



## Rebuilding New Orleans

*Dan Gagne*

*Do you know what it means to miss New Orleans, when that's where you left your heart?*

—Louis Armstrong

On January 1<sup>st</sup>, 2006, New Orleans, Louisiana was still reeling from the devastation of Hurricane Katrina. Coast Guard Vice Admiral Thad Allen had been given full command of the Bush administration's Hurricane Katrina onsite relief efforts. He had received high praise for his leadership of the initial recovery efforts that rescued over 33,500 stranded individuals. But as the new year dawned, he looked forward to the future of the city.

Displaced residents were in holding patterns in cities such as Houston, Texas and Mobile, Alabama, waiting to learn more information before committing either to return to New Orleans or make more permanent arrangements in their new cities. At the same time, real estate developers were hesitant to build new properties because they believed the risk of financial loss was too great to justify the upfront capital expenditure.

It was a stalemate. Residents were waiting for developers to rebuild the infrastructure and developers were waiting for residents to move back. Even though this problem was not his official responsibility, Vice Admiral Allen tried to think of solutions to this problem. He thought he could influence policymakers at the federal level if he presented a clear and insightful recommendation.

### Background

On the morning of August 29<sup>th</sup>, 2005, Hurricane Katrina roared through New Orleans, causing extensive wind damage and breaching the network of levees that protected the historic yet vulnerable

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This case was prepared by Dan Gagne under the supervision of Professor David McAdams as the basis for class discussion. David McAdams is an Assistant Professor of Applied Economics.

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city. The costliest natural disaster in U.S. history, Katrina flooded 80% of New Orleans, caused more than 1,800 casualties and an estimated \$81 billion in damage. Hundreds of thousands of residents were forced to flee the city, either in advance of the storm or in the midst of the flooding and lawlessness that ensued. See **Exhibit 1** for a timeline of events between August 27<sup>th</sup> and September 3<sup>rd</sup>. In the wake of this catastrophe, key questions remained unanswered regarding the scope and timing of a potential rebuilding effort:

- Did the potential revival of the New Orleans economy provide attractive investment opportunities for the private sector / real estate developers?
- Would displaced residents return to New Orleans, or would safety and economic concerns cause them to permanently relocate?

### **U.S. Coast Guard Vice Admiral Thad William Allen**

Vice Admiral Thad Allen was serving as the Coast Guard's chief of staff<sup>1</sup> when he was given full command of the Bush administration's Hurricane Katrina onsite relief efforts on September 9, 2005. Following the infamous removal of Federal Emergency Management Agency Director Michael Brown, Homeland Security Secretary Michael Chertoff placed Allen in charge.

Allen had a great deal of previous experience managing large scale operations, most notably directing the Coast Guard's East Coast response efforts to the September 11<sup>th</sup> attacks as Atlantic Area Commander and Commander of the Maritime Defense Zone Atlantic. He also led the bureaucratic transition of the Coast Guard to the Department of Homeland Security from the Department of Transportation.

He held a Master of Public Administration degree from George Washington University and an MBA from the MIT Sloan School of Management. He graduated from the United States Coast Guard Academy in 1971, where he was a standout football player.

### **Importance of New Orleans**

Strategically located near the mouth of the Mississippi River, New Orleans was one of the busiest ports in the U.S, serving more than 6,000 ocean-going ships annually. Twenty percent of all U.S. exports passed through New Orleans, and the Louisiana Gulf Coast was home to a significant amount of domestic oil and natural gas production as well as a key entry point for imported oil. Off-shore oil and natural gas wells produced 18 percent of domestic oil and 24 percent of domestic natural gas. Without New Orleans, the U.S. would have been less competitive in the export market and even more susceptible to higher energy prices and shortages. The port generated 107,000 jobs, with over \$2 billion in earnings. In addition, thirty percent of U.S. seafood came from the Louisiana coast.

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<sup>1</sup> As chief of staff, Allen was third in the Coast Guard's command structure, and was commanding officer of Coast Guard headquarters in Washington, D.C.

New Orleans was also an American icon of culture and tourism, one of the world's most unique cities with numerous historic and cultural issues of note (e.g., being recognized as "The Birthplace of Jazz").

### **Situation**

According to the MIT Center for Real Estate, Hurricane Katrina caused the displacement of over 380,000 New Orleans residents, most of whom had not returned by early 2006. Before the storm, the population was 450,000. The hurricane caused significant damage to homes and businesses:

- Out of 188,000 housing units, 105,000 (56 percent) suffered major damage.
- More than 5,000 New Orleans businesses were flooded, and most were still closed.
- Less than half of hospitals were operating and less than a third of restaurants were open.
- Three months after the storm, the restaurants that were open still served customers with disposable plates and cups because of a shortage of dishwashers. The lack of labor was alarming, restaurants offered wages that were double pre-Katrina levels for dishwashers and still could not find many takers.

Phillip Thompson, an MIT Associate Professor of Urban Politics, commented on the situation: "It's hard to know whether you can even find workers. Where will they come from? Where will they live?" Bringing in workers can add extraordinary costs to a project, Thompson said – and then there are the building materials. "If you think about building 100,000 units of housing, where will the material come from? How much will it cost?" Thompson asked.

The most unwieldy problem for rebuilding New Orleans is what Thompson called the "assembly problem" — getting enough people together in one place to have a viable community. "If you have children, you're not going to move back to a neighborhood where no one lives; schools may not re-open because no one else lives there. Most people want to move back with neighbors," Thompson said. Coordinating a move is difficult when the community doesn't know who will come back or when they will come back.

### **Real Estate Uncertainty**

There had been some real estate development activity in New Orleans, but it had been mostly speculative. The uncertainty in the market was too high to justify the actual breaking of ground. For example, Donald Trump indicated plans to build a 70-story, 650 unit condo/hotel hybrid in the city's downtown business district, representing an investment in the neighborhood of \$200 million. However, construction start dates for this project had not yet been scheduled and the work might not begin for years.

## Displaced Residents

The experience for displaced residents varied widely depending on the location where they relocated. The largest block of evacuees went to Houston and most of these individuals wanted to get back to New Orleans as soon as possible. Many of these displaced residents were in the lower class and found life difficult in Houston. The Houston communities struggled to support such a large group. After the initial welcoming period, displaced New Orleanians felt that Houston residents quickly changed their mood to one of resentment.

There was a stark contrast in other cities. For example, the welcoming in Salt Lake City was so warm that many Katrina victims decided that they didn't want to return to New Orleans and would relocate to Utah permanently.

But typically, the experience was somewhere in the middle. The New Orleans daily newspaper, the Times-Picayune, highlighted two personal stories in October:

Joe Doucette, an Uptowner before the storm, just got approval for a mortgage on a house in Charlotte, N.C., and said he won't even be thinking about coming back for at least a year. "We have a 2-year-old, and we have to take that into major consideration," he said. "If we didn't have her, I think we'd be stuck in down there or at least more likely to go back." New Orleans Mayor Ray Nagin previously asked parents to think carefully about returning to the city with children. If he feels the city's ready, Doucette, a contractor, said he can always turn around the Charlotte house he's planning to fix up for a profit in a year. If not, he said, that's OK too. "Charlotte's a nice place," he said. "I haven't had a bad meal here yet."

His friend Ted Sheppard, who was planning to team up with Doucette for some contracting work before Katrina, said he's comfortable with his family in Savannah, Ga., and unlikely to return. "I don't think it's going to be a place for my children, and, even when it is, I think it's going to take a really long time for that to happen. And when it does happen, we'll probably be pretty well settled here," he said. That said, Sheppard said he's planning to fix up his Broadmoor home, which took 6 feet of water, and either base his business from there or rent it out. "I want to be part of the effort to rebuild New Orleans," he said.

See **Exhibit 2** for a map of where evacuees relocated and see **Exhibit 3** for a newspaper article that explores some of the issues that individuals faced when deciding to rebuild.

## Mayor Ray Nagin's Rebuilding Plan

New Orleans Mayor Ray Nagin had become an international figure in the days that followed Hurricane Katrina. He was very critical of the delayed federal response and received much press attention due to his tendency to make very emotional and controversial statements.

Nagin (and many other local political leaders) would never publicly admit that shrinking the city footprint was an option. This would have amounted to political suicide. Instead, Nagin said that the government should not “impose” plans on anyone and that it should be up to the local communities to determine where and how they should rebuild. Thus, he advocated a market-driven recovery, leaving the decision up to the people.

## Options

Vice Admiral Allen considered several different recommendations. Perhaps the easiest option was to wait and see if the market would work itself out, as Mayor Nagin suggested. There was a slow trickle of displaced residents returning and repairing their homes, and perhaps this activity would pick up. To date, these individuals tended to be in the wealthy upper class and had the most to gain by returning to their large homes and making improvements.

Some individuals, including Speaker of the U.S. House of Representatives Dennis Hastert, even asked whether New Orleans should be rebuilt at all. After all, there was a high probability that another strong hurricane would hit at some point in the future. However, for public safety and security reasons, Allen felt strongly that the levees should be rebuilt, regardless of their expense. President Bush had made a commitment to rebuild the Gulf Coast and had pledged \$3.1 billion in a levee improvement plan as detailed in **Exhibit 4**.

For the economic redevelopment, he tried to think about what types of incentive packages would be most cost effective. Should the incentives target the displaced residents, real estate developers, or both? Would a large, up-front outlay of funds be best or should the expenditures be distributed over several months? And was this type of thing best left to the local or state government?

Allen was fairly sure there would be some type of federal relief package forthcoming and he felt that the president would listen to his perspective. But looking out at the abandoned and destroyed Lower 9<sup>th</sup> Ward, he wondered if any effort could return this city to its former glory.

**Exhibit 1 Selected Events from Hurricane Katrina Timeline**

**Katrina Day by Day – 2005** (from <http://www.nola.com/katrina/timeline/>)

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Saturday August 27	<ul style="list-style-type: none"><li>• Saturday morning most residents learn that Katrina's path is set for New Orleans</li><li>• Metro-area evacuations begin en masse clogging all outbound arteries of the city for 48 hours</li><li>• St. Tammany, St. Charles, Plaquemines Parishes announce mandatory evacuations</li><li>• Governor Blanco sends "State of Emergency" letter to President Bush</li><li>• LSU scientists issue a projected storm surge map</li></ul>
Sunday August 28	<ul style="list-style-type: none"><li>• At 10 a.m. Katrina becomes a Category 5 storm with winds of 175 m.p.h.</li><li>• At 11:30 a.m., President Bush vows to help those affected by the storm</li><li>• Superdome houses 26,000 residents as city's "refuge of last resort"</li><li>• Tropical storm-force winds close down emergency services in metro area</li></ul>
Monday August 29	<ul style="list-style-type: none"><li>• At 3 a.m., Katrina makes landfall as a Category 3 hurricane at the Southwest Pass at the mouth of the Mississippi River</li><li>• At 6 a.m., 317,000 households are without power</li><li>• At 7 a.m., water reported coming over the levee in the 9th Ward</li><li>• At 8:45 a.m., six to eight-foot flood waters reported in Lower 9th Ward</li><li>• At 9 a.m., winds rip hole in roof of Superdome</li><li>• At 9 a.m., eye of the storm passes to the east of New Orleans central business district. Windows in high-rise buildings blow out</li><li>• 11 a.m., NWS reports a breach in the Industrial Canal levee, emptying Lake Pontchartrain into the neighborhoods of Eastern New Orleans, the Lower Ninth Ward in Orleans Parish and all of St. Bernard Parish</li><li>• 2 p.m., breach in the 17th Street Canal is confirmed. Flooding of Lakeview, Mid-City, Broodmoor, Gentilly result over the next 48 hours.</li><li>• 2 p.m., flood waters in the Lower Ninth Ward reach 12 feet in some areas</li><li>• Flood waters continue to rise and it becomes apparent that it is a worst-case scenario</li></ul>
Tuesday August 30	<ul style="list-style-type: none"><li>• Local media reports that Martial Law is declared in Orleans, Jefferson and Plaquemines Parish</li><li>• Looting reports go national presenting New Orleans as a lawless and violent haven for those still trapped in the city</li><li>• Flood waters continue to rise throughout city</li></ul>
Wednesday August 31	<ul style="list-style-type: none"><li>• Some neighborhoods under as much as 20 feet of water</li><li>• Thousands stranded in houses, on roofs</li><li>• Approximately one million people with power in metro area</li><li>•</li></ul>

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## REBUILDING NEW ORLEANS

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Thursday September 1	<ul style="list-style-type: none"><li>• Corps of Engineers begins to build dam to stop levee breach at the 17th Street Canal</li><li>• More than 10,000 people have been rescued in St. Bernard Parish</li><li>• Times-Picayune asks, "Where is the cavalry?" as still no federal help has arrived</li><li>• Governor Blanco demands "no less than 40,000 troops"</li><li>• Mayor Nagin lambasts federal officials in a tirade for their lack of effective response</li><li>• First 5,000 of approximately 23,000 evacuees arrive at Houston Astrodome by bus</li></ul>
Friday September 2	<ul style="list-style-type: none"><li>• Bush seeks \$10.5 billion storm-relief package</li><li>• Bush tours area, says what is wrong "we're going to make right"</li><li>• Mayor Nagin predicts electricity to be out in city for three months</li></ul>
Saturday September 3	<ul style="list-style-type: none"><li>• FEMA says storm overwhelmed agency; outrage grows in Washington</li><li>• President Bush ordered 7,200 additional active duty troops to the region, for a total of 30,000</li></ul>

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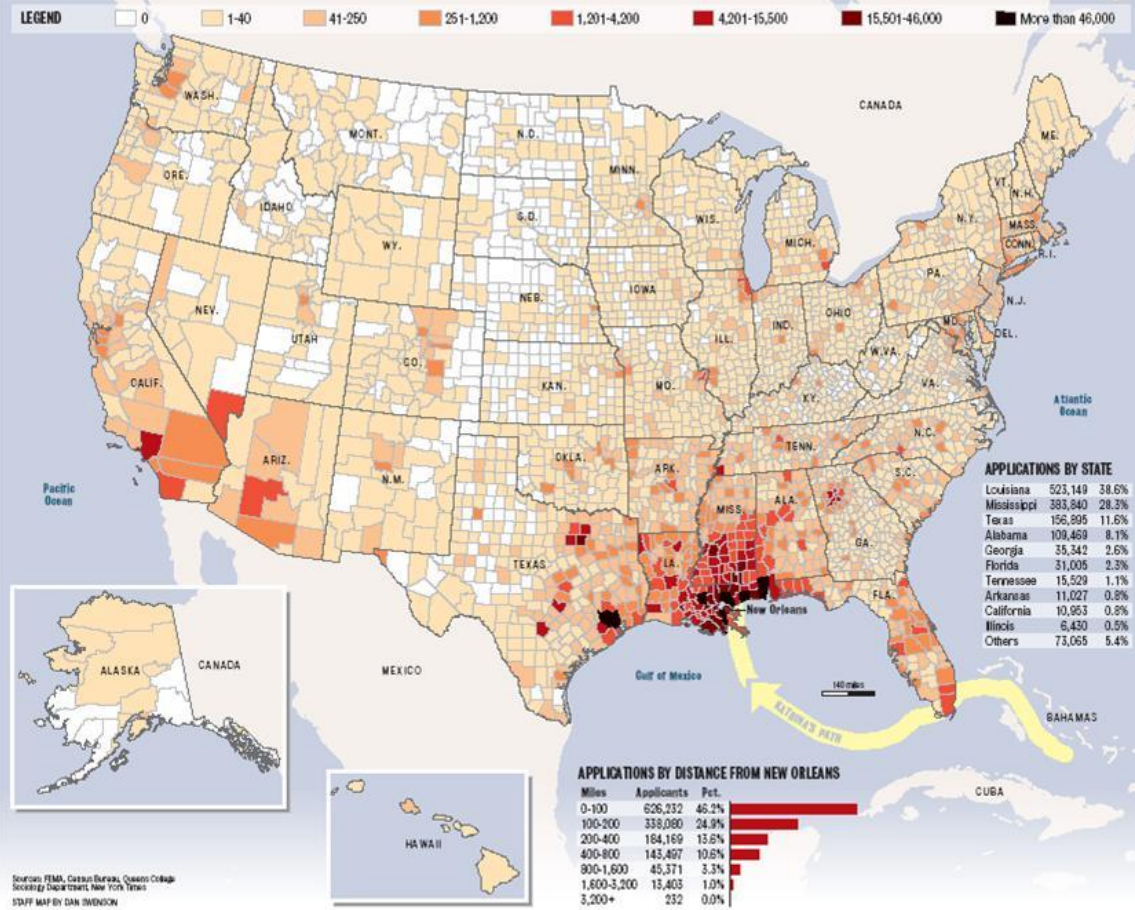
**Exhibit 2** *Map of Where Evacuees Relocated*

A-18 THURSDAY, OCTOBER 13, 2005 THE TIMES-PICAUNE

HURRICANE AFTERMATH

# KATRINA'S EXODUS

The displaced victims of Hurricane Katrina have filed for disaster assistance with FEMA in nearly every county in every state. A look at the distribution of 1.36 million individual applicants who registered with FEMA:





**Exhibit 3     *The Times-Picayune article on rebuilding, Sunday, October 02, 2005***

Where to begin? - As thousands of people look to rebuild their homes and their lives, that question may be the hardest to answer.

'One of the charms of New Orleans was the irrationality'

When floodwaters laid waste to Dennis Terry's Lakeview townhouse, his first few steps were obvious ones: Recover anything worth saving. Call the insurance company. Call the Federal Emergency Management Agency. Wait for a check to arrive, hopefully one that reflects the home's true value.

Now, though, Terry faces a labyrinth of more complex decisions. So do tens of thousands of owners of uninhabitable homes across a swath of New Orleans and its environs.

Terry's biggest questions: Can he rebuild? Should he? And if he does, will he have to build a home that is less vulnerable to flooding than the one that was lost in Hurricane Katrina's brutal aftermath?

"Getting a real answer on anything is very difficult at this point," Terry said. People want the rebuilding process to get going, he said, but "we don't even know when it's going to start."

State Rep. Peppi Bruneau, whose Lakeview home was destroyed, said he's just as stymied as his neighbors by the lack of information. Like them, he wants to know whether the land will be elevated, whether new houses will have to be built on piers, and whether the levee system will be sufficient to prevent another wipe-out...

...To some extent, the questions posed by Terry and others in his predicament can't yet be answered. Local officials are just beginning to grapple with the challenges posed by rebuilding the most devastated parts of the city, ranging from Lakeview to the Lower 9th Ward to St. Bernard Parish.

They must decide whether it's wiser to rebuild in flood-prone areas or whether it makes more sense to turn some areas into green space. In areas in which rebuilding is certain, they'll have to decide what kind of flood protection they want.

Will planners write new building codes, similar to those in coastal areas of Florida, that require homes to be more hurricane proof? Will they bring in tons of dirt aimed at raising the elevations of certain neighborhoods, or require building materials that are less prone to flood damage, such as concrete?

REBUILDING NEW ORLEANS  
Dan Gagne

No matter what local officials decide, most homeowners whose properties sustained heavy flood damage will be forced to meet current building requirements for the first time. Thousands of homes will have to be raised or torn down and rebuilt at higher elevations in order to meet zoning codes that were first created in the early 1970s - well after most properties in the area were erected...

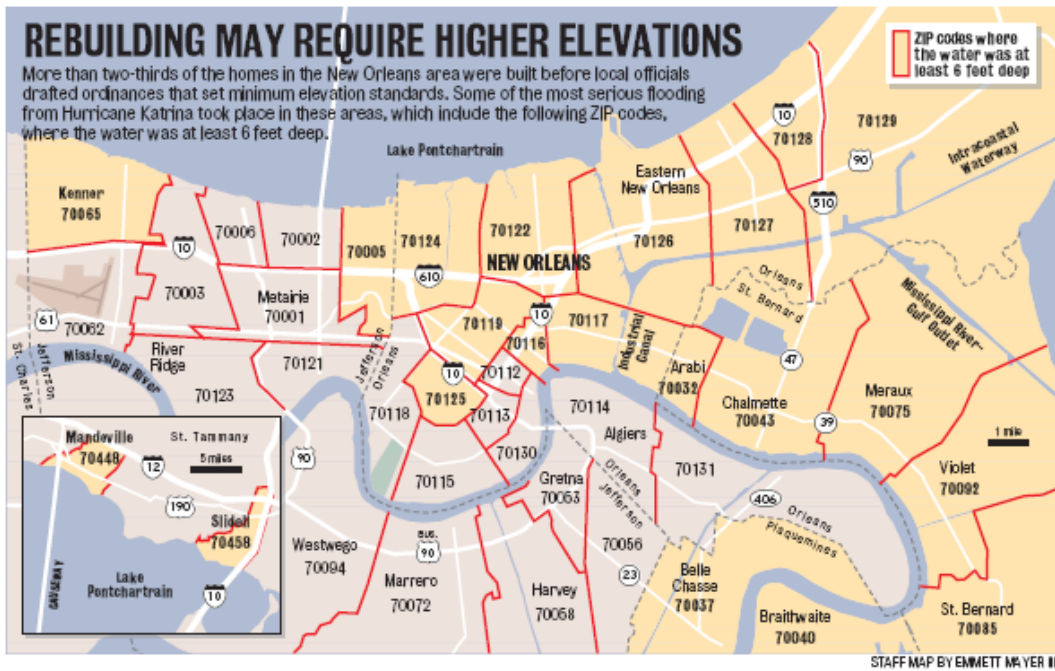
...Bruneau said nobody in Lakeview would sit by while developers built "condo world." While he wouldn't support mandatory style codes, Bruneau believes that individual owners would each rebuild their own piece of the hodgepodge of bungalows, ranch houses, "McMansions" and townhouses that filled the neighborhood.

[Comment from Kristina Ford, director of the city planning commission]:

"How do we rebuild a city that is so complicated, and interestingly so? There will be an impulse to do this completely rationally, then we'll end up with something that has none of New Orleans' quality. One of the charms of New Orleans was the irrationality."

By Gordon Russell, Meghan Gordon and Jeffrey Meitrodt, Staff writers

**Exhibit 3 (con't)**



### HIGH SOCIETY

If the cost to repair your flood-damaged home is less than 50 percent of the property's market value, you can repair or rebuild it at the current elevation.

If the cost to repair your flood-damaged home is 50 percent or more of the property's market value, you must either raise it or tear it down and rebuild at the elevation level currently required for new construction in your neighborhood. Depending on the neighborhood, this can be as much as 10 feet higher than your current elevation.

STAFF GRAPHIC BY EMMETT MAYER III

**Exhibit 4**      **Details on Federal Pledge of \$3.1 billion in Levee Improvements**

