Veterinarians must assume an increased role in the planning, management, response, and recovery in the face of disasters. Given virtually any type of disaster, animals will be involved. In a short period of time, since the start of the century, our country has experienced numerous horrific events such as the Twin Towers, hurricanes Katrina, Rita, Ike, and, most recently, Sandy; Joplin, Tuscola, Texas, and Oklahoma massive tornadoes; and wildfires. The result is extensive human and animal suffering, prolonged recovery (many are ongoing), and extensive casualties. During this same period of time, society has ramped up its collective reverence for the importance of companion animals and livestock. The expectation of significant and effective leadership and participation from the veterinary profession has increased greatly. The manner and mechanism of such participation by our profession in a more organized and efficient manner should progress beyond no response, volunteer activation after the fact, or dependence on outside entities. No single group of individuals, other than licensed veterinarians, have the knowledge base, experience, and compassion to address the many and varied needs that affect the animal population in a disaster; thus, we should do no less than our abilities enable us. This report briefly states the why and the how such participation can evolve. Authors’ address: Large Animal Clinical Sciences, College of Veterinary Medicine & Biomedical Sciences, Texas A&M University, College Station, TX 77843; e-mail: wmoyer@cvm.tamu.edu. © 2013 AAEP.

1. Introduction

This presentation is designed to better understand the rapidly increasing need for veterinary expertise in a disaster as well as to inform practitioners as to the various ways and means in which one can participate. Disasters, both man-made and naturally occurring, are an unfortunate fact of life. Clearly, the type (hurricane, tornado, wild fire, explosion, earthquake, infectious disease outbreak, terrorist initiated event, etc); the size and location (geographic area/terrain, population density); the presence of complicating factors (associated chemical spills, storm surge, and salt toxicity, etc); and available resources collectively determine the level of needed response and the likelihood of reasonable and timely recovery. In virtually all instances, animals are victims (deceased, injured, ill, and with or without owners). Clearly and appropriately, assistance and preservation of human lives is the priority of a response and recovery; however, it is important
to note that our nation’s concern for its animal population continues to grow. For example, the Robert T. Stafford Disaster and Emergency Assistance Act (summarized) was amended and mandates that preparedness operation plans address the needs of household pets and service animals before, during, and after disasters. The USDA has also mandated that Emergency Disaster Preparedness plans be in place at every USDA licensed animal research facility by mid 2013. Texas HB-88 amended the government code to require the Texas Division of Emergency Management to assist political subdivisions in developing plans for the humane evacuation, transport, and temporary sheltering of service animals and household pets in a disaster. The point is that most plans are non-existent or are in their infancy and furthermore they require expertise that best originates from the veterinary medical profession.1–5

The degree, size, and lasting effects of disasters are often only of public concern for as long as it is media-worthy. Two examples experienced by these authors lend credence to the devastating effect of some disasters as well as the relative lack of planning for animal populations. Hurricane Ike (2008) was in Louisiana, Texas, and northern Mexico at the same time. The 25-foot storm surge went inland Texas as far as 42 miles. Thus, much of the surface water became contaminated and made brackish. It is estimated that 30,000 to 40,000 cattle were lost along with a resultant estimated 80% loss of subsequent calf crop. An estimated 100 horses died on one location, presumably from salt toxicity. The 2011 Bastrop Complex Fires, Bastrop, Texas, destroyed between 1600 and 1700 households and affected 30,000 acres. The county was not prepared because there was no effective county animal issues plan. Two veterinary hospitals (operational during the fires) in the county were quickly overrun with animals requiring treatment for burns and injuries, along with owners requesting sheltering as the human population was forced to evacuate. One practice made the decision to assist without charges; the other made an attempt to recover a fraction of the costs. In both instances, these practices suffered significant and lasting economic damage.

A volunteer may wish/desire and have the means to respond to an event as a result of a public call for help (hurricanes Katrina and Rita, for example). Acceptance, however, should be based on a number of known factors:

- Having a reasonably precise/accurate situational report describing risks and hazards.
- Accurate knowledge of what are the skill sets that are being requested to be sure of a good fit; often meaning an individual capable of handling a myriad of situations with a clear mission of stabilizing patients, thus allowing for safe and humane transport to a shelter.
- What human needs will be provided for the volunteers at the staging or working area.
- What are the requirements for credentialing for entry in the event site and/or other potentially required identification.

Volunteers, regardless of their willingness and even their expertise, can either be part of the solution or an additional problem that must be tended.

2. Participation From the Veterinary Profession

There are a variety of ways in which licensed veterinarians and the veterinary community at large can participate and be of value to their respective community, region, state, nation, or the world. Prior planning, the initial response, and facilitating recovery from a devastating event have multiple pieces—any one of which, parts of, or all—are greatly enhanced through veterinary expertise and participation. The following succinctly describes those pieces and how one can participate or at the very least help to diminish personal or practice loss.

- The development of a personal evacuation plan to protect the individual, one’s family, pets/animals, property, and financial stability is essential. The following website (http://vetmed.tamu.edu/vet) provides such a template along with instruction and is self-explanatory. A willing individual can only be of value if he or she is assured that his or her personal and family needs are being met.
- The careful development of a practice evacuation plan is a very key business element and is usually an ignored item. Such a plan should be developed as an all-hazards plan that allows for the worst-case scenario (facility is closed, badly damaged, or destroyed). Key elements include meeting employee needs; preservation of medical and financial records; up-to-date accurate inventory accounting; management of controlled substances; how, when, and where to discharge hospitalized animals in an evacuation; and the list goes on. The same website provides a template along with instructions that can be easily modified or amended to fit specific practice needs.
- The most useful means of providing significant help, in the opinion of the authors, is to become an active member of the State VMA and/or County (or other jurisdictions) Animal Issues Committee allowing for and helping to create a local response. Who better knows the needs and the sources of resources than those who live there? This involves developing plans in concert with the jurisdiction that address the animal needs. Unfortunately, such plans are invariably absent or are in an outline without substance. Counties and regions with a history of repetitive events are more likely to have such plans. A well-developed all-hazards plan...
provides for the material, facility, medical/surgical, shelter, and personnel needs before the event, thus facilitating a much more rapid recovery and a more likely means of saving lives.


3. Development of an Animal Issues Plan
The major components of such a plan include the following:

- Development of a Memorandum of Understanding with the jurisdiction.
- Understanding and using the Incident Command System (provided by the county/jurisdiction’s Emergency Management office) to understand how information, requests for resources, ability to work with associated responders, authority management, and ultimately reimbursement is managed.
- Development of a communication system to alert and inform animal owners before, during, and after the event.
- Development of an animal evacuation plan (where and when to congregate, assisting evacuations for those unable, routes, what to bring, previously agreed upon sites, etc).
- Development of a temporary Animal Shelter (3–5 days) for those animals left behind that emerge or are rescued.
- Development of a temporary (3–5 days) Veterinary Medical Operations facility (making the assumption that existing practices are unable) to include assessing and managing large animals that were not evacuated.
- Development of a plan for carcass removal, disposal, and public health concerns.
- Development of a plan to ultimately reunite owners and animals.

It is important to point out that veterinarians are essential in developing the plans but that does not imply that those veterinarians are necessarily those who implement. Thus, the need for volunteers, animal expertise, and commitment from a variety of individuals from the community is a requirement.

A Memorandum of Understanding is developed and agreed on with the jurisdiction to provide and have in place the required elements (resources) and to ensure that the cost of materials, and so forth, is borne by the appropriate jurisdiction. Thus, such a memorandum states clearly that the jurisdiction provides a variety of resources (drugs, generators, tents, buildings, the necessary non-veterinary personnel and associated human needs); the absence of such an agreement means there will be no remuneration.

A clear understanding of how the Incident Command System works can be provided through multiple sources, the easiest of which to obtain would be through the local Emergency Operation Office for the jurisdiction. The system is based on past experiences in combination with best business practices and is logical, useful, and a means to track resources and communications.

A carefully constructed communications plan/network is a necessity. This should involve expertise from the local media (TV, radio, newspapers), social media, and list serves (client lists, for example). It involves knowing the local population and thus how best to communicate information to a variety of ethnic and cultural groups who otherwise would not have access. Many of the animals left behind are likely to be owned by those who are unaware.

An Animal Evacuation plan is developed to assist three major groups of the animal owning population: those individuals needing assistance (lack of transportation, people with special needs, etc.); those who have the means but need accurate information as to how and perhaps where to evacuate to; and those who own/manage animals that are likely to not be evacuated, which often includes large animals (livestock and horses). Specifically, the last group requires information about how to “shelter in place” in the face of an impending event (this might mean getting them to high ground with probable flooding, cutting fences in the face of a prairie fire, closing questionable housing structures that might fail in high winds, etc). This plan would include defining a means of identifying animals that are likely to be displaced and separated from their respective owners.

A temporary Animal Shelter Plan is developed to manage animals that were left behind but are not in need of significant medical care; a good plan calls for such a facility to be in place for 3 to 5 days, after which the permanent facilities/operations (such as local/regional humane associations) would take the lead through prior arrangement and assume the burden of reuniting or adopting out the remaining animals.

A temporary (3–5 days) Veterinary Medical Operation (VMO) plan is developed, making the assumption that the local veterinary operations are unable to operate and assist with the mission of managing the animal victims within the practical parameters defined by the participating veterinarians. Thus, it will require developing triage protocols and defining limits of care (basically to stabilize individuals so they can be successfully and humanely transported to animal shelters or facilities that are functioning), on the basis of available resources. Euthanasia,
Unfortunately, will be a viable option in most disasters. Animal and human needs (shelter, food, water, and power) must be in place before such an operation becomes operational. This would require in the planning the selection of a safe location or locations; defining the necessary personnel; necessary resources (facility, equipment, supplies to support animal and man); medical record-keeping; animal identification; and a description of how injured/ill animals will be identified, treated, and tracked and be moved up the chain and returned to their respective owners. Such a plan should include honoring requests for field assessments to define the needs of animals left behind but not presently able to be transported (livestock, for example).

It should be evident that such an undertaking requires significant commitment in time, expertise, experience, leadership, and cooperation. The easy aspect is treating the animals; the difficult part is developing a plan that recognizes the considerable resource needs and the eventual implementation of that plan. The “art form” with which equine and large animal practitioners are uniquely gifted, is how to handle problems and situations that are not in the plan.

“Plans are useless, planning is essential” (D.D. Eisenhower).

4. Summary
The animal-owning public has ever-increasing expectations from our profession; one of which is to show up in a crisis. The “lessons learned” through massive tragedies are clear: disasters will happen, rapid recovery is dependent on “plans in place” to provide the resources (materials and people) with a need for expertise at the site (boots on the ground). Dependence on out-of-region help and expertise only delays (sometimes for considerable time) the response and requires a significant “learning curve” for those who venture in. It is apparent that a well thought-out, in advance of the event, plan, on the basis of local expertise, knowledge, and commitment greatly enhances the likelihood of lessening the damage and speeding up the recovery. This is our collective responsibility. This presentation is a brief introduction into why and how. Active and meaningful involvement begins with the local jurisdiction emergency office.

References