

## **AUNTY EM, AUNTY EM, THE STORM IS COMING – EMERGENCY PREPAREDNESS FOR YOUR CAPTIVE EXOTIC ANIMAL COLLECTION**

Hayley Weston Murphy, DVM  
Zoo Atlanta, Atlanta, GA

A disaster or major emergency is any occurrence, natural or man-made, that causes substantial suffering to human beings and animals, and catastrophic damage to property. Examples include hurricanes, earthquakes, tornadoes, floods, fires, snowstorms, drought, explosions, nuclear accidents, hazardous materials spills, structural collapse, riots, terrorism, transportation wrecks, and outbreaks of contagious disease. When disasters strike organizations that house wild and exotic animals, the results could be catastrophic. Organizations that house these animals **MUST** plan ahead of time for disasters. Facilities accredited by the Association of Zoos and Aquariums (AZA) have to have emergency plans in place and practice drills for such emergencies at least four times a year as a requirement of accreditation. Many states also require applicants for permits to maintain wild and/or exotic animals to file an emergency procedures and evacuation plan with the state Emergency Management Agency.

The four phases of emergency management are mitigation, preparedness, response, and recovery. Planning for all of these phases requires dedicated time but will be well worth it in the long run if a disaster strikes.

### **MITIGATION**

Hazard mitigation is defined as any cost-effective measure that will reduce the potential for damage to a facility from a disaster event. Knowledge of the immediate dangers near exotic animal facilities, such as areas for potential storm damage, flood plains, nuclear power plants, hazardous waste sites, earthquake faults, and so on will help facility managers to devise proper ways to prepare for possible disasters. All animal facilities should make an assessment of their strengths and weaknesses. Questions to ask include is the facility solid enough to withstand hurricane force winds; is there adequate protection from wildfires, floods, etc; can the roof withstand heavy snow and/or rain loads; how far away is the closest fire station and have you told them how and where it is safe to access the animal facility; do you have exposed, overloaded, or old electrical wiring that could start a fire?

Planning to conduct safety audits annually may help to answer some of these questions and keep plans up to date. Inspections of safety equipment, smoke and fire detectors, emergency exit routes and signage, and fire mitigation (clearing underbrush, tress from near buildings, etc) should also be done at least annually. Emergency procedures and evacuation plans for animal facilities should be well known by all staff and copies should be distributed to local and state emergency management agencies and responders. Evaluation of facility assets and attaining adequate insurance to be able to continue operations should substantial damage

occur is also critical. These policies need to be updated annually as facilities grow and change.

### **PREPAREDNESS**

All facilities should consider what they need to prepare for should a disaster strike. Part of the preparedness plan should be identifying crucial items that are most necessary to get the facility operating again (records, equipment, etc). A list of supplies that might be needed for animal care during an emergency should be developed. Once the list is developed, sources of those supplies should be determined. The list should include food and water for all animals housed there, medical supplies, and record keeping supplies. Developing and maintaining a supplier list for critical items is essential. This should include contact numbers for both work hours and after hours numbers. If possible, a back-up supplier should also be identified outside of the immediate area as a natural disaster that affects the area will also affect the facility's primary suppliers in many cases.

Identify safe locations for equipment and staff to shelter where they can still have access to the facility if needed. In the case of fire threat, contact the local fire service ahead of time to conduct a fire drill at the animal facility so the responders are familiar with the facility and where animals are housed. Ask trained professionals to do a walkthrough of the facility to point out situations which might be fire or chemical hazards. Maintenance of records is also vital. If possible, put vital records on hard disk to be taken along when leaving, or electronically transfer all important records to a location outside the expected disaster area.

Employee training is essential in all response plans. Identify all essential versus nonessential staff and make sure that staff designated to stay in the event of a emergency is cross trained in as many areas as needed to maintain operations until support can arrive. These staff should have written personal disaster plans so they are better able to concentrate on assisting in getting the facility prepared. Develop a disaster plan check list and review this list annually. (Appendix 1)

### **RESPONSE**

Communication is a key in any successful response. Communication needs to be done internally, as well as externally with critical responders. Notify outside agencies, such as national or state humane and animal control organizations, as quickly as possible of your status and what you require. Have a telephone tree of employees to notify them of disasters or pending disasters and develop a backup plan for communications if telephone lines are down.

It is recommended to also train staff in the Incident Command System. All emergency response operations are trained to work under a defined command and control system, often referred to as an Incident Command System (ICS). Incident command systems are designed to coordinate the activities of responding agencies and ensure that all forces work toward the single goal of resolving the crisis as quickly and efficiently as possible. The incident command system is a model for organizing a chain of command. It is expandable and flexible to adapt to any type or size of

emergency. It includes many different groups under one command. Facilities need to keep enough non-perishable food and water on hand to last for at least 1 to 2 weeks. Other supplies to consider may include portable housing for animals, restraint tools, generators, and spare fuel. If evacuation is needed, plan ahead for what animals can safely be evacuated and to where. In the case of exotic animals, many times sheltering in place is the only safe option so plans need to consider this. A battery-operated or hand-powered radio is always a good idea also so if communications are down, there is still a way to monitor what is occurring.

#### RECOVERY

Returning after a disaster can also be a very hazardous time and staff needs to be trained for this ahead of time. Hazards such as energized metal, compromised structures, gas leaks, and loose animals have to be anticipated ahead of time.

#### REFERENCES AND USEFUL RESOURCES:

1. American Red Cross Disaster Services  
<http://www.redcross.org/disaster/safety/guide.html>.
2. <http://www.animaldisasters.com>.
3. [http://www.avma.org/disaster/emerg\\_prep\\_resp\\_guide.pdf](http://www.avma.org/disaster/emerg_prep_resp_guide.pdf).
4. [http://awic.nal.usda.gov/nal\\_display/index.php?info\\_center=3&tax\\_level=2&tax\\_subject=180&topic\\_id=1103](http://awic.nal.usda.gov/nal_display/index.php?info_center=3&tax_level=2&tax_subject=180&topic_id=1103).
5. Federal Emergency Management Agency (FEMA) Virtual Library and Electronic Reading Room  
<http://www.fema.gov/library/>.
6. [www.fema.gov/government/grant/pa/glossary.shtml](http://www.fema.gov/government/grant/pa/glossary.shtml).
7. Florida Animal Disaster Planning Advisory Committee <http://www.fl-adpac.org/>.
8. Heath SE. Heath, Animal Management in Disasters. Mosby, 1999.
9. University of Colorado Health Sciences Center Animal Care & Use Program  
<http://www.uchsc.edu/animal/>.
10. University of Florida Emergencies  
<http://www.health.ufl.edu/acs/emergency.htm>.
11. University of Florida Institute of Food and Agricultural Sciences and the Florida Cooperative Extension Service <http://disaster.ifas.ufl.edu/>.

**APPENDIX 1: DISASTER PLAN QUICK CHECK LIST**from <http://www.nal.usda.gov/awic/pubs/IACUC/dis.htm#disa>

This plan developed for: \_\_\_\_\_ Date: \_\_\_\_\_

**I. EVALUATION OF FACILITY****A. Known dangers to facility in area**

- Storm Surge area  
 Flood Plain  
 Hazardous material plants or disposal sites  
 Railroad tracks  
 Interstates  
 Fuel depots  
 Wildfires  
 Earthquake faults  
 Fire inside facility  
 Heat or cold emergencies  
 Emergency Management has assessed dangers to facility

**B. Dangers of structure**

Construction quality of building:

- Excellent  Good  Fair  Poor  
 Glass:  Sliding doors  Large windows  
 Large number of windows  
 Kennels:  Indoor / outdoor  Indoor only  
 Outdoor only  Other  
 Presence of interior "safe" areas  
 Roof hurricane strapped or clipped  
 Exposed, overloaded, or old electrical wiring  
 Professional evaluation of facility  
 Area cleared around structure

**II. INSURANCE**

- Annual check for adequacy  
 Location identified on flood plain map  
 Inventory done

**III. PRIORITIES**

- Identify vital property and protect  
 Movable inventory (i.e. vehicles)  
 Secure furniture  
 Glass secured  
 Fire drill conducted  
 Fire alarm installed  
 Fire extinguishers installed  
 Employees trained to use extinguishers  
 Lightning suppression system installed  
 Adequate hoses attached to building

**IV. EMPLOYEES**

- Pyramid of release  
 Personal disaster plans  
 Non-business hours plan  
 Notification of return  
 Training in CPR  
 Training in First Aid (human and animal)  
 Training in Disaster Planning  
 Cross training done  
 Up-to-date protective shots

**V. SPECIFIC PREPARATIONS**

- Hazardous Materials - Labeled, secured  
 Outside tanks - secured and valves closed  
 Incompatible chemicals separated  
 Update inventories regularly  
 Vital business records protected and secured  
 Prepared for loss of power  
 Outside area clear of loose objects  
 Flags down  
 Refrigerated inventory protected  
 Movable inventory, fueled and protected  
 Freezer emptied of carcasses  
 Generators available

**VI. FINAL SECURING OF PREMISES**

- Contact alarm companies  
 Take identification  
 Unplug equipment, shut off breakers, gas and water  
 Recheck hazardous material valves

**VII. RETURNING AFTER THE DISASTER**

- Rubber gloves and boots  
 Enter with buddy  
 Flashlights only  
 Inventory  
 Safety repairs  
 Building checked by electrician  
 Outside agencies notified of status

**VIII. PLANNING**

- Flood Plain Map posted  
 Flashlights with batteries  
 Transistor radio with batteries  
 Weather alert radio  
 Police scanner  
 Fire Extinguishers  
 Tarps and/or plastic  
 Rope and tape  
 Tools  
 First Aid Kits (animal & human)  
 Food/Water  
 Extra cages and crates, halters  
 Quarterly disaster drills - test smoke detector batteries  
 Disaster plan updated annually  
 Annually recharge fire extinguishers  
 Identify safe areas from tornados, earthquakes, etc.  
 Telephone tree created  
 Electrical wiring checked

On \_\_\_\_\_ this plan should be re-evaluated and employees should be re-trained.

\_\_\_\_\_  
Signature and Date