



BUILDING AN ARC IN THE MOUNTAINS: A COMMUNITY-LED INITIATIVE TO BUILD AN ANIMAL-READY COMMUNITY (ARC) IN THE NSW BLUE MOUNTAINS TO PROVIDE A TEMPLATE FOR SIMILAR INITIATIVES

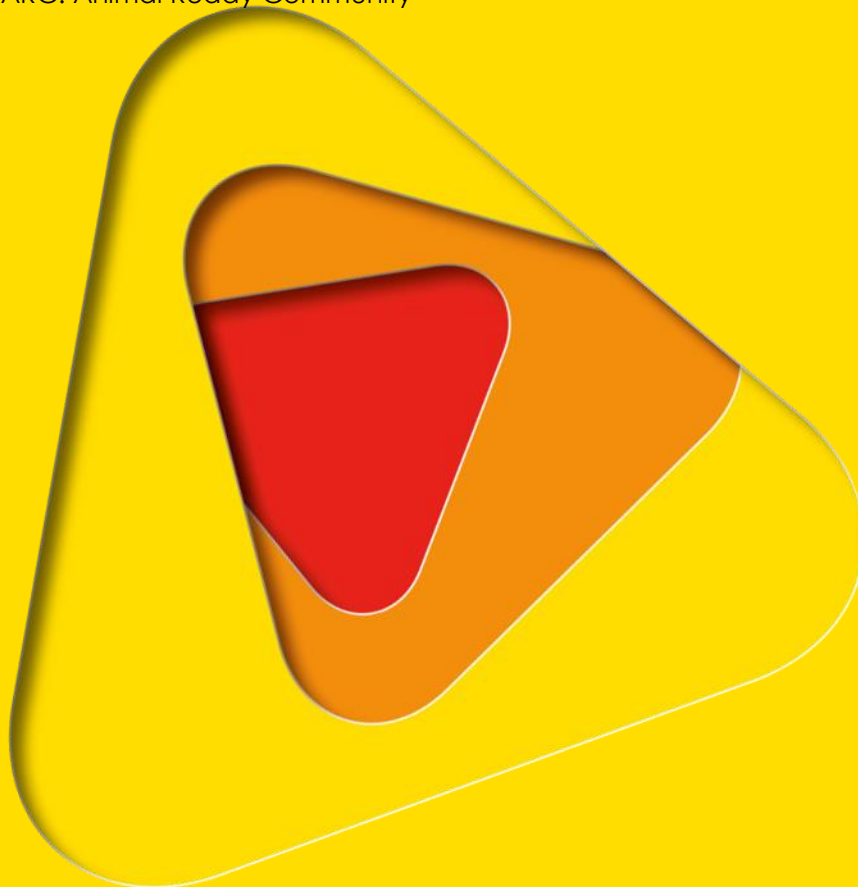
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ABSTRACT

Responsibility for animals in emergencies lies with the owner. However, owners are often underprepared and have not planned for their animals, or themselves. This can lead to late evacuation, failure to evacuate, or risky acts trying to rescue, return to, or save animals. These situations can jeopardise public and responder safety and, as seen in several recent natural disaster events, loss of both human and animal lives. The loss of animals in disasters, often in extremely traumatic circumstances, can severely impede owner recovery, through loss of livelihoods, reductions in social capital, and enduring (disenfranchised) grief. Research in the United States has found that grief responses to loss of a pet can be equivalent to the loss of a sibling or family member (for example, Archer, 1997). Despite this evidence-base, there is still a tendency in emergency management to ignore or underestimate the significance of animal emergency management (AEM) as a legitimate area for mainstream consideration.

The *Managing Animals in Disasters* (MAiD) project is part of the BNHCRC's research program and sought to identify best practice approaches to AEM. As part of this research the MAiD project has teamed up with a new community-led group called Blue ARC: Animal Ready Community. The aim of Blue ARC is to support community resilience in emergency events through better awareness, preparedness, planning and response for companion animals, livestock, and native wildlife. MAiD sought to work alongside, and support, Blue ARC to become established. The goal of this activity is to generate a community guide to establishing an ARC; a resource that could be used by other communities to promote emergency preparedness through a focus on animals. This paper provides an overview of some of the activities of Blue ARC and the plans for the community guide and supporting resources.



BACKGROUND

THE VALUE OF COMMUNITY

In Australia, since the 2009 Black Saturday bushfires there has been a move towards empowering communities to share responsibility for bushfire preparation and planning (McLennan and Handmer, 2012). Beyond building capacity to anticipate and respond to bushfire risk, the advantages of community participation in mitigation programs include the generation and distribution of information, fostering a sense of community, developing ideas, empowering residents by strengthening capacity, and enhancing relationships between residents and government agencies (McGee, 2011; Mileti, 1999; Allen, 2006). A study by McGee (2011 p. 2531) examining three neighbourhood level bushfire mitigation programs in Australia, the United States, and Canada found that they all appeared to “contribute to community resilience by building social networks and generating knowledge”. The way disaster is experienced is context specific, relating to the hazard itself, social structure, vulnerability, and agency. Empowering people at the local level, through community development and participation, enhances individual agency and resilience (Bohle et al, 2009; Paton and Johnston, 2001). Therefore, through community-led initiatives individuals can become more informed about their risk, prepared for, and able to cope with bushfire threat.

Animals provide an avenue to connect communities; enabling community members to work together in disaster preparedness and planning. In Australia, 62% of households own pets and the majority consider them to be family members (Animal Medicines Australia, 2016). In addition, many households also have other (non-‘pet’) animals, with which they have special bonds and will be motivated to protect and save in an emergency, such as horses, pet livestock, and chickens. The *Managing Animals in Disasters* (MAiD) project is part of the BNHCRC’s research program and sought to identify best practice approaches to AEM with the goal of increasing public and responder safety, and improving animal welfare. Activities outlined in this paper are part of one sub-project of MAiD. More information can be found on the project page of the BNHCRC website (<https://www.bnhcrc.com.au/research/hazard-resilience/237>).

THE OCTOBER 2013 BLUE MOUNTAINS BUSHFIRE AND PETS

The Blue Mountains area in NSW is regarded as the most bushfire prone area in the State. In October 2013, the area experienced its worst bushfires in over 30 years. Three fires burnt for four weeks, burning over 118,000 hectares of land, and destroying 203 homes. Research following these bushfires identified the impact pets and other animals had on owner behaviour (Wilkinson et al, 2016). Many pets and other animals died in these fires, and although no official record of pet deaths was compiled, the longer term impact has been recognised by groups and community members assisting with recovery including the Salvation Army, Red Cross, school teachers and counsellors.





THE FORMATION OF BLUE ARC

Shortly after the October 2013 bushfire, a group of community members came together to produce a book about recovery after the fires. This book 'As the Smoke Clears' largely contained photographs of recovery of fauna and flora, and was sold to raise money for the Blue Mountains Mayoral Bushfire Relief Fund. Many of these group members went on to form the Blue ARC group. This group received funding back from the Mayoral Bushfire Relief Fund, and is auspiced by Springwood Neighbourhood Centre Co-operative Ltd. The group was formed in September 2015.

BLUE ARC ACTIVITIES AND OUTPUTS

BLUE ARC RATIONALE AND APPROACH

One of the first activities of the group was to establish what its main goals were, and what it would or would not do. Accordingly, the stated aims of Blue ARC are to support community resilience in emergency events through better awareness, preparedness, planning and response for companion animals, livestock, and native wildlife. To achieve these aims, the main activities of Blue ARC to date have been to identify and pursue ways to increase community awareness of the need to consider animals in emergency planning, to start a dialogue with emergency services and supporting agencies to address local barriers to preparedness and planning for animals, and to identify ways to support formal response and recovery organisations in responding better to the needs of animal owners and animals.

Importantly, the Blue ARC group aims to work with formal response agencies, supporting their general messages and promoting their materials, as well as networking widely with local animal groups (e.g. societies, associations) to produce locally-relevant outputs. Thereby strengthening and reinforcing official advice whilst assisting the community with more tailored and locally-relevant support.

CURRENT ACTIVITIES TO IDENTIFY NEEDS AND POTENTIAL SOLUTIONS

Before developing materials, it was important to establish the needs of the community and of responders; their barriers and challenges, and the information/resources needed. Four activities have been undertaken, and are at varying stages of completion.

1. **Community Survey** – more than 300 residents have completed an online survey about their preparedness and planning for their animals, their needs, their expectations, and their interests in training and education in this area. This information is being analysed, and is being used to prioritise activities and materials development, and to present to and ask questions of various response and recovery agencies and local groups.
2. **Audit of local veterinary services** – one of the early findings from the survey was the importance placed on local veterinarians, and emergency services, as sources of information and assistance with animals in an emergency event. Given the special role of veterinarians we have surveyed local practices to identify their services, including specialist services, their perceptions of their

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For all other enquiries contact:
Mel Taylor, Bushfire & Natural Hazards CRC – mel.taylor@mq.edu.au
Blue ARC is auspiced by Springwood Neighbourhood Centre Co-operative Ltd.

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role in emergencies, their needs (training, resources), and the support given to the community in the 2013 fire.

3. **Interviews with key stakeholders** – to understand what has been done in past events for animals and their owners, and for wildlife, and to start to address the various needs of community, identified from the survey, interviews are being undertaken with key agencies, local groups, and organisations. This work is ongoing and will inform outputs.
4. **Developing low-cost community training** – based on community needs and interest in training from the survey, and basic relevant information and skills, we are working with a local veterinarian to develop short community workshops and YouTube video resources. This activity is in its early stages, but will include pet first aid training, basic animal/wildlife handling skills, and emergency preparedness for animals.

CURRENT ACTIVITIES TO RAISE AWARENESS AND ENGAGE WITH THE LOCAL COMMUNITY

To support awareness raising, the Blue ARC group is involved in four activities:

1. **School Art Competition** – as a pilot for a more widespread activity, we are running a competition (see right), asking children at Winmalee Public School to draw or paint their 'Favourite Animal' and say why that animal is important to them. Although this activity is not bushfire-specific it is focussed on why animals matter to children - and (indirectly) why they need to be considered in emergencies. Entries will be judged, winners identified, and all entries will be compiled into a book, available in November 2017 for sale at the school's 'Grandparents' Day' – raising a small amount of money for Blue ARC and for the school. Due to local interest, in 2018 we plan to expand this project to other schools in the region, with an emergency preparedness theme.
2. **Animal preparedness factsheets (Chickens)** – A set of species-specific factsheets are being developed to support animal owners to prepare and plan for their animals. These will include generic animal preparedness information and locally-specific information, e.g. local association contacts, specialist veterinary care. As chicken ownership is prevalent in the Blue Mountains and survey results suggest that chickens are poorly prepared for in emergencies, the first factsheet is being developed for chicken and poultry owners. This is being developed with the assistance of NSW Hen Rescue and a local vet.
3. **Emergency preparedness poster for local community members**– the community survey identified vulnerable populations, including multiple animal households and elderly residents who were ill-prepared, or had potentially unrealistic expectations for themselves and their ability to evacuate their pets





in an emergency. To highlight the need for individuals to prepare and plan for themselves and their pets, Blue ARC is teaming up with the Blue Mountains Resilience and Preparedness Group to produce an emergency preparedness poster showing a (positive) image of a well-prepared older person ready to evacuate with her dog & chicken. This poster will be displayed around the mountains at council facilities, vet clinics, Neighbourhood Centres and other community locations, and an accompanying flyer is also being prepared with a list of links to resources produced by NSW RFS, NSW SES, NSW DPI and others, to assist with preparing for animals in emergencies.

4. **'Get Ready Weekend' Activities** - Blue ARC will be involved in local NSW RFS bushfire preparedness activities in September 2017 sourcing and distributing emergency preparedness brochures, identifying potential animal carrier options and suppliers, producing brochures with links to online resources produced by RFS, DPI and other official sources, and our locally-prepared database for local vet clinics and boarding options.



ROLE OF THE BUSHFIRE AND NATURAL HAZARDS CRC MAID PROJECT

Observing and supporting the Blue ARC group provides an opportunity to learn from the group start-up process, be part of the development of various community-focused initiatives, and to provide a degree of evaluation of these outputs. The strategic purpose of this partnership, beyond supporting the Blue Mountains community in AEM, is to distil and translate these learnings into a generic guide for communities wanting to develop a similar community-led group. This resource will be freely available for other communities, and it is expected that it will comprise a brief 'How to' Guide and an accompanying Resource Pack.

The Guide can be used to promote emergency preparedness and planning through a focus on animals. It will include advice on group formation, agreement on group aims and objectives, identify challenges and potential opportunities, and identify a range of activities that could be customised for different communities – with many tried and tested by the Blue ARC group.

The Resource Pack will include materials developed as part of the current work with Blue ARC, including a question bank for surveys, templates for posters and fact sheets and plans for low-cost community training.

Content for the Guide and Resource Pack is evolving as the MAiD team and Blue ARC group roll-out the activities outlined previously. It is anticipated that the first draft of these resources will be available in 2018, once the current set of activities have been completed and evaluated. The Guide and Resource pack is likely to evolve and expand as the activities of Blue ARC increase and evaluation outcomes are known. Further information about the MAiD/Blue ARC work can be found online in *Hazard Note 35* (Bushfire and Natural Hazards CRC, 2017).



REFERENCES

- Animal Medicines Australia. (2016) Pet Ownership in Australia 2016.
http://animalmedicinesaustralia.org.au/wp-content/uploads/2016/11/AMA_Pet-Ownership-in-Australia-2016-Report_sml.pdf
- Archer, J. 1997. Why do people love their pets? *Evolution and Human Behavior*, 18.4: 237 – 259.
- Allen, K.A. (2006) Community-based disaster preparedness and climate adaptation: local capacity-building in the Philippines. *Disasters* 30 (1), 81-101.
- Bohle, H.-G., Etzold, B. & Keck, M. (2009) Resilience as agency. *IHDP-Update* 2: 8-13.
- Bushfire and Natural Hazards CRC. (2017). *Managing Animals in Disasters*.
<https://www.bnhcrc.com.au/research/hazard-resilience/237>.
- Bushfire and Natural Hazards CRC. (2017). Community taking lead in emergency planning for their animals. *Hazard Note*. Issue 35: June 2017.
- McGee, T.K. (2011) Public engagement in neighbourhood level wildfire mitigation and preparedness: Case studies from Canada, the US and Australia. *Journal of Environmental Management*, 92 (2011) 2524-2532.
- McLennan, B & Handmer, J. (2012) Reframing responsibility-sharing for bushfire risk management in Australia after Black Saturday, *Environmental Hazards*, 11:1, 1-15.
- Mileti, D.S., 1999. *Disasters by Design: A Reassessment of Natural Hazards in the United States*. Joseph Henry Press, Washington, DC.
- Paton, D, Johnston, D. (2001) Disasters and communities: Vulnerability, resilience and preparedness. *Disaster Prevention and Management*, 10.4 (2001): 270-277.
- Taylor M, Eustace G, McCarthy M. (2015) *Animal Emergency Management in Australia: An audit of current legislation, plans, policy, community engagement resources, initiatives, needs, and research dissemination*. Report for the Bushfire and Natural Hazards Cooperative Research Centre. Melbourne, VIC. Australia.
- Wilkinson, C., Eriksen, C. & Penman, T. (2016). Into the firing line: Civilian ingress during the 2013 “Red October” bushfires, Australia. *Natural Hazards*, 80(1), pp.521-538.