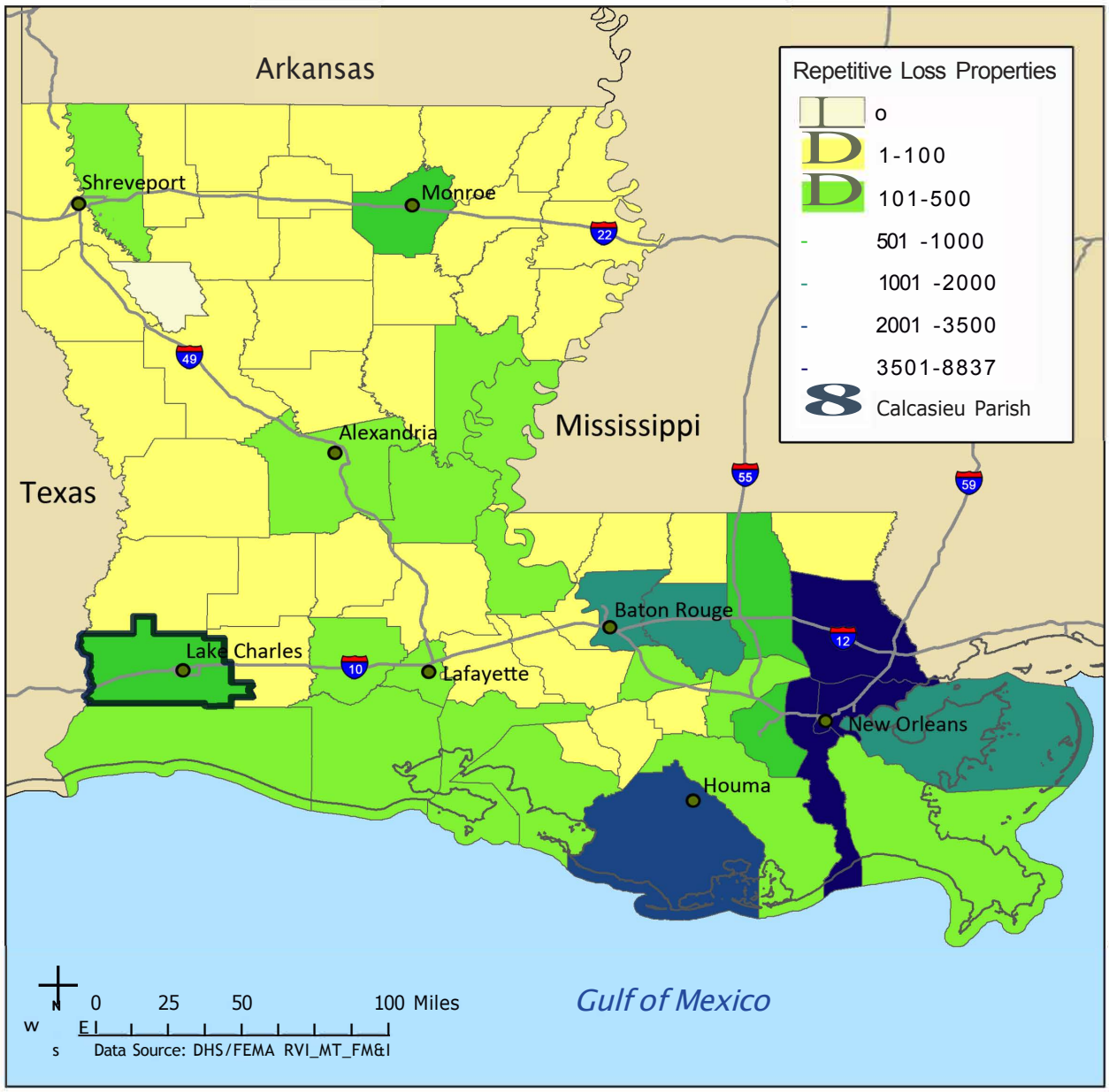
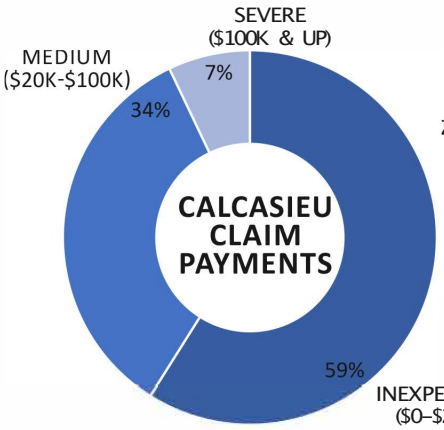
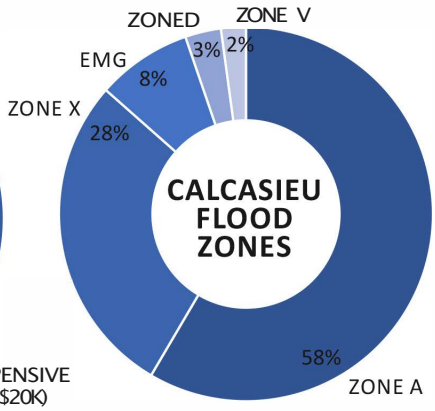
Attachment B



CALCASIEU PARISH	COUNT
RL PROPERTIES	841
INEXPENSIVE ($0-$20K)	1,439
MEDIUM $20K-$100K)	829
SEVERE ($100K & UP)	173
FLOOD ZONE A	490
FLOOD ZONE X (B,C)	235
FLOOD ZONE V	18
FLOOD ZONED	26
EMG*	69

*NOTE: EMG is before Initial FIRM Identified





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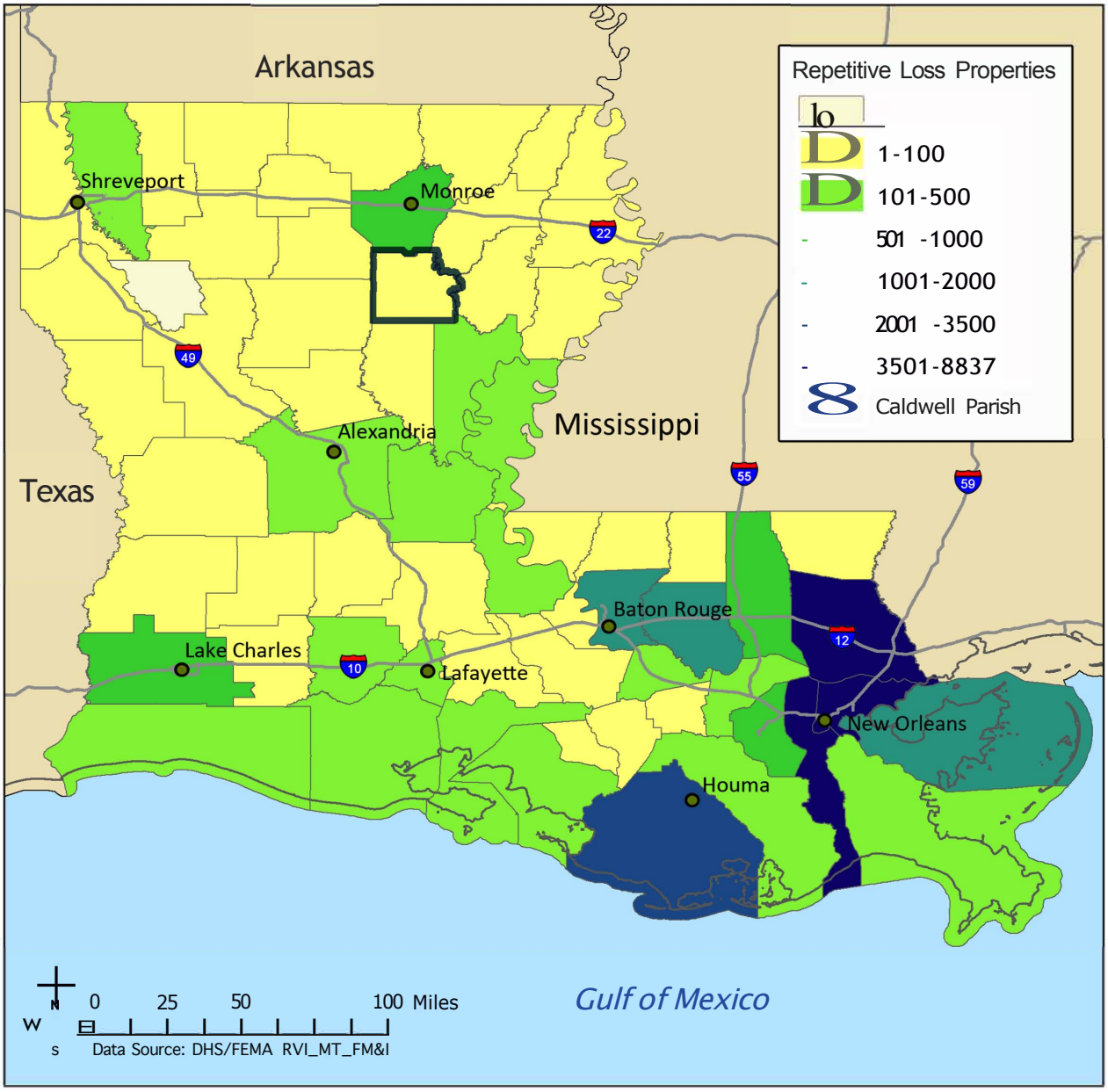
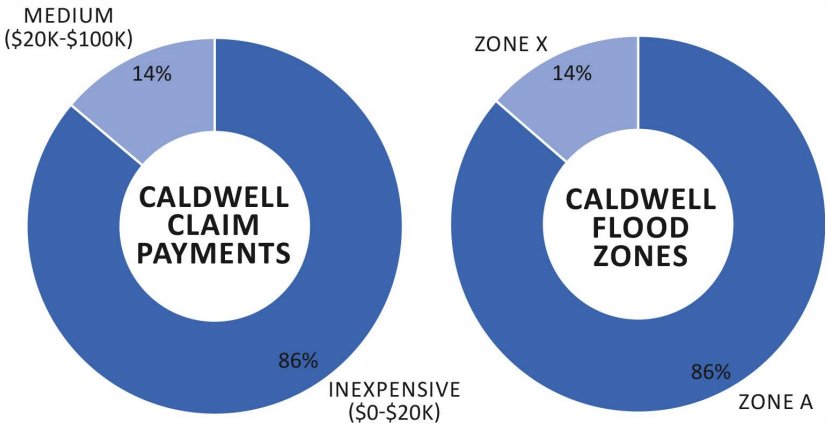
Attachment B



CALDWELL PARISH	COUNT
RL PROPERTIES	22
INEXPENSIVE ($0-$20K)	56
MEDIUM $20K-$100K)	9
SEVERE ($100K & UP)	0
FLOOD ZONE A	19
FLOOD ZONE X (B,C)	3
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified



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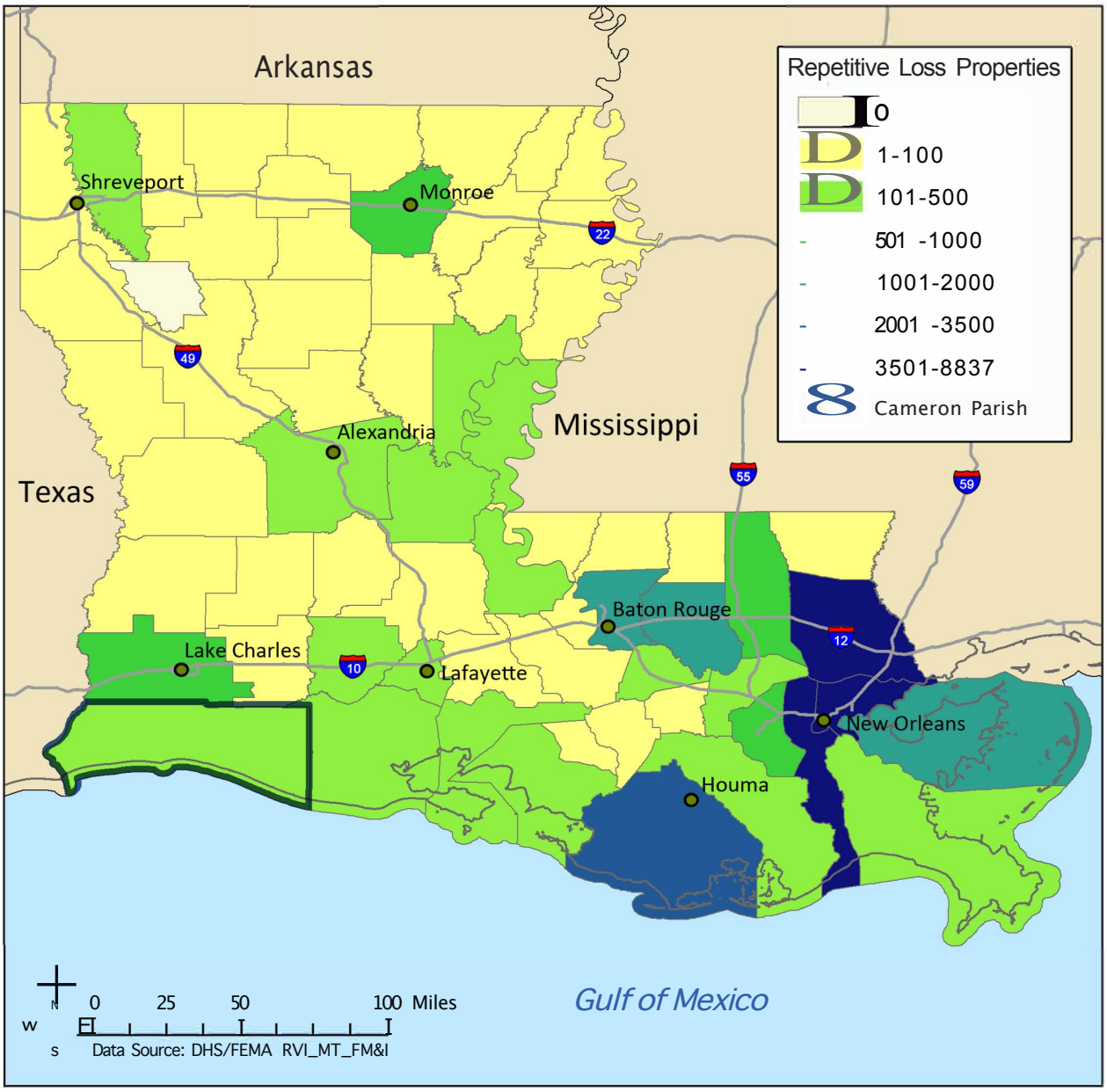
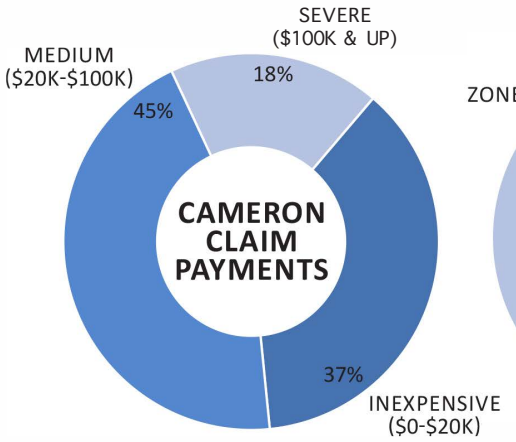
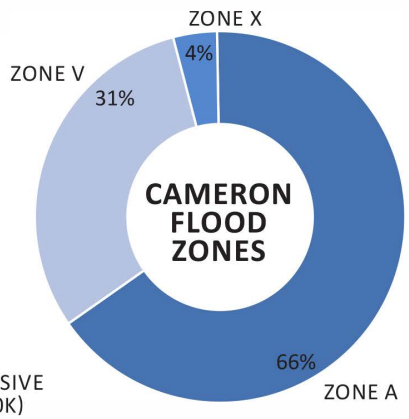
Attachment B



CAMERON PARISH	COUNT
RL PROPERTIES	444
INEXPENSIVE ($0–$20K)	359
MEDIUM $20K–$100K)	431
SEVERE ($100K & UP)	176
FLOOD ZONE A	291
FLOOD ZONE X (B,C)	17
FLOOD ZONE V	136
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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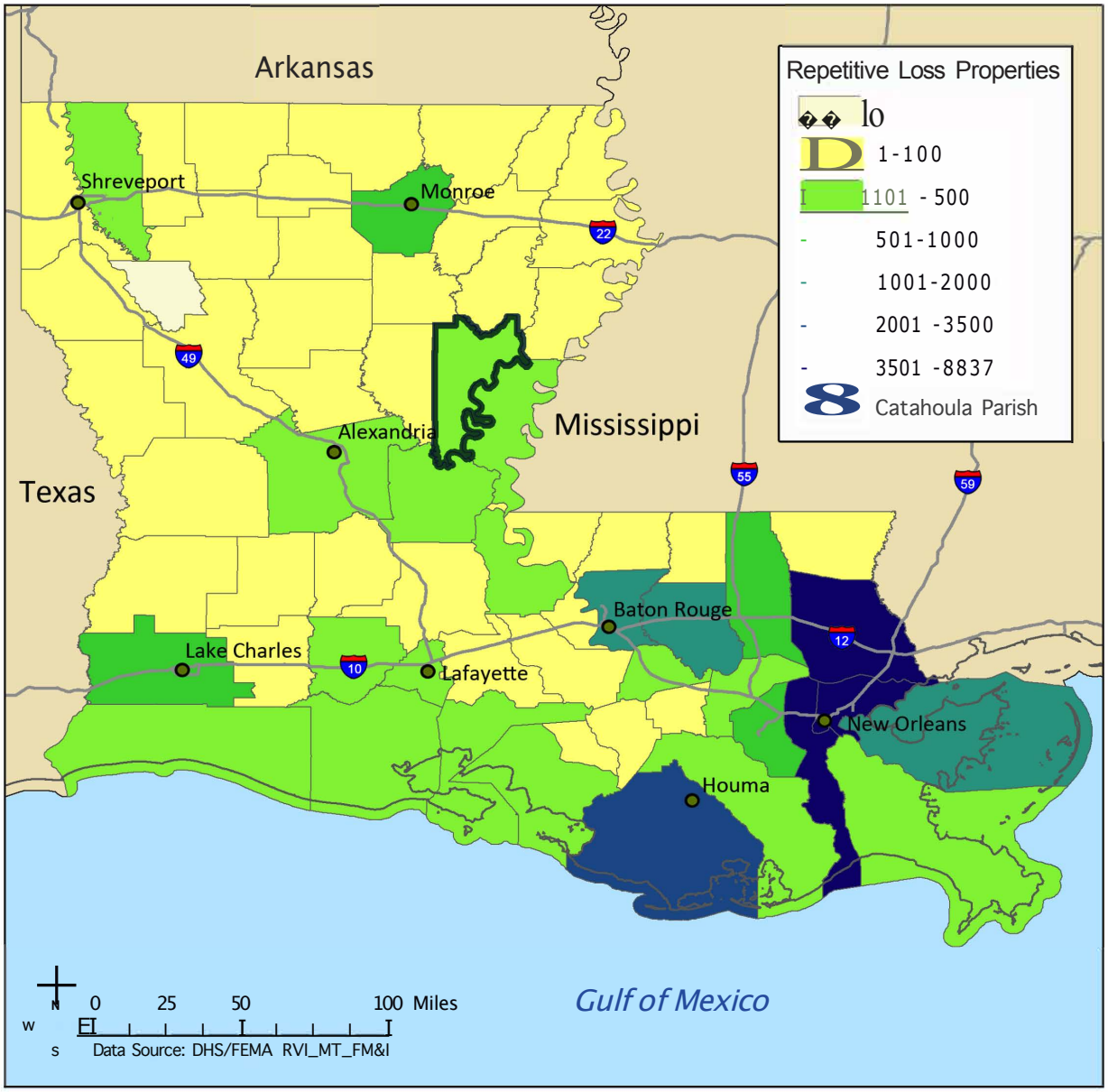
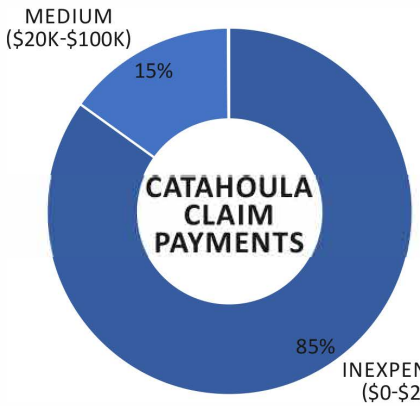
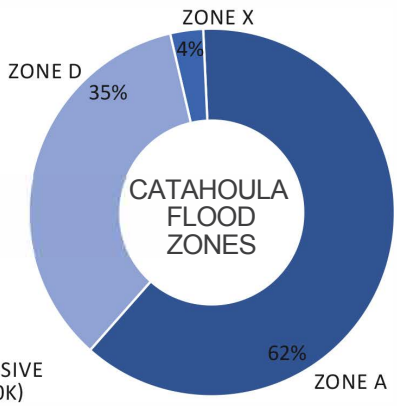
Attachment B



CATAHOULA PARISH	COUNT
RL PROPERTIES	312
INEXPENSIVE ($0–$20K)	946
MEDIUM $20K–$100K)	167
SEVERE ($100K & UP)	1
FLOOD ZONE A	193
FLOOD ZONE X (B,C)	9
FLOOD ZONE V	0
FLOOD ZONED	108
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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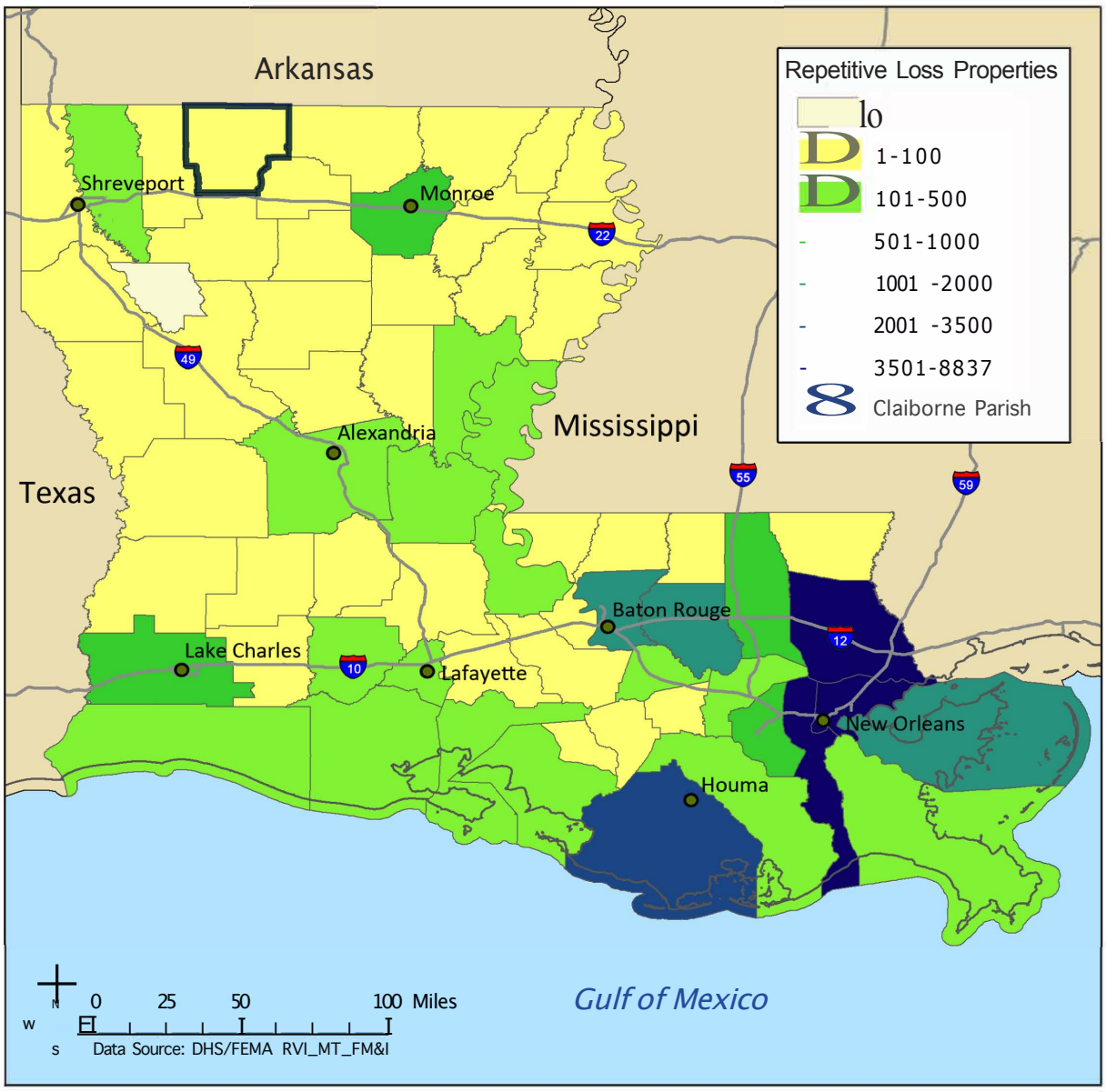
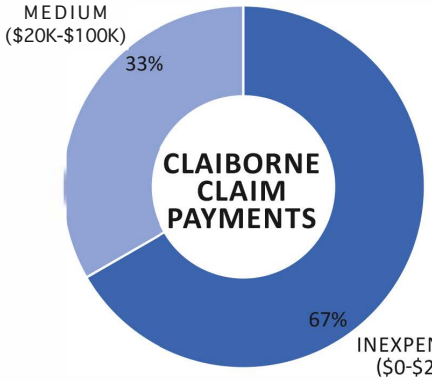
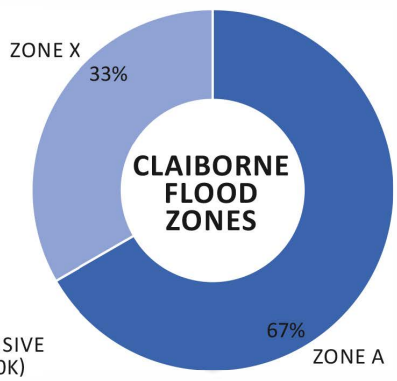
Attachment B



CLAIBORNE PARISH	COUNT
RL PROPERTIES	3
INEXPENSIVE ($0–$20K)	4
MEDIUM $20K–$100K)	2
SEVERE ($100K & UP)	0
FLOOD ZONE A	2
FLOOD ZONE X (B,C)	1
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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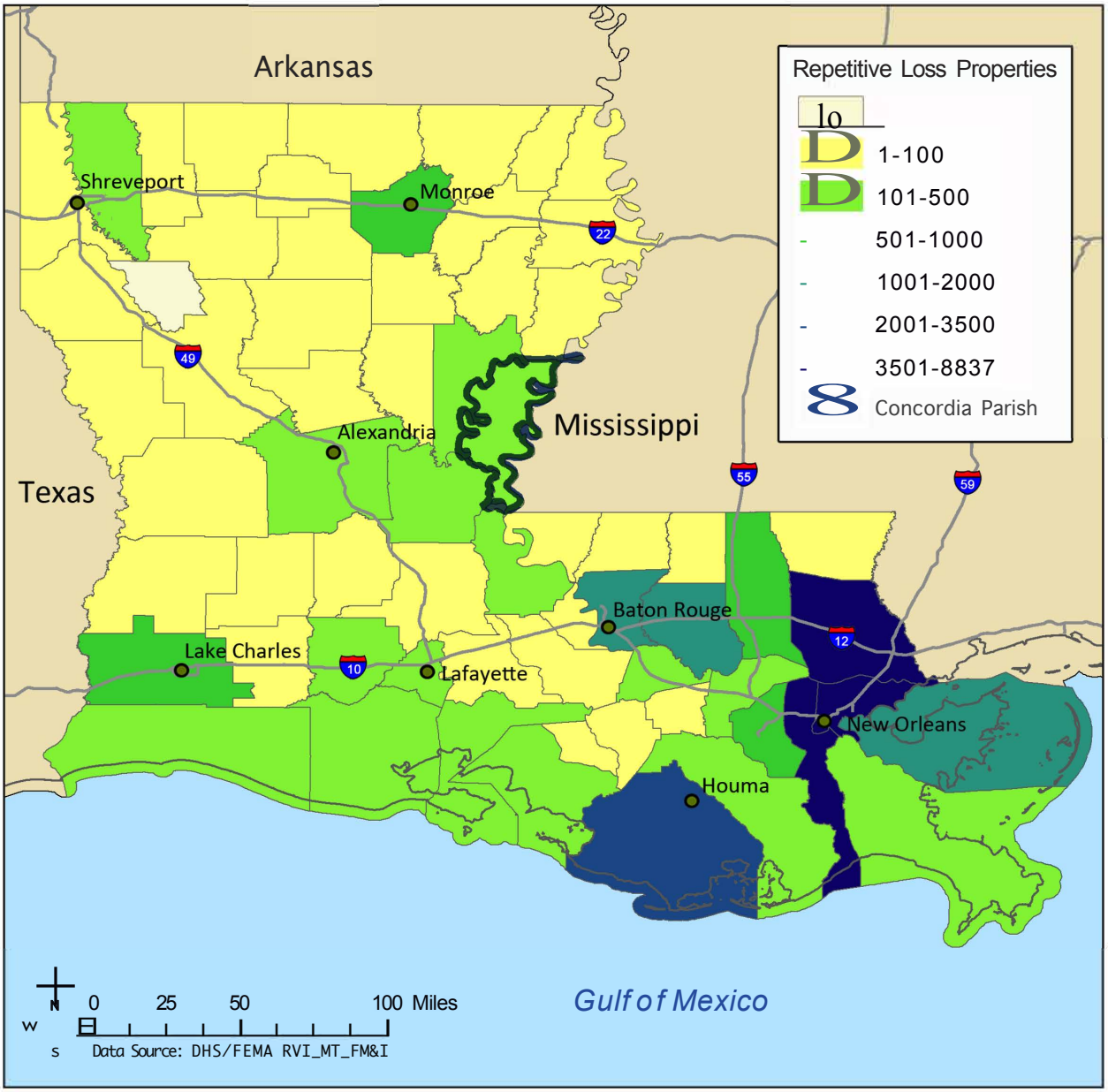
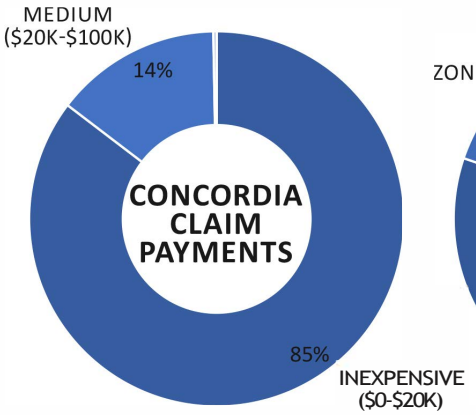
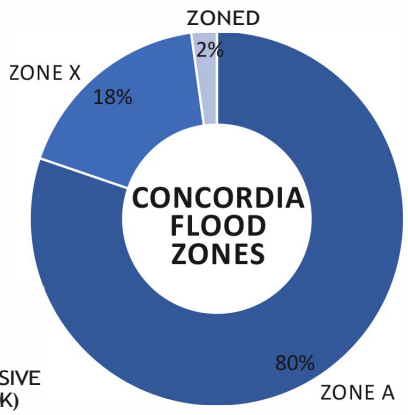
Attachment B



CONCORDIA PARISH	COUNT
RL PROPERTIES	182
INEXPENSIVE ($0-$20K)	601
MEDIUM $20K-$100K)	101
SEVERE ($100K & UP)	2
FLOOD ZONE A	146
FLOOD ZONE X (B,C)	32
FLOOD ZONE V	0
FLOOD ZONE D	4
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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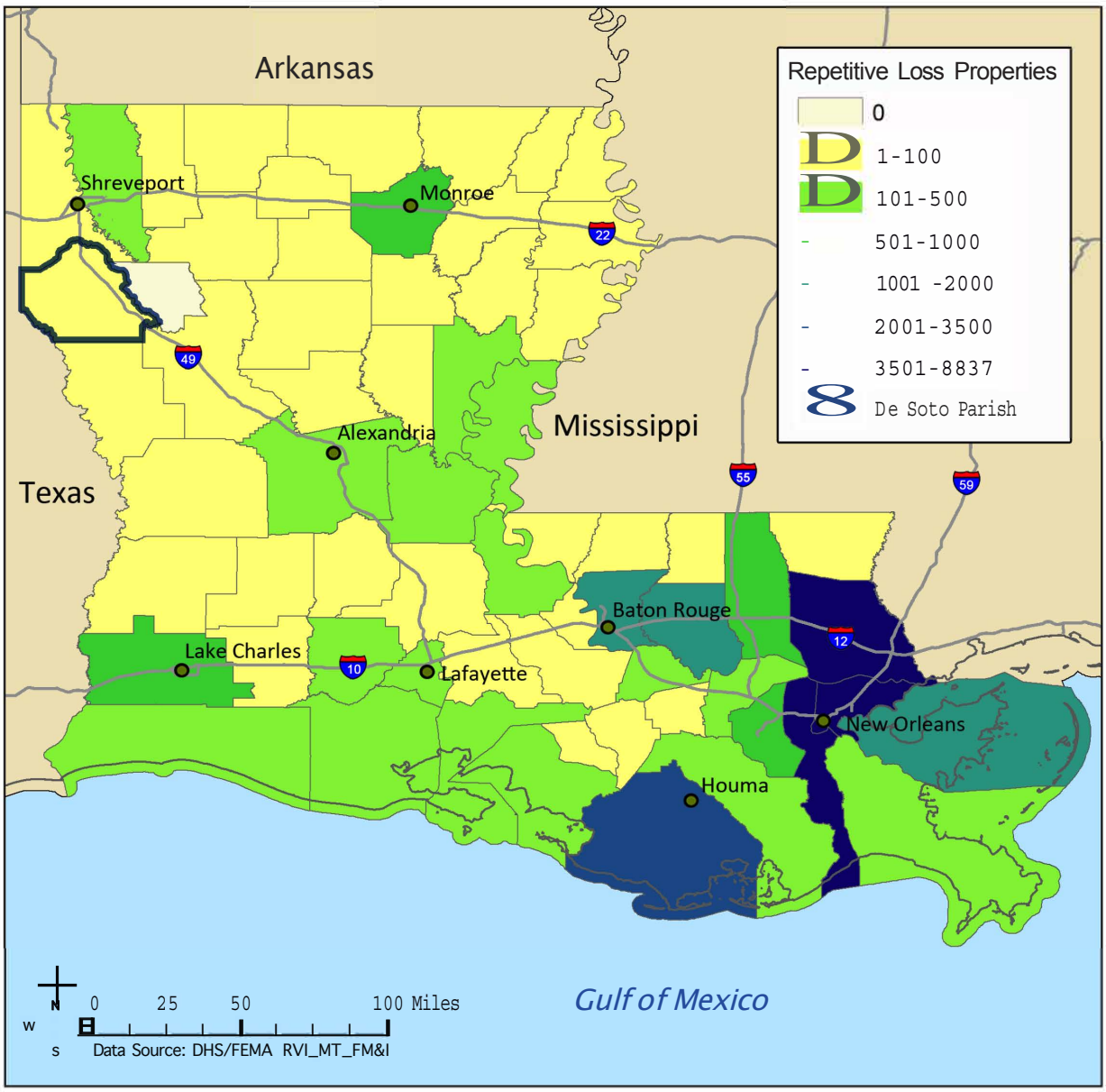
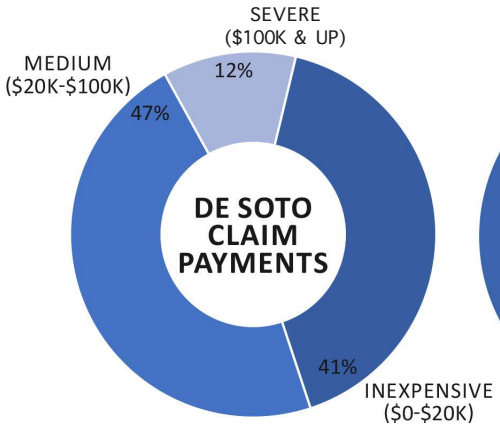
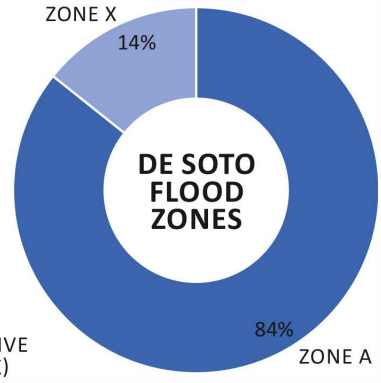
Attachment B



DE SOTO PARISH	COUNT
RL PROPERTIES	7
INEXPENSIVE ($0–$20K)	7
MEDIUM $20K–$100K)	8
SEVERE ($100K & UP)	2
FLOOD ZONE A	6
FLOOD ZONE X (B,C)	1
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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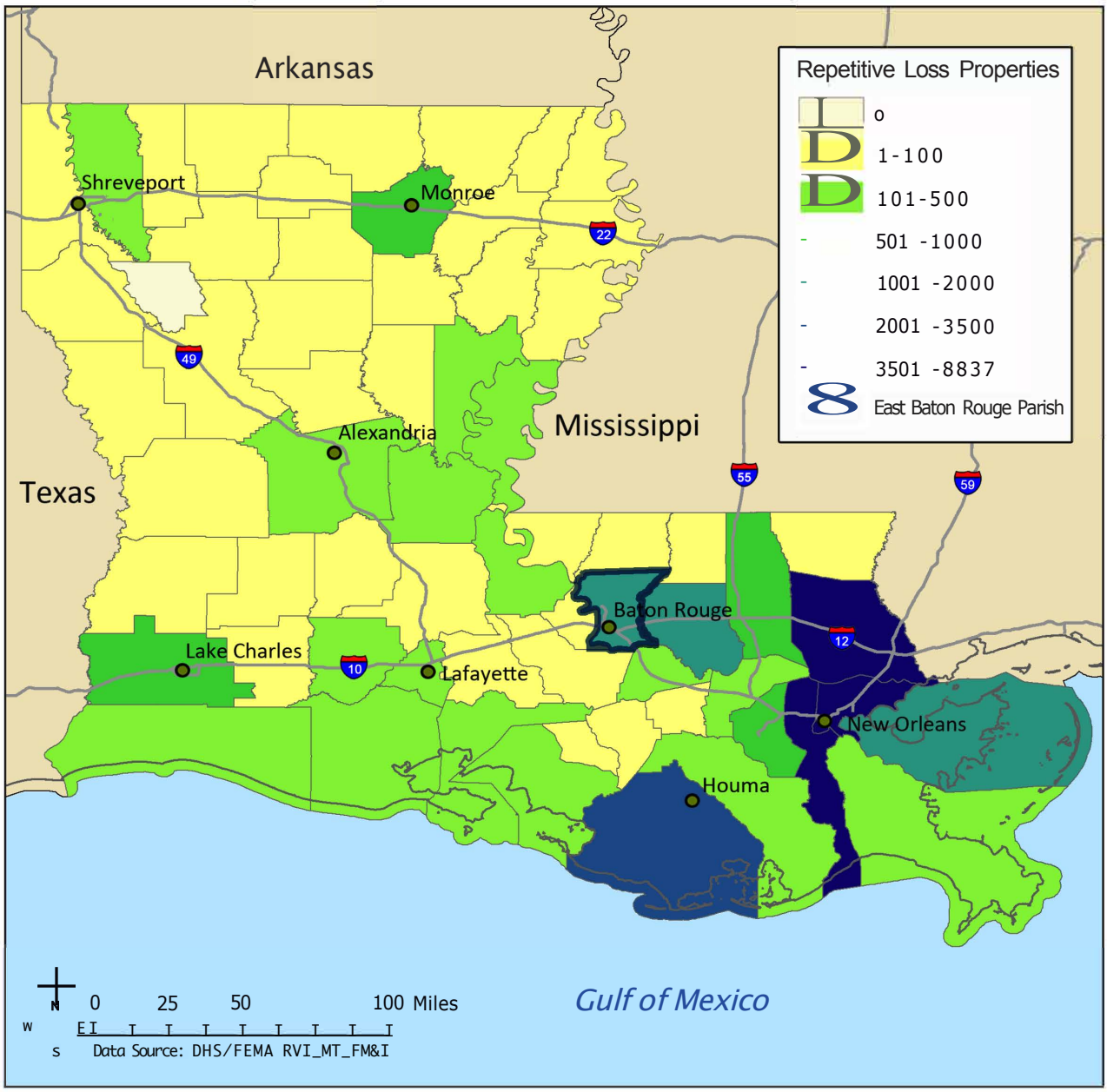
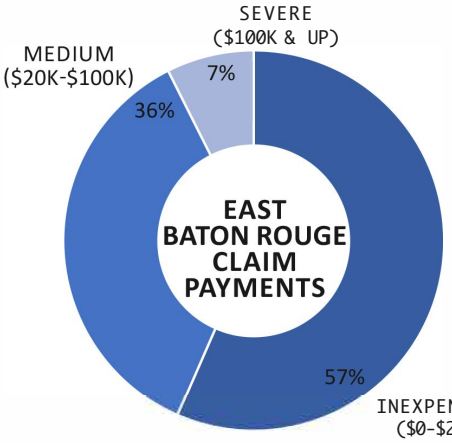
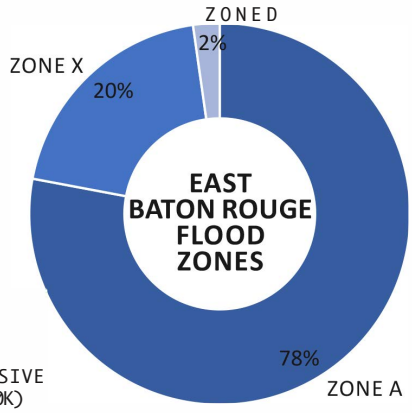


E BATON ROUGE PARISH	COUNT
RL PROPERTIES	1,068
INEXPENSIVE ($0-$20K)	2,256
MEDIUM $20K-$100K)	1,437
SEVERE ($100K & UP)	296
FLOOD ZONE A	831
FLOOD ZONE X (B,C)	211
FLOOD ZONE V	0
FLOOD ZONED	24
EMG*	0

*NOTE: EMG isbefore Initial FIRM Identified





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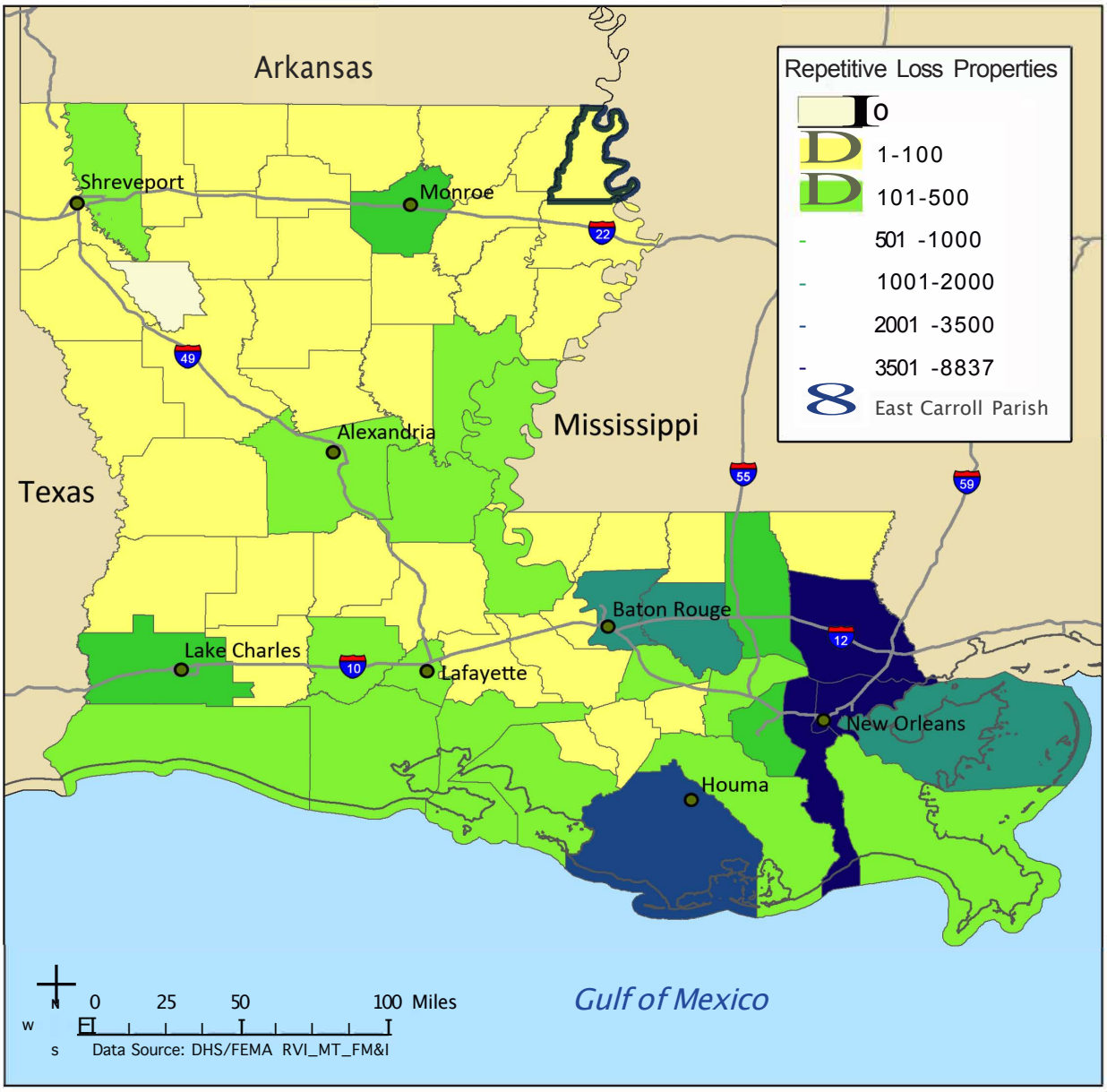
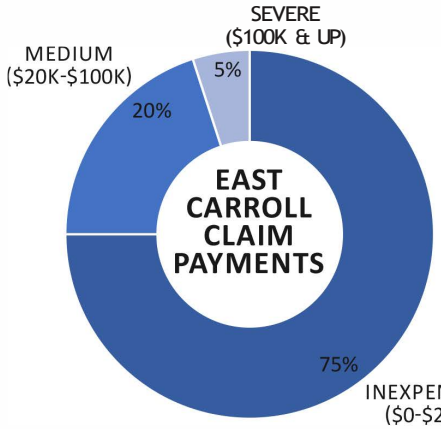
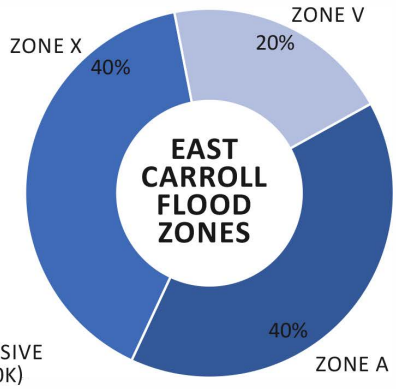
Attachment B



EAST CARROLL PARISH	COUNT
RL PROPERTIES	15
INEXPENSIVE ($0–$20K)	30
MEDIUM $20K–$100K)	8
SEVERE ($100K & UP)	2
FLOOD ZONE A	6
FLOOD ZONE X (B,C)	6
FLOOD ZONE V	0
FLOOD ZONED	3
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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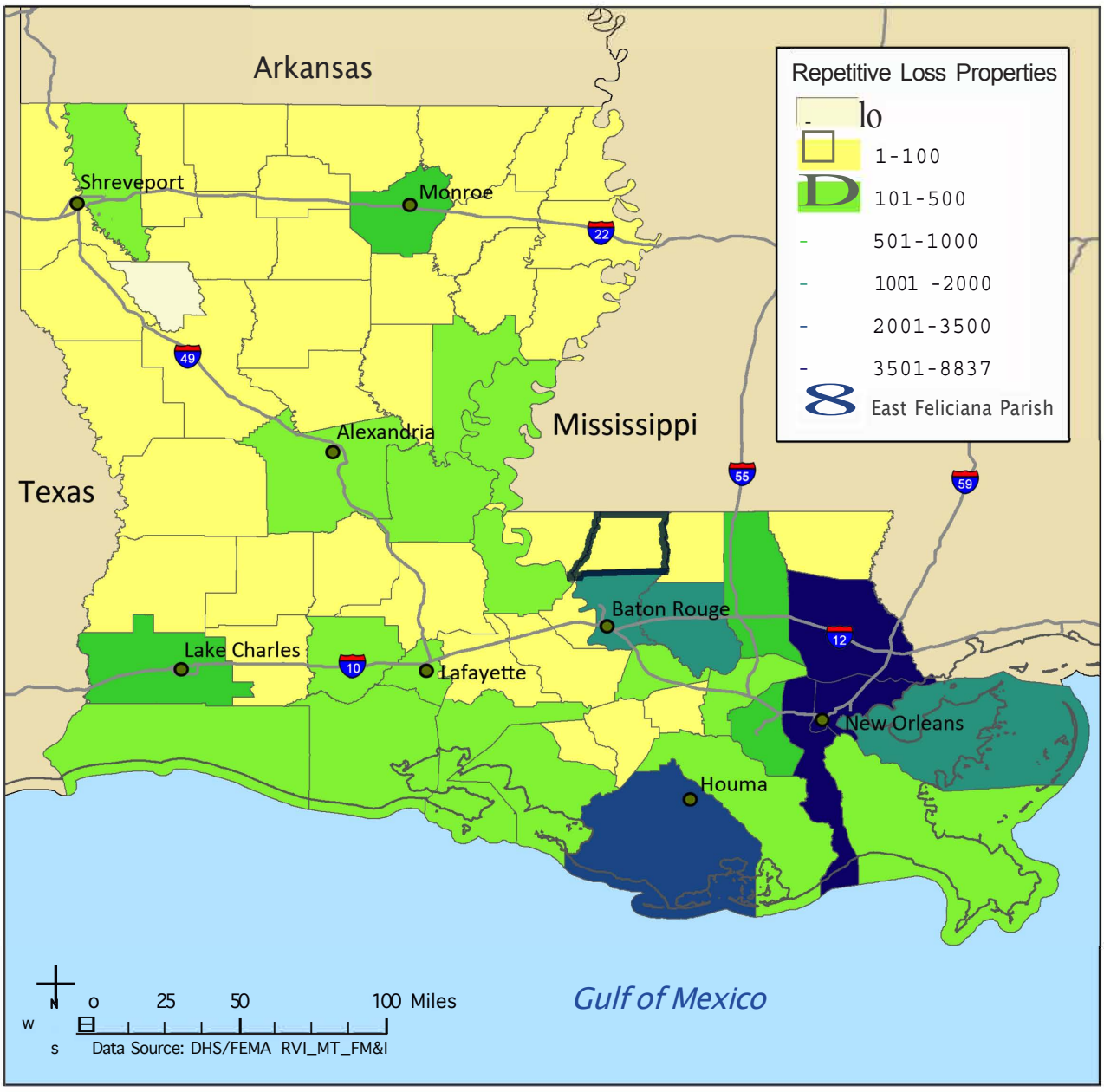
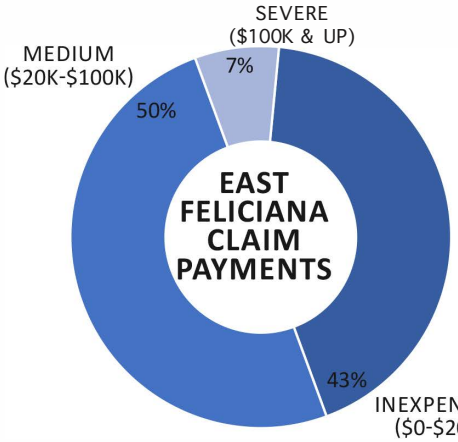
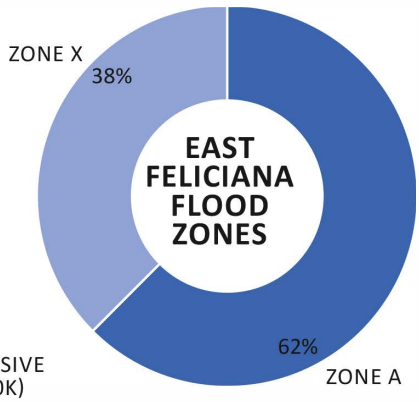
Attachment B



EAST FELICIANA PARISH	COUNT
RL PROPERTIES	8
INEXPENSIVE ($0-$20K)	12
MEDIUM $20K-$100K)	14
SEVERE ($100K & UP)	2
FLOOD ZONE A	5
FLOOD ZONE X (B,C)	3
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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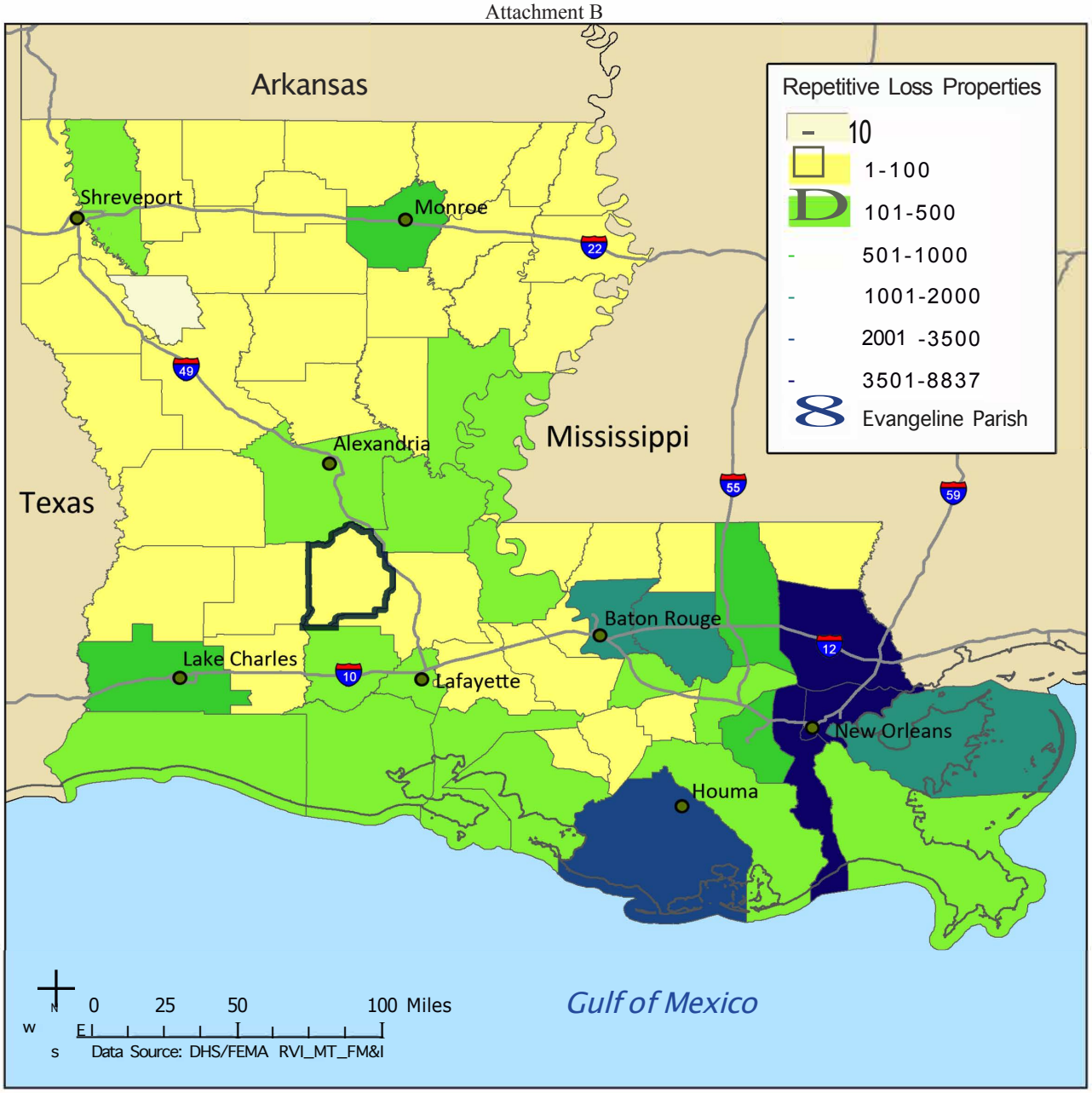
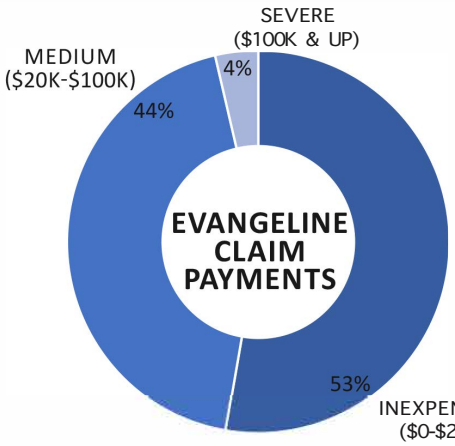
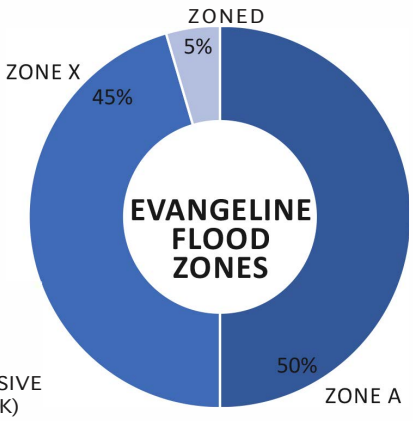
Attachment B



EVANGELINE PARISH	COUNT
RL PROPERTIES	22
INEXPENSIVE ($0-$20K)	29
MEDIUM $20K-$100K)	24
SEVERE ($100K & UP)	2
FLOOD ZONE A	11
FLOOD ZONE X (B,C)	10
FLOOD ZONE V	0
FLOOD ZONED	1
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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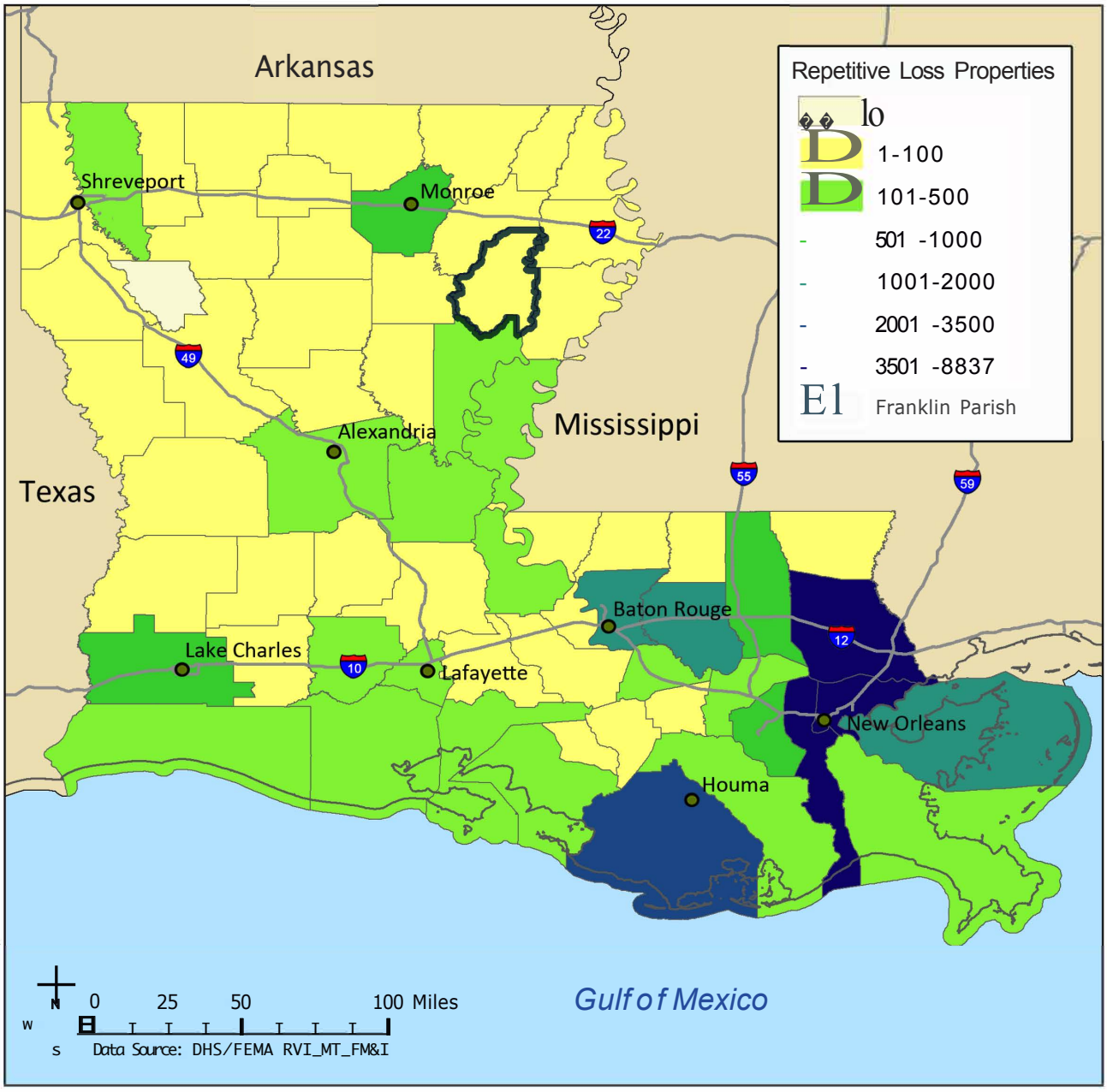
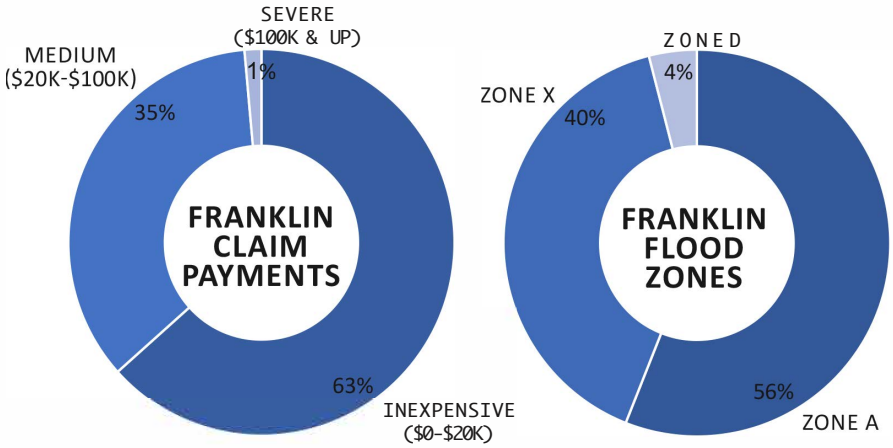
Attachment B



FRANKLIN PARISH	COUNT
RL PROPERTIES	25
INEXPENSIVE ($0-$20K)	45
MEDIUM $20K-$100K)	25
SEVERE ($100K & UP)	1
FLOOD ZONE A	14
FLOOD ZONE X (B,C)	10
FLOOD ZONE V	0
FLOOD ZONED	1
EMG*	0

*NOTE: EMG isbefore InitialFIRM Identified



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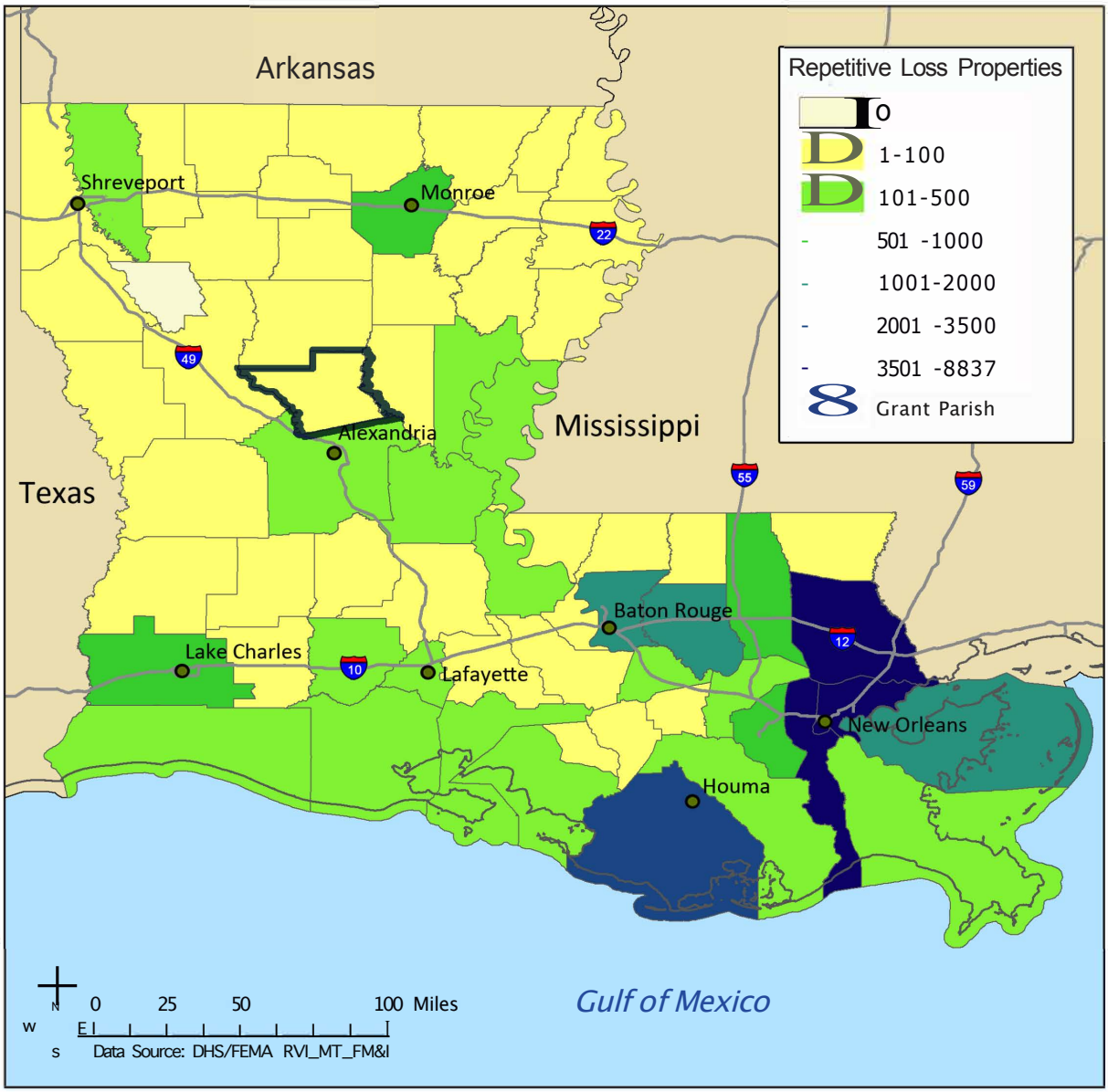
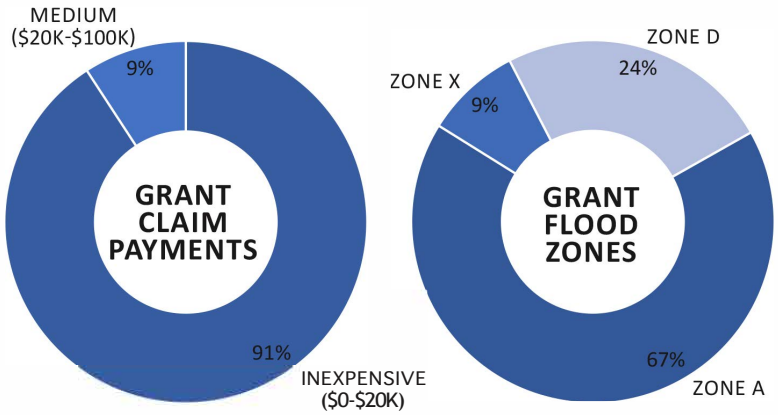
Attachment B



GRANT PARISH	COUNT
RL PROPERTIES	82
INEXPENSIVE ($0-$20K)	247
MEDIUM $20K-$100K)	25
SEVERE ($100K & UP)	0
FLOOD ZONE A	55
FLOOD ZONE X (B,C)	7
FLOOD ZONE V	0
FLOOD ZONED	20
EMG*	0

*NOTE: EMG is before Initial FIRM Identified



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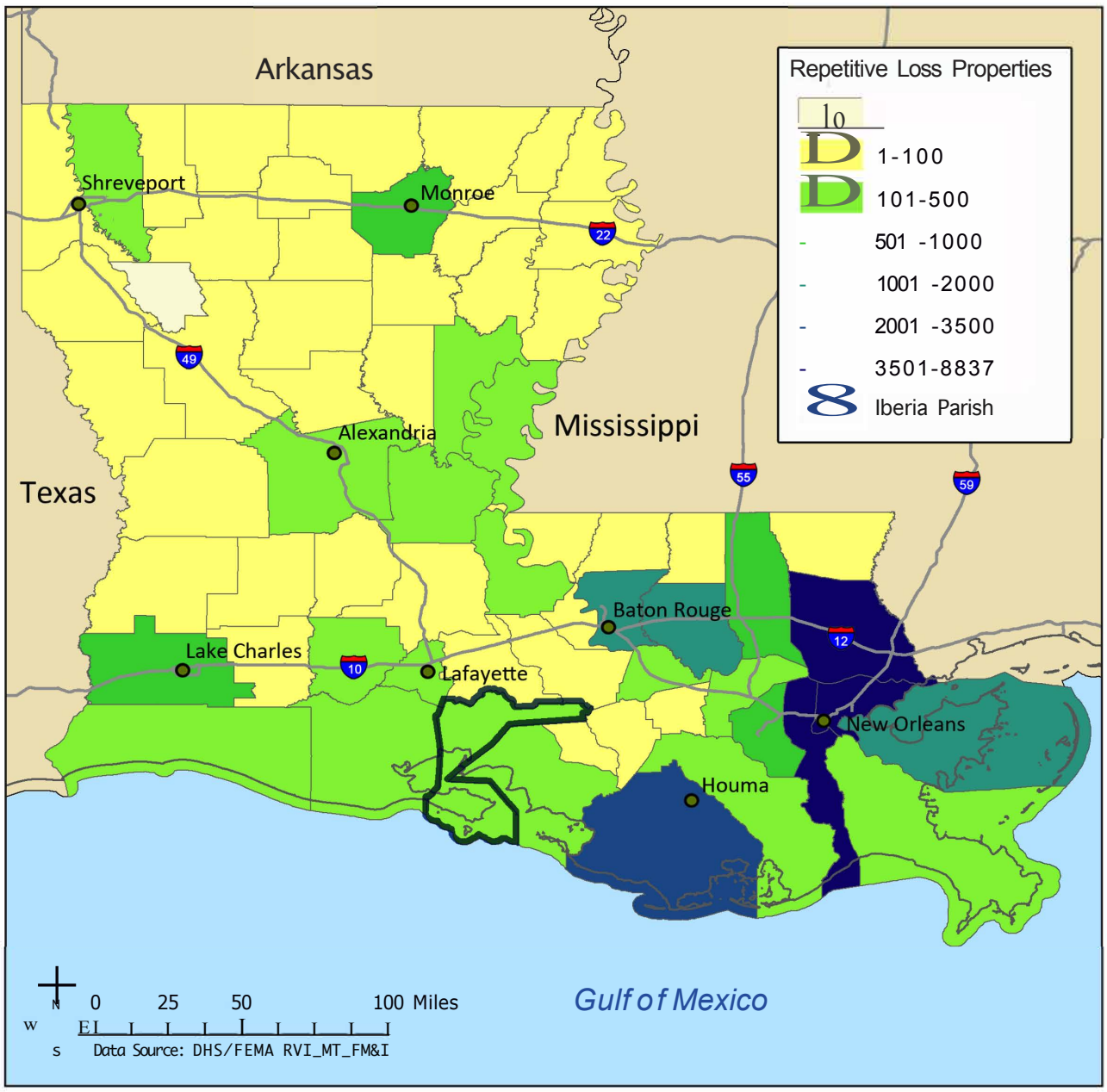
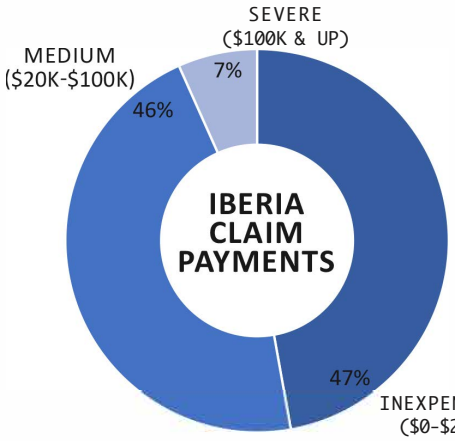
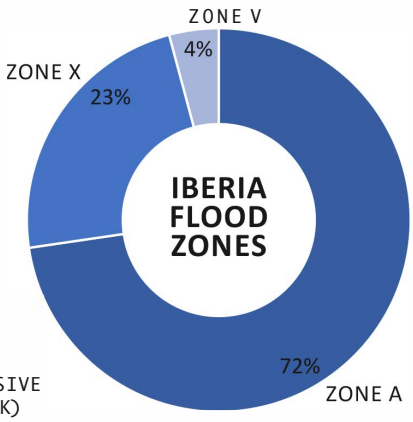
Attachment B



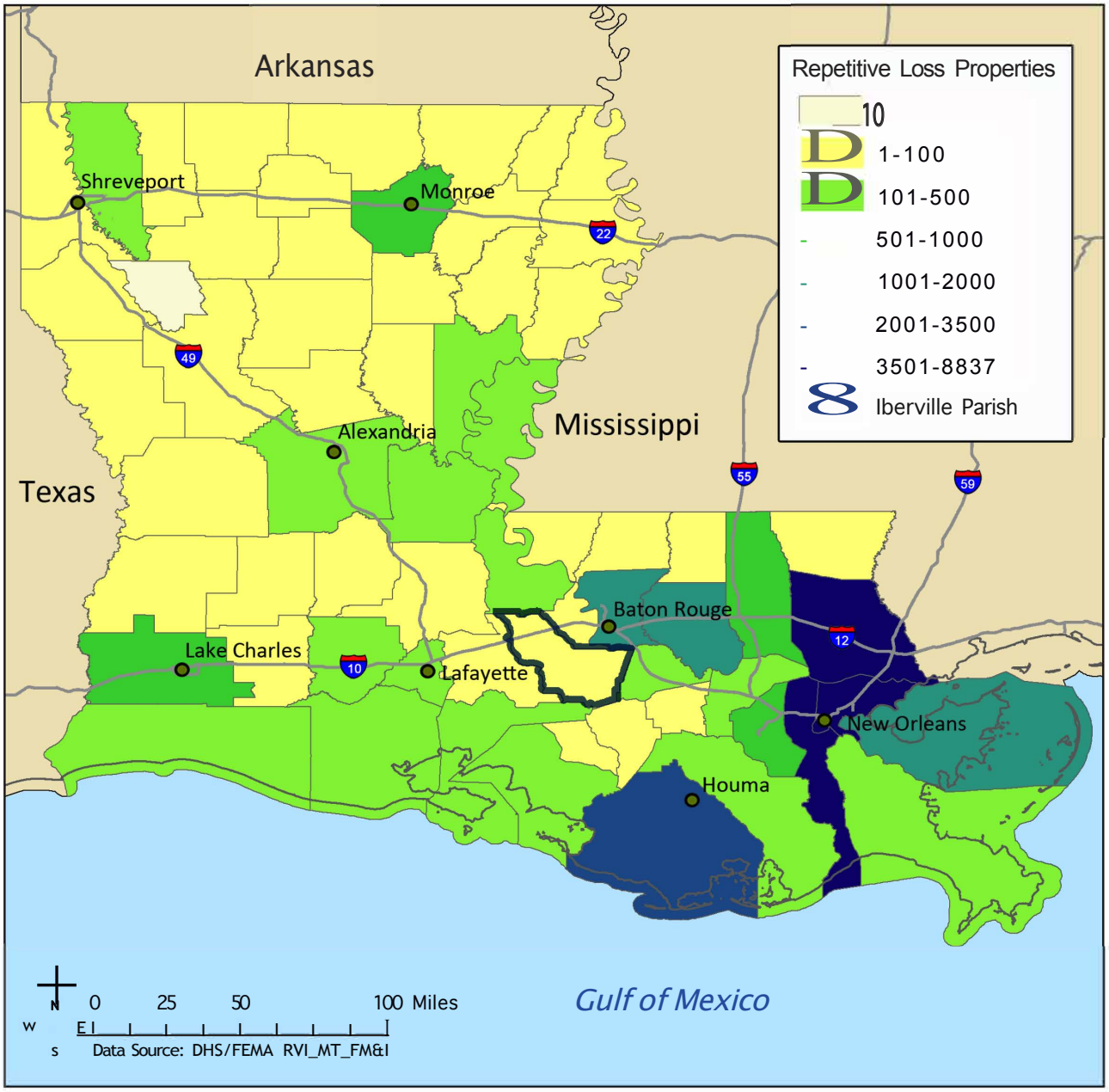
IBERIA PARISH	COUNT
RL PROPERTIES	435
INEXPENSIVE ($0-$20K)	487
MEDIUM $20K-$100K)	476
SEVERE ($100K & UP)	69
FLOOD ZONE A	314
FLOOD ZONE X (B,C)	100
FLOOD ZONE V	18
FLOOD ZONED	2
EMG*	0

*NOTE: EMG is before Initial FIRM Identified



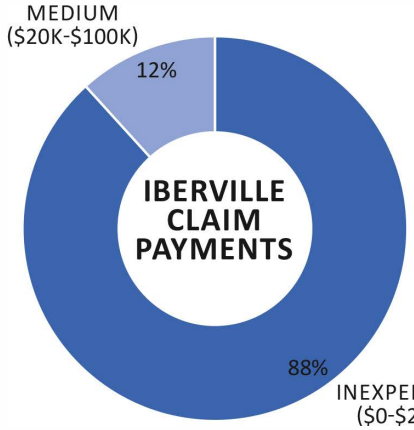


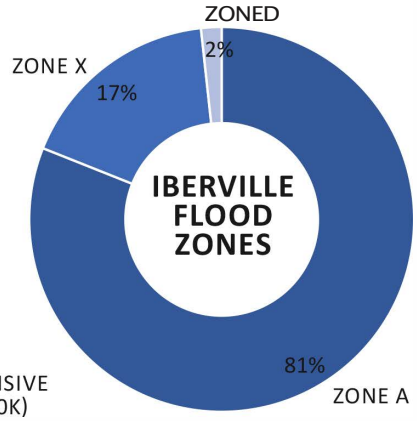
Attachment B



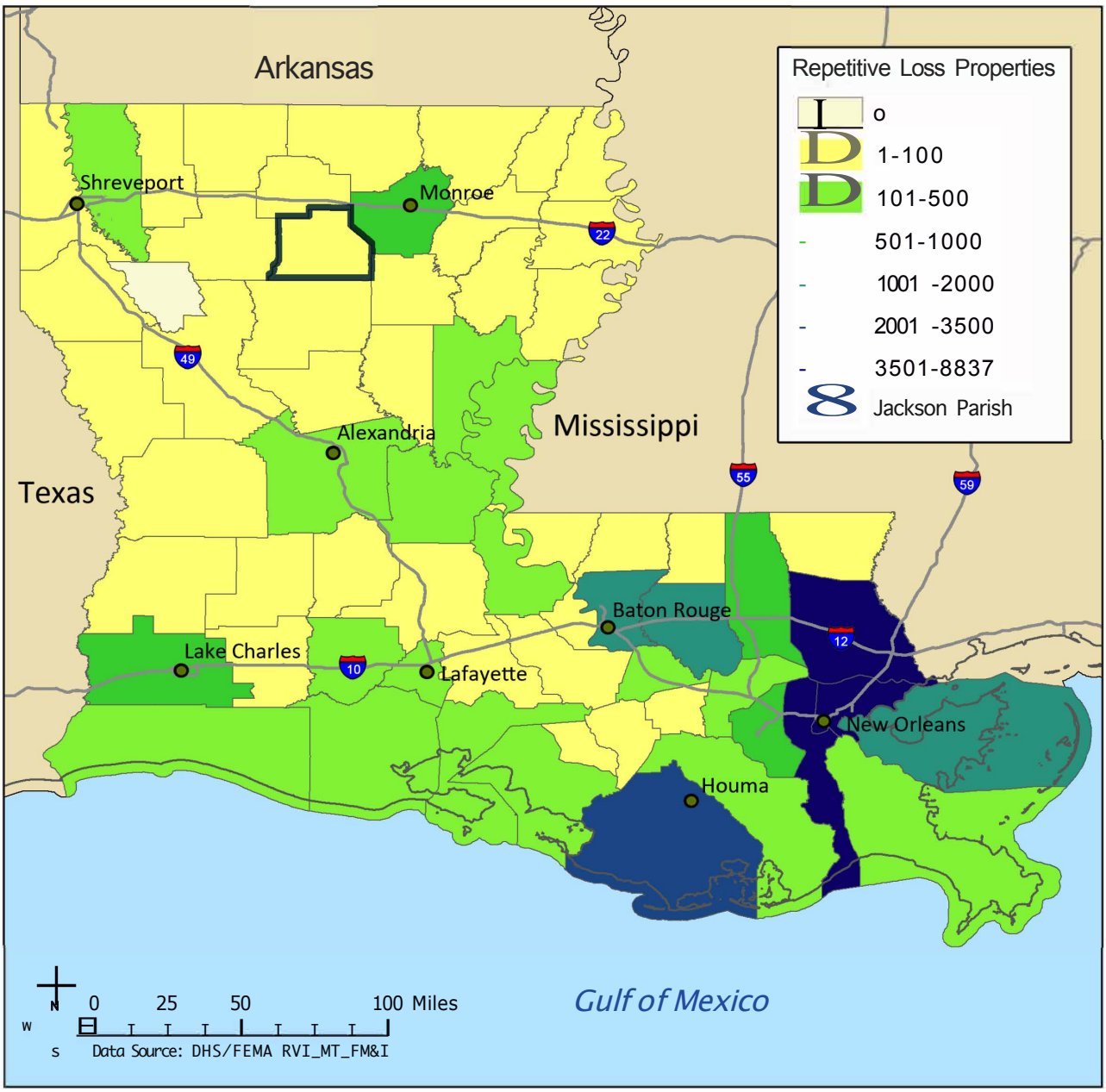
IBERVILLE PARISH	COUNT
RL PROPERTIES	58
INEXPENSIVE ($0-$20K)	143
MEDIUM $20K-$100K)	19
SEVERE ($100K & UP)	1
FLOOD ZONE A	47
FLOOD ZONE X (B,C)	10
FLOOD ZONE V	0
FLOOD ZONED	1
EMG*	0

*NOTE: EMG is before Initial FIRM Identified



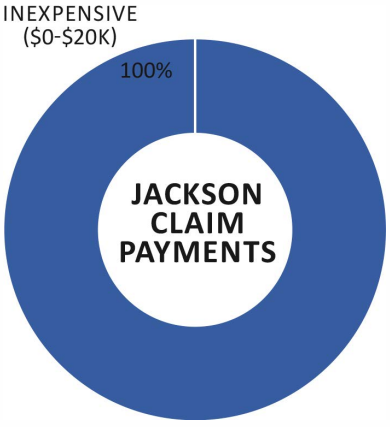


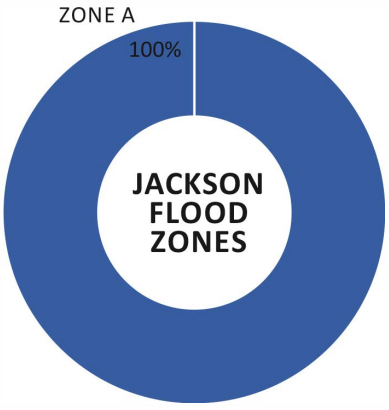
Attachment B



JACKSON PARISH	COUNT
RL PROPERTIES	1
INEXPENSIVE ($0-$20K)	3
MEDIUM $20K-$100K)	0
SEVERE ($100K & UP)	0
FLOOD ZONE A	1
FLOOD ZONE X (B,C)	0
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

*NOTE: EMG isbefore Initial FIRM Identified





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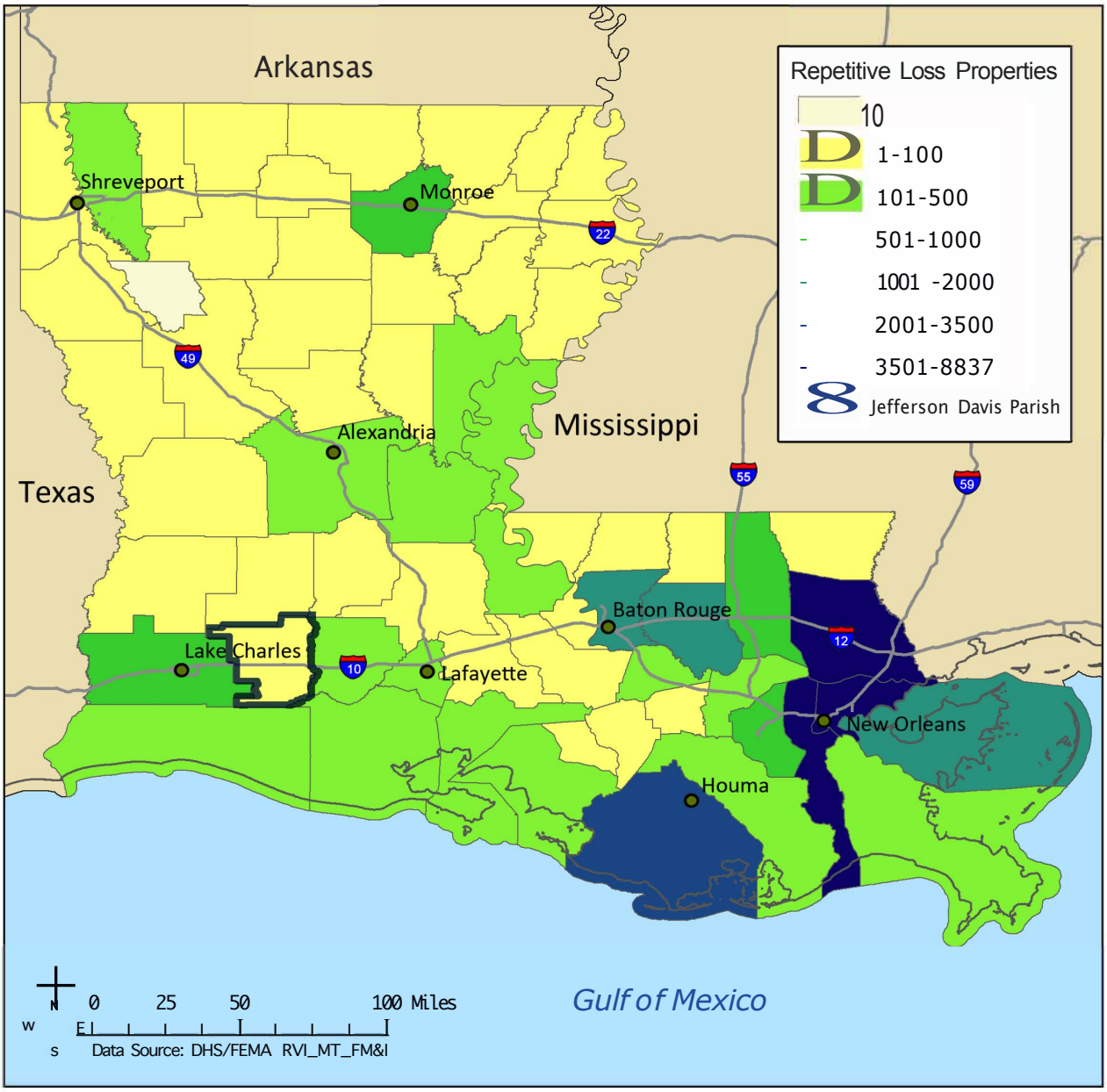
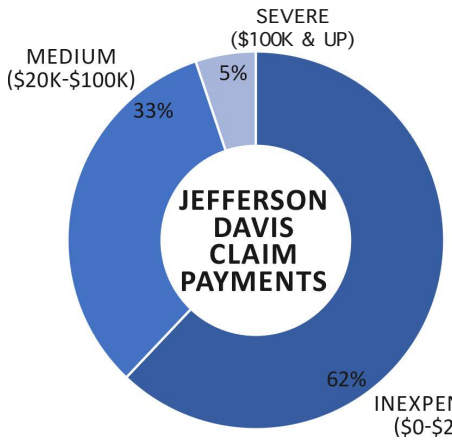
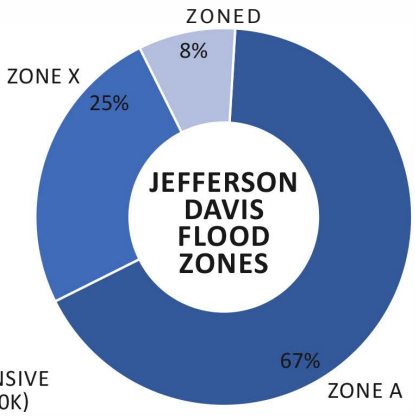
Attachment B



JEFFERSON DAVIS PARISH	COUNT
RL PROPERTIES	24
INEXPENSIVE ($0-$20K)	36
MEDIUM $20K-$100K)	19
SEVERE ($100K & UP)	3
FLOOD ZONE A	16
FLOOD ZONE X (B,C)	6
FLOOD ZONE V	0
FLOOD ZONED	2
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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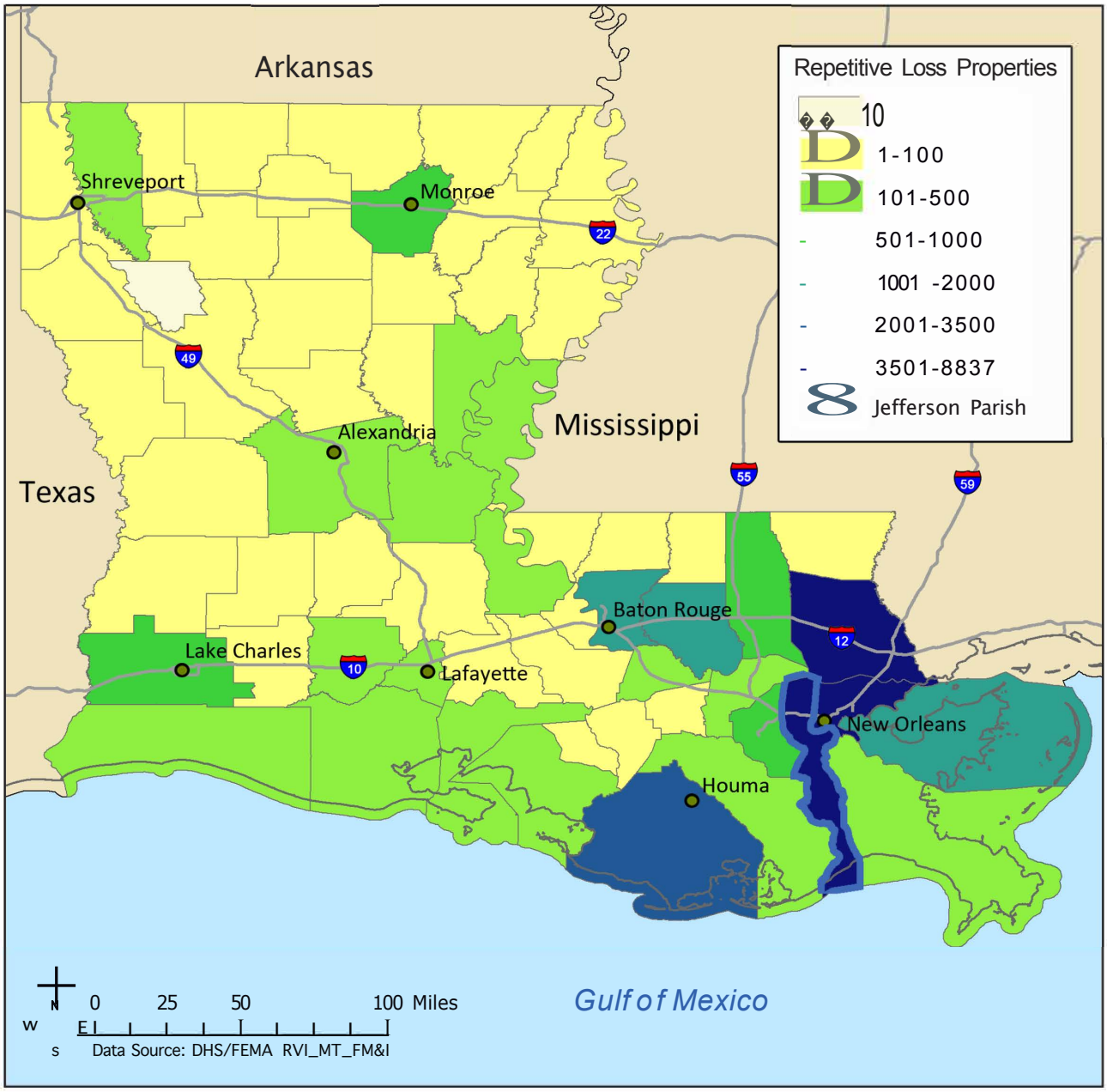
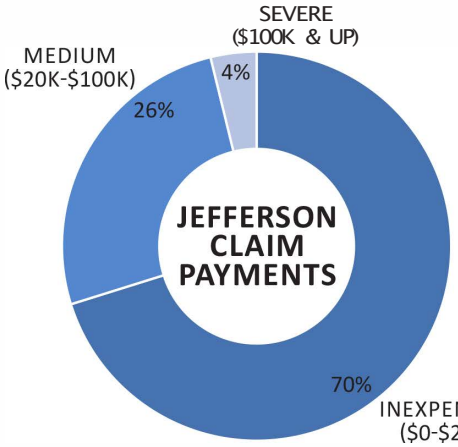
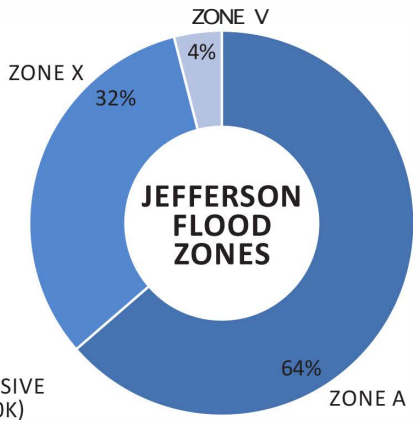
Attachment B



JEFFERSON PARISH	COUNT
RL PROPERTIES	8,837
INEXPENSIVE ($0-$20K)	21,633
MEDIUM $20K-$100K)	8,020
SEVERE ($100K & UP)	1,175
FLOOD ZONE A	5,601
FLOOD ZONE X (B,C)	2,848
FLOOD ZONE V	352
FLOOD ZONED	3
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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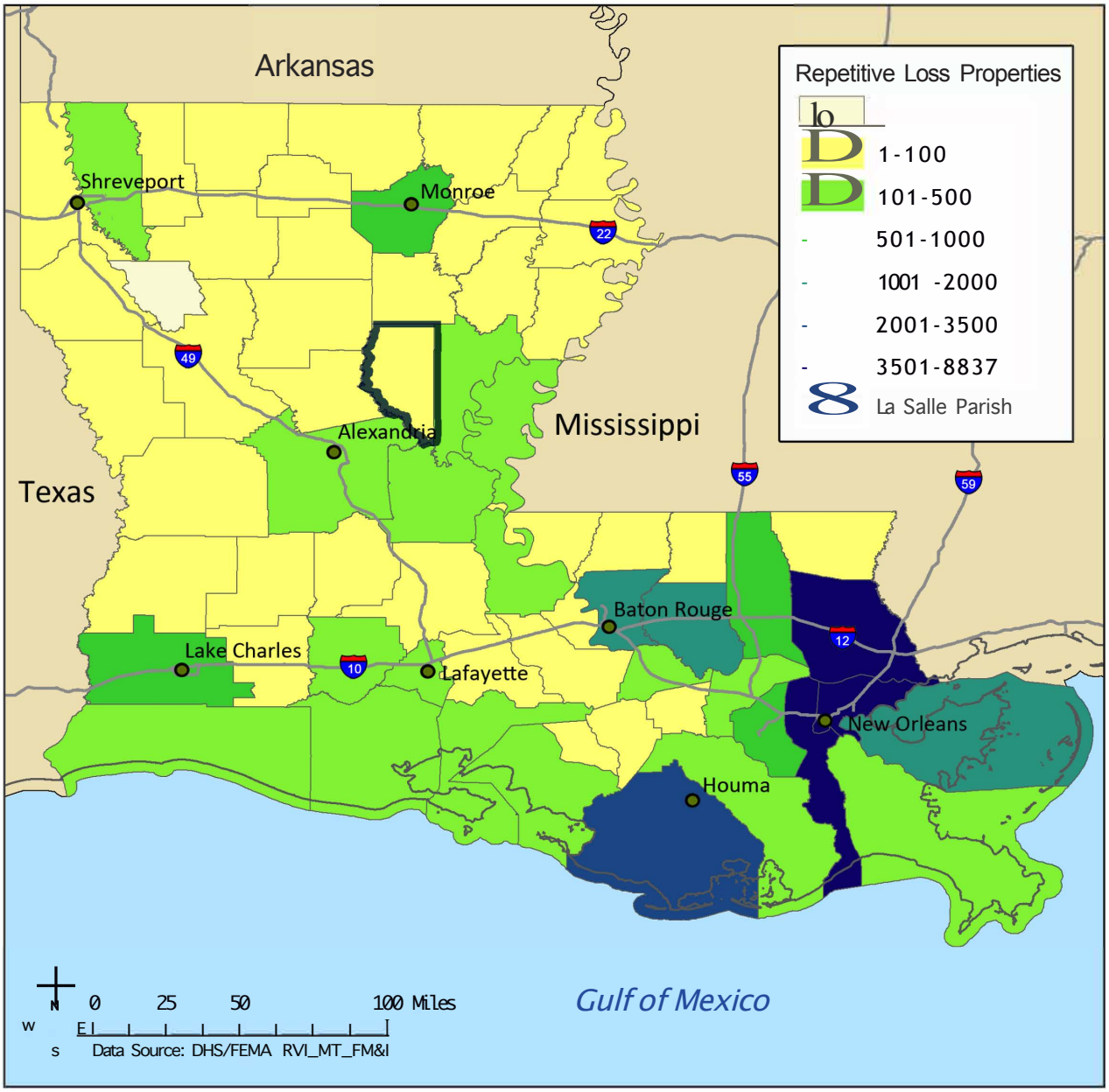
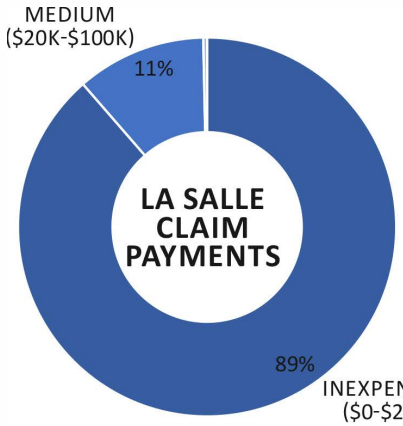
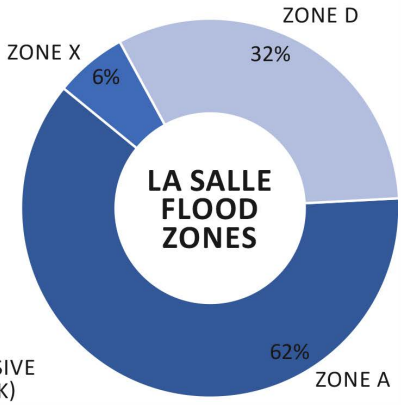
Attachment B



LA SALLE PARISH	COUNT
RL PROPERTIES	81
INEXPENSIVE ($0-$20K)	272
MEDIUM $20K-$100K)	34
SEVERE ($100K & UP)	1
FLOOD ZONE A	50
FLOOD ZONE X (B,C)	5
FLOOD ZONE V	0
FLOOD ZONED	26
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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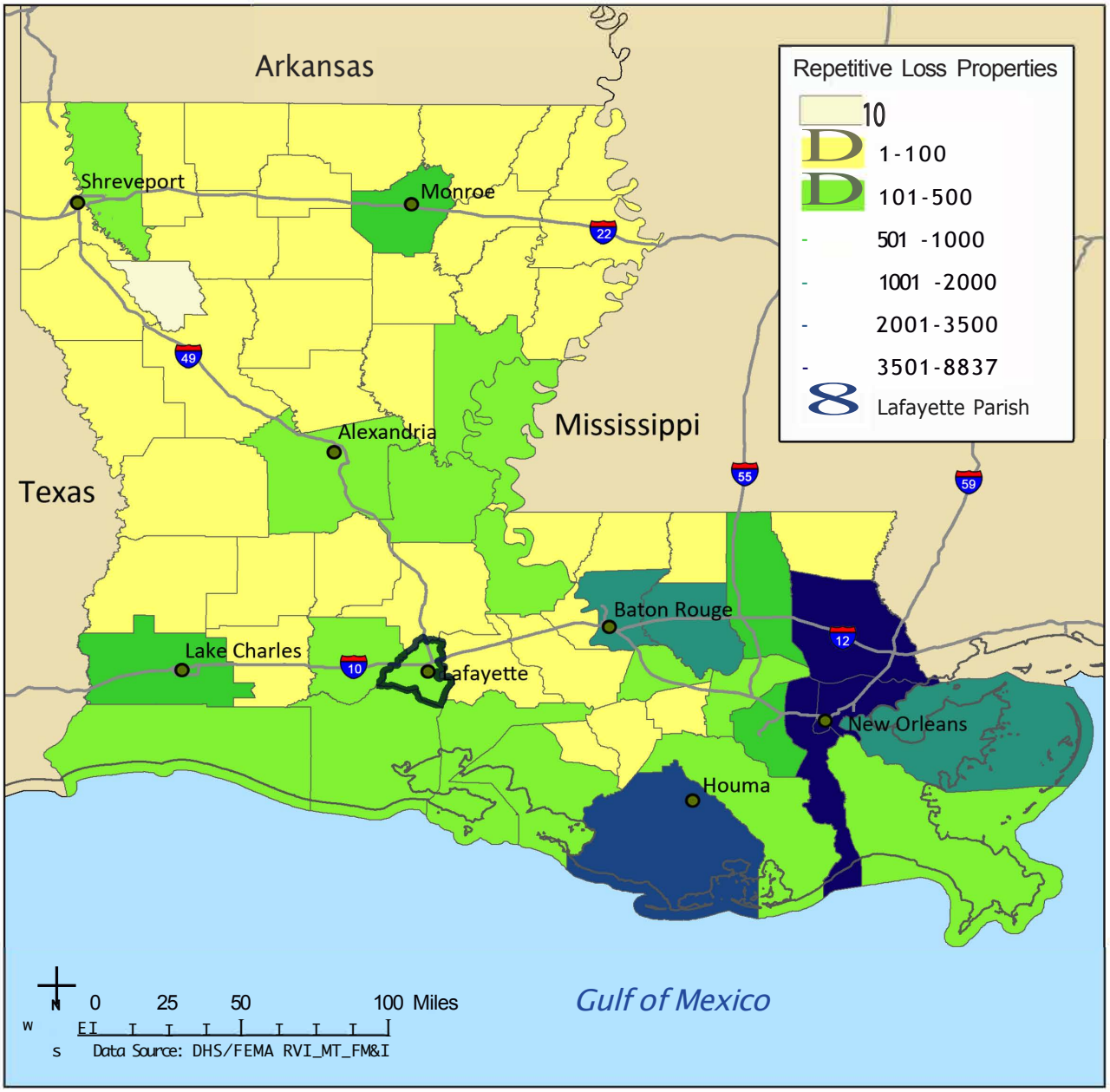
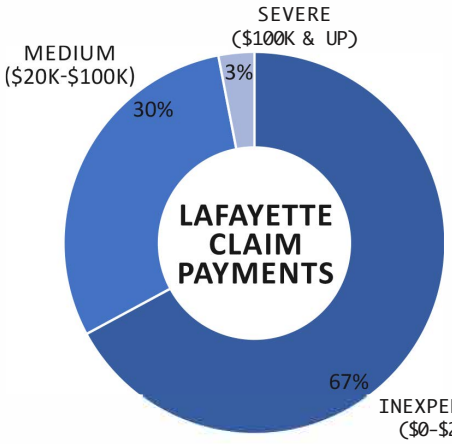
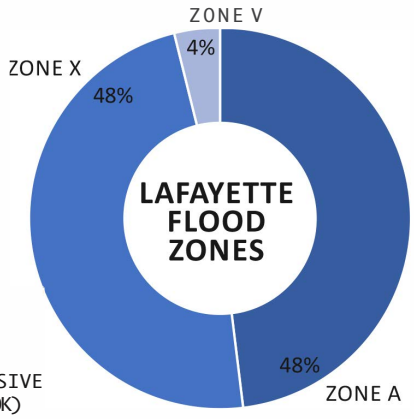
Attachment B



LAFAYETTE PARISH	COUNT
RL PROPERTIES	364
INEXPENSIVE ($0-$20K)	796
MEDIUM $20K-$100K)	354
SEVERE ($100K & UP)	36
FLOOD ZONE A	174
FLOOD ZONE X (B,C)	174
FLOOD ZONE V	2
FLOOD ZONED	0
EMG*	12

*NOTE: EMG isbefore InitialFIRM Identified





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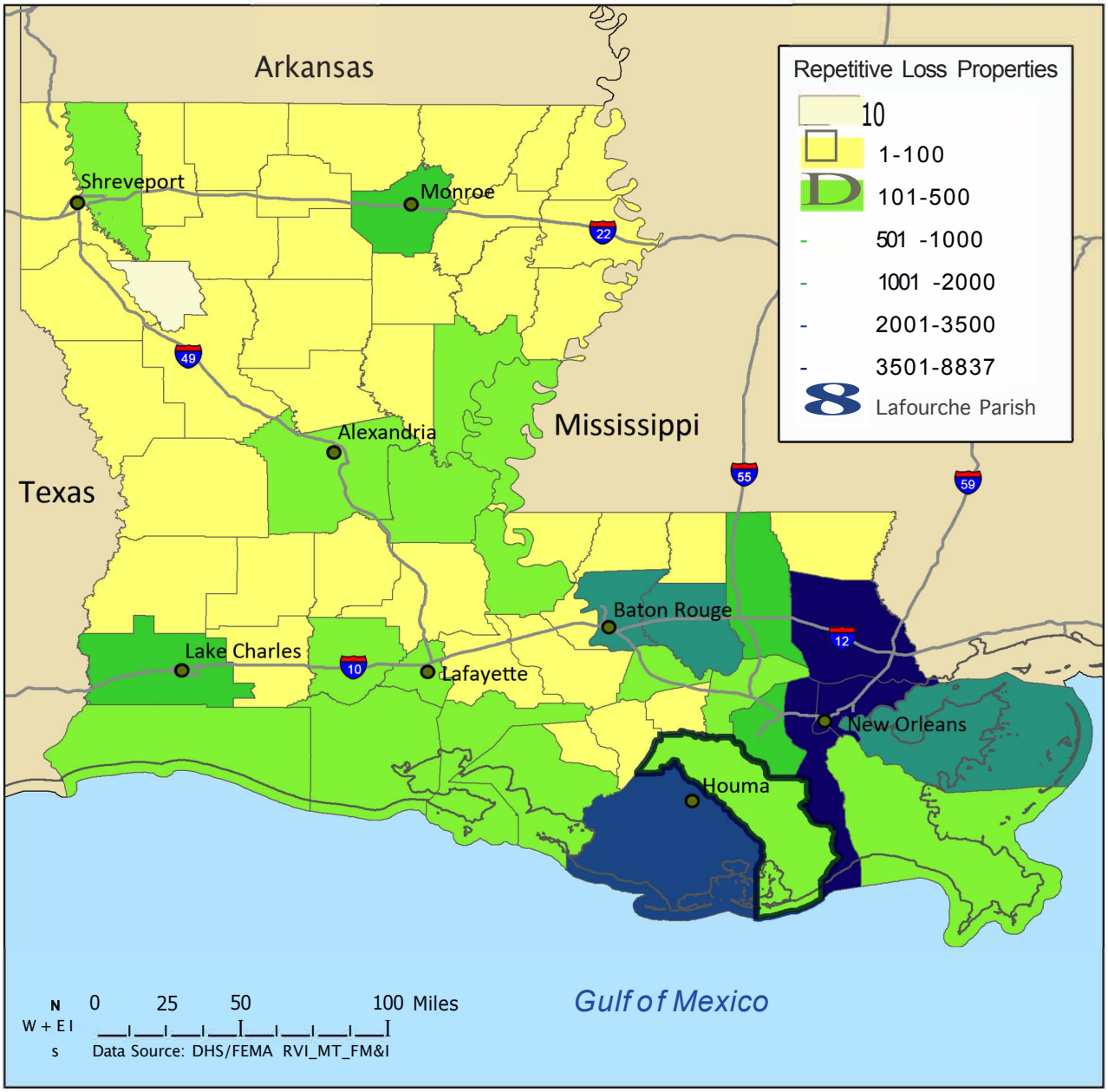
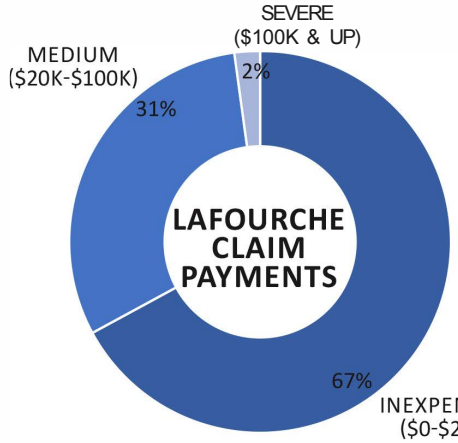
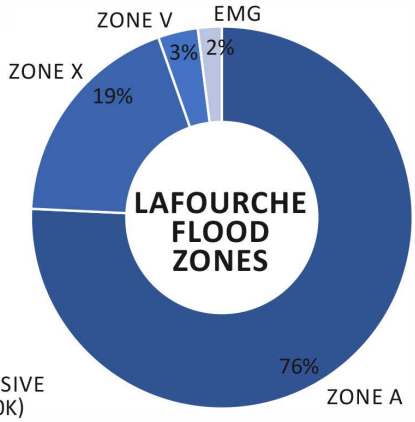


LAFOURCHE PARISH	COUNT
RL PROPERTIES	449
INEXPENSIVE ($0-$20K)	899
MEDIUM $20K-$100K)	412
SEVERE ($100K & UP)	29
FLOOD ZONE A	337
FLOOD ZONE X (B,C)	84
FLOOD ZONE V	15
FLOOD ZONED	0
EMG*	9

*NOTE: EMG is before Initial FIRM Identified





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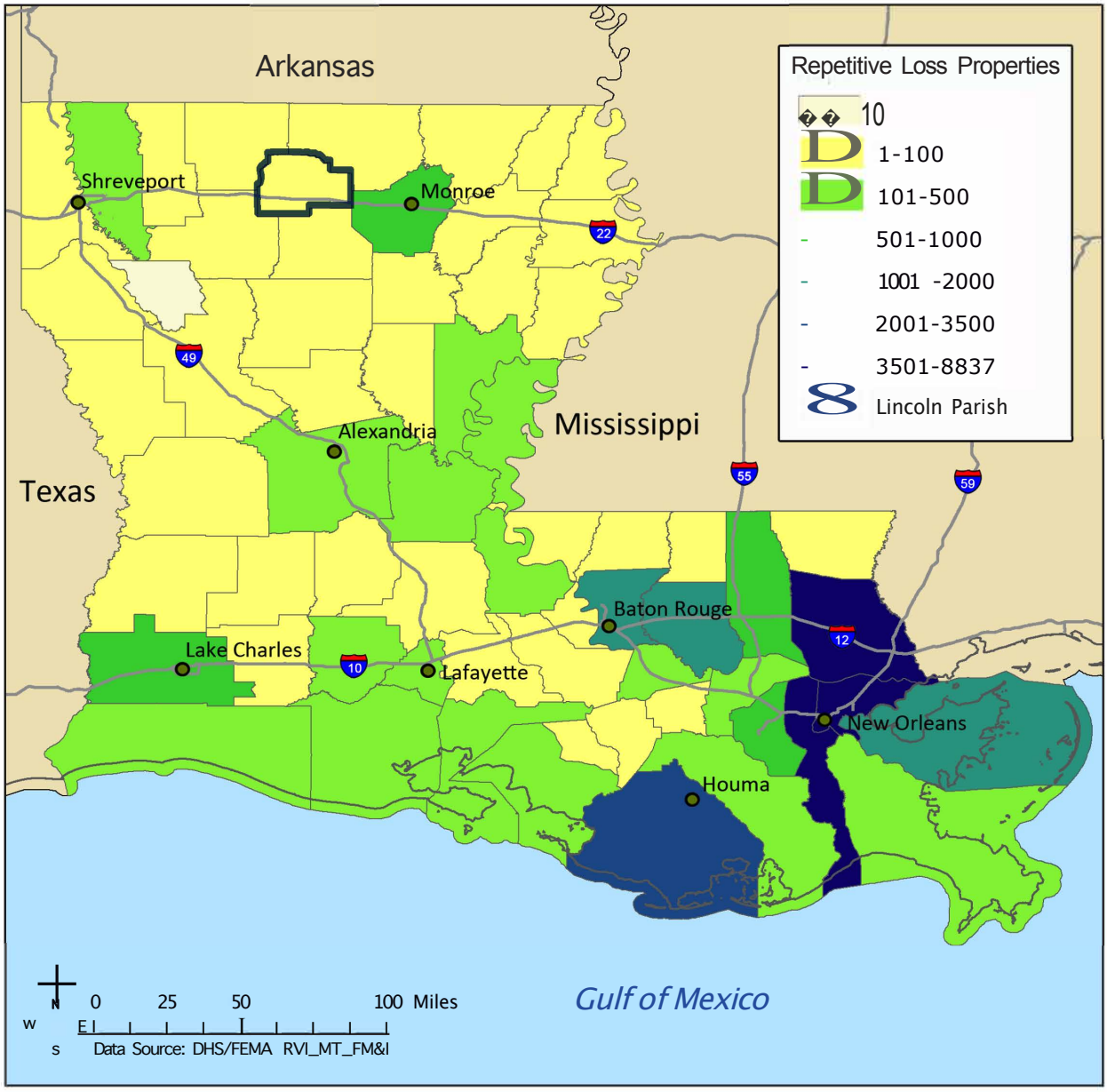
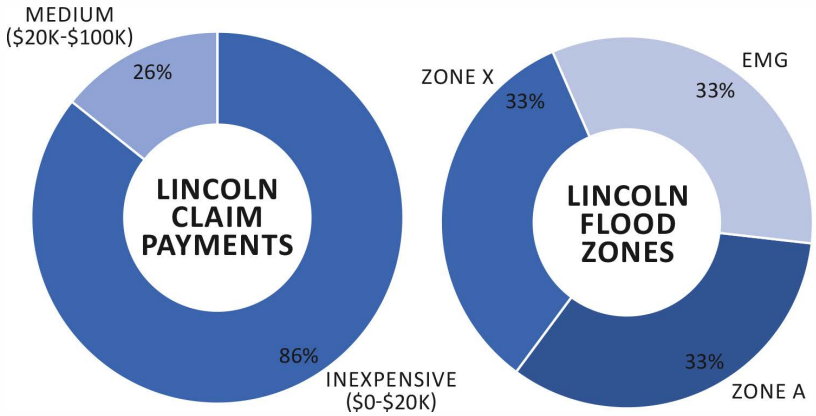


LINCOLN PARISH	COUNT
IRL PROPERTIES	3
INEXPENSIVE ($0–$20K)	6
MEDIUM $20K–$100K)	1
SEVERE ($100K & UP)	0
FLOOD ZONE A	1
FLOOD ZONE X (B,C)	1
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	1

*NOTE: EMG is before Initial FIRM Identified



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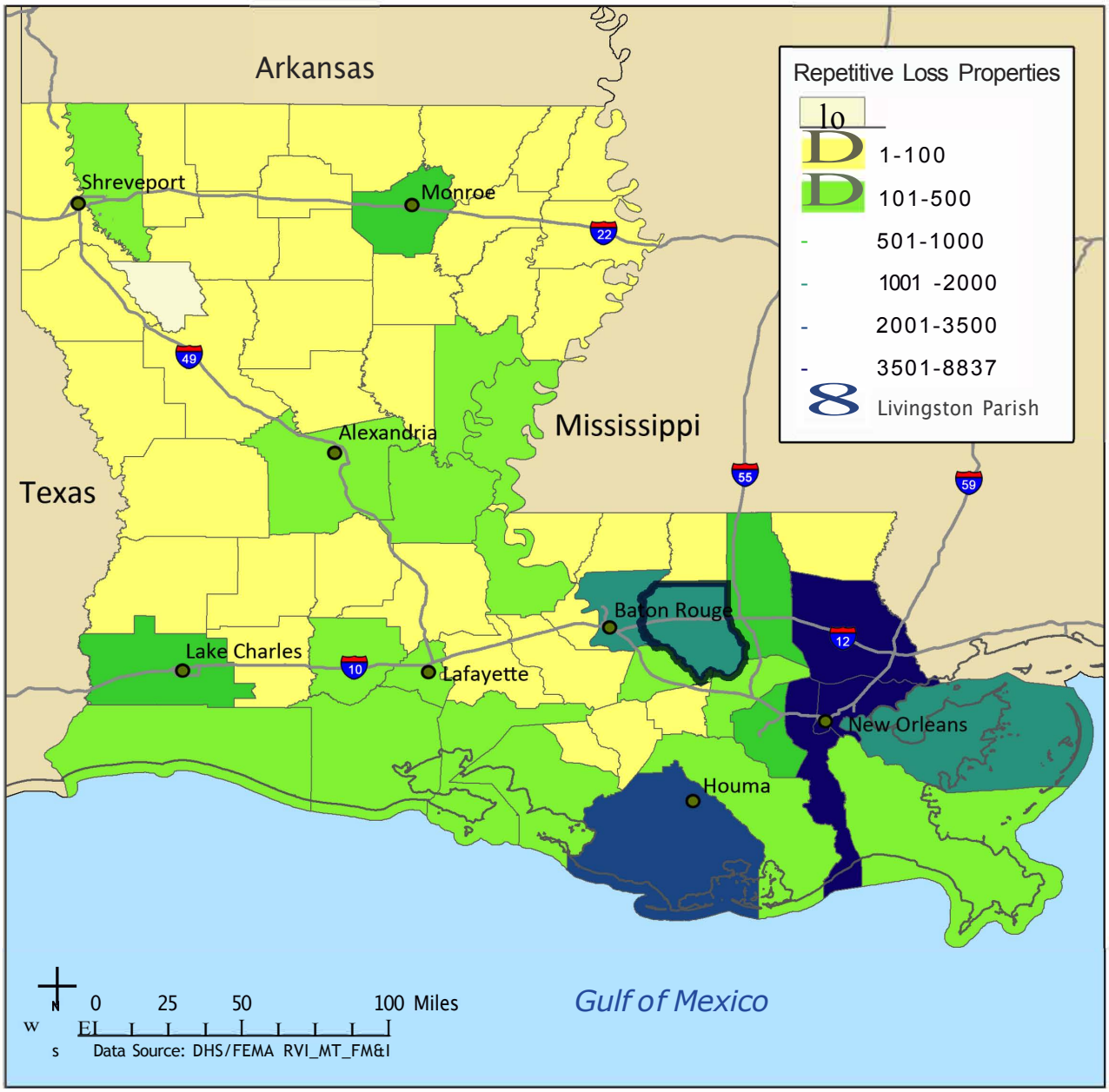
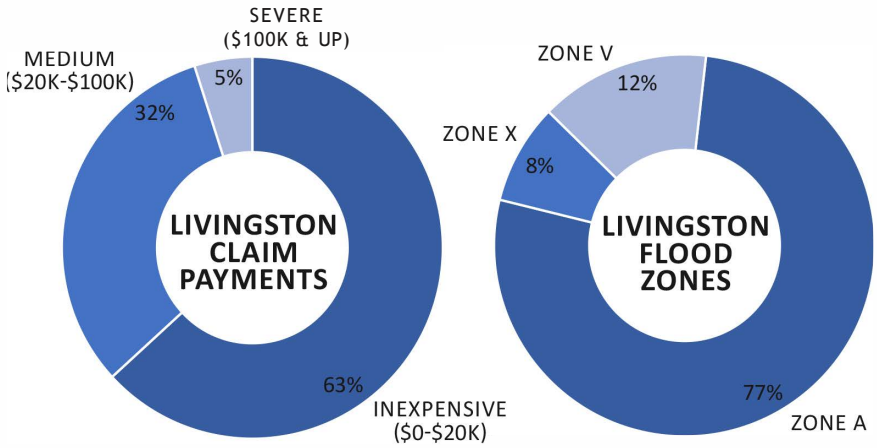
Attachment B



LIVINGSTON PARISH	COUNT
RL PROPERTIES	1,270
INEXPENSIVE ($0-$20K)	2,621
MEDIUM $20K-$100K)	1,324
SEVERE ($100K & UP)	204
FLOOD ZONE A	970
FLOOD ZONE X (B,C)	107
FLOOD ZONE V	1
FLOOD ZONED	0
EMG*	182

*NOTE: EMG is before Initial FIRM Identified



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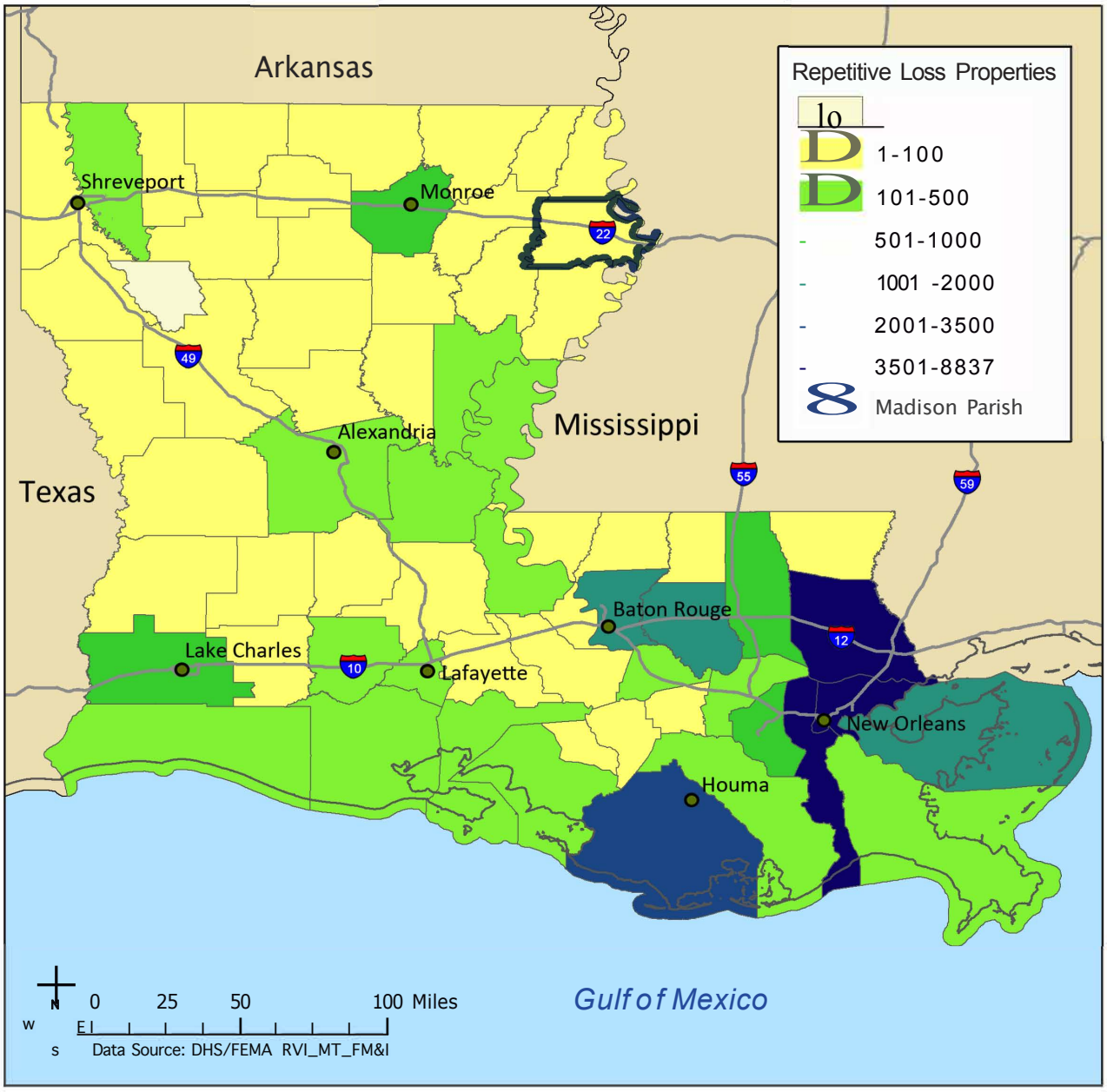
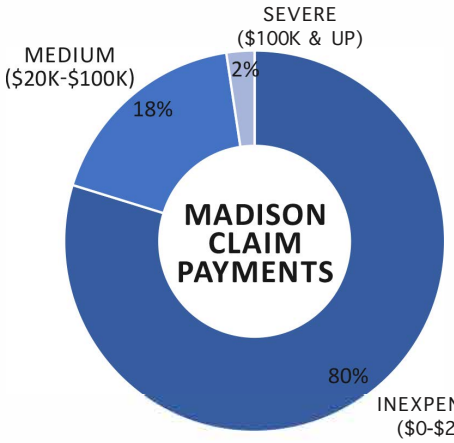
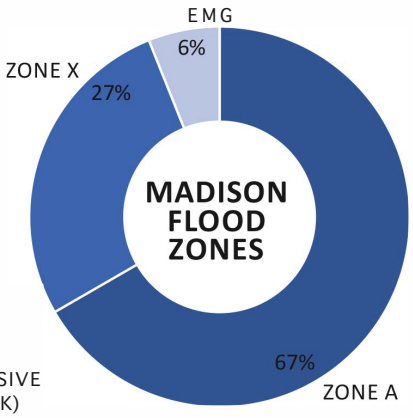
Attachment B



MADISON PARISH	COUNT
RL PROPERTIES	33
INEXPENSIVE ($0-$20K)	67
MEDIUM $20K-$100K)	15
SEVERE ($100K & UP)	2
FLOOD ZONE A	22
FLOOD ZONE X (B,C)	9
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	2

*NOTE: EMG is before Initial FIRM Identified





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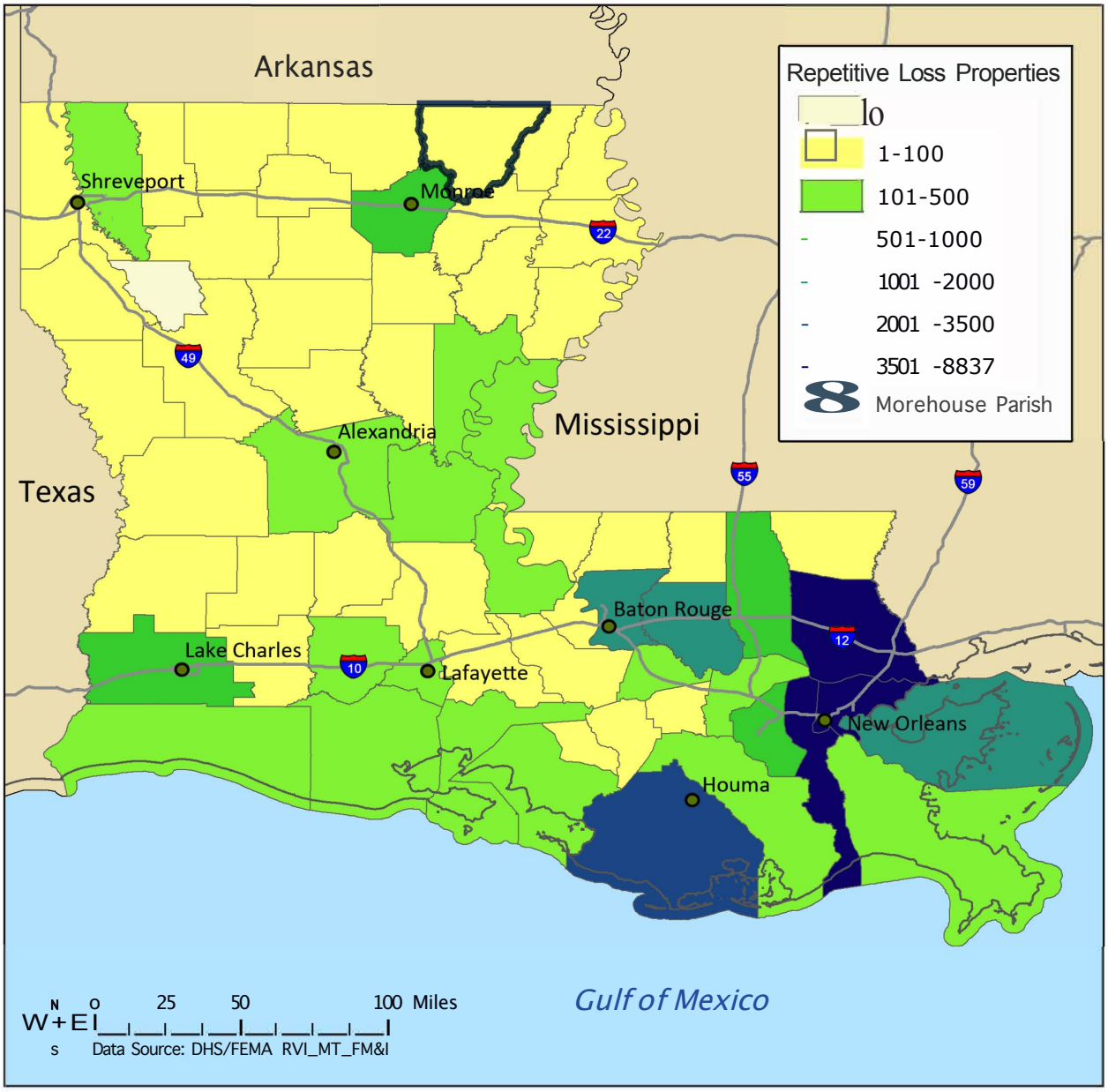
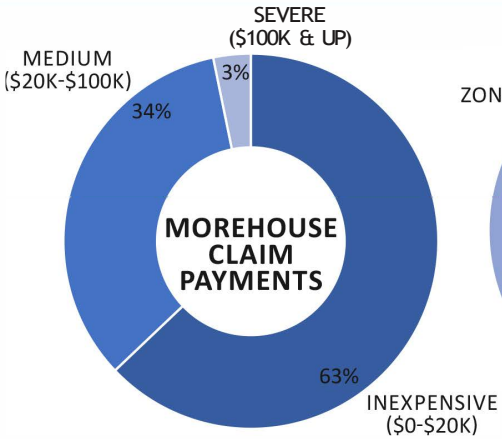
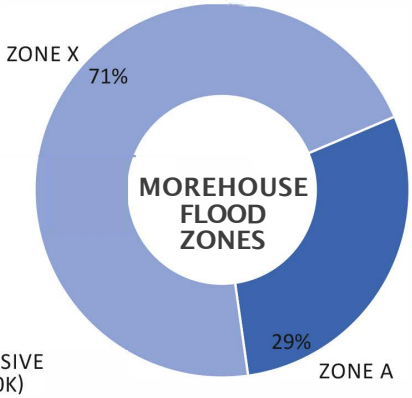


MOREHOUSE PARISH	COUNT
RL PROPERTIES	24
INEXPENSIVE ($0–$20K)	39
MEDIUM $20K–$100K)	21
SEVERE ($100K & UP)	2
FLOOD ZONE A	7
FLOOD ZONE X (B,C)	17
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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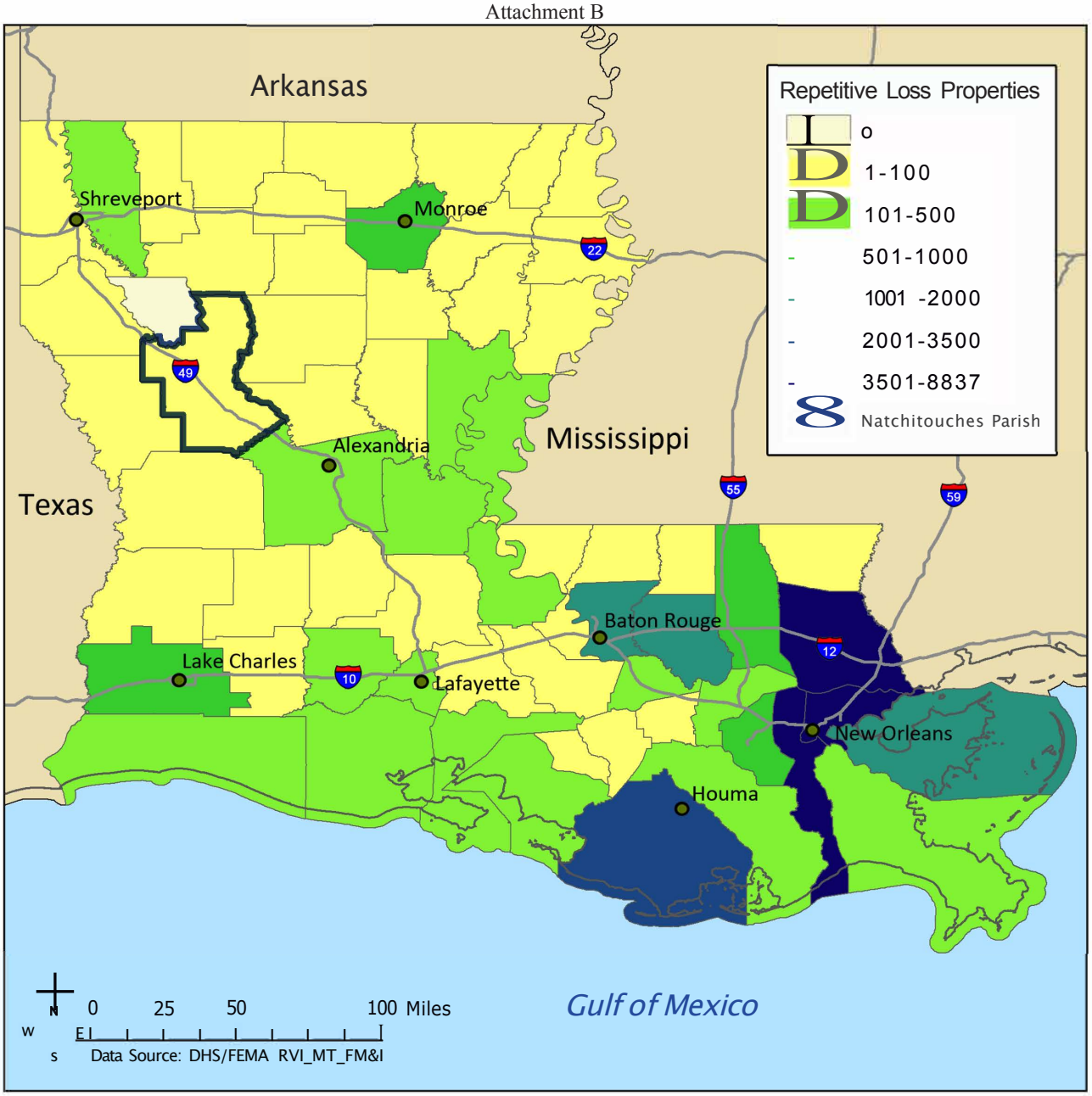
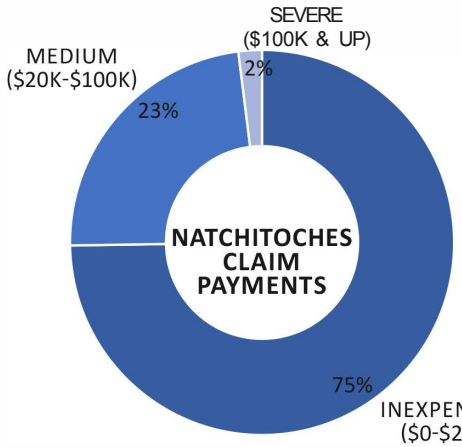
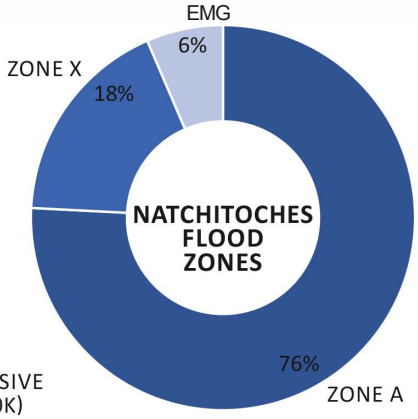


NATCHITOCHES PARISH	COUNT
RL PROPERTIES	62
INEXPENSIVE ($0-$20K)	151
MEDIUM $20K-$100K)	47
SEVERE ($100K & UP)	4
FLOOD ZONE A	47
FLOOD ZONE X (B,C)	11
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	4

*NOTE: EMG is before Initial FIRM Identified





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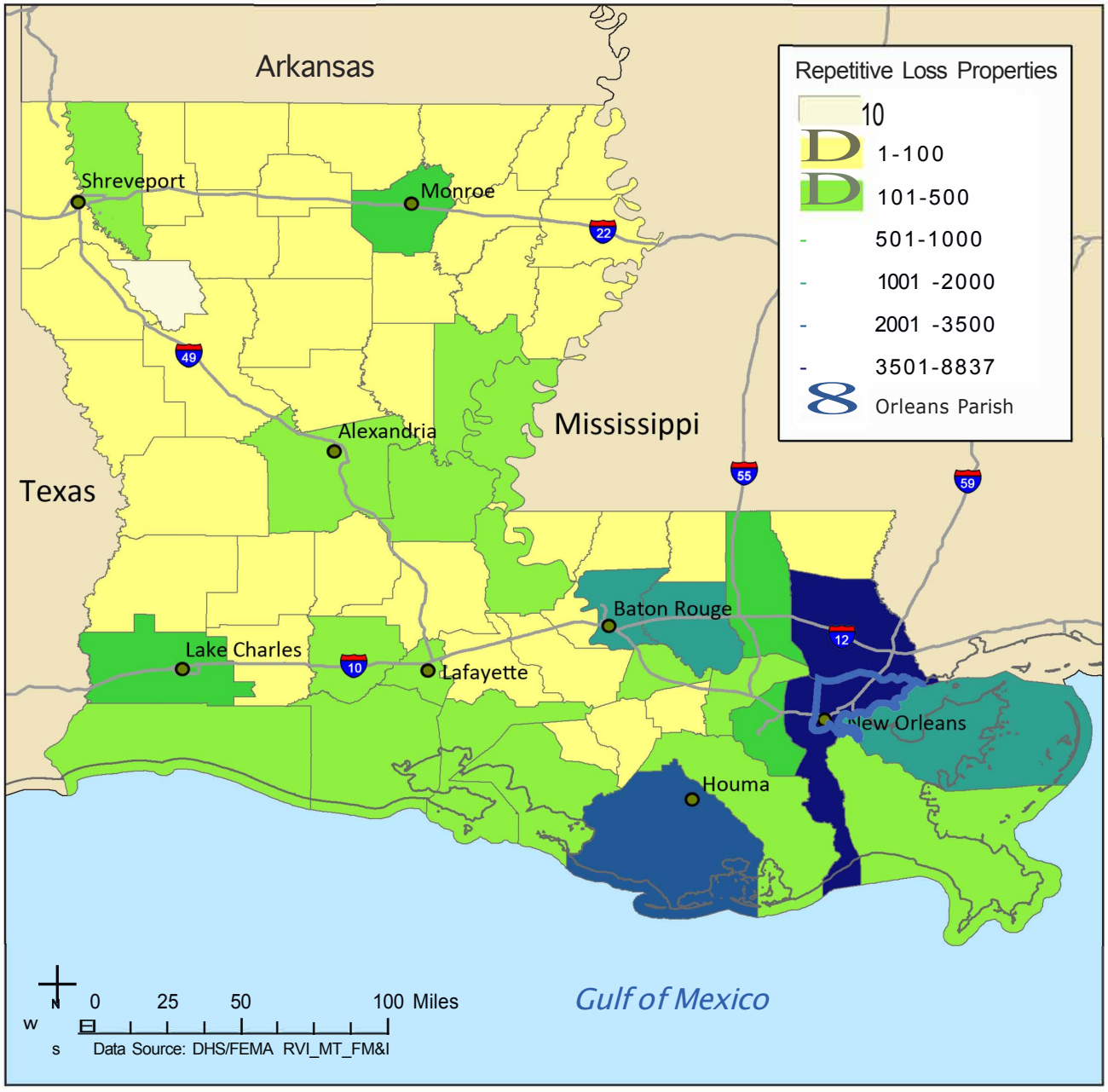
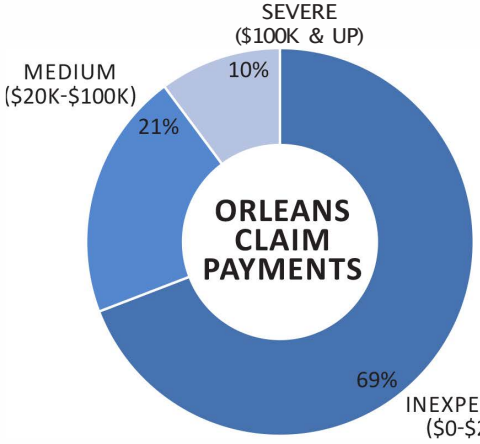
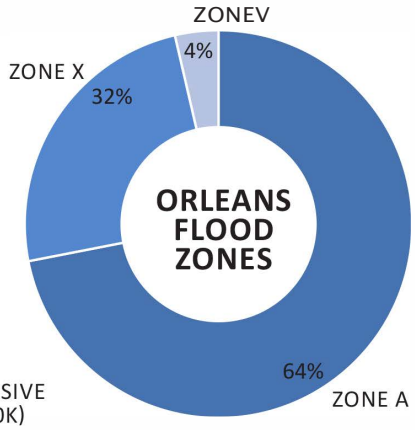
Attachment B



ORLEANS PARISH	COUNT
RL PROPERTIES	6,534
INEXPENSIVE ($0-$20K)	16,521
MEDIUM $20K-$100K)	4,936
SEVERE ($100K & UP)	2,431
FLOOD ZONE A	4,670
FLOOD ZONE X (B,C)	1,587
FLOOD ZONE V	235
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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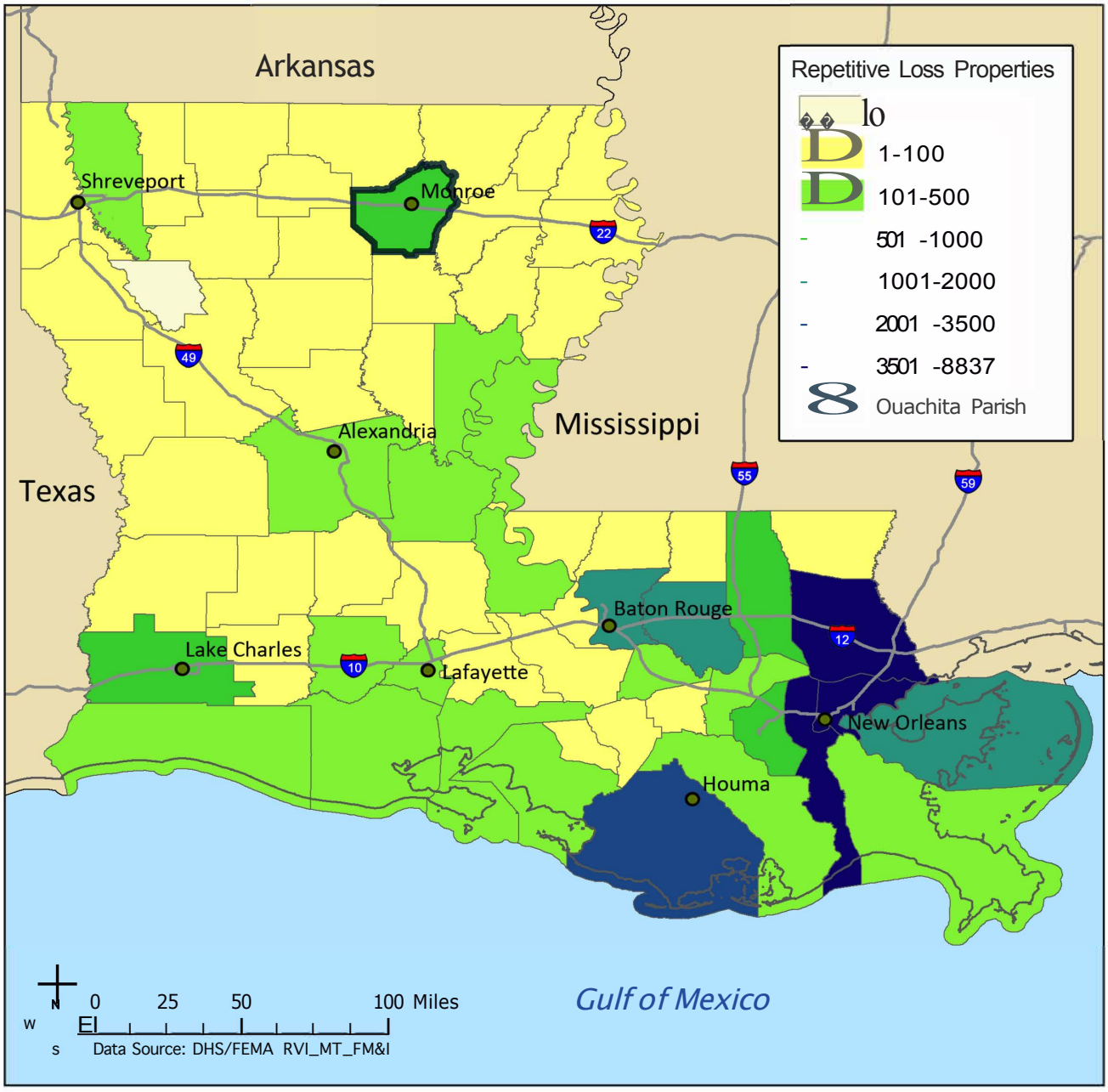
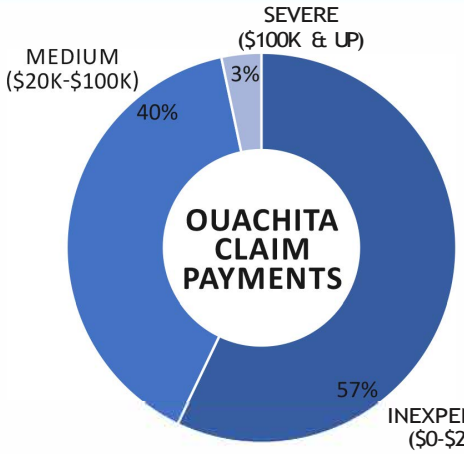
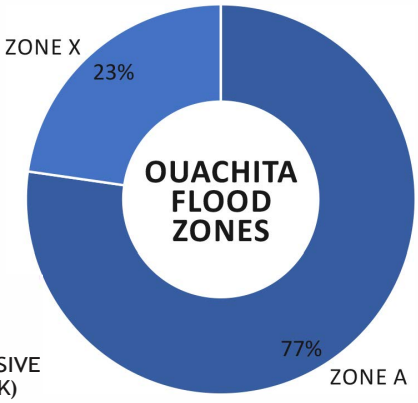
Attachment B



OUACHITA PARISH	COUNT
RL PROPERTIES	823
INEXPENSIVE ($0-$20K)	1,484
MEDIUM $20K-$100K)	1,029
SEVERE ($100K & UP)	86
FLOOD ZONE A	629
FLOOD ZONE X (B,C)	185
FLOOD ZONE V	1
FLOOD ZONED	0
EMG*	4

*NOTE: EMG is before Initial FIRM Identified





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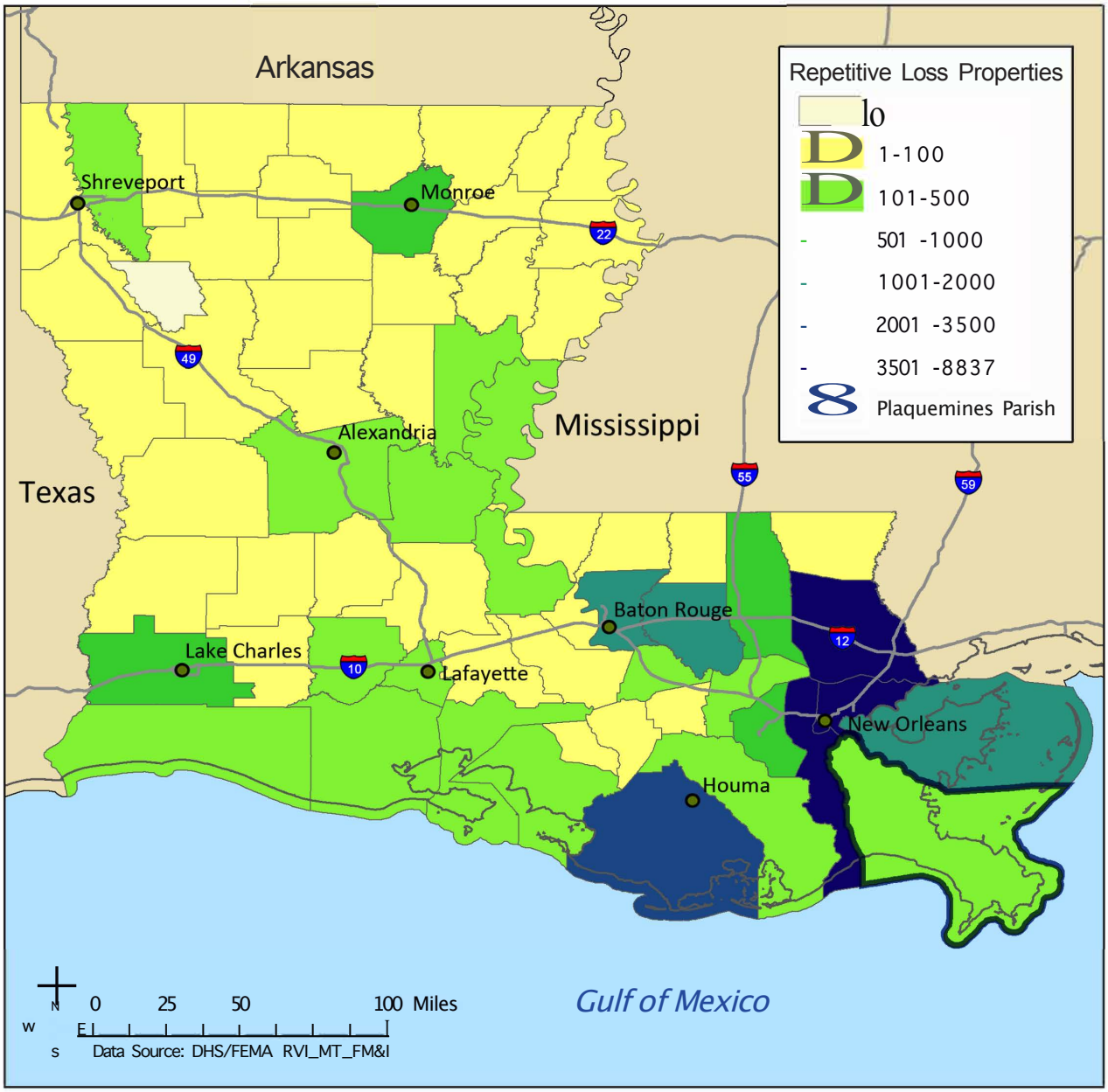
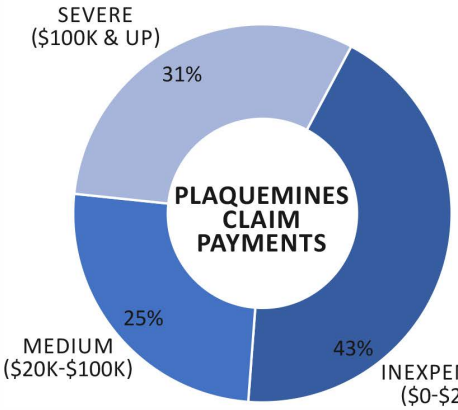
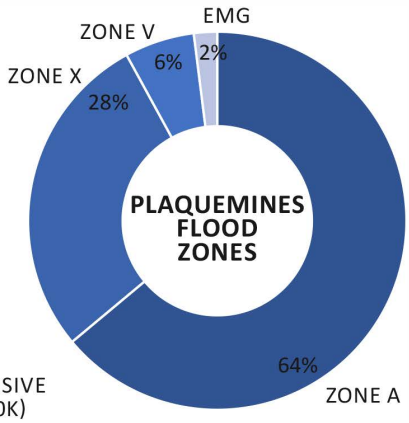
Attachment B



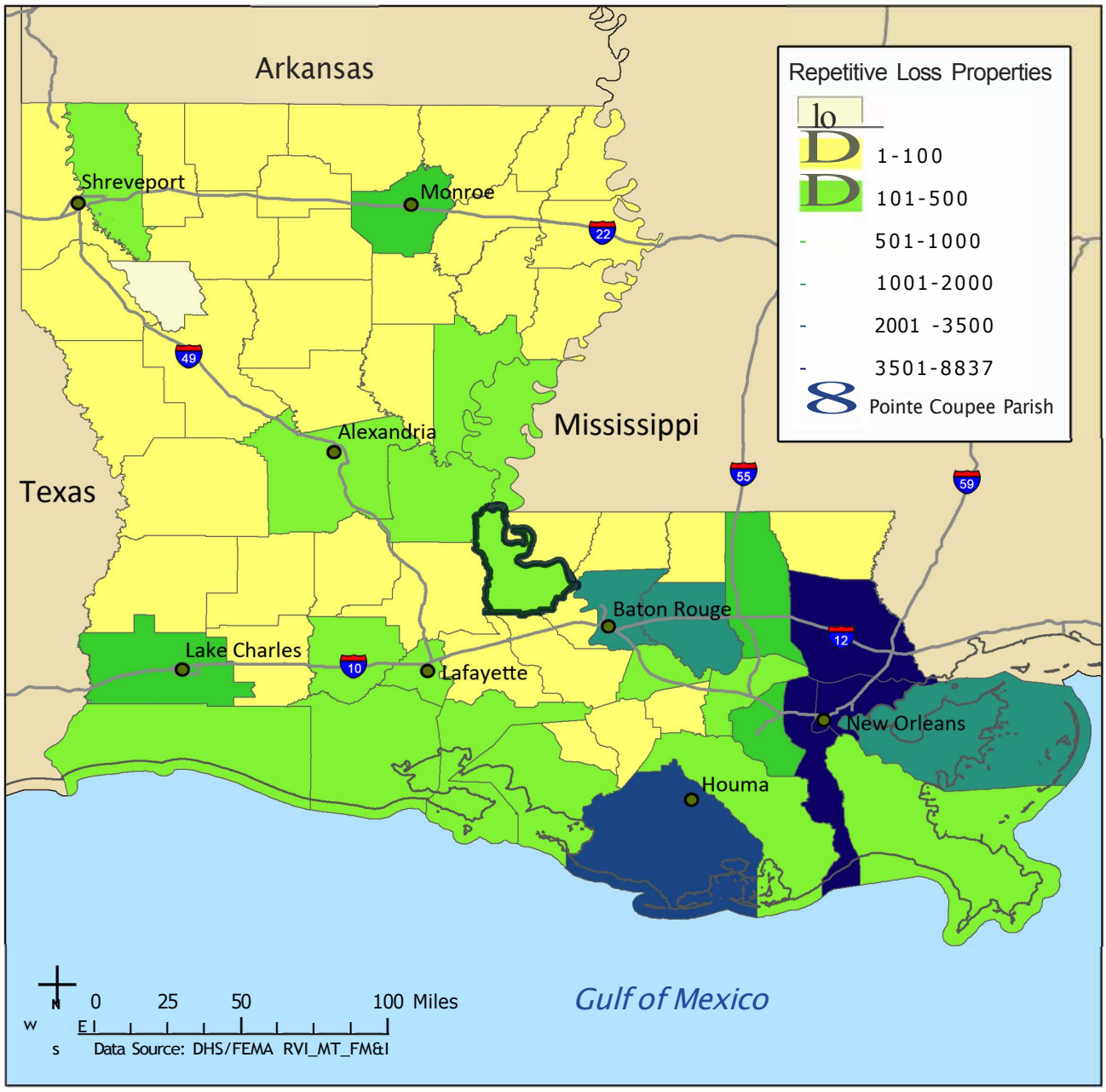
PLAQUEMINES PARISH	COUNT
RL PROPERTIES	409
INEXPENSIVE ($0–$20K)	452
MEDIUM $20K–$100K)	265
SEVERE ($100K & UP)	324
FLOOD ZONE A	257
FLOOD ZONE X (B,C)	113
FLOOD ZONE V	24
FLOOD ZONED	0
EMG*	8

*NOTE: EMG is before Initial FIRM Identified



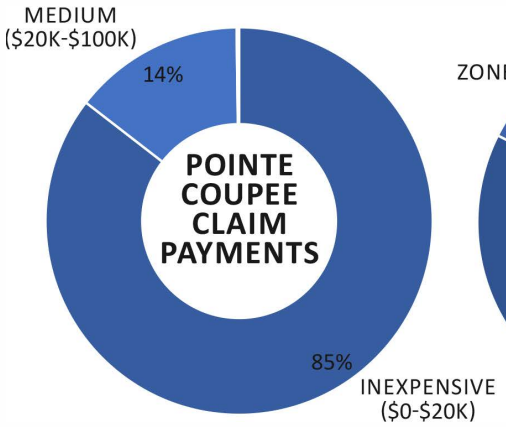


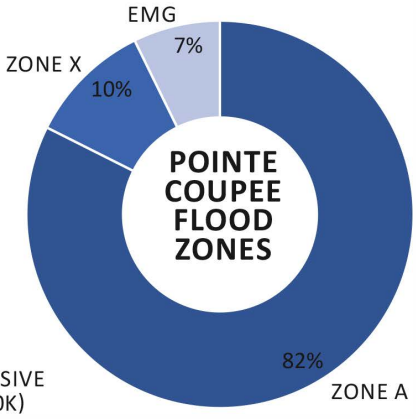
Attachment B



POINTE COUPEE PARISH	COUNT
IRL PROPERTIES	364
INEXPENSIVE ($0-$20K)	1242
MEDIUM $20K-$100K)	208
SEVERE ($100K & UP)	3
FLOOD ZONE A	295
FLOOD ZONE X (B,C)	37
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	26

*NOTE: EMG is before Initial FIRM Identified





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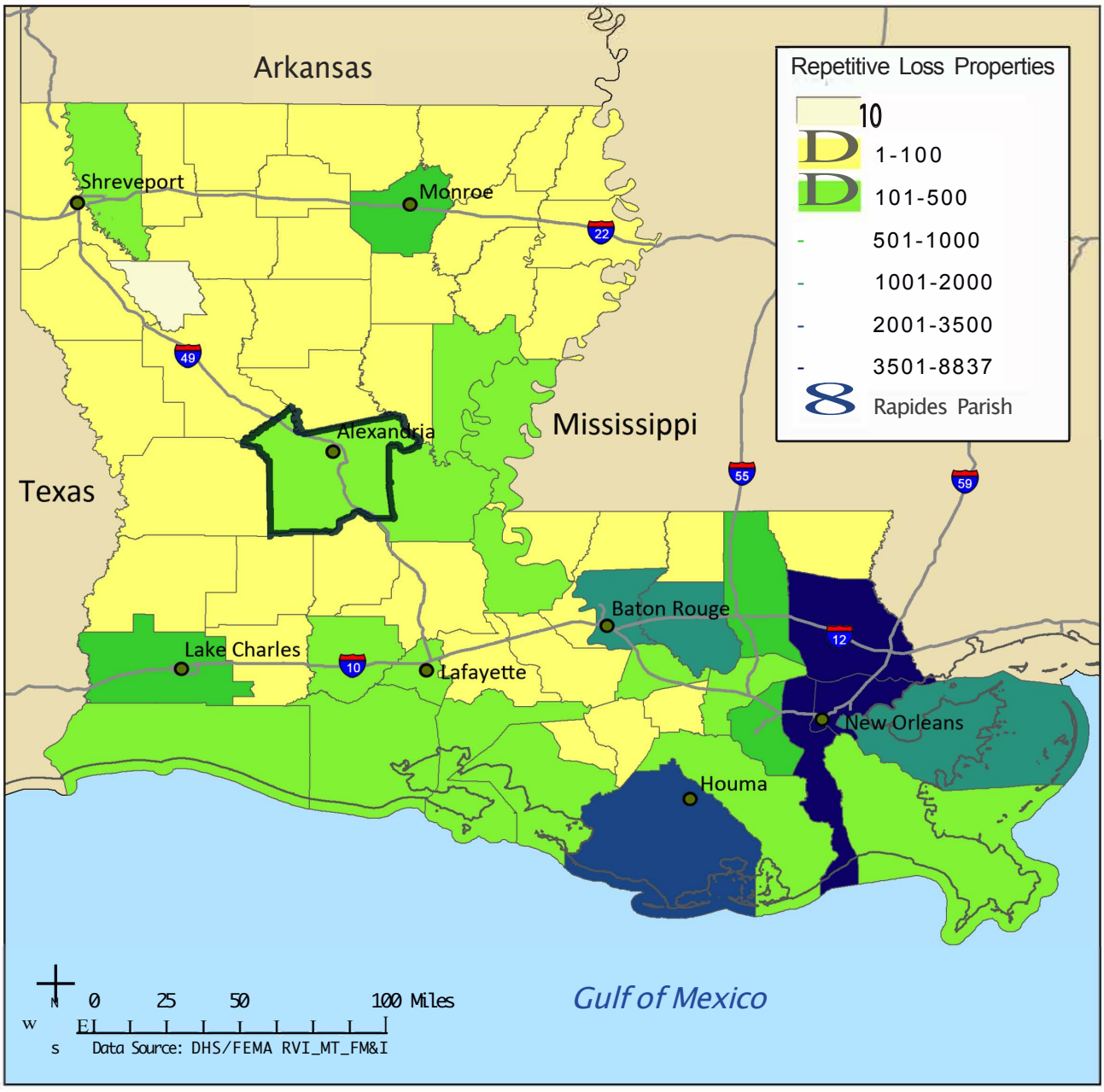
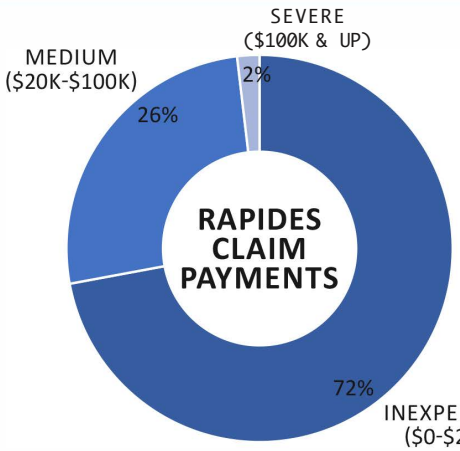
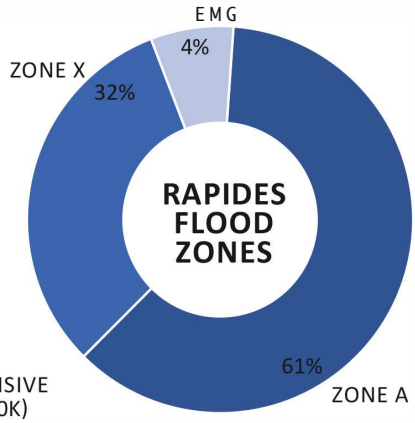
Attachment B



RAPIDES PARISH	COUNT
RL PROPERTIES	405
INEXPENSIVE ($0-$20K)	927
MEDIUM $20K-$100K)	335
SEVERE ($100K & UP)	24
FLOOD ZONE A	248
FLOOD ZONE X (B,C)	128
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	28

*NOTE: EMG isbefore Initial FIRM Identified





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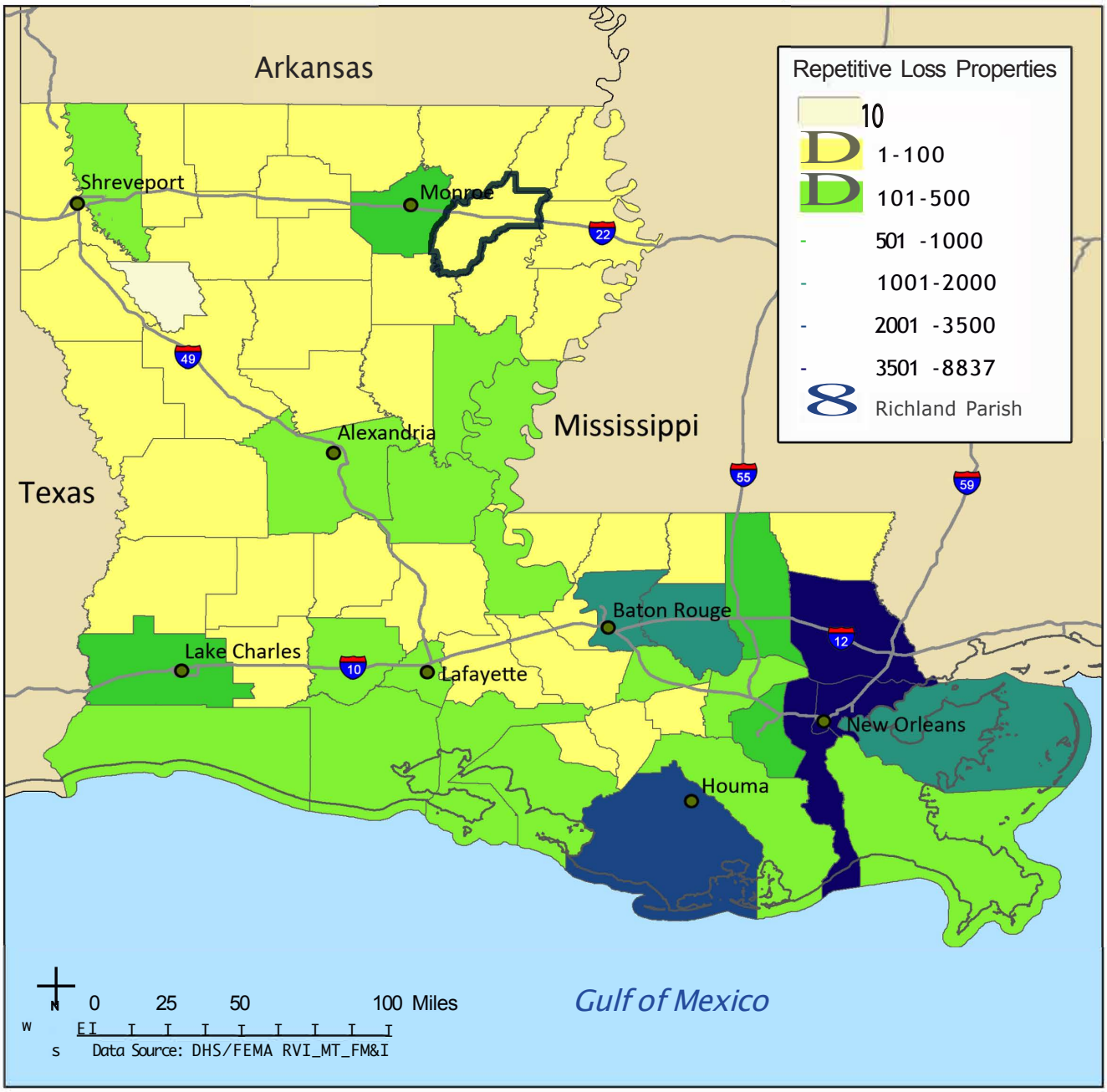
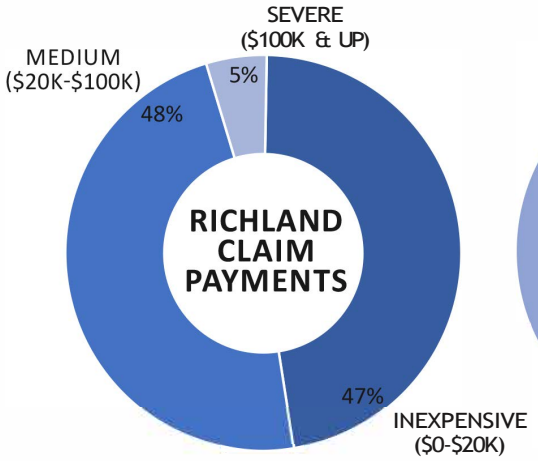
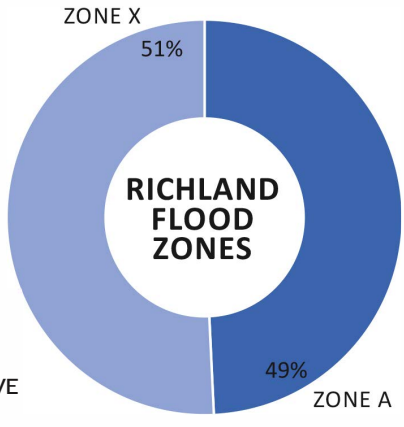
Attachment B



RICHLAND PARISH	COUNT
RL PROPERTIES	67
INEXPENSIVE ($0-$20K)	86
MEDIUM $20K-$100K)	87
SEVERE ($100K & UP)	9
FLOOD ZONE A	33
FLOOD ZONE X (B,C)	34
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

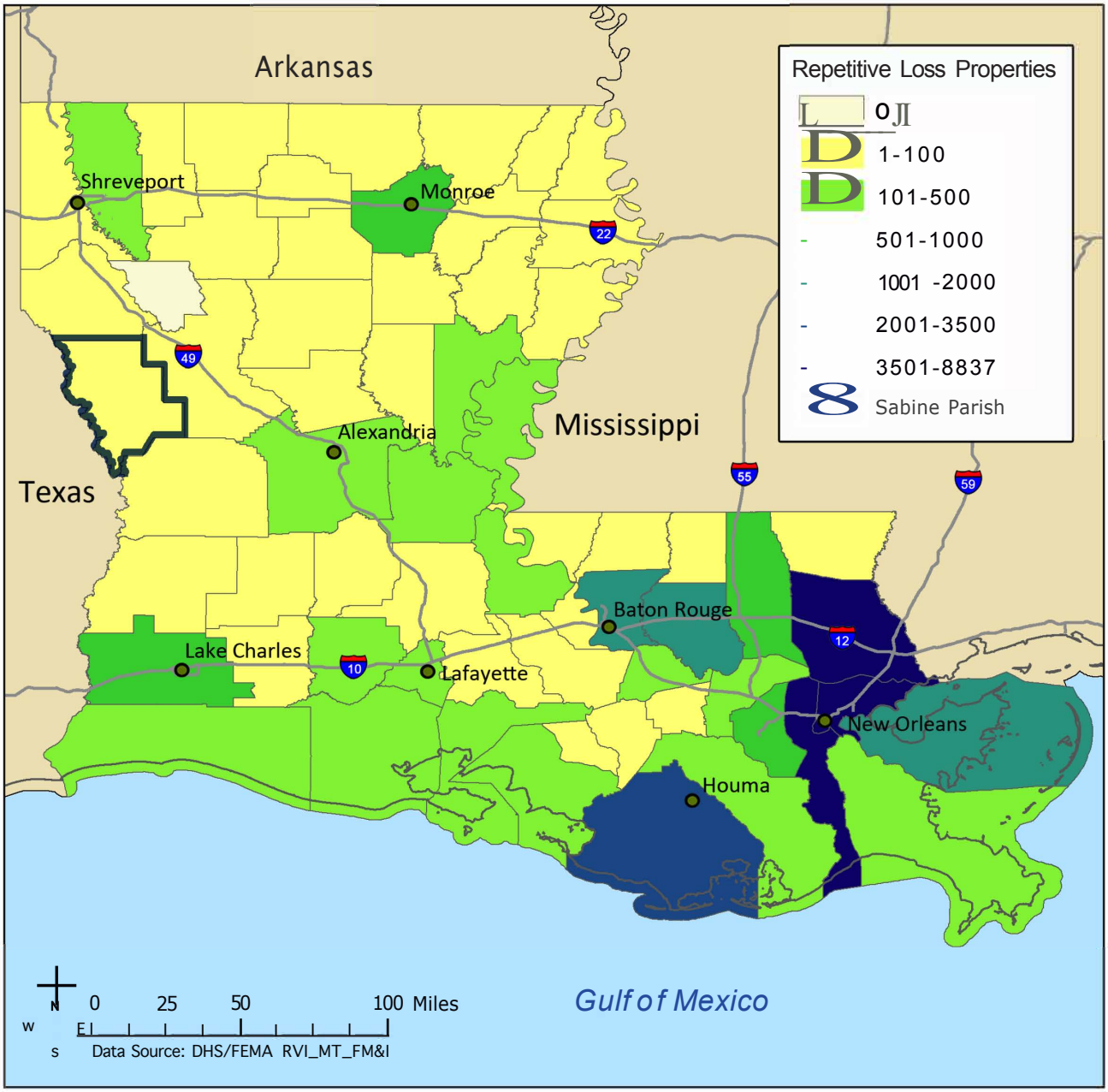
*NOTE: EMG isbefore Initial FIRM Identified





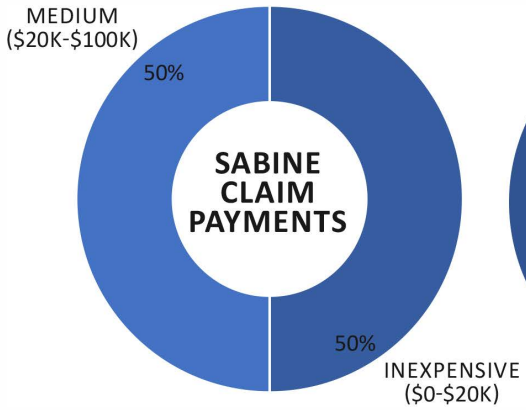
B-55

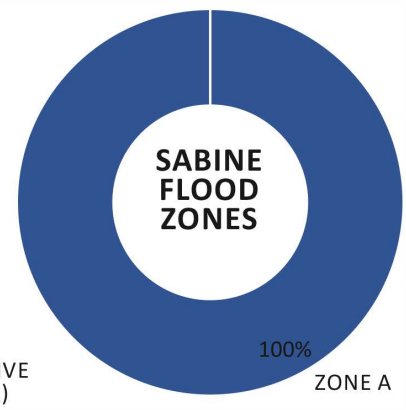
Attachment B



SABINE PARISH	COUNT
RL PROPERTIES	3
INEXPENSIVE ($0-$20K)	3
MEDIUM $20K-$100K)	3
SEVERE ($100K & UP)	0
FLOOD ZONE A	3
FLOOD ZONE X (B,C)	0
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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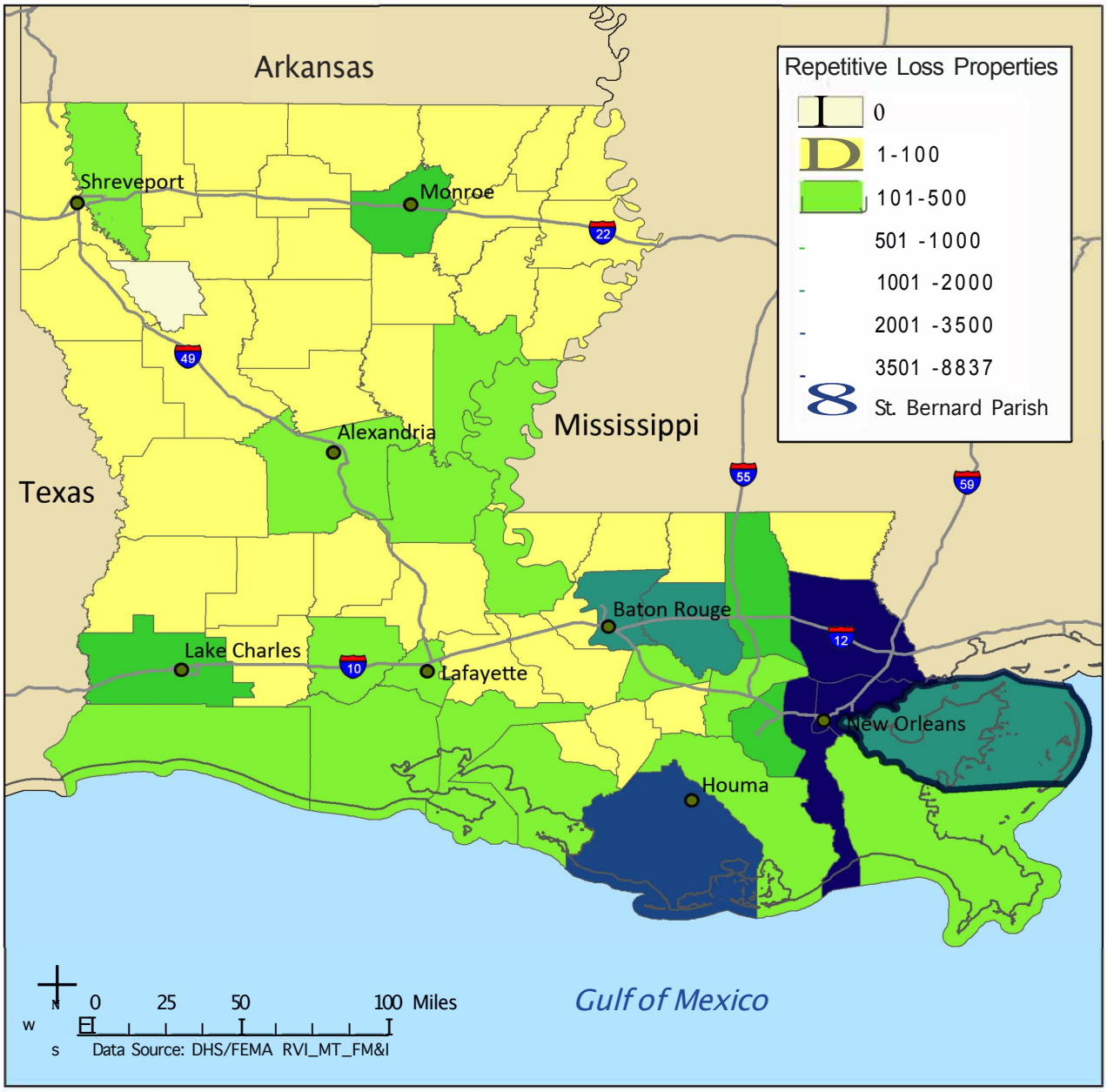
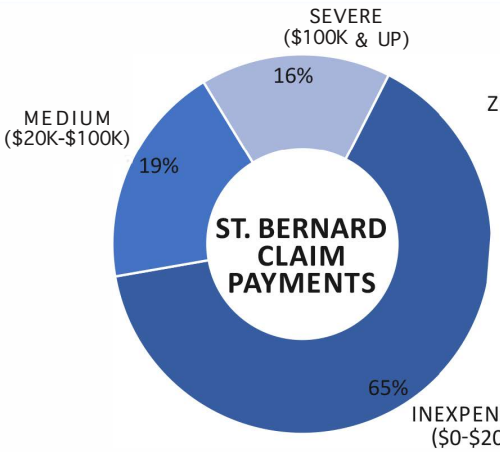
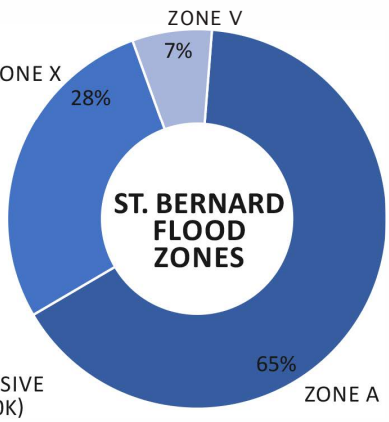


ST. BERNARD PARISH	COUNT
RL PROPERTIES	1,207
INEXPENSIVE ($0-$2DK)	2,649
MEDIUM $20K-$100K)	779
SEVERE ($100K & UP)	663
FLOOD ZONE A	781
FLOOD ZONE X (B,C)	334
FLOOD ZONE V	81
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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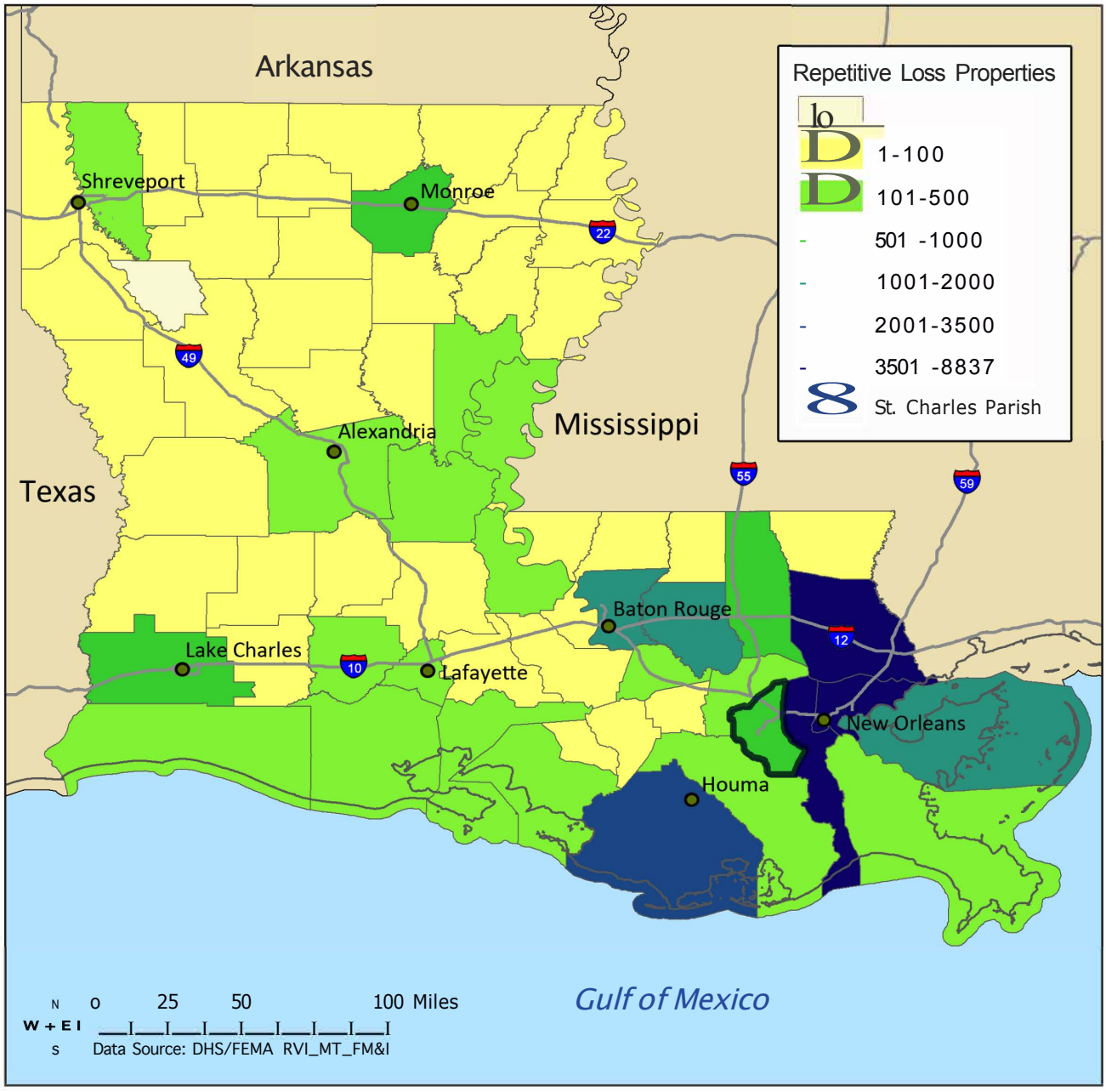
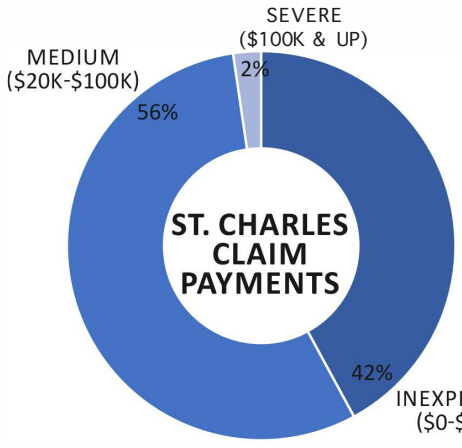
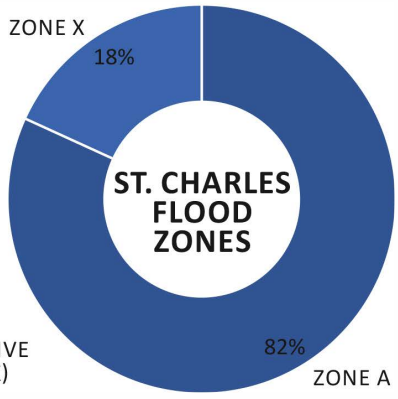
Attachment B



ST. CHARLES PARISH	COUNT
RL PROPERTIES	643
INEXPENSIVE ($0-$20K)	690
MEDIUM $20K-$100K)	912
SEVERE ($100K & UP)	38
FLOOD ZONE A	526
FLOOD ZONE X (B,C)	117
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	1

*NOTE: EMG is before Initial FIRM Identified





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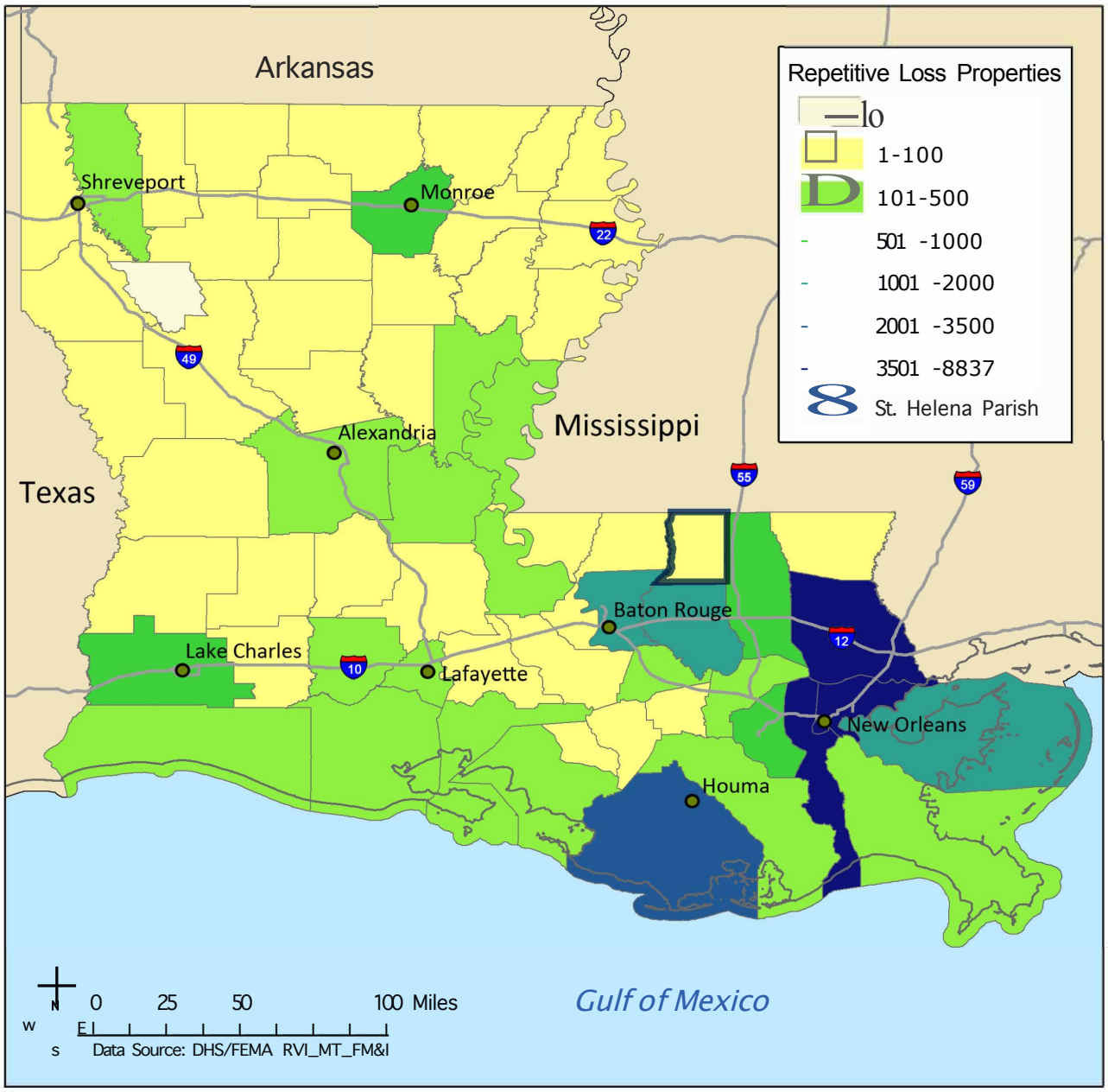
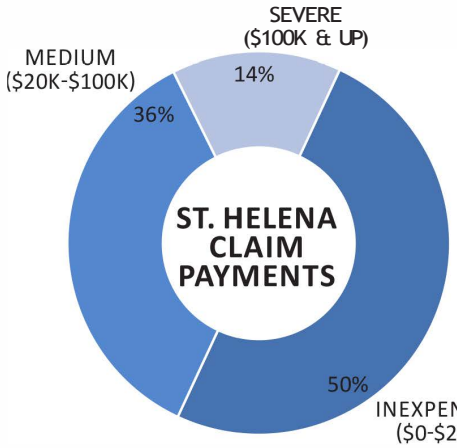
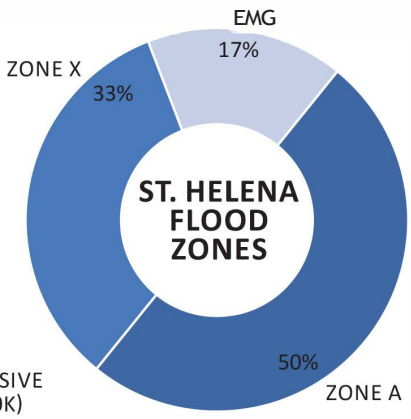


ST. HELENA PARISH	COUNT
RL PROPERTIES	6
INEXPENSIVE ($0–$20K)	7
MEDIUM $20K–$100K)	5
SEVERE ($100K & UP)	2
FLOOD ZONE A	3
FLOOD ZONE X (B,C)	2
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	1

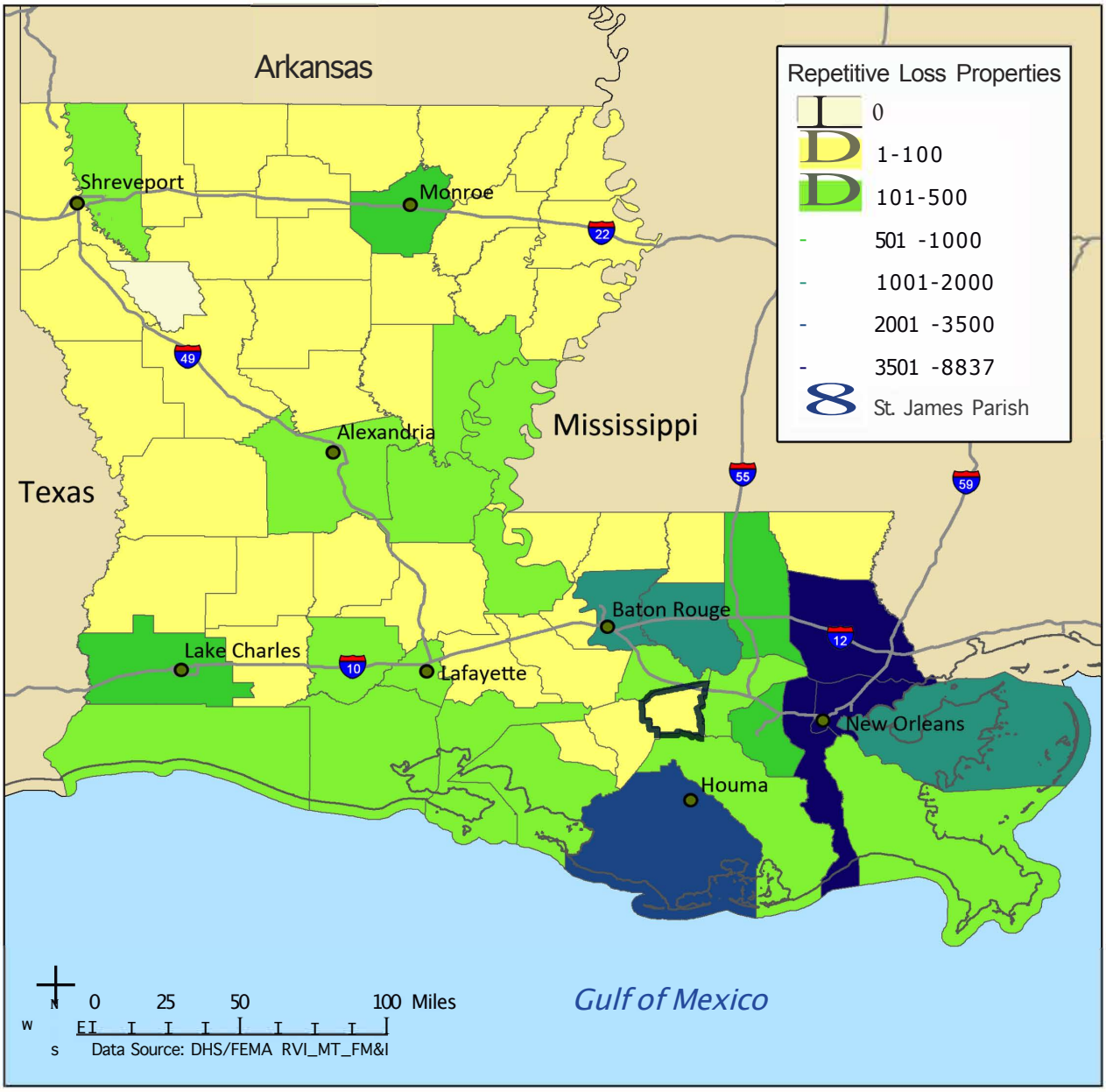
*NOTE: EMG is before Initial FIRM Identified





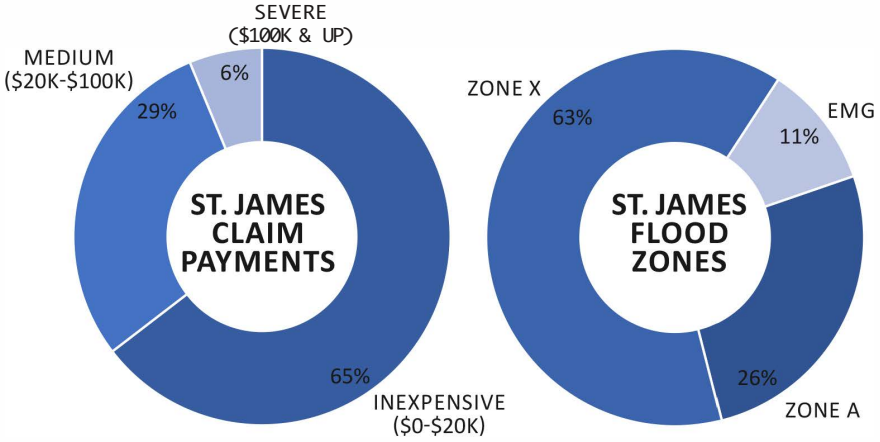
B-59

Attachment B



ST. JAMES PARISH	COUNT
RL PROPERTIES	19
INEXPENSIVE ($0–$20K)	31
MEDIUM $20K–$100K)	14
SEVERE ($100K & UP)	3
FLOOD ZONE A	5
FLOOD ZONE X (B,C)	12
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	2

*NOTE: EMG is before Initial FIRM Identified



B-60

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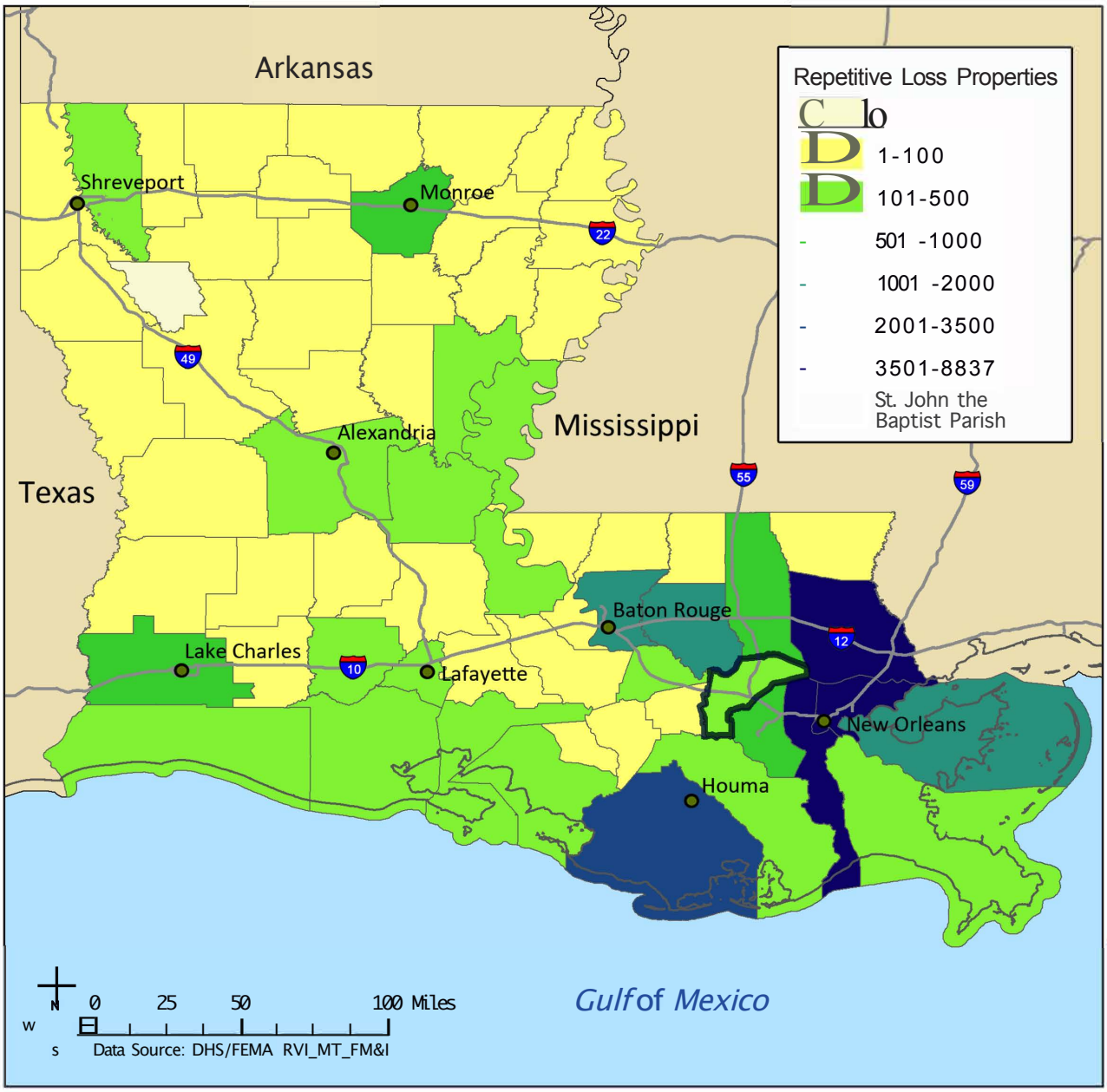
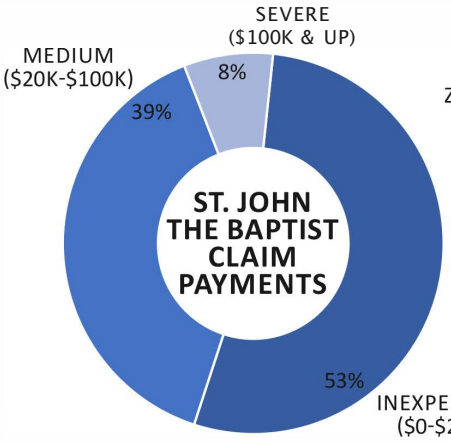
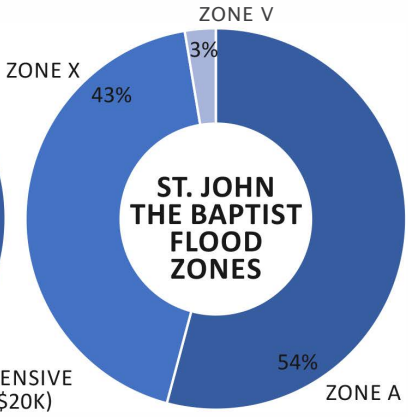


ST. JOHN THE BAPTIST PARISH	COUNT
RL PROPERTIES	229
INEXPENSIVE ($0-$20K)	317
MEDIUM $20K-$100K)	232
SEVERE ($100K & UP)	45
FLOOD ZONE A	124
FLOOD ZONE X (B,C)	99
FLOOD ZONE V	6
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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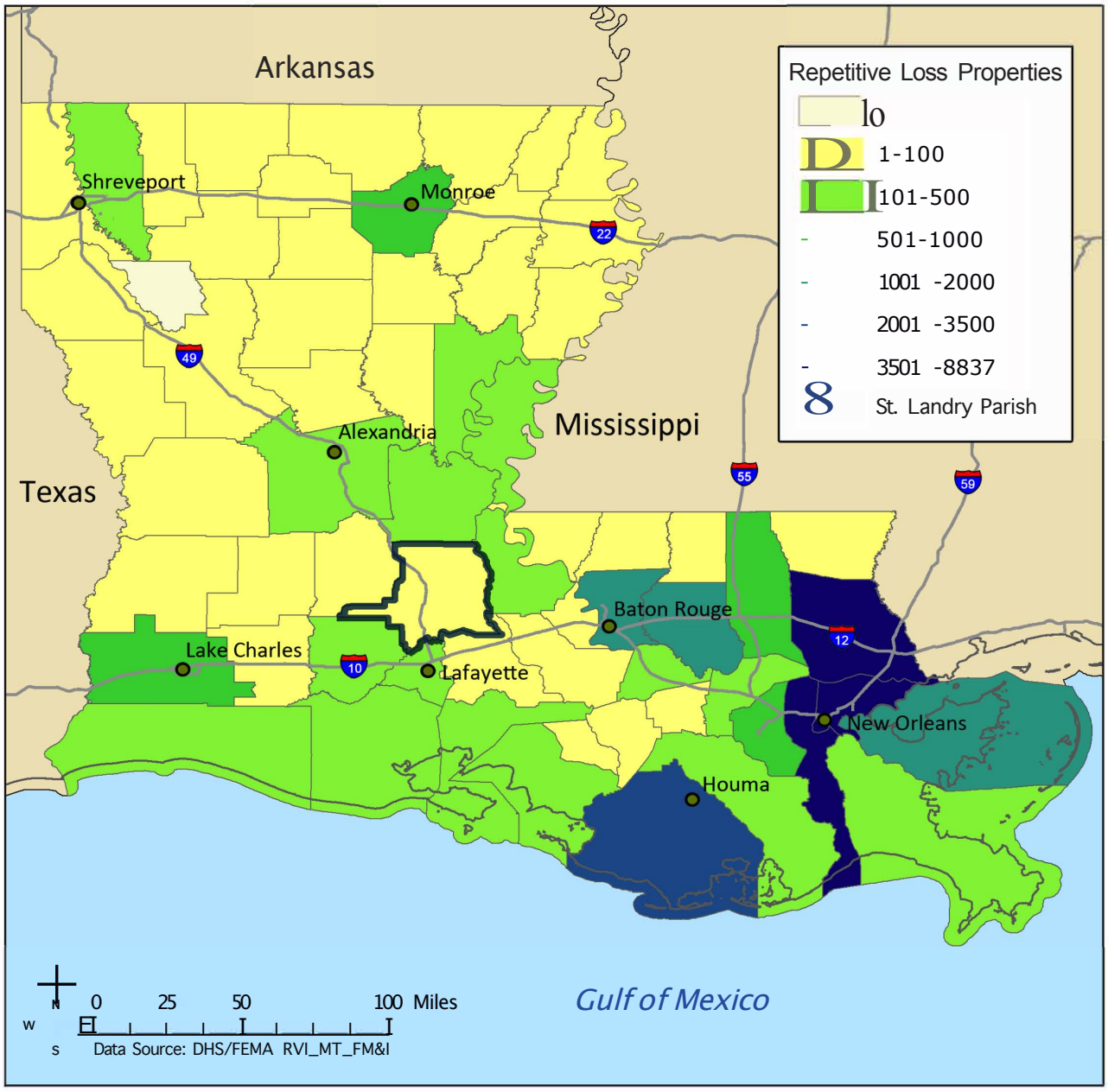
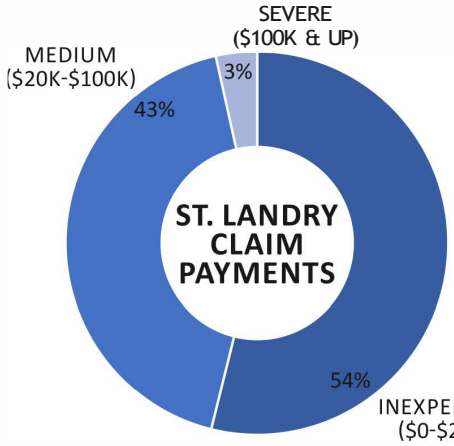
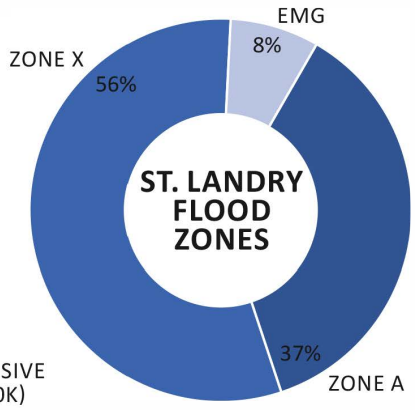
Attachment B



ST. LANDRY PARISH	COUNT
RL PROPERTIES	93
INEXPENSIVE ($0–$20K)	139
MEDIUM $20K–$100K)	110
SEVERE ($100K & UP)	9
FLOOD ZONE A	34
FLOOD ZONE X (B,C)	52
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	7

*NOTE: EMG is before Initial FIRM Identified





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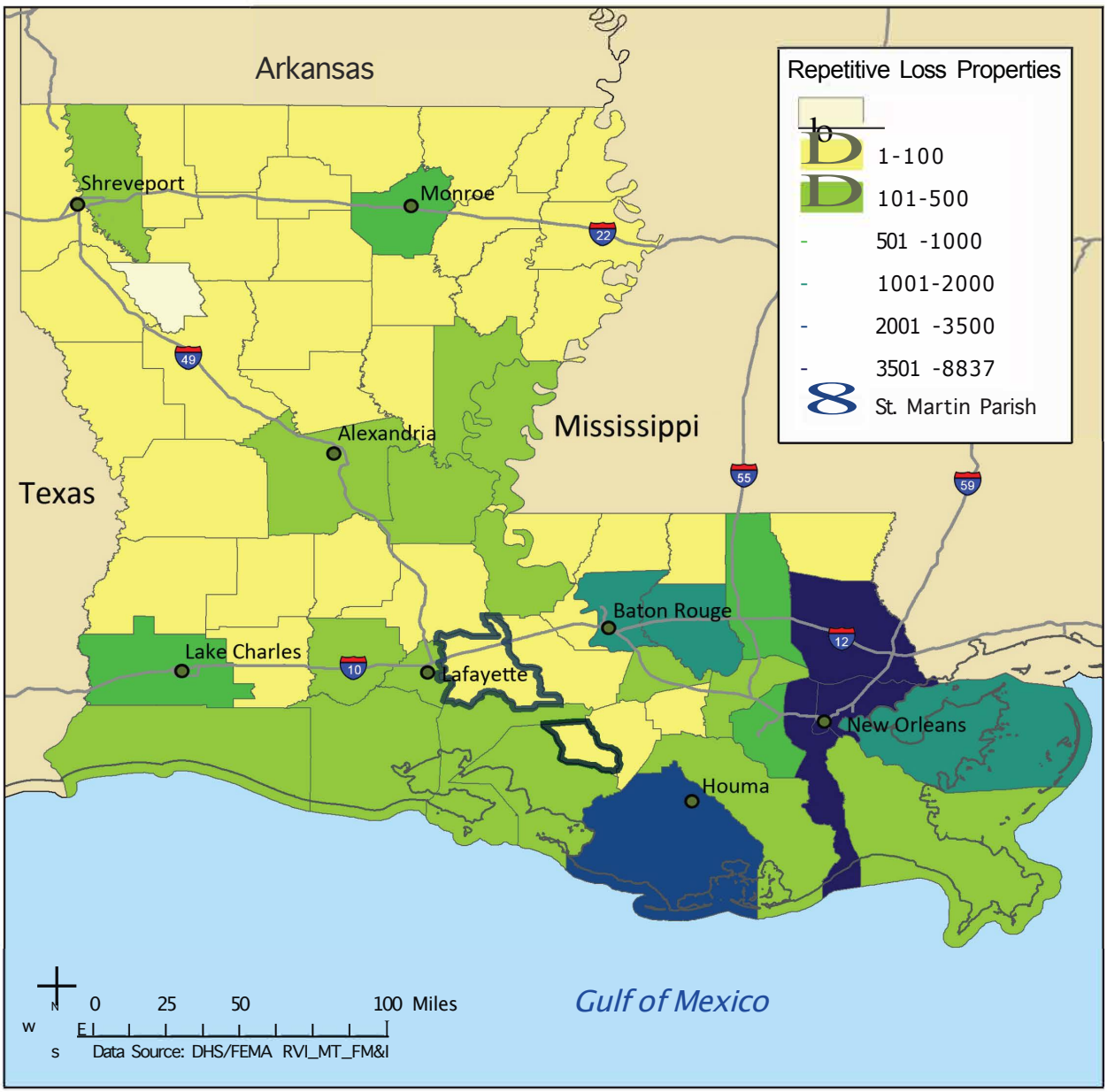
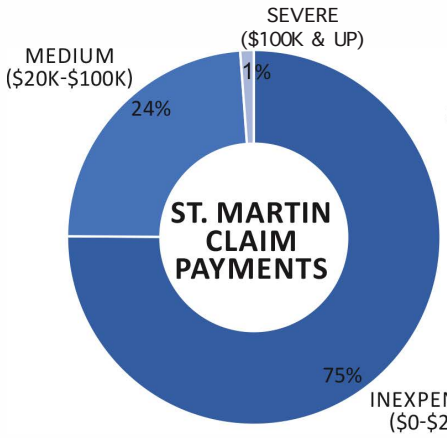
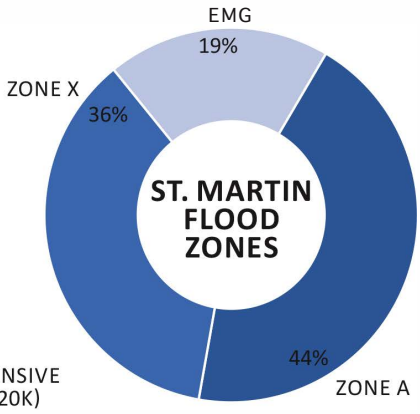
Attachment B



ST. MARTIN PARISH	COUNT
RL PROPERTIES	88
INEXPENSIVE ($0-$20K)	193
MEDIUM $20K-$100K)	61
SEVERE ($100K & UP)	3
FLOOD ZONE A	39
FLOOD ZONE X (B,C)	32
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	17

*NOTE: EMG is before Initial FIRM Identified





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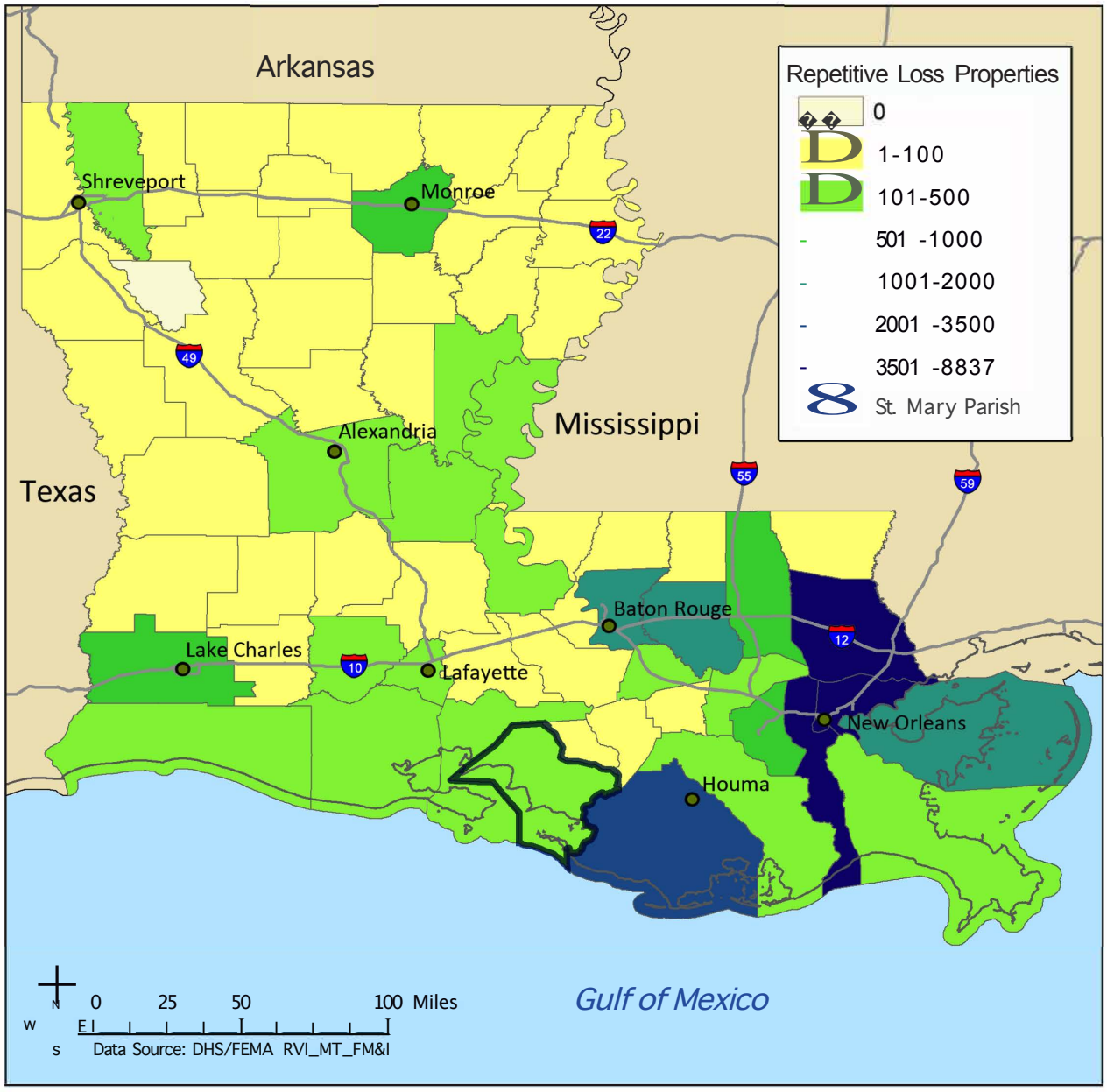
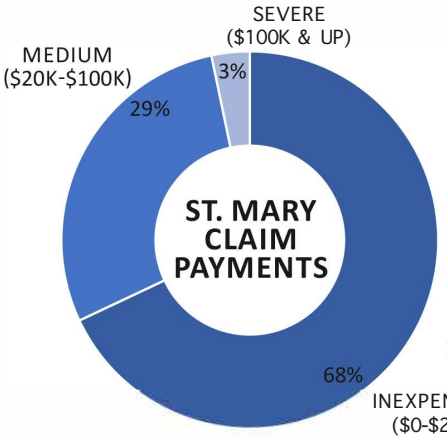
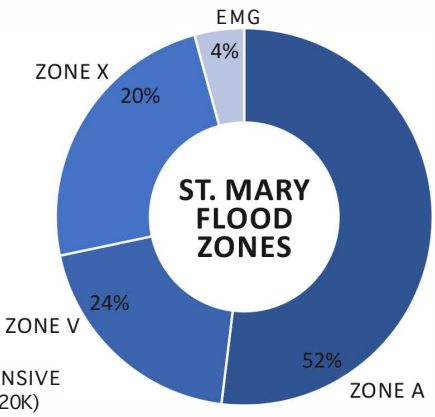
Attachment B



ST. MARY PARISH	COUNT
RL PROPERTIES	259
INEXPENSIVE ($0-$20K)	478
MEDIUM $20K-$100K)	202
SEVERE ($100K & UP)	23
FLOOD ZONE A	134
FLOOD ZONE X (B,C)	51
FLOOD ZONE V	62
FLOOD ZONED	0
EMG*	11

*NOTE: EMG is before Initial FIRM Identified





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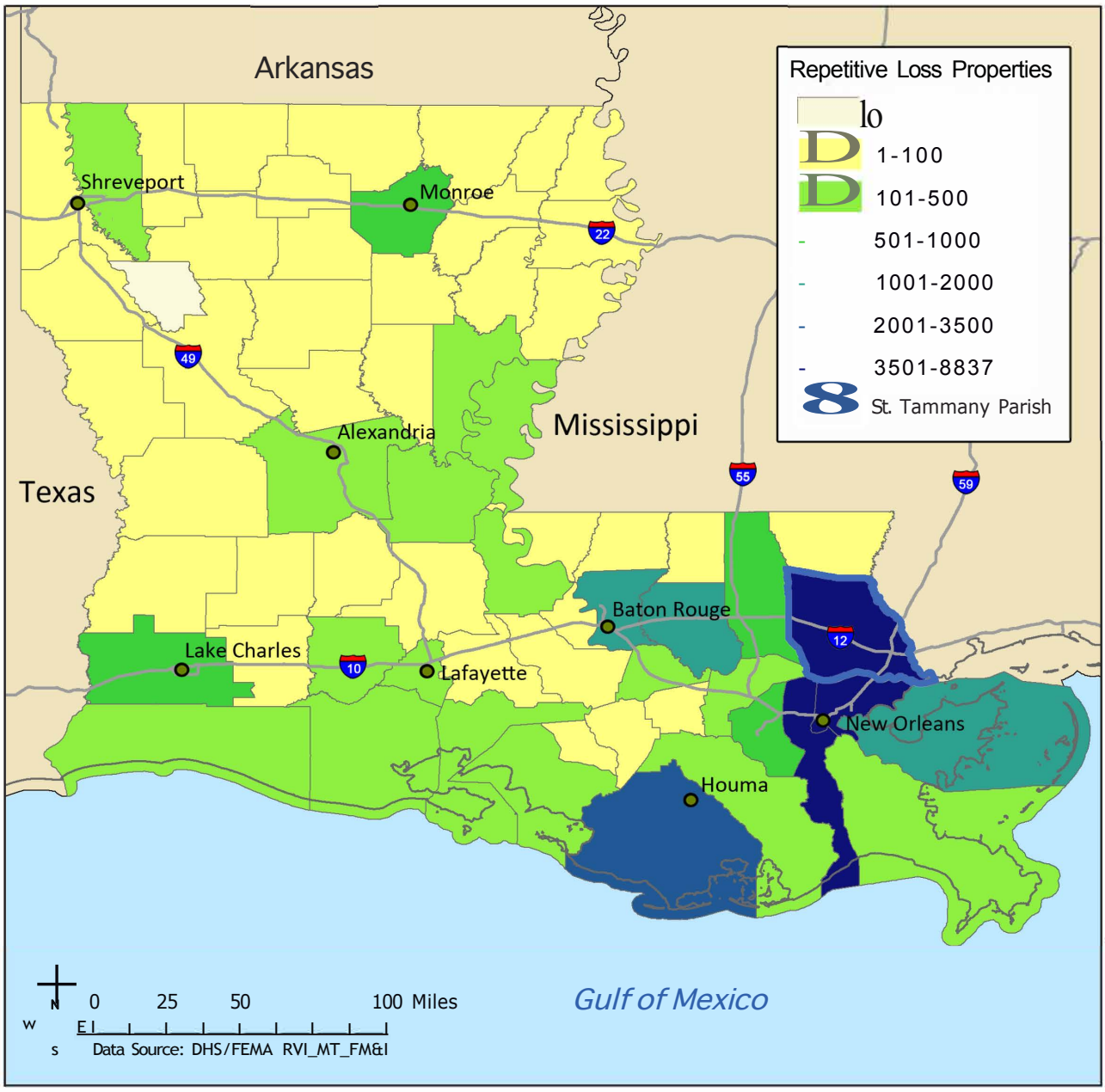
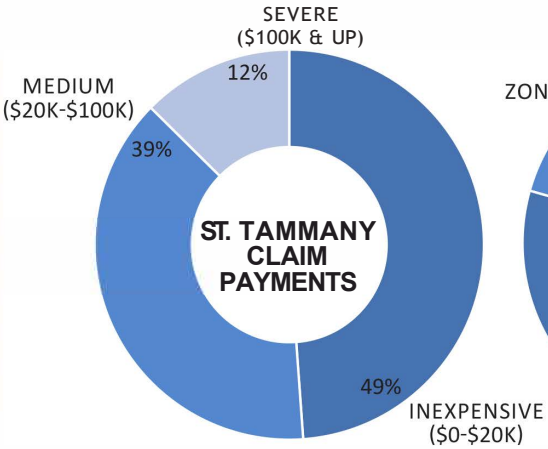
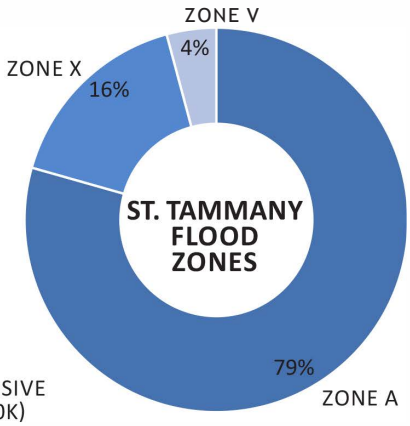


ST. TAMMANY PARISH	COUNT
RL PROPERTIES	3,501
INEXPENSIVE ($0-$20K)	5,093
MEDIUM $20K-$100K)	4,017
SEVERE ($100K & UP)	1,314
FLOOD ZONE A	2,773
FLOOD ZONE X (B,C)	574
FLOOD ZONE V	146
FLOOD ZONED	3
EMG*	1

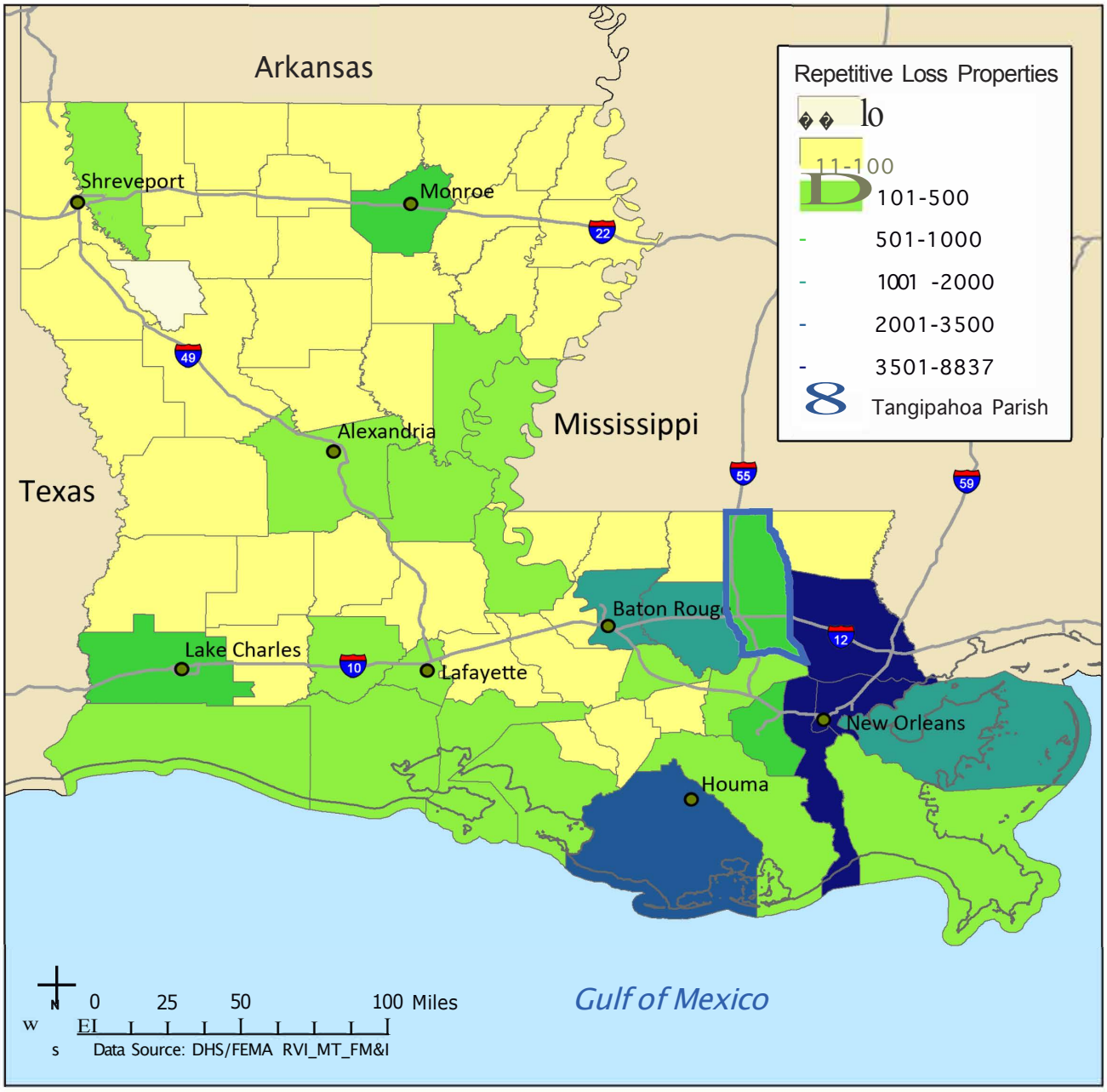
*NOTE: EMG is before Initial FIRM Identified





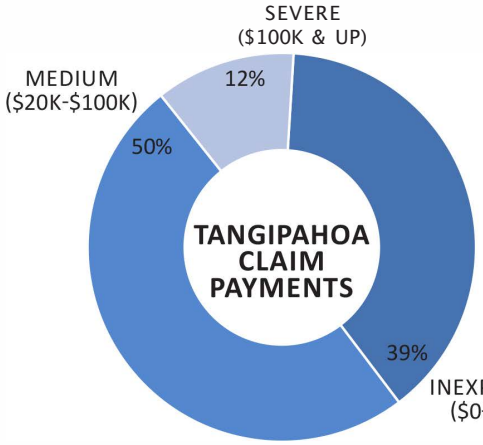
B-65

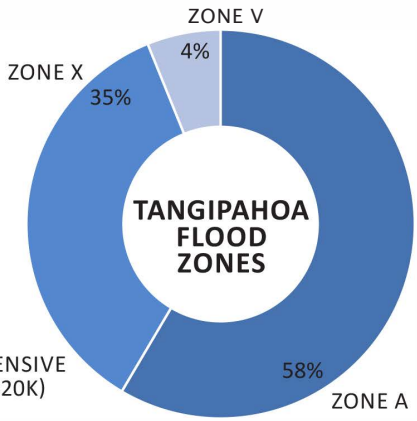
Attachment B



TANGIPAHOA PARISH	COUNT
RL PROPERTIES	507
INEXPENSIVE ($0-$20K)	504
MEDIUM $20K-$100K)	646
SEVERE ($100K & UP)	152
FLOOD ZONE A	296
FLOOD ZONE X (B,C)	179
FLOOD ZONE V	31
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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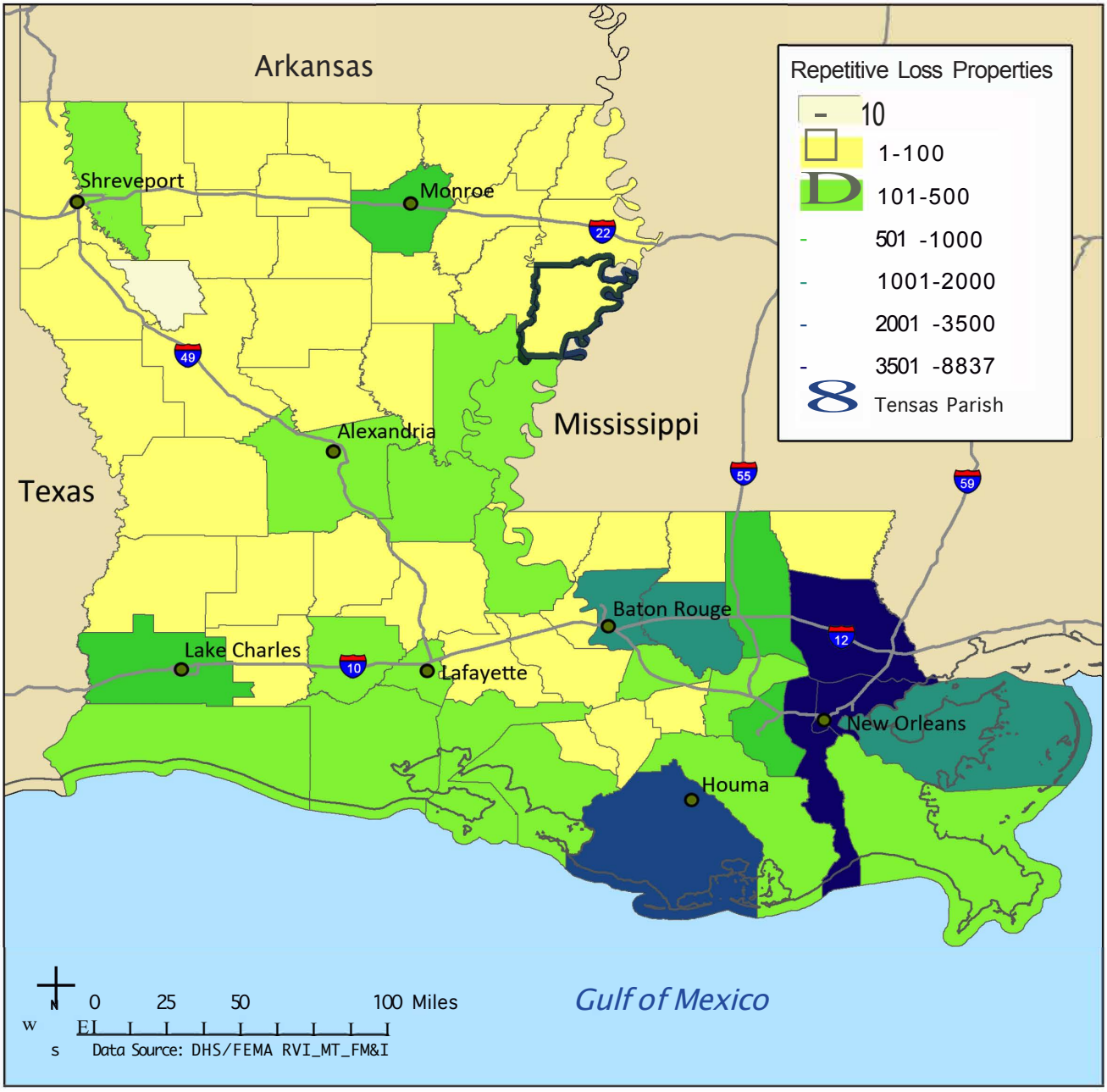
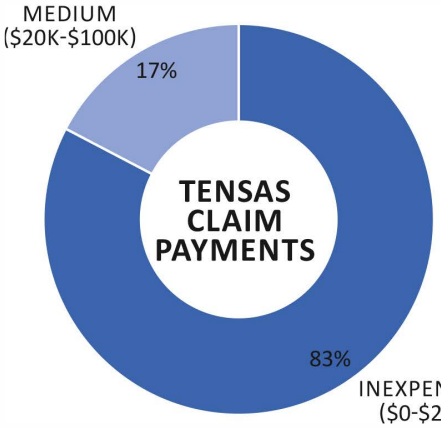
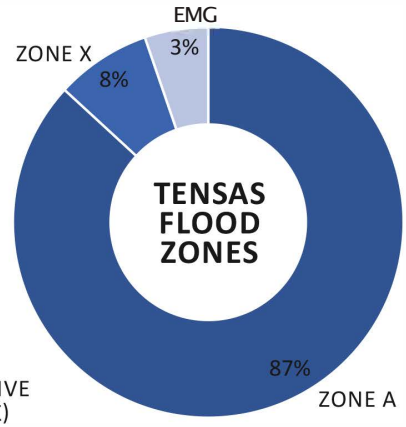


TENSAS PARISH	COUNT
RL PROPERTIES	38
INEXPENSIVE ($0-$20K)	105
MEDIUM $20K-$100K)	22
SEVERE ($100K & UP)	0
FLOOD ZONE A	33
FLOOD ZONE X (B,C)	3
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	2

*NOTE: EMG isbefore Initial FIRM Identified





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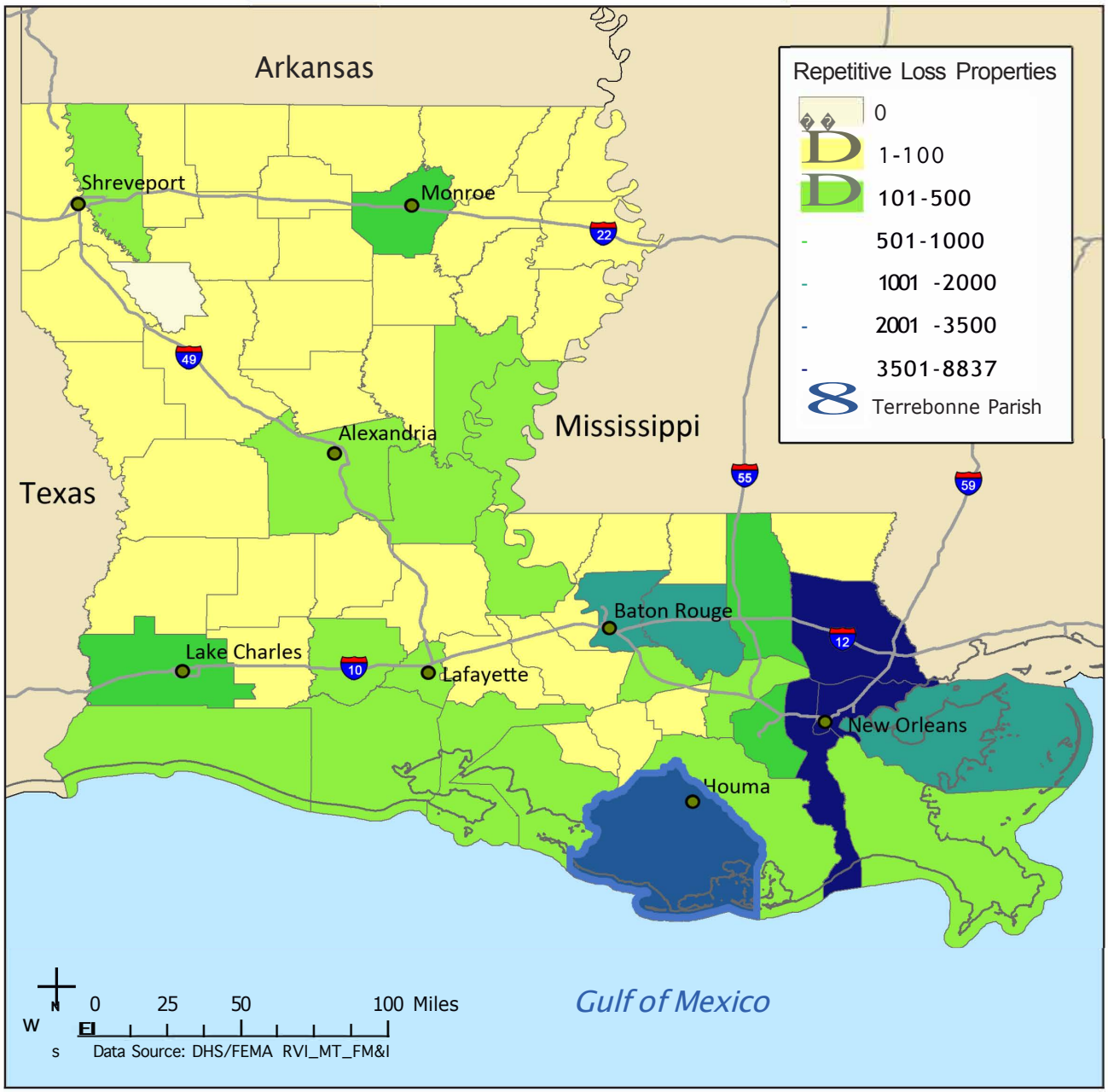
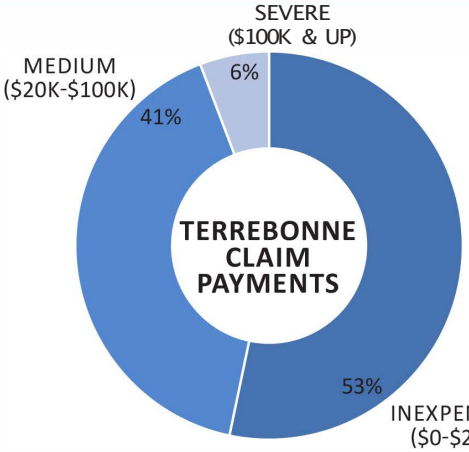
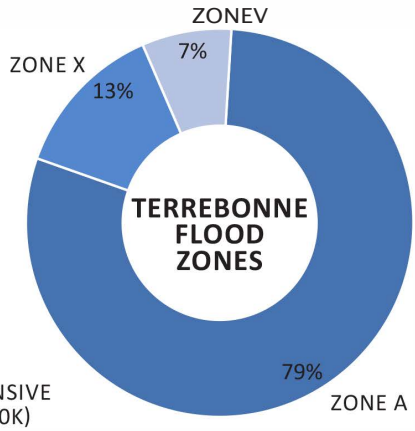
Attachment B



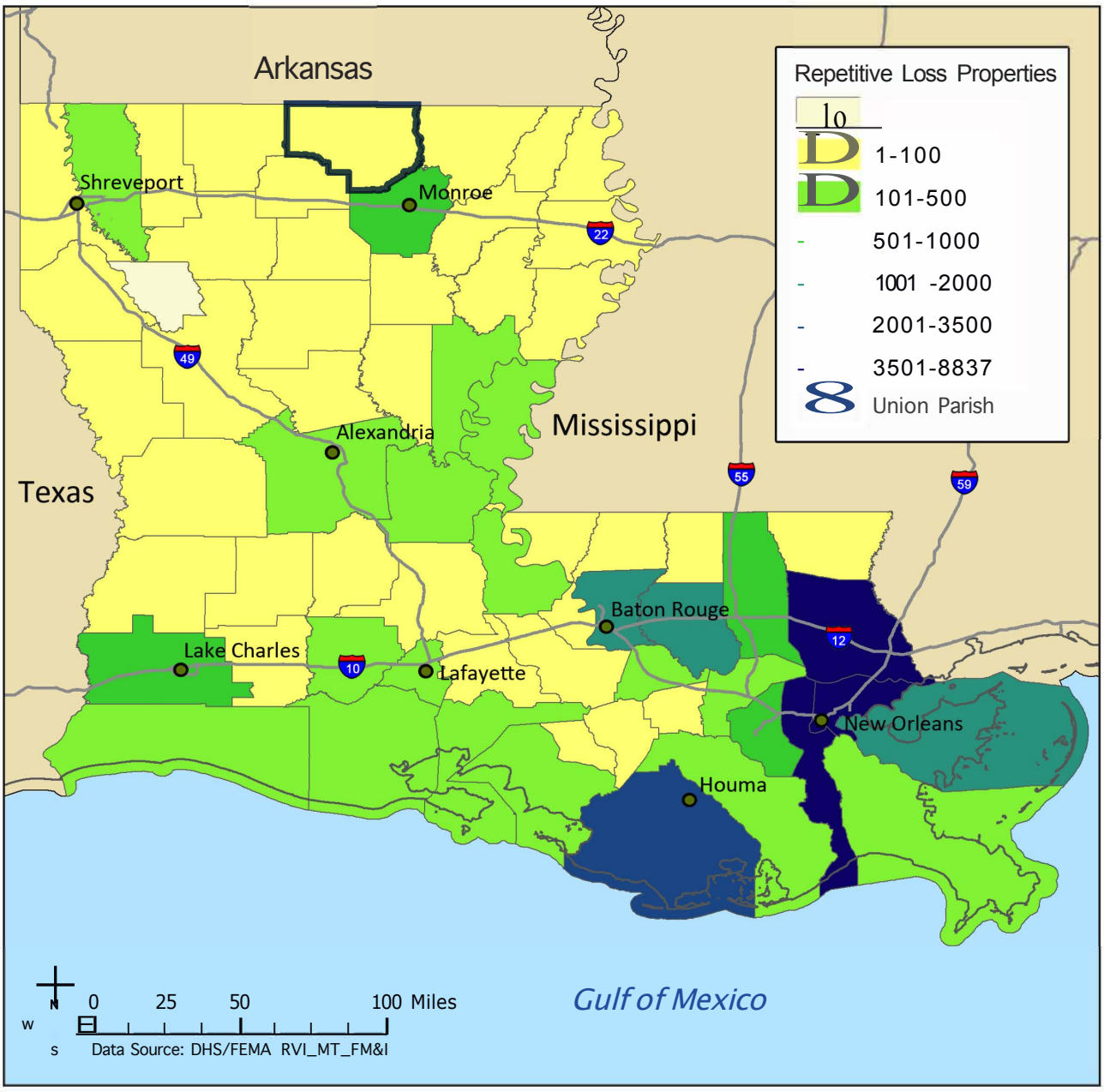
TERREBONNE PARISH	COUNT
RL PROPERTIES	2,001
INEXPENSIVE ($0-$20K)	2,854
MEDIUM $20K-$100K)	2,192
SEVERE ($100K & UP)	310
FLOOD ZONE A	1,582
FLOOD ZONE X (B,C)	261
FLOOD ZONE V	149
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified



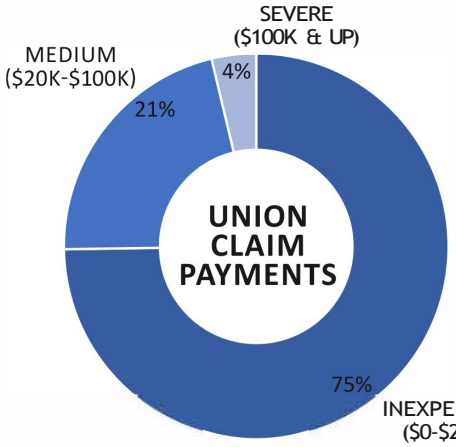


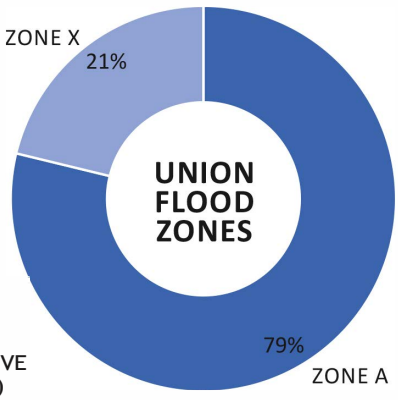
Attachment B



UNION PARISH	COUNT
RL PROPERTIES	33
INEXPENSIVE ($0-$20K)	80
MEDIUM $20K-$100K)	23
SEVERE ($100K & UP)	4
FLOOD ZONE A	26
FLOOD ZONE X (B,C)	7
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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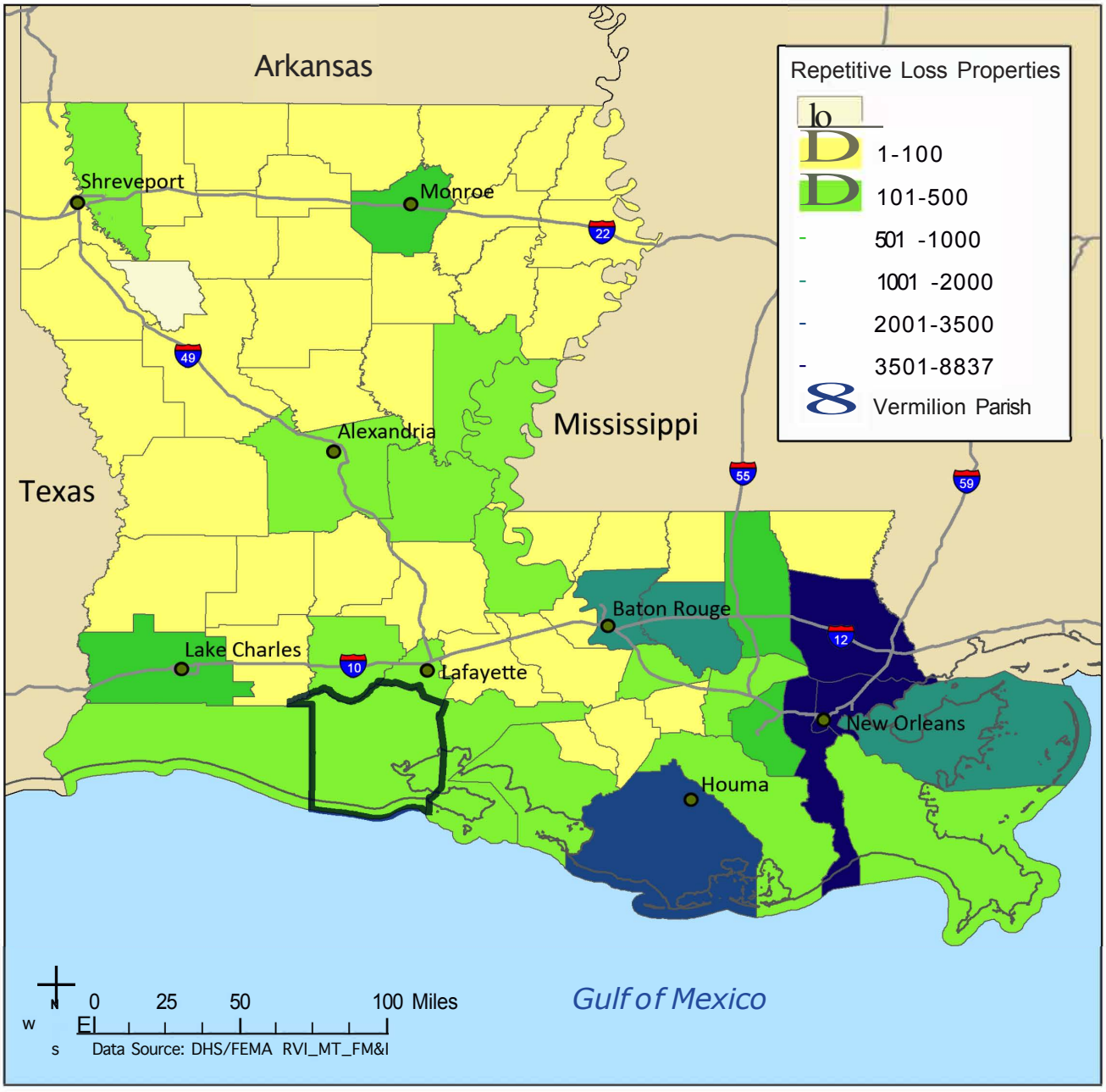
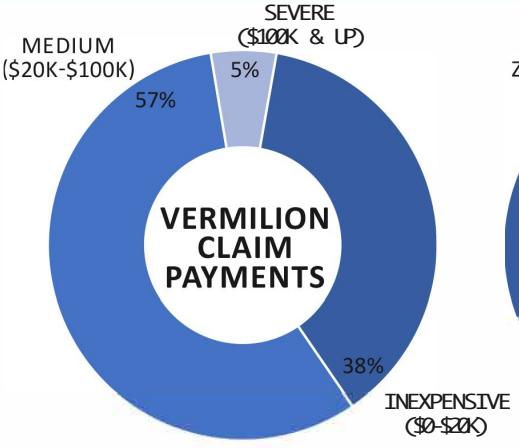
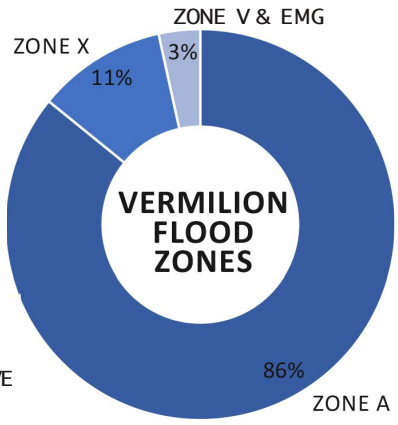
Attachment B



VERMILION PARISH	COUNT
RL PROPERTIES	496
INEXPENSIVE ($0–$20K)	466
MEDIUM $20K–$100K)	704
SEVERE ($100K & UP)	67
FLOOD ZONE A	425
FLOOD ZONE X (B,C)	53
FLOOD ZONE V	7
FLOOD ZONED	0
EMG*	10

*NOTE: EMG is before Initial FIRM Identified





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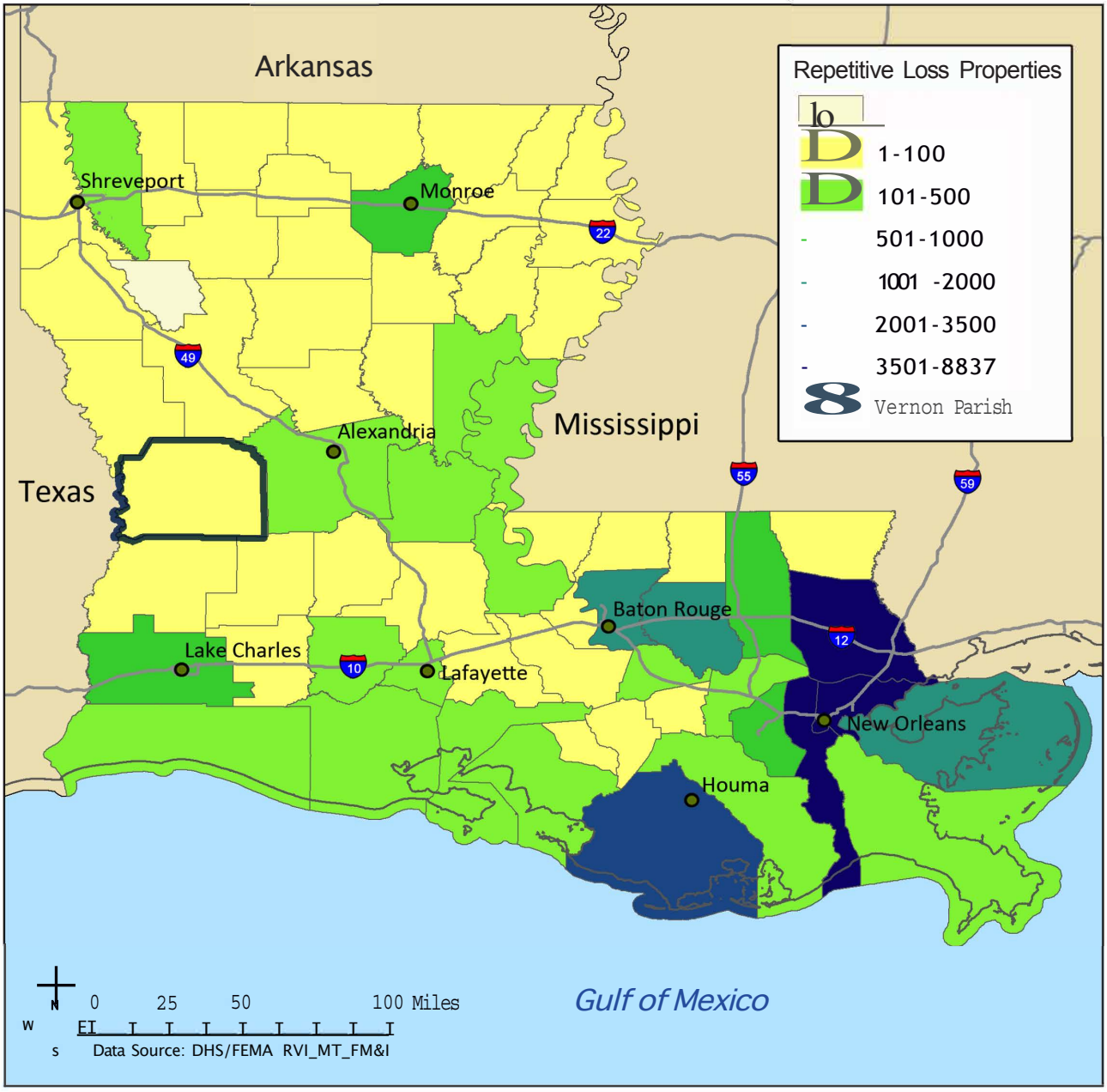
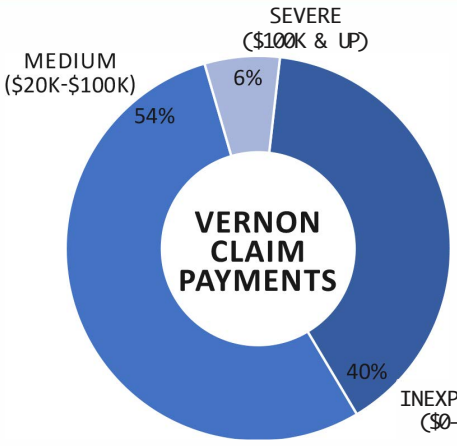
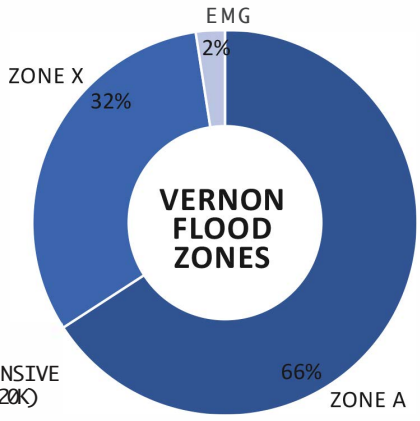
Attachment B



VERNON PARISH	COUNT
RL PROPERTIES	41
INEXPENSIVE ($0-$20K)	44
MEDIUM $20K-$100K)	60
SEVERE ($100K & UP)	7
FLOOD ZONE A	27
FLOOD ZONE X (B,C)	13
FLOOD ZONE V	0
FLOOD ZONE D	0
EMG*	1

*NOTE: EMG is before Initial FIRM Identified





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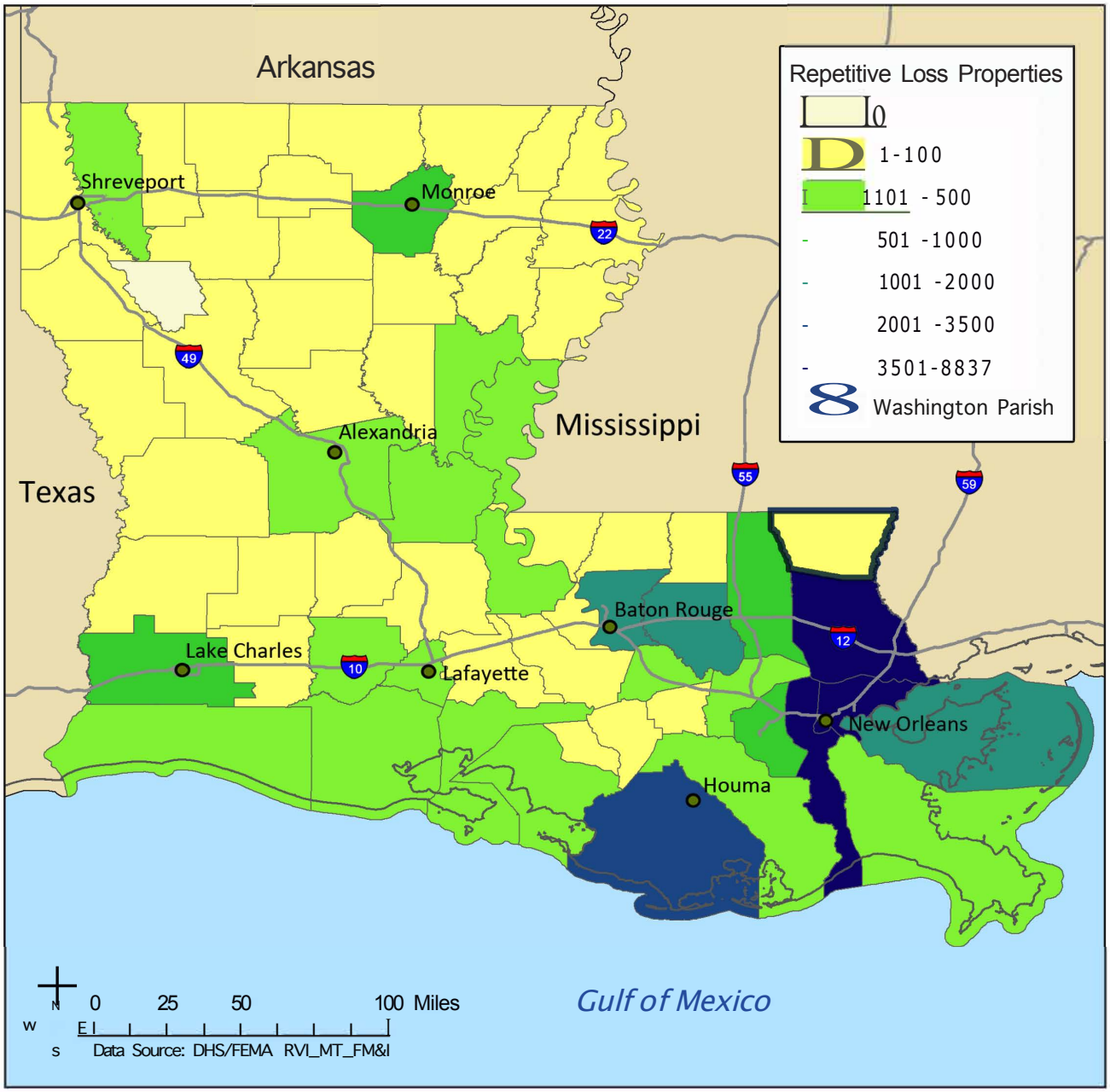
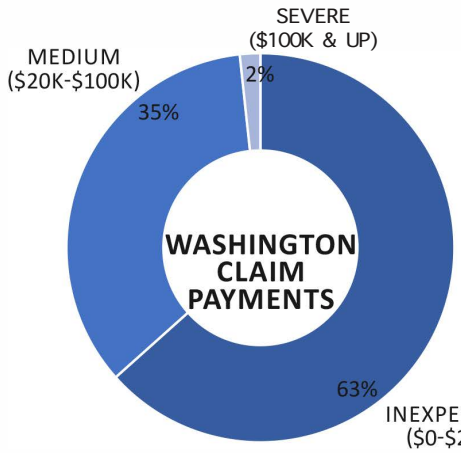
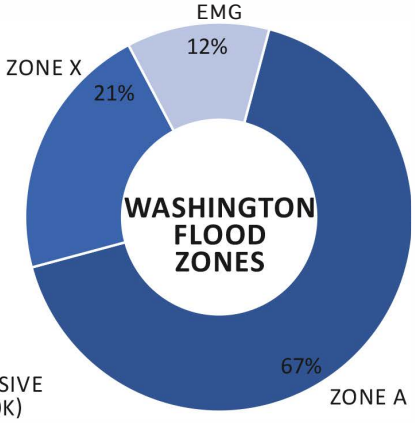
Attachment B



WASHINGTON PARISH	COUNT
RL PROPERTIES	86
INEXPENSIVE ($0-$20K)	149
MEDIUM $20K-$100K)	82
SEVERE ($100K & UP)	4
FLOOD ZONE A	56
FLOOD ZONE X (B,C)	18
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	10

*NOTE: EMG is before Initial FIRM Identified





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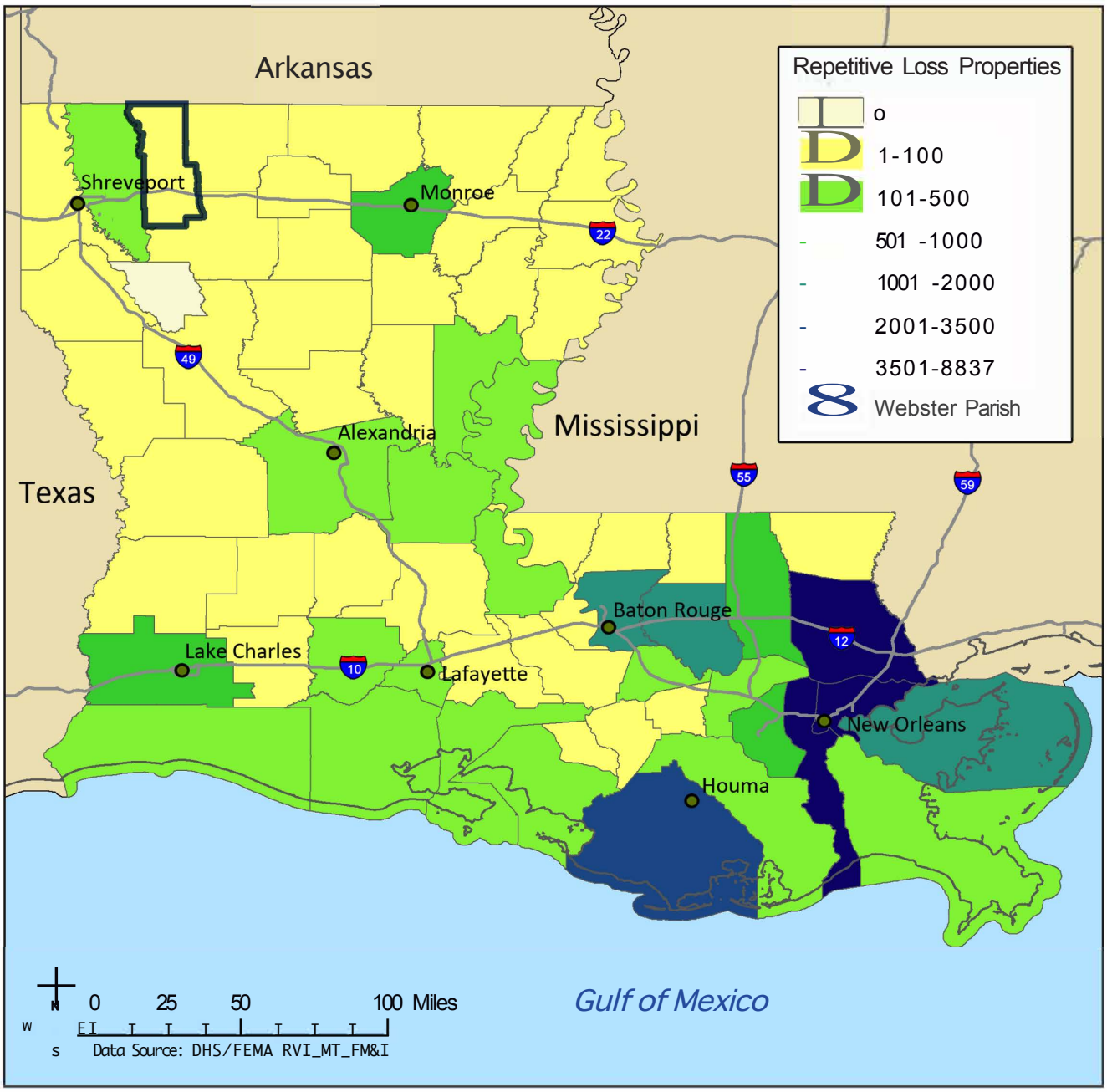
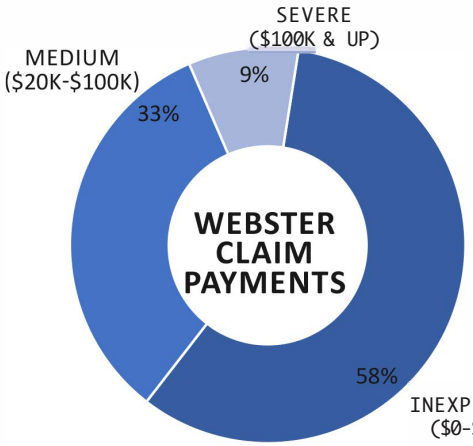
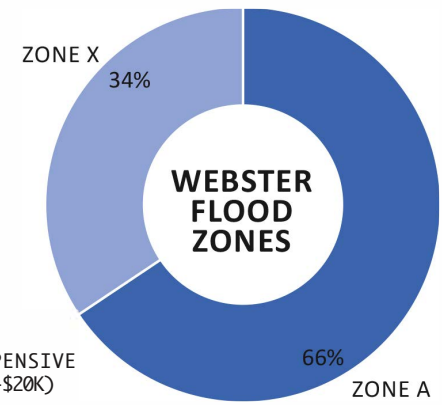
Attachment B



WEBSTER PARISH	COUNT
RL PROPERTIES	33
INEXPENSIVE ($0-$20K)	58
MEDIUM $20K-$100K)	33
SEVERE ($100K & UP)	9
FLOOD ZONE A	21
FLOOD ZONE X (B,C)	11
FLOOD ZONE V	0
FLOOD ZONE D	0
EMG*	0

*NOTE: EMG isbefore Initial FIRM Identified





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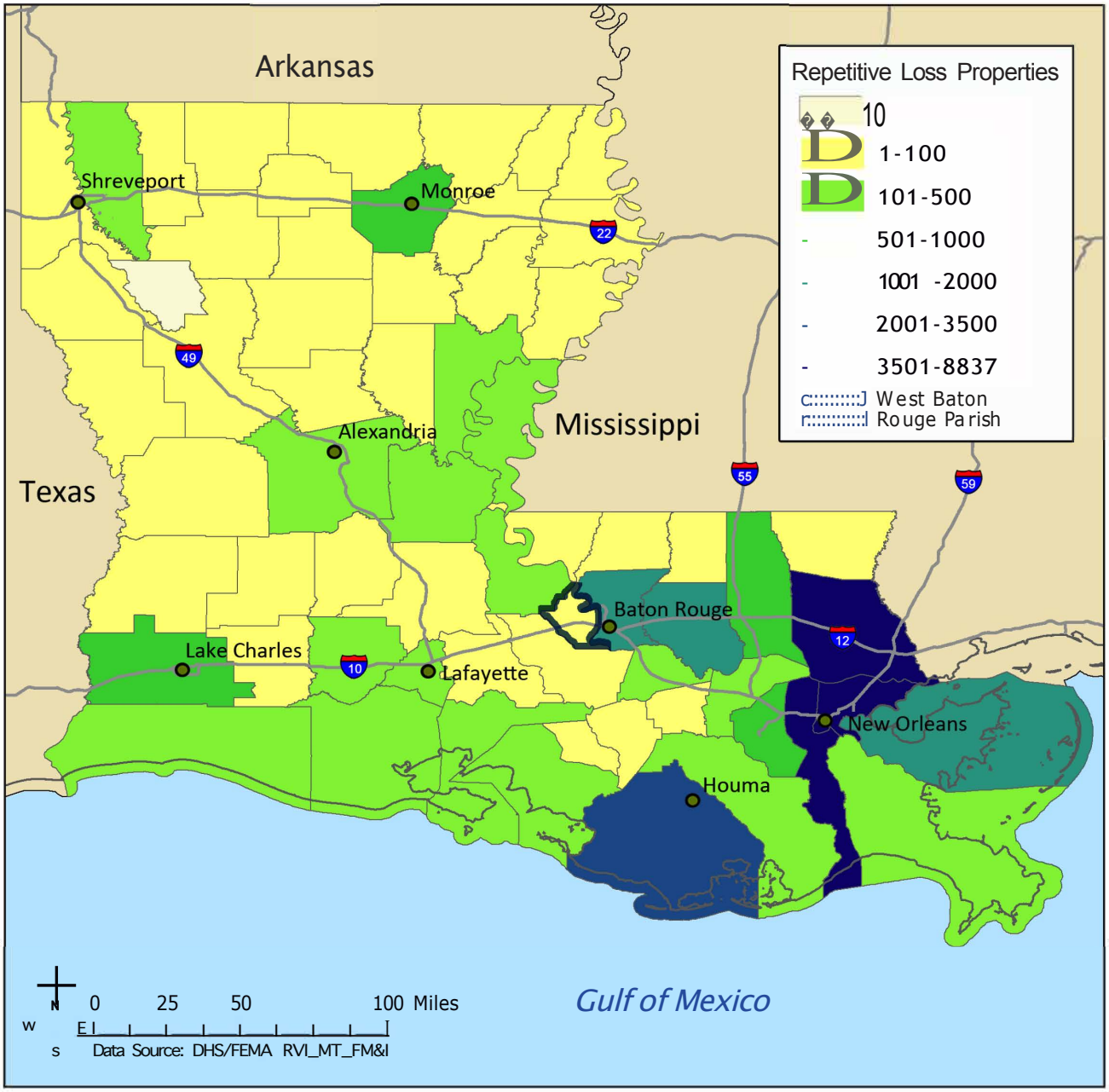
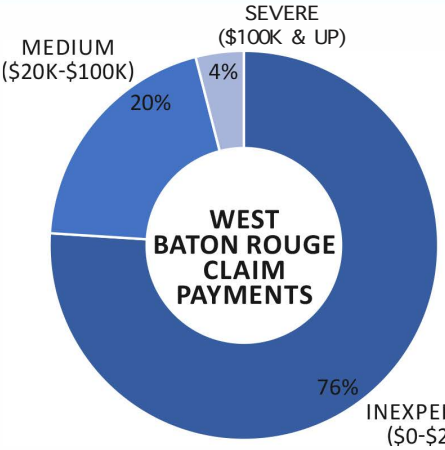
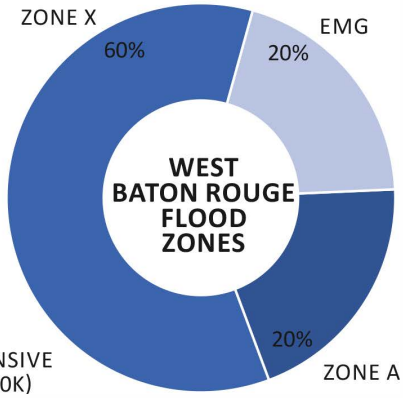
Attachment B



WEST BATON ROUGE PARISH	COUNT
RL PROPERTIES	20
INEXPENSIVE ($0-$20K)	38
MEDIUM $20K-$100K)	10
SEVERE ($100K & UP)	2
FLOOD ZONE A	4
FLOOD ZONE X (B,C)	12
FLOOD ZONE V	0
FLOOD ZONE D	0
EMG*	4

*NOTE: EMG is before Initial FIRM Identified





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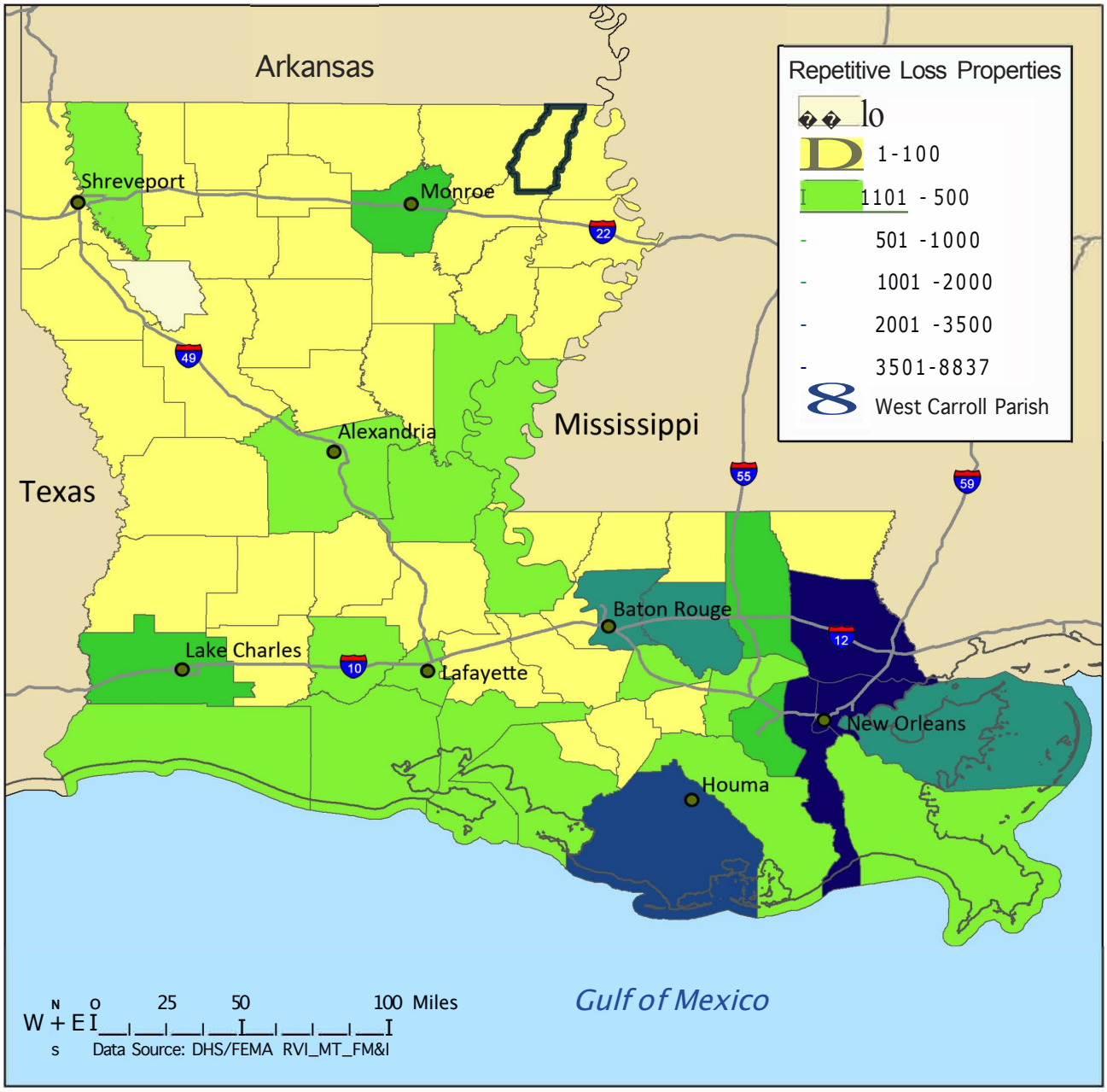
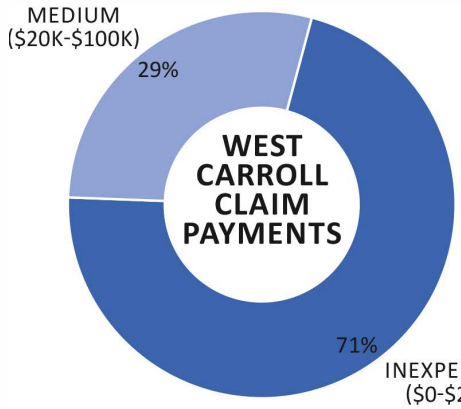
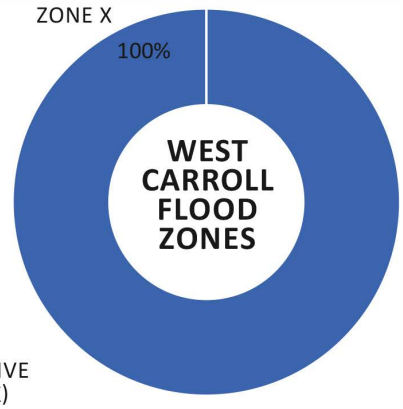


WEST CARROLL PARISH	COUNT
RL PROPERTIES	2
INEXPENSIVE ($0-$20K)	5
MEDIUM $20K-$100K)	2
SEVERE ($100K & UP)	0
FLOOD ZONE A	0
FLOOD ZONE X (B,C)	2
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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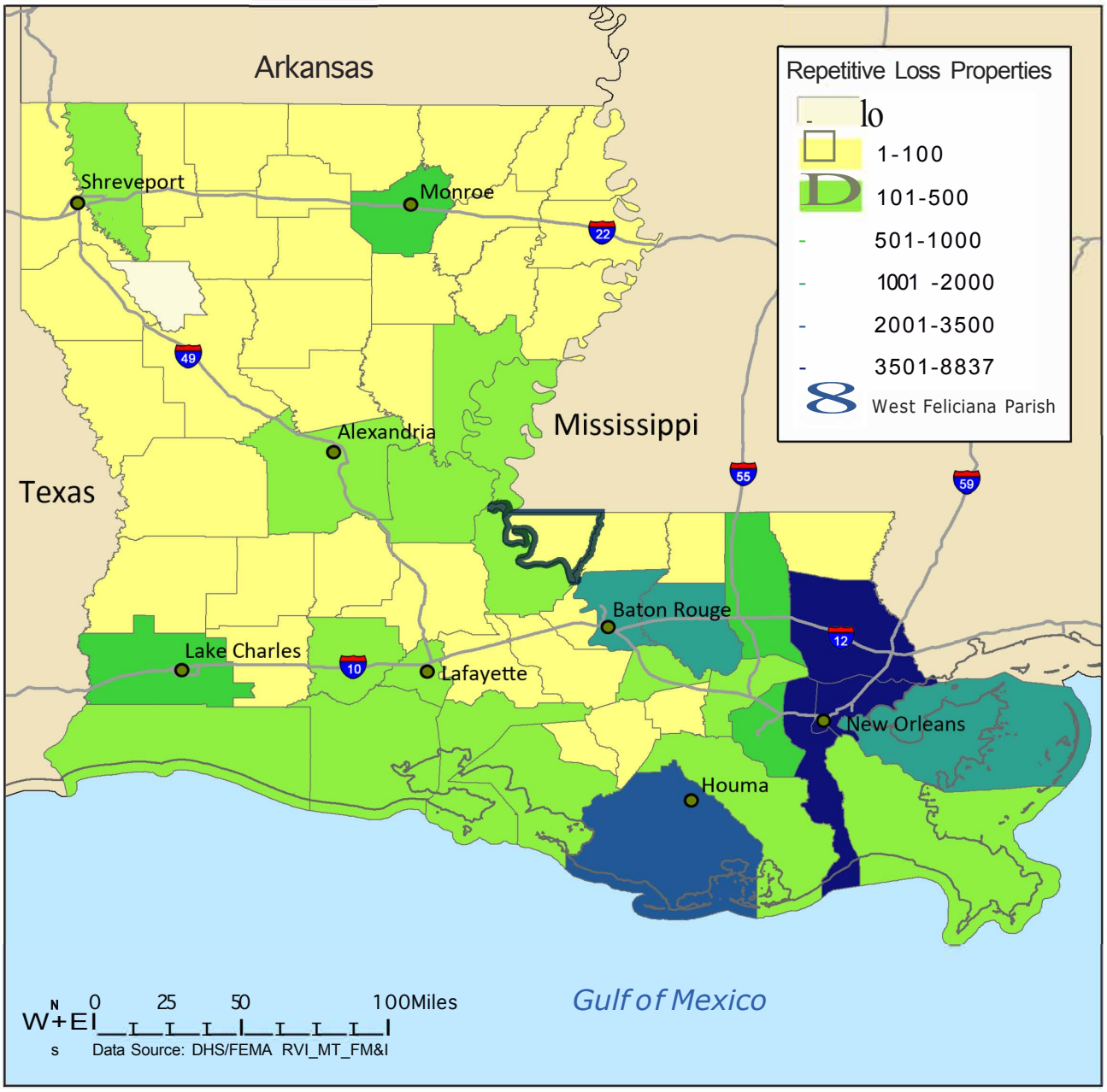
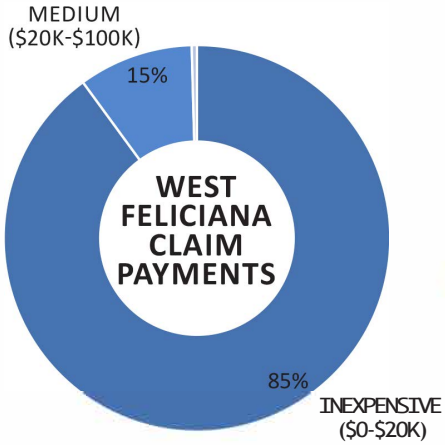
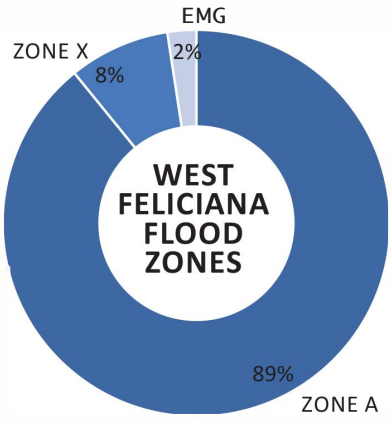
Attachment B



WEST FELICIANA PARISH	COUNT
RL PROPERTIES	83
INEXPENSIVE ($0-$20K)	216
MEDIUM $20K-$100K)	38
SEVERE ($100K & UP)	1
FLOOD ZONE A	74
FLOOD ZONE X (B,C)	7
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	2

*NOTE: EMG is before Initial FIRM Identified





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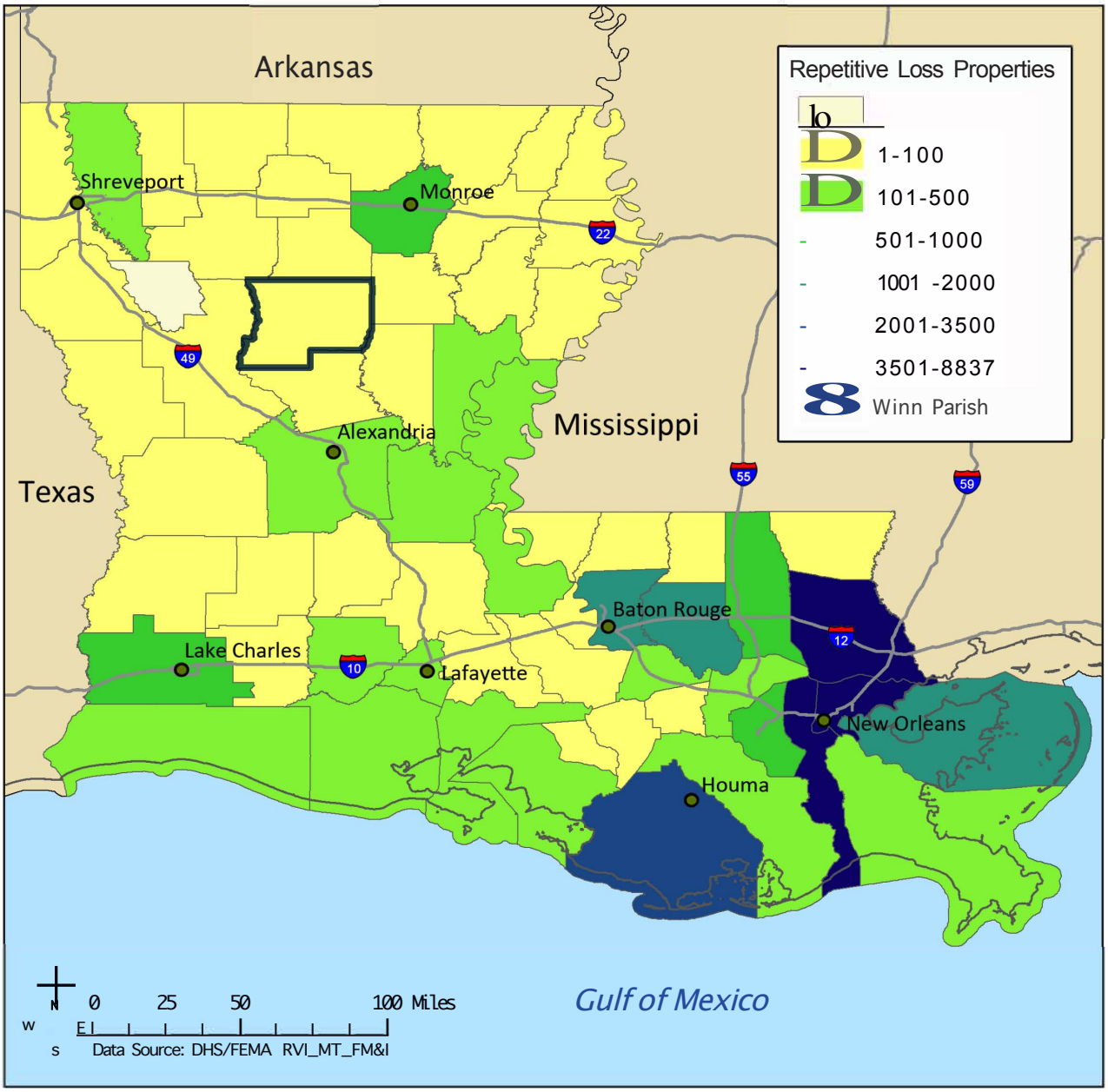
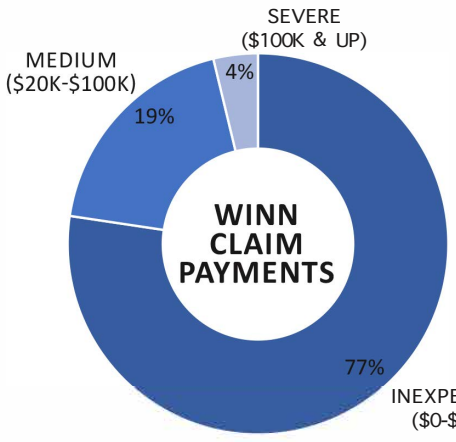
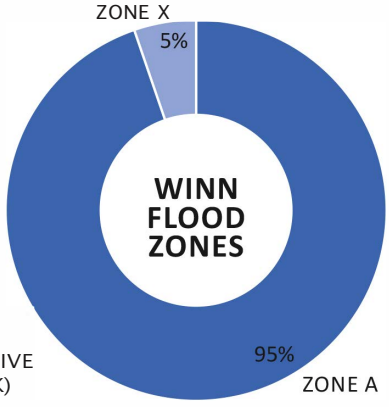
Attachment B



WINN PARISH	COUNT
RL PROPERTIES	19
INEXPENSIVE ($0-$20K)	41
MEDIUM $20K-$100K)	10
SEVERE ($100K & UP)	2
FLOOD ZONE A	18
FLOOD ZONE X (B,C)	1
FLOOD ZONE V	0
FLOOD ZONED	0
EMG*	0

*NOTE: EMG is before Initial FIRM Identified





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Parish and Action Items	Mitigation Methods									Funding Source																			Responsible Party									Hazard																			Status							
	Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
Acadia Parish																																																																
A9: Repetitive Loss Structure Improvement		X	X	X	X			X		X																	X	X	X	X								X	X	X																	X							
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X	X						X	X	X																X	X								X	X																										X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X	X						X	X	X																X	X							X	X	X						X																				X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X	X						X	X	X																X	X							X	X	X						X																				X
E3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X																X	X							X	X	X																										X
I3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X																X	X							X	X	X																										X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X																X	X							X	X	X																										X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X																	X							X	X	X																										X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X																	X							X	X	X																										X
A2: Drainage Improvement						X					X	X	X																	X								X	X						X																				X
A5: Education and Outreach									X		X	X	X																	X								X	X	X	X					X	X																	X
A10: Promote Flood Insurance									X		X	X	X																	X								X	X																										X
C2: Drainage Improvement						X					X	X	X																X	X								X	X						X																				X
C5: Education and Outreach									X		X	X	X																X	X								X	X	X	X					X	X																	X
C10: Promote Flood Insurance											X	X	X																X	X								X	X																										X
C2: Drainage Improvement						X					X	X	X																X	X								X	X						X																				X
C5: Education and Outreach									X		X	X	X																X	X								X	X	X	X					X	X																	X
C10: Promote Flood Insurance									X		X	X	X																X	X								X	X																										X
E2: Drainage Improvement						X					X	X	X																X	X								X	X						X																				X
E5: Education and Outreach									X		X	X	X																X	X								X	X	X	X					X	X																	X
E10: Promote Flood Insurance									X		X	X	X																X	X								X	X																										X
I2: Drainage Improvement						X					X	X	X																X	X								X	X						X																				X
I5: Education and Outreach									X		X	X	X																X	X								X	X	X	X					X	X																	X
I10: Promote Flood Insurance									X		X	X	X																X	X								X	X																										X
M2: Drainage Improvement											X	X	X																X	X								X	X						X																				X
M5: Education and Outreach									X		X	X	X																X	X								X	X	X	X					X	X																	X
M10: Promote Flood Insurance									X		X	X	X																X	X								X	X																										X
M2: Drainage Improvement						X					X	X	X																	X							X	X	X						X																				X
M5: Education and Outreach									X		X	X	X																	X							X	X	X	X	X					X	X																	X
M10: Promote Flood Insurance									X		X	X	X																	X							X	X	X																										X
R2: Drainage Improvement						X					X	X	X																	X							X	X	X						X																				X
R5: Education and Outreach									X		X	X	X																	X							X	X	X	X	X					X	X																	X
R10: Promote Flood Insurance									X		X	X	X																	X							X	X	X																										X
A10: Repetitive Loss Structure List (Allen Parish Unincorporated)							X																															X																				X					
A10: Repetitive Loss Structure List (Town of Elizabeth)							X																															X																				X					
A10: Repetitive Loss Structure List (Town of Kinder)							X																															X																				X					
A10: Repetitive Loss Structure List (Town of Oakdale)							X																															X																				X					
A10: Repetitive Loss Structure List (Town of Oberlin)							X																															X																				X					
A10: Repetitive Loss Structure List (Village of Reeves)							X																															X																				X					
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures (Allen Unincorporated)		X	X		X						X	X	X																	X								X	X																										X
E3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X																	X								X	X																										X
K3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X																	X								X	X																										X
O3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X																	X								X	X																										X
O3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X																	X								X	X																										X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X																	X								X	X																										X
Ascension Parish																																																																

Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/ relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carrried Over	Delete (d)	Not Started	Existing	New
S2: Sewer System; Drainage Project					X					X																										X	X																										X
A17: Elevate or acquire RL and SRL structures in flood zones and/or potential levee failure areas	X	X								X						X				X									X								X	X												X													X
D11: Elevate or acquire RL and SRL structures in flood zones and/or in potential levee failure areas	X	X								X						X				X									X							X	X	X												X							X						
G7: Elevate or acquire RL and SRL structures in flood zones and/or in potential levee failure areas	X	X								X						X				X									X							X	X	X												X													X
S6: Elevate or acquire RL and SRL structures in flood zones and/or potential levee failure areas	X	X								X						X				X									X							X	X	X												X													X
A3: Inter-Jurisdictional Flood Risk Assessments								X		X																			X								X	X																									X
A4: Storm Surge and Inundation Modeling								X		X		X																	X									X																									X
A9: Improve Stormwater Management Planning					X					X		X				X				X									X								X	X											X	X													X
A11: Water Works Generators								X		X																			X									X	X																								X
A12: Sewer Auxiliary Power								X		X																			X									X	X						X																		X
A13: General Population Shelter Auxiliary Power								X		X																			X									X		X					X																		X
A14: Retrofit Public Buildings								X																					X									X	X						X																		X
D8: Flood Risk – Infrastructure Improvements					X					X		X				X				X																X	X	X	X											X													X
D9: Bayou Stormwater Management								X		X		X				X				X																X	X	X																									X
D10: Pumping Stations at Lafourche Street and Railroad Tracks								X		X		X				X				X																X	X	X																									X
G3: Sandbagging Location Covers (Gonzales)								X		X		X																								X	X	X																									X
G4: Sewer Lift Station Generators								X		X																										X		X	X																								X
G5: Drainage System					X					X																										X	X																										X
S3: Drainage System					X					X																										X	X	X																									X
Assumption Parish																																																															
A13: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X					X																				X								X	X																									X
N6: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X					X																				X								X	X																									X
Beauregard Parish																																																															
No Action Items																																																															
B1: Drainage retrofit					X						X	X																				X		X			X	X	X																						X		
B2: Road improvements, including debris removal								X			X	X																				X		X			X	X	X						X																X		
B3: Acquisition Projects		X																						X						X								X	X																				X					
B4: Elevation Projects	X										X	X																		X			X					X	X																						X		
B5: Relocation Projects		X									X	X																		X			X					X	X																						X		
B7: Implementation of public programs and initiatives								X			X	X																				X					X	X	X						X	X	X	X				X									X		
B12: Capital improvement projects - drainage improvement					X						X	X													X							X					X	X	X																						X		
D2: Drainage retrofit											X	X																				X				X	X	X	X																						X		
D4: Acquisition Projects		X									X	X																		X							X	X	X																						X		
D5: Elevation Projects	X										X	X																		X			X				X	X	X																						X		
D6: Relocation projects		X									X	X																								X	X	X																							X		
D7: Implementation of public programs and initiatives								X			X	X																				X					X	X	X					X	X	X	X	X				X									X		
D10: Capital improvrments projects - drainage improvement					X						X	X													X							X				X	X	X	X																						X		
M2: Drainage retrofit											X	X																				X				X	X	X	X																						X		
M4: Acquisition Projects		X									X	X																		X							X	X	X																						X		
M5: Elevation Projects	X										X	X																		X			X				X	X	X																						X		
M6:Relocation projects											X	X																		X			X				X	X	X																						X		
M12: Capital improvement projects - drainage improvement					X						X	X																				X				X	X	X	X																						X		
Bienville Parish																																																															
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X

2

Parish and Action Items	Mitigation Methods										Funding Source																				Responsible Party											Hazard																								Status							
Action Items	Elevation	Acquisition-demolition/ relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X								X	X																											X
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X								X	X																											X
J3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X								X	X																											X
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X								X	X																											X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X								X	X																											X
Bossier Parish																																																																				
B6: Remove Repetitive Loss Structures		X							X		X																			X			X		X																														X		
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X								X	X																											X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X								X	X																											X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X								X	X																											X
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X								X	X																											X
P3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X								X	X																											X
Caddo Parish																																																																				
C6: Acquire Structures		X							X														X										X		X																									X		
B2: Removing Flood Prone Properties		X																					X					X			X				X																									X		
S5: Repetitive Loss Properties		X																					X			X		X			X				X																									X		
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure	X	X		X						X	X	X																X								X	X																											X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X							X	X	X																										X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X							X	X	X																										X
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X							X	X	X																										X
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X							X	X	X																										X
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X							X	X	X																										X
I3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X							X	X	X																										X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X							X	X	X																										X
O3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X							X	X	X																										X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure	X	X		X						X	X	X																X							X	X	X																										X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X							X	X	X																										X
V3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure	X	X		X						X	X	X																X							X	X	X																										X
Calcasieu Parish																																																																			
6: City of Westlake - Rep loss Acquisition	X	X								X	X	X																X							X																								X	X					
8: CIty of Lake Charles - Flood Damage, Acquisitions, Elevations, Relocations	X	X														X				X	X	X		X								X																									X					
CP3 Flood Mitigation of Severe Repetitive Loss and Repetitive Loss Properties and Other Hazard Prone Structures	X	X		X							X	X																						X		X																										X

Parish and Action Items	Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other
	Mitigation Methods								
D3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures		X	X		X				
S3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures		X	X		X				
V3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures		X	X		X				
W3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures		X	X		X				
W3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures		X	X		X				
LC4 Residential elevations and acquisitions for repetitive loss properties and severe repetitive loss properties		X	X		X				
Caldwell Parish									
C7: Elevation, Acquisition, and Flood Proofing of Loss Structure		X	X	X				X	
C8: Interior Drainage Project						X			
C26: Flood Proofing Projects		X	X	X		X		X	
C27: Interior Drainage Project						X			
C28: Flood Proofing		X	X	X				X	
C29: Interior Drainage						X			
G23: Flood Solution Projects		X	X	X				X	
G24: Interior Drainage Project						X			
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X				
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X				
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X				
C2: Drainage Improvement						X			
C5: Education and Outreach									X
C10: Promote Flood Insurance									X
C11: Dam Failure Working Group									X
C2: Drainage Improvement						X			
C5: Education and Outreach									X
C10: Promote Flood Insurance									X
C11: Dam Failure Working Group									X
C2: Drainage Improvement						X			
C5: Educationand Outreach									X
C10: Promote Flood Insurance									X
C11: Dam Failure Working Group									X
G2: Drainage Improvement						X			
G5: Education and Outreach									X
G10: Promote Flood Insurance									X
G11: Dam Failure Working Group									X
Cameron Parish									
Action 4 - Elevation of Severe Repetitive Loss Properties		X							
Action 2 - Drainage Improvements						X			
Action 3 - Acquisitions			X						
Acquisitions									
Elevation of properties		X							
Reduce future development									X
Catahoula Parish									
C1: Drainage Projects						X			
C2: Flood Proofing Projects		X	X	X					
C9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures		X	X		X				
H1: Drainage Projects						X			
H2: Flood Proofing Projects		X	X	X					
H9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structure		X	X		X				
J1: Drainage Projects						X			
J2: Flood Proofing Projects		X	X	X					
J9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures		X	X		X				

Parish and Action Items	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry
	Funding Source																		
D3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures			X	X															
S3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures			X	X															
V3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures			X	X															
W3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures			X	X															
W3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures			X	X															
LC4 Residential elevations and acquisitions for repetitive loss properties and severe repetitive loss properties		X																	
Caldwell Parish																			
C7: Elevation, Acquisition, and Flood Proofing of Loss Structure	X																		
C8: Interior Drainage Project		X		X			X	X	X	X	X								X
C26: Flood Proofing Projects		X		X			X	X	X	X	X								
C27: Interior Drainage Project		X		X			X	X	X	X	X								
C28: Flood Proofing		X		X			X	X	X	X	X								
C29: Interior Drainage		X		X			X	X	X	X	X								
G23: Flood Solution Projects		X		X			X	X	X	X	X								
G24: Interior Drainage Project		X		X			X	X	X	X	X								
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
C2: Drainage Improvement		X	X	X															
C5: Education and Outreach		X	X	X															
C10: Promote Flood Insurance		X	X	X															
C11: Dam Failure Working Group		X	X	X															
C2: Drainage Improvement		X	X	X															
C5: Education and Outreach		X	X	X															
C10: Promote Flood Insurance		X	X	X															
C11: Dam Failure Working Group		X	X	X															
C2: Drainage Improvement		X	X	X															
C5: Educationand Outreach		X	X	X															
C10: Promote Flood Insurance		X	X	X															
C11: Dam Failure Working Group		X	X	X															
G2: Drainage Improvement		X	X	X															
G5: Education and Outreach		X	X	X															
G10: Promote Flood Insurance		X	X	X															
G11: Dam Failure Working Group		X	X	X															
Cameron Parish																			
Action 4 - Elevation of Severe Repetitive Loss Properties			X	X															
Action 2 - Drainage Improvements			X	X															
Action 3 - Acquisitions			X	X															
Acquisitions			X																
Elevation of properties			X	X															
Reduce future development			X	X															
Catahoula Parish																			
C1: Drainage Projects		X		X			X	X	X	X	X								
C2: Flood Proofing Projects	X																	X	
C9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X																	X	
H1: Drainage Projects		X		X			X	X	X	X	X								
H2: Flood Proofing Projects	X														X			X	
H9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structure	X														X			X	
J1: Drainage Projects		X		X			X	X	X	X	X								
J2: Flood Proofing Projects	X														X			X	
J9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X														X			X	

Parish and Action Items	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City
	Responsible Party								
D3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures		X							X
S3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures		X							X
V3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures		X							X
W3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures		X							X
W3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures		X							X
LC4 Residential elevations and acquisitions for repetitive loss properties and severe repetitive loss properties									X
Caldwell Parish									
C7: Elevation, Acquisition, and Flood Proofing of Loss Structure				X					
C8: Interior Drainage Project				X	X				
C26: Flood Proofing Projects				X					
C27: Interior Drainage Project									
C28: Flood Proofing				X					
C29: Interior Drainage				X	X				
G23: Flood Solution Projects				X					
G24: Interior Drainage Project				X	X				
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
C2: Drainage Improvement		X							
C5: Education and Outreach		X							
C10: Promote Flood Insurance		X							
C11: Dam Failure Working Group	X	X							
C2: Drainage Improvement		X							X
C5: Education and Outreach		X							
C10: Promote Flood Insurance		X							
C11: Dam Failure Working Group	X	X							
C2: Drainage Improvement		X							X
C5: Educationand Outreach		X							
C10: Promote Flood Insurance		X							
C11: Dam Failure Working Group	X	X							
G2: Drainage Improvement		X							X
G5: Education and Outreach		X							
G10: Promote Flood Insurance		X							
G11: Dam Failure Working Group	X	X							
Cameron Parish									
Action 4 - Elevation of Severe Repetitive Loss Properties		X			X				
Action 2 - Drainage Improvements					X				
Action 3 - Acquisitions		X							
Acquisitions					X				
Elevation of properties					X				
Reduce future development		X							
Catahoula Parish									
C1: Drainage Projects				X	X				
C2: Flood Proofing Projects		X					X		
C9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures					X			X	
H1: Drainage Projects				X	X				
H2: Flood Proofing Projects		X				X			
H9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structure					X			X	
J1: Drainage Projects				X	X				
J2: Flood Proofing Projects		X				X			
J9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures					X			X	

Parish and Action Items	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards
	Hazard																		
D3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures	X	X																	
S3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures	X	X				X													
V3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures	X	X				X													
W3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures	X	X				X													
W3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures	X	X																	
LC4 Residential elevations and acquisitions for repetitive loss properties and severe repetitive loss properties	X	X				X													
Caldwell Parish																			
C7: Elevation, Acquisition, and Flood Proofing of Loss Structure	X																		
C8: Interior Drainage Project	X																		
C26: Flood Proofing Projects	X	X	X										X	X					
C27: Interior Drainage Project	X	X	X										X	X					
C28: Flood Proofing	X	X	X										X	X					
C29: Interior Drainage	X	X	X						X				X	X					
G23: Flood Solution Projects	X	X	X										X	X					
G24: Interior Drainage Project	X	X	X						X				X	X					
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X																	
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X																	
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X																	
C2: Drainage Improvement	X	X																	
C5: Education and Outreach	X	X	X	X					X	X			X	X		X			
C10: Promote Flood Insurance	X	X											X						
C11: Dam Failure Working Group	X												X						
C2: Drainage Improvement	X	X																	
C5: Education and Outreach	X	X	X	X					X	X			X	X		X			
C10: Promote Flood Insurance	X	X											X						
C11: Dam Failure Working Group	X												X						
C2: Drainage Improvement	X	X																	
C5: Educationand Outreach	X	X	X	X					X	X			X	X		X			
C10: Promote Flood Insurance	X	X											X						
C11: Dam Failure Working Group	X												X						
G2: Drainage Improvement	X	X																	
G5: Education and Outreach	X	X	X	X					X	X			X	X		X			
G10: Promote Flood Insurance	X	X											X						
G11: Dam Failure Working Group	X												X						
Cameron Parish																			
Action 4 - Elevation of Severe Repetitive Loss Properties	X	X			X														
Action 2 - Drainage Improvements	X	X			X														
Action 3 - Acquisitions	X	X			X														
Acquisitions	X	X			X														
Elevation of properties	X	X			X														
Reduce future development	X	X			X														
Catahoula Parish																			
C1: Drainage Projects	X	X																	
C2: Flood Proofing Projects	X	X																	
C9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X																	
H1: Drainage Projects	X	X																	
H2: Flood Proofing Projects	X	X																	
H9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structure	X	X																	
J1: Drainage Projects	X	X																	
J2: Flood Proofing Projects	X	X																	
J9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X																	

Parish and Action Items	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
	Status							
D3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures								X
S3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures								X
V3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures								X
W3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures								X
W3 Flood mitigation of severe repetitive loss and repetitive loss properties and other hazard prone structures								X
LC4 Residential elevations and acquisitions for repetitive loss properties and severe repetitive loss properties								X
Caldwell Parish								
C7: Elevation, Acquisition, and Flood Proofing of Loss Structure			X					
C8: Interior Drainage Project				X				
C26: Flood Proofing Projects				X				
C27: Interior Drainage Project				X				
C28: Flood Proofing			X					
C29: Interior Drainage			X					
G23: Flood Solution Projects			X					
G24: Interior Drainage Project								X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
C2: Drainage Improvement								X
C5: Education and Outreach								X
C10: Promote Flood Insurance								X
C11: Dam Failure Working Group								X
C2: Drainage Improvement								X
C5: Education and Outreach								X
C10: Promote Flood Insurance								X
C11: Dam Failure Working Group								X
C2: Drainage Improvement								X
C5: Educationand Outreach								X
C10: Promote Flood Insurance								X
C11: Dam Failure Working Group								X
G2: Drainage Improvement								X
G5: Education and Outreach								X
G10: Promote Flood Insurance								X
G11: Dam Failure Working Group								X
Cameron Parish								
Action 4 - Elevation of Severe Repetitive Loss Properties								X
Action 2 - Drainage Improvements								X
Action 3 - Acquisitions								X
Acquisitions	X							
Elevation of properties	X							
Reduce future development	X							
Catahoula Parish								
C1: Drainage Projects								X
C2: Flood Proofing Projects								X
C9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures								X
H1: Drainage Projects								X
H2: Flood Proofing Projects								X
H9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structure								X
J1: Drainage Projects								X
J2: Flood Proofing Projects								X
J9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures								X

Mitigation Methods

Parish and Action Items / Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other
S1: Drainage Projects					X			
S2: Flood Proofing Projects	X	X	X					
S9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X				
C3: Master Drainage Plan					X			
H3: Master Drainage Plan					X			
J3: Master Drainage Plan					X			
S3: Master Drainage Plan					X			
Claiborne Parish								
C8: Property Acquisition		X						
A7: Property Acquisition		X						
H8: Property Acquisition		X						
H7: Property Acquisition		X						
L7: Property Acquisition		X						
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure	X	X		X				
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure	X	X		X				
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
C18: Structure and Infrastructure Elevation	X							
C24: Relocate Flood Prone Properties		X						
A17: Structure and Infrastructure Elevation	X							
A17: Structure and Infrastructure Elevation		X						
H18: Structure and Infrastructure Elevation	X							
H24: Relocate Flood Prone Properties		X						
H17: Structure and Infrastructure Elevation	X							
H22: Relocate Flood Prone Properties		X						
L17: Structure and Infrastructure Elevation	X							
L23: Relocate Flood Prone Properties		X						
Concordia Plan								
C14: Feasibility Study	X	X	X					
C35: Drainage Project Study					x			
C42: Flood Mitigation Priority System	X	X		X				
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
F3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
V3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
Desoto Parish								
D10: Elevate Repetitive Loss Home	X							
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
K3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X				

Funding Source

Parish and Action Items	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry
S1: Drainage Projects		X		X			X	X	X	X	X								
S2: Flood Proofing Projects	X														X			X	
S9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X														X			X	
C3: Master Drainage Plan	X																	X	
H3: Master Drainage Plan	X																	X	
J3: Master Drainage Plan	X																	X	
S3: Master Drainage Plan	X																	X	
Claiborne Parish																			
C8: Property Acquisition		X						X				X	X	X					
A7: Property Acquisition		X						X				X	X	X					
H8: Property Acquisition		X						X				X	X	X					
H7: Property Acquisition		X						X				X	X	X					
L7: Property Acquisition		X						X				X	X	X					
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure		X	X	X															
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure		X	X	X															
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
C18: Structure and Infrastructure Elevation		X						X				X	X	X					
C24: Relocate Flood Prone Properties		X						X				X	X	X					
A17: Structure and Infrastructure Elevation		X						X				X	X	X					
A17: Structure and Infrastructure Elevation		X						X				X	X	X					
H18: Structure and Infrastructure Elevation		X						X				X	X	X					
H24: Relocate Flood Prone Properties		X						X				X	X	X					
H17: Structure and Infrastructure Elevation		X						X				X	X	X					
H22: Relocate Flood Prone Properties		X						X				X	X	X					
L17: Structure and Infrastructure Elevation		X						X				X	X	X					
L23: Relocate Flood Prone Properties		X						X				X	X	X					
Concordia Plan																			
C14: Feasibility Study																			
C35: Drainage Project Study																			
C42: Flood Mitigation Priority System		X	X	X															
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
F3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
V3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
Desoto Parish																			
D10: Elevate Repetitive Loss Home		X						X				X	X	X					
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
K3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X	X															

Responsible Party

Parish and Action Items	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish
S1: Drainage Projects					X			X
S2: Flood Proofing Projects		X				X		
S9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures					X			X
C3: Master Drainage Plan		X				X		
H3: Master Drainage Plan					X			
J3: Master Drainage Plan					X			
S3: Master Drainage Plan					X			
Claiborne Parish								
C8: Property Acquisition		X	X					
A7: Property Acquisition		X	X					
H8: Property Acquisition		X	X					
H7: Property Acquisition		X	X					
L7: Property Acquisition		X	X					
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure		X						
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure		X						
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
C18: Structure and Infrastructure Elevation		X	X					
C24: Relocate Flood Prone Properties		X	X					
A17: Structure and Infrastructure Elevation		X	X					
A17: Structure and Infrastructure Elevation		X	X					
H18: Structure and Infrastructure Elevation		X	X					
H24: Relocate Flood Prone Properties		X	X					
H17: Structure and Infrastructure Elevation		X	X					
H22: Relocate Flood Prone Properties		X	X					
L17: Structure and Infrastructure Elevation		X	X					
L23: Relocate Flood Prone Properties		X	X					
Concordia Plan								
C14: Feasibility Study		X						
C35: Drainage Project Study		X						
C42: Flood Mitigation Priority System		X						
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
F3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
V3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
Desoto Parish								
D10: Elevate Repetitive Loss Home			X					
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
K3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X						

Hazard

Parish and Action Items	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards
S1: Drainage Projects		X	X																	
S2: Flood Proofing Projects		X	X																	
S9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures		X	X																	
C3: Master Drainage Plan		X	X																	
H3: Master Drainage Plan		X	X																	
J3: Master Drainage Plan		X	X																	
S3: Master Drainage Plan		X	X																	
Claiborne Parish																				
C8: Property Acquisition		X	X	X										X	X					
A7: Property Acquisition	X	X	X	X										X	X					
H8: Property Acquisition	X	X	X	X										X	X					
H7: Property Acquisition	X	X	X	X										X	X					
L7: Property Acquisition	X	X	X	X										X	X					
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure		X	X																	
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X																			
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X	X																	
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure	X	X	X																	
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X	X																	
C18: Structure and Infrastructure Elevation		X	X	X										X	X					
C24: Relocate Flood Prone Properties		X	X	X										X	X					
A17: Structure and Infrastructure Elevation	X	X	X	X										X	X					
A17: Structure and Infrastructure Elevation	X	X	X	X										X	X					
H18: Structure and Infrastructure Elevation		X	X	X										X	X					
H24: Relocate Flood Prone Properties		X	X	X										X	X					
H17: Structure and Infrastructure Elevation	X	X	X	X										X	X					
H22: Relocate Flood Prone Properties		X	X	X										X	X					
L17: Structure and Infrastructure Elevation		X	X	X										X	X					
L23: Relocate Flood Prone Properties		X	X	X										X	X					
Concordia Plan																				
C14: Feasibility Study																				
C35: Drainage Project Study																				
C42: Flood Mitigation Priority System		X	X																	
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X																	
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X																	
F3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X																	
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X																	
V3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X																	
Desoto Parish																				
D10: Elevate Repetitive Loss Home		X												X						
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X																	
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X																	
K3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X																	
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X																	

Status

Parish and Action Items	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
S1: Drainage Projects								X
S2: Flood Proofing Projects								X
S9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures								X
C3: Master Drainage Plan								X
H3: Master Drainage Plan								X
J3: Master Drainage Plan								X
S3: Master Drainage Plan								X
Claiborne Parish								
C8: Property Acquisition		X						
A7: Property Acquisition		X						
H8: Property Acquisition		X						
H7: Property Acquisition		X						
L7: Property Acquisition		X						
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure								X
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure								X
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
C18: Structure and Infrastructure Elevation		X						
C24: Relocate Flood Prone Properties		X						
A17: Structure and Infrastructure Elevation		X						
A17: Structure and Infrastructure Elevation		X						
H18: Structure and Infrastructure Elevation		X						
H24: Relocate Flood Prone Properties		X						
H17: Structure and Infrastructure Elevation		X						
H22: Relocate Flood Prone Properties		X						
L17: Structure and Infrastructure Elevation		X						
L23: Relocate Flood Prone Properties		X						
Concordia Plan								
C14: Feasibility Study					X			
C35: Drainage Project Study			X					
C42: Flood Mitigation Priority System								X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
F3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
V3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
Desoto Parish								
D10: Elevate Repetitive Loss Home		X						
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
K3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X

Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/ relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
East Carroll Plan																																																															
E14: Community Program for Repetitive Loss Structures	X	X		X						X					X												X	X								X																							X			
E3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X																	X								X	X											X													X
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X																X	X								X	X											X													X
East Feliciana Parish																																																														
E3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
J3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
N3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
East Baton Rouge Parish																																																														
E10: New Initiatives				X																			X						X								X	X	X						X														X				
E13: Repetitive Loss Reconstruction Projects	X	X	X	X			X		X														X						X		X						X	X	X																		X						
B6: New Initiatives				X																			X						X								X	X	X						X												X						
B10: Repetitive Loss Reconstruction Projects	X	X	X	X			X					X											X						X		X						X	X	X																			X					
C6: New Initiatives				X																			X						X								X	X	X						X														X				
C10: Repetitive Loss Reconstruction Projects	X	X	X	X			X					X											X						X		X						X	X	X																				X				
B6: New Initiatives				X																			X						X								X	X	X						X														X				
B10: Repetitive Loss Reconstruction Projects	X	X	X	X			X					X											X						X		X						X	X	X																		X						
Z6: New Initiatives				X																			X						X								X	X	X						X												X						
Z10: Repetitive Loss Reconstruction Projects	X	X	X	X			X					X											X						X		X						X	X	X																		X						
E3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X												X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X												X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X												X
Z3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X												X
Evangeline Parish																																																														
E9: Pursue Flood Mitigation of Repetitive Loss Property	X	X		X					X														X						X								X		X																				X				
E3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																								X

Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
P3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
T3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
V3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
Franklin Parish																																																															
F5: Implementing New Initiatives				X																			X						X								X	X	X							X												X						
F10: Flood Preparation	X	X	X	X			X		X	X																					X						X	X	X																		X							
F3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X													X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X													X
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X	X								X	X											X	X													X
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X	X								X	X											X	X													X
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																X	X								X	X											X	X													X
Grant Parish																																																															
G1: Flood Proofing	X	X	X				X		X																						X						X	X	X																					X				
G15: Interior Drainage Projects					X					X		X			X	X	X	X	X												X	X																												X				
C1: Drainage Way Improvement					X																		X			X						X					X	X	X																					X				
C3: Repetitive Loss Structures	X	X	X							X					X								X					X	X								X	X	X																					X				
C1: Drainage Way Improvement					X																		X			X		X				X					X	X	X																					X				
C3: Repetitive Loss Structures	X	X	X							X					X								X					X	X								X	X	X																					X				
D1: Drainage Way Improvement					X																		X			X		X				X					X	X	X																					X				
D3: Repetitive Loss Structures	X	X	X							X					X								X					X	X								X	X	X																					X				
G3: Repetitive Loss Structures	X	X	X							X					X								X					X	X								X	X	X																					X				
M1: Drainage Way Improvement					X																		X			X		X				X					X	X	X																					X				
M3: Repetitive Loss Structures	X	X	X							X					X								X					X	X								X	X	X																					X				
P1: Drainage Way Improvement					X																		X			X						X					X	X	X																					X				
P3: Repetitive Loss Structures	X	X	X							X					X								X					X	X								X	X	X																					X				
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X					X								X						X								X	X																									X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
P3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
Iberia Parish																																																															
I9: Acquisition/Reconstruction of Repetitive Loss Properties		X		X						X															X										X		X																									X	
I10: Elevation of Repetitive Loss Structures	X									X																									X		X	X			X									X												X	
D5: Acquisition/Reconstruction of Repetitive Loss Properties	X			X						X															X										X	X	X	X			X									X												X	
D6: Elevation of Repetitive Loss Structures	X									X																									X	X	X	X																								X	
D9: Relocation of Town of Delcambre Fire Department		X								X																										X	X	X			X									X												X	

Parish and Action Items	Mitigation Methods								Funding Source																		
Action Items	Elevation	Acquisition-demolition/ relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry
J2: Acquisition/Reconstruction of Repetitive Loss Properties		X		X						X															X		
J3: Elevation of Repetitive Loss Structures	X									X																	
L2: Acquisition/Reconstructio n of Repetitive Loss Properties		X		X						X															X		
L3: Elevation of Repetitive Loss Structures	X									X																	
N2: Acquisition/Reconstructio n of Repetitive Loss Properties		X		X						X															X		
N3: Elevation of Repetitive Loss Structures	X									X																	
NI-2.18: Acquisition of Repetitive Loss Structures		X								X		X				X				X	X	X					
NI-2.15: Elevation of Flood	X									X		X				X				X	X	X					
Iberville Parish																											
I6: Repetitive Loss Structures	X	X		X						X																	
P5: Repetitive Loss Structures	X	X		X						X																	
I3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
P3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
Jefferson Davis Parish																											
J8: Repetitive Loss Acquisition		X								X																	
J3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
E3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
F3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
J3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
Jefferson Parish																											
F-1 G1 Jefferson Parish	X	X	X								X													X			
F-2 G3 Jefferson Parish								X		X	X							X	X					X			
F-3 G2 Jefferson Parish								X			X													X			
F-4 G1 Jefferson Parish					X						X								X					X			
F-5 G4 Jefferson Parish								X																			
F-6 G2 Jefferson Parish								X																			
F-7 G1 Jefferson Parish					X																			X			
F-8 G2, G4 Jefferson Parish								X																X			
F-9 G4 Jefferson Parish								X																			
F-10 G1 Jefferson Parish								X											X					X			
F-1 G1 Gretna	X	X	X								X													X			
F-2 G3 Gretna								X		X	X							X	X					X			
F-3 G2 Gretna								X			X													X			
F-4 G1 Gretna					X						X								X					X			
F-5 G4 Gretna								X																			
F-6 G2 Gretna								X																			
F-7 G1 Gretna					X																			X			
F-8 G2, G4 Gretna								X																X			
F-1 G1 Harahan	X	X	X								X													X			
F-2 G3 Harahan								X		X	X							X	X					X			
F-3 G2 Harahan								X			X													X			
F-4 G1 Harahan					X						X								X					X			

Parish and Action Items	Responsible Party									Hazard																			Status							
Action Items	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
J2: Acquisition/Reconstruction of Repetitive Loss Properties								X		X	X												X												X	
J3: Elevation of Repetitive Loss Structures								X		X	X																								X	
L2: Acquisition/Reconstructio n of Repetitive Loss Properties								X		X	X			X								X	X												X	
L3: Elevation of Repetitive Loss Structures								X		X	X			X								X	X												X	
N2: Acquisition/Reconstructio n of Repetitive Loss Properties								X	X	X	X			X								X	X												X	
N3: Elevation of Repetitive Loss Structures								X	X	X	X																								X	
NI-2.18: Acquisition of Repetitive Loss Structures									X	X	X			X									X												X	
NI-2.15: Elevation of Flood									X	X	X																								X	
Iberville Parish																																				
I6: Repetitive Loss Structures								X	X																					X						
P5: Repetitive Loss Structures								X	X																				X							
I3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X										X		X													X
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X										X		X													X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X										X		X													X
P3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X										X		X													X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X										X		X													X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X										X		X													X
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X										X		X													X
Jefferson Davis Parish																																				
J8: Repetitive Loss Acquisition			X						X	X	X												X									X				
J3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X																									X
E3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X																									X
F3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X																									X
J3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X																									X
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X																									X
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X																									X
Jefferson Parish																																				
F-1 G1 Jefferson Parish								X																												
F-2 G3 Jefferson Parish								X																												
F-3 G2 Jefferson Parish																																				
F-4 G1 Jefferson Parish																																				
F-5 G4 Jefferson Parish								X																												
F-6 G2 Jefferson Parish							X	X																						X						
F-7 G1 Jefferson Parish								X																												
F-8 G2, G4 Jefferson Parish								X																												
F-9 G4 Jefferson Parish								X																						X						
F-10 G1 Jefferson Parish								X																												
F-1 G1 Gretna								X																												
F-2 G3 Gretna								X																												
F-3 G2 Gretna																																				
F-4 G1 Gretna								X																												
F-5 G4 Gretna								X																												
F-6 G2 Gretna							X	X																						X						
F-7 G1 Gretna								X																												
F-8 G2, G4 Gretna								X																												
F-1 G1 Harahan								X																												
F-2 G3 Harahan								X																												
F-3 G2 Harahan																																				
F-4 G1 Harahan								X																												

Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
F-5 G4 Harahan								X																											X																													
F-6 G2 Harahan								X																										X	X																						X						
F-7 G1 Harahan					X																			X											X																													
F-1 G1 City of Kenner	X	X	X								X													X											X																													
F-2 G3 City of Kenner								X		X	X							X	X					X											X																													
F-3 G2 City of Kenner								X			X													X																																								
F-4 G1 City of Kenner					X						X								X					X																																								
F-5 G4 City of Kenner								X																											X																													
F-6 G2 City of Kenner								X																										X	X																						X						
F-7 G1 City of Kenner					X																			X											X																													
F-8 G2, G4 City of Kenner								X																											X																						X						
F-1 G1 Westwego	X	X	X								X													X											X																													
F-2 G3 Westwego								X		X	X							X	X					X											X																													
F-3 G2 Westwego								X			X													X																																								
F-4 G1 Westwego					X						X								X					X											X																													
F-5 G4 Westwego								X																											X																													
F-6 G2 Westwego								X																										X	X																						X						
F-7 G1 Westwego					X																			X											X																													
F-1 G1 Grand Isle	X	X	X								X													X											X																													
F-2 G3 Grand Isle								X		X	X							X	X					X											X																													
F-3 G2 Grand Isle								X			X													X																																								
F-4 G1 Grand Isle					X						X								X					X											X																													
F-5 G4 Grand Isle								X																											X																													
F-6 G2 Grand Isle								X																										X	X																						X						
F-1 G1 Jean Lafitte	X	X	X								X													X											X																													
F-2 G3 Jean Lafitte								X		X	X							X	X					X											X																													
F-3 G2 Jean Lafitte								X			X													X																																								
F-4 G1 Jean Lafitte					X						X								X					X											X																													
F-5 G4 Jean Lafitte								X																											X																													
F-6 G2 Jean Lafitte								X																										X	X																						X						
F-7 G1 Jean Lafitte					X																			X											X																													
Lafayette Parish																																																															
L25: Repetitive Loss Area Drainage					X																										X	X		X			X	X																				X	X					
L26: Repetitive Loss Structure Improvements																												X	X		X						X	X																				X	X					
L3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss properties	X	X							X	X																									X		X	X																											X
B3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss properties	X	X							X	X																		X							X	X	X	X																											X
C3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss properties	X	X							X	X																		X							X	X	X	X																											X
D3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss properties	X	X							X	X																		X							X	X	X	X																											X
LA3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss properties	X	X							X	X																		X							X	X	X	X																											X
S3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss properties	X	X							X	X																		X							X	X	X	X																											X
Y3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss properties	X	X							X	X																		X							X	X	X	X																											X
L2: Drainage Projects					X				X	X																									X		X	X							X																				X
B2: Drainage Projects					X				X	X																		X							X	X	X	X							X																				X
C2: Drainage Projects					X				X	X																		X							X	X	X	X							X																				X
D2: Drainage Projects					X				X	X																		X							X	X	X	X							X																				X
LA2: Drainage Projects					X				X	X																		X							X	X	X	X							X																				X
S2: Drainage Projects					X				X	X																		X							X	X	X	X							X																				X
Y2: Drainage Projects					X				X	X																		X							X	X	X	X							X																				X
Lafourche Parish																																																															
City Repetitive Loss Properties																																				X																									X			
LP4: Drainage improvement projects					X					X	X	X	X																			X			X		X	X																											X
LP5: Pump station improvements								X		X		X	X																			X			X		X	X																											X
LP6: Elevation projects	X	X		X						X		X	X																						X		X	X																											X
LP15: Participate in Community Rating System (CRS)								X																											X		X	X																											X
LP16: Lafourche Parish Capital Outlay Projects					X			X			X	X																							X		X	X			X				X			X											X					
T1: Drainage improvement projects					X					X		X	X																						X	X	X	X																											X
T7: Elevation projects	X	X		X						X																									X	X	X	X																											X
T8: Participate in Community Rating System (CRS)								X																											X	X	X	X																											X
T9: Lafourche Parish Capital Outlay Projects								X			X	X																							X	X	X	X			X				X			X											X					
L1: Drainage improvement projects					X					X		X	X																						X	X	X	X																											X
L7: Elevation projects	X	X		X						X																									X	X	X	X																											X
L8: Participate in Community Rating System (CRS)								X																											X	X	X	X																											X

Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
L9: Lafourche Parish Capital Outlay Projects								X			X	X																							X	X	X	X			X				X			X											X					
GM1: Drainage improvement projects					X					X		X	X																						X	X	X	X																										X
GM2: Elevation projects	X	X		X						X																									X	X	X	X																										X
GM8: Participate in Community Rating System (CRS)								X																											X	X	X	X																										X
GM9: Lafourche Parish Capital Outlay Projects								X			X	X																							X	X	X	X			X				X			X											X					
Lasalle Parish																																																														
Flood Preparation	X	X	X	X			X																							X					X	X	X	X																						X			
Drainage Project					X																									X					X	X	X	X	X																					X			
L9: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X					X																										X		X	X																										X
J7: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X					X																										X	X	X	X																										X
O7: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X					X																										X	X	X	X																										X
U7: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X					X																										X	X	X	X																										X
T7: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X					X																										X	X	X	X																										X
JB7: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X					X																										X	X	X	X																										X
L1: Drainage Improvement Projects					X				X																							X			X		X	X																										X
J1: Drainage Improvement Projects					X				X																							X			X	X	X	X																										X
O1: Drainage Improvement Projects					X				X																							X			X	X	X	X																										X
U1: Drainage Improvement Projects					X				X																							X			X	X	X	X																										X
T1: Drainage Improvement Projects					X				X																							X			X	X	X	X																										X
JB1: Drainage Improvement Projects					X				X																							X			X	X	X	X																										X
Lincoln Parish																																																														
L88: Repetitive Loss Structure Goals	X	X	X				X		X	X						X										X					X				X		X																						X				
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
V3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
Livingston Parish																																																														
I2: Elevate, acquire or pilot reconstruct all Repetitive Loss and Severe Repetitive Loss structures	X	X								X		X	X	X																					X	X	X	X			X																		X						
Madison Parish																																																														
M15: Drainage Projects					X					X																									X																							X						
M15: Drainage Projects (Village of Delta)					X					X																									X																							X						
M15: Drainage Projects (Village of Mound)					X					X																									X																							X						
M15: Drainage Projects (Village of Richmond)					X					X																									X																							X						
M15: Drainage Projects (City of Tallulah)					X					X																									X																							X						
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X												X														X
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X												X														X

Parish and Action Items	Mitigation Methods								Funding Source																		
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
T3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
M1: Building Retrofits				X						X	X	X															
M2: Drainage Improvements					X					X	X	X															
M5: Education & Outreach								X		X	X	X															
M8: Warning Systems								X		X	X	X															
M10: Promote Flood Insurance								X		X	X	X															
M11: Levee Failure Working Group								X		X	X	X															
D1: Building Retrofits (Village of Delta)				X						X	X	X															
D2: Drainage Improvement					X					X	X	X															
D5: Education & Outreach								X		X	X	X															
D8: Warning Systems								X		X	X	X															
D10: Promote Flood Insurance								X		X	X	X															
D11: Levee Failure Working Group								X		X	X	X															
M1: Building Retrofits (Village of Mound)				X						X	X	X															
M2: Drainage Improvements					X					X	X	X															
M5: Education & Outreach								X		X	X	X															
M8: Warning Systems								X		X	X	X															
M10: Promote Flood Insurance								X		X	X	X															
M11: Levee Failure Working Group								X		X	X	X															
R1: Building Retrofits (Village of Richmond)				X						X	X	X															
R2: Drainage Improvement					X					X	X	X															
R5: Education & Outreach								X		X	X	X															
R8: Warning Systems								X		X	X	X															
R10: Promote Flood Insurance								X		X	X	X															
R11: Levee Failure Working Group								X		X	X	X															
T1: Building Retrofits (City of Tallulah)				X						X	X	X															
T2: Drainage Improvement					X					X	X	X															
T5: Education & Outreach								X		X	X	X															
T8: Warning Systems								X		X	X	X															
T10: Promote Flood Insurance								X		X	X	X															
T11: Levee Failure Working Group								X		X	X	X															
Morehouse Parish																											
M1: Pursuing Elevation, Acquisition, Flood proofing Projects	X	X	X																								
M2: Review Repetitive Loss List							X																				
M3: Localized Interior Drainage Project					X																						
M4: Safe Room Projects								X		X	X	X															
M5: Education and Outreach								X		X	X	X															
M6: Generators for continuity of operations and government								X		X	X	X															
M7: Lightning Mitigation								X		X	X	X															
M8: Warning Systems								X		X	X	X															
M9: Potable Water								X		X	X	X															
M10: Promote Flood Insurance								X		X	X	X															
M11: Wildfires Ordinance								X		X	X	X															
M12: Dam and Levee Failure Working Group								X		X	X	X															
M13: Water Conservtion Measures								X		X	X	X															
M25: Data Improvement																											
M1: Building Retrofits (Morehouse Unincorprated)				X						X	X	X															
M2: Drainage Improvement					X					X	X	X															
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
B1: Building Retrofits (City of Bastrops)				X						X	X	X															
B2: Drainage Improvement					X					X	X	X															
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
B4: Safe Room Pojects								X		X	X	X															
B5: Education and Outreach								X		X	X	X															
B6: Generatos for continuity of operations								X		X	X	X															
B7: Lightning Mitigation								X		X	X	X															
B8: Warning Systems								X		X	X	X															
B9: Potable Water								X		X	X	X															
B10: Promote Flood Insurance								X		X	X	X															
B11: Wildfires Ordinance								X		X	X	X															

Parish and Action Items	Responsible Party									Hazard																			Status							
Action Items	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carrried Over	Delete (d)	Not Started	Existing	New
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X												X													X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X												X													X
T3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X												X													X
M1: Building Retrofits		X									X						X	X									X									X
M2: Drainage Improvements		X								X	X												X													X
M5: Education & Outreach		X								X	X	X	X					X			X		X													X
M8: Warning Systems		X									X		X					X			X															X
M10: Promote Flood Insurance		X									X	X						X					X													X
M11: Levee Failure Working Group	X	X								X													X													X
D1: Building Retrofits (Village of Delta)		X									X							X									X									X
D2: Drainage Improvement		X								X	X												X													X
D5: Education & Outreach		X								X	X	X	X					X			X		X													X
D8: Warning Systems		X									X		X					X			X															X
D10: Promote Flood Insurance		X									X	X						X					X													X
D11: Levee Failure Working Group	X	X								X													X													X
M1: Building Retrofits (Village of Mound)		X										X						X									X									X
M2: Drainage Improvements		X								X	X												X													X
M5: Education & Outreach		X								X		X						X			X		X													X
M8: Warning Systems		X									X		X					X			X															X
M10: Promote Flood Insurance		X									X	X						X					X													X
M11: Levee Failure Working Group	X	X								X													X													X
R1: Building Retrofits (Village of Richmond)		X									X						X	X									X									X
R2: Drainage Improvement		X								X	X												X													X
R5: Education & Outreach		X								X	X	X	X								X		X													X
R8: Warning Systems		X									X		X					X			X															X
R10: Promote Flood Insurance		X									X	X						X					X													X
R11: Levee Failure Working Group	X	X								X													X													X
T1: Building Retrofits (City of Tallulah)		X									X						X	X									X									X
T2: Drainage Improvement		X								X	X												X													X
T5: Education & Outreach		X								X	X	X	X								X		X													X
T8: Warning Systems		X									X	X	X								X															X
T10: Promote Flood Insurance		X									X	X						X					X													X
T11: Levee Failure Working Group	X	X								X													X													X
Morehouse Parish																																				
M1: Pursuing Elevation, Acquisition, Flood proofing Projects										X																						X				
M2: Review Repetitive Loss List										X																				X						
M3: Localized Interior Drainage Project										X																						X				
M4: Safe Room Projects		X									X						X	X									X									X
M5: Education and Outreach		X								X	X	X	X					X	X	X		X	X		X							X				X
M6: Generators for continuity of operations and government		X									X	X	X							X																X
M7: Lightning Mitigation		X																								X										X
M8: Warning Systems		X									X		X					X							X											X
M9: Potable Water		X									X	X						X																		X
M10: Promote Flood Insurance		X								X	X											X	X													X
M11: Wildfires Ordinance		X																							X											X
M12: Dam and Levee Failure Working Group		X								X												X	X													X
M13: Water Conservtion Measures		X																	X																	X
M25: Data Improvement																												X				X				
M1: Building Retrofits (Morehouse Unincorprated)		X									X						X	X									X									X
M2: Drainage Improvement		X									X						X	X									X									
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X											X	X													X
B1: Building Retrofits (City of Bastrops)		X									X						X	X									X									X
B2: Drainage Improvement		X								X	X																									X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X											X	X													X
B4: Safe Room Pojects		X								X	X	X						X	X			X	X		X											X
B5: Education and Outreach		X								X	X	X	X					X	X	X		X	X													X
B6: Generatos for continuity of operations		X									X	X	X					X		X																X
B7: Lightning Mitigation		X																								X										X
B8: Warning Systems		X									X		X					X							X											X
B9: Potable Water		X									X	X						X																		X
B10: Promote Flood Insurance		X								X	X											X	X													X
B11: Wildfires Ordinance		X																							X											X

Appendix E

Attachment A-12

Parish and Action Items	Mitigation Methods							Funding Source																			
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry
B12: Dam and Levee Failure Working Group								X		X	X	X															
B13: Water Conservtion Measures								X		X	X	X															
B1: Building Retrofits (Village of Bonita)				X						X	X	X															
B2: Drainage Improvement					X					X	X	X															
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
B4: Safe Room Pojects								X		X	X	X															
B5: Education and Outreach								X		X	X	X															
B6: Generatos for continuity of operations								X		X	X	X															
B7: Lightning Mitigation								X		X	X	X															
B8: Warning Systems								X		X	X	X															
B9: Potable Water								X		X	X	X															
B10: Promote Flood Insurance								X		X	X	X															
B11: Wildfires Ordinance								X		X	X	X															
B12: Dam and Levee Failure Working Group								X		X	X	X															
B13: Water Conservtion Measures								X		X	X	X															
C1: Building Retrofits (Village of Collinston)				X						X	X	X															
C2: Drainage Improvement					X					X	X	X															
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
C4: Safe Room Projects								X		X	X	X															
C5: Education and Outreach								X		X	X	X															
C6: Generators for continuity of operations and government								X		X	X	X															
C7: Lightning Mitigation								X		X	X	X															
C8: Warning Systems								X		X	X	X															
C9: Potable Water								X		X	X	X															
C10: Promote Flood Insurance								X		X	X	X															
C11: Wildfires Ordinance								X		X	X	X															
C12: Dam and Levee Failure Working Group								X		X	X	X															
C13: Water Conservation Measures								X		X	X	X															
M1: Building Retrofits (Village of Mer Rouge)				X						X	X	X															
M2: Drainage Improvement					X					X	X	X															
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
M4: Safe Room Projects								X		X	X	X															
M5: Education and Outreach								X		X	X	X															
M6: Generators for continuity of operations and government								X		X	X	X															
M7: Lightning Mitigation								X		X	X	X															
M8: Warning Systems								X		X	X	X															
M9: Potable Water								X		X	X	X															
M10: Promote Flood Insurance								X		X	X	X															
M11: Wildfires Ordinance								X		X	X	X															
M12: Dam and Levee Failure Working Group								X		X	X	X															
M13: Water Conservtion Measures								X		X	X	X															
O1: Building Retrofits (Village of Oak Ridge)				X						X	X	X															
O2: Drainage Improvement					X					X	X	X															
O3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
O4: Safe Room Projects								X		X	X	X															
O5: Education and Outreach								X		X	X	X															
O6: Generators for continuity of operations and government								X		X	X	X															
O7: Lightning Mitigation								X		X	X	X															
O8: Warning Systems								X		X	X	X															
O9: Potable Water																											
O10: Promote Flood Insurance								X		X	X	X															
O11: Wildfires Ordinance								X		X	X	X															
O12: Dam and Levee Failure Working Group								X		X	X	X															
O13: Water Conservtion Measures								X		X	X	X															
Natchitoches Parish																											
A6: New Initiatives (Unincorporated Natchitoches Parish)								X															X				
A6: New Initiatives (Village of Ashland)								X															X				
C6: New Initiatives (Town of Campti)								X															X				
C6: New Initiatives (Village of Clarence)								X															X				
G6: New Initiatives (Village of Goldonna)								X															X				

Parish and Action Items	Responsible Party									Hazard																			Status							
Action Items	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
B12: Dam and Levee Failure Working Group		X								X												X	X													X
B13: Water Conservtion Measures		X																	X																	X
B1: Building Retrofits (Village of Bonita)		X									X						X	X									X									X
B2: Drainage Improvement		X								X	X																									X
B3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X											X	X													X
B4: Safe Room Pojects		X								X	X	X						X	X			X	X		X											X
B5: Education and Outreach		X								X	X	X	X					X	X	X		X	X													X
B6: Generatos for continuity of operations		X									X	X	X					X		X																X
B7: Lightning Mitigation		X																								X										X
B8: Warning Systems		X									X		X					X							X											X
B9: Potable Water		X									X	X						X																		X
B10: Promote Flood Insurance		X								X	X											X	X													X
B11: Wildfires Ordinance		X																							X											X
B12: Dam and Levee Failure Working Group		X								X												X	X													X
B13: Water Conservtion Measures		X																	X																	X
C1: Building Retrofits (Village of Collinston)		X									X						X	X									X									X
C2: Drainage Improvement		X								X	X																									X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X											X	X													X
C4: Safe Room Projects		X								?	X						X	X							X											X
C5: Education and Outreach		X								X	X	X	X						X	X		X	X		X											X
C6: Generators for continuity of operations and government		X									X	X						X		X																X
C7: Lightning Mitigation		X										X														X										X
C8: Warning Systems		X									X	X						X							X											X
C9: Potable Water		X									X	X						X																		X
C10: Promote Flood Insurance		X								X	X											X	X													X
C11: Wildfires Ordinance		X																							X											X
C12: Dam and Levee Failure Working Group		X								X												X	X													X
C13: Water Conservation Measures		X																	X																	X
M1: Building Retrofits (Village of Mer Rouge)		X									X						X	X									X									X
M2: Drainage Improvement		X								X	X																									X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X											X	X													X
M4: Safe Room Projects		X									X						X	X							X											X
M5: Education and Outreach		X								X	X	X	X					X	X	X		X	X		X											X
M6: Generators for continuity of operations and government		X									X	X	X					X		X																X
M7: Lightning Mitigation		X										X														X										X
M8: Warning Systems		X									X		X					X							X											X
M9: Potable Water		X									X	X							X																	X
M10: Promote Flood Insurance		X								X	X											X	X													X
M11: Wildfires Ordinance		X																							X											X
M12: Dam and Levee Failure Working Group		X								X													X	X												X
M13: Water Conservtion Measures		X																	X																	X
O1: Building Retrofits (Village of Oak Ridge)		X									X						X	X									X									X
O2: Drainage Improvement		X								X	X																									X
O3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X											X	X													X
O4: Safe Room Projects		X									X						X	X							X											X
O5: Education and Outreach		X								X	X	X	X					X	X	X		X	X		X											X
O6: Generators for continuity of operations and government		X									X	X	X					X		X																X
O7: Lightning Mitigation		X										X														X										X
O8: Warning Systems		X									X		X					X							X											X
O9: Potable Water																																				
O10: Promote Flood Insurance		X								X	X											X	X													X
O11: Wildfires Ordinance		X																							X											X
O12: Dam and Levee Failure Working Group		X								X													X	X												X
O13: Water Conservtion Measures		X																	X																	X
Natchitoches Parish																																				
A6: New Initiatives (Unincorporated Natchitoches Parish)		X								X	X	X						X	X													X				
A6: New Initiatives (Village of Ashland)		X								X	X	X						X	X													X				
C6: New Initiatives (Town of Campti)		X								X	X	X						X	X													X				
C6: New Initiatives (Village of Clarence)		X								X	X	X						X	X													X				
G6: New Initiatives (Village of Goldonna)		X								X	X	X						X	X													X				

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Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/ relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
N6: New Initiatives (Village of Natchez)								X															X						X								X	X	X						X	X													X				
N5: New Initiatives (City of Natchitoches)								X															X						X								X	X	X						X	X													X				
P6: New Initiatives (Village of Powhatan)								X															X						X								X	X	X						X	X													X				
R6: New Initiatives								X															X						X								X	X	X						X	X													X				
R6: New Initiatives								X															X						X								X	X	X						X	X													X				
N2: Drainage Improvements (Unincorporated Natchitoches Parish)					X					X	X	X																	X								X	X																									X
N3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structure	X	X		X						X	X	X																	X								X	X																									X
N5: Education and Outreach								X		X	X	X																	X								X	X	X	X					X	X						X											X
N10: Promote Flood Insurane								X		X	X	X																	X								X	X																									X
A2: Drainage Improvements (Village of Ashland)					X					X	X	X																	X								X	X																									X
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
A5: Education and Outreach								X		X	X	X																	X								X	X	X	X					X	X						X											X
A10: Promote Flood Insurance								X		X	X	X																	X								X	X																									X
C2: Drainage Improvements (Town of Campti)					X					X	X	X																	X								X	X																									X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
C5: Education and Outreach								X		X	X	X																	X								X	X	X	X					X	X						X											X
C10: Promote Flood Insurance								X		X	X	X																	X								X	X																									X
C2: Drainage Improvements (Villae of Clarence)					X					X	X	X																	X								X	X																									X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
C5: Education and Outreach								X		X	X	X																	X								X	X	X	X					X	X						X											X
C10: Promote Flood Insurance								X		X	X	X																	X								X	X																									X
G2: Drainage Improvements (Village of Goldonna)					X					X	X	X																	X								X	X																									X
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
G5: Education and Outreach								X		X	X	X																	X								X	X	X	X					X	X																	X
G10: Promote Flood Insurance								X		X	X	X																	X								X	X																									X
N2: Drainage Improvements (Village of Natchez)					X					X	X	X																	X								X	X																									X
N3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
N5: Education and Outreach								X		X	X	X																	X								X	X	X	X					X	X						X											X
N10: Promote Flood Insurane								X		X	X	X																	X								X	X																									X
Natchitoches)					X					X	X	X																	X								X	X																									X
severe repetitive loss properties and	X	X		X						X	X	X																	X								X	X																									X
N5: Education and Outreach								X		X	X	X																	X								X	X	X	X					X	X						X											X
N10: Promote Flood Insurane								X		X	X	X																	X								X	X																									X
P2: Drainage Improvements (Village of Powhatan)					X					X	X	X																	X								X	X																									X
P3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures.	X	X		X						X	X	X																	X								X	X																									X
P5: Education and Outreach								X		X	X	X																	X								X	X	X	X					X	X																	X
P10: Promote Flood Insurance								X		X	X	X																	X								X	X																									X
P2: Drainage Improvements (Village of Provencal)								X		X	X	X																	X								X	X																									X
P3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
P5: Education and Outreach								X		X	X	X																	X								X	X	X	X					X	X																	X
P10: Promote Flood Insurance								X		X	X	X																	X								X	X																									X
R2: Drainage Improvements (Village of Robeline)					X					X	X	X																	X								X	X																									X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																									X
R5: Education and Outreach								X		X	X	X																	X								X	X	X	X					X	X						X											X
R10: Promote Flood Insurance								X		X	X	X																	X								X	X																									X
Orleans Parish																																																															
21: Support efforts to raise ICC funding cap above $30K or expand the availability of ICC to Repetitive Loss properties.																																																											X				

Appendix E

Attachment A-14

Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
severe and repetitive loss structures, as well as substantially damaged structures to seek funding to support and enforce building requirements to reduce future flood losses through the implementation of mitigation actions to include elevation, relocation, demolition/-rebuild, retrofitting or flood proofing. Encourage and promote mitigation actions when building requirements cannot be enforced.	X	X	X	X																																																							X				
6: St. Roch Streetscape Improvements by the Sewerage and Water Board. The primary problem this activity will address is repetitive flooding. Approximately 540 properties in the area suffer repetitive damage. It will also improve the water quality of Lake Pontchartrain. The project will upgrade drainage ditches as well as provide green infrastructure enhancements to better manage groundwater. There is also a subsidence monitoring component. This project will reduce pressure on the existing piping system. Benefits of this project will include beautification, improved recreational areas, flood mitigation, and social cohesion.					X					X	X					X		X		X				X										X		X	X	X			X	X	X																				X
7: Mirabeau Water Park. The project will daylight 1/3 flow of neighborhood trunk line into the water park to store/cleanse/alleviate pressure on Pump Station #14 during peak flow periods. This project will address repetitive flood and sending untreated polluted water to Lake Pontchartrain. This project will provide benefits to over 3,000 acres, 3717 homes and businesses. It will provide improved water quality, habitat creation, recreation, and serve as an economic development opportunity. This project will support nearby streetscape enhancements.					X					X	X					X				X				X		X								X		X																												X
19: Strengthen existing programs for severe and repetitive loss structures, as well as substantially damaged structures. This includes mitigation actions such as elevation, relocation, retrofitting or flood proofing.	X	X	X																							X										X	X	X			X	X	X							X													X
5: Support efforts to raise ICC funding cap above $30k or expand the availability of ICC to Repetitive Loss Properties								X																		X										X	X	X					X		X																			X
Ouachita Parish																																																																
O22: Update NFIP Repetitive Loss List							X			X		X								X									X		X						X	X	X											X	X								X					
O28: Acquire Flood Prone Properties		X								X						X				X	X	X							X	X							X	X	X											X	X									X				
M27: Elevation/acquisition/flood proofing projects for new and existing repetitive loss structures	X	X	X																																	X	X													X	X									X				
R13: Update NFIP Repetitive Loss List							X			X		X								X									X		X					X	X	X	X											X	X								X					
R16: Acquire Flood Prone Properties		X								X						X				X	X	X							X							X	X	X	X											X	X									X				
WM17: Repetitive Floodloss Structures/Buyouts							X			X														X										X			X																					X					
O3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X												X	X													X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X												X	X													X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X												X	X													X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X												X	X													X

14

Parish and Action Items	Mitigation Methods							Funding Source																				Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
WM3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X													X
Plaquemines Parish																																																														
Action 1.1.2												X	X	X																					X		X						X							X							X						
Pointe Coupee Parish																																																													
P16: Repetitive Flood Loss Property List												X																						X			X																				X						
P17: Repetitive Loss Property Acquisition	X	X										X																						X			X																				X						
P3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X													X
F3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X													X
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X													X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X													X
N3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X											X	X													X
Rapides Parish																																																													
R10: Penny Acres Subdivision Acquisition		X								X																				X					X																					X		X				
R2: Drainage Projects					X				X	X																				X				X			X	X	X																								X
severe repetitive loss properties and	X	X								X																				X				X			X																										X
R5: Mitigation Public Outreach								X	X	X																				X				X			X	X	X	X					X	X	X					X											X
A2: Drainage Projects (City of Alexandria)					X				X	X																										X	X	X	X																								X
severe repetitive loss properties and	X	X								X																										X	X																										X
A5: Mitigation Public Outreach								X	X	X																										X	X	X	X	X					X	X	X					X											X
B2: Drainage Projects (Town of Ball)					X				X	X																										X		X	X						X																		X
B3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	X	X								X																										X	X																										X
B5: Mitigation Public Outreach								X	X	X																										X	X	X	X	X					X	X																	X
B2: Drainage Projects (Town of Boyce)					X				X	X																										X	X	X	X																								X
B3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	X	X								X																										X	X																										X
B5: Mitigation Public Outreach								X	X	X																										X	X	X	X	X					X	X	X					X											X
C2: Drainage Projects (Town of Cheneyville)					X				X	X																										X	X	X	X																								X
C3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	X	X								X																										X	X																										X
C5: Mitigation Public Outreach (Village of Forest Hill)								X	X	X																										X	X	X	X	X					X	X	X					X											X
F2: Drainage Projects					X				X	X																										X	X	X	X																								X
F3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	X	X								X																										X	X																										X
F5: Mitigation Public Outreach								X	X	X																										X	X	X	X	X					X	X	X					X											X
G2: Drainage Projects (Town of Glenmora)					X				X	X																										X	X	X	X																								X
G3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	X	X								X																										X	X																										X
G5: Mitigation Public Outreach								X	X	X																										X	X	X	X	X					X	X	X					X											X
L2: Drainage Projects (Town of Lacompte)					X				X	X																																																					
L3: Residential elevations and	X	X								X																										X	X																										X
L5: Mitigation Public Outreach								X	X	X																										X	X	X	X	X					X	X	X					X											X
McNary)					X				X	X																										X	X	X	X																								X
acquisitions for severe repetitive loss	X	X								X																										X	X																										X
M5: Mitigation Public Outreach								X	X	X																										X	X	X	X	X					X	X	X					X											X
P2: Drainage Projects					X				X	X																										X	X	X	X																								X
P3: Residential elevations and acquisitions for severe repetitive loss and repetitive properties	X	X								X																										X	X																										X
P5: Mitigation Public Outreach								X	X	X																										X	X	X	X	X					X	X	X					X											X
W2: Drainage Projects (Town of Woodworth)					X				X	X																										X	X	X	X																								X
acquisitions for severe repetitive loss	X	X								X																										X	X																										X

Mitigation Methods

Parish and Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review
W5: Mitigation Public Outreach							
Red River Parish							
R6: Flood Prone Property		X					
C4: Flood Prone Property		X					
E4: Flood Prone Property		X					
H4: Flood Prone Property		X					
M4: Flood Prone Property		X					
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			
Richland Parish							
R7: Pursue elevation / acquisition / flood-proofing projects for Repetitive Loss structures and Pilot Reconstruction.	X	X	X				
R11: Investigate and implement localized interior drainage projects, especially along U.S. Highway 80 near Delhi and Rayville, Carson Drive, Greer Road and Rosa Street, which are Repetitive Loss areas.					X		
R2: Drainage Improvement					X		
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			
R5: Education and Outreach							
R8: Warning Systems							
R10: Promote Flood Insurance							
R11: Dam and Levee Failure Working Group							
D2: Drainage Improvement (Town of Delhi)					X		
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			
D5: Education and Outreach							
D8: Warning Systems							
D10: Promote Flood Insurance							
D11: Dam and Levee Failure Working Group							
M2: Drainage Improvement (Town of Mangham)					X		
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			
M5: Education and Outreach							
M8: Warning Systems							
M10: Promote Flood Insurance							
M11: Dam and Levee Failure Working Group							
R2: Drainage Improvement (Town of Rayville)					X		
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			
R5: Education and Outreach							
R8: Warning Systems							
R10: Promote Flood Insurance							
R11: Dam and Levee Failure Working Group							
Sabine Parish							
M4: Acquisition and Elevation of Repetitive Loss Structures	X	X					
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X			

Funding Source

Parish and Action Items	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry
W5: Mitigation Public Outreach	X	X	X																	
Red River Parish																				
R6: Flood Prone Property			X						X				X	X	X					
C4: Flood Prone Property			X						X				X	X	X					
E4: Flood Prone Property			X						X				X	X	X					
H4: Flood Prone Property			X						X				X	X	X					
M4: Flood Prone Property			X						X				X	X	X					
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															
Richland Parish																				
R7: Pursue elevation / acquisition / flood-proofing projects for Repetitive Loss structures and Pilot Reconstruction.			X						X							X				
R11: Investigate and implement localized interior drainage projects, especially along U.S. Highway 80 near Delhi and Rayville, Carson Drive, Greer Road and Rosa Street, which are Repetitive Loss areas.			X		X											X				
R2: Drainage Improvement			X	X	X															
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															
R5: Education and Outreach	X		X	X	X															
R8: Warning Systems	X		X	X	X															
R10: Promote Flood Insurance	X		X	X	X															
R11: Dam and Levee Failure Working Group	X		X	X	X															
D2: Drainage Improvement (Town of Delhi)			X	X	X															
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															
D5: Education and Outreach	X		X	X	X															
D8: Warning Systems	X		X	X	X															
D10: Promote Flood Insurance	X		X	X	X															
D11: Dam and Levee Failure Working Group	X		X	X	X															
M2: Drainage Improvement (Town of Mangham)			X	X	X															
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															
M5: Education and Outreach	X		X	X	X															
M8: Warning Systems	X		X	X	X															
M10: Promote Flood Insurance	X		X	X	X															
M11: Dam and Levee Failure Working Group	X		X	X	X															
R2: Drainage Improvement (Town of Rayville)			X	X	X															
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															
R5: Education and Outreach	X		X	X	X															
R8: Warning Systems	X		X	X	X															
R10: Promote Flood Insurance	X		X	X	X															
R11: Dam and Levee Failure Working Group	X		X	X	X															
Sabine Parish																				
M4: Acquisition and Elevation of Repetitive Loss Structures									X								X			
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures			X	X	X															

Responsible Party

Parish and Action Items	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City
W5: Mitigation Public Outreach									X
Red River Parish									
R6: Flood Prone Property		X	X						X
C4: Flood Prone Property		X	X						X
E4: Flood Prone Property		X	X						X
H4: Flood Prone Property		X	X						X
M4: Flood Prone Property		X	X						X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
Richland Parish									
R7: Pursue elevation / acquisition / flood-proofing projects for Repetitive Loss structures and Pilot Reconstruction.			X						
R11: Investigate and implement localized interior drainage projects, especially along U.S. Highway 80 near Delhi and Rayville, Carson Drive, Greer Road and Rosa Street, which are Repetitive Loss areas.					X				
R2: Drainage Improvement		X							
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
R5: Education and Outreach		X							
R8: Warning Systems		X							
R10: Promote Flood Insurance		X							
R11: Dam and Levee Failure Working Group	X	X							
D2: Drainage Improvement (Town of Delhi)		X							
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
D5: Education and Outreach		X							
D8: Warning Systems		X							
D10: Promote Flood Insurance		X							
D11: Dam and Levee Failure Working Group	X	X							
M2: Drainage Improvement (Town of Mangham)		X							
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
M5: Education and Outreach		X							
M8: Warning Systems		X							
M10: Promote Flood Insurance		X							
M11: Dam and Levee Failure Working Group		X							
R2: Drainage Improvement (Town of Rayville)		X							
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
R5: Education and Outreach		X							
R8: Warning Systems		X							
R10: Promote Flood Insurance		X							
R11: Dam and Levee Failure Working Group	X	X							
Sabine Parish									
M4: Acquisition and Elevation of Repetitive Loss Structures	X								X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							

Hazard

Parish and Action Items	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards
W5: Mitigation Public Outreach	X	X	X	X					X	X	X					X			
Red River Parish																			
R6: Flood Prone Property	X	X	X										X	X					
C4: Flood Prone Property	X	X	X										X	X					
E4: Flood Prone Property	X	X	X										X	X					
H4: Flood Prone Property	X	X	X										X	X					
M4: Flood Prone Property	X	X	X										X	X					
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X											X	X					
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X											X	X					
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X											X	X					
Richland Parish																			
R7: Pursue elevation / acquisition / flood-proofing projects for Repetitive Loss structures and Pilot Reconstruction.	X												X	X					
R11: Investigate and implement localized interior drainage projects, especially along U.S. Highway 80 near Delhi and Rayville, Carson Drive, Greer Road and Rosa Street, which are Repetitive Loss areas.	X												X	X					
R2: Drainage Improvement	X	X																	
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X											X	X					
R5: Education and Outreach	X	X	X	X					X				X	X					
R8: Warning Systems		X		X					X				X	X					
R10: Promote Flood Insurance	X	X											X	X					
R11: Dam and Levee Failure Working Group	X												X	X					
D2: Drainage Improvement (Town of Delhi)	X	X											X	X					
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X											X	X					
D5: Education and Outreach	X	X	X	X					X	X			X	X					
D8: Warning Systems		X		X									X	X					
D10: Promote Flood Insurance	X	X											X	X					
D11: Dam and Levee Failure Working Group	X												X	X					
M2: Drainage Improvement (Town of Mangham)	X	X																	
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X											X	X					
M5: Education and Outreach	X	X	X	X						X			X	X					
M8: Warning Systems		X	X	X					X				X	X					
M10: Promote Flood Insurance	X	X											X	X					
M11: Dam and Levee Failure Working Group													X	X					
R2: Drainage Improvement (Town of Rayville)	X	X																	
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X											X	X					
R5: Education and Outreach	X	X	X	X					X	X			X	X					
R8: Warning Systems		X		X									X	X					
R10: Promote Flood Insurance	X	X											X	X					
R11: Dam and Levee Failure Working Group	X												X	X					
Sabine Parish																			
M4: Acquisition and Elevation of Repetitive Loss Structures	X																		
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X																	
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X																	
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X																	
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X																	

Status

Parish and Action Items	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
W5: Mitigation Public Outreach								X
Red River Parish								
R6: Flood Prone Property		X						
C4: Flood Prone Property		X						
E4: Flood Prone Property		X						
H4: Flood Prone Property		X						
M4: Flood Prone Property		X						
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
Richland Parish								
R7: Pursue elevation / acquisition / flood-proofing projects for Repetitive Loss structures and Pilot Reconstruction.				X				
R11: Investigate and implement localized interior drainage projects, especially along U.S. Highway 80 near Delhi and Rayville, Carson Drive, Greer Road and Rosa Street, which are Repetitive Loss areas.				X				
R2: Drainage Improvement								X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
R5: Education and Outreach								X
R8: Warning Systems								X
R10: Promote Flood Insurance								X
R11: Dam and Levee Failure Working Group								X
D2: Drainage Improvement (Town of Delhi)								X
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
D5: Education and Outreach								X
D8: Warning Systems								X
D10: Promote Flood Insurance								X
D11: Dam and Levee Failure Working Group								X
M2: Drainage Improvement (Town of Mangham)								X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
M5: Education and Outreach								X
M8: Warning Systems								X
M10: Promote Flood Insurance								X
M11: Dam and Levee Failure Working Group								X
R2: Drainage Improvement (Town of Rayville)								X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
R5: Education and Outreach								X
R8: Warning Systems								X
R10: Promote Flood Insurance								X
R11: Dam and Levee Failure Working Group								X
Sabine Parish								
M4: Acquisition and Elevation of Repetitive Loss Structures		X						
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures								X

Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X																										X
St. Mary Parish																																																														
Objective 3.1: Mitigate all repetitive losses in St. Mary Parish	X	X		X						X																												X																												
Objective 3.2: Initiate drainage and/or surge flooding studies					X							X	X	X																																																	
2: Initiate problem solving initiative focusing on backflow surge up the Charenton Canal and the Franklin Canal affecting Bayou Teche west of Wax Lake Outlet (Calumet Cut) as well as the Franklin repetitive loss area								X																										X																							X						
6: Mitigation of Repetitive Losses Parishwide								X																										X																							X						
11: Mitigation of Repetitive Losses -- Elevation (1 remaining)	X																																	X																							X						
21: Mitigation of Repetitive Losses -- Mitigation Reconstruction (1)				X																																																				X							
St Charles Parish																																																														
PI-1: Provide brochures and other publications through media, mail, libraries, Post Offices, and/or the Internet that explain (1) the definition of "repetitive loss structure" and (2) the options available to owners of repetitive loss structures.								X				X																						X			X																			X						
PP-1: At the discretion of the property owners, either acquire or elevate repetitive loss structures throughout the Parish, giving priority to "target" repetitive loss structures.	X	X							X														X											X			X																			X						
PP-21: Elevation of 27 Repetitive Loss Structures	X								X														X											X			X																				X					
PP-22: Elevation of 4 Severe Repetitive Loss Structures	X								X														X											X			X																				X					
PP-3: Develop a new, homeowner assistance program whereby the Parish, rather than the individual homeowner, would cover the non-federal, 25% funding portion for the elevation of repetitive loss structures.								X																X										X			X																						X			
St Martin Parish																																																														
23: Address all other Repetitive Loss Structures																																																									X						
Action 1.1.1: Upgrade St. Martinville Sewer Pond Berm					X					X																						X					X	X												X													
Action 1.2.1: Upgrade current drainage infrastructure in Arnaudville, Broussard, Parks, St. Martinville, Henderson, Breaux Bridge, and the unincorporated areas of St. Martin Parish					X					X																						X					X	X												X													
Action 1.2.2: Construct new flood control structures												X	X	X																					X		Z	X												X													
Action 1.2.3: Elevate, acquire, or pilot reconstruct all RL and SRL structures in St. Martin Parish	X	X		X						X																									X		X	X												X													
Action 1.2.4: Elevate equipment that is vulnerable to flood damage	X									X																									X		X	X												X													

Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/ relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
Action 1.2.5: Flood proof all public buildings vulnerable to flood damage (see Attachment c3-1 for locations) in Arnaudville, Broussard, Parks, St. Martinville, Henderson, Breaux Bridge, and the unincorporated areas of St. Martin Parish			X							X																										X		X	X													X													
Action 1.2.6: Install warning siren to indicate imminent levee breach								X		X																										X		X	X													X													
Action 1.3.1: Ensure levees are properly maintained								X																X										X			X	X													X							X						
Action 1.3.2: Maintain constant working relationship with the USACE to ensure proper maintenance procedures are in place and followed								X																X											X		X	X													X							X						
St Bernard Parish																																																														
SB3: Flood Proof Existing and New Public Buildings			X						X	X						X				X													X					X	X																										X
SB4: Flood Proof Existing and New Critical Infrastructure			X						X	X						X				X													X					X	X																										X
SB5: Drainage Upgrade Projects					X				X	X						X				X													X					X	X																					X					
SB8: Pursue Elevation Projects for Repetitive Loss Structures	X									X						X				X		X													X			X	X																					X					
SB9: Pursue Acquisition Projects for Repetitive Loss Structures		X								X						X				X		X													X			X	X																					X					
SB10: Amend the Floodplain Ordinance and Adopt Updated Flood Insurance Rating Map for New Structures Upon Their Issuance by FEMA								X	X																										X			X	X																			X						
Upgrade the culverts: replace with larger pipes and box culverts; provide floodgates.								X	X	X						X				X													X					X	X																		X							
Drainage upgrade projets					X				X	X						X				X													X					X	X																					X					
St. Helena Parish																																																														
SH2: Drainage Projects					X				X															X						X									X	X						X														X						
SH6: Elevation Projects	X								X															X						X		X						X	X																										X
SH7: Acquisition Projects		X							X															X						X		X						X	X																										X
SH8: Floodproofing Projects			X	X			X		X															X						X		X						X	X																										X
SH11: CRS Participation								X	X															X								X						X	X																										X
SH12: Flood regulation of future development								X																X										X			X	X																					X					
G3: CRS Participation								X	X															X								X						X	X																										X
G4: Flood regulation of future development								X																X										X			X	X																					X					
G5: Drainage Projects					X				X															X									X					X	X																					X					
G6: Elevation Projects	X								X															X						X		X					X	X	X																										X
G7: Acquisition Projects		X							X															X						X		X					X	X	X																										X
M3: CRS Participation								X	X															X								X						X	X																										X
M4: Flood regulation of future development								X																X										X			X	X																					X					
M5: Drainage Projects					X				X															X									X					X	X																					X					
M6: Elevation Projects	X								X															X						X		X					X	X	X																										X
M7: Acquisition Projects		X							X															X						X		X					X	X	X																										X
St. John The Baptist Parish																																																														
SJB4: Implementation of new mitigation initiatives				X																				X						X								X	X																										X
SJB5: Improvement of public notification system									X															X						X																X																			X
SJB8: Elevation and acquisition projects	X	X	X	X			X		X																					X				X				X	X																										X
Elevation and acquisition projects	X	X	X	X			X		X																					X				X				X	X																			X							
St. Landry Parish																																																														
S19: New Initiatives				X					X															X						X								X	X	X						X																X				
S24: Fixing Repetitive Loss Structures	X	X	X	X			X		X															X								X						X	X	X																						X				
C11: Fixing Repetitive Loss Structures	X	X	X	X			X					X												X													X	X	X	X																						X				
E11: Fixing Repetitive Loss Structures	X	X	X	X			X					X												X													X	X	X	X																						X				
G11: Fixing Repetitive Loss Structures	X	X	X	X			X					X												X													X	X	X	X																						X				
K11: Fixing Repetitive Loss Structures	X	X	X	X			X					X												X													X	X	X	X																						X				
L11: Fixing Repetitive Loss Structures	X	X	X	X			X					X												X													X	X	X	X																						X				
M11: Fixing Repetitive Loss Structures	X	X	X	X			X					X												X													X	X	X	X																						X				
O9: Pilot Planning Grant Program				X																				X													X	X	X	X	X					X	X														X				
O29: Fixing Repetitive Loss Structures	X	X	X	X			X					X												X													X	X	X	X																						X				
P11: Fixing Repetitive Loss Structures	X	X	X	X			X					X												X													X	X	X	X																						X				
P11: Fixing Repetitive Loss Structures	X	X	X	X			X					X												X													X	X	X	X																						X				
S11: Fixing Repetitive Loss Structures	X	X	X	X			X					X												X													X	X	X	X																						X				

Parish and Action Items	Mitigation Methods							Funding Source																			Responsible Party									Hazard																				Status							
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
W11: Fixing Repetitive Loss Structures	X	X	X	X			X					X											X													X	X	X	X																				X				
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X								X	X																								X
S5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
S10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
A5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
A10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
C5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
C10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
E3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
E5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
E10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
G3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
G5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
G10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
K3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
K5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
K10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
L5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
L10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
M5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
M10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
L5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
L10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
P3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
P5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
P10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
P3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
P5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
P10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
S5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
S10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																		X							X	X	X																								X
W5: Education and Outreach								X		X	X	X																		X								X	X	X	X					X	X						X											X
W10: Promote Flood Insurnce								X		X	X	X																		X								X	X																									
St. James Parish																																																															
Repetitive Loss Structures	X	X	X				X			X		X			X	X	X	X	X											X						X	X	X				X																X				
SJ2: Drainage Improvement (Unincorporated St. James)					X						X	X																	X			X					X	X	X																								X
SJ3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	X	X		X							X	X																	X		X						X	X				X																					X
SJ5: Education and Outreach								X			X	X																	X					X			X	X	X	X		X			X	X		X															X
SJ8: Pumping Station Projects	X		X								X	X																	X			X					X	X				X																					X
SJ11: Storm Surge Protection								X			X	X																	X			X					X	X																								X
SJ12:Backwater Protection Structure			X								X	X																	X			X					X	X																								X
SJ13: Adding Protective Structures								X			X	X																	X			X					X	X	X						X																	X
SJ14: Promote Flood Insurance								X		X		X			X	X	X		X					X							X						X	X																								X
SJ16: Bank Stabilization and Culvert Improvements								X	X																				X			X					X	X	X																							X
SJ17: Community Rating System								X	X																							X					X	X	X																							X

Parish and Action Items	Mitigation Methods								Funding Source																		
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry
SJ18: Building Regulations			X					X	X																		
SJ19: Subdivision Regulations								X	X																		
G2: Drainage Improvement (Town of Gramercy)					X						X	X															
G3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	X	X		X							X	X															
G5: Education and Outreach								X			X	X															
G8: Pumping Station Projects	X		X								X	X															
G11:Backwater Protection Structure			X								X	X															
G12: Promote Flood Insurance								X		X		X			X	X	X		X					X			
G13: Bank Stabilization and Culvert Improvements								X	X																		
G14: Community Rating System								X	X																		
L2: Drainage Improvement (Town of Lutcher)					X						X	X															
L3:Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures	X	X		X							X	X															
L5: Education and Outreach								X			X	X															
L8: Pumping Station Projects	X		X								X	X															
L11:Backwater Protection Structure			X								X	X															
L12: Promote Flood Insurance								X		X		X			X	X	X		X					X			
L13: Bank Stabilization and Culvert Improvements								X	X																		
L14: Community Rating System								X	X																		
St. Tammany Parish																											
STP1: Eddins Canal				X						X	X																
STP2: Cloverland Drainage		X			X					X	X																
STP5: Elevation of Severe Repetitive Loss and Repetitive Loss Structures	X									X	X																
STP6-17: South Slidell Levee System Projects		X										X		X					X								
STP18: Schnieder Canal - SE1LA			X								X	X						X	X								
STP21: W-14 Canal - SELA								X			X	X						X	X								
STP23: Acquisition		X								X	X																
STP28: Lower W15 Area Drainage				X						X	X																
STP38: Reconstruct Fire Station #16	X									X	X																
AS2: Elevation of Severe Repetitive Loss and Repetitive Loss Structures (Town of Abita Springs)	X									X	X																
AS5: Acquisition		X								X	X																
PR2: Elevation of Severe Repetitive Loss and Repetitive Loss Structures (Pearl River)	X									X	X																
PR5: Acquisition		X								X	X																
F2: Elevation of Severe Repetitive Loss and Repetitive Loss Structures (Folsom)	X									X	X																
F5: Acquisition		X								X	X																
SU2: Elevation of Severe Repetitive Loss and Repetitive Loss Structures (Village of Sun)	X									X	X																
SU5: Acquisition		X								X	X																
Investigate and implement a localized interior drainage projects in repetitive loss areas to reduce damages from flooding.										X				X		X	X		X								
Pursue elevation/ Acquisition /flood proofing/Pilot Reconstruction projects and structural solutions to flooding by pursuing funding opportunities for the repetitive loss structures.										X													X			X	
MAD2: Elevation of Severe Repetitive Loss and Repetitive Loss Structures	X									X	X																
MAD5: Acquisition		X								X	X																
MAN1: Elevation of Severe Repetitive Loss and Repetitive Loss Structures	X									X	X																
SL3: Levee Protection Project (City of Slidell)								X				X		X					X								
SL5: Elevation of Severe Repetitive Loss and Repetitive Loss Structures	X													X													
SL6: Pontchartrain Drive Drainage Improvements					X							X		X					X								
SL7: Audubon Ditch Drainage Improvements					X							X		X					X								
SL8: Breckenridge Ditch Improvements					X							X		X					X								
SL9: Carollo Drive Drainage Improvements					X							X		X					X								

Parish and Action Items	Responsible Party									Hazard																			Status							
Action Items	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
SJ18: Building Regulations				X			X			X	X	X	X					X																		X
SJ19: Subdivision Regulations				X	X		X			X	X	X						X																		X
G2: Drainage Improvement (Town of Gramercy)		X			X					X	X	X																								X
G3: Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures		X							X	X	X				X																					X
G5: Education and Outreach		X					X			X	X	X	X		X			X	X		X															X
G8: Pumping Station Projects		X			X					X	X				X																					X
G11:Backwater Protection Structure		X			X					X	X																									X
G12: Promote Flood Insurance				X						X	X																									X
G13: Bank Stabilization and Culvert Improvements		X			X					X	X	X																								X
G14: Community Rating System					X					X	X	X																								X
L2: Drainage Improvement (Town of Lutcher)		X			X					X	X	X																								X
L3:Mitigation of Repetitive Loss and Severe Repetitive Loss Properties and Other Hazard Prone Structures		X							X	X	X				X																					X
L5: Education and Outreach		X					X			X	X	X	X		X			X	X		X															X
L8: Pumping Station Projects		X			X					X	X				X																					X
L11:Backwater Protection Structure		X			X					X	X																									X
L12: Promote Flood Insurance				X						X	X																									X
L13: Bank Stabilization and Culvert Improvements		X			X					X	X	X																								X
L14: Community Rating System					X					X	X	X																								X
St. Tammany Parish																																				
STP1: Eddins Canal					X					X	X																									X
STP2: Cloverland Drainage					X					X	X																									X
STP5: Elevation of Severe Repetitive Loss and Repetitive Loss Structures									X	X	X																									X
STP6-17: South Slidell Levee System Projects								X		X	X												X													X
STP18: Schnieder Canal - SE1LA					X			X		X	X												X													X
STP21: W-14 Canal - SELA					X			X		X	X																									X
STP23: Acquisition								X		X	X			X								X	X	X	X											X
STP28: Lower W15 Area Drainage					X			X		X																										X
STP38: Reconstruct Fire Station #16								X		X	X																									X
AS2: Elevation of Severe Repetitive Loss and Repetitive Loss Structures (Town of Abita Springs)								X	X	X	X																									X
AS5: Acquisition								X	X	X	X			X								X	X	X	X											X
PR2: Elevation of Severe Repetitive Loss and Repetitive Loss Structures (Pearl River)								X	X	X	X																									X
PR5: Acquisition								X	X	X	X			X								X	X		X											X
F2: Elevation of Severe Repetitive Loss and Repetitive Loss Structures (Folsom)								X		X	X																									X
F5: Acquisition								X		X	X			X								X	X		X											X
SU2: Elevation of Severe Repetitive Loss and Repetitive Loss Structures (Village of Sun)								X		X	X																									X
SU5: Acquisition								X		X	X			X								X	X		X											X
Investigate and implement a localized interior drainage projects in repetitive loss areas to reduce damages from flooding.				X	X					X	X																				X					
Pursue elevation/ Acquisition /flood proofing/Pilot Reconstruction projects and structural solutions to flooding by pursuing funding opportunities for the repetitive loss structures.		X				X		X		X	X																				X					
MAD2: Elevation of Severe Repetitive Loss and Repetitive Loss Structures								X	X	X	X																									X
MAD5: Acquisition								X	X	X	X			X								X	X		X											X
MAN1: Elevation of Severe Repetitive Loss and Repetitive Loss Structures									X	X	X																			X						X
SL3: Levee Protection Project (City of Slidell)									X	X	X												X													X
SL5: Elevation of Severe Repetitive Loss and Repetitive Loss Structures									X	X	X																									X
SL6: Pontchartrain Drive Drainage Improvements									X	X	X																									X
SL7: Audubon Ditch Drainage Improvements									X	X	X																									X
SL8: Breckenridge Ditch Improvements									X	X	X																									X
SL9: Carollo Drive Drainage Improvements									X	X	X																									X

Parish and Action Items	Mitigation Methods							Funding Source																			Responsible Party									Hazard																				Status							
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
SL10: Rue Miramon Dainage Improvements					X							X		X					X																	X	X	X																									X
SL11: Lindeberg Drive Drainage Improvements					X							X		X					X																	X	X	X																									X
SL12: W-14/W-15 Detention Pond								X				X		X					X																	X	X	X																									X
Tangipahoa Parish																																																															
1.2 Drainage - flood relief projects (Unincorporated Tangipahoa)					X				X	X													X												X		X	X	X																								X
1.3 Residential elevations and acquisitions for repetitive loss properties	X	X								X																									X		X																										X
4.1 Mitigation Public Outreach								X	X	X																									X		X	X	X						X							X											X
1.2 Drainage - flood relief projects (Town of Amite)					X				X	X													X												X		X	X	X																								X
1.3 Residential elevations and acquisitions for repetitive loss properties	X	X								X																									X		X																										X
4.1 Mitigation Public Outreach								X	X	X																									X		X	X	X						X							X											X
1.3 Residential elevations and acquisitions for repetitive loss properties (City of Hammond)	X	X								X													X												X		X																										X
1.7 Hardening of Critical Facilities								X		X																										X		X	X						X																		X
1.8 Hardening of Critical Facilities								X		X																										X		X	X						X																		X
1.9 Hardening of Critical Facilities								X		X																										X		X	X						X														X				X
1.10 Backup generators for critical facilities (sewer lift stations)								X		X																										X		X	X						X																		X
1.11 Backup generators for critial facilities (Michael J Kennedy Center)								X		X																										X		X	X						X																		X
1.12 Backup generators for critial facilities (Police Training Center)								X		X																										X		X	X						X																		X
1.2 Drainage - flood relief projects					X				X	X													X													X	X	X	X																								X
4.1 Mitigation Public Outreach								X	X	X																									X		X	X	X						X							X											X
1.2 Drainage - flood relief projects (City of Pontchatoula)					X				X	X													X												X	X	X	X	X																								X
1.3 Residential elevations and acquisitions for repetitive loss properties	X	X								X													X												X	X	X																										X
4.1 Mitigation Public Outreach								X	X	X																									X	X	X	X	X						X							X											X
1.2 Drainage - flood relief projects (Town of Kentwood)					X				X	X													X												X	X	X	X	X																								X
acquisitions for repetitive loss	X	X								X													X												X	X	X																										X
4.1 Mitigation Public Outreach								X	X	X																									X	X	X	X	X						X							X											X
1.2 Drainage - flood relief projects (Town of Independence)					X				X	X													X												X	X	X	X	X																								X
1.3 Residential elevations and acquisitions for repetitive loss properties	X	X								X													X												X	X	X																										X
4.1 Mitigation Public Outreach								X	X	X																									X	X	X	X	X						X							X											X
1.2 Drainage - flood relief projects (Town of Roseland)					X				X	X													X												X	X	X	X	X																								X
1.3 Residential elevations and acquisitions for repetitive loss properties	X	X								X													X												X	X	X																										X
4.1 Mitigation Public Outreach								X	X	X																									X	X	X	X	X						X							X											X
1.2 Drainage - flood relief projects (Village of Tickfaw)					X				X	X													X												X	X	X	X	X																								X
1.3 Residential elevations and acquisitions for repetitive loss properties	X	X								X													X												X	X	X																										X
4.1 Mitigation Public Outreach								X	X	X																									X	X	X	X	X						X							X											X
1.2 Drainage - flood relief projects (Village of Tangipahoa)					X				X	X													X												X	X	X	X	X																								X
1.3 Residential elevations and acquisitions for repetitive loss properties	X	X								X													X												X	X	X																										X
4.1 Mitigation Public Outreach								X	X	X																									X	X	X	X	X						X							X											X
21: Investigate and implement a localized interior drainage project along Hwy 51 and in each repetitive loss area to reduce its flood potential.					X																														X		X																							X			
21 (Town of Amite): Investigate and implement a localized interior drainage project along Hwy 51 and in each repetitive loss area to reduce its flood potential.					X																														X		X																										
21 (City of Hammond): Investigate and implement a localized interior drainage project along Hwy 51 and in each repetitive loss area to reduce its flood potential.					X																														X		X																										

Appendix E

Attachment A-22

Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/ relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
21 (City of Ponchatoula): Investigate and implement a localized interior drainage project along Hwy 51 and in each repetitive loss area to reduce its flood potential.					X																														X		X																											
21 (Kentwood): Investigate and implement a localized interior drainage project along Hwy 51 and in each repetitive loss area to reduce its flood potential.					X																														X		X																											
21 (Independence): Investigate and implement a localized interior drainage project along Hwy 51 and in each repetitive loss area to reduce its flood potential.					X																														X		X																											
21 (Roseland) Investigate and implement a localized interior drainage project along Hwy 51 and in each repetitive loss area to reduce its flood potential.					X																														X		X																											
21 (Tickfaw): Investigate and implement a localized interior drainage project along Hwy 51 and in each repetitive loss area to reduce its flood potential.					X																														X		X																											
21 (Village of Tangipahoa): Investigate and implement a localized interior drainage project along Hwy 51 and in each repetitive loss area to reduce its flood potential.					X																														X		X																											
22: Pursue elevation/ acquisition/flood proofing projects and structural solutions to flooding by pursuing funding opportunities for the 34 repetitive loss structures.	X	X	X																																X		X																				X						
22 (Town of Amite): Pursue elevation/ acquisition/flood proofing projects and structural solutions to flooding by pursuing funding opportunities for the 34 repetitive loss structures.	X	X	X																																X		X																				X						
22 (City of Hammond): Pursue elevation/ acquisition/flood proofing projects and structural solutions to flooding by pursuing funding opportunities for the 34 repetitive loss structures.	X	X	X																																X		X																				X						
22 (City of Ponchatoula): Pursue elevation/ acquisition/flood proofing projects and structural solutions to flooding by pursuing funding opportunities for the 34 repetitive loss structures.	X	X	X																																X		X																				X						
22 (Kentwood): Pursue elevation/ acquisition/flood proofing projects and structural solutions to flooding by pursuing funding opportunities for the 34 repetitive loss structures.	X	X	X																																X		X																				X						
22 (Independence): Pursue elevation/ acquisition/flood proofing projects and structural solutions to flooding by pursuing funding opportunities for the 34 repetitive loss structures.	X	X	X																																X		X																				X						
22 (Roseland): Pursue elevation/ acquisition/flood proofing projects and structural solutions to flooding by pursuing funding opportunities for the 34 repetitive loss structures.	X	X	X																																X		X																				X						
22 (Tickfaw): Pursue elevation/ acquisition/flood proofing projects and structural solutions to flooding by pursuing funding opportunities for the 34 repetitive loss structures.	X	X	X																																X		X																				X						
22 (Village of Tangipahoa): Pursue elevation/ acquisition/flood proofing projects and structural solutions to flooding by pursuing funding opportunities for the 34 repetitive loss structures.	X	X	X																																X		X																				X						X

Parish and Action Items	Mitigation Methods									Funding Source																		
	Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry
1.3 Residential elevations and acquisitions for repetitive loss properties		X	X								X																	
1.3 Residential elevations and acquisitions for repetitive loss properties		X	X								X																	
1.3 Residential elevations and acquisitions for repetitive loss properties		X	X								X																	
1.3 Residential elevations and acquisitions for repetitive loss properties		X	X								X																	
1.3 Residential elevations and acquisitions for repetitive loss properties		X	X								X																	
1.3 Residential elevations and acquisitions for repetitive loss properties		X	X								X																	
1.3 Residential elevations and acquisitions for repetitive loss properties		X	X								X																	
1.3 Residential elevations and acquisitions for repetitive loss properties		X	X								X																	
1.3 Residential elevations and acquisitions for repetitive loss properties		X	X								X																	
Tensas Parish																												
T40: Relocation Incentives			X																									
T47: Relocation Incentives			X																									
T1: Building Retrofits (Tensas Unincorporated)					X						X	X	X															
T2: Drainage Improvement						X					X	X	X															
T3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X															
T4: Safe Room Projects									X		X	X	X															
T5: Education and Outreach									X		X	X	X															
T6: Generators for continuity of operations and government									X		X	X	X															
T7: Lightning Mitigation									X		X	X	X															
T8: Warning Systems									X		X	X	X															
T9: Potable Water									X		X	X	X															
T10: Relocation Incentives									X		X	X	X															
T11: Levee Failure Working Group/Grant Funding Opportunities									X		X	X	X															
T12: Promote Flood Insurance									X		X	X	X															
T15: Cooling Shelter Construction									X		X	X	X															
N1: Building Retrofits (Town of Newellton)					X						X	X	X															
N2: Drainage Improvement						X					X	X	X															
N3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X															
N4: Safe Room Projects									X		X	X	X															
N5: Education and Outreach									X		X	X	X															
N6: Generators for continuity of operations and government									X		X	X	X															
N7: Lightning Mitigation									X		X	X	X															
N8: Warning Systems									X		X	X	X															
N9: Potable Water									X		X	X	X															
N10: Relocation Incentives									X		X	X	X															
N11: Levee Failure Working Group/Grant Funding Opportunities									X		X	X	X															
N12: Promote Flood Insurance									X		X	X	X															
N15: Cooling Shelter Construction									X		X	X	X															
S1: Building Retrofits (Town of St. Joseph)					X						X	X	X															
S2: Drainage Improvement						X					X	X	X															
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X	X		X						X	X	X															
S4: Safe Room Projects									X		X	X	X															
S5: Education and Outreach									X		X	X	X															
S6: Generators for continuity of operations and government									X		X	X	X															
S7: Lightning Mitigation									X		X	X	X															
S8: Warning Systems									X		X	X	X															
S9: Potable Water									X		X	X	X															
S10: Relocation Incentives									X		X	X	X															
S11: Levee Failure Working Group/Grant Funding Opportunities									X		X	X	X															
S12: Promote Flood Insurance									X		X	X	X															

Parish and Action Items	Responsible Party									Hazard																			Status							
	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
1.3 Residential elevations and acquisitions for repetitive loss properties								X		X																										X
1.3 Residential elevations and acquisitions for repetitive loss properties								X	X	X																										X
1.3 Residential elevations and acquisitions for repetitive loss properties								X	X	X																										X
1.3 Residential elevations and acquisitions for repetitive loss properties								X	X	X																										X
1.3 Residential elevations and acquisitions for repetitive loss properties								X	X	X																										X
1.3 Residential elevations and acquisitions for repetitive loss properties								X	X	X																										X
1.3 Residential elevations and acquisitions for repetitive loss properties								X	X	X																										X
1.3 Residential elevations and acquisitions for repetitive loss properties								X	X	X																										X
1.3 Residential elevations and acquisitions for repetitive loss properties								X	X	X																										
Tensas Parish																																				
T40: Relocation Incentives	X	X								X												X	X						X							
T47: Relocation Incentives	X	X								X												X	X						X							
T1: Building Retrofits (Tensas Unincorporated)		X									X						X	X																		X
T2: Drainage Improvement		X								X	X																									X
T3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X												X													X
T4: Safe Room Projects		X									X							X							X											X
T5: Education and Outreach		X								X	X	X	X					X	X	X	X		X		X											X
T6: Generators for continuity of operations and government		X									X	X	X					X		X																X
T7: Lightning Mitigation		X									X	X	X					X		X																X
T8: Warning Systems		X									X	X						X																		X
T9: Potable Water		X									X	X						X																		X
T10: Relocation Incentives		X								X	X										X		X													X
T11: Levee Failure Working Group/Grant Funding Opportunities		X								X	X												X													X
T12: Promote Flood Insurance		X								X	X												X													X
T15: Cooling Shelter Construction		X																		X																X
N1: Building Retrofits (Town of Newellton)	X	X									X						X	X																		X
N2: Drainage Improvement	X	X								X	X																									X
N3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X								X	X												X													X
N4: Safe Room Projects	X	X									X							X							X											X
N5: Education and Outreach	X	X								X	X	X	X					X	X	X	X		X		X											X
N6: Generators for continuity of operations and government	X	X									X	X	X					X		X																X
N7: Lightning Mitigation	X	X									X	X	X					X		X																X
N8: Warning Systems	X	X									X	X						X																		X
N9: Potable Water	X	X									X	X						X																		X
N10: Relocation Incentives	X	X								X	X										X		X													X
N11: Levee Failure Working Group/Grant Funding Opportunities	X	X								X	X												X													X
N12: Promote Flood Insurance	X	X								X	X												X													X
N15: Cooling Shelter Construction		X																		X																X
S1: Building Retrofits (Town of St. Joseph)	X	X									X						X	X																		X
S2: Drainage Improvement	X	X								X	X																									X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X												X													X
S4: Safe Room Projects	X	X									X						X	X							X											X
S5: Education and Outreach	X	X								X	X	X	X					X	X	X			X		X											X
S6: Generators for continuity of operations and government	X	X									X		X					X					X													X
S7: Lightning Mitigation	X	X																								X										X
S8: Warning Systems	X	X									X		X					X					X													X
S9: Potable Water	X	X									X	X						X																		X
S10: Relocation Incentives	X	X								X	X												X													X
S11: Levee Failure Working Group/Grant Funding Opportunities	X	X								X	X												X													X
S12: Promote Flood Insurance	X	X								X	X												X													X

Parish and Action Items	Mitigation Methods								Funding Source																			Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/ relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
S15: Cooling Shelter Construction								X		X	X	X																	X																		X																X
W1: Building Retrofits (Town of Waterproof)				X						X	X	X																X	X									X						X	X																		X
W2: Drainage Improvement					X					X	X	X																X	X								X	X																										X
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X								X	X												X														X
W4: Safe Room Projects								X		X	X	X																X	X									X						X	X							X												X
W5: Education and Outreach								X		X	X	X																X	X								X	X	X	X					X	X	X			X		X												X
W6: Generators for continuity of operations and government								X		X	X	X																X	X									X	X	X					X		X																	X
W7: Lightning Mitigation								X		X	X	X																X	X																								X										X
W8: Warning Systems								X		X	X	X																X	X									X		X					X					X														X
W9: Potable Water								X		X	X	X																X	X									X	X						X																			X
W10: Relocation Incentives								X		X	X	X																X	X								X	X												X														X
W11: Levee Failure Working Group/Grant Funding Opportunities								X		X	X	X																X	X								X	X												X														X
W12: Promote Flood Insurance								X		X	X	X																X	X								X	X												X														X
W15: Cooling Shelter Construction								X		X	X	X																	X																		X																X
Terrebone Parish																																																															
Objective 3.1.: Eliminate threat of flood damage to structures in Terrebone Parish including storm surge and levee failure; Action 3.1.1: Upgrade current drainage infrastructure					X					X																						X		X			X	X												X														
Objective 3.1.: Eliminate threat of flood damage to structures in Terrebone Parish including storm surge and levee failure; Action 3.1.2: Construct new flood control structures and levees				X								X	X	X																		X		X			X	X			X									X														
Objective 3.1.: Eliminate threat of flood damage to structures in Terrebone Parish including storm surge and levee failure; Action 3.1.3: Elevate all RL and SRL structures in Terrebone Parish	X									X						X				X														X			X	X												X														
Objective 3.1.: Eliminate threat of flood damage to structures in Terrebone Parish including storm surge and levee failure; Action 3.1.4: Acquire all RL and SRL structures in Terrebone Parish		X													X	X				X														X			X	X												X														
Objective 3.1.: Eliminate threat of flood damage to structures in Terrebone Parish including storm surge and levee failure; Action 3.1.5: Elevate equipment that is vulnerable to flood damage	X									X																						X					X	X												X														
Objective 3.1.: Eliminate threat of flood damage to structures in Terrebone Parish including storm surge and levee failure; Action 3.1.6: Flood proof all public buildings vulnerable to flood damage			X							X																						X		X			X	X												X														
Objective 3.1.: Eliminate threat of flood damage to structures in Terrebone Parish including storm surge and levee failure; Action 3.1.7: Construct Morganza to the Gulf Hurricane Protection Levee which would protect both new and current developments				X								X	X	X																		X		X			X	X												X														
Objective 3.1.: Eliminate threat of flood damage to structures in Terrebone Parish including storm surge and levee failure; Action 3.1.8: Collaborate with communities to design, evaluate, and implement Relocation Strategies for communities located outside the levee systems								X				X	X	X																				X			X	X												X														

Parish and Action Items	Mitigation Methods							Funding Source																			Responsible Party										Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/ relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
Objective 3.1.: Eliminate threat of flood damage to structures in Terrebonne Parish including storm surge and levee failure; Action 3.1.9: Ensure that current and future building elevations take the needs of those individuals with access and functional needs into account. This includes the incorporation of lifts	X											X	X	X																		X		X			X	X												X													
Objective 3.1.: Eliminate threat of flood damage to structures in Terrebonne Parish including storm surge and levee failure; Action 3.1.10: Identify mechanisms to protect the Island Road from surge and tidal impacts. This might include engineered solutions to decrease wave impacts and/or erosion control mechanisms along the edges of the road.								X				X	X	X																		X		X			X	X												X													
Vermilion Parish																																																															
D6: Repetitive loss ongoing projects	X	X	X							X		X																							X	X	X																			X						
V1: Drainage improvements					X					X		X	X																			X				X	X																			X						
V2: Pump station improvements								X		X		X	X																			X					X																			X						
V5: Elevation projects	X									X		X	X																						X	X	X	X																		X						
V10: Floodproof critical facilities			X							X																									X	X	X																			X						
V15: Severe Repetitive Loss structures	X	X		X						X																									X	X	X																			X						
V16: Future development								X																X											X	X	X	X			X							X									X						
V17: Education and awareness for future development projects								X																X											X	X	X	X			X				X			X									X						
V20: Improvements to flood awareness within community								X																X											X	X	X																			X						
V21: Community flood protection			X																					X											X	X	X																			X						
V22: Homeowner education								X																X											X	X	X																			X						
V25: Coulee Kinney flood protection project			X							X																									X		X																									X
V27: Flood protection of parish prison			X							X																									X		X																							X		
V30: Drainage Pump Generator installation			X							X		X		X																					X																										X
V42: Subdivision drainage improvements					X					X																									X		X																									X
V45: Water system elevation	X									X		X		X																					X		X	X																								X
G7: Repetitive loss ongoing project Town of Gueydan)	X	X	X							X		X																							X	X	X																			X						
G10: Future development								X																X											X	X	X	X			X							X									X						
K6: Repetitive loss ongoing project (City of Kaplan)	X	X	X							X		X																							X	X	X																			X						
K7: Sewage pump project										X		X																							X	X	X																			X						
K9: Future development								X																X											X	X	X	X			X				X			X									X						
A4: Drainage Improvement Projects (City of Abbeville)					X					X		X																							X	X	X				X																						X
A5: Flood protection projects	X									X																									X	X	X				X																						X
A7: Hospital relocation project								X																											X	X	X																								X		
A8: Repetitive loss ongoing project	X	X	X							X		X																							X	X	X																			X						
A9: Street elevation project	X									X		X																							X	X	X																									X
A12: Future development								X																X											X	X	X	X			X				X			X									X						
M5: Drainage Improvement Projects (Village of Maurice)										X		X																							X	X	X																			X						
M7: Repetitive loss ongoing project	X	X	X							X		X																							X	X	X																			X						
K9: Future development								X																X											X	X	X	X			X				X			X									X						
E4: Drainage Improvement Projects (Town of Earth)					X					X		X																							X	X	X																										X
E5: Repetitive loss ongoing projects	X	X	X							X		X																							X	X	X																			X						
E9: Future development								X																X											X	X	X	X			X				X			X									X						
D4: Delcambre Town Hall hardening project (Town of Delcambre)			X							X																									X	X		X							X																		X
D5: Pump station upgrade					X					X		X																							X	X	X																										X
D7: Sewage System Hardening					X					X		X																							X	X	X																										X
D10: Future development																								X												X	X	X			X				X			X									X						
Vernon Parish																																																															
V3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X							X	X	X																									X
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X							X	X	X																									X

Parish and Action Items	Mitigation Methods							Funding Source																				Responsible Party									Hazard																			Status							
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X							X	X	X																									X
L3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X							X	X	X																									X
NL3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X							X	X	X																									X
R3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X							X	X	X																									X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X							X	X	X																									X
Washington Parish																																																															
Elevations	X									X																									X																					X							
Elevations	X									X																									X																					X							
W1: Hardening Buildings								X	X	X																									X			X							X																		X
W2: Drainage - flood relief projects					X				X	x																									x		x	x																									x
W3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss properties	X	X								X																									X		X																										X
W4: Safe Room Projects	X	X								X																									X		X																										X
W5: Mitigation Public Outreach								x	x	X																									x			x							x							x											X
W6: Emergency Shelters								X	X	X																									X			X							X																		x
W7: Emergency Generators for Critical Facilities								X	X	X																									X			X							X							X											x
W8: Wildlife mitigation								X	X	X																									X																	X											x
B1:Hardening of Buildings (City of Bogalusa)								X	X	X																				X						X			X							X																		X
B2: Drainage - flood relief projects					x				X	X																				X							X	x	X																								X
B3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss properties	x	x								X																				x							X	X																									x
B4: Safe Room Projects								X	X	X																				X							X		X								X																X
B5: Mitigation Public Outreach								x	x	X																				X							X																										X
B6: Emergency Shelters								X	X	X																				X							X		X								X																x
B7: Emergency Generators for Critical Facilities								X	X	X																				X							x		X								X							X										x
B8: Wildlife mitigation								X	X	X																				X							X																	X										x
F1: Hardening of Buildings								X	X	X																				X							X		X								X																x
F2: Drainage - flood relief projects (Town of Franklinton)					X				X	X																				X							x	X	X																								X
F3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss properties	x	x								X																				X							x	X																									x
F4: Safe Room Projects								X	X	X																				X							X		X								X																X
F5: Mitigation Public Outreach								X	X	X																				X							x	X	X								X							X										X
F6: Emergency Shelters								X	X	X																				X							x		X								X																x
F7: Emergency Generators for Critical Facilities								X	X	X																				X							x		X								X							X										x
F8: Wildlife mitigation								X	X	X																				X							X																	X										x
V1: Hardening of Buildings								X	X	X																				X							X		X								X																X
V2: Drainage - flood relief projects					x				X	X																				x							X	X	X																								X
V3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss propertie	x	x								x																				X							X	X																									X
V4: Safe Room Projects								X	X	X																				X							X		X								X																X
V5: Mitigation Public Outreach								X	X	X																				X							X	X	X								X							X										X
V6: Emergency Shelters								X	X	X																				X							X		X								X																x
V7: Emergency Generators for Critical Facilities								X	X	X																				X							X		X								X							X										x
V8: Wildlife mitigation								X	X	X																				X							X																	X										x
A1: Hardening of Buildings (Village of Angie)									X	X																				X							X		X																								X
A2: Drainage - flood relief projects					x				X	X																				X							X	X	X								X																X
A3: Residential elevations and acquisitions for repetitive loss and severe repetitive loss propertie	x	x								X																				X							X																										X
A4: Safe Room Projects								X	X	X																				X							X		X								X																X
A5: Mitigation Public Outreach								x		x																				X							X																										X
A6: Emergency Shelters								X	X	X																				X							X		X								X																X
A7: Emergency Generators for Critical Facilities								X	X	X																				X							X		X								X							X										x
A8: Wildlife mitigation								X	X	X																				X							X																	X										x
West Baton Rouge Parish																																																															
Repetitive Loss Protection					X																															X																							X					
WBR6: Flood Mitigation of Severe Repetitive Loss and Repetitive Loss Properties and Other Hazard Prone Structures	X	X		X							X	X																		X								X	X																								X

Parish and Action Items	Mitigation Methods										Funding Source																				Responsible Party												Hazard																						Status								
Action Items	Elevation	Acquisition-demolition/ relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carrried Over	Delete (d)	Not Started	Existing	New
PA6: Flood Mitigation of Severe Repetitive Loss and Repetitive Loss Properties and Other Hazard Prone Structures	X	X		X							X	X																	X																																			X
B6: Flood Mitigation of Severe Repetitive Loss and Repetitive Loss Properties and Other Hazard Prone Structures	X	X		X							X	X																	X						X																													X
A6: Flood Mitigation of Severe Repetitive Loss and Repetitive Loss Properties and Other Hazard Prone Structures	X	X		X							X	X																	X						X																													X
Webster Parish																																																																			
W1: Elevate Structures	X									X						X				X	X	X								X					X																								X							
W27: Pilot Reconstruction				X						X						X				X										X					X																								X	X						
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X																								X							X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X	X																								X							X
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X	X																								X							X
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X	X																								X							X
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X	X																								X							X
H3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X	X																								X							X
M3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X	X																								X							X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X	X																								X							X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X	X																								X							X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X	X																								X							X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X																	X						X	X	X																								X							X
West Carroll Parish																																																																			
W9: Flood Mitigation	X	X	X				X		X																						X				X																								X							
WC2: Drainge Improvement					X						X	X																	X						X	X																												X
WC3: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X							X	X																	X						X	X																												X
WC5: Education and Outreach								X			X	X																	X						X	X	X	X				X	X																			X
WC6: Generators for Continuity of Operations and Government								X			X	X																	X							X		X				X																			X
E2: Drainage Improvement					X						X	X																							X	X	X																												X
E3: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X							X	X																							X	X	X																												X
E5: Education and Outreach								X			X	X																							X	X	X	X	X				X	X																			X
E6: Generators for Continuity of Opertions and Government											X	X																							X		X		X			X	X																			X
F2: Drainage Improvement (Village of Forest)					X						X	X																							X	X	X																												X
F3: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X							X	X																							X	X	X																												X
F5: Education and Outreach								X			X	X																							X	X	X	X	X				X	X																			X
F6: Generators for Continuity of Opertions and Government											X	X																							X		X		X			X	X																			X
K2: Drainage Improvement (Village of Kilbourne)					X						X	X																							X	X	X																												X
K3: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X							X	X																							X	X	X																												X
K5: Education and Outreach								X			X	X																							X	X	X	X	X				X	X																			X
K6: Generators for Continuity of Opertions and Government											X	X																							X		X		X			X	X																			X

Parish and Action Items	Mitigation Methods								Funding Source																		
Action Items	Elevation	Acquisition-demolition/relocation	Floodproofing	Reconstruction	Drainage Project	Maintain List of RL Structures	Annual review	Other	Parish Budget	HMGP	FEMA	Local	Regional	Federal	CDBG	FMA	SBA	USACE	State Capital Outlay	PDM	RFC	SRL	Misc. Grants	Other	Trusts	Town/City Budget	Business & Industry
OG2: Drainage Improvement (Town of Oak Grove)				X							X	X															
OG3: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X							X	X															
OG5: Education and Outreach								X			X	X															
OG6: Generators for Continuty of Opertions and Government											X	X															
P2: Drainage Improvement (Village of Pioneer)					X						X	X															
P3: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures	X	X		X							X	X															
P5: Education and Outreach								X			X	X															
P6: Generators for Continuty of Opertions and Government											X	X															
Winn Parish																											
W1: Elevation and Acquisition of (NFIP) Repetitive Loss Structures	X	X								X																	
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures	X	X		X						X	X	X															
Total	414	416	90	305	176	6	35	384	##	##	##	##	18	22	24	68	17	23	43	49	27	29	95	64	5	24	2
1108																											

Parish and Action Items	Responsible Party									Hazard																			Status							
Action Items	Mayor/Mayor's Office	Emergency Manager/ OHSEP	PPJ	Floodplain Manager	Public Works Director/Engineer	Building Permits Director	Other	Parish	Town/Village/City	Flooding	Hurricanes/Tropical Cyclones	Thunderstorms and/or severe storms	Winter Storms	Coastal Land Loss/Erosion	Subsidence	Storm Surge	High Winds	Tornadoes	Droughts	Extreme/Excessive Heat	Sinkholes	Dam Failure	Levee Failure	Termites	Wildfire	Lightning	Hail	All Hazards	Completed	Ongoing	In Progress	Carried Over	Delete (d)	Not Started	Existing	New
OG2: Drainage Improvement (Town of Oak Grove)									X	X	X																									X
OG3: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures									X	X	X																									X
OG5: Education and Outreach									X	X	X	X	X					X	X																	X
OG6: Generators for Continuty of Opertions and Government									X		X		X				X	X								X										X
P2: Drainage Improvement (Village of Pioneer)									X	X	X																									X
P3: Flood Mitigation of Repetitive Loss Properties and Other Flood Prone Structures									X	X	X																									X
P5: Education and Outreach									X	X	X	X	X					X	X																	X
P6: Generators for Continuty of Opertions and Government									X		X		X				X	X								X										X
Winn Parish																																				
W1: Elevation and Acquisition of (NFIP) Repetitive Loss Structures	X							X		X																				X						
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X								X	X										X															X
A3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							X	X	X																									X
C3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							X																											X
D3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							X																											X
S3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							X																											X
W3: Mitigation of repetitive loss and severe repetitive loss properties and other hazard prone structures		X							X																											X
Total	101	635	32	46	90	7	52	##	##	##	839	254	##	37	16	5	43	##	90	37	39	##	##	4	93	13	12	1	16	99	36	65	7	19	13	##
1108			20	38	29	6	37	##	##	##	414	88	11	18	10	5	10	33	19		8	98	##	2	6			1	12	67	24	63	7		12	##