

Educational and technical considerations of personnel involved in companion animal welfare during disasters

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Background

In today's society companion animals are considered to be integral members of the family. Nearly 50% of Australian households have a dog, 33% have a cat, 15% have birds and 13% have fish (Franklin A., 2006), a number that is becoming greater than the number of households with children. The human-animal bond is a powerful force, helping provide companionship for many individuals, creating positive impacts on mental and physical health. Expectations of the standards of care of companion animals are approaching, and in some cases exceeding, those within human medicine (Dunning, Martin et al 2009). People are just as likely to suffer from depression from losing their pet as they do losing their home (Hunt M., Al-Awadi, H., & Johnson M., 2008). This strong human-animal bond and these expectations need to be considered during disasters. Emergency management plans should include a companion animal welfare emergency management plan which fulfills welfare needs of companion animals.

There are many examples of poor companion animal management during recent events such as Hurricane Katrina and the 2009 Victorian bush fires, which has put people at risk because companion animals were not catered for. Many refused to evacuate from an area because they were made to leave their pets behind or they ignored cordoned off areas to go back into unsafe zones to rescue their pets (Irvine, L., 2009). Hurricane Katrina has served to further illustrate the necessity of including the considerations of animals in disaster planning to avoid compounding the emotional and economic toll on individuals and communities impacted by devastating loss or injury (Heath, S.E., Linnabary, R., 1993). Companion animals are also regarded as a psycho-social coping mechanism during times of distress. During the Victorian fires there was significant emotional impact on children due to the loss of a pet (personal comms Kate Brady State Co-ordinator of bushfire recovery, Red Cross). In 2010 Glassey conducted research in New Zealand on companion animal emergency management by asking residents of two different regions in New Zealand about pet ownership and what they would do if they were given mandatory evacuation orders.

"Over 56% of respondents indicated that they would not evacuate if they could not take their pets with them and 79% were not prepared to leave their pets behind during an evacuation."

Similar surveys were conducted online by Australian News papers after the report was release and they reported similar findings.

We have established that companion animals should not be left behind as it puts owners at risk. Therefore, companion animals should be catered for during disasters and this can be achieved by including them in local and regional emergency management plans.

During the development phase of a companion animal emergency management plan recommendations for the care of animals should only be given by persons familiar with both emergency management operations and animal care. Therefore there is a requirement to have people with animal welfare experience at a policy level to assist with developing companion animal welfare plans as well as responders. This will require personnel to be trained in companion animal welfare emergency management, which up until recently has not been available in Australia or New Zealand. For the purpose of this presentation the roles of personnel involved in animal welfare emergency management has been split into three groups 1) emergency animal planning 2) emergency animal shelter and 3) emergency animal rescue.

Emergency Animal Planning Personnel

Emergency animal planning personnel are individuals who assist with the development of policies and animal welfare emergency management plans at local, regional/state and national levels. Such personnel require back ground knowledge in animal welfare and emergency management to allow a symbiotic relationship with the two normally separate areas. Usually veterinarians are approached to fulfill this role due to their veterinary training and knowledge in animal health, husbandry and animal welfare (Madigan, Dacre 2009), though many do not have experience in animal welfare emergency management. To be able to begin the companion animal welfare emergency management planning process one must be able to understand the facets of the phases of emergency management. This understanding will facilitate a robust companion animal emergency management plan that will cover all phases of emergency management.

Emergency Animal Shelter Personnel

Emergency animal shelter personnel are responsible for setting up a temporary shelter for animals. This involves many different facets of shelter management which includes but not limited to such tasks as registering animals upon arrival, providing food, water and shelter for animals, ensuring that all of the animals welfare needs are met and reunification of pets with owners. Animals should be triaged (assessed) as soon as they arrive at the shelter to assess the patient's health status. Shelters should incorporate a veterinary medical section either within the shelter or close by. The veterinary medical section is responsible for providing first aid to any animal that arrives at the shelter as well as attend to any animals that become ill during their stay.

Emergency Animal Rescue Personnel

Emergency animal rescue personnel are involved in assisting owners evacuate before an event occurs, after an event occurs and rescuing animals that are abandoned, trapped in buildings or injured. There are two variations on these roles therefore different skill sets are required. The personnel who assist owners during evacuation can do so with little animal welfare emergency management experience and this is where many animal control officers and animal welfare inspectors will be called upon to fulfill this role. After an event has occurred and there are animals trapped in buildings (with structural collapse), in flooding water or any environment that is deemed dangerous, rescue personnel require more specialist skills and knowledge to be able to fulfill this role. This group of people is usually from an animal rescue unit who have specialist training in this area. They are required to work within the Co-ordinated Incident Management System in New Zealand or the Australasian Inter-Service Incident Management System (AIIMS) in Australia, alongside other emergency services and rescue personnel.

In June 2010 research was conducted by Massey University to find out what the educational and technical requirements of personnel involved in animal welfare emergency management. Over 50 international animal welfare emergency management experts participated in the research. Their contribution along with extensive literature research has assisted with the development of recommendations for the educational and technical requirements for animal welfare emergency management personnel. The outcomes from the research are illustrated in appendix 1 and 2 of this document.

Results

In general, there are limited current resources available on competencies and curricula for animal related welfare emergency management in the literature (Dunning, Martin et al 2009). There are several comprehensive literature resources on training programmes, though the government agencies associated with the resources acknowledges the information is out-of-date. The literature tends to catalogue core competencies rather than detailing specific didactic lecture content (Dunning, Martin et al 2009). The advantage of core competencies is that it allows the curriculum development team to bring the competencies together and develop learning outcomes that encompasses core knowledge and technical skills together.

Knowledge

All personnel involved in animal welfare emergency management need to be familiar with the **principles of emergency management** to enable them to respond professionally during an event. They also need to **understand the organizational structure** of emergency management such as the co-ordinated incident management system (CIMS) in New Zealand and the Australasian Inter-Service Incident Management System (AIIMS) in Australia, and the emergency management cycle (Engelke, 2009).

Legal issues such as the different Acts of legislation that pertain directly to emergency management along with animal welfare are important areas for animal welfare emergency management. Generally, emergency situations elicit high

emotional responses from the general public as well as the people directly involved in the emergency, such as civil defense, emergency services and personnel involved in animal welfare. It is for this reason all personnel involved should understand what their rights and responsibilities are along with the rights of the animals that are or could potentially be affected. In New Zealand the Civil Defence & Emergency Management (CDEM) Act 2002 and Animal Welfare Act 1998 are two examples of legislation which personnel should be familiar with.

Understanding the **human animal bond** along with **how animals are directly affected by disasters** is important as this information will give personnel the background knowledge needed to make informed decisions when it comes to animal welfare. Planners should understand the needs of animals and how these needs are expected to be met by today's society. As humans expect to be offered the same standard of living, shelter and care during an event Madigan and Dacre (2009) explain, society's expectation is that animals will be planned for in a similar way:

"When planning for such things as animal evacuations, shelter and the provision of veterinary care for injured or sick animals should reflect the normal standard of care given to animal in that society, which is a result of regional socio-economic realities and geographic factors".

Under New Zealand law, the CDEM Act generally does not affect other legislation during or after a disaster, therefore the welfare of animals, under the Animal Welfare Act or equivalent must be catered for.

Social and psychological impacts of the aftermath of disasters are important components for all animal welfare emergency management personnel involved, to understand. Humans can act irrationally during stressful situations and may have sudden behavioural changes. These changes can also affect animal behaviour as they pick up on stress factors from people around them. This knowledge could assist with preempting certain behaviours of humans and animals therefore allowing time to plan how situations can be managed.

Knowledge of general emergency management functions such as **communications, leadership, health and safety** and the **debriefing** process are all important components for all personnel to have knowledge and some experience in, primarily before an event occurs. As communication sources can be severely affected during an event, every day communications will be non-existent. Therefore alternate sources should be available and everyone should be trained in their use. This will allow for effective communication with all agencies throughout all phases of the event. Communicating with the **media** should only occur with properly trained personnel. If the wrong information is released through the media, it could have catastrophic effects for the relief effort.

On the animal side everyone should have an understanding of infectious animal diseases including zoonosis. This will assist with the identification of infectious diseases and reduce the probability of a disease outbreak. One of the infectious diseases that is a zoonotic disease which is commonly found in temporary shelters is ring worm.

Therefore understanding the pathogen along with standard operating procedures that reduces the spread of the disease such as isolation and barrier nursing protocols will assist with planning and response processes.

Animal identification and decontamination procedures should be considered as important areas of understanding. Being able to identify an animal and its needs such as sheltering and nutritional requirements will assist with the planning and response process. A decontamination unit should be set up at a shelter if the type of disaster that has occurred warrants decontamination of animals. Decontamination is the process of removing or rendering harmless, agents that have contaminated animals such as chemicals and organic matter containing bacteria and viruses that can cause burns, poisoning and illness to responder personnel, animals and can damage equipment (Wingfield, 2006). The purpose for decontamination is to limit tissue damage and absorption, to prevent systemic poisoning, confine contamination to a specified area, and to prevent secondary contamination to other animals, emergency responders, and veterinary hospitals. Examples of disasters that may require animals to be decontaminated are floods, earthquakes, chemical spills and chemical terrorist attacks.

Animals may become sick and injured in an event and they may have significant injuries that require euthanasia under the animal welfare act. If an animal is suffering unnecessarily and you can not alleviate pain and suffering that animal should be euthanized. Therefore all personnel involved in animal welfare emergency management should have and understanding of emergency euthanasia techniques. This knowledge can assist with the planning process and with the development of protocols when this should occur and what techniques should be used in certain situations.

We have just gone over the knowledge for all three groups, essential for personnel involved in companion animal welfare emergency management though this is not a limited list. As each group performs many similar functions they also perform functions unique to their group. For the individual groups essential knowledge competencies is listed in appendix 1 of this document.

Technical Skills

Emergency animal planning personnel are typically stationed with the incident controller advising the shelter and rescue teams that are on the ground, on the requirements for animals and updating them on the situation at hand. Therefore there are limited technical skills required by this group. During an event this group will be required to perform a disaster analysis and needs assessment to assess the affect of the event on animals. Generally this function is performed remotely by this group and on the ground by the rescue teams. This is a technical skill that is required of both groups and is essential that it is performed well and accurately. As this information is what the groups work from to understand what resources are required and who needs to be deployed. If personnel are performing this duty at the "coal face" then they must have basic urban search and rescue awareness and structural collapse is inevitable in many emergency situations.

Communication is vital in an event therefore everyone involved, be it for animal welfare or human welfare should be skilled at all communication techniques. This includes but not limited to amateur radio, satellite phones, USAR signage, whistles as well as the written word. Everything must be well documented in all groups therefore skills in report writing are essential for accurate record keeping.

As emergency and disaster situations become hectic and in some cases chaotic team work is vital for teams to be effective. There is skill required and this should be practiced on a regular basis.

There are many technical skills that are pertinent to specific groups and they are listed individually in appendix 2 "Essential technical skills for personnel involved in companion animal welfare emergency management". As you can see from this list there are many specialist skills required specifically for each particular group therefore they are considered to be specialist groups. It is for that reason any person responding to animal welfare during emergencies should have training and knowledge in their area.

Conclusion

Everyone involved in companion animal emergency management, from policy to the responders require some form of training and credentialing. In addition, first human responders also require training in basic animal handling as they are usually the first people to encounter animals. A credentialing programme based on successful completion of required training programmes should be developed, and volunteers can be admitted to the disaster response area only after presentation of their credentials

There are many components to animal welfare emergency management and as it is a new and emerging area these components will change and require amendments in the future. This is a new and exciting area to be involved in though it is important to remember, to be able to contribute to development of animal welfare emergency management plans and response all personnel should have knowledge and technical skills in both emergency management and animal welfare as a minimum. Specialists skills and knowledge it required at different levels along with the different groups of emergency animal planning, emergency animal shelter and emergency animal rescue.

Companion animals are part of the family and they should not be left behind during an evacuation (Glassey, 2010). Therefore we must plan for companion animals in evacuation plans and have trained animal welfare emergency management personnel ready to respond.

Note: If you are interested in further resources I have included a reading / resource list in Appendix 3

References

- Dunning, D., Martin, M.P., Tickel, J. L., Gentry, W.B., Cowen, P., & Slenning B.D, (2009), Preparedness and Disaster Response Training for Veterinary Students: Literature Review and Description of the North Carolina State University Credentialed Veterinary Responder Programme, *Journal of Veterinary Medical Education*, 36 (3), pp317 – 330, Association of American Veterinary Medical Colleges, Washington DC

- Engelke, H.T., (2009), Emergency Management During Disasters for Small Animal Practitioners, *Veterinary Clinical Small Animal*, 39:347-358
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Hayley is a graduate of the University of Queensland, receiving a BAppSc degree in Veterinary Technology and Management. Currently, she is the Director and lecturer of the Diploma in Veterinary Nursing and Bachelor of Veterinary Technology programmes at the Institute of Veterinary, Animal and Biomedical Sciences, Massey University and studying a Masters in Education (Adult Education). She has extensive experience in the field of emergency and critical care medicine and education of veterinary paraprofessionals. Hayley has worked throughout Australia in the greater animal industry from a Practice Veterinary Nurse, to Ostrich Chick farm manager, to Emergency and ICU nurse to, Practice Co-ordinator of the Animal Emergency Centre in Underwood QLD, to Head Veterinary Nurse at Massey University Veterinary Teaching Hospital. Hayley has a particular interest in animal welfare during disasters and the educational and technical requirements of personnel involved in animal welfare during disasters.

Appendix 1 Knowledge essential for personnel involved in Companion Animal Welfare Emergency Management

Knowledge	Emergency Animal Planning	Emergency Animal Shelter	Emergency Animal Rescue
The Four Phases of Emergency Management	√	√	
Roles and Responsibilities of all Civil Defence & Emergency Management Agencies	√		
Legal issues	√	√	√
Civil Defence & Emergency Management Act 2002 (New Zealand)	√	√	√
Animal Welfare Act 1998 (New Zealand)	√	√	√
Incident Command System (ICS, USA) Coordinated Incident Management System (CIMS New Zealand)	√	√	√
Functions of CDEM Welfare Centres		√	
Communications (verbal & written)	√	√	√
Health & Safety	√	√	√
Debriefing	√	√	√
Risk, Damage and Needs Assessment	√		√
Stress Management	√	√	√
Develop Standard Operating Procedures	√	√	√
Animals in disaster	√	√	√
Media Communications	√	√	√
Funding Sources	√		
Navigation, use of GPS			√
Human-animal bond	√	√	√
Leadership	√	√	√
Social and psychological impacts of the aftermath of disasters	√	√	√
Driving vehicles in operational situations			√
Infectious Animal Diseases including zoonosis	√	√	√
Human First Aid		√	√
Basic Animal Care		√	√
Animal Behaviour		√	√
Emergency Animal Shelters	√	√	
Emergency Animal Rescue	√		√
Animal First Aid		√	√
Animal Handling and Restraint		√	√
Animal Identification	√	√	√
Animal Triage		√	√
Animal Decontamination	√	√	√
Emergency Euthanasia	√	√	√
Reunification of Animals with owners	√	√	
Advanced Emergency Animal Medicine (Veterinarian and Veterinary Technician Level)		√	

Appendix 2 Essential Technical Skills for personnel involved in Companion Animal Welfare Emergency Management

Technical Skills	Emergency Animal Planning	Emergency Animal Shelter	Emergency Animal Rescue
Communications (verbal i.e amateur radio, written, USAR signage)	√	√	√
Report writing	√	√	√
Stress management	√	√	√
Teamwork	√	√	√
Specialist equipment handling		√	√
Use of GPS, navigation			√
Basic Urban Search and rescue awareness	√		√
Driving vehicles in operational situations			√
Set up of animal shelter		√	
Set up of rescue unit			√
Human First Aid		√	√
Animal First Aid		√	√
Animal Handling and restraint		√	√
Transportation of animals		√	√
Animal triage		√	√
Implant microchips		√	
Animal decontamination		√	√
Advanced rescue techniques, rope rescue large animals (including sling rescue)			√
Height rescues			√
Advanced rescue techniques , rope rescue small animal (including sling rescue)			√
Swift water rescue			√
Work with aircraft at emergencies			√
Advanced emergency animal medicine (veterinarian and veterinary technician level)		√	√
Specialist response to technical animal rescues			√

Appendix 3 Recommend readings and resources for Animal Welfare Emergency Management

Suggested Journal Articles:

Appleby, M. C., & Stokes, T. (2008) Why should we care about non-human animals during times of crisis?, *Journal of Applied Animal Welfare Science*, 11(2), 90-97

Dorn, C. R., Gordon, J. G., & Sherry, C. (1993), Veterinary service and animal care emergency operations plans. *Journal of the American Veterinary Medical Association* 203(7), 1005-1008

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Lovern, C. (2005). AVMA Veterinary Medical Assistance Teams. *Journal of the American Veterinary Medical Association*, 227(12), 1881-1882.

Mort, M., Convery, I., Baxter, J., & Bailey, C. (2008). Animal disease and human trauma: The psychosocial implications of the 2001 UK Foot and Mouth disease disaster. *Journal of Applied Animal Welfare Science*, 11(2), 133-148.

Suggested reading:

Anderson, A., & Anderson, L. (2006). *Rescued: Savings animals from disaster*. California: New World Library.

Glassey S., (2010) Recommendations to enhance companion animal emergency management in New Zealand, from <http://disasters.massey.ac.nz>

Heath, S. E. (1999a). *Animal management in disasters*. St. Louis, Missouri: Mosby.

Irvine, L. (2009). *Filling the ark: animal welfare in disasters*. Philadelphia, PA: Temple University Press.

Suggested DVD:

Shirley, M., (2006) *Dark Water Rising: Survival Stories of Hurricane Katrina Animal Rescues* (DVD) USA

Suggested Website:

New Federal Emergency Management Agency, Community Emergency Response Team Training packages http://www.citizencorps.gov/cert/training_downloads.shtml#animal

