

Post-Hurricane Updates by Kenneth Bahlinger, Louisiana DNR (Dec. 2006)

This is a follow-up to the 2003 ASLA Coastal Restoration Tour coordinated by Kenneth Bahlinger, Greg Grandy & Lee Skabelund (R&R-PPN)

NRCS Plants Materials Center (PMC), Golden Meadow

The PMC incurred some damage from Hurricane Katrina. Most of the structural damage was from wind. The site was inundated with water. However, the water was not an extreme storm surge such as occurred at Grand Isle and on the Mississippi Gulf Coast. The PMC did not receive much damage from Hurricane Rita probably because of the damage already caused by Hurricane Katrina. The PMC was more affected by the high water and lack of electricity. With the high water, access was limited to boats for a day or two. The lack of electricity shut down the greenhouses so the cooling and irrigation systems were in operative for a while, resulting in some plant mortality.

The PMC spent several months getting their plant stock and greenhouses back to full capacity. Today the PMC is back to near normal.

Port Fourchon

The dredged disposal site we visited fared well. In previous discussions with the PMC, they indicated most of their trees were burned by the surge and salt, but appeared to be recovering. The marsh grasses were generally unaffected. The dredged disposal area overall did quite well.

While I cannot document this, I would expect that the storm surge redistributed some of the dredged sediments and shaped the site by evening out some of the low and high spots. Too, the hurricanes probably introduced additional sediments and nutrients, which should benefit the site.

The concrete geotextile tubes that we observed lining the Gulf of Mexico shoreline at the end of the road were uplifted and moved. The barge breakwaters with rock remain in place. Otherwise the shore here was not damaged much.

Something to note is that along the shoreline for several miles to the east of the geotextile tubes and barge breakwaters, several large cuts in appeared as a result of the hurricanes. During a fishing trip to the area in the summer of 2006, the cuts did not seem as wide as they had been described to me. From my observation they had filled in quite a bit. This is typical of the fact that it takes a year or so for displaced sand to reappear. Regardless, the shoreline here and elsewhere did roll back about a hundred feet or so, which is typical for such a storm event.

Grand Isle

The town and island of Grand Isle suffered quite a blow, though it could have been much worse had Hurricane Katrina come ashore just a few more miles to the west. Although almost every structure on Grand Isle had some degree of wind damage, most of the major damage on Grand Isle occurred on the north side and western end of the island by the storm surge from the northeast winds that pushed the bay water over the island. The middle and southern side of the island, the most elevated parts, had water, but were generally protected from the storm surge effects. Many camps, homes, and commercial buildings on the north facing side of Grand Isle were completely wiped away, leaving slabs and pilings. One could see how the quality of construction made a difference. I observed as an example one structure gone, while one adjacent with minor damage.

Some long term effects from the hurricanes are that the west and the north side of the island are still mostly void of camps and houses. This is likely because of new building codes that now require any new houses, camps and permanent trailers be built at least 12 feet off the ground. Construction codes are also being upgraded. The cost to do this is high. Many of the camp and homeowners did not have adequate insurance prior to the hurricanes. Insurance on a barrier island vulnerable to hurricanes was very high even before the hurricanes and is now substantially more expensive.

Beach Plantings - The beach plantings of bitter panicum that we observed survived both of the 2005 hurricanes and actually benefited from them. Bitter panicum thrives best when sand is transient. When planted on open sand it grows and spreads very quickly and traps sand. Over time the trapped sand stops moving as the vegetation grows thicker. I had observed over the years that the bitter panicum we had planted had become less vigorous due to the fact that the sand had stabilized. During the hurricanes there was no deposition of sand on the bitter panicum. During a visit in July 2006 the plants looked more vigorous and vibrant. This was probably the result of the wind, rain, and water moving the sand.

Groins - The groins we observed were unaffected by the hurricanes.

Break Waters - The breakwaters on the north side of the island and the ones on the front of the island near the Grand Isle State Park were unaffected. The breakwaters are not designed to stop storm surge.

The Nature Conservancy Boardwalk - The Nature Conservancy Boardwalk was located on the north side of Grand Isle and was severely damaged. According to personnel at The Nature Conservancy the boardwalk has been repaired.

Grand Isle State Park - I visited the Grand Isle State Park in June 2006. The upland vegetation was damaged from wind and salt water. The density of vegetation is not quite as thick, though it is recovering. The boardwalk, tower, and visitor's center had minor damage. The beach is still there, though there was some shifting of sand. The pier out onto the Gulf of Mexico was destroyed and is currently being rebuilt.