## **Preparedness for Hurricanes**

The path of a hurricane can be predicted only approximately 24 hours in advance. This has considerable impact on the accuracy of instructions for evacuation. However, evacuation of some heavily populated areas, such as Galveston Island, Texas, New Orleans, Louisiana, or Ocean City, Maryland, may require nearly 30 hours. Some of the most difficult decisions to make when a hurricane threatens involve striking an appropriate balance between the risks to human safety and the economic impact on an area. This balance is to a large degree the result of the estimation of the size of the hurricane and the area in which it is forecast to make landfall. For example, as Noji (1997) reported, the increase in the area of evacuation that would result from upgrading a hurricane from category 3 to category 4 in Texas would result in an increase in evacuation of 200,000 persons and an additional \$10 million in economic losses for every increase by 20% of the area evacuated.

## **Emergency Management Perspective**

Most hurricane preparedness is voluntary. Therefore it is based in local government initiative but relies heavily on federal in formation, education, and response capability. This can lead to considerable conflicts in expertise and liability.



A veterinary practice that was destroyed in Hurricane Andrew. The hand-painted notice hardly entices clients to seek veterinary care here. (Photo by Larry Dee.)



This "free" clinic opened after Hurricane Andrew in an abandoned restaurant, even though functional veterinary hospitals could provide all services in a sterile environment. (Photo by Larry Dee.)

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## **Residents' Perspective**

Preparedness for individuals and businesses should be in the form of learning where evacuation routes are. Owners of livestock and horses should pay special attention to these. Some recommend that animal owners identify their own "personal" evacuation routes. The reasoning behind this is that trucks and trailers are more likely to break down than other vehicles, which may hold up other evacuees. However, this is not generally good advice because the official evacuation routes are the safest to avoid flooding and storm damage, are heavily patrolled, and usually consist of major highways that are not easily obstructed. For example, during the evacuation from Hurricane Andrew the Florida Turnpike was made into a one-way highway going north with no charges at the tollbooths. This allowed for the rapid and safe evacuation of approximately 1 million residents. There were no reports of traffic delays caused by accidents or breakdowns.

Evacuation with animals should be planned. Animals will need supplies en route. The acquisition of these supplies should not compete with the needs of people. For example, animals and humans need water. Whereas water is readily available for humans at interstate rest stops, this is not always the case for animals. Unprepared owners trying to get water for their animals from sources designed for humans may be resented by persons who do not think or know that animals have similar needs to humans.

Businesses should pay special attention to backing up data, planning their evacuation procedures, and rehearsing their practice shutdown plans at the beginning of every hurricane season. During a hurricane watch all elective surgical procedures should be rescheduled and plans for the care of critically ill patients should be implemented. Personnel should be assigned responsibilities.

During a hurricane warning the planned communications strategy should be implemented (cellular phones, pagers, or two-way radios should be distributed to designated persons), a source of power should be secured (generator should be checked to make sure it is protected from the storm), and water supply should be prepared (containers should be filled).

The hurricane warning period is also the time to check disaster supplies for animals. If a pet is on prescription medication, an extra copy of this prescription should be placed in a disaster kit. Prescriptions have expiration dates, and the prescription will need to be updated. Animals' vaccination records should be kept current. A pet may be at higher risk of disease in disasters,

and many boarding kennels will not accept dogs or cats without proof of current vaccinations. Updated pictures of all animals should be kept with an owner's important insurance papers, in case the animals and the owner become separated.

The papers and photo should be sent to an out-of-state contact. Any bills of sale or registrations for animals should be kept also. Dogs and cats should always wear a collar with an identification tag that includes the out-of-state contact's phone number as well as the owner's. In cases of separation, collars and tags, microchips, or tattoos will increase the chance of a reunion.

Horse owners without horse trailers or the proper vehicle to transport large animals should try to locate someone who would be willing to help evacuate animals. Potential sources of help are friends, neighbors, a local horse club, county extension agents, and veterinarians. Owners should also consider who would evacuate their animals if they were not in a position to do so.

When an area receives notification that it has been placed under a hurricane watch, residents should keep calm. This is the time to plan actions before the storm arrives and to avoid a last-minute rush that might leave persons and animals marooned or unprepared. The following precautions should be taken during a hurricane watch:

- Replace batteries in weather radios, flashlights, and any other battery-operated equipment that may be needed.
- Buy matches (waterproof ones if possible).
- Fill car and truck gas tanks.
- Purchase canned goods.
- Store drinking water in clean bathtubs, bottles, pans, and containers suitable for livestock. Remember to include enough for your animals.
- Check the fitting of shutters and door covers.
- Check the inventory of tools
- Check the status of tie downs on mobile homes and replace them if necessary.
- People inland should contact their friends and relatives (especially seniors) and offer them a place to stay if they have to evacuate.

## When a warning is issued:

- Listen constantly for weather updates.
- Board up windows or protect them with shutters or tape to reduce danger from winddriven debris and high-wind pressure.
- Secure outdoor objects, such as tools, porch furniture, garbage cans, and bicycles, that could become deadly projectiles in hurricane winds. Store them inside if possible.
- Move boats and trailers close to the house.
- Store valuables and personal papers.
- Prepare for tornadoes and floods.

- Review survival plans and supplies once again.

Manufactured (mobile) homes are extremely susceptible to high winds, and most should be evacuated for more substantial shelter. Animals should not be left in mobile homes either because it is dangerous for them too.

All low-lying areas should be evacuated when officials say so. Utilities should be turned off at the main switch if time permits. Animals should not be left behind, even if the owner is not sure where to take them.