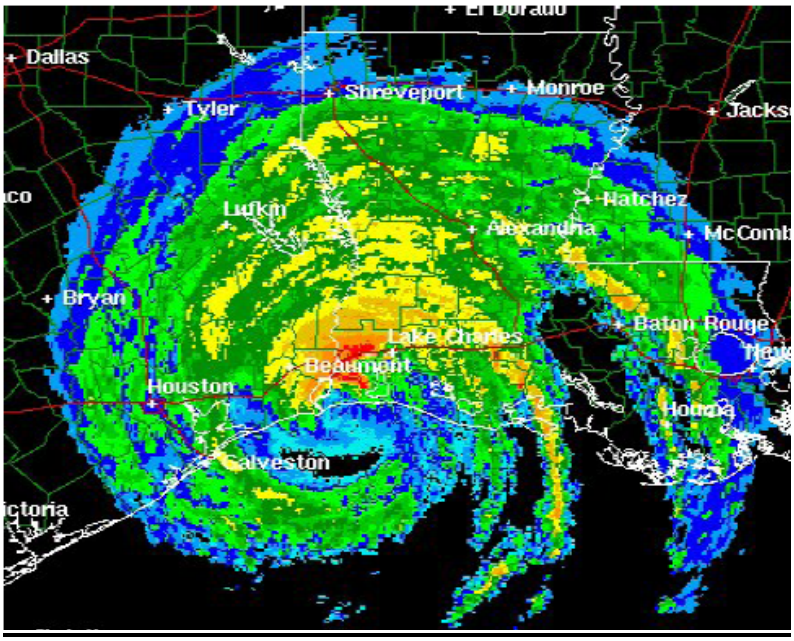
THE RITA REPORT:

A summary of the social and economic impact and recovery of Southwest Louisiana one year after Hurricane Rita



Commissioned by the
Louisiana Recovery Authority

Research conducted by
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Dr. Daryl V. Burckel,CPA

www.lra.louisiana.gov

A LETTER FROM THE GOVERNOR

Dear Friends:

One year ago, Hurricanes Katrina and Rita came ashore wreaking unprecedented havoc upon our great state and forever leaving their mark in our history. While these storms were similar in their fury, creating the first and third most expensive disasters in our history, the nature of their destruction was very different.

In the wake of Rita's wrath, I surveyed the damage across Southwest Louisiana and made a commitment to rebuild a safer, stronger, smarter Louisiana. We have made tremendous progress over the last year, with support from President Bush, Chairman Don Powell, Congress, the Louisiana Recovery Authority (LRA) and other local, state and federal partners.

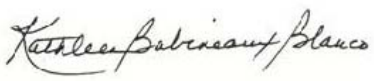
Road Home Housing Assistance Centers have opened across the state to help residents get back into their homes as quickly as possible. Dozens of schools are re-opening. Hundreds of businesses are recovering and thousands of lost jobs are being restored.

While these gains are noteworthy, there remains much more to be done.

The Rita Report, commissioned by the LRA, summarizes the social and economic impact of the storm and reports on the progress being made toward recovery in the most severely impacted parishes of Cameron, Vermilion and Calcasieu. This information will help us better understand the unique needs and challenges of communities across the southwest as we continue writing this new chapter in our recovery.

Working together, we will realize our vision of a safer, stronger and smarter Louisiana.

Sincerely,



Kathleen Babineaux Blanco
Governor

EXECUTIVE SUMMARY

When Hurricane Rita made landfall along the Texas/Louisiana border on September 24, 2005, it was a category 3 hurricane with winds in excess of 120 miles per hour pushing a 20 foot storm surge. The devastation it left behind made it the third most expensive natural disaster in US history. This report examines the different types of damage wrought by Hurricane Rita in Louisiana and assesses the status of the recovery effort, with special focus on Cameron, Vermilion and Calcasieu Parishes, the three parishes affected most by the storm. The report also details the achievements of the Louisiana Recovery Authority, and discusses the challenges facing Southwest Louisiana and the LRA as they work towards building "safer, stronger, smarter" communities for future generations.

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TABLE OF CONTENTS

MAPS AND GRAPHS

INTRODUCTION

The Louisiana Recovery Authority (hereafter referred to as the LRA) was created by Governor Blanco following Hurricanes Katrina and Rita for the purpose of coordinating the recovery efforts of various public entities, encouraging long-term planning, and helping to secure the resources and funding needed for the recovery. This study was prepared for the LRA to comply with Act 686 of the 2006 Louisiana Legislature. Its purpose is to summarize the social and economic damage caused by Hurricane Rita, provide an in-depth assessment of the nature and extent of damage in the parishes most heavily impacted by Hurricane Rita, report on the progress being made towards recovery in those parishes, and identify key challenges that lie ahead.

Section I provides an overview of Hurricane Rita and the different types of damage caused by the storm in Southwest Louisiana and Southeast Texas. Section II examines the devastation along the coast in Cameron Parish and the marshlands to the north, and discusses the progress towards recovery. Section III examines the damage caused to agriculture and wildlife in the lowlands of Vermilion Parish and discusses the progress towards recovery. Section IV examines the damage in Calcasieu Parish, especially in the metropolitan area around Lake Charles, and discusses the progress in Calcasieu Parish. Section V provides a summary and conclusions from the report.

The authors of this study are Dr. Michael M. Kurth and Dr. Daryl V. Burckel. Dr. Kurth is Head of the Department of Accounting, Finance and Economics at McNeese State University and Dr. Burckel in a professor of accounting at McNeese. In preparing this study they consulted with numerous public officials, including Mayor Randy Roach of Lake Charles, Calcasieu Parish Administrator Mark McMurry, Cameron Parish Planning and Development Executive Director Ernie Broussard, Robert LeBlanc of the Office of Emergency Preparedness in Vermilion Parish, David Richard with Stream Management, and LRA staff. The accuracy of the data and the conclusions contained in this study are the sole responsibility of Dr. Kurth and Dr. Burckel.

I. AN OVERVIEW OF HURRICANE RITA

A. Prelude

The story of Hurricane Rita really begins three weeks earlier with the destruction of New Orleans by Hurricane Katrina. Over a million people fled the New Orleans area as Katrina approached and approximately 20,000 found shelter in Southwest Louisiana with family and friends, in hotels and motels, and at state parks, churches, public shelters such as the Lake Charles Civic Center. Most expected to return to their homes in a day or two, but when the levees broke and New Orleans flooded, they were stranded with little more than the clothes on their backs and nowhere to go.

As state and federal officials struggled to cope with the unfolding disaster in New Orleans, the people of Southwest Louisiana embraced the Katrina victims, donating food and supplies, offering them jobs, and enrolling their children in local schools. Thus, as Hurricane Rita approached, the resources of Southwest Louisiana were already stretched thin, especially among the volunteer, non-profit and faith-based organizations that were engaged in helping the victims of Katrina. Thousands of Katrina evacuees had to be loaded on buses and re-evacuated to safety further north in order to comply with a mandatory evacuation of Southwest Louisiana as relief agencies turned around and prepared to deal with victims of a new disaster. Despite these challenges, state and local leaders worked with relief agencies and non-profit organizations to stage a successful evacuation of the Southwest region.

B. The Damage

Hurricane Rita grew to a category five storm with sustained winds of over 150 miles per hour as it swept across the western Gulf of Mexico.[1] Oil platforms and drilling rigs in its path were shut down and their workers evacuated, halting 98% of oil and natural gas production in the gulf. Despite these precautions, many platforms were damaged or

[1] At the time, Hurricane Rita was the most powerful storm ever observed in the Gulf of Mexico and the Atlantic Basin, but on October 19, 2005 it lost this distinction to Hurricane Wilma, which bumped Rita to second place and Hurricane Katrina to fourth place among the all-time most powerful storms.

destroyed, although there was no loss of life. Table 1, compares the damage to the offshore oil industry from hurricanes Rita, Katrina and Ivan.

Table 1

Damage to Gulf of Mexico Oil & Gas Infrastructure: Rita vs. Katrina vs. Ivan

	Rita	Katrina	Ivan
Platforms			
Destroyed	66	47	7
Extensively Damaged	37	20	20
Rigs			
Adrift	13	6	5
Destroyed	4	4	1
Extensively Damaged	10	9	4
Pipelines			
Damaged	28	30	102
Shut-in Production			
Gas (BCF)	8,622	9,418	6,515
Oil (bbls)	1,564,679	1,557,981	1,410,002

Source: Office of Electricity Delivery and Energy Reliability (OE), U.S. Department of Energy, Gulf Coast Hurricanes Situation Report #16, October 14, 2005

By June, 2006 many of the rigs and platforms were back in operation and the shut-in oil production was reduced to 179,970 barrels of oil per day, which is equivalent to 12% of the normal daily production of the gulf. The shut-in natural gas production was reduced to 935 million cubic feet per day which is equivalent to 10% of the normal gas production in the gulf (see table 2).

Table 2

Hurricane Katrina/Hurricane Rita Evacuation and Production Shut-in Statistics Report as of June 19, 2006

Districts	Lake Jackson	Lake Charles	Lafayette	Houma	New Orleans	Total
Platforms Evacuated	0	21	18	2	27	68
Rigs Evacuated	0	0	0	0	0	0
Oil, BOPD Shut-in	0	12,663	23,544	31,558	112,205	179,970
Gas, MMCF/D Shut-In	2.8	278.74	262.82	140.65	250.67	935.67

These statistics reflect evacuations and shut-in production from Hurricanes Katrina and Rita (remaining)*

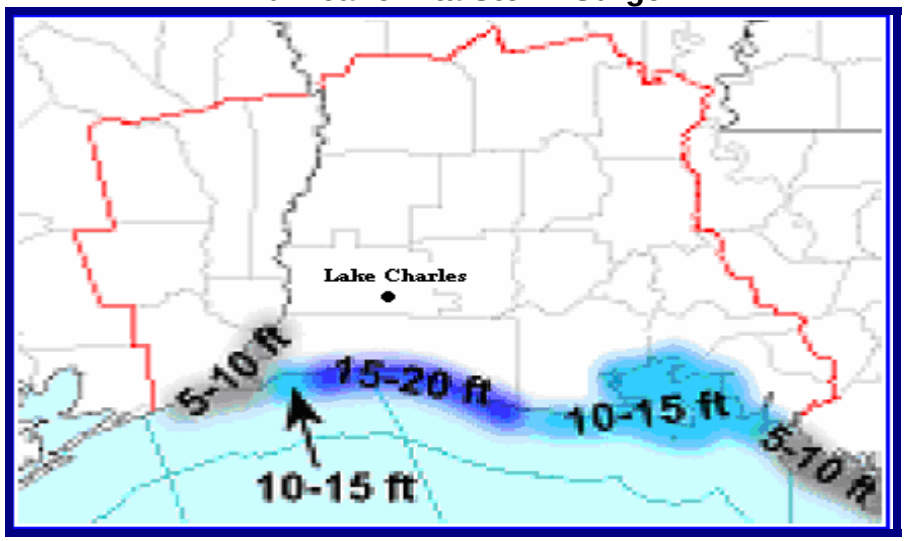
Source: U.S. Department of the Interior, Minerals Management Service, http://www.mms.gov/

When Rita made landfall it was still a category 3 storm on the Saffir-Simpson scale with sustained winds over 120 miles per hour, but it was pushing a category 5 storm surge 15 to 20 feet high. The destruction that ensued was enormous and the cost of repairing the damage will likely exceed $10 billion, making Hurricane Rita the third most expensive natural disaster in United States history.

Much of the area hit by Hurricane Rita is sparsely populated, though rich in natural resources and industrial infrastructure. The coastal region is dotted by small communities built around fishing, shrimping, and offshore oil services. Low-lying marshes and agricultural land where farmers grow rice and sugar cane and ranchers raise horses and cattle extend 30 to 40 miles inland. The region to the north is heavily forested and supports a substantial timber industry. Approximately half of the people in the region live around Lake Charles where there is a major industrial complex consisting of two large oil refineries and 22 petrochemical plants plus a deep-water port that can accommodate ocean-going vessels. The City of Lake Charles is the cultural and administrative center of the region and the site of McNeese State University, Sowela Technical and Community College, three hospitals, a civic center complex, shopping malls and recreational facilities. There are also five major casinos in the region that draw heavy patronage from southeast Texas.

MAP 1

Hurricane Rita Storm Surge



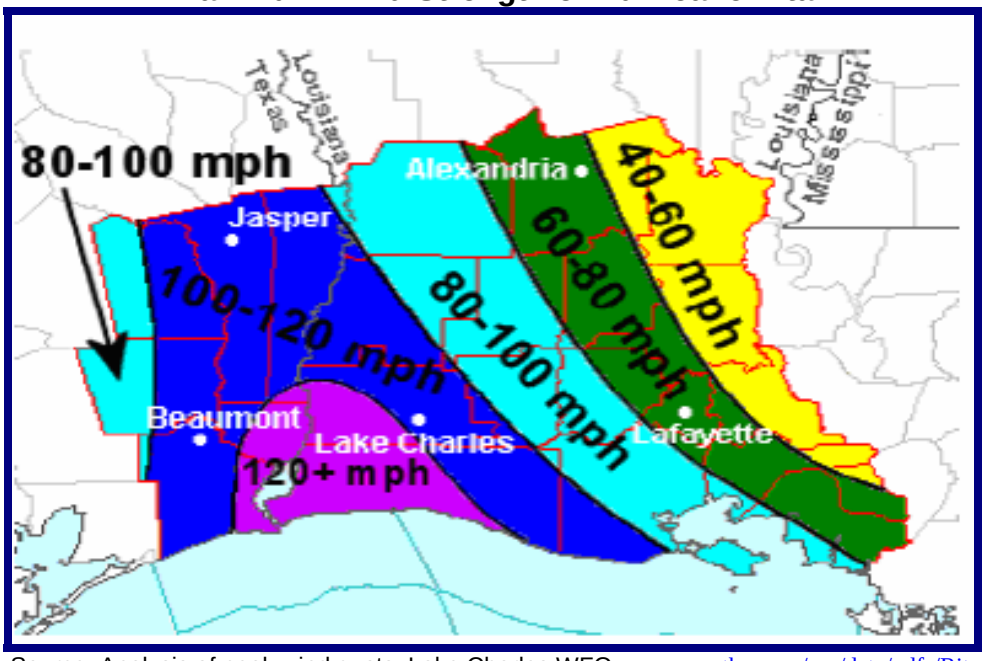
Source: Analysis of Hurricane Rita storm surge; Lake Charles WFO: www.weather.gov/om/data/pdfs/Rita.pdf

Map 1 shows the areas affected by Rita's storm surge. The town of Cameron took a direct hit and was essentially obliterated, while coastal communities from Port Arthur, Texas all the way to Terrebonne Parish were heavily damaged by high winds and flooding. Approximately two thousand square miles of farmland and marshes was inundated with sea water, killing livestock, ruining crops, and doing indeterminate damage to the soil and the environment. The flooding extended all the way north to Lake Charles, where the downtown and residential areas around the lake were covered with three to six feet of sea water.

Areas further inland were spared flooding, but suffered extensive wind damage, especially in the Northwest quadrant of the storm where numerous tornadoes were spawned. The towns of Vinton, Starks, Merryville, DeQuincy, Sulphur, Westlake, Moss Bluff, and Iowa suffered extensive damage from trees falling on homes and vehicles, as well as wind damage to building and roofs. The terminal at the Lake Charles Airport was destroyed by a tornado; McNeese State University suffered heavy damage to its facilities from both wind and flooding as did Sowela Tech. Harrah's riverboat casino complex on the lakefront was completely destroyed and the nearby civic center was heavily damaged. Map 2 shows the intensity of the winds in this region.

MAP 2

Maximum Wind Strength of Hurricane Rita

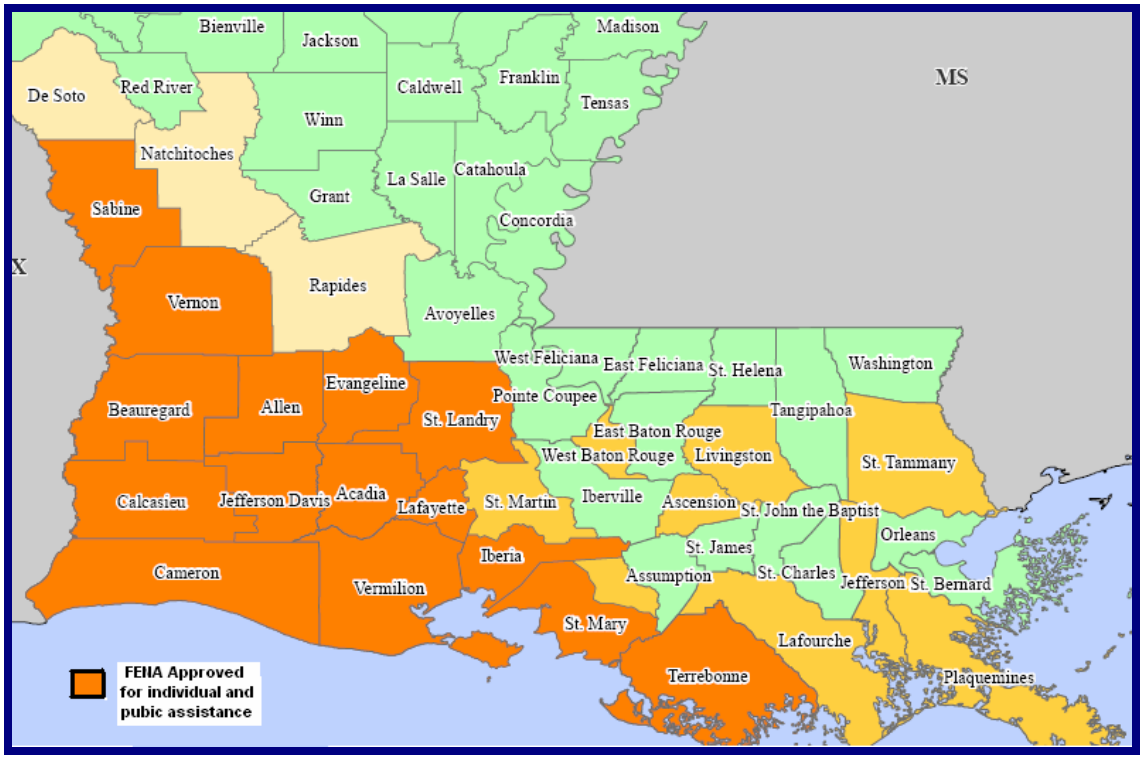


Source: Analysis of peak wind gusts; Lake Charles WFO. www.weather.gov/om/data/pdfs/Rita.pdf

As Rita moved inland its winds grew less intense, but even communities as far away as DeRidder, Leesville, Kinder, Eunice, and Jennings suffered substantial damage such as downed utility poles, trees and limbs down on houses, and shingles blown off roofs. Hurricane Rita impacted 85,729 square miles in Texas and Louisiana; the area in orange on the map below indicates parishes that were approved by FEMA for both individual and public disaster assistance.

Map 3

FEMA Approved Parishes for Individual and Public Disaster Assistance



FEMA web site: http://www.fema.gov/news/event.fema?id=5025

Due to the aggressive leadership of state and local leaders during the evacuation and emergency response phases of this disaster, only one death was linked to Hurricane Rita in Louisiana. Most residents headed the warnings of local officials and took Rita's approach very seriously, especially after seeing the destruction wrought by Hurricane Katrina just three weeks earlier. Most people evacuated, creating massive traffic jams

from Houston to Baton Rouge and north to the Arkansas border. The evacuation was complicated by predictions that Hurricane Rita would make landfall further west, triggering a mass exodus from the Houston area. At the same time, any roads and highways to the east were closed due to damage from Hurricane Katrina, which funneled much of the evacuation traffic north on two-lane secondary roads.

In the aftermath of the storm approximately 650,000 homes in Louisiana were without electricity and half-a-million people had no drinking water, preventing many from returning to their homes for three weeks or longer. The homes and buildings left vacant in the heat and humidity often developed black mold and other environmental and health hazards. FEMA has issued more than $403 million in housing assistance to renters and homeowners whose primary residents were damaged or destroyed. Table 3 below shows the extent of damage to homes in Southeast Texas and Southwest Louisiana and FEMA's assistance.

Table 3

Housing Damage from Hurricane Rita in Southwest Louisiana and Southeast Texas

	Southwest Louisiana	Southeast Texas
Severly Damaged/Destroyed Housing Units	11,533	12,103
FEMA Trailers Used as Temporary Housing	13,197	4,025
FEMA "Blue Roofs"	18,115	21,000
Federal Unemployment Assistance (millions)	$8.3	$4.6
Federal Disaster Assistance	$89.3	$82.1

Source: Office of Gulf Coast Rebuilding

Hurricane Rita also caused extensive damage to Southwest Louisiana's agriculture, forestry, and fishing industries. Table 4 shows an estimate of the cost of this damage prepared by the Louisiana State University Agricultural Center.[2] The area also contains

[2] Assessment of Damage to Louisiana Agricultural, Forestry, and Fisheries Sectors By Hurricane Rita, LSU AgCenter, October 5, 2005

a number of significant nature preserves and wildlife refuges, including the Sabine National Wildlife Refuge, the Cajun Nature Trail, and the Rockefeller Wildlife Refuge and Game Preserve. The damage to these environmentally sensitive areas was massive and it may take years before it is fully revealed.

Table 4

Estimated Damage Caused by Hurricane Rita to Louisiana's Agriculture, Forestry, and Fishing

Commodity	Estimated Value of Damage
Forestry	$227,966,661
Crops	$201,836,360
Fruits, Nuts, etc	$9,581,627
Livestock & Forrage	$51,738,698
Aquaculture	$49,178,024
Fisheries	$34,090,892
Wildlife and Recreation	$18,582,570
Total	$592,974,832

Source: LSU Agricultural Center

More than 200,000 acres of fresh water and intermediate marshland was inundated with saltwater, elevating salinity levels in the estuarine system to levels that threaten native species and the food supply for migratory birds. The impact this had on the already-threatened coast and environmentally sensitive marshlands are truly catastrophic. As explained by Mr. David Richard of Stream Property Management in testimony before Congress:

> *"In this low, flat wetland the damage that was inflicted was beyond comprehension to the coastal communities involved of Cameron, Grand Chenier, Creole, Holly Beach, Pecan Island and Vermilion Parish and the entire coast of Louisiana that was affected by excessive storm surge. The damage inflicted upon National Wildlife Refuges in the area was serious and catastrophic to the infrastructure. This infrastructure includes levees, water control structures, headquarters facilities, visitor centers and public use trails and supporting facilities."*

Mr. Richard went on to explain that it could cost between 50 and 100 million dollars to repair this damage, and that these refuges are important for the education and economy of Southwest Louisiana as they attract one-half million visitors per

year to learn about and enjoy the ecology and natural resources of this productive area.

C. The Response

The recovery process can be divided into three phases, what might be termed the "three Rs." (1) ***Relief,*** when the goal is to make the area inhabitable again, which generally takes about one month depending on the severity of the damage. (2) ***Restoration***, when the goal is to resume normal activities, such as returning to work and children going to school. This generally is accomplished within the first six months. (3) ***Redevelopment,*** when the focus shifts to undertaking major repairs and taking measures to prevent such damage in the future. Full recovery is achieved when a stronger, better community has been built for future generations. Each area in Southwest Louisiana is at a somewhat different phase in this process depending on the nature and severity of the damage it incurred.

1) RELIEF

The response of residents of Southwest Louisiana to Hurricane Rita was immediate and heroic. All emergency responders—police, sheriff's deputies, firefighters, and medical personnel—remained on the job, and most public officials stayed in the parish to identify needs and coordinate relief efforts. Residents who remained behind began immediately removing trees from roads and homes and there were few incidents of looting or lawlessness. Although there was no electricity or running water, and gasoline to run generators was hard to find, within 48 hours FEMA and the Louisiana National Guard were distributing food, water and ice. Calcasieu and Cameron Parishes were closed, preventing residents from returning, while FEMA and the Red Cross began distributing emergency payments to evacuees at centers throughout Texas, Louisiana, Oklahoma, Arkansas, and Mississippi to assist with their lodging and food expenses.

Entergy and Beauregard Electric Cooperative brought in over 20,000 electrical workers to restore power and trucks began circulating throughout the area gathering and removing debris. It was an enormous job made even more difficult by the lack of basic services. The main complaint of residents during this time was confusing and conflicting

instruction from FEMA and other government agencies. Also, many people did not know what was covered by their insurance policies, what aid was available to them, or where to go to get it and what documents they would need to establish eligibility. In the confusion, there were many instances of fraud and abuse. Table 5 shows the amount of aid distributed by FEMA to Rita victims in Louisiana.

Within three to four weeks most of Southwest Louisiana was inhabitable again, the exception being southern Cameron Parish where the damage was catastrophic. FEMA and the Corps of Engineers provided nearly 40,000 "blue roofs" in Southwest Louisiana and Texas to prevent further damage to homes, and grocery stores and service stations slowly began to re-open on a limited basis.

Table 5

FEMA Assistance, by Parish, as of August 14, 2006

Parish	Population	Individual Assistance	Expedited Assistance	Housing Assistance	Other Needs Assistance
Calcasieu	185,419				
Amount (millions)		$229.9	$161.8	$200.6	$28.3
Amount Per Capita		$1,240	$873	$1,082	$153
Cameron	9,558				
Amount (millions)		$37.0	$7.9	$22.5	$14.5
Amount Per Capita		$3,871	$827	$2,354	$1,517
Beauregard	34,562				
Amount (millions)		$21.9	$13.1	$18.1	$3.8
Amount Per Capita		$634	$379	$524	$110
Vermillion	55,195				
Amount (millions)		$41.4	$14.8	$28.7	$12.7
Amount Per Capita		$750	$268	$520	$230
Jefferson Davis	31,272				
Amount (millions)		$19.5	$13.7	$16.6	$2.9
Amount Per Capita		$624	$438	$531	$93
Vernon	48,745				
Amount (millions)		$12.2	$7.2	$9.7	$2.6
Amount Per Capita		$250	$148	$199	$53
Sabine	23,786				
Amount (millions)		$2.7	$1.2	$2.1	$0.6
Amount Per Capita		$114	$50	$88	$25
Total Assistance (millions)		$364.6	$219.7	$298.3	$65.4

Charitable and non profit organizations played a major role in the relief effort and in the rebuilding that lay ahead. The American Red Cross served nearly 500,000 meals and 660,000 snacks to evacuees and the homeless; the Salvation Army served 223,000 hot meals and 131,000 snacks, bought 60,000 appliances and pieces of furniture, and

distributed 18,000 food boxes, 4,300 personal comfort items, 8,447 Wal-Mart gift cards, 4,835 Kroger gift cards, 1,267 phone cards; and the Volunteers of America provided mental health assistance to 4,888 individuals through the Louisiana Spirit Program. Area churches, the synagogue and the mosque also fed and sheltered victims and volunteers from Habitat for Humanity have been helping to rebuild homes in the area. The United Way of Southwest Louisiana raised over $3 million for hurricane relief; how these funds were spent is detailed in table 6

Table 6

Hurricane Related Expenditures by The United Way of Southwest Louisiana

Item		Spending
Food, Clothing, Immediate Relief	$	186,806
Counseling	$	116,121
Emergency Shelter	$	6,226
Medical Care, Prescriptions	$	39,502
Transportation	$	4,100
Assessment & Case management:	$	68,180
Furniture, Appliances	$	77,885
Reburials	$	10,850
Legal Services	$	30,000
Child Care	$	30,000
Housing	$	312,074
Assistance to providers	$	176,966
Strengthening the Social Service Network	$	121,604

Source: The United Way of Southwest Louisiana

The US Department of Agriculture also played a major role in responding the needs of residents and agricultural producers in Southwest Louisiana through its Rural Development Office and Farm Service Agency, providing food stamp benefits for residents, emergency assistance to agricultural producers and housing for evacuees in rural communities.

More than $500 million in federal appropriations have been made available to agricultural producers in hurricane impacted areas for crop disaster, livestock, tree and aquaculture assistance. This includes $40 million that was obligated for sugarcane producers in Louisiana.

2) RESTORATION

During the restoration phase, the sound of hammering could be heard everywhere as contractors and roofing companies swarmed into the area to make repairs. FEMA brought in 13,197 travel trailers and mobile homes for the homeless and to serve as temporary classrooms so public schools and McNeese State University could reopen. Most major employers in the area had escaped serious damage, so people had jobs and paychecks. The most notable exception was Harrah's riverboat casino complex, which was unable to reopen and had to dismiss its fifteen hundred employees. But due to the destruction of the New Orleans and Mississippi gulf coast casinos by Hurricane Katrina, business was booming at the other four casinos in the area and most of Harrah's employees were readily absorbed by these other gaming operations.

A serious labor shortage developed as FEMA and other relief agencies hired workers for their clean up and reconstruction efforts. The refineries and petrochemical plants were able to compete for workers by increasing their wage scale by $4.00 per hour and offering sign-on bonuses and other incentives, but many small businesses, especially in the retail and restaurant sector, could not afford to pay the higher wages. "Help wanted" signs were everywhere as many businesses operated reduced hours with newly-hired, untrained employees. The local McDonalds chain brought in sixty workers from Romania to operate its restaurants, but some businesses were unable to re-open at all because they could not find qualified employees.

The size of the clean up task was enormous: by one estimate, the debris removed would fill 2,050,000 trash trucks which, if placed end to end and side by side, would fill a four-lane highway from New York to California.[3] FEMA reported that by September, 2006 they had hauled nearly 99 percent of Hurricane Rita debris (8,523,181 cubic yards) and demolished more than half of the structures severely damaged by the hurricane. Table 7 on the previous page provides a breakdown by parish of FEMA public assistance and debris removal as of that date.

[3] FEMA Press Release Number 1603-491: June 9, 2006

Table 7

Public Assistance Obligated for Debris Removal
For Hurricane Rita, By Parish, September 2006

	PA Funds Obligated (millions)	Status
Western Parishes		
Allen	$2.1	Debris removal is complete
Beaugrard	$3.0	Debris removal is complete
Calcasieu	$63.5	98% complete: 5,001,020 cubic yards hauled
Cameron	$28.1	92% complete: 1,380,463 cubic yards hauled
Jefferson Davis	$3.7	Debris removal is complete
Rapides	$3.5	Debris removal is complete
Vermillion	$26.4	Debris removal is complete
Vernon	$1.8	Debris removal is complete
Central Parishes		
Acadia	$3.2	Debris removal is complete
Avoyelles	$1.2	Debris removal is complete
Evangeline	$1.9	Debris removal is complete
Iberia	$9.0	99% complete: 162,786 cubic yards hauled
Iberville	$2.0	Debris removal is complete
Lafourche	$18.6	99% complete: 279,507 cubic yards hauled
Lafayette	$15.1	Debris removal is complete
St. Charles	$21.0	95% complete: 267,085 cubic yards hauled
St. John the Baptist	$3.3	Debris removal is complete
St. Landry	$2.2	Debris removal is complete
St. Mary	$5.1	Debris removal is complete
Terrebonne	$9.7	98% complete: 168,183 cubic yards hauled
Northern Parishes		
Bossier	$2.5	Debris removal is complete
Caddo	$2.1	Debris removal is complete
Ouachita	$1.8	Debris removal is complete
Webster	$1.1	No debris mission in the parish
Total	$231.9	

Source: FEMA Press Release Number 1603-491, June 9, 2006

The attention of residents and public officials now turned to long-term repairs. The major insurance companies sent in teams of inspectors to appraise the damage of their policy holders while FEMA inspected 259,012 homes in Southwest Louisiana and 343,313 in Texas to determine disaster program eligibility. The Small Business Administration made loans available to qualified homeowners, renters, businesses, non-profits and small businesses that were either uninsured or under-insured. Table 8, below, provides a summary of this assistance. While this aid was needed and much appreciated, obtaining it was sometimes a frustrating experience. There were many forms to fill out, and while some insurance companies were prompt and fair in paying claims, others dragged their feet and fought over nuances in the language of their policies.

Table 8

Federal Assistance for Victims of Hurricane Rita

	Southwest Louisiana	Southeast Texas
Federal Disaster Unemployment Assistance	8.3	4.6
Other Needs Assistance	89.3	82.1
SBA Disaster Loans	49.5	73.5
SBA Loans for Renters and Homeowners	104.1	76.0
Individual Housing Programs	400.2	500.2
Public Assistance Projects	74.8	202.0
National Flood Insurance Program Claims	336.1	45.6

Source: FEMA

In October of 2005, Governor Blanco established the Louisiana Recovery Authority to serve as the planning and coordinating body for the recovery effort. Appointed by the governor and confirmed by the Senate, this organization's 33-member body is charged with securing funding for community recovery and resurgence, ensuring accountability and effectiveness, coordinating across jurisdictions, and planning for one of the most extensive rebuilding efforts in the world.

As one of its first acts, the LRA crafted a list of priorities to establish "one voice for Louisiana." This focus helped Louisiana's Congressional delegation as it lobbied for passage of the $29 billion Gulf Coast Aid Package, which included $11.5 billion in Community Development Block Grant (CDBG) funds for the five Gulf Coast states impacted by hurricanes. Also included the package was the $8.7 billion Gulf Opportunity Zone Act of 2005 ("GO-Zone"), which aims to boost private investments and development along the gulf coast.

While the passage of this bill represented a significant milestone in the recovery, the Gulf Coast Aid Package only included a fraction of the funding necessary to rebuild Louisiana. In December 2005 Louisiana only received 54 percent, or $6.2 billion of the CDBG funds available, despite having suffered more than 75 percent of the Gulf Coast's housing damages.

The LRA used this funding in part to create incentives and funding opportunities for businesses that suffered from the storms. It also targeted funding to help local and municipal governments rebuild critical infrastructure. But realizing that no recovery would be possible without the return of residents, Governor Blanco and the LRA went back to Washington, D.C. to make the case for additional recovery funding to address Louisiana's critical housing needs. And after months of working with President Bush, Federal Gulf Coast Recovery Coordinator Donald Powell, the Louisiana Congressional delegation and the United States Congress, Louisiana was awarded an additional $4.2 billion in CDBG funds in July 2006.

Recognizing the significant impact of Hurricane Rita on Louisiana's agriculture, the LRA also worked with Louisiana's Congressional delegation to secure recovery funds for agricultural producers. More than $500 million has been allocated to the USDA for agricultural recovery in the Gulf States, including $40 million for Louisiana sugar cane producers.

The LRA also partnered with local, state and federal agencies as well as the private sector organizations to address short-term needs such as:

- Identification of high-demand recovery occupations and funding for training programs in those areas.
- The provision of social, medical and job training services to displaced residents in temporary housing locations
- Establishing temporary housing for employees near worksites as a priority.

Recognizing that the adoption of more stringent building codes is one of the most effective ways to protect homes from future hurricanes, the LRA endorsed legislation which established a uniform state construction code that required homes and buildings built along the Gulf Coast to withstand winds of 130 to 150 miles per hour and encouraged parishes to adopt higher elevation standards by making them a condition for receiving a ten percent cost share match from the State to repair critical pieces of local infrastructure.

In November 2005, FEMA unveiled new Advisory Base Flood Elevation (ABFE) maps for Louisiana parishes impacted by Rita. After assessing its existing flood risk data for impacted regions along the Gulf Coast, FEMA found that its elevation recommendations and flood advisories needed to be updated. As a result, these updated ABFEs currently represent the best recommendations for elevation levels for homes and other buildings to avoid storm surge damage in a 100-year event, which is the height to which the National Flood Insurance Program requires. The primary benefit of these new maps is to provide communities and individuals with sound information regarding flood risk during the rebuilding process.

Adoption of the ABFEs are not mandatory, however the state and the LRA began advocating for the adoption of the ABFEs by local governments because rebuilding to higher elevations will better protect communities and homes from future disasters and can help residents save money on their homeowners' insurance.

As of September 2006, nine of fifteen parishes under advisement in the hurricane affected region have voluntarily chosen to adopt the new ABFEs. By adopting these advisories, Calcasieu, Cameron, Jefferson, Iberia, Orleans, St. Mary, St. Tammany, Terrebonne and Vermilion are now eligible to receive a ten percent cost share match from the State to repair critical pieces of local infrastructure including roads, bridges and public buildings.

Adoption of the ABFE's also makes funding available to the parishes for various hazard mitigation programs aimed at reducing losses in future disasters. One such program is the state's Hazard Mitigation Grant Program.

In November 2005, the LRA authorized the release of $250 million for hazard mitigation and directed the Louisiana Office of Homeland Security and Emergency Preparedness to distribute these funds to parish governments impacted by Katrina and Rita. This includes funding for the acquisition, elevation and/ or reconstruction of severe and repetitive loss properties and the retrofitting of critical public facilities in parishes that were impacted by Hurricane Rita. As of September 2006, $26.3 million had already been obligated for hazard mitigation projects in the following seven Southwest Louisiana

parishes: Allen, Beauregard, Calcasieu, Cameron, Jefferson Davis, Vermilion and Vernon.

Table 9

Hazard Mitigation Funds Obligated for Southwest Louisiana

Parish	HMGP Funds Obligated
Allen	$2.3 million
Beauregard	$2.3 million
Calcasieu	$8.5 million
Cameron	$4.5 million
Jefferson Davis	$2.1 million
Vermilion	$4.4 million
Vernon	$2.2 million
Total	$26.3 million

Source: LRA

3) REDEVELOPMENT

While the restoration phase was marked by initiatives to re-establish normalcy and lay the foundation for long-term recovery, the redevelopment phase has been and will continue to be focused on rebuilding the housing, infrastructure and businesses that form the backbone of communities across Southwest Louisiana.

The *Road Home*, the largest housing recovery program in U.S. history, is designed to help residents of Louisiana affected by Hurricane Katrina or Rita get back into their homes. Governor Kathleen Babineaux Blanco, the Louisiana Recovery Authority and the Office of Community Development created the *Road Home* program to afford eligible homeowners up to $150,000 in compensation for their losses to get back into their homes.

At the request of LRA Board members and other leaders from Southwest Louisiana, the *Road Home* program were designed to cover all uninsured, uncompensated damages incurred by homeowners, regardless of their geographic location or whether their losses were caused by wind damage, floor damage or both. This means that all homeowners in

Southwest Louisiana that incurred major or severe damage to their homes due to Hurricane Rita are eligible for assistance through the *Road Home* program.

A pilot program began in July 2006, and the full-scale *Road Home* program was launched in late August with ten Housing Assistance Centers opening across the state, including centers in Calcasieu, Cameron and Vermilion Parishes. It is estimated that more than 123,000 homeowners are eligible for assistance throughout the state, with approximately 9,718 of those in the Southwest Louisiana parishes of Calcasieu, Vermilion, Cameron, Beauregard, Jefferson Davis, Vernon, and Allen. As of September 2006, 1,097 applications had been received from homeowners in these parishes.

Table 10

Homeowners with Major/ Severe Damage in Southwest Louisiana

PARISH	MAJOR	SEVERE	TOTAL ELIGIBLE	APPLICATIONS RECEIVED
Calcasieu	3,991	437	4,428	558
Vermilion	1,928	180	2,108	244
Cameron	740	1,285	2,025	199
Beauregard	382	52	434	38
Jefferson Davis	340	32	372	34
Vernon	174	13	187	4
Allen	150	14	164	20
TOTAL	7705	2,013	9718	1,097

Source: LRA

The *Road Home* also includes two major rental housing programs: the Small Rental Property Repair Program and the "Piggyback Program."

Through the Small Rental Property Program, the *Road Home* will provide up to $869 million in financial assistance over the next 10 years for the repair and/or reconstruction of an estimated 18,000 small-scale rental housing units. The primary purposes of this financing program is to enable small-scale rental properties to return to the market while limiting the amount of debt (and therefore debt service) required for the properties so that the owners will be able to charge affordable rents. One hundred

percent of these funds are reserved for the most heavily damaged parishes and will be allocated by number of rental units damaged. The funds allocated to Calcasieu, Cameron and Vermilion are being used to repair and/ or restore approximately 500 rental units in Southwest Louisiana.

Table 11

Breakdown of Damage to Small Rental Properties

Parish	Damage**	%Damage	Small Rental Pool
Calcasieu	1,068	1.7%	15,126,714
Cameron	465	0.8%	6,586,069
Jefferson	7,955	13 %	112,671,361
Orleans	43,226	70.4%	612,235,354
Plaquemines	1272	2.1%	18,016,087
St. Bernard	4940	8.1%	69,968,136
St. Tammany	2196	3.6%	31,103,244
Vermilion	248	0.4%	3,302,984
Pilot Programs			50,000,000
	Total		**869,000,000**

** Based on FEMA Rental Units w/Major or Severe Damages

Source: LRA

The *Road Home* is also encouraging the development of mixed-income communities with affordable rents for especially low-income residents through the "Piggyback" program, which uses a combination of Low Income Housing Tax Credits (LITCs) and CDBG funds to support the development of workforce housing, affordable housing and permanent supportive housing.

Through the FEMA Public Assistance (PA) program, reimbursement funds are made available to local governments for the repair, restoration, reconstruction, or replacement of damaged public facilities and infrastructure after a disaster. Typically, the federal share of Public Assistance is 75 percent, with 25 percent of the costs coming from state or local sources. In response to hurricanes Katrina and Rita, President Bush authorized the federal share to be increased to 90 percent. Recognizing that the combination of hurricanes Rita and Katrina disrupted finances and revenue streams across the state, and that many local governments would be unable to provide their cost share for PA projects, the LRA created the Local Government Emergency Infrastructure program. This

program allows CDBG funds to be used as non-federal matching funds for FEMA PA projects in parishes that have adopted the latest available base flood elevations from FEMA and new statewide building standards. This covers all of the non-federal matching funds PA projects in categories C-G, which are designated as permanent infrastructure repairs. The program was also recently expanded to allow expenditures for repairs to critical infrastructure that have been deemed "ineligible" for Public Assistance by FEMA.

This will allow Louisiana to fully leverage recovery funds to achieve the greatest possible investment in public infrastructure. For example, for every dollar that is spent rebuilding permanent infrastructure in Louisiana such as sewer systems, fire stations, public buildings, roads and bridges, the federal government will pay $0.90, the state will pay $0.10 and local governments will pay nothing. It is estimated that this policy will save local governments at least $600 million as public infrastructure is rebuilt over the course of Louisiana's recovery.

Table 12

Eligible Funds for Public Assistance Projects in Southwest Louisiana Measured by Number and Size of Project Worksheets

Parish	Small	Large	Total Number	Total ($ millions)
Allen	91	6	97	$2.01
Beauregard	67	9	76	$2.93
Calcasieu	1,023	210	1,233	$64.24
Cameron	257	140	397	$23.68
Jefferson Davis	102	13	115	$3.58
Rapides	81	18	99	$3.30
Vermilion	165	76	241	$23.93
Vernon	40	10	50	$1.75
TOTAL	1,826	482	2,308	$125.42

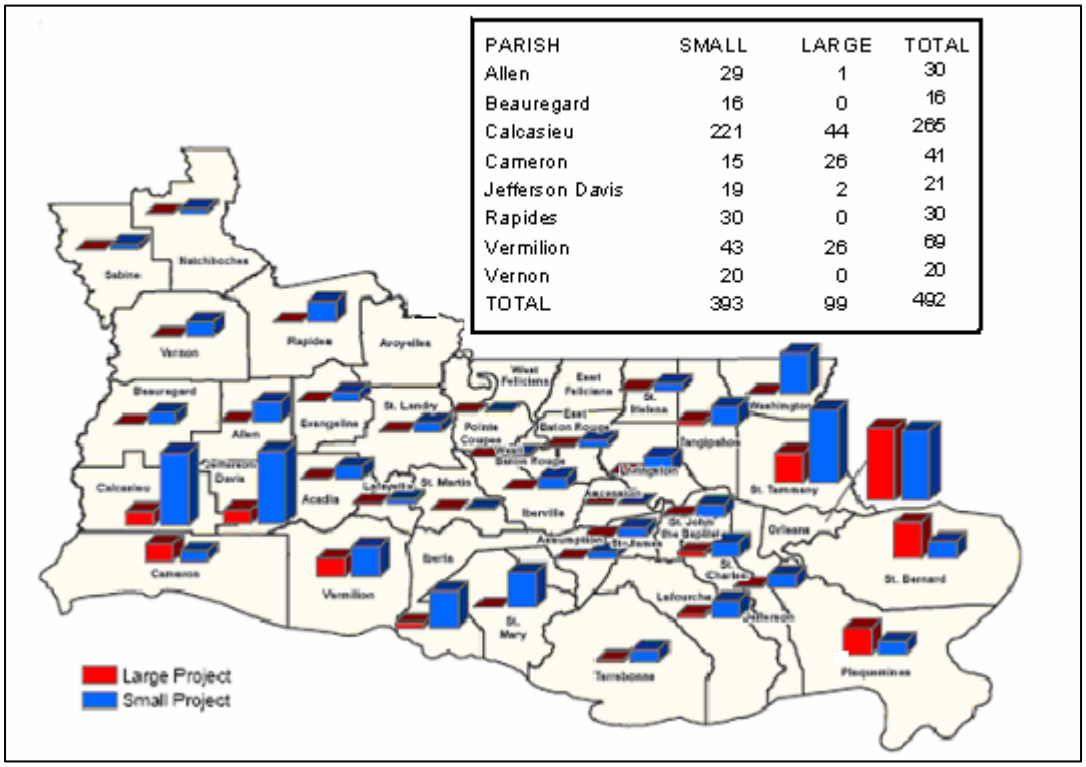
Data reflects obligations as of August 2006
Small Projects- Under $56,000
Large Projects- Above $56,000

Source: LRA

Hurricanes Katrina and Rita damaged or destroyed more than 870 schools across the state. To support the repair and reconstruction of school facilities the LRA is working with the Louisiana Department of Education to develop a program for distributing more than $200 million in CDBG funds to repair and rebuild K-12 schools. These funds will cover all of the state matching funds for FEMA PA projects for permanent infrastructure repairs to schools. They will also cover other critical repairs that have been deemed to be ineligible for Public Assistance by FEMA.

. MAP 4

Breakdown of Damages to Schools Statewide
Measured by Number and Size of Project Worksheets filed for Public Assistance



PARISH	SMALL	LARGE	TOTAL
Allen	29	1	30
Beauregard	16	0	16
Calcasieu	221	44	265
Cameron	15	26	41
Jefferson Davis	19	2	21
Rapides	30	0	30
Vermilion	43	26	69
Vernon	20	0	20
TOTAL	393	99	492

Source: LRA, Data as of August 2006

The LRA has tied the use of these funds to a number of planning and redesign principles such as building flexible-use classrooms, sharing facilities with their communities, and fostering a small school culture. These practices will help to ensure that we are not just building a public education system that is safer and stronger, but also provides students with a first-class education.

A number of programs have been initiated to assist businesses. The Louisiana Bridge Loan Program provides short term loans to small businesses to give them access to capitol in the period immediately following the disasters. Working with local bankers, the state has already loaned nearly $40 million in gap funding to more than 700 businesses affected by Katrina and Rita. One hundred thirty eight of these went to business owners in Southwest Louisiana, totaling more than $4 million.

Table 13

Louisiana Bridge Loans
Distributed in Southwest Louisiana

Parish	Number of Loans	Total
Calcasieu	127	$3,988,955
Cameron	7	$275,000
Jefferson Davis	1	$25,000
Vermilion	3	$160,000
TOTAL	138	$4,448,955

Source: LRA

The LRA is also developing programs to invest $350 million in CDBG funds that will support the continued restoration and expansion of Louisiana's economic infrastructure. These programs include:

- $100 million for the Louisiana Bridge Loan Program.
- $100 million for a Long Term Recovery Loan Program to leverage $550 million in funding for fixed assets, equipment, and working capital.
- $40 million for a Small Firm Recovery Loan and Grant Program targeting firms that do not qualify for conventional financing and/or loans from the Small Business Administration.
- $30 million for a Louisiana Tourism Recovery Program.
- $10 million to provide technical assistance to small firms attempting to recover or to start new businesses in the impacted communities.
- $40 million for sector based workforce training.
- $30 million for higher education research initiative.

The LRA believes that long-term recovery requires more than just programs and funding, it also requires comprehensive planning. The *Louisiana Speaks* program was designed to foster coordinated planning efforts by local governments. A week of neighborhood workshops or "charrettes" was held in downtown Lake Charles and Vermilion Parish to solicit community input and develop detailed plans that might serve as a guide for rebuilding and improving the area, and Community Design Workshops were also held in Cameron Parish which resulted in the development of a strategic master plan to reestablish the infrastructure in Cameron, promote eco-tourism, and re-connect Cameron to its unique coastal setting.[4]

[4] Information about *Louisiana Speaks* and the Charrettes held in Southwest Louisiana is available at the *Louisiana Speaks* web site: http://www.louisianaspeaks.org/

II. THE STATUS OF CAMERON PARISH

With 1,441 square miles and just under 10,000 residents, Cameron is both the largest and least populated parish in Louisiana. But despite its small population, the parish contains important economic and ecological resources such as marshland, wildlife habitat, fishing grounds, shipping channels, pipelines and port facilities that are vital to the region and the state.

Cameron Parish took a direct hit from Hurricane Rita. High winds and the storm surge destroyed many small coastal towns and communities and did environmental and ecological damage the full extent of which may not be known for years, and portions of the parish remain uninhabited. Some fear it could be the end of a way of life for the predominantly Cajun population.

Overall, destruction from Hurricane Rita was greater in Cameron Parish than in any other parish, and Cameron has also been the slowest parish to recover from the storm due to the massive recovery effort necessary to plan, program, and rebuild lost infrastructure. The parish was closed to the public until June, 2006 as hazardous debris was removed and essential services restored. These tasks were slowed by a lack of basic services and housing for recovery workers. The desire for improved levees and flood control, more stringent building codes and the high cost of insurance have stymied many residents who have been anxious to return and rebuild their communities.

Cameron Parish officials responded quickly by hiring an Executive Director of Planning and Development, Mr. Earnest Broussard, to lead the Parish's recovery efforts. The funds for this position and department were made available by a guaranteed three year disbursement from Chenier Energy which is currently building an $800 million liquefied natural gas facility at Sabine Pass and plans to break ground in the near future on a $1 billion process plant along the Calcasieu Ship Channel.

Cameron Parish began the recovery process in the spring and decided on a plan that features several components, including new land use and building code requirements, rebuilding the coastal town of Holly Beach, constructing a government complex in

Cameron, developing multi-layered port facilities along the Monkey Island and Cameron Loop corridor. Various projects aimed at strengthening the tourism, maritime, and commercial fishing sectors are now being considered so that conventional and nontraditional funding sources can be pursued. The Parish recently contracted with the Shaw Group to provide planning, engineering and project management services and parish officials are exploring the feasibility of engaging a $30 million bond issue guaranteed by Chenier Energy through the advance payment of property taxes. Projects under consideration that could be considered generational are an internal capacity building, Cameron Square, a Sheriff Substation, water and sewer improvements, healthcare and other recreational and emergency preparedness projects. Also included in the recovery agenda are a multitude of coastal restoration and environmental projects aimed at preserving the overall environmental integrity of the parish. This planning approach has been identified by the Shaw Group, the Louisiana Recovery Authority, and other affiliated agencies as a model program for coastal recovery.

Federal spending in Cameron Parish for public assistance projects such as categories A (Debris Removal) and B (Protective Measures) in the following table is approximately $5.4 million with a little over $4.1 million of that amount actually being spent to date. The eligible amount refers to amounts that are eligible for FEMA funding and can be expected to be approved. Eligible public works type projects in the wake of the hurricane are about $15.2 million with only $3.7 million or 24% actually spent.

Table 14

Eligible Funds for Public Assistance Projects in Cameron Parish

FEMA CATEGORY	CATEGORY	ELIGIBLE	PAID	PERCENT SPENT
DEBRIS REMOVAL	A	$101,123	$27,078	26.78%
PROTECTIVE MEASURES	B	$5,289,348	$4,078,216	77.10%
ROAD SYSTEMS	C	$879,484	$252,034	28.66%
WATER CONTROL FACILITIES	D	$522,289	$63,757	12.21%
PUBLIC BUILDINGS & EQUIPMENT	E	$11,545,457	$1,526,926	13.23%
PUBLIC UTILITIES	F	$2,646,462	$1,717,838	64.91%
PARKS/ OTHER	G	$2,703,066	$180,825	6.69%
PARISH TOTAL	ALL	$23,687,229	$7,846,674	33.13%

Source: LRA, Data as of August 2006

A. INFRASTRUCTURE

Electrical Transmission: Electricity in Cameron Parish is provided by Entergy. Power was lost throughout the parish as transmission lines and substations were destroyed. Work crews from around Louisiana and from other states were brought in to assist local crews and power was restored to the town of Cameron on November 11, and all remaining areas of the parish had power by the end of the year. The damage was estimated to be in excess of $40 million.

Current status: Several substations still out, but electricity is available throughout the parish.

Telephone Communication: Hurricane Rita knocked out all telephone service to Cameron Parish for all customers, both business and residential. Within a week after the storm, Cameron Telephone, a wholly owned subsidiary of Cameron Communications, had reestablished phone and internet services to the Cameron Courthouse, which housed the Parish emergency operations center.

After Hurricane Audrey, Cameron Telephone Company buried its cables so that after Hurricane Rita they were able to restore services quickly. The company invested $6.5 million to restore services parish wide and successfully did so within 4-6 weeks after the storm.

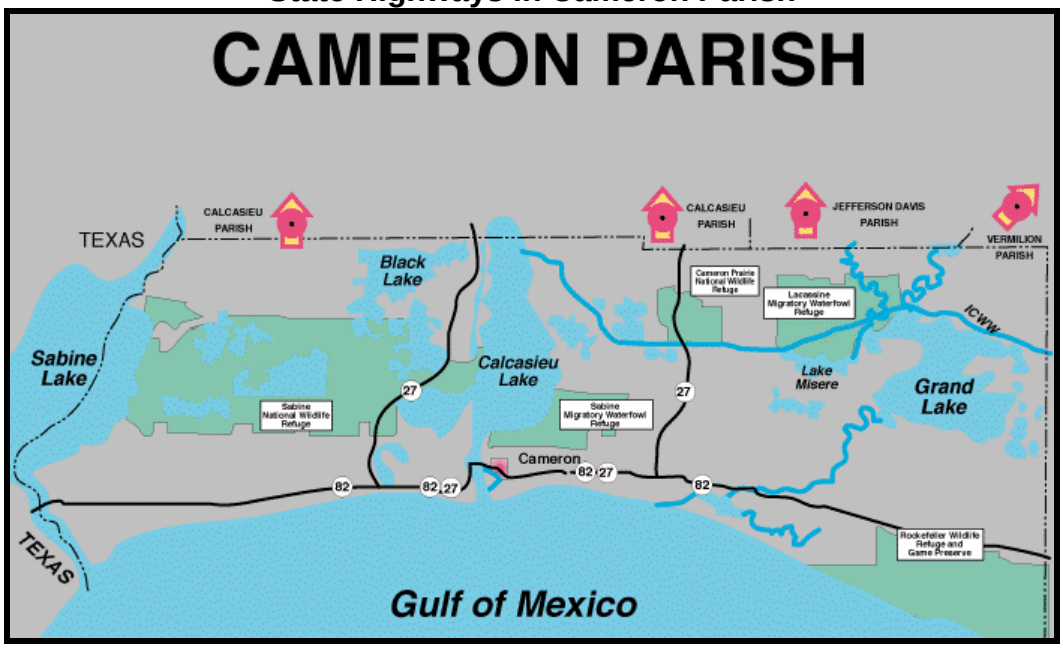
Current status: Business and residential phone subscriptions have been reduced to only 35 percent of the 3200 customers Cameron Telephone had before the storm since the parish's population has not yet been able to return in large numbers. Telephone service is available in all areas of the parish, including the devastated communities of Cameron, Creole, Grand Chenier, and Johnson Bayou in Southern Cameron Parish. Broadband services are available to 95 percent of Cameron Parish.

Roads and Bridges: There are two highways in Cameron Parish: LA-82 which runs 44 miles through the southern portion of the parish from the Texas border to Vermilion Parish; and LA-27 which makes an 88-mile loop through Cameron Parish from Sulphur, through the town of Cameron, then north again to Lake Charles. Both roads are open to traffic, but studies show that 58% of LA-82 and 68.5% of LA-27 need repair, primarily due to erosion of the shoulders caused by the storm surge. Many smaller roads were washed out as well as some small bridges.

Current status: $40 million spent on repairing shoulders on State Roads; 1 Bridge Being Replaced

MAP 5

State Highways in Cameron Parish



Water and Sewage: All six water districts suffered damage, with virtually all water facilities in the southern part of the parish destroyed except elevated water storage tanks. Most rural homes were on septic systems and damage to these systems caused extensive contamination. The sewer system in the town of Cameron was inundated with sand and will cost an estimated $300,000 to repair.

Current status: Potable water was restored throughout the parish within six weeks, but repairs to the system still need to be made.

Sabine National Wildlife Refuge: located on State Highway 27 eight miles south of Hackberry, the 125,000 acre nature preserve provides habitat for ducks, geese, alligators, muskrats, nutria, raptors, wading birds, shorebirds, blue crabs and shrimp. The Creole Nature Trail which winds through the wildlife refuge is an All American Road; each year it attracts about 300,000 tourists to Southwest Louisiana. Hurricane Rita deposited over 7 million cubic meters of debris in the SNWR. Nearly 1,400 potential HAZMAT items have been positively identified in and around these piles, with an additional unknown number undetected or not visible. These items are estimated to contain between 115,000 and 350,000 gallons of hazardous liquids and gases. Unless this problem is addressed, SNWR will be at significant risk of chemical and physical damages for decades.

Current Status: Closed.

The Strategic Petroleum Reserve: The strategic petroleum reserve located near the town of Hackberry is one of four sites used to store the nation's emergency oil supply. This salt dome has a storage capacity of 219 million barrels of crude oil. The facility was flooded, but sustained minimal damage.

Current Status: Fully operational

The Calcasieu Ship Channel: The 34-mile long Calcasieu Ship Channel extends from the Gulf of Mexico to the Port of Lake Charles. It has a depth of 40 feet and a width of 400 feet, allowing it to accommodate supertankers carrying oil and liquefied natural gas. All navigational buoys for the ship channel were washed ashore; destroyed vessels and debris littered the channel and blocked traffic; and the navigational control station near Cameron was destroyed.

Current Status: Fully operational, but repairs and modifications need to be made to prevent future flooding.

The Gulf Intracoastal Waterway: This federal waterway traverses the parish from east to west and connects with waterways in other states, allowing barges and other water traffic to move along the coast from Texas to Florida without entering gulf waters. It intersects the Ship Channel 12 miles south of the Lake Charles City Docks and connects to the Lake Charles Industrial Canal Terminal. The storm surge was nine feet high at the Intercoastal Waterway, destroying electrical generators that operated the locks, interrupting the delivery of 400,000 tons of barged oil and temporarily shutting down the Port of Lake Charles.

Current Status: operational but in need of remediation.

LNG Marine Terminals: Natural gas is an increasingly important source of energy in the United States. Natural gas can be imported from other countries, but it must be frozen and transported in liquid form (LNG). When Hurricane Rita hit, Cheniere Energy was building an LNG terminal at Sabine Pass. Construction was interrupted, but the facility is now operating a recently received federal authorization to expand its output from 2.8 Bcf per day to 4.0 Bcf per day. Cheniere is current building another terminal—Creole Trail LNG—in central Cameron parish and has plans to build three more terminals. When completed, Cameron Parish will be the largest handler of LNG in the nation. .

Current Status: Cheniere Energy's Sabine Pass terminal is operating, and construction is proceeding on both the Sempra terminal in Hackberry and Cheniere's Creole Trail terminal.

Oil and Natural Gas Wells: Cameron Parish contains many natural gas and oil wells.

Current Status: The Louisiana Department of Natural Resources reports that as of May, 2006 82.1% of oil production in the regions affected by Hurricanes Rita and Katrina was restored, and 97.9% of the gas production.

Fishing and Shrimping: Cameron was the nation's fifth-largest fishing port with an annual catch of nearly 300 million pounds. Many parish residents earn their living by fishing or working in support businesses such as ice houses, fuel docks, marina, and grocers. There were also an estimated 100 fishing guides and 66 charter boats operating in the parish, generating an estimated $13 million in retail sales.

Current Status: It is estimated that 60% of the commercial fishing fleet—approximately 250 boats--was destroyed. Many of them were under-insured or uninsured and have not been replaced.

Agriculture: In 2002 there were 409 farms in Cameron Parish with a total of 75,192 acres under cultivation. The main crops were rice and forage and there were also approximately 48,000 head of cattle. Some ranchers were able to move their cattle north to Beauregard or Allen Parish ahead of the storm, but an estimated 25,000 cattle were lost and an undetermined amount of pasture land has been destroyed by saltwater.

Current Status: How long it will take for saltwater to wash out of the soil depends on how much rainfall the area receives over the next few years.

B. ECONOMIC ACTIVITY

In 2004 there were 3,756 persons formally employed in Cameron Parish and an undetermined number of self-employed and seasonal workers engaged in fishing, shrimping, hunting and fishing—traditional cash businesses—whose income may not have been reported. The unemployment rate was 9.8% and median household income was $35,232. Table 15 lists the largest employers in the parish and their estimated number of employees.

Table 15

Largest Employers in Cameron Parish

Employer	Industry	Employees
Seacor Marine, Inc	Seafood	1500
Omega Protein, Inc	Seafood	665
Cameron Parish School Board	Education	330
Dynmcdermott Petroleum	Oil Exploration	325
McCall's Boat rentals	Offshore Boats	250
Devall Resources, Inc		240
Cameron Parish Police Jury	Government	262
Mobile Exploration	Oil Exploration	206
South Cameron Mem. Hospital	Health Care	200
Mac Nett Environmental Services	Technical	160
Cameron Parish Sheriff's Office	Government	270

Source: Entergy

Most of these jobs still exist, and new jobs have been created by the rebuilding and redevelopment of the parish, and development of the new LNG terminals. However, housing is not available in the southern part of the parish so many of these workers must make long commutes to their jobs. Cameron Parish does not have a sales tax, so it is difficult to track commercial activity, but few stores or restaurants are open and the general perception is that this sector has been very slow to recover.

C. COMMUNITY AND SOCIAL ACTIVITY

Prior to Hurricane Rita, Cameron Parish had a substantial tax base relative to its population; its teachers were paid well and it had modern school facilities. There were six school campuses, many with multi-purpose buildings and recreational facilities that allowed them to be the center of social activity. Cameron Elementary, South Cameron Elementary and South Cameron High School were completely destroyed, and Johnson Bayou school's were significantly damaged and could not be occupied. Hackberry and Grand Lake Schools were operational but received extensive damage totaling $6.2 million.

Classes in Cameron Parish resumed on October 31, 2005 on a platoon basis: students from the southern part of the parish attended less-damaged schools in Hackberry or Grand Lake on alternating days. This fall the schools have returned to a regular five-day week schedule with classes held in temporary pods in Johnson Bayou and a complex located in Creole. Although enrollment is down, all teachers and staff have been retained, allowing for smaller classes. The School Board hopes to complete repairs to the Johnson Bayou schools by April, 2007 and to complete construction of a new K-12 campus in Creole to replace Cameron Elementary, South Cameron Elementary and South Cameron High by the Fall Semester of 2009.

Table 16

Cameron Parish School Enrollment
Before and After Hurricane Rita

Date	Enrollment	Percent
September 19, 2005	1,910	100%
October 27, 2005	1,418	74.2%
April 15, 2006	1,502	78.6%
August 25, 2006	1,562	81.8%

Source: Cameron Parish School Board

The loss of public facilities has put a strain on government and hampered recovery efforts in Cameron Parish. Only two public buildings were left standing in lower Cameron Parish—the courthouse and District Attorney's Office—and those were both heavily damaged. Among the public facilities destroyed by the storm were:

- 5 fire stations
- 4 community recreation centers
- 4 libraries, including a genealogy library and museum
- 3 vehicle maintenance facilities
- 2 multi-purpose buildings
- "Courthouse Circle" and the Police Jury annex building
- The Sheriff's Department Investigative Office
- The Cameron Parish Health Unit
- The Parish School Board Office
- The Mosquito Control barn
- The Waterworks District 10 office.

Public buildings seriously damaged by Hurricane Rita include:

- 2 public libraries
- 2 vehicle maintenance facilities
- The Waterworks District 2 & 7 offices
- The Hackberry Multi-purpose building

D. HOUSING

Prior to the hurricane there were approximately 3,600 homes in Cameron Parish, 3,000 of which were owner-occupied and 600 of which were rented. Virtually every home in the parish was damaged, including 2,000 that must be totally replaced. As of mid-January the Corps of Engineers had performed 5,462 structural assessments of homes and other buildings on private property, of which 2,691 were found to be unsound and another 809 were found to be irreparable due to mold or safety concerns. The Corps has installed 388 "blue roofs" on homes and buildings with roof damage that were otherwise deemed repairable.

Table 17

Damage to Housing in Cameron Parish

Owner-Occupied Units	
Total Damaged	2,555
Flood Damaged	1,614
Major or Severe Damage	2,025
Major or Severe Flood Damage	1,510
Rental Units	
Total Damaged	683
Flood Damaged	456
Major or Severe Damage	551
Major or Severe Flood Damage	432

Source: FEMA

The housing problem has been exacerbated by the need to house the 2,000 construction workers employed cleaning up and restoring the town of Cameron, the Creole Nature Trail, and the Sabine LNG facilities. It is estimated that there is a need for approximately 5,000 housing units in Cameron Parish, including replacement houses, housing upgrades, transitional and/or seasonal housing and multi-family envelopes.

E. HEALTH AND HOSPITALS

Prior to Hurricane Rita, Cameron's public health care facilities included South Cameron Memorial Hospital with 22 beds, a rural health clinic in Hackberry, dental services in Creole, a private physician's office in Creole, and a pharmacy in Cameron. All of these facilities were completely destroyed, leaving the southern portion of the parish without basic health services.

The rural health clinic in Hackberry reopened in September, 2006. Also, the LRA recently passed a resolution that will allow the State to use Community Development Block Grant (CDBG) funds to cover all of Cameron's non-federal matching costs for rebuilding South Cameron Memorial Hospital, which are expected to total more than $2 million.

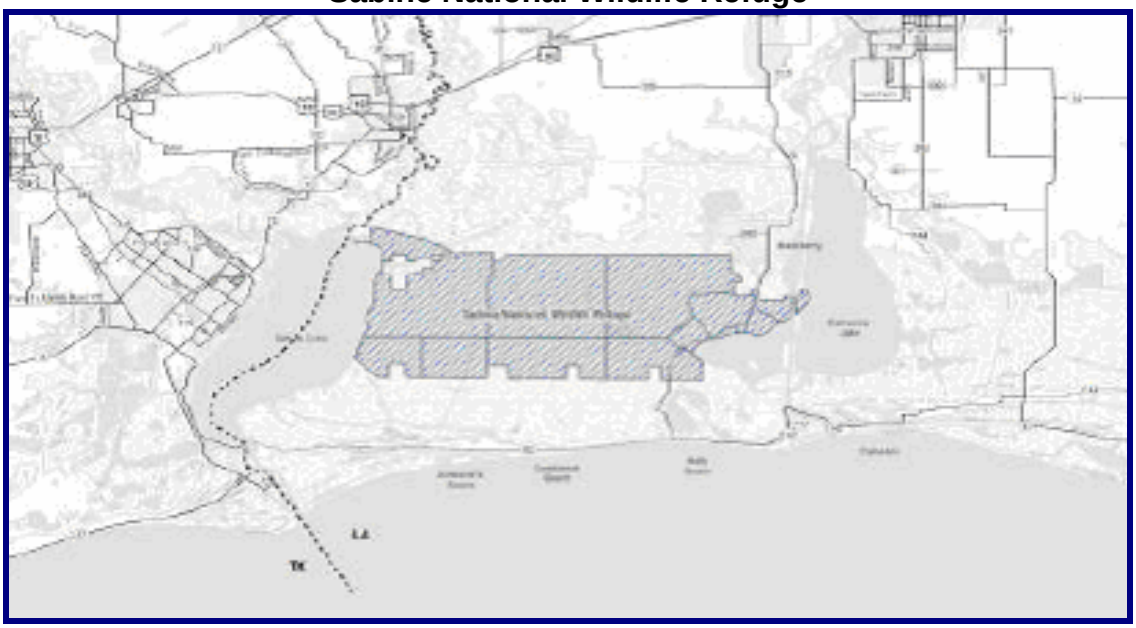
F. THE ENVIRONMENT

Cameron Parish suffered extensive environmental damage from Hurricane Rita, the full extent of which is still unknown. The storm surge flooded substantial portions of the low-lying marsh and chenier complexes of Cameron and Vermilion Parishes. The Sabine National Wildlife Refuge (SNWR), lies between Sabine and Calcasieu Lakes (see Map 6) and is comprised almost entirely of emergent marsh and open water habitat. A large amount of debris was deposited in extensive piles within the refuge, along levee systems, as well as isolated piles. These debris piles contain a

mix of natural vegetation, construction debris, household items, and, of most concern, a large but unknown amount of hazardous materials (HAZMAT).[5]

Map 6

Sabine National Wildlife Refuge



Source: U.S. Fish and Wildlife Service

[5] A detailed analysis is contained in *Assessment of Hazardous Materials and Debris from Hurricane Rita in the Sabine National Wildlife Refuge,* by Zach Nixon and Jacqueline Michel, Research Planning Inc., for the U.S. Fish and Wildlife Service, January 2006

III. THE STATUS OF VERMILION PARISH

Vermilion Parish lies directly east of Cameron Parish and extends from the Gulf of Mexico to approximately 20 miles south of I-10. Along the coast the main economic activities are fishing, shrimping and offshore oil services, but as one moves inland agriculture becomes more prevalent with sugar cane, rice and crawfish farming as well as horse and cattle ranching. The parish has a population of 53,800 and has been called "the most Cajun place on earth" because of the high percentage of people of Cajun ancestry and its preservation of the Cajun culture and lifestyle. Most of the communities in the parish are located along Highway 14, which runs east to west through the parish: Abbeville is the largest city in the parish, although Lafayette is the cultural and commercial center due to its close proximity just 30 miles away.

Vermilion parish suffered only moderate wind damage, but Rita's storm surge flooded over 600 square miles of marshland and agricultural land, causing extensive damage to crops and livestock, and damaging homes, especially around the communities of Erath, Delcambre, Intracoastal City and Pecan Island. An initial storm surge of approximately 20 feet flooded the southernmost coastal areas, then a second storm surge of 10 to 13 feet pushed seawater (and sea life) 8 to 10 miles upland, inundating the parish floodplain south of Abbeville. Access to the floodplain was restricted to boats until Sept. 27 when floodwaters retreated. Besides water and wind damage to buildings, secondary impacts included: saltwater contamination of fields, soil and animal feed; mold contamination of houses, public buildings, and hay; fire damage; crop devastation; housing and employment shortages; coastal erosion; habitat loss; canal/drain blockage and debris; increased population of mosquitoes from standing water; and economic uncertainty in rice and seafood industries. Oil and gas production were largely unaffected.

The recovery in Vermilion Parish has progressed reasonably well, although displaced residents complain of bureaucratic delays and inefficient funds. One cause of the delays is recognition that much of the damage from Hurricane Rita could have been avoided if homes, schools and other building were built out of the flood plane, elevated and constructed according to more stringent standards. Likewise, much of the damage to crops and livestock could have been controlled with better levees and a system of canals

and reservoirs to contain flood waters. Thus, there is a sense among public officials that rather than rushing to rebuild, they should proceed more slowly and do things right. Table 18 shows the public assistance that has been approved by FEMA for Vermilion Parish, and the amount already spent.

Table 18

Eligible Funds for Public Assistance Projects in Vermilion Parish

FEMA CATEGORY	CATEGORY	ELIGIBLE	PAID	PERCENT SPENT
DEBRIS REMOVAL	A	$763,157	$548,874	71.9%
PROTECTIVE MEASURES	B	$8,100,139	$4,672,130	57.7%
ROAD SYSTEMS	C	$486,421	$385,580	79.3%
WATER CONTROL FACILITIES	D	$250,104	$228,203	91.2%
PUBLIC BUILDINGS & EQUIPMENT	E	$12,840,181	$832,577	6.5%
PUBLIC UTILITIES	F	$1,311,321	$550,458	42.0%
PARKS/ OTHER	G	$178,273	$155,760	87.4%
PARISH TOTAL	ALL	$23,929,596	$7,373,582	30.8%

Source: LRA; Data as of August 2006

In the spring of 2005 the LRA sponsored a "charrette" in Vermilion Parish for the purpose of developing a long-term recovery plan. Proposals were made for revitalizing the towns of Abbeville, Erath and Delcambre, as well as a comprehensive plan for the parish as a whole. Proposals in the parish plan are shown below:[6]

Proposals from the Vermilion Parish Charrette

- To revitalize the agricultural economy by introducing alternative fuel refineries
- To adjust the embankment at the intra-coastal waterway to better intercept storm surges
- To increase the area's job base by creating an industrial harbor for the fisheries
- To protect the open space from suburban sprawl by a regional plan and code
- To integrate the several projects that were under consideration before the hurricane
- To catalyze post-hurricane housing construction of a certain minimum quality
- To achieve this quickly by taking advantage of opportunities created by the hurricane

[6] The entire report from the Vermilion charrette can be downloaded from the Louisiana Speaks web site at: http://ls.knowledgeplex.org/cache/documents/7/746.pdf

Local officials from Vermilion Parish attended the LRA's Board of Directors meeting in August, to request a special allocation of hazard mitigation funds that would support implementation of many of the proposals that were derived from the charrette.

A. INFRASTRUCTURE

Oil and Natural Gas Pipelines: The Henry Hub located in Erath interconnects with nine interstate and four intrastate pipelines, offering shippers access to the Midwest, Northeast, Southeast and Gulf Coast regions of the United States. Because of its strategic location it is the pricing point for natural gas futures contracts traded on the New York Mercantile Exchange (NYMEX). Pipeline service was interrupted only briefly Hurricane Rita.

Current Status: Fully Operational

Harbors and Terminals: The Abbeville Harbor and Terminal District was among the few ports between Texas and Mobile, Ala., that had dry infrastructure after Hurricanes Katrina and Rita.

Current Status: Only minor insurance claims are awaiting resolution at this time. The Leland Bowman locks are open and all four gates of the Freshwater Bayou Bypass locks are open. The public boat launch is awaiting repairs but remains operational.

Fishing Ports: There are several shallow-draft fishing ports in Vermilion Parish, including the Port of Vermilion in Abbeville, the Twin Parish Port in Delcambre, and the port at Intercoastal City. The Port of Vermilion operated at 50 percent for one week following Hurricane Rita, but once communications and electrical power were restored in early October, the port has been 100 percent operational. The Twin Parish Port was silted during the storm and the Delcambre Canal now drafts only 8 to 12 feet, making it unusable for larger fishing vessels.

Current Status: Partially Operational

The Gulf Intracoastal Waterway: The Gulf Intracoastal Waterway traverses the parish from east to west, connecting with other waterways to allow barges and water traffic to move from Texas to Florida without entering gulf waters. Traffic on the Waterway was only temporarily interrupted by the hurricane.

Current Status: Fully Operational

Wildlife Sanctuaries: The *Paul J. Rainey Wildlife Sanctuary* is a 26,000 acre refuge at the edge of the Intracoastal Waterway and Vermilion Bay. It is owned by National Audubon Society and home to deer, muskrat, otter, geese and many other species. The 76,000 acre *Rockefeller Wildlife Refuge and Game Preserve* is located in eastern Cameron and western Vermilion Parishes and owned and maintained by the State of Louisiana. It borders the Gulf of Mexico for 26.5 miles and extends inland for six miles. Recent surveys indicate it has a wintering waterfowl population of 160,000 birds. Animals in the sanctuary include mottled ducks, nutria, muskrat, rails, raccoon, mink, otter, opossum, white-tailed deer, and alligators. Fisheries provide recreational opportunities to fishermen seeking shrimp, redfish, speckled trout, black drum, and largemouth bass, among others.

Current Status: Closed to the public

Electricity Transmission: Electricity in the parish is provided by Entergy; power was lost throughout the parish as a result of the storm.

Current Status: Completely restored

Roads and Bridges: The roads and bridges in Vermilion Parish suffered only minor damage from the storm and in most areas remained open to traffic. The railroad tracks between Abbeyville and New Iberia were undermined by the flooding around Erath, resulting in increased shipping cost for rice and other crops.

Current Status: Fully functional

Sewers and Drainage: Sewers and drains throughout the parish backed up and overflowed as they were unable to handle the rain that accompanied Hurricane Rita. This often exacerbated the flooding from the storm surge, but there was little long term damage to the sewage and drainage system.

Current Status: Fully operational

Canals and Levees: The problem in Vermilion Parish was not that the levees and canals were damaged, but that they were inadequate and not designed for flood control.

Current Status: It is widely believed that much of the damage caused by Hurricanes Rita and Katrina in Vermilion Parish could have been prevented with an enhanced system of levees, canals and locks.

Public and Administrative Buildings: Most public buildings and facilities in Vermilion Parish suffered little damage, largely because Abbeyville, the administrative center of the parish, was not flooded. Five fire stations were destroyed and two police stations were damaged in the area around Pecan Island, Erath, Delcambre, and Intracoastal City.

Current Status: A number of the public facilities damaged or destroyed were not covered by flood insurance or were under-insured. Thus, replacing them will be delayed until a source of funding is secured.

B. ECONOMIC ACTIVITY

The main economic activities in Vermilion Parish are agriculture, fishing and offshore oil services. Prior to Hurricane Rita there were 22,354 persons employed in the parish, the unemployment rate was 7.5% and the median household income was $35,000. Table 19 shows the major employers in the parish and an estimate of the number of persons they employ. Parish officials report that wages are up after the storm and many businesses are having difficulty staffing positions, especially at the low end of the wage scale.

Table 19

Major Employers in Vermilion Parish

Employer	Industry	Employees
Vermilion Parish School Board	Education	1,000 +
Vermilion Parish Police Jury	Government	500-999
Abbeville General Hospital	Healthcare	250-499
Chevron USA Inc.	Oil Exploration	250-499
Omega Protein Inc.	Food Processing	250-499
Schlumberger Technology Corp.	Offshore Oil Service	100-249
Riviana Foods	Rice Milling	100-249
Shaw Bagwell Inc.		100-249
Walmart Stores Inc.	Retailing	100-249
Pennzoil Petroleum Company		100-249

Source: Entergy

There are approximately 1,100 farms in the parish with a total of 350,000 acres under cultivation. Crop sales in 2002 amounted to just over $45 million, while livestock sales totaled $7 million. The most important crops were rice (the parish

ranks first in Louisiana in rice production, and 6th in the US), followed by sugar cane, forage and soybeans. The livestock included 33,000 head of cattle and 1,500 horses.[7]

Approximately 60,000 acres of cropland was flooded with saltwater, ruing the rice and cane crops worth an estimated $50 million. It is estimated that 9,500 cattle were killed and at least one-third of the remaining herds require winter feed due to the loss of grazing land, plus 350 miles of fencing was destroyed.

Table 20 shows that sales tax revenue is up between 20 and 40 percent following Hurricane Rita. The reason for this increase is that people who lost electricity had to replace the contents of their freezers, homes that were flooded needed new carpet and furniture, roofs had to be repaired or replaced, and new vehicles purchased to replace those damaged by the storm. However, this type of spending can give a false impression of prosperity. As this recovery spending winds down, commercial activity is likely to return to its normal level, albeit with a reduced economic base due to the long-term damage caused by the storm.

Table 20

Sales Tax Revenue in Vermilion Parish, Pre and Post Hurricane Rita

	Jan to Jun 06	Jan to Jun 05	Percent Increase
School Board	$4,491,347	$3,068,610	46.4%
Police Jury	$6,737,016	$4,602,899	46.4%
Sheriff Department	$3,249,841	$767,154	323.6%
Town of Gueydan	$107,762	$82,272	31.0%
City of Kaplan	$294,491	$244,763	20.3%
City of Abbeville	$1,724,975	$1,303,775	32.3%
Town of Erath	$140,037	$107,719	30.0%
Town of Delcambre	$77,626	$53,496	45.1%
Village of Maurice	$280,715	$141,580	98.3%
Vermilion Parish Tourist Comm.	$48,965	$16,499	196.8%
Kaplan Hospital Service Dist.	$755,113	$501,047	50.7%
Total:	$17,907,887	$10,889,814	64.4%

Source: Vermilion Parish Police Jury

[7] U.S. Department of Agriculture, Census of Agriculture, Vermilion Parish: http://www.nass.usda.gov/census/census02/profiles/la/cp22113.PDF

C. COMMUNITY AND SOCIAL ACTIVITY

Seven of the twenty schools in the parish were damaged by flood waters, including five that suffered severe damage. Nevertheless, classes resumed just one week after the hurricane with the school day lengthened so that students from damaged schools could share the facilities of less damaged schools on alternating days. In Erath, the elementary school, middle school and high school were all flooded with two to five feet of water and need extensive repairs. Henry High School is severely damaged and is being repaired. The students were moved to Erath while the school is being elevated above the flood plane. On Pecan Island schools have not reopened because residents have not been able to return.

D. HOUSING

According to FEMA inspectors, 7,500 dwellings in Vermilion Parish were damaged by Hurricane Rita, including nearly 5,638 owner-occupied homes and 1,862 rental units (see Table 21); of these, 203 homes were condemned and demolished by the US Army Corps of Engineers. It is generally believed that in the future, much of this type of damage can be avoided with proper building codes and regulations for structures in the floodplain, although Vermilion Parish presently lacks the resources to enforce such building codes.

Table 21

Housing Damage in Vermilion Parish

Owner-Occupied Units	
Total Damaged	5,638
Flood Damaged	2,616
Major or Severe Damage	2,108
Major or Severe Flood Damage	1,874
Rental Units	
Total Damaged	1,862
Flood Damaged	633
Major or Severe Damage	468
Major or Severe Flood Damage	436

Source: FEMA

IV. THE STATUS OF CALCASIEU PARISH

The southern portion of Calcasieu Parish is 30 to 35 miles inland from the Gulf of Mexico; it suffered extensive wind damage as well as moderate flooding. The northern portion was spared flooding, but suffered severe wind damage due to heavy forestation. The City of Lake Charles sits between these two regions and suffered wind and flood damage. Approximately 75% of the roofs in the parish were damaged or destroyed. Many homes, buildings and vehicles were damaged by falling trees, utility lines were down, signs were torn from buildings and posts, downtown Lake Charles was flooded with four to six feet of water as were many residential areas around the lake and south of the city, and key infrastructure was damaged or destroyed (for more details on infrastructure damage, see the next section of this report). Table 22, below, shows the amount of public assistance approved by FEMA for Calcasieu Parish and the amount already spent.

Table 22

Eligible Funds for Public Assistance Projects in Calcasieu Parish

FEMA CATEGORY	CATEGORY	ELIGIBLE	PAID	AMOUNT SPENT
DEBRIS REMOVAL	A	$14,266,372	$11,227,225	78.7%
PROTECTIVE MEASURES	B	$23,646,002	$20,107,600	85.0%
ROAD SYSTEMS	C	$896,460	$562,202	62.7%
WATER CONTROL FACILITIES	D	$0	$0	0.0%
PUBLIC BUILDINGS & EQUIPMENT	E	$16,833,002	$4,653,027	27.6%
PUBLIC UTILITIES	F	$2,098,562	$476,779	22.7%
PARKS/ OTHER	G	$5,255,563	$1,599,105	30.4%
PARISH TOTAL	ALL	$64,235,767	$40,283,078	62.7%

Source: LRA; Data as of August 2006

Residents of Calcasieu Parish are very proud of how quickly they dealt with the damage caused by Hurricane Rita and somewhat vexed by the fact that it will always be "the other" hurricane. Most key economic and social functions in the parish were restored within two to four weeks, and since January, Lake Charles has been experiencing a mini economic boom due to the work involved in the recovery process, as well as business that has relocated from the devastated coastal area of Cameron Parish to Lake Charles. However, there is concern among some local officials that the "Rita

boom" masks long-term economic damage that will become apparent as the boom winds down.

Through the *Louisiana Speaks* program, the LRA sponsored a neighborhood design charrette in Lake Charles in March of 2006 to create a comprehensive planning strategy for the revitalization of the downtown area. The plan included the following:[8]

Proposals from the Lake Charles Charrette

- To reconnect the downtown with the lake by extending the urban fabric over the large and valuable stretches of waterfront that are currently dedicated to surface parking.
- To redesign the water's edge to be conducive to public use, while incorporating techniques for storm surge and flood mitigation.
- To bring a canal or water amenity to the existing commercial main street (Ryan St) thereby increasing its economic viability.
- To create predictable outcomes by means of a practical plan and code, thus enticing private developers to become active.
- To resolve access and other traffic problems, and to initiate an urban pattern that supports transit.
- To integrate several projects that were under consideration before the hurricane.
- To catalyze post-hurricane housing construction of a certain baseline quality.
- To achieve this quickly by taking advantage of opportunities created by the hurricane.
- To provide an urban downtown plan that works as a model for using enviromental building techniques and protections recommended in the UDA Tool Kit and Pattern Book.

The plan for downtown Lake Charles was embraced by local leaders and incorporated into a broader plan for the entire parish that became known as *Calcasieu 2005*. It would have cost $200 million dollars to fund 40 projects such as road improvements, drainage improvements, water and sewer infrastructure improvements, business development and tourism, education, and public safety and emergency response. The local share of the funding would have come from a $5 million increase in property taxes, a quarter-cent increase in sales taxes, and the diversion of gaming revenue. But when the plan was put to the voters, residents of Lake Charles approved it while those in other parts of the parish did not, and the measure failed by a 54 to 46 margin. This provides a specific example of the one of the many challenges that Calcasieu faces as the region recovers.

[8] A copy of the plan can be downloaded from the Louisiana Speaks web site at: www.louisianaspeaks.org/showdoc.html?id=745

The development of a shared vision for communities across Southwest Louisiana is critical to the region's long-term recovery.

A. INFRASTRUCTURE

Electricity Transmission: Power poles, transmission lines and substations were destroyed, disrupting service for two to six weeks. Entergy, which provides electricity south of Interstate 10, sustained $667 million in damage to 4,000 utility poles, 60 transmission lines, and 65 substations in Louisiana, much of it in Calcasieu Parish. Beauregard Electric Cooperative provides electricity to the northern part of the parish; it reported damage in excess of $20 million, including 1,279 electric poles broken and 756 pole line transformers damaged or destroyed. Entergy assembled 17,000 workers from throughout Texas and Oklahoma to make repairs, while Beauregard Electric brought in workers from as far away as Tennessee and North Carolina to achieve the task.[9]

Current Status: Electricity service was fully restored to all customers by November 15, 2005.

Bridges and Roads: The Parish highway system sustained approximately $30 million in damage, including debris removal and damage to three moveable bridges. The I-10 bridge over Lake Charles was first closed due to a truck accident and then for an extended period for structural inspection after a barge hit a supporting structure.

Current Status: Fully repaired

Refining and Petrochemical Plants: The petrochemical industry in Calcasieu Parish consists of two major refineries—Citgo and ConocoPhillips—and 22 petrochemical plants that are interconnected through a maze of pipelines and rail lines. The plants shutdown and took precautionary measures as the hurricane approached; nevertheless, they sustained $150 million in damage; and lost 3.1 million tons of lost production. But within three to four weeks all were operating again at or near normal capacity.

Current Status: Fully operational.

[9] On July 31, 2006, Entergy Louisiana and Entergy Gulf States filed a supplemental and amending storm cost recovery application with the LPSC, in which Entergy Louisiana and Entergy Gulf States requested that the LPSC (1) review Entergy Louisiana's and Entergy Gulf States' testimony and exhibits relating to the costs associated with Hurricanes Katrina and Rita, and declare that those verified, actual storm-related costs through May 31, 2006 are $466.8 million for Entergy Louisiana and $200.3 million for Entergy Gulf States in the Louisiana.

Ports and Harbors: The Port of Lake Charles is the 12th largest seaport in the U.S. It encompasses 203 square miles in Calcasieu Parish and handles 5 million tons of cargo annually. It also owns and operates: three marine terminals, the City Docks, Bulk Terminal No. 1, a 3-mile long Industrial Canal, and two industrial parks. The principal cargoes moving through the Port are bagged rice, flour and other food products, forest products, aluminum, petroleum coke and other petroleum products, woodchips, and barites. The Port reopened for ships and cargo within days after the storm and reports that the Calcasieu ship channel leading to the Gulf of Mexico is clear to its normal depth of 40 feet. This is vital for ocean-going vessels delivering crude oil to local refineries. The West Calcasieu Port on the Intracoastal Waterway south of Sulphur suffered minor damage and all tenants were quickly back in business.

Current Status: Fully operational; the Calcasieu River is unrestricted and has been open to the project depth of 40 feet since Oct. 6, 2005.

Pipelines: A number of oil and gas pipelines run through Calcasieu Parish. One of the most important is the Colonial Pipeline which delivers a daily average of 100 million gallons of gasoline, home heating oil, aviation fuel and other refined petroleum products to communities and businesses throughout the South and Eastern United States. Several pumping relay stations were flooded, but the pipeline was operating at 100% capacity within three days of the storm.

Current Status: The Colonial Pipeline was operating at full capacity by October 13th.

The LNG Marine Terminal: The LNG facility on the Calcasieu Industrial Channel does not employ a lot of workers, but it is one of the larger tax payers in the parish. There was some damage to the facilities and interruption of traffic, but operations were quickly restored.

Current Status: Fully operational

The Calcasieu Ship Channel: The 32-mile long Calcasieu Ship Channel connects the Port of Lake Charles with the Gulf of Mexico and is critical to the economy of Southwest Louisiana. Six to eight supertankers a week travel up the channel to deliver oil to the Citgo and ConocoPhillips refineries and to LNG maritime terminal located on the channel. Traffic on the ship channel was temporarily interrupted by Hurricane Rita but there were few long term effects.

Current Status: Fully operational

The Chennault International Airport and Industrial Park: Chennault International Airport occupies a former SAC Air Force base along Interstate 10 east of the City of Lake Charles. It has a 10,700 foot runway and its tenants include Northrup Grumman, EADS Aeroframe Services, and Louisiana Millworks. Sowela Technical College and Mallard Cove, an 18-hole championship golf course, also operate on the 1,600 acre site. Hurricane Rita destroyed the roof systems on 6 of 7 hangars, and 1 large warehouse; damage has been estimated at $35 to $40 million. Nevertheless, the airport was operational with a mobile control tower immediately after the storm and manufacturing operations quickly resumed.

Current Status: 5 of 6 damaged hangars have been repaired along with the warehouse. Chennault was used as the staging area for after storm operations. Further, one facility customer, Aeroframe, had 147 Pre-Rita employees and currently has over 400. They currently have a need for housing facilities of new workers.

The Lake Charles Regional Airport: The Lake Charles airport is the only commercial airport between Lafayette, Louisiana and Beaumont, Texas. It generally handles approximately 4,000 passengers a month. The 45,000 square foot terminal was destroyed by a tornado and the airport was shutdown for 15 days, but service was restored after converting the Airport Fire Station into a temporary passenger terminal. The damage to facilities has been estimated at $20 million, plus $500,000 for immediate clean up and repairs before resuming operation.

Current Status: Continental Airlines had cut back service to only three flights per day, but the schedule has returned to normal and traffic is up approximately 10% compared to pre-Rita volume.

McNeese State University: McNeese State University has 8,800 students in its undergraduate and graduate programs and over 700 full- and part-time faculty and staff on its payroll. It maintains a 99-acre main campus in south Lake Charles, plus a 402 acre farm and a 65-acre athletic complex. Although the campus was heavily damaged by both wind and flooding, leaving numerous buildings and dormitories unusable, FEMA trailers were brought in and classes resumed on October 27th, allowing the fall semester to be completed by December 24th. Damage to McNeese facilities is estimated to be $25 million.

Current Status: Temporary Repairs were made to prevent further damage, but all or parts of seven buildings are still unusable. Enrollment is down about 10%

Sowela Technical Community College: SOWELA is a two-year technical community college located on a 58-acre campus adjacent to the Chennault International Airport. It has over 1,600 students and 160 faculty and staff. SOWELA's campus was heavily damaged by Hurricane Rita: Eight buildings and 12 support buildings were severely damaged with repairs estimated to cost between $5 and $9 million.

Current Status: Classes are in session with all programs being offered this fall with an enrollment of 1635 students. Through the Board of Regents, the state has allocated more than $1.6 million in Higher Education Federal Funds to SOWELA, and more than $817,000 has been obligated through the PA program with non-federal matching funds provided through the Local Government Infrastructure Program.

The Lake Charles Civic Center: The Lake Charles Civic Center is located on the lake in downtown Lake Charles. It contains a 2,000 seat theater, a 7,500 seat coliseum, and an exhibition hall. After Hurricane Katrina it sheltered over 2,000 evacuees from the New Orleans area, but they had to re-evacuate as Hurricane Rita approached. The civic center sustained approximately $4 million in damage to its roof and upper floors from Rita, yet despite the damage it remained open to anyone in need after the storm. The facility also had numerous events cancelled during the Katrina/Rita time period resulting in significant loss of income.

Current Status: Roof repairs are pending.

The Gaming Industry: Prior to Hurricane Rita, the five casino operations in Southwest Louisiana—Delta Downs, The Isle of Capri, Harrah's, the Grand Casino-Coushatta, and the just-opened L'auberge du Lac resort---had a combined win of approximately $70 million a month and approximately 8,000 employees. All of these facilities were damaged by the storm, but within a month all except the Harrah's riverboat complex on Lake Charles were re-opened and fully operational. Although $50 million in revenue was lost while these facilities were closed, business after the storm was up approximately 20% due to the destruction of casinos on the Mississippi gulf coast and business from the influx of workers to repair hurricane damage.

Current Status: Harrah's has sold its two licenses to Pinnacle Entertainment which plans to add 200 rooms to its L'auberge resort and build a new $400 million casino on adjoining property.

Government and Public Administration: The Calcasieu Sheriff's Department estimates damage to its facilities and equipment is $2 million to $3 million. All but a few of the Sheriff's vehicles sustained damage from flying debris.

Current Status: All repairs have been made

B. ECONOMIC ACTIVITY

There were approximately 85,000 persons employed in Calcasieu Parish prior to Hurricane Rita, and the median household income of $36,587 was one of the highest in the state. The unemployment rate was 5.3% in the second quarter of 2005. After the storm it rose to nearly 15%, but has fallen to less than 4% since January due to all the reconstruction work in Calcasieu and surrounding parishes.[10]

Refining and petrochemicals are the backbone of the economy, with approximately 6,500 workers directly employed in the industry and another 40,000 jobs attributable to spending by the plants, including approximately 8,000 construction workers. Casino gaming has become increasingly important in recent years, accounting for approximately 8,000 direct and indirect jobs. The Port of Lake Charles, Chennault International Airport and Industrial Park, and McNeese State University are also important contributors to the primary-sector of the economy. Table 23 shows the largest employer in Calcasieu Parish and an estimate of their number of employees.

Table 23

Major Employers in Calcasieu Parish

Employer	Industry	Employees	Location
Calcasieu Parish School Board	Education	4,000	Lake Charles
Turner Industries	Fabrication	2000	Lake Charles
Lake Charles Memorial	Health Care	1700	Lake Charles
St. Patrick's Hospital	Health Care	1500	Lake Charles
Pinnacle Entertainment	Gaming	1500	Lake Charles
PPG Industries	Chemicals	1500	Lake Charles
Harrah's Riverboat Casino	Gaming	1450	Lake Charles
Citgo Petroleum	Oil Products	1206	Lake Charles
ConocoPhillips	Refining	1,200	Lake Charles
Delta Downs	Gaming	1000	Vinton
Calcasieu Parish Police Jury	Government	950	Lake Charles
City of Lake Charles	Government	780	Lake Charles
Isle of Capri	Gaming	733	Westlake
Arco	Chemicals	700	Lake Charles
West Cal/Cam Hospital	Health Care	682	Sulphur

Source: Entergy

[10] Current data on the economy of Southwest Louisiana are available through the H.C. Drew Center for Economic Development at the web site: http://www.mcneese.edu/drewecon/default.asp

The only major employer significantly impacted by Hurricane Rita was Harrah's, which was unable to reopen its riverboat casino complex and subsequently closed its hotel. However, many of Harrah's former employees were absorbed by other casino operations in the area which saw their business increase by 20 to 30 percent after the storm.

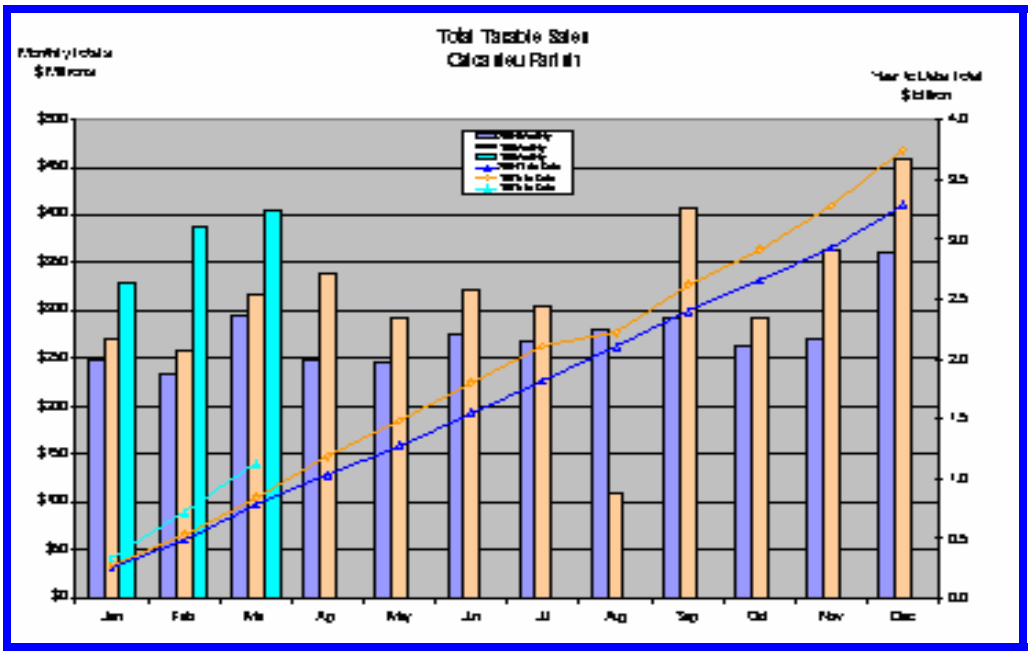
One of the greatest impediments to economic recovery in Southwest Louisiana has been a labor shortage, particularly among skilled craftsmen and at the low end of the wage spectrum. When FEMA arrived they had a mandate to hire locally. But because FEMA's wages are considerably above local wages, they hired many highly skilled workers to perform relatively low-skilled jobs. The local refineries and petrochemical plants, which are presently very profitable due to the high price of oil, were able to compete with FEMA by raising their wages by four to six dollars an hour and offering hiring and retention bonuses. However, smaller businesses that are less well capitalized have been unable to stay in this bidding war. Many local businesses have not re-opened because their former employees are now working for FEMA or are employed at the plants, while others are operating at reduced hours with untrained and overworked employees. Extension of unemployment benefits is also frequently cited as a reason why employees have been slow to return to their jobs. Even one year after the storms, this condition still persists in the local labor market.

The commercial sector has been booming since the hurricane due to people needing to restock their freezers, replace damaged vehicles and equipment, and repair their homes. Table 24, below, shows the trend in sales tax collections pre and post Rita.

Presently tax revenues are up nearly fifty percent, but some local officials fear that when this boom is over, long-term damage to the underlying economy will become apparent. For example, tourism had been a significant factor in the economy of Southwest Louisiana, but presently the wildlife preserves are closed and the hotels that survived the storm are filled with recovery workers. This problem is likely to persist for some time.

Table 24

Sales Tax Revenue in Calcasieu Parish,
Pre and Post Hurricane Rita



Source: H.C. Drew Center for Economic Development, McNeese State University

Casino gaming has been a real bright spot in the economy. Just four months before the storm, Pinnacle Entertainment opened its 750-room L'auberge du Lac casino/golf resort. With the destruction of the casinos on the Mississippi gulf coast, this became the largest casino in the south and business boomed. Now Pinnacle plans to build an additional 250 rooms at L'auberge plus build a new 400-room casino resort called Sugarcane Bay adjacent to L'auberge. In general, all of the casinos in the region have seen a 20% or more increase in their business-- more than offsetting the closure of the Harrah's complex--as the area is flush with cash and construction workers.

Agriculture and the lumber industry were also damaged. Calcasieu Parish lost half of its trees in the storm, the equivalent of 626 million board feet of lumber consisting of 422 million board feet of softwood and 204 million board feet of hardwood. Storm also damaged roughly half of the soybean, sugarcane, and hay crop in the parish, as well as 900 acres of standing rice. Approximately 2,000 buildings were destroyed, 2,400 experienced major damage and 1,600 sustained minor impairment. Nearly 3,500 pieces of farm equipment were damaged or destroyed, most pasture fencing was down, and approximately 500 head of cattle drowned.

C. EDUCATION

The Calcasieu Parish School Board is the largest employer in the parish. It operates approximately 60 schools and had a pre-Rita enrollment of 31,600 students, not including the 2,000 children of Katrina evacuees who were enrolled following that disaster. There are also over 10 private elementary and secondary schools. The School Board estimates that it cost them $24 million to clean up, repair, and remove mold from its facilities. Most of this cost was covered by insurance or is being reimbursed by FEMA or the LRA (see box, below).

EXPENSES RECOVERED
(in millions)

$10.75 million insurance
$ 2.25 computer insurance
$ 9.00 estimated FEMA recovery
$ 2.00 request from LRA

Source: Calcasieu Parish School Board

The decision was made not to reopen any schools until all schools could be reopened in order to avoid having schools at different points in the curriculum. Reopening was delayed by the need for mold remediation at several schools; classes finally began again on October 25th with students attending an extra hour each day to make up for missed time. Many private schools reopened earlier. When the public schools reopened they had 30,500 students, a decrease of 1,100 students from the beginning of the 2005 school year. This fall enrollment was down to 29,700 at the start of the 2006 school year.

Table 25

Calcasieu Parish School Enrollment
Pre and Post Hurricane Rita

	Enrollment	Percentage
September 24, 2005	31,600	100%
October 25, 2005	30,500	96.5%
August 20, 2006	29,700	94.0%

Source: Calcasieu Parish School Board

D. HOUSING

Nearly two-thirds of the housing stock was damaged or destroyed by wind and/or flooding. The U.S. Army Corps of Engineers installed 17,104 temporary “blue roofs" on houses, apartments and a limited number of other structures that sustained roof damage but were deemed to be at least 50% structurally sound. Table 26 shows the damage to housing in Calcasieu Parish, as reported by FEMA.

Table 26

Housing Damage in Calcasieu Parish

Owner-Occupied Units	
Total Damaged	29,867
Flood Damaged	559
Major or Severe Damage	4,428
Major or Severe Flood Damage	388
Rental Units	
Total Damaged	14,279
Flood Damaged	194
Major or Severe Damage	1,953
Major or Severe Flood Damage	99

Source: FEMA

One of the most serious post-hurricane problems facing Calcasieu Parish is a shortage of housing for those displaced from damaged private residences and apartments. Efforts to provide FEMA trailers for temporary housing are proceeding, but the number available is not likely to meet the demand in the foreseeable future. At McNeese State University, one entire dormitory and parts of other student housing units cannot reopen for the fall semester. Some displaced students are being housed on the “Texas Clipper” (marine vessel) which is docked at the Port of Lake Charles.

E. THE ENVIRONMENT

According to a NRCS Damage Survey Report, trees, branches, and debris fell into waterways, causing blockage and increased flooding to homes and schools in Moss Bluff. Some neighborhoods in Sulphur also suffered flood damage due to poor drainage. Within four months, approximately 70% of the debris from the storm had been gathered up, but disposal of it presented another problem. The debris included 5.73 million cubic yards of organic matter such as trees and plants, furniture, ruined freezers, construction material and material from building demolition. If stacked on one football field, it would create a pile a half-mile high.

The hurricane caused significant sloughing and degradation of the grade and slopes of the Parish's waterways and ditches, which resulted in a reduction in their flow and cleansing capacity. This caused stagnation, mosquito breeding, and further degraded water quality in these waterways and ditches.

V. SUMMARY AND CONCLUSION

Hurricane Rita was one of the most powerful storms ever observed in the Gulf of Mexico; more powerful than even Hurricane Katrina, which devastated New Orleans three weeks earlier. Although Hurricane Rita did not cause a great loss of life, the damage to coastal communities, ecologically important marshes and wetlands, and the industrial and social infrastructure of Southwest Louisiana was enormous and is expected to cost more than $10 billion to repair, making Rita the third costliest natural disaster in US History.

At the time Rita struck along the Louisiana/Texas border, the resources of the area were already stressed with an additional 20,000 people who fled hurricane Katrina. Evacuees had to be re-evacuated as Southwest Louisiana residents became evacuees themselves. Southwest Louisiana residents learned many lessons were learned from the multiple disasters that befell New Orleans: most people evacuated ahead of the storm and federal, state and local officials cooperated to maintain law and order, and emergency supplies were rapidly distributed to people in need.

Despite the storm's far-reaching impact, the region has rebounded at a remarkable pace. This is a testament to the spirit and determination of Southwestern Louisiana people and the public officials and civic leaders who have guided the area's recovery. This spirit of cooperation will be just as critical in the recovery's second year, as residents confront critical rebuilding decisions involving such monumental issues as housing, health care, workforce training and planning – issues that will re-shape the future of the region for generations to come.

The destruction wrought by Hurricane Rita brought with it many challenges; but it also brought opportunities. It is, in a sense, a chance to start over using modern technology and practices. But taking full advantage of the opportunities will require an unprecedented level of cooperation among agencies to streamline policies and accelerate the rebuilding process. It also will take a shared regional vision for the future, an openness to rebuild in ways that are different than before and a willingness to try new approaches to problems that existed prior to the storm. If this can be achieved, Southwest Louisiana will come out of this disaster "safer, stronger and smarter."