Houston Chronicle 12/01/01

KEEPING ITS HEAD ABOVE WATER

New Orleans faces doomsday scenario

By ERIC BERGER

New Orleans is sinking.

And its main buffer from a hurricane, the protective Mississippi River delta, is quickly eroding away, leaving the historic city perilously close to disaster.

So vulnerable, in fact, that earlier this year the Federal Emergency Management Agency ranked the potential damage to New Orleans as among the three likeliest, most castastrophic disasters facing this country.

The other two? A massive earthquake in San Francisco, and, almost prophetically, a terrorist attack on New York City.

The New Orleans hurricane scenario may be the deadliest of all.

In the face of an approaching storm, scientists say, the city's less-than-adequate evacuation routes would strand 250,000 people or more, and probably kill one of 10 left behind as the city drowned under 20 feet of water. Thousands of refugees could land in Houston.

Economically, the toll would be shattering.

Southern Louisiana produces one-third of the country's seafood, one-fifth of its oil and one-quarter of its natural gas. The city's tourism, lifeblood of the French Quarter, would cease to exist. The Big Easy might never recover.

And, given New Orleans' precarious perch, some academics wonder if it should be rebuilt at all.

It's been 36 years since Hurricane Betsy buried New Orleans 8 feet deep. Since then a deteriorating ecosystem and increased development have left the city in an ever more precarious position. Yet the problem went unaddressed for decades by a laissez-faire government, experts said.

"To some extent, I think we've been lulled to sleep," said Marc Levitan, director of Louisiana State University's hurricane center.

Hurricane season ended Friday, and for the second straight year no hurricanes hit the United States. But the season nonetheless continued a long-term trend of more active seasons, forecasters said. Tropical Storm Allison became this country's most destructive tropical storm ever.

Yet despite the damage Allison wrought upon Houston, dropping more than 3 feet of water in some areas, a few days later much of the city returned to normal as bloated bayous drained into the Gulf of Mexico.

The same storm dumped a mere 5 inches on New Orleans, nearly overwhelming the city's pump system. If an Allison-type storm were to strike New Orleans, or a Category 3 storm or greater with at least 111 mph winds, the results would be cataclysmic, New Orleans planners said.

"Any significant water that comes into this city is a dangerous threat," Walter Maestri, Jefferson Parish emergency management director, told Scientific American for an October article.

"Even though I have to plan for it, I don't even want to think about the loss of life a huge hurricane would cause."

New Orleans is essentially a bowl ringed by levees that protect the city from the Mississippi River to its south and Lake Pontchartrain to the north. The bottom of the bowl is 14 feet below sea level, and efforts to keep it dry are only digging a deeper hole.

During routine rainfalls the city's dozens of pumps push water uphill into the lake. This, in turn, draws water from the ground, further drying the ground and sinking it deeper, a problem known as subsidence.

This problem also faces Houston as water wells have sucked the ground dry. Houston's solution is a plan to convert to surface drinking water. For New Orleans, eliminating pumping during a rainfall is not an option, so the city continues to sink.

A big storm, scientists said, would likely block four of five evacuation routes long before it hit. Those left behind would have no power or transportation, and little food or medicine, and no prospects for a return to normal any time soon.

"The bowl would be full," Levitan said. "There's simply no place for the water to drain."

Estimates for pumping the city dry after a huge storm vary from six to 16 weeks. Hundreds of thousands would be homeless, their residences destroyed.

The only solution, scientists, politicians and other Louisiana officials agree, is to take large-scale steps to minimize the risks, such as rebuilding the protective delta.

Every two miles of marsh between New Orleans and the Gulf reduces a storm surge -- which in some cases is 20 feet or higher -- by half a foot.

In 1990, the Breaux Act, named for its author, Sen. John Breaux, D-La., created a task force of several federal agencies to address the severe wetlands loss in coastal Louisiana. The act has brought about $40 million a year for wetland restoration projects, but it hasn't been enough.

"It's kind of been like trying to give aspirin to a cancer patient," said Len Bahr, director of Louisiana Gov. Mike Foster's coastal activities office.

The state loses about 25 square miles of land a year, the equivalent of about one

football field every 15 minutes. The fishing industry, without marshes, swamps and fertile wetlands, could lose a projected $37 billion by the year 2050.

University of New Orleans researchers studied the impact of Breaux Act projects on the vanishing wetlands and estimated that only 2 percent of the loss has been averted. Clearly, Bahr said, there is a need for something much bigger. There is some evidence this finally may be happening.

A consortium of local, state and federal agencies is studying a $2 billion to $3 billion plan to divert sediment from the Mississippi River back into the delta. Because the river is leveed all the way to the Gulf, where sediment is dumped into deep water, nothing is left to replenish the receding delta.

Other possible projects include restoration of barrier reefs and perhaps a large gate to prevent Lake Pontchartrain from overflowing and drowning the city.

All are multibillion-dollar projects. A plan to restore the Florida Everglades attracted $4 billion in federal funding, but the state had to match it dollar for dollar. In Louisiana, so far, there's only been a willingness to match 15 or 25 cents.

"Our state still looks for a 100 percent federal bailout, but that's just not going to happen," said University of New Orleans geologist Shea Penland, a delta expert. "We have an image and credibility problem. We have to convince our country that they need to take us seriously, that they can trust us to do a science-based restoration program."