



© 2001 Dave Rossman

Rowing down Highway 59 after Tropical Storm Allison: How much water will the new trench hold when the next big storm hits?

Storm Warning

While the rest of the nation watches on big screen plasma televisions, in the Gulf States those affected by Hurricane Katrina are participating in a live-action drama seen too many times by their forefathers. They face a future already challenged, and now they must keep the President's promise to rebuild "better and stronger" than ever and to do so "out of harm's way." Soon the earnest planning and design will begin. The question of how best to prevent future damage to citizens and businesses on the Gulf Coast will be posed and quickly answered. The goal will be to repair damaged structures and rebuild those destroyed as quickly as possible in order to get "back to normal." Like their Gulf forefathers, those who have been affected by Katrina will most likely not take the time to consider their options.

Two months ago Houston dodged a similar threat from Hurricane Rita, which aimed its destructive might directly at the city before shifting off to the east. But only four years ago thousands suffered severe flood damage from Allison, another fickle tropical storm.

In the weeks and months that the Katrina recovery will require, the focus of most recovery teams will probably shift, as it did in Houston, from a mindset of inquiry and planning to a mindset of immediate problem solving. Pressures on officials will be immense, and the ability to maintain a long view will diminish day by day. Soon enough, the entire focus will become a near frenzy to recover and return to the normal rhythms of the city. In the process, the affected population,

just like that in Houston, will lose the ability to ask the question, "How did this happen?" And more importantly the need to answer the more essential question—"What must we do regionally to prevent this from happening again?"—will be lost in the rush.

The problem-solving, get-it-done-fast, and get-a-bigger-hammer mindset will settle in, and soon enough New Orleans, Gulfport, and Biloxi will be rebuilding in the below sea level bowl, 60 feet from the Gulf of Mexico—as did the Texas Medical Center institutions which built back at the end of the narrowest point of the Brays Bayou watershed (the "rain water surface flow funnel") after Allison. The recovery effort will seize upon getting the harmed back to doing what they, and we, have always done.

In fact the "recovery" process is designed to end up with this status quo rebuilding as the desired result. The governing law for all natural disasters is the Stafford Act. The section of the law that governs what can happen is the public assistance section. The cardinal rule of the program is to return what was damaged to its pre-disaster condition. The federal taxpayer will not be expected to improve or enhance anything beyond what existed before. These chilling words and the strident manner in which they are applied by FEMA will drive all recovery, planning, and design teams to quickly move to the conventional and comfortable paradigms (for example, witness the rush to put the displaced into scattered mobile home parks across

BY BRIAN YEOMAN

Louisiana, regardless of proximity to work or schools).

Two other components of the recovery program will fundamentally shape how cities, counties, parishes, and state government respond. The first is the unpleasant knowledge that it is myth that the Federal government, in the personage of the President, is going to pay for the recovery; actually it will only pay 75 percent of the eligible costs. The second programmatic limitation is cash flow. The entire FEMA program is a reimbursement program—yes, a reimbursement program. The applicants have to have the cash to do the work. Afterwards, they can get 75 percent of their money back, but only if the projects were eligible in the first place.

Preparing for the next surprise weather attack brought on by erratic global climate changes, New Orleans, Gulfport, and Biloxi, like Houston, will begin a process of fortifying their buildings against major flooding, believing that human engineering is smarter and more powerful than nature. The cities will rebuild the levees, install more pumps, power the pumps with solar panels, and allow residences to again share the easement with the levees. The mantra will become, "We are looking to not just rebuild what was lost, but to rebuild it better where possible."

Meanwhile, those who know that the big picture includes enlisting Mother Nature in the defense of the damaged areas will not be heard. The power of the engineered response will drive the

affected to obsess on the detailed concerns related to storm damage. Like the war on cancer, it will become a process that will fixate on the symptoms and fail to consider the cause.

Vital functions that failed will slowly be pieced back together and begin to function in flood-prone areas. Soon enough they will be permanently rebuilt on the same ground. While this will take place with the expenditure of billions of dollars worth of flood protection construction and relocation money, it also will be designed to fail in the face of nature's onslaught. The absolute need to take a detailed look at the natural systems in the region, like wetlands and dunes that were compromised in the catastrophic event, will be lost in the rush to rebuild as they were in post-Allison Houston.

The plan for areas damaged by Katrina should propose natural systems as the primary mitigation strategy. Recovery should give the community an opportunity to allow natural systems to do what manmade systems have failed to do over and over again. Unfortunately, this option won't be given any serious consideration: FEMA mitigation funds require complex engineering analysis; the rebuilding focuses on the ever-problematic recovery to pre-existing condition. Our historical rush to pave over and build on top of wetlands means that the FEMA-mandated "return to existing conditions" can never include enhanced natural systems.

The lessons Houston should have learned from Allison have been ignored. Do we remember how much water I-10 held between the Loop 610 and downtown Houston? How much water does anyone believe the new Highway 59 moat will hold when the next major storm hits town? Can we think that if we continue to build at the end of the funnel as we have, that the addition of any mega-million dollar drainage project can begin to address the storm water shed by the massive structures that now cover what precious open land once existed on Houston's flat prairies? Will a world-class Emergency Situation Response Plan lessen the blow to Houston? Can we really accept the notion that planning and practicing for disaster is the best defense against it?

The Katrina recovery can choose to build on past lessons, using the knowledge Houston has painfully gained. Designing with natural systems, understanding the Gulf Coast ecosystems, and respecting and honoring the simple, macro-level, first-order scientific laws of thermodynamics should not have to be so difficult. We cannot control all natural systems—every human faces this truth as he faces the inevitability of his own death. Decay comes, matter tends to spread spontaneously, and water always wins. I fear that this realization is going to come far too late to affect this storm recovery. ■