

## Rebuild, restore, renew

*Lynell M. Dupepe, BS, RLATG, Associate Director, Department of Comparative Medicine, Tulane University, New Orleans, LA*

*Ms. Dupepe shares the lessons learned from her experiences at Tulane University responding to the disaster caused by Hurricane Katrina in 2005.*

**The aftermath of Hurricane Katrina posed unique challenges, including the implementation of martial law and curfews in the New Orleans area. Tell us how you handled the expected, and unexpected, circumstances that you faced.**

We found it most helpful to avoid having any preconceived ideas about what conditions might exist upon our reentry into the city and our facility. Keeping an open mind helped tremendously in dealing with the unexpected challenges and responding more timely and effectively. Additionally, having a well-scripted Emergency Plan is the best defense in responding to events common to your geographical area.

**What strategies did you find most effective for maintaining communication between your staff?**

Communication with essential personnel was complicated after Hurricane Katrina because cell towers were down, landlines were inoperable and satellite communication was slowed owing to its extensive use by federal, state and city emergency personnel. E-mail service was not available during and for several weeks after the event. Text messaging proved to be somewhat reliable, though severely delayed. The most effective means of maintaining communication was having employees report to an established offsite command center. Tulane presently maintains a message alert system, updating employees on university closings, emergency situations and other critical information.

**When directing rescue efforts after a disaster, how does one weigh the needs of the animals versus those of the staff?**

Although animal rescue is the objective, the safety and well being of the staff are always the top priority. During Category Two or weaker storms, our essential level one personnel (ride-out team) remain in the facility to care for animals. Should the storm predictions declare the event to be a Category Three or higher, however, these personnel are placed on stand-by for reentry post-event. In this case, all emergency preparations are made to ready the facility and animals for the event should we be off-site for several days due to extreme conditions, a practice reinforced by lessons learned during Hurricane Katrina. These preparations include supplying safe, adequate housing and sufficient food and water for 5–7 days *ad libitum*. Prior to reentering the facility, it is crucial that security personnel secure the area to ensure the safety of the rescue teams.

**You have recommended a ‘Noah’s Ark’ approach to evacuating rodents when transportation means are limited. Tell us more about this approach.**

When extreme conditions prevent the provision of adequate, humane care of research animals for an extended, perhaps indefinite, period of time, it becomes necessary to humanely euthanize the majority of the animals to prevent pain and distress. We therefore include in our plan a method of identifying two or three breeding pairs of each transgenic line of rodents for evacuation. A master list of cages labeled ‘Evacuate’ is maintained at all times so that we have the most current and up-to-date information regarding the locations and number of cages, the animal strain or line and the investigator’s name and emergency contact information. These animals are then evacuated, two by two, to a secondary facility, where the expansion of the colonies may proceed. This proved to be very effective after Hurricane Katrina, when many valuable research animals otherwise would have been lost. Cryopreservation,



however, remains the best insurance against loss of transgenic animal lines.

**What can be done to prepare for the personal challenges staff may face after a natural disaster?**

Preparation is the key for both personnel and the facility. We encourage all staff members to have a plan in place for their families in case of any emergency, and we provide time prior to an event for employees to make any preparations at their homes. As business needs allow, maintaining flexibility in post-event work scheduling helps reduce employee stress as they address their personal clean-up effort. Affording employees psychological counseling through employee assistance programs is also a huge benefit. When attrition becomes an issue, we work with human resources to hire contract temporary employees to augment staffing shortages.

**What is the greatest lesson you learned from your experience after Hurricane Katrina?**

Coming through this storm and reaching the other side of it strengthened my resolve in the resilience of mankind. In the aftermath of Hurricane Katrina, the 3Rs took on a whole new meaning for me: Rebuild, Restore, Renew. We learned, both professionally and personally, that we had the strength and resolve to rebuild, restore and renew our lives in the aftermath of a devastating natural disaster.