The value of including animal mortality management in emergency response plans

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Disaster events, man-made or otherwise, pose significant threats to the health and safety of people and often result in the deaths of hundreds or thousands of animals. Failing to effectively manage these animal carcasses can have considerable human, animal and environmental health effects.

As emergency responders, we have a responsibility to prioritise the health and safety of individuals and the preservation of property. A comprehensive emergency response plan should address animal health and welfare in addition to managing the carcasses of animals that do not survive the event. Over the last 2 decades, we have made progress in the area of animal health and welfare. Unfortunately, we have made little progress in including animal mortality management in emergency response plans.

In the fall of 2018, Hurricane Florence struck the east coast of the USA. The hurricane drenched the region with up to 90 centimetres of rain. In North Carolina, 238 poultry houses on 62 farms were flooded, killing more than 4 million chickens and 118,000 turkeys. Also, the Australian bushfires of 2019 and 2020 burnt more than 18 million hectares. The fires killed approximately 5000 head of cattle and 3000 sheep in the state of Victoria and, on Kangaroo Island in South Australia, fires killed roughly 60,000 sheep and 1500 cattle. One estimate suggests the fires killed more than 3 billion wildlife, including mammals, birds and reptiles.

The consequences of leaving decomposing carcasses in the environment can be significant. Between 55 per cent and 80 per cent of an animal's body is water. When carcasses decompose, they release this liquid as leachate. For example, a 320kg cow can release 175 litres of leachate. Leachate is a complex mixture that, if released into surface water or groundwater, can sicken humans and animals and cause long-term environmental pollution.

The challenge with managing animal mortality is that it must begin as soon as it is safe to return to the affected area. Animal carcasses begin to decompose and release fluids within several days. This means those responsible for animal mortality management must be separate and distinct from the emergency responders addressing human health and safety. This requires planning and training before events occur. More importantly, it requires understanding the value of animal mortality management and committing time and resources to address this need, preventing unnecessary pollution of water resources.

For governments and emergency services organisations to access this capacity, there are generally 2 options: establish and maintain internal teams with the right skill sets and training or enlist outside expertise. Today, many organisations and governments choose to bring in outside expertise and partner with specialists. Because these events occur so infrequently, it is difficult to maintain a high level of training and experience within organisations. Additionally, large events are usually all-hands-on-deck and organisations often prefer the flexibility of using their personnel in less specialised roles. Whether teams are trained, or specialists are brought in, these efforts will vastly improve the outcomes following a disaster event as well as the preparedness for the next event that kills animals and wildlife.

Gary Flory heads a global consulting firm specialising in animal disease and natural disaster response, agricultural emergency planning and emergency response training. Gary has been deployed on numerous animal disease outbreaks in the USA as well as in the Dominican Republic, Korea, Vietnam, Cambodia, Laos, Tunisia, Malaysia and Azerbaijan.