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Testimony before the United States Senate Committee on Commerce, Science and Transportation Subcommittee on Disaster Prevention and Prediction on the 2006 seasonal hurricane forecast and the risk hurricanes pose to America's communities, 24 May 2006.

Mr. Chairman and members of this distinguished committee:

I greatly appreciate the opportunity to accompany this distinguished panel here today to testify before you regarding Harrison County preparedness and response to Hurricane Katrina and the readiness for hurricane season 2006. The Northeastern sector of the eye of Hurricane Katrina made landfall on the Mississippi Gulf Coast in Harrison County approximately 11:00 am on the morning of August 29, 2005. Hurricane Katrina arrived in Harrison County at Category 3 strength with maximum sustained winds over 130 mph. A storm surge estimated at 25 to 35 feet impacted most of the Mississippi Gulf Coast. Hurricane Katrina caused catastrophic damage throughout Harrison County, as well as surrounding counties and bordering states. Harrison County sustained significant damage to its infrastructure, critical facilities, residential, and business communities. County residents incurred a considerable loss of life and numerous injuries.

Our state and county efforts to prepare for Hurricane Katrina and our tremendous successes to recover are a result of great leadership from Governor Barbour, Mr. Latham, Mississippi Emergency Management Agency (MEMA), and the Mississippi National Guard. Their efforts to be proactive, pre and post storm has been a major factor to our success in Mississippi. The professionalism, leadership and teamwork of Supervisor, Bobby Eleuterius, Larry Benefield, Marlin Ladner, William Martin, Connie Rockco and Mayor's, AJ Holloway, Brent Warr, Rusty Quave, Billie Skellie, Billy McDonald, along with Sheriff George Payne and the Harrison County Incident Management Team, were and continue to be instrumental to the extreme success Harrison County has accomplished before, during and after Hurricane Katrina.

Planning for Catastrophic Natural Events. Being prepared for any natural disaster or catastrophic event includes extensive planning, training and numerous exercises. Even though Harrison County had exceptionally trained and qualified personnel (except myself, as my first day on the job as Director of Emergency Management for Harrison County was August 29, 2005, a day I will always remember) and had participated in numerous exercises, we were not prepared for a catastrophic event of the magnitude of Hurricane Katrina. Even though we had experienced Hurricanes Camille, Frederick, Elena, and Georges over the past 36 years, the plans and shortfalls we had identified were not adequate to handle the massive destruction of this storm. Because of lessons learned from Hurricane Katrina I would like to expand on the following points:

Evacuation. The determination to evacuate a specific area or the entire county can greatly impact the time and safety of effected citizens. The most affected areas are the low lying areas and Evacuation Zone A. As a rule of thumb this area is evacuated for any hurricane, tropical storm and possibility heavy rains. Evacuation Zones B and C are evacuated when the storm is expected to reach flood levels equal to or above this zone. Because of two tropical storms and Hurricane Dennis, the Mississippi Coast had already issued recommendations or mandatory evacuations of these areas three times prior to Katrina. The evacuation of the coast is a great expense to most families and the decision to evacuate could affect their quality of life due to expense. The average cost to evacuate a family of four for three days to include lodging, food and transportations could easily exceed \$1000.00. Due to the damage of the East and West Bay bridges on Highway 90, the time to evacuate from Harrison County during the 2006 season will be greatly degraded, causing more time and expense.

The time table of events from 25 August, 2005 until Katrina landfall 29 August, 2005 were as follows:

2005 Evacuation Plan for Harrison County Mississippi Timeline

- 24 August 2005 Meet with the Emergency Operations Personnel from Gulfport, Long Beach, D'Iberville, Pass Christian, Biloxi, and Harrison County. Iniated plan to evacuate Special Needs, Assisted Living and Hospitals.
- 25 August 2005 Made the decision to start evacuation of these personnel by 26 August 2005 if the storm was still projected in the Gulf of Mexico with special interest if the storm moved further to the West.
- 26 August 2005 Initiated the evacuation for the special facilities and prepared for an Executive Meeting with the Mayors and County Supervisors. Used AMR to move Ambulatory Patients.
- 27 August 2005 Mandatory evacuation of Zone A and Low Lying Areas, issued warning to Hotels and Casino's to ensure their facilities were totally evacuated by 12:00 noon on 28 August 2005.
- 28 August 2005 Mandatory evacuation of Zone A and B and all Low Lying Areas and strongly recommended the evacuation of the entire Harrison County. Did not order mandatory evacuation of Zone C and the entire county due to having to move ICU patients and putting them under extreme danger (no patient was lost due to this decision and we feel strongly we would have lost patients from the ICU if we had transported them under a mandatory evacuation.
- 29 August, 2005 Hurricane Katrina made landfall at 11:00 am central standard time.

We are working with local, county and state emergency managers, law enforcement, and first responders, to ensure we give everyone in Harrison County, Mississippi the education and opportunity to ensure safety of their families. With the increased number of citizens living in temporary conditions, we must be proactive in education and plans for evacuation. Harrison County has approximately 13,000 FEMA trailers with around 32,000 people living in these facilities. This brings a new situation to the county as to when to start the evacuation of these facilities due to numbers and safety. Under normal conditions we would not have to evacuate 30,000 to 50,000 people from Harrison County in a Tropical Storm condition. However, with the extreme danger of winds in excess of 50 knots either destroying or severely damaging these temporary facilities we must encourage everyone to evacuate from the trailers from Tropical Storm to CAT 5 Hurricanes. We also, have between 10,000 and 15,000 volunteer workers and approximately 20,000 other workers in the county each day and most are living in tent cities or some form of temporary facility. We will need additional time to get these people to safety.

The ability to get the citizens, volunteer workers and other workers helping to rebuild South Mississippi to leave the area during a threat of a Tropical Storm/ Hurricane will most likely be very easy. Most of the people in Harrison County are prepared to leave the area however; some may not have transportation or financial means.

Harrison County will evacuate as a county including the cities of Biloxi, D'Iberville, Gulfport, Long Beach and Pass Christian. The determination to evacuate will be made by the Supervisors and Mayors through the Emergency Management Director. This decision will come after extensive research of all available information. We will have briefings with Slidell Weather, National Weather Service, National Hurricane Center, State Emergency Management, and the Governor's Office, to ensure we have all available information. Slidell Weather will be our primary weather facility and we will get a briefing after each national advisory update on the storm. The decision to evacuate an area will be determined by the wind force and tidal surge expected to hit Harrison County. As we have learned from Katrina we must evaluate storms by both wind velocity and tidal surge. Hurricane Katrina was only a CAT 3 Hurricane for wind; however; she was a CAT 5 for tidal surge. The diameter of the eye and total storm will determine the area and reasons for evacuating. The following is an example of when we would evacuate each area:

Tropical Storm to CAT 1 Hurricane - Evacuate Zone A and all low lying areas. Strongly encourage the evacuation of all FEMA trailers, tent cities and anyone living in temporary housing. This would include homes that have not been completely rebuilt.

CAT 2 to CAT 4 Hurricane – Evacuate all volunteers and outside workers at 72 hours before landfall and mandatory evacuation of Zone A and Low Lying Areas at

48 hours before landfall and Zone B and parts of Zone C at 36 hours before landfall. A complete evacuation of the county will not be ordered due to putting citizens in more danger by evacuating hospitals and assisted living homes. All hotels and casinos on the beach and Back Bay will be mandatory by 24 hours before landfall.

CAT 5 Hurricane – Mandatory evacuation of entire county.

We would also, work both the wind and tidal surge for CAT 2-4 to determine the areas to be evacuated.

Hurricane Katrina taught us many lessons and we need to ensure we correct all of the faults we encountered before, during and after Katrina. The following are areas we had problems and what we are planning to ensure correction.

- 1. Evacuation: The process of evacuation during Katrina was extremely good and we feel everyone that wanted to evacuate had the opportunity. However, some people would not evacuate due to health, pets, and believing they lived through Camille and nothing could be worse than Camille. Correction: We are preparing a Special Needs Shelter for citizens with requirements for medical attention everyday. The area for Harrison County will be Perkinston Community College and be funded and manned by the State Department of Public Health. We will also have a Special Needs Shelter in Harrison County at the Biloxi High School for people with special needs but, no medical care required daily. We will also have transportation to take citizens to shelters out of harms way in North Mississippi. We have the first Pet Friendly Shelter in Harrison County, located at Harrison Central High School. This shelter will allow citizens to take their pets to a shelter and stay with the pets, we learned many citizens did not evacuate due to not willing to leave their pets behind. This caused several deaths of both citizens and pets. Pets sometime become more than just a pet; they become part of the family. We are giving our citizens, volunteer and workers data and education on what could happen and the importance of evacuation.
- 2. Shelters: We did not have adequate facilities for our citizens in the shelters due to lack of backup power sources, sanitary facilities, communications, and food/water. No Special Needs Shelter with proper staffing and equipment No Pet Friendly Shelters.

Correction: We have worked through the Red Cross to staff as many shelters as possible with trained personnel and proper food/water. We have requested the funds to buy backup generators for each facility used for shelters. Coke Cola and Pepsi have committed to donate water for some of these facilities. MEMA will have food/water in warehouses to be brought to Harrison County within hours of landfall. As mentioned before we have a Special Needs Shelter and Pet Friendly Shelter.

3. Transportation: We did not have public transportation to take our citizens outside of Harrison County for evacuation. This caused numerous citizens to either try to ride the storm out at home or go to a shelter of last resort.

Correction: We have transportation for all citizens, volunteers, and other workers to take them to a safe shelter out of harms way, this is being provided by the State Department of Education. Also, Coast Transit Authority will bring anyone requiring transportation to an area to transport north or a shelter of last resort.

4. Fuel: Fuel was non existent after Hurricane Katrina. We did not have proper backup supplies, generators and procedures to ensure we could get fuel to critical facilities and emergency equipment.

Correction: We have requested backup generators for all of the county fuel pumping stations. If money is not available to purchase these we will rent them for this season. MEMA is working a contract with fuel companies to supply fuel to Harrison County within hours of storm landfall. The fuel will continue until we can get our own resources operational. Harrison County has a fuel distribution schedule for each critical facility and to ensure emergency equipment is refueled without a break in operations.

5. Communication: The loss of cellular power and cables being downed or served during Hurricane Katrina, caused the Gulf Coast area extreme problems after the storm. Cellular towers were operational only a few hours after the storm. The loss of cellular service was excessive use and failure of emergency backup power (battery or generator). The cable connecting the Mississippi Gulf Coast to Mobile was severed by debris from the bridge and cause almost complete loss of the 228 area code. The 911 emergency radios were operational the entire time and Southern Link radio service was reestablished with two days of the storm. However, the 911 radio system was not compatible for state and other agencies that responded to the disaster.

Correction: Bell South has repaired the cables and added measures to ensure this does not happen again. Cellular services in the area have installed generators to some towers and have a scheduled method to refuel the backup systems. They have also, arranged for Cellular on Wheels (COW) to be in place within hours after landfall. The State has developed a Wireless Communication Commission and is working on development of a state wide emergency system that is compatible to local system, ensuring all agencies can talk to each other during a disaster.

6. Sanitary Facilities: After Katrina the pumping stations for our sanitary systems were inoperable due to loss of power. We did not have sufficient backup generator systems to continue the operation. The County did not have a contract or any agreement to provide backup facilities or generators.

Because of this we had citizens in critical facilities and shelters without sanitary facilities for almost one week, causing severe health conditions.

Correction: We have backup generators on most of our treatment plants and pumping stations. A contract is being established with MEMA to ensure we have backup sanitary facilities brought into the county within hours of landfall.

As you can see we had numerous areas that needed improving before Hurricane Season 2006. Most of these areas have been addressed and corrected. Some of the areas still require resources to correct and funding request has been filed with the County, State, and Federal authorities.

Major shortfalls are funding to purchase generators, equip shelters, re-inforce buildings to be used as shelters, communication equipment, and construction of new Emergency Operations Center. All of these items are currently being staffed as to how we acquire the funding. The cost of evacuation will become a factor in the future if the 2006 season is as active as predicted. With fuel and hotel pricing rising everyday the ability for a family to evacuate several times in a season will be a financial hardship.

Mr. Chairman and members of this distinguished committee; it has been an honor to address you today on the lessons learned from Hurricane Katrina and how we plan to correct the shortfalls in Harrison County. We are better prepared today than ever before however; we still have needs and will require assistance to complete our projects. Our motto in Harrison County is: "Hurricane Katrina Was a Force of Nature and What We Do After Is an Act Of God". Harrison County is in a state of disaster and will take years to rebuild. However, America should know our spirits are not broken and "We Will Rebuild Together and Be Better Than Ever".

Thank you for your time and consideration.