# Session: Associated Effects of Coastal Storms and Hazards

### JT Ewing, Texas General Land Office, Oil Spill Prevention and Response Response in the Aftermath of Hurricanes Katrina and Rita

### Needs/Problems

- Everyone loses infrastructure in storm events. Residents lose homes and businesses; first responders and other emergency workers, local and state personnel lose their offices and will need a base of operations for conducting post-disaster response. Emergency response plans must have designated alternate work sites.
- If staff lose their homes or other resources in storm events, they may not be available to do their jobs. Similarly, suppliers of emergency response resources may have also been impacted and have lost the equipment you planned to use.

### **Opportunities/Lessons Learned**

- Make sure that your emergency responders, especially those from other areas, know what your infrastructure is supposed to look like. Otherwise, they may not be able to tell when things are not where they belong or where they should be.
- Pre-storm activities for oil and other fuel facilities should involve owner/operators emptying their tanks and storing the material in other locations that are less vulnerable. Tanks should be filled with water to reduce the likelihood that they will move.

## Carl Ferraro, Alabama Department of Conservation and Natural Resources Hurricanes Ivan and Katrina: A Comparison of Community Impacts

### Needs/Problems

- Damage from storms is both physical and economic. Disaster planning needs to consider impacts to both.
- Maritime communities can have substantial immigrant communities. Response planning and education needs to take into account the need to convey in foreign languages; post-response will likely have communication issues.
- many businesses are not insured because costs exceed business revenue.
- Cost of salvage can exceed cost of vessels. Owners often can't pay who will?

### **Opportunities/Lessons Learned**

- Impacts of storms can vary. Some storms will have the greatest impact on residences, leaving people homeless. Others will have big impacts on business and industry, costing communities in a different kind of way.
- Construction in vulnerable areas; coastal permitting programs will focus on location (setback, proximity to sensitive resources, footprint); engineering needs

to look at design and compliance with codes. A poorly constructed structure in the "right" location is still vulnerable.

• Gulf Shores' ERP includes a point at which power must be turned off to reduce the risk of fire and the need for response personnel to address.

#### Policy Implications

- Storms can have huge impacts on tourism revenue—lodging, food, fuel, entertainment: lost tax opportunities.
- People lose jobs as well as their homes in storm events. This situation can continue for many months/years after the event unless they move.
- Communities need to think about the impacts of storms on the economic engines of their communities: tourism, fishing, oil processing, etc. Disaster planning needs to consider how to protect this infrastructure to minimize damage/loss and ensure that it is re-established quickly after a storm event.
- If rebuilding is going to be allowed, has to be to the newest and best building codes.

#### Jim Rives, Louisiana Department of Natural Resources Are They Going to Come Back?

Needs/Problems

- The impacts of some of these events have so substantially altered peoples' lives that they may never return to Louisiana. Maybe this is a good thing, if it is not advisable to re-establish the infrastructure that would allow people to move back.
- Disconnect between residents and planners/responders/officials: the latter group knew how vulnerable the coastal area was; most residents presumed the levee system was going to protect them.
- Protecting/managing the coast. Levee systems are used for protection from river overflow, tide management, hurricane protection, marsh management, aquaculture. Safety of communities and residences needs to be balanced against the impacts of levee construction on the estuary and wetlands, which will impact fish and wildlife with commercial value.
- In operating levees there are two issues: keeping water out, and getting water that gets in, out. Two different entities are responsible for this, levee districts for the former and sewage districts for the latter. These two entities need to coordinate; it's not clear that they did. Also, the different levee districts and sewage districts need to coordinate with one another (actions of one levee district can impact another levee district). As a result, levee reform is a big issue: there are entities now pushing for more state oversight, coordination, and management of the levee systems.
- Balancing of uses in New Orleans. Navigation vs. flood control. These two are in conflict. Does New Orleans want to continue to try to have both, or give one more emphasis?

#### **Opportunities/Lessons Learned**

• When considering protection systems, need to look at what sort of infrastructure already exists. Defense needs to be integrated; look at areas that are most vulnerable; the most effective way to protect.