THIS ISSUE'S COVER STORY:

Public right to know VS restrictions on media access to disaster areas: Can we compromise?

How do we build social capital?

Horsing about with a quarantine crisis

How do we engage volunteers

Contents

Please note that contributions to the Australian Journal of Emergency Management are reviewed. Academic papers (denoted by **ⓡ**) are peer reviewed to appropriate academic standards by independent, qualified experts.

Foreword

INFORMATION IS A PRECIOUS COMMODITY

By Peter Rekers, Director, Emergency Management and Public Affairs Research and Development Centre

The jury's back, the verdict's in and while for many the answer has been self-evident, communication is core business in emergency management and response.

The need to engage a vulnerable community before, during and after a disaster is the key to their survival and the rebuilding — both physically and emotionally.

In any crisis or disaster, no matter how massive or small, information is the most precious commodity. How soon will help be here? How many people are in danger? Will we get any fresh water? When will the rain stop? Where is my dog? What route should we evacuate by?

The questions come from all directions. And throughout the emergency and the recovery period there will be the ever-present media, sometimes with its own agenda but more importantly as a partner and conduit for messaging.

Perhaps it is self-evident but for communication to be effective there must be those willing to listen. The listeners might be amongst the public; they may be within our organisations; or they may be those who have difficult decisions to make. There is evidence that in some emergency agencies the art of listening – by giving cognisance to the voice of experience – may not be sufficiently developed. Indeed, it is clear that in some agencies the public affairs or communication department is seen as a soft target for cuts in resources, or to be ignored when it comes to the serious nature of communication skills, training and consultation on using effective publically-accessible language.

One agency went as far as to take away the mobile phones from its media staff, ostensibly to save dollars! At a national level, advice of professional communicators – focus tested by a sizeable public group – was ignored for the wording of important warnings, in favour of what the 'technicians' thought should be used!

But why is communications a soft target? As communicators we have been inclined to be blasé at developing a sound argument, expecting others to understand what we think is the blazing obvious. A sound argument needs to be based on solid facts, well-researched data, and where possible tested evidence. As communicators we instinctively spend our time looking forward to opportunities and are prone to skip the need to secure any record of achievements, or to simply archive processes and results. This lack of record is of little help to the researchers who come looking at how effective, or not, our efforts were.

Yet there are some like-minded professional communicators in the emergency sector who are endeavouring to raise the profile and concerns, and promote the achievements of the hundreds of operators in the sector in Australia. They formed Emergency Media and Public Affairs (EMPA) Ltd, aiming to advance the profession of the emergency or crisis communicator. They aimed to create an association that would bridge the gap between the communicators and their several areas of contact, namely emergency management's senior officials, the planners and policy makers, and on-the-ground emergency responders, both paid and volunteer alike. Plus the group sought to forge links with the researchers and media studies teachers and lecturers who are at the coal-face of learning in our fast-moving society. In 2010 EMPA will host its fourth annual conference of crisis communicators with speakers coming from offshore. The organisation is developing professional accreditation and has been approached to expand overseas.

Crisis Management is a specialist area, often overlooked and misunderstood, or at best taken for granted until it's all that is left. The challenge of reaching audiences with accurate and up to date information and safety messages in situations where normal communication channels are often failing, demands rigorous methodologies, preparation and engagement at all levels of management. The opportunities for crisis communicators to meet and share their experiences and learnings and to knit their enthusiasm for professional cooperation are limited and EMPA aims to correct this. See EMPA's website at www.emergencymedia.org.au for more information.

About the author

Peter Rekers is the current Director of the Emergency Management and Public Affairs Research and Development Centre. He is the principal of public affairs firm, Crisis Ready. He is also an Adjunct Associate Professor at the University of the Sunshine Coast in Queensland.

Paper developed from a speech presented at the AFAC/Bushfire CRC 2009 Conference

FEDERALISM AND THE EMERGENCY SERVICES

Roger Wilkins AO, Secretary, Attorney-General's Department
22–24 September 2009, Gold Coast Queensland, Australia

Roger Wilkins AO, Secretary, Attorney-General's Department

Over the last twelve months, I have looked very carefully at the whole area of emergency management. And it seems to me that what we are witnessing is a 'step change': a major shift in the way we need to think about and deal with catastrophes.

Catastrophes or potential catastrophes and disasters are getting bigger and more complex. Our technological capacity to deal with catastrophes is becoming ever more sophisticated. Intelligence and information – warnings and foreknowledge – is becoming more important and more possible. Public expectations about what should be done to avoid, mitigate and recover from catastrophes and disasters are more demanding.

These factors are, in a sense, incremental. But even incremental shifts at a point amount to the need for, what some would describe, as a 'paradigm shift' in policy and perspective. I think we have reached that point. Academics and many thoughtful practitioners have been, more or less, saying that.

In Australia the recent Victorian Bushfires are likely to be seen, in retrospect, as the 'hinge factor' in that shift.

My central thesis is that the three most important things we need to get right are:

1. Governance – how we organise our management and decision making around these sort of events,
2. The capacity of our people to deal with this step change – in terms of handling crises but also, more significantly, in terms of preparation and prevention and response and recovery, and
3. The policy capacity – the need to get much cleverer and much more strategic in how we think about catastrophes and disasters.

Let me begin with something I learned from the bankers. Something that is being played out in the global financial crisis. On day one at the bank my CEO said to me 'Banking is not about money. Modern banking is about risk. It is about identifying, quantifying and assigning risk'.

What the financial crisis shows is that that is exactly right. Only the modern techniques that were used did not do that very well. They resembled the game we call 'pass the parcel' with the major variation that the 'parcel' got spliced and diced and passed around.

I would want to contend that modern emergency management is not really about fighting fires and floods or cleaning up oil spills (although that needs to be done and done well). It is really about understanding and dealing with risks.

The second thing I want to observe comes from the work I have done on climate change. And, in one way or another, I have been working in that area for 15 years. Paradoxically, my conclusion is that climate change, viewed through the lens of policy, is not really about climate change. It is really a manifestation of the issue of sustainability. The thing it is chiefly about is the shift from fossil fuels to renewables.

Our great grandchildren will be bemused by the fact that energy was expensive; that it needed to be transported long distances and that we fought wars over it.

Let me start here with this idea of sustainability. It is a vague idea but a rich idea. Some people have thought of it in terms of inter-generational equity – that we are trustees of the stock of value in the world and in a society. Like trustees, we can live off the income but not depreciate the value of the capital. It is our job to make use of, but not use up, that stock of value. You can see on that analogy why renewable energy, recycling of water, and waste are so germane to the idea of sustainability. But some see the "cosmic obligation" we have as not simply preserving, but growing value. So that our obligation is not just to preserve the capital, but to invest it wisely and grow the capital stock so that future generations are actually better off than previous generations.

Now this is a big idea and it seems a long way from the business of dealing with natural catastrophes or man-made catastrophes. So, let me draw the link for you. Simply put, catastrophes are costly for society, the economy and the environment. They destroy value. They cost money and lives and produce misery and suffering. The ancients saw them as contingencies over which they had little control. They ascribed them to the agency of the gods in various civilisations and developed religious methods of trying to understand and prevent them. In modern times, we have come to see them more and more as the materialisation of risks that can be understood and quantified scientifically. In fact, we have come to see these events as events that governments and officials can sort of be blamed for and held accountable for. It is unlikely that Aztecs or the Greeks or the Carolingians of the 9th century would have held anything like a Royal Commission into bushfires. (Though there would have been political repercussions. Consider the Chinese idea of "the mandate of heaven".)

So, the sort of "paradigm shift" that I am wanting to talk about is a shift from dealing with catastrophes as and when they arise to taking steps in advance to minimise or eliminate the chances and impact of catastrophes. That means a whole range of things need to be attended to. And I will come back to talk about some of these. But I want to start by having you think about "disaster resilience" and what that means. Because it is this idea of "resilience" I think that tries to capture this relatively new way of thinking.

If you want a "hard edged" definition of resilience, I think it is this – a community is more resilient if an insurance company would charge that community a lower insurance premium because of the preventative steps they have taken with respect to potential disasters.

In fact, when I was looking at adaptation to climate change, I discovered that insurers had a reasonable handle on the "price" (premium) of carrying out activities in different regions, and could calculate the benefits (price or premium decreases) of different policies for prevention or mitigation.

This is the sort of calculus we need, I think, to employ and refine. It is important for a number of reasons;

1. It focuses our attention on risk and two aspects of risk. First, the probability that an event will occur. Second, the sort of impact the event will have if it does occur. Anyone who knows anything about decision theory knows that decisions rationally made are functions of probability and utility – likelihood and impact.

2. This idea of "risk" focuses us on the importance of getting greater intelligence and information about both the likelihood of events and their potential impacts. That is not only a matter of getting better data. It is also a matter of modelling the impacts on communities and economies.

3. This idea of "risk" also gives us a way of looking at the costs and benefits of government policy and changes by business and communities to how they do things. How they build things or plan things. How they do business. What sorts of business they do. What sort of mitigation or prevention measures they put in place.

4. It also gives people a way of deciding for themselves what to do. It enables a whole range of businesses and individuals to make decisions for themselves based on better information about "risk".

So what does this shift towards "resilience" mean in terms of the division of responsibilities in a federal system? The first thing to note is that it gives individuals and private businesses greater scope for making their own decisions about what to do. Instead of waiting for something to happen and for governments to respond, it is possible for individuals to decide what to do, where to live, what business to set up, what precautions to take etc.

Of course, it does not relieve governments of all their responsibilities. But, it does open up a meaningful 'dialogue' or 'partnership' between government and communities. And this is a central reason why we are reconfiguring funding to create a new Resilience Partnership program to the States and Territories to support this new relationship.

One of the most salient and obvious features of disaster management – whether with a conventional sense of responding to disasters or with the new way of building community resilience – is that it is a local matter. The issues and solutions vary considerably from place to place. So that having some sort of national approach of "one size fits all" seems hopelessly misguided. So it makes sense for States and Territories, or even local governments, to have primary responsibility for disaster management.

And that is more or less the way things have developed and continue to be in our federal system. It is a key principle in discussions about federalism that decision making should be devolved to the most local level possible; or, conversely, decision making should only be centralised where it is necessary to do so. This is known as the Principle of Subsidiarity.

But there are other features of disaster management that complicate this structure. Let me list some of these factors for you.

1. Disasters and their effects are becoming more complex. In part, this is a function of the greater complexity and interdependence of societies and economies. The failure of a valve in a reactor in Russia can contaminate half of Europe. Or an earthquake, cyclone, explosion or a fire can bring down energy systems or communication systems across a country.

2. It is also a function of the huge innovations in technology and the greater global and regional specialisation this has made possible. That some technology, whether logistics or communications, makes it more possible to deal with disaster – to understand the weather, to warn people directly, to bring sophisticated equipment in to respond to disasters, to customise responses to people's specific needs and requirements. So the type of response and prevention that is both possible and expected has become more sophisticated, requires greater expertise, is more expensive, and can be deployed for different types of disaster and across State and Territory boundaries.

3. As I have already explained, the new resilience agenda for disasters means that the conventional players have suddenly expanded. Emergency management – the crisis end of the spectrum – involves police, fire brigades, health workers, emergency workers from various organisations. But, if disaster management is increasingly about knowledge and prevention and warning, then there are a whole range of other players that need to play a part. Scientists, planners, social workers, policy makers across a range of areas, insurers, businesses, owners of critical infrastructure etc. Take, for example, the critical infrastructure that all Australians rely on - essential services like power, water, health services, communications systems and banking. The implication of the kind of complexity I am talking about is that if these physical facilities, supply chains, or communication networks are destroyed or rendered unavailable, the vital social and economic functioning of the nation may be severely disrupted. A further example is cyber threat. The inherent vulnerability of all internet-connected systems is that our modern economy and society are now fundamentally dependent on these systems. We have reached the point where the complexity of our modern society may be considered a source of vulnerability itself. And this poses a very real threat to our national interests.

If you contemplate these factors you begin to see that the whole business of catastrophe or disaster management is becoming much more complex, much more sophisticated. It requires greater access to technology. It requires better and more timely information and the means of analysing and deploying that information. It requires a more specialised set of skill sets and capacities. It requires greater policy skills and a more holistic approach to policy and planning. And it requires major tasks of coordination – both at a policy, planning, capacity building and operational level.

Some conventional boundaries need to be overcome or transcended:

- Boundaries between agencies and departments;
- Boundaries between private and public;
- International, regional, national and local boundaries;
- Some of the boundaries between professionals and traditional skill groups;
- Boundaries between professionals and volunteers.

Among other things we need to come up with a more ramified and sophisticated model of federal cooperation.

The "old model", if I can call it that, had basically the States and Territories in charge of disaster management. The Commonwealth had a role only if invited in by the States and Territories. And that role has traditionally had to do with providing defence personnel and equipment and providing funds for relief and reconstruction.

But if you begin to contemplate this "paradigm shift", it seems to me a number of additional roles emerge for the Commonwealth:-

1. Leadership in terms of funding and coordination of scientific research about the likelihood and impacts of disasters. The Commonwealth controls critical levers in terms of funds and institutions such as:
   - CSIRO
   - Bureau of Meteorology
   - University grants – innovation
   - Department of Climate Change
   - Environment
   - AUSAID and DFAT
   - Telecommunications
   - Defence
   - Transport and Infrastructure

2. Research and funding into technology and modes of procurement need to be led by the Commonwealth. Consider two models for that:
   - Aerial fire fighting
   - Telephone warning system

The National Aerial Firefighting Arrangements, which the Commonwealth funds, enables the sharing of specialised firefighting equipment that might otherwise be out of reach of individual jurisdictions. This equipment, that includes aircraft such as the 'Elvis' air cranes, is able to be positioned and redeployed to areas at risk of bushfire as required by the jurisdiction.

In the case of the telephone based national emergency warning system, the States and Territories agreed to work together to identify solutions that would meet their needs and that each jurisdiction that adopted the capability would decide when it would be deployed and under what circumstances.

For its part, the Commonwealth facilitated the national approach through providing substantial funding for the procurement of the capability, taking responsibility for the procurement and operation

of a national data-base that will be utilised when warnings are to be sent, and by taking responsibility the legislative changes that were needed.

In both cases there are clearly advantages in procurement and economics of scale in having a national approach. In both cases deployment of the technology and resources needs to be at a local or State level. But we need to think about the best way to set up Commonwealth/State mechanisms for cooperation. These are just two examples. I think there are going to have to be a whole range of other arrangements.[1]

3. Leadership in terms of capacity building and training is something that I think will increasingly need to engage the attention of the Commonwealth. A Red Cross Volunteer can be deployed in different disasters in different places but needs to be able to do the job, slot into a team and deliver immediately. There need to be cooperative skills and cooperative systems for that to be able to happen. We need to ensure that training and capacity building across the entire skill set is happening and that there a national competencies. Increasingly nationally and internationally we need and will need "surge" capacity between jurisdictions.

4. Then there is the very significant issue of policy development and leadership. That needs to be coordinated at a national level:

- Across all hazards
- Across issues of early intervention, prevention, response and recovery and resilience more generally
- Across jurisdictional boundaries – we cannot afford to have eight or nine uncoordinated policy approaches.

5. Let me say a few things about "national disasters" or "national catastrophes". A number of commentators over a period of time have raised questions about our preparedness to deal with a large or mega-catastrophe. One which might effectively "disable" a local or State jurisdiction; or one which might simply be beyond the capacity of local units to deal with; or one that, like severe flu or a pandemic, simply transcends state boundaries.

We have recently seen the triggering of arrangements for a pandemic. And we have recently engaged in an exercise testing our preparedness for a disabling disaster.

It is fair to say that the greater complexity, specialization and inter dependence of modern economies and societies; together with trends such as climate change and the greater movement of peoples – make it more possible that we will be confronted with such events. But the main point to understand here is this: national catastrophes are not a reason to create a Commonwealth counterpart of the sorts of emergency services and capacities that exist at a State and Territory level. National catastrophes are, however, a reason for better governance and coordination of emergency management across boundaries. The Commonwealth should take a lead in that.

In the event of a national catastrophe the key will be not only vertical cooperation and coordination in the deployment of defence capabilities and other Commonwealth resources; it will, crucially involve horizontal cooperation and coordination. Emergency response, transport and logistics, health resources will need to come from other States and Territories (and even other countries). We see this already to some extent. But that is the type of coordination and cooperation that is key. And puts an even higher premium on "cooperative federalism".

Real policy outcomes are enhanced most effectively when governments work together to achieve common objectives. What we as governments and the emergency management sector will need to shift toward, is a more collaborative, integrated approach, which exploits the benefits of a system of cooperative federalism.

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[1] One thing on institutional change that I want to note here in passing is this: I think we will need to take a much more strategic and holistic approach to the uptake of technology. Currently our approach to the emergence of new technology is rather ad hoc and unsystematic. There is no doubt going to be increasing innovation and all sorts of new systems, machinery and equipment. Governments are going to have to be much more systematic in identifying gaps and priorities; doing proper cost-benefit analysis; looking at trade-offs between capacity building and prevention and procurement of capital equipment. I think we will need to do that in concert and make sure that Ministers are given the advice of experts. We will need to think of assessment and procurement of technology much more as the military does – in the context of overall planning, strategy and intelligence.

Ministerial Council for Police and Emergency Management

COMMUNIQUÉ
Canberra, 25 September 2009

Emergency Management Extraordinary Meeting

The Ministerial Council for Police and Emergency Management (MCPEM-EM) today held an extraordinary meeting to consider preparedness for the coming bushfire season. The Council is chaired by the Australian Attorney-General Robert McClelland. It also comprises Ministers from State and Territory Governments, New Zealand and a representative from the Australian Local Government Association.

MCPEM-EM also discussed other natural hazards such as cyclones and floods.

DGEMA, Secretary and Attorney-General at the Ministerial Council for Police and Emergency Management Meeting

Pre-season operational briefing

The Council discussed the outcomes of the pre-season operational briefing held today, prior to the Council's meeting. They noted the seasonal outlook for fire and cyclone, Commonwealth support arrangements to jurisdictions, and response plans and arrangements for timely deployment of Commonwealth resources.

Funding of $2 million for national priorities

The Council noted the Commonwealth's commitment of $2 million for implementation of national priority emergency management projects in 2009-10; prioritised by the Council's standing committee, the Australian Emergency Management Committee. The projects include:

- Immediate enhancements to the National Registration and Inquiry System (NRIS) in partnership with the Red Cross, including capability for online and telephone registrations and inquiries during a disaster.
- Development of media and education kits and a visual identity for the Standard Early Warning System (SEWS), thereby creating a greater understanding and awareness of SEWS.
- Development of a national framework for managing donated goods, including communication and resourcing strategies.
- Emergency management training programs for Remote Indigenous Communities.
- Coordination of a national workshop to develop emergency management resilience activities for youth development organisations across Australia.
- Conducting the second National Forum to Reduce Deliberate Bushfires in Australia in April 2010, to identify any further issues to be addressed following the inaugural Forum in March 2009.
- Development of a national community awareness campaign on the role and value of emergency management volunteers.
- Development of a national volunteer employer recognition scheme that will formally recognise and encourage the continued support of employers (including self-employed volunteers) to the emergency management sector.
- Conducting two leadership-training programs for emergency management volunteers in a multi-agency environment, between January and June 2010.
- Scoping options for a community awareness campaign regarding the amended fire index.
- Scoping the viability of running a course to further educate emergency management agencies on bushfire investigation, including arson investigative techniques.

National telephony-based emergency warning system (NEWS)

Attorney-General, The Hon. Robert McClelland MP at The Ministerial Council for Police and Emergency Management meeting

The Council noted progress on the development of the National Emergency Warning System capability. The Location-Based Number Store (LBNS), administered by the Commonwealth Attorney General's Department, will be available for the warning systems to run tests by early October. It will comprise a secure, central database to hold geo-coded Integrated Public Number Database (IPND) data.

The National Emergency Warning System (NEWS), procured through a tender process administered by the Victorian Government, will be available by the end of October for comprehensive testing throughout November. After this testing, the system will be fully operational.

National framework for scaled advice and warnings

The Council endorsed the new national framework for scaled advice and warnings to the community including Australia's revised arrangements for bushfire advice and alerts, with a new fire danger rating of Catastrophic (Code Red).

Handling of emergency triple zero calls

The Council agreed to a number of measures relating to the use of Emergency Triple Zero numbers during emergencies. These measures consist of:

- Tasking officers to report back to the November 2009 MCPEM-EM on the status and feasibility of procedures for State and Territory Emergency Service Organisations to deal with surges in demand, including whether any further measures need to be taken
- Developing a national protocol for the use of 'extreme event' recorded voice announcements to redirect non-emergency callers to alternative information sources in a crisis, to be considered by the November 2009 MCPEM-EM; and
- Ensuring that public awareness activities are undertaken before and during a crisis so the public is aware of alternate information sources, to reduce the demand on Triple Zero.

The Council also noted the Commonwealth assistance in development of a number of public information projects which will reduce the non-emergency call loads on Triple Zero and a Commonwealth initiative to block mobile phone handsets of repeated non-genuine callers to Triple Zero.

Bushfire arson

The Council noted the outcomes of the National Workshop to Reduce Deliberate Bushfires in Australia on 25 March 2009 and was presented with a Draft National Bushfire Arson Action Plan, which will be further considered by Council at its November 2009 meeting.

Immunity for foreign emergency services personnel

The Council noted the passing of the *Foreign States Amendment Act 2009 (Cth)*. The Act ensures that foreign government personnel assisting Australia in a domestic emergency or disaster are immune from tort proceedings in Australia arising out of that assistance.

Ministerial Council for Police and Emergency Management – Emergency Management

Ministerial Council for Police and Emergency Management

COMMUNIQUÉ

Perth, 20 November 2009

Emergency Management Meeting

The Ministerial Council for Police and Emergency Management (the Council) met in Perth today in advance of the main bushfire, cyclone and flood season in Australia. The Council comprises emergency management Ministers from the Commonwealth, the states and territories, New Zealand and the President of the Australian Local Government Association. The Council is chaired by the Commonwealth Attorney-General, the Hon Robert McClelland MP. Members present at this meeting were:

- Commonwealth: the Hon Robert McClelland MP, Attorney-General
- New South Wales: the Hon Steve Whan MP, Minister for Emergency Services, Small Business and Rural Affairs
- Northern Territory: the Hon Paul Henderson MLA, Chief Minister, Minister for Police, Fire and Emergency Services
- Queensland: the Hon Neil Roberts MP, Minister for Police, Corrective Services and Emergency Services
- Tasmania: the Hon Jim Cox MP, Minister for Police and Emergency Services
- Victoria: the Hon Bob Cameron MP, Minister for Police and Emergency Services
- Western Australia: the Hon Robert Johnson MP, Minister for Police, Emergency Services and Road Safety
- Australian Local Government Association: Mr Bob Abbott, Vice President of Local Government Association of Queensland

The Council considered Australia's preparedness for the current bushfire season and discussed other natural hazards such as cyclones and floods.

The Council made significant progress on its work agenda to create a more disaster resilient Australia, as agreed at its 2008 meeting.

National disaster resilience framework

The Council endorsed a National Disaster Resilience Framework, which sets clear principles to guide the efforts of the emergency management community in fostering disaster resilience in Australia.

National work plan to reduce bushfire arson

The Council agreed to a National Work Plan to Reduce Bushfire Arson in Australia including the development of a whole-of-government national strategy on best practices to reduce bushfire arson. The strategy will use the National Work Plan as a basis for its development. An interim report on the strategy will be available to the Ministerial Council by the end of April 2010.

The Council supported in-principle the development of proposed new offences and penalties for bushfire arson, and arson causing death or serious harm, in consultation with the Standing Committee of Attorneys-General.

Climate change adaptation action plan

The Council endorsed the Climate Change Adaptation Action Plan. The climate change adaptation strategies outlined in the Plan will be a key part of emergency management planning and processes in Australia.

National catastrophic natural disaster plan

The Council endorsed the National Catastrophic Natural Disaster Plan which describes the national coordination arrangements for supporting States and Territories and the Commonwealth Government in responding to and recovering from catastrophic natural disasters in Australia. The Council noted that States and Territories retain overall responsibility for executive decision making and State legislation remains in place at all times. Further, any support action will be at the request of and in support of the legitimate Commonwealth, State or Territory authority. The Council agreed the

Plan should be submitted to the Council of Australian Governments for endorsement.

National telephony-based emergency warning system (NEWS)

The Council noted that the first stage of a telephone based emergency warning system capable of delivering warnings to fixed-line telephones based on service address, and mobile telephones based on billing/service address has been established.

The Council noted comprehensive testing would take place through the rest of November with the system available from the end of the month for the current bushfire season.

Triple zero and emergency information line capacity in extreme events

The Council noted, following its 25 September 2009 meeting, jurisdictions have provided information on their capacity to deal with surges of Triple Zero calls during an emergency. The Council has also investigated the status and feasibility of balancing calls between agency call centres and/or between jurisdictions. The investigation found that the states and territories have different systems and procedures for handling Triple Zero calls and dispatching emergency services. Consequently, there is currently limited ability to share staff and/or link call centres across jurisdictions during an emergency. The Council noted ongoing discussions to enhance national emergency surge capacity arrangements amongst the Commonwealth, States and Territories.

In light of this, the Council agreed to pursue a number of measures in 2010 to ensure the provision of robust Triple Zero and Emergency Information Line services in extreme events. These measures include the preparation of a report on those issues that would benefit from national collaboration including training and support to assist surge capacity staff.

The Council also agreed to finalise the development of a national protocol on the use of a tailored Recorded Voice Announcements (RVAs) for callers to the Triple Zero service during emergencies, which would alert callers to the availability of information sources that could be used by callers not requiring emergency assistance. This will complement work by jurisdictions on their own RVAs.

COAG reports on *Natural Disasters in Australia (2002) and National Inquiry on Bushfire Mitigation and Management (2005)*

The Council acknowledged the significant role that these reports have played in shaping the reform of Australia's emergency management arrangements over recent years. The Council has conducted an audit of the implementation of these recommendations, which found that most recommendations have been addressed.

The Council agreed that further work in regard to risk assessment and modification, land use planning, development and building control regimes will now be undertaken as part of the national disaster resilience agenda.

Ministerial Council for Police and Emergency Management – Emergency Management

Council of Australian Governments' Meeting

EXCERPT FROM COMMUNIQUÉ

Brisbane, 7 December 2009

National security and community safety

Briefing from the National Security Adviser

Mr Duncan Lewis, AO, the National Security Adviser, briefed COAG on Australia's national security arrangements.

Natural disaster arrangements

Following decisions at its 30 April 2009 meeting, COAG agreed to a range of measures to improve Australia's natural disaster arrangements. Given the expected increased regularity and severity of natural disasters arising from extreme weather events, governments recognise that a national, coordinated and cooperative effort is required to strengthen Australia's capacity to withstand and recover from emergencies and disasters. COAG therefore agreed to a new whole-of-nation, 'resilience' based approach to natural disaster policy and programs, which recognises that a disaster resilient community is one that works together to understand and manage the risks that it confronts. The National Disaster Resilience Statement can be found at Attachment C (see next page).

Governments, at all levels, have a significant role to play in strengthening the nation's resilience to disasters. To this end, COAG agreed to a range of measures to improve Australia's natural disaster arrangements through more efficient and effective funding arrangements for natural disaster mitigation, relief and recovery; strengthened coordination and partnership between the Commonwealth and State governments in preparation for, and in response to, disasters; and the introduction of a framework for improving the interoperability of radio-communications equipment used by emergency services.

COAG also noted recent actions taken by the Commonwealth and State governments to improve national capabilities for responding to disasters. At its 30 April 2009 meeting, COAG agreed to develop a national telephone-based emergency warning system and COAG today noted that this system – known as Emergency Alert – is being rolled out. It will provide emergency service agencies another tool with which to warn and advise the public in the event of emergencies. COAG also welcomed implementation of national emergency call centre surge capacity arrangements, under which the Commonwealth will provide a surge capability to the States should their local emergency call centre capacity be overwhelmed following a disaster.

Critical infrastructure protection

Critical infrastructure is essential to Australia's national security, economic prosperity and social well-being. COAG noted that the effective protection of critical infrastructure is reliant on a strong, collaborative partnership between governments and critical infrastructure owners and operators.

COAG noted that there are areas of common government responsibility where critical infrastructure activities need to be closely co-ordinated. To help achieve this improved co-ordination, COAG agreed to create a new committee, the National Critical Infrastructure Resilience Committee, both as a national co-ordination mechanism for critical infrastructure resilience, as well as to enhance and replace existing co-ordination mechanisms.

The National Critical Infrastructure Resilience Committee will develop working relationships with relevant Ministerial Councils and Committees, and undertake further work in relation to the roles and responsibilities of respective governments as they relate to the concept of 'critical infrastructure resilience.'

National Action Plan for Human Influenza Pandemic

COAG noted that updates have been made to the *National Action Plan for Human Influenza Pandemic* and associated documents that reflect contemporary experience with the H1N1 pandemic in 2009.

ATTACHMENT C
NATIONAL DISASTER RESILIENCE STATEMENT

Introduction

Australia has recently experienced a number of large scale and devastating natural disasters, including catastrophic bushfires, far reaching floods, and damaging storms. Natural disasters are a feature of the Australian climate and landscape and this threat will continue, not least because climate change is making weather patterns less predictable and more extreme. Such events can have personal, social, economic and environmental impacts that take many years to dissipate.

Australia has and continues to cope well with natural disasters, through well established and cooperative emergency management arrangements, effective capabilities, and dedicated professional and volunteer personnel. Australians are also renowned for their resilience to hardship, including the ability to innovate and adapt, a strong community spirit that supports those in need and the self-reliance to withstand and recover from disasters.

A collective responsibility for resilience

Given the increasing regularity and severity of natural disasters, Australian Governments have recognised that a national, coordinated and cooperative effort is required to enhance Australia's capacity to withstand and recover from emergencies and disasters. A disaster resilient community is one that works together to understand and manage the risks that it confronts. Disaster resilience is the collective responsibility of all sectors of society, including all levels of government, business, the non-government sector and individuals. If all these sectors work together with a united focus and a shared sense of responsibility to improve disaster resilience, they will be far more effective than the individual efforts of any one sector.

Role of government

Governments, at all levels, have a significant role in strengthening the nation's resilience to disasters by:

- developing and implementing effective, risk-based land management and planning arrangements and other mitigation activities;
- having effective arrangements in place to inform people about how to assess risks and reduce their exposure and vulnerability to hazards;
- having clear and effective education systems so people understand what options are available and what the best course of action is in responding to a hazard as it approaches;
- supporting individuals and communities to prepare for extreme events;
- ensuring the most effective, well-coordinated response from our emergency services and volunteers when disaster hits; and
- working in a swift, compassionate and pragmatic way to help communities recover from devastation and to learn, innovate and adapt in the aftermath of disastrous events.

Australian governments are working collectively to incorporate the principle of disaster resilience into aspects of natural disaster arrangements, including preventing, preparing, responding to, and recovering from, disasters.

National disaster resilience strategy

The efforts of governments will be assisted by the establishment of a new National Emergency Management Committee that will include experts from Commonwealth, State and Territory and Local governments and report to COAG and relevant ministerial councils. The first task of this committee will be to bring together the representative views of all governments, business, non-government sector and the community into a comprehensive National Disaster Resilience Strategy. This group will also be tasked with considering further those lessons arising from the recent bushfires and floods that could benefit from national collaboration.

Role of business

COAG acknowledges that businesses can and do play a fundamental role in supporting a community's resilience to disasters. They provide resources, expertise and many essential services on which the community depends. Businesses, including critical infrastructure providers, make a contribution by understanding the risks that they face and ensuring that they are able to continue providing services during or soon after a disaster.

Role of individuals

Disaster resilience is based on individuals taking their share of responsibility for preventing, preparing for, responding to and recovering from disasters. They can do this by drawing on guidance, resources and policies of government and other sources such as community organisations. The disaster resilience of people and households is significantly increased by active planning and preparation for protecting life and property, based on an awareness of the threats relevant to their locality. It is also increased by knowing and being involved in local community disaster or emergency management arrangements, and for many being involved as a volunteer.

Role of non-government organisations and volunteers

Non-government and community organisations are at the forefront of strengthening disaster resilience in Australia. It is to them that Australians often turn for support or advice and the dedicated work of these agencies and organisations is critical to helping communities to cope with, and recover from, a disaster. Australian governments will continue to partner with these agencies and organisations to spread the disaster resilience message and to find practical ways to strengthen disaster resilience in the communities they serve.

Strengthening Australia's disaster resilience is not a stand-alone activity that can be achieved in a set timeframe, nor can it be achieved without a joint commitment and concerted effort by all sectors of society.

But it is an effort that is worth making, because building a more disaster resilient nation is an investment in our future.

Media access to emergencies – command, control or co-ordination?

Eburn argues that tension between the obligations of the relevant emergency service and the right of the media to report matters in the public interest can be overcome through cooperation.

PAPER ORIGINALLY PRESENTED AT THE 2009 EMPA CONFERENCE

ABSTRACT

This paper considers whether or not the emergency services have the legal power to restrict media access to a disaster area or to restrict how the media report the event. It is argued that as the media have a legitimate interest in reporting on disaster events, the emergency services need to facilitate their access to the disaster rather than attempt to control how the media go about their task. It is argued that the media and emergency services organisations must coordinate their response for the benefit of the emergency service organisation, the media and the public generally. The emergency services do not have the legal power to take any other approach.

* This paper was named as the best research paper of the EMPA conference.

Introduction

This paper sets out to answer two questions regarding the relationship between the media and the emergency services; they are:

1. Can the media be removed from, or prohibited from entering, an area affected by an emergency (such as the scene of a rescue or accident, or an area subject to an evacuation order)? and

2. Can the media be prevented from broadcasting material regarding or obtained at a disaster site?

Answering these questions will identify a possible or perceived tension between the obligations of the relevant emergency service and the right of the media to report matters in the public interest. This tension will be best resolved by cooperation rather than by attempts to exercise command or control over journalists and media organisations.

Obligations of the emergency services

For the sake of convenience this paper will take relevant New South Wales law as its examples, but the principles to be applied will be similar in each Australian jurisdiction, see box.

The Commissioner of the NSW Fire Brigades is charged with taking 'all practicable measures for … protecting and saving life …' where that life is endangered by fire or a hazardous materials incident' (*Fire Brigades Act 1989* (NSW), s 6). The State Emergency Service is 'to protect persons from dangers to their safety and health … arising from floods and storms' (*State Emergency Service Act 1989* (NSW), s 8). The Rural Fire Service is 'to provide rural fire services for New South Wales' which includes 'the protection of persons from dangers to their safety and health … arising from fires in rural fire districts' (*Rural Fires Act 1997* (NSW), s 9).

For provisions similar to those contained in the NSW legislation and discussed here, see: Emergencies Act 2004 (ACT) s 34; *Bushfires Act 1980* (NT) s 50; *Fire and Emergency Act 1996* (NT) s 20; *Disasters Act 1982* (NT) ss 16 and 19; *Fire and Rescue Service Act 1990* (Qld) s 53; *Disaster Management Act 2003* (Qld) s 107; *Fire and Emergency Services Act 2005* (SA) ss 42, 97 and 118; *Fire Service Act 1979* (Tas) s 29; *Emergency Management Act 2006* (Tas) s 40 and Schedule 1; *Country Fire Authority Act 1958* (Vic) s 30; *Metropolitan Fire Brigades Act 1958* (Vic) s 32B; *Fire and Emergency Services Authority of Western Australia Act 1998* (WA) ss 18B, 18G and 18L.

Apart from these specific tasks, there are other more general obligations upon the emergency services to take reasonable steps to ensure the health and safety of others. These obligations can arise under statute (such as Occupational Health and Safety legislation (see *Occupational Health and Safety Act 2000* (NSW), ss 8(2) and 20; *Workcover v NSWFB 2006*) and the common law.

To allow the emergency services to meet their obligations, they are given specific powers to evacuate, or restrict access to, the emergency area. The officer in charge at a fire or hazardous materials incident may take 'such measures as the officer thinks proper for the protection and saving of life' (*Fire Brigades Act 1989* (NSW) s 13). This includes taking action to:

> … cause to be removed any person … the presence of whom … might, in the officer's opinion, interfere with the work of any fire brigade or the exercise of any of the officer's functions. (*Fire Brigades Act 1989* (NSW) s 19).

The Director-General of the New South Wales State Emergency Service may:

> … if satisfied that it is necessary or convenient to do so for the purpose of responding to an emergency … direct … a person …:
>
> (a)   to leave any particular premises and to move out of an emergency area or any part of an emergency area …
>
> [or]
>
> (c) not to enter the emergency area or any part of the emergency area. (*State Emergency Service Act 1989* (NSW) s 22)

The incident commander of the Rural Fire Service may:

> … for the purpose of … protecting persons … from an existing or imminent danger arising out of a fire, incident or other emergency … take any other action that is reasonably necessary or incidental to the effective exercise of such a function; (*Rural Fires Act 1997* (NSW) s 22).

Although there is no express power to exclude people from the fire zone, such a power may be implied in section 22.

What follows from this review is that the power to control the movement of people in and around an emergency area is not an unlimited discretion. Each piece of legislation provides that power only when it is required to ensure the safe and efficient response to the incident.

The role of media

The media have a legitimate and important role in Australian society. 'Journalists inform society about itself and make public that which would otherwise be private.' (Breit 2007, 5). Making 'public that which would otherwise be private' may in some circumstances be intrusive and unlawful but in other circumstances it may be a great public service revealing corruption, inefficiency or incompetence or show examples of resilience, bravery, selflessness and other ideal behaviour.

The community at large have a legitimate interest in events that attract the response of the emergency services (CMC 2004, 31). Reporting on floods and fires, in particular major events that may threaten homes and lives is in the public interest. The emergency services

rely on the media to communicate messages about what areas are at risk and what people exposed to the risk should do to prepare for oncoming events.

It is beyond the scope of this paper to fully justify the claims that the media can and does play an important role in the community. For the sake of the argument, that proposition will be assumed. What follows is that the media have a legitimate interest in seeking access to disaster areas and whilst there, they may want to secure footage, photographs, sound recordings and conduct interviews with people involved in the event. Some of those people may want to sing the praises of the responders, others may want to criticise what has been done at either a policy level or in terms of the 'on the ground' response. Reporting all points of view, favourable and unfavourable, is part of the charter of the relevant media agencies (ACMA 2004, 32; ABC 2007, 7, Australian Press Council 2006, [3]; Commercial Radio 2004, [2]; MEAA, n/d, [1]]).

The potential conflict

Chas Keys (1993) put it this way:

"Emergency managers are periodically critical of what they perceive to be cavalier media attitudes, a focus on sensation and gore, intrusiveness at the disaster scene, the twisting of facts to fit a convenient model or preconception, and a tendency to ignore the emergency services' side of the story. The problem does not work only in one direction, of course. Media people sometimes see emergency managers as high-handed, secretive with information, claiming 'ownership' of an event of public interest and cordoning it off from public scrutiny, and being generally untrusting and unhelpful."

This may represent the 'old approach' to the media (Cohen, Hughes and White 2008, 110) but the pressure on both emergency service and media organisations during a disaster means that conflict may again arise if the relationship is not properly managed. Where there is a perceived conflict, members of the emergency services may wish to remove the media or restrain their action.

Command and control?

As has been noted, above, the fire and emergency agencies can only limit freedom of movement where that is necessary to preserve health and safety or to facilitate the appropriate response to the emergency. Merely ordering people 'out' because that is easier than considering whether or not it is essential and whether or not their legitimate interests can be met, would not be an appropriate decision under the emergency services legislation.

The emergency or disaster is not the private property of the emergency services and there is 'no property in a spectacle' (*Victoria Park Racing & Recreation Grounds Co Ltd v Taylor* (1937)). The media are free to photograph what they can observe of a fire or flood.

The emergency services are not, generally, charged with preserving all the rights of people affected by an emergency. People may well have privacy rights that could be infringed by an intrusive media presence and may have legal claims to compensation (*Privacy and Personal Information Protection Act 1998* (NSW); *Privacy Act 1988* (Cth); *Giller v Procopets* [2008]) but that does not mean the emergency service charged with responding to the fire, flood or storm is also required, authorised or competent to protect those rights.

There are rules with which media agencies must comply when dealing with the broadcasting of information that is unfair, infringes privacy (ACMA 2004, 32; ABC 2007, 4, Australian Press Council 2006, [3]; Commercial Radio 2004, [2]; MEAA, [8] and [9]) or may prejudice a criminal prosecution (Breit 2007, 160) but the fire and emergency services do not have a specific authority, capacity or duty to monitor and enforce these rules.

It can be concluded, therefore, that:

1. Emergency services personnel do not have the legal power to restrict media access to disaster or emergency areas except where that restriction is a legitimate and reasonable restriction based on safety or operational reasons;

2. Emergency services personnel do not have the legal power to dictate to media staff what they may or may not film, record or report.

3. If there are restrictions on media access and publication they are imposed by the law governing the media, rather than emergency services, and it is up to the media enforcement agencies, such as the Australian Communications and Media Authority, and in cases where criminal prosecutions are involved, the police, to enforce.

Coordination

Fire and emergency services have the responsibility of protecting people from risks to their health and safety caused by the fire, flood or storm. Statutory and common law duties do not, however, impose an obligation to guarantee safety; rather they impose an obligation to take reasonable steps to preserve health and safety, taking into account:

... the magnitude of the risk and the degree of the probability of its occurrence, along with the expense, difficulty and inconvenience of taking alleviating action and any other conflicting responsibilities which the defendant may have. (Wyong Shire v Shirt 1980, [14]).

People may have legitimate reasons to be in harm's way during a fire or flood and the emergency services must consider these when considering mandatory evacuations. Taking a fire ground as an example, the fire authorities in Australia have generally adopted the 'Stay or go' policy as good advice to give to residents. In short that policy says people at risk from bushfire 'need to plan to stay and defend them, or plan to leave early' (AFAC 2005, 5).

The logical and necessary consequence of encouraging people to plan to 'stay and defend' their properties is that people must be allowed to stay in the fire ground even though they are exposed to the risk of injury from the fire. Equally, in a flood people may need to remain with their properties to protect assets or otherwise manage their own response.

Other services providers may need to access affected areas to perform their duties. For example, during a flood, the State Emergency Service may evacuate an area and close off roads and other access but if an ambulance paramedic needed to cross the flooded river to provide care, it would be expected that the paramedic would be transported in an appropriate flood boat or helicopter. In that example the paramedic has a legitimate interest in entering the area and that would need to be taken into account. In some cases the danger may be so great that the SES would refuse to allow the paramedic into the disaster area. In deciding what is the appropriate response the SES would have to consider the need to preserve the ambulance paramedic's safety, the needs of the person requiring the paramedic's assistance, the safety of the SES officers and the opportunity cost involved in diverting assets to that task and away from other pressing tasks. The appropriate response, except in the most extreme cases, is not to declare an area off limits to everyone regardless of who they are and why they want to access the area, but to consider particular cases on their merits.

The media have a legitimate interest in accessing the disaster area and that interest needs to be considered. The Australasian Fire and Emergency Services Authorities Council says:

"As the print and electronic media are a primary means of providing information to the community, and media organisations have a legitimate right to information regarding fire events, fire agencies should facilitate their access to relevant information and fire events. Fire agencies should manage media access to firegrounds to provide for the safety of media crews." (AFAC 2005, 9 (emphasis added)).

The media have a legitimate interest in seeking access to disaster areas.

There is some similarity between the emergency services and the military. Fighting fires and responding to disasters breeds camaraderie between members who may well be faced with life threatening situations. The emergency services, even if staffed by volunteers, are a government agency whose principal accountability is to the government, not shareholders or 'customers'.

"The media by comparison … is, with few exceptions, privately owned and accountable to stockholders with a mission of reporting newsworthy events that will either sell newspapers, magazines, or airtime for a monetary profit. The goal of the … media is to write or present an intriguing story. That "attention-getter" translates to money. The … [emergency service], by contrast, is not a profit-making entity. It exists solely because the … public wants it to exist due to a perceived need for protection … (Oehl 2004, 39-40)"

The tensions between the emergency services and the media may not be as extreme as those between the military and the media, but they can exist where members of the emergency services are reluctant to value the contribution made by a journalist who will be looking for a story and who is not bound by the rules of the emergency service nor loyal to the service or the government. Nonetheless the emergency services need to recognise that media reporting of the disaster is in the public interest and that the freedom to communicate on important issues and issues of a political nature (CMC 2004, 32-34 and 40-42) including how the government (represented by the emergency services) is managing a response to a disaster is an essential freedom in a democracy (*Nationwide News Pty Ltd v Wills* (1992); *ACT Television v Commonwealth* (1992); Australian Press Council 2006, [Preamble]). The emergency services also need to rely on the media to get their message to the public, to warn them of the dangers, to prepare them to respond and to tell the story of their response (Cohen, Hughes & White 2008, 113; CMC 2004, 21). Although there may be tension between the services and the media, they in fact need each other to do their job.

The military, particularly the American military, noted this reality after a series of conflicts with varying degrees of media access and freedom. During the Vietnam war the military-media relationship failed where there was a perceived 'reality gap' between what was being reported by the administration and the reality observed on the ground (Oehl 2004, 42; Rodriguez 2004, 58). The same situation could apply if the reality of the emergency does not match the official reports issued during press briefings or where the emergency service organisation is perceived to be delivering 'spin' or a public relations message rather than information (Cohen, Hughes & White 2008, 110-113).

In 'Operation Iraqi Freedom', the US military took journalists with them, the journalists were embedded with combat troops, got to know the troops and experience the same dangers but were free to report on anything including failings by the military and on civilian casualties (Oehl 2004, 51). Oehl, a former military commander, says:

"The process of embedding media served to break down some of the preconceived notions and prejudices that the military and media industries had towards one another by educating both sides on the duties and responsibilities of the other. The shared experiences of military members and the reporters embedded with them should ultimately result in a better understanding of not only why a relationship is necessary but how such a relationship can be mutually beneficial to both camps. (Oehl 2004, 52)."

Emergency service organisations need to consider how they will work with media organisations to facilitate access to, and understanding of, information relating to any particular incident. Facilitating media to access, for example by assisting them to travel with a fire appliance or a flood boat, may improve the relationship, facilitate the spread of vital information and allow the story, good and bad, of the response to be told for the mutual benefit of the media and the emergency services. It is clear that the fire services, at least, are moving in this direction and facilitating media access with appropriate pre-deployment training and assistance on the fire ground (Cohen, Hughes & White 2008, 115; AFAC 2005, 9)

Conclusion

If the conclusions of this paper are correct, the media have a legitimate interest in reporting on incidents and emergencies and the emergency services do not have the legal right to control their access except for safety and operational reasons, nor do the emergency services have the authority to restrict what is reported. The reality is that the media will, and should, report on major emergencies whether the emergency services like the tone of the report or not. It is not, therefore, up to the emergency services to exercise either command or control over the actions of the media.

The emergency services need to coordinate with the media, recognising their legitimate interest in attending and reporting on emergencies and disasters. Emergency service organisations need to facilitate that interest in the same way they would assist others with a legitimate interest to access the disaster area.

The media and emergency services organisations must coordinate their response for the benefit of the emergency service organisation, the media and the public generally. The emergency services do not have the legal power to take any other approach.

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His research interests are in the area of the emergency services and emergency response. He is the author of Emergency Law (2nd ed, 2005, The Federation Press) as well as numerous articles and conference papers on legal issues facing the emergency services. He is a regular guest presenter at the EMA Institute, Mt Macedon.

This paper won the best paper award at the EMPA conference in 2009.

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Engaging communities before an emergency: developing community capacity through social capital investment

Chia presents a qualitative study that suggests that to develop social capital, relationships and networks need to be established as a basis for all planning and effective emergency management. ®

ABSTRACT

As organisations engage with communities they develop social capital that adds value to their community. Social capital in the context of this paper refers to the investment of an organisation in community programs where employee involvement is central to the success of these programs. If organisations intend to engage communities in effective emergency management, this paper suggests that relationships and networks need to be established that form the basis for all planning and community response including response to emergencies. A qualitative study of Australian and Canadian credit union employees' community engagement indicated that organisations need to actively engage with their local and regional communities by giving back, volunteering and partnering with other organisations such as local hospitals, schools and non-profit organisations so they have the capacity to respond to issues and emergencies. Credit unions' social responsiveness is fundamental to their business practice and it is the platform for community engagement and responsiveness.

Introduction

When communities are faced with a crisis or an emergency they need to act quickly to respond to a situation that is affecting their viability, their lives and their livelihood. In an emergency the immediacy of action is such that there is little time to consider what needs to be done as a community is under threat and action to save peoples' lives and property is imminent.

Emergencies such as Hurricane Katrina that struck New Orleans in 2005 resulted in utter devastation with 964 people losing their lives as unpreparedness and slow response to this catastrophe added to the death toll and human suffering (Benoit & Henson 2009). These scholars describe the "human and economic toll from Hurricane Katrina as devastating" (p.40) and the aftermath of massive looting in the city, water contamination and minimal community services as contributing to the chaos and crisis. According to the USA Institute of Crisis Management (ICM) 29% (http://www.crisisexperts.com/, accessed October 17, 2008) of crises are sudden and unexpected such as hurricanes and floods resulting in significant loss of property and life (Guth & Marsh, 2009) and in these unexpected crisis situations most forms of communication are destroyed.

From the unexpected to the expected, 71% of all crises are in the smouldering or the issues management category where a crisis is waiting to happen. Guth and Marsh (2009 p.378) point out that "usually, there are advance signs of trouble" for most crises as emerging issues can be managed before they reach a point of no return. This paper puts forward the notion of developing community capacity where credit union public relations practitioner are the actors, or the agents (Edwards 2008, Coleman 1988) that establish community relationships and develop funds for vital infrastructure, engender a community spirit and response to newcomers and those who are marginalised. Proactive management of emerging issues presents opportunities to put communities' resources and networks in order for a timely and effective crisis response when their coping capacity is tested.

When organisations "work to establish instrumental communication channels with stakeholders pre-crisis to build reservoirs of good will, alliances, and shared understanding" (Ulmer 2001, p.594) then the community as the primary stakeholder with its varied needs is given every opportunity to manage crises and emergencies when they occur. According to Ulmer it is critical to support communities and develop trust so that secondary stakeholders such as the media

have a greater chance to develop relationships and make communication transparent, meaningful and acceptable.

Credit unions were central to the study reported in this paper as credit unions began to provide fair access to financial services for groups who were under served by mainstream financial services. Canadian and Australian credit unions began over 100 years ago when employees collaborated to create credit unions to assist people in need to stand on their own. The strengths of credit unions are:

- They reflect and define a community;
- They are built on common bonds of association among members (ethnic, corporate, community);
- They serve members face-to-face where they reside;
- They take care of their members and their members take care of them.

Social capital embedding emergency readiness

How can organisations' community social capital investment make a difference to a community's response to an emergency? Social capital is "the ability to form and maintain relationships to facilitate goal and objective attainment" (Fussel, Harrison-Rexrode, Kennan & Hazelton, 2006; Hazelton & Kennan, 2000; Kennan & Hazelton, 2006 cited in Hazelton, Harrison-Rexrode & Kennan, p. 92). The focus on relationships, or as Bourdieu and Wacqant (1992, p 32) put it "connections", is central to social capital investment. These connections develop social supports that can be accessed during times of trouble or crisis (Carpiano 2007, p.647) and in times of support and calm. Connections do not happen; rather they are slowly developed and relationships increase mutual respect and understanding amongst relational partners (Bruning, McGrew & Cooper, 2006). McCallum and O'Connell (2008) suggest that social capital also develops organisations' leadership skills as part of relationship management thereby adding to the capacity to network and build meaningful community relationships and take a leading role in managing emerging issues.

Credit Unions established relationships with organisations they partner with and assist.

Social capital is complex as the "three dimensions of social capital: structural, relational and communication" (Hazleton, Harrison-Rexrode & Kennan, p.94, cited in Duhe, 2007) are integral to the community credit that is established by organisations. The structural dimension is the way that community relationships, networks and connections are developed so that communities, for example, who have a need for better medical facilities are given grants and support to establish them. The relational and communication components include the establishment of community trust banks so that communities have confidence in what is being communicated and planned in their localities.

Underpinning the functional and relational social capital aspects are open, multi-way communication channels where the community might be assisted to develop local networks and media contacts, and communities put in touch with each other. Wigley (2003) found that community relationships established with the police, community leaders, emergency personnel and the local media before a crisis were critical to managing a local airline disaster; credit union relationships reported in this paper function in a similar way. Similarly Priest (2008) found that during Hurricane Katrina media warnings to evacuate were not heeded, instead interpersonal communication such as that between friends or family members, and the views and advice of opinion leaders such as a city mayor giving orders to evacuate, were more likely to result in a response. Understanding the finite role of grass roots relationships and their strength within the community is critical to the way communication is understood and managed during pre-crisis and crisis stages, and it is critical to the way credit union employees in the study reported in this paper developed relationships with credit union members and their families, as well business and other community relationships.

Anticipating and knowing how to address uncertainty in a crisis is also important as communication to the public will not be understood in the same way by everyone. Communication exchanges and the interpretation of communication between organisations and the community takes place in complex environments where tensions are prevalent. Hutchinson (2007) found that in disasters such as Hurricane Katrina communication can be especially confusing as there are so many more government and emergency services needing to be involved and each authority has a different message and a different role to carry out. "A consistent response demands the communication of uniform messages to establish legitimacy" (Huang & Su, 2009 p.8) but many agencies and organisations descend upon communities in crisis often giving contradictory messages. The credit unions in this study established legitimacy as they were trusted by the communities they served and they communicated with community leaders and set up meaningful community partnerships that are valuable in terms of crises and uncertainty.

Making sense of crises as they unfold and learning from the lessons of previous crises is important to the public relations role (Kreps 2008; Howell 2007) and it is important to the proactive response that credit unions' reported in this paper are taking in making their
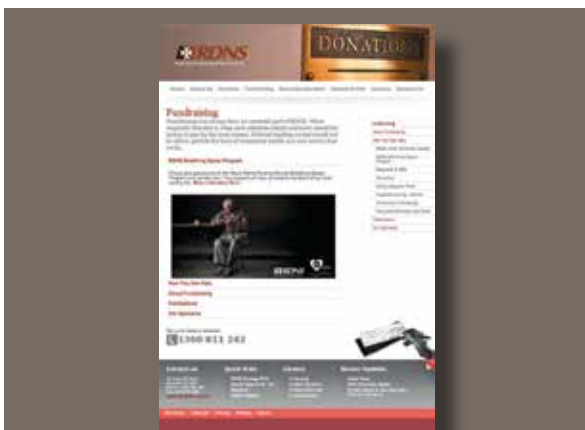
communities ready to manage day-to-day issues and emergencies.

Research methods

The research was conducted in a Canadian credit union which had 541 employees and 142,000 members located in the Toronto and Ottawa regions. The Australian credit union employed 620 staff and had170, 000 members at the time of this study. Credit unions were central to the study reported in this paper as they began in order to provide fair access to financial services for groups who were underserved by mainstream financial services.

The aims of the Canadian-Australian study reported in this paper were to:

- Explore employees' attitudes to organisational activities which aim to 'give back' to society and build organisations' social capital, and
- Explore the public relations and communication management roles in facilitating and developing social capital initiatives.

This qualitative study included semi-structured interviews of 27 employees, 12 Canadian and 15 Australian, in diverse positions from front-line staff managing call-centres, to branch managers and micro-loans managers, public relations and corporate social responsibility coordinators and vice presidents. The interviews aimed at uncovering employees' understandings of social capital initiatives. Participants were purposively selected by the credit unions as employees actively engaged in their community programs.

The construction of meaning around credit union employee responses developed understanding of the reality of their community engagement and connections. Employees are the "actors" (Flick 2006 p.75) who construct the basis of meaning giving context to what is being uncovered and explored.

The interviews were transcribed and data coded initially through an open coding system to determine the similarities and differences to the answers given by the respondents and then coded according to the emerging themes (Creswell and Clark p131). Comprehensive tables were developed detailing community support for the following sectors: corporate, not-for-profit, government, member support programs, personal volunteering and community support. Comparing the responses and the tabled categories of Canadian and Australian credit unions provided further understanding of the similarities of credit unions in their social capital investment and also what they could learn from each other. The tabled data pointed to considerable support for organisations such as hospitals that are critical to the crisis management. The findings therefore indicated that as part of social capital development credit unions made a considerable contribution to the communities they served and that is argued to be important to the capacity of these communities to manage emergencies and crises.

Discussion of research themes important to building community capacity

The question central to the research uncovered employees' commitment to their credit union members and their communities- what do you understand about your organisation's social capital and what does it mean to you and your organisation? Credit unions were established to assist those who are unsupported by other financial institutions. Their philosophy and ethos is to support credit union members through micro loans, assistance with housing and donations to members' families and their communities. Of particular interest to the discussion in this paper is the social capital investment in the community programs through the identified not-for– profit, corporate and government sectors that credit unions supported. This paper does not address the wider context of social capital that has been reported in other scholarly publications (Chia & Peters, 2008, 2009). The aim is to put forward those aspects of the findings that point to the importance of building community relationships that matter and make a difference to the coping capacity of communities during emergencies when a quick response is required.

Of the 27 employees interviewed, credit union public relations and corporate social responsibility staff were the community connectors who set up community relationships for other employees. In the not-profit sector, for example, they identified local blood donor support systems and set up employee volunteer programs at the blood donor clinics. Six credit union regional managers also reported that they identified community groups such as those requiring dialysis treatments and carers managing family members with disabilities and long-term medical conditions who needed considerable assistance in day-to-day management. Through financial assistance and the credit union volunteer program, support networks were established together with local hospitals, and vital equipment purchased for emergency clinics and centres.

The Australian credit union also supports the emergency unit of a major city hospital and employees are trained volunteers who give their time to visit patients and support victims of trauma. All the Australian employees interviewed were involved in the hospital program but it is important to note that the sample of employees interviewed was selected by the credit unions because of their community involvement. These employees reported that they know first hand how families react to emergency and tragedy and are aware of the support that is required to overcome emergency situations and rebuild lives and businesses. Employees reflected the credit union focus on meaningful community engagement because their volunteer programs are strategic and carefully planned with the organisations they partner with and assist.

Making community relationships work included organising personal meetings with community leaders, and effectively engaging local media to promote the credit unions' community programs. Ontario, Canada,

regional managers and their staff, and regional South Australian and Victorian managers reported that community radio and local newspapers were important to developing credit union-community relationships and understanding of their role; this was more effective than mass media. Reliance on mass media in pre-crisis situations or in a crisis may lead to message overload as "the available information exceeds the human ability to make sense of it" (Coombs 2007, p.117) and mass media might also bombard community members and blur their understanding especially in a crisis. Communication through known and trusted media established in pre-crisis times should be adopted in a crisis or emergency; this formed the basis of credit unions' approach in all their communication to supported communities and organisations.

The credit unions facilitate a volunteering culture to value-add their current employment and all employees interviewed were active in community programs. These employees engage with their communities as they understand the role of their organisation as a vital community member that has the resources to make a difference to members' communities. The reports of all employees indicate that trusting relationships developed with credit members and their families, with organisations such as the Canadian Cooperatives that supported newcomers to communities, the Smith Family and the Salvation Army in Australia where specific community needs were identified and support schemes established, just some of the 50 reported partnerships that credit unions developed. This is important to Hutchinson's (2007) and Coombs (2007) point that relationships set up before a crisis are important to the way an organisation, or community responds to a crisis as the capacity of organisations and communities to manage is enhanced.

Relationships also affect the understanding and interpretation of communication during a crisis. This is especially so for the newcomers or immigrants that a third of credit union employee identified as requiring support through communication in their language, and assistance in interpreting community expectations and norms. In emergencies newcomers may not grasp the context of crisis and in fact they may be more confused because of the heightened state of urgency. However, credit union employees reported they are more likely to trust what is being communicated from those who have been part of their lives, understand them and know their needs.

Most employees pointed out that crisis such as the current global financial crisis weakened the credit unions' community resolve so that the ability to respond to a crisis or emergency could be limited by the wider context of their business activities. Even so credit union members indicated that their proactive community engagement embedded a culture of community readiness at three main levels, functionally by being equipped to actively take part in the community, at the relational level through networks and strong support from volunteers and providers, and by establishing culturally appropriate communication channels.

What works in an emergency?

This paper proposes that organisations' social capital plays an important role in contributing to communities' ability to respond to emerging issues and crises. Organisations are often "communicating at the edge of chaos" (Duhe 2007, p. 67) as they face issues and crisis and the communities they work with face tensions and difficulties. Tension is evident in all relationships (Coombs, 2007; Chia, 2008; Hung; 2007) and in a crisis relationships are strained and communication often breaks down. The credit union study indicated that public relations practitioners set up community networks that credit union employees develop so that they understand their communities, work with them, support them and develop community confidence and trust important to day-to-day management and to crisis management.

This paper cautions that focusing only on linear emergency management and attempting to prescribe a way to behave or respond to a crisis, is flawed as the essence of an emergency is its complexity. Canadian and Australian credit unions social capital investments are part of community capacity development within complex community exchanges between credit union members and their communities and the organisations they partner and work with:

- Trained volunteers who are part of emergency environments such as the emergency ward of a hospital so they understand and can respond to the needs of victims and families.
- Identifying community newcomers and immigrants and setting up communication in their language, within their cultural context so that they can respond to issues and emergency because they understand what is happening.
- Trained blood bank volunteers who have experience in working with blood banks and understand their function and role.
- Established emergency funds for immediate use.
- Communication through established relationships and opinion leaders that the community trusts. These points of communication are critical to community members' acceptance of what it is being communicated.
- Have networks in place with other organisations and define the role of organisations so that community members are not bombarded with mixed messages and a varied and confusing response.

The report in this paper gives a glimpse of credit union employees as social capital investors who are paving the way for communities to more effectively manage emergencies when they arise. It is argued the setting up relationships and community networks where the most effective communication channels have been explored and understood prevents the catastrophe and fragmented response evident at the time of Hurricane Katrina (Benoit & Henson, 2009).

Credit unions understand their role as responsible community members and credit union employees would agree with Guth and Marsh (2009) that even unexpected crisis can be planned for as they have a commitment to

their communities and they are strategic in engaging communities for day- to-day management and effective issues and crisis management.

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Equine Influenza – Horsing about with a quarantine crisis

Howell & Rohan examine the critical role that traditional and new media played in the communication program for the geographically widespread equine influenza crisis in Australia in 2007.

ABSTRACT

Crises are unpredictable events that can impact an organisation's viability, credibility and reputation. When a crisis affects the animals in a rural industry worth $9 billion per year, all those affected turned to State and Federal government agencies for information, communication and news. In 2007, the horse industry in New South Wales stalled as equine influenza spread across the state. At its peak, 47,000 horses were infected, and horse owners and industry workers faced an unknown future. The disease was eradicated within six months and by July 2008 horse industry operations had returned to normal.

This paper examines the critical role that traditional and new media played in the communication program for this crisis and concludes radio remains a vital component of the communication mix in a geographically widespread crisis.

Introduction

Crisis communications is the dialogue between the organisation and its publics prior to, during, and after the negative event (Fearn-Banks, 2002). It is emphasised that "communicating does not simply mean being able to send messages, it also means being able to receive them" (Lagadec, 1993 p.14). It is important that crisis communications are quickly actionable as typically "the public will quickly begin to look for a trusted and consistent source of information" (Russell, cited in Galloway and Kwansah-Aidoo, 2005, p.95). Best practice crisis communications is designed to maintain public confidence and minimising damage suffered (Levine, 2002).

Public relations practitioners are expected to integrate all means of communication in their profession and to demonstrate ongoing best practice. The growth of the World Wide Web (the Web) has led to an upsurge in the supply of information and content that has affected how public relations practitioners practice. New media such as organisational web sites are used to keep publics informed, provide information to the media, gather information about publics, and seek to strengthen corporate identity. Traditionally, most Fortune 500 companies use Web sites for external communication, focusing on promoting the company image and enhancing public relations (Chang et al, 1997). With the advent of blogosphere, Web 2.0, and social media sites like, Flickr, Twitter, Blogger, Facebook and MySpace, public relations practitioners are confronted with an ever-changing communication landscape.

Crisis communications practices have expanded to use traditional and new media to communicate their key messages to key publics (Arpan & Pompper, 2003; Fearn-Banks, 2002). It is commonly suggested that new media have drastically altered the way organisations communicate during a crisis (Kimmel, 2004) and that crisis communication has evolved with the digital revolution to instantaneous, exhaustive, global information required about the crisis by key publics (Barr, 2000). A comparatively early and prominent example of crisis communications and technology occurred during the aftermath of 9/11 with employees displaced from the World Trade Centres logging into their company websites to gather information to supplement that found in the traditional media channels such as radio, television and print. The Web implies the immediacy of the radio and the persistence of print, and thus has far-reaching implications for public relations practitioners.

Public relations researchers have provided valuable analysis and insight how the Web can assist or hinder organisations in their crisis communication (Coombs, 2000; Hearit, 1999; Martinelli & Briggs, 1998; Witmer, 2000). For example, a 2005 study from Oxford University found that more than 90 percent of communication may not be owned or controlled by the organisation in focus (Kirk cited in Cincotta, 2005).

Although much of the recent research has focused on the affect and impact of new media, it should be remembered that all media can play a role in crisis communication, (c.f. Taylor & Perry, 2005; Taylor & Kent, 2007). A review of the presence of traditional and new communication tools in crisis communications identified that traditional public relations tactics such as news releases were still the most prevalent tactics employed (Taylor and Perry, 2005). New media tactics

including websites and informational links were used far less frequently (Taylor & Perry, 2005).

Crises are a prominent feature of business and government environment and the potential to damage any organisation (Baker, 2001; Mitroff & Alpasian, 2003; Olaniran & Williams, 2001; Pauchant & Mitroff, 1992). In the past decade, there have been a number of substantial disease outbreak crises reported including: the United Kingdom 2001 Foot and Mouth outbreak, the 2003 SARS (Severe Acute Respiratory Syndrome) epidemic in Asia and Canada, and the 2004 appearance of BSE (bovine spongiform encephalopathy) or mad cow disease in United States and Canada. Not only have these disease outbreaks been unpredictable and impacted viability, credibility and reputations (Baker, 2001; Mitroff, Shrivastava, & Udwadia, 1987), they have lead to the realisation that health crises communications can restrict the spread of infections and help save the lives of people and animals. This paper investigates the impact of both traditional and new media and the role they play in communication during a geographically widespread animal health crisis, the Australian Equine Influenza outbreak.

Method

This paper uses case-based methodology to explore how traditional and new media channels can be used by public relations professionals to best manage a crisis. In the Equine Influenza (hereafter EI) case examined, public relations practitioners relied on a number of different media to communicate to key publics about a matter of potentially great public interest (i.e. EI). The organisation reviewed is the New South Wales Department of Primary Industries (hereafter DPI). The paper examines how using media releases and DPI's web site enhanced the success of the crisis strategy. Publicly available documents and media reports were reviewed to examine the DPI's communication strategy and the tactics it used to manage the media and key publics before, during and after the EI threat. Further, material submitted to the Public Relations Institute of Australia 2008 Golden Target Awards in New South Wales was also utilised for this paper.

During the event, the Federal Government spent more than $A342 million eradicating the virus and providing financial assistance to affected individuals, organisations and clubs (Burke, 2008). It is suggested that the total cost the outbreak resulted "in a loss to the horse industry and the community of something in the order $1 billion" (Harding cited in ABC, 2008 pg.7). The 2007 EI crisis can be categorised as a serve crisis using the Pauchant and Mitroff's 1992 matrix and was created through a series of technical and human errors.

Equine influenza – the epidemic

The 2007/08 EI outbreak in New South Wales was the most serious emergency animal disease Australia has experienced (DPI, 2008a). Due to the infection, horses became sick and to prevent the virus spreading horse movements were banned. As a direct result, a range of horse events were cancelled and farriers, strappers, feed suppliers, vets and even milliners were put out of work. There was a call for the Melbourne Cup, Australia's richest and internationally renowned horse race to be postponed as horses from New South Wales were withdrawn from the Spring Racing Carnival due to illness.

The equine industry is estimated to generate approximately $A9billion each year and employ tens of thousands of people. At the peak of EI, 47,000 horses were infected in NSW on 5943 properties, and horse owners from pony clubbers through to thoroughbred racing community were directly affected.

The campaign to eradicate the disease, led by the DPI, was the largest of its type ever undertaken in Australia and using the latest laboratory, vaccine, surveillance, mapping and communication technologies (DPI, 2008a). The effective management of EI required the public to have confidence in the ability of the DPI to contain and eradicate the disease. The need for proactive public relations was recognised as a crucial aspect of the EI containment and eradication strategy.

Diligence is an essential aspect of effective public relations. Communication strategies will only be successful if all avenues are explored and public relations practitioners are prepared for the unexpected (Fearn-Banks, 2002). Effective crisis communication management is based on how rapidly an organisation can respond to a crisis, requiring an organisation to act in a proactive manner to best manage potentially dangerous situations and issues (Cincotta, 2005; Hendrix, 2001; Nolan 2006; Stacks, 2005). The DPI's proactive response to the EI threat reflected the need to place public interest and safety above financial costs.

Crisis life cycle

The concept that crises progress in a certain manner or follow a life cycle was first identified in the early 1980's (Fink, 1986) and expanded to five stages; these being: prodromal, prevention, acute, chronic and resolution (Fearn-Banks 2002; Mitroff, 1996) during the 1990s. The five stage crisis model is applied to the EI case with a synopsis of each stage that includes the key messages being examined in terms of content and impact. Thus, the DPI's key messages and channels of communication are identified and documents for the EI crisis.

Prodromal stage

The prodromal stage is defined as the warning or pre-crisis stage (Fink, 1986). Initially, clues or hints of a potential crisis begins to emerge and are identifiable (Coombs, 1999).

Quarantine has played a critical role in reducing the risk of disease in Australia and Australia is one of the few countries to remain free from many of the world's most severe pests and diseases (AQIS, 2009). In early

2007 there had been an outbreak of EI in Japan. Many of the stallions exposed to EI were designated to attend Australia for annual breeding season. EI acute is a highly contagious viral disease that can rapidly spread outbreaks of respiratory disease among populations of horses, donkeys, mules and other equine species (CSIRO, 2007).

Prevention / preparation stage

Johnson and Zawawi (2002) suggest that a lack of anticipation and preparation can increase the difficulty for public relations practitioners to negate negative perceptions. Further, Coombs (1999) asserts that "not all crises can be prevented, so organisational members must prepare" (p.219). Academics and practitioners assert that best practice for crisis management is proactive. Matera and Artigue (2000) recommend "if management regards public relations functions as important, then the chances are good that a corporation can successfully emerge from disaster" (p. 216).

The DPI was involved in the development of the Australian Veterinary Emergency Plan, AusvetPlan, which outlines the role of the public relations in the case of an emergency animal disease threat. This plan was employed during the EI crisis. Further, the DPI media team had established and maintained a strong working relationship with key publics through their day-to-day role communicating with rural industries.

Acute stage

The Acute or crisis breakout is the most intense stage of the crisis (Fink, 1986). Is also likely to be the shortest stage in which the trigger theme evolves into an actual crisis (Howell & Miller, 2006).

On 24 August 2007, a veterinarian reported to NSW Department of Primary Industries (NSW DPI) that he had observed sick horses at Centennial Park in Sydney. Holloway and Betts (2005) suggest that when there is an immediate threat to individuals' (and in this case livestock) safety, an organisation will rarely have time to gather all information relevant prior to facing the press.

The NSW Chief Veterinary Officer imposed an immediate state-wide horse movement ban and established a State Disease Control Headquarters at Orange and a Local Disease Control Centre at Menangle (DPI, 2008b). The ban on horse movements was simultaneously extended across the whole country. Financial penalties were announced to reinforce the ban.

In the first week of the EI crisis there were 943 broadcast items and 109 press articles relating to EI. The high level of coverage tends to mirror the intensity of the stage of the actual crisis in crisis life-cycle model. During this intense period, it is vital the organisation responds to media requests and maintains control of the message. Proactive media management is required, with clear concise information released in a timely manner. The DPI undertook a blanket media

communication approach targeting metropolitan, regional and horse-industry specific media. More than 59 media releases were generated and media conferences were staged throughout the state of NSW during the acute stage of the crisis from August 24 to August 31, 2007. A telephone service with a 1800 EI hotline was established to assist key publics, provide individual information and track key messages as they were released into the media. Further, DPI engaged in the development of radio, television and print advertising in order to spread the intended message. A DPI specific webpage linked to the organisational website was developed along with series of public information meetings. All the information provided at these meetings and on the website was translated into Fact Sheets and disseminated in print at saddleries, rural stores, through Forward Command Posts, private veterinarians and NSW DPI offices (DPI, 2008a). The DPI also used new media with the audio interviews with Chief Veterinary Officer posted to website and accessed by media. The Industry liaison staff monitored and contributed to blogs and horse-industry web pages (DPI, 2008a). Further, video footage was distributed to television networks via email, and the DPI developed a lists of 12,000 direct emails used for updates during the crisis.

Chronic crisis stage

Coombs (2004) suggests that the effects of the crisis linger as efforts to defuse the crisis progress. During this stage, Fearn-Banks (2002) recommends that the organisation undertake an audit of the events, activities and mass media coverage of the crisis to date, and seeks to exploit successful management activities and learn from failures.

As illustrated in Graph 1 Weekly epidemic curve for NSW, the number of new infected premises recorded each week of the outbreak to the end of December 2007. A 3-week rolling average number of new cases is shown with the continuous line and indicates that the rate of new infections peaked on 24 September, or week 5 of this illustration.

The infection continued to spread during September 2007 but had been contained. At end of October a declining rate of new infections indicated that the DPI control strategy was containing EI. On 1 February, 2008 interstate movements were freed up, and large parts of NSW were changed to a 'white zone' indicating their effective freedom from EI infection (DPI, 2008b). In September 2007, the then Prime Minister John Howard announced that there would be a full, independent inquiry into the outbreak of equine influenza the Hon Mr Ian Callinan AC was appointed to head a Royal Commission by the then Minister for Agriculture, Fisheries and Forestry.

Crisis resolution stage

Fink (1986) asserts that the resolution stage is when the immediate effects of the crisis have passed, and the organisation returns to business as usual (Coombs,

GRAPH 1. Weekly epidemic curve for NSW to 2008

NSW Department of Primary Industries. 2008-02-07
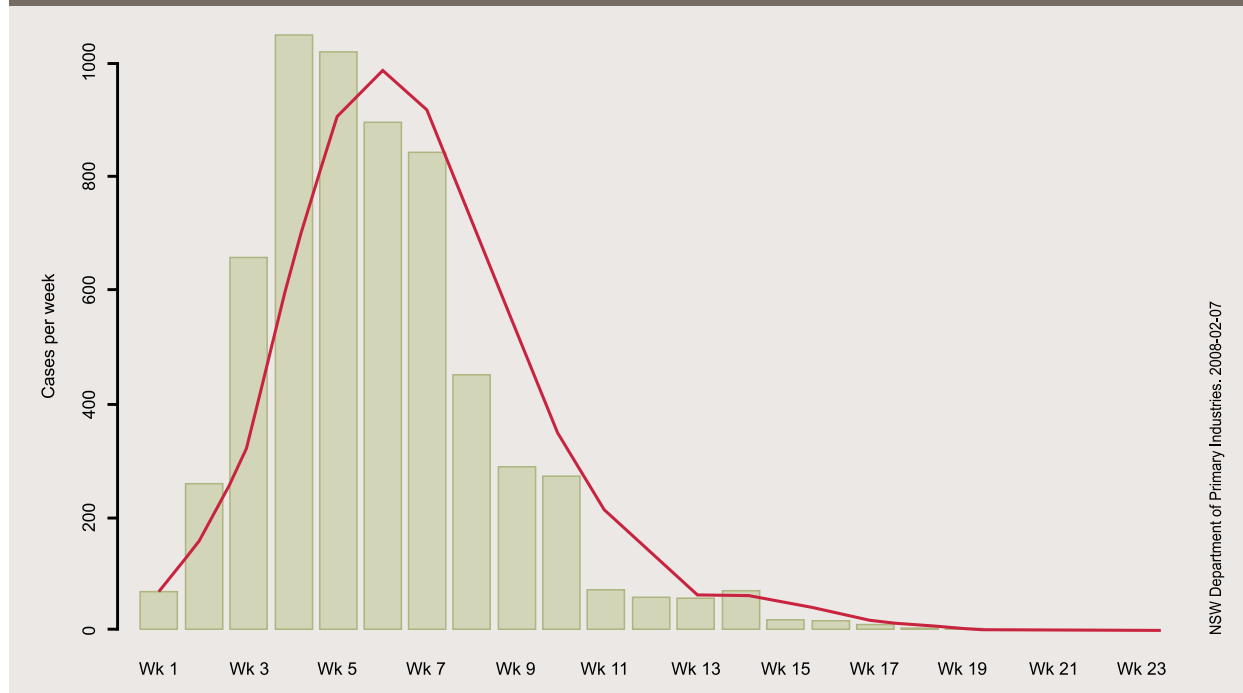
1999). The state of NSW was finally declared free of EI in February. The disease was eradicated within six months well ahead of predictions and by July 2008 horse industry operations had returned to normal.

Callinan's Royal Commission's report made 38 recommendations regarding changes to quarantine regulations and the horse industry: all of which were accepted by the Federal Government. In Commissioner Callinan's report it was concluded that the virus 'probably' came into Australia in August 2007, via horses from Japan (Burke, 2008). However, it was not possible to "make a precise finding as to how the virus entered the general horse population, or of direct liability or culpability, but found the virus was most likely carried on a contaminated person or equipment leaving Eastern Creek Quarantine Station" (Burke, 2008, p.1).

In summary, during the EI crisis the DPI issued over 300 media release, including 59 in the first seven days. There were thousands of radio and television interviews conducted and more than 58 media conferences and media events were staged. The DPI's website provided the most comprehensive equine influenza information resource nationally, generating up to 2000 visits a day. By the end of the crisis there were 685,000 unique 'page views' generated for the EI home page. In addition, there were other web pages covering the topic, fact sheets and multimedia products available from the EI website (DPI, 2008b). Further, audio interviews were posted to website and accessed by media, and industry liaison staff monitored and contributed to blogs and horse-industry web pages.

As demonstrated by the messages developed for the EI campaign, crisis communication involves the

transmission of messages on the nature of crises. The messages developed by the DPI were designed to alleviate problems in the exchange of information about the nature, magnitude, significance, control, and management of risks to key publics (Covello, Hyde, Peters, & Wojtecki, 2001).

Discussion

Saffir (2000) suggests that "words and actions under that instant pressure cannot be recalled...if they are unwise, they can seriously damage or doom any subsequent effort to recoup" (p.109). Because the DPI had undertaken extensive planning and research, the DPI was able to respond quickly and use traditional and new media to quickly communicate with key publics.

Throughout the crisis the DPI were consistent and coherent in their communication. They employed an open, honest and direct communication pattern with the key publics. Gibson (2001) suggests that "it's very important that the public gets consistent straight forward messages...one person [will ensure that] the lines [messages] will be exactly the same in each interview, whether it's a talk-back radio, a newspaper or television" (cited in Barrett, 2001, p.1). Throughout the crisis the DPI maintained the same, consistent message. The DPI employed Minister Ian Macdonald and DPI Chief Vet Dr Bruce Christie to present the key messages. In an analysis of the media coverage, Minister Ian Macdonald was the most prominent spokesperson in the press coverage analysed, quoted in 38% of the coverage (DPI, 2008c). DPI Chief Veterinarian Dr Bruce Christie was also acknowledge as the leading 'expert' spokesperson, providing detailed information on

the spread and nature of the disease and DPI's efforts to minimise the spread of EI (DPI, 2008c).

Radio was the first electronic communication channel used by public relations pioneers to communicate with key publics in the mid 1920's. Radio remains the one of the best sources for instant message exposure during a crisis event. As part of disaster planning, all emergency services continue to advise that individuals should 'listen to the radio' to gain further information (Energex, 2009). Though radio seems like a medium decline when compared to the ascension and attention given to new technology, radio remains extremely effective in audience pull and an excellent instantaneous channel of communication to key publics. Radio formats are very specific and as such the audiences tend to be very different (Cutlip, Center and Broome, 2006). Smith asserts that "when radio audiences do listen, they focus on what is being said" (Smith, 2005, p.188). For the EI crisis "radio was vital, and probably our most important communication tool, to ensure up to the minute information was relayed to our key publics" (personal communication, Brett Fifeld February 23, 2009).

Curtin, Hayman and Husein (2005) suggest that if managed well, a crisis can actually bring benefits to an organisation. A crisis can also prove to be an opportunity for a organisation to reinforce its commitment to its key publics (Doeg, 2005). The manner in which DPI addressed the EI crisis is an example of best practice using traditional and new media to communicate with key publics and track the strategy's effect throughout the crisis. The DPI's reputation with its key publics was strengthened as a result of a well-managed crisis communication strategy.

The Public Relations Institute of Australia awarded a Golden Target Award to the DPI. In doing so the Institute recognised the outstanding work and strategic involvement by the DPI (NSW) on this critical issue as it posed a significant threat to the economic well-being and/or continued viability of the entire industry.

DPI Website Equine Influenza Information

Conclusion

During an extremely difficult time for the equine industries, the DPI proved to be an effective communicator using simplicity and repetition of the key message that there should be 'no horse movement' and the provision of facts as the situation unfolded. This strategy minimized speculation or uncertainty at a time of widespread concern. Further, the DPI maintained the established strong relationship with the NSW media throughout the crisis, providing continuous and comprehensive responses to issues as they arose. This ensured that the media itself was not left to speculate on how to respond to the crisis and that its focus was on publicising preventive measures rather than spreading panic.

Communication effectiveness is judged on its ability to satisfy the needs of publics (Heath, 2001). The equine industry's stakeholders are diverse and wide ranging, yet during the crisis the communication strategy ensured that all stakeholders were provided with extensive information, and cognition of the information provided was high. This case study demonstrates how the DPI used traditional and new media to communicate key messages throughout the crisis. They found that radio provided the most useful channel to ensure the key publics were kept aware of developments during the crisis (personal communication, Brett Fifeld February 23, 2009). Further, the research undertaken by the DPI provided a rich source of information in the development of the crisis communication activities implemented
by the Department during the crisis. This paper validates the use all forms of media during a crisis situation and demonstrates radio's value in terms of producing better outcomes for the organisation in terms of communication.

Campbell (1999) views the crisis process as one of continual improvement. That is also true for public relations research and practice. Averting a crisis is the greatest success for any public relations professional (Howell & Miller, 2006). But if a crisis does occur, an organisation can be well prepared with a sound integrated crisis communication strategy using both traditional and new media can ensure quality outcomes.

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Public relations in a crisis decision-making kaleidoscope

Mirandilla reports some initial findings on how organisational crisis decision-makers maximise the use of public relations in effective crisis management.

ABSTRACT

Once gaining a seat in crisis decision-making teams, do public relations practitioners regard themselves as 'decision-makers'? This paper presents emerging themes from wider doctoral research in best practice in organisational crisis decision-making. This on-going study includes a synergy of perspectives among decision-makers in making sense of how decisions are developed during crises. Similar to kaleidoscopes revealing various patterns depending on which lens is used, this wider study reveals insights on crisis decision-making across three lenses in crisis teams, namely 1) members of senior management in organisations, 2) public relations (PR) practitioners, and 3) members of authorities. Myriad of views among these crisis sensemakers points to core elements in best practice in organisational crisis decision-making.

The purpose of this paper, however, is to magnify one aspect of this kaleidoscope. From a public relations lens, this paper discusses how public relations practitioners substantiate their membership in crisis teams. Emerging themes from conversations with them suggest that their engagement in decision-making is mainly as advisers during crisis decision-making processes. They are key players in implementing decision-making outcomes instead. There is more focused participation in formulation of actual crisis response tactics after decisions have been made by other members in crisis teams. With Karl Weick's (1995) notion on retrospective sensemaking as this study's central theoretical guidepost, making sense of the role of PR in crisis decision-making is significant to appreciating its potential in effective crisis management.

Note: This paper is based on an earlier article presented at the Australian and New Zealand Communication Association (ANZCA) Conference, Wellington, New Zealand, 9-11 July 2008.

PR in crisis decision-making: previous research in focus

Strategic and timely decision-making are crucial elements in crisis response. Crises are instances which are "specific, unexpected, and non-routine...that create high levels of uncertainty and threaten, or are perceived to threaten [an organisation's] high priority goals" (Ulmer, et al., 2007; p.7). These periods of "confusion or turbulence" (Bourke 2000, p. 203 cited in Gilpin &Murphy 2008, p. 13) propel organisations to shift from usual (i.e. everyday) to non-usual modes of thinking and acting.

From an organisational perspective, crises are situations which involve "jolt[s] that infuse organizations with energy, legitimize unorthodox acts, and destabilize power structures (Meyer 1982 in Krackhardt & Stern, 1998, p.125)." Weick (cited in Smith & Elliot, 2006) succinctly describes crises as "cosmology episodes" where the "rational, natural, and orderly fashion of how environments work are disrupted (p. 264). He further emphasises that crises create periods of uncertainty and ambiguity which lead to a momentary "collapse" or breakdown of how organisations "make sense" of what to do next (Weick, 1995). There is a "sense of contingency, of rapid change, [and] of limited predictability and control" (Gilpin & Murphy 2008, p. 6).

Amidst these complexities, decision-makers are expected to initiate choices and actions before circumstances brought by crises become worse. Conrad and Poole (2005) believe that decision-makers contend with certain limitations upon crisis onset. They say that in crises where there is a lack of available information and a deep sense of urgency to act, information retrieval and dissemination systems in organisations are challenged. Apart from this, the nature of human information processing itself and limited analytical skills of decision-makers (Conrad & Poole, 2005) may affect decision outcomes in crisis periods. In this current study, participants articulated how these challenges added to pressures inherent in crisis environments.

Inside crisis rooms, Heath and Coombs (2006) emphasise that choices in decision-making are considered through collaboration and dialogue with "interested parties" (p. 390) working together to seek agreements and compromises among themselves. Coombs (2007), however, cautions that some decisions

will not serve the interest of every party because some parties may be apprehensive and unwilling to contribute to decision-making depending on the nature of the interests they protect (Shapira, 1997).

Cyert and March (1963) coined this decision-making body as an organisation's dominant coalition which refers to an influential group of individuals who create organisational goals and shape organisational values and actions. Membership in this group set the room for negotiations on which interests are protected. Tracing the roots from the work of organisational theorists (Grunig, J.E. & Grunig, L.A., 1992), Berger (2005) observes that the "dominant coalition is a pivotal concept in mainstream public relations theory" (p. 5). According to him, if an organisation aims "to be socially responsible and to acquire and maintain social legitimacy", public relations practitioners should be included in this inner circle (Thompson, 1967).

Grunig and Hunt (cited in Broom & Dozier, 1986), in their previous research on models in public relations practice, argue that being a part of this inner circle allows public relations to influence management decision-making. In a managerial-technician continuum typology introduced by Dozier in his seminal research projects on PR roles, practitioners generally perform as communication technicians rather managers. The former suggests engagement in operationalising strategies formulated by decision-makers. Compared to a managerial-dominant role, communication technicians are "isolated from decision-making and accountability" (Broom & Dozier, 1986, p. 41).

Inclusion in dominant coalitions in organisations, it seems, should position the profession as managers than technicians. But, as this article asks, once gaining membership to this inner circle, are they strategists indeed? Or does their engagement in crisis decision-making continue to validate Dozier's earlier findings?

Making sense in the kaleidoscope

Making sense of roles in this kaleidoscope follows how the wider study on best practice in organisational crisis decision-making makes sense of crucial elements in effective decision-making during crises. Karl Weick's (1995) notion on retrospective sensemaking is a central theoretical guidepost in the study. Weick proposes that sensemaking is about how social actors frame situations and attempt to construct meaning from them. It is about ways how people generate what they interpret (Weick 1995). During crises, this may mean decision-makers make sense of crises based on roles they represent in crisis teams. This may also mean how decision makers act, or develop choices on how organisations should act, when a crisis happens. It "involves turning circumstances into a situation that is comprehended explicitly in words and that serves as a springboard into action (Weick & Sutcliffe, 2005, p. 409)."

The current study shares the view that in responding to "surprising or confusing" circumstances (Maitlis, 2005, p. 21; for more, read Gioia & Thomas, 1996; Weick,

1993, 1995), sensemaking aims to reduce equivocality (Weick, 1995) among decision-makers. Reducing equivocality means that in these circumstances, it is first imperative for decision-makers to gain a collective understanding about the incident. Translating this understanding into choices, decisions, and actions in crisis response comes next. When events present operational, fiscal, and reputational threats (Howell & Miller, 2006), organisations operate in an environment of increased pressure. Making sense becomes even more demanding. Decision-makers then take the position of socially constructing (Berger & Luckmann, 1993 cited in Maitlis, 2005) among themselves ways to create order amidst the chaos (Weick, 1993, 1995). Effective responses to changes rapidly taking place during crisis onset need to arise from this sensemaking process.

Out of seven properties characterising Weick's concept of sensemaking, this study focuses on the retrospective aspect in framing meanings. Taylor and Van Emery (2000 cited in Weick, et al 2005, p. 275) succinctly argue that "sensemaking involves the ongoing retrospective development of plausible images that rationalize what people are doing. According to them, sensemaking is an important process in organising which occurs when social actors construct meanings about events guiding their future decisions and actions. Constructing meanings is based on cues extracted from events. Framing these cues, in Weick's opinion, puts emphasis on significance of previous experiences as inputs to current sensemaking. A retrospective angle in making sense introduces an ongoing, non-linear and non-sequential cyclical path in meaning generation. "Sense", in crises, may emerge from various types of information processed by decision-makers in different stages of how crises unfold.

Drawing from a qualitative approach (Denzin & Lincoln, 2000), meaning-making is based on retrospective accounts of public relations practitioners gathered by conducting a series of in-depth semi-structured interviews. As one lens of the kaleidoscope, practitioners are joined by senior management and police authorities in the wider research project. Purposive and snowball sampling methods were used in selecting participants of the study. Purposive sampling follows several criteria in choosing which practitioners to interview. Participating in crisis situations as crisis communication consultants of organisations in Australia was the main criteria in selecting practitioners. The researcher then requested for referrals from first batch of interviewees in identifying subsequent ones. Through these sampling methods, the PR practitioner decision-making group in this study is composed of a mix of in-house and external consultants who helped several Australian organisations manage the crises in the past. They provide first-hand insights not only on decision-making activities in organisations during crises, but also personal views on their role as members of this decision-making nexus themselves. Drawing from a qualitative approach (Denzin & Lincoln, 2000), data was analysed through stages of coding interview transcripts to form cluster of themes, some of which are explored

in this paper. Verbatim responses quoted from interview sessions are placed in quotes throughout this text.

Figure 1 below illustrates several crisis cases mostly referred to by practitioners during interviews. Identifying these cases provide context as regards the type of crises referred to by participants in this research. Albeit serving as key reference points, perspectives shared were not confined within these cases alone. In this study, sensemaking of past experiences transpired as an amalgamation of both direct and indirect experiences in crisis management. Refer to Appendix A for brief background information on these cases.

FIGURE 1. Key crisis cases in retrospection.
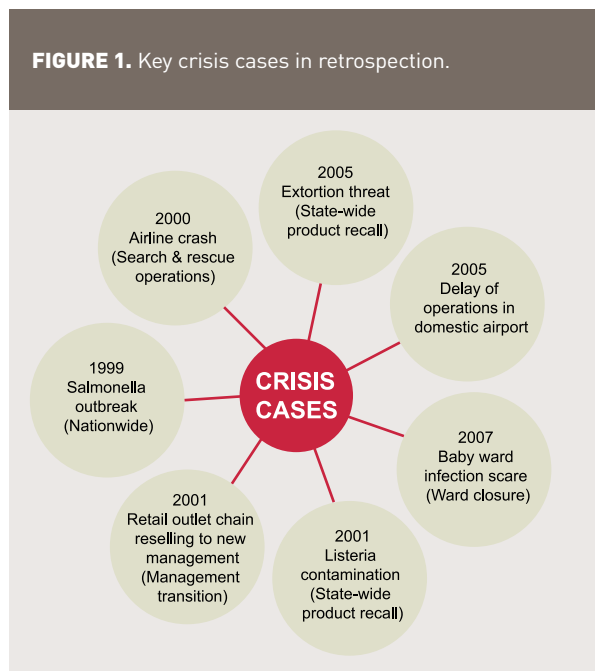
One of the early findings of the study suggests that in-house practitioners and external consultants differ in their level of involvement in crisis decision-making. Role distinctions between a consultant and an in-house practitioner may influence how practitioners engage as members of decision-making teams. Views shared by the participants suggest that participation in decision-making processes may be set differently if one joins as in-house or external consultant. Succeeding sections in this paper further expounds on this theme.

Emerging patterns in the kaleidoscope: early findings

Once members of crisis decision-making teams, public relations practitioners included in this study perceive their role to be more advisory than strategic. Both in-house and external consultants acknowledge a hierarchy of positions present in crisis teams. They recognise that other members in crisis teams hold "higher" seats in a "decision-making ladder" than others. To the practitioners, top seat holders in this ladder are those who possess negotiating power during deliberations. More importantly, they are the ones who make final decisions on strategy formulation

and execution. Among those interviewed working as in-house practitioners in government organisations, senior ministers or high ranking government officials are the ones occupying top seats in this ladder. Similarly, according to consultants, this position is occupied by clients who hire them in crisis periods.

Practitioners reveal that their engagement in crisis decision-making teams is more focused on operationalising strategies after decisions are made. Both in-house and external consultants share that there is more reliance on their role in implementing tactical activities based on umbrella crisis response strategies identified by crisis teams. For instance, below are several standard PR tasks assigned to practitioners upon joining crisis teams. Tactical orientation of these tasks can be noted.

- Organising media conferences
- Formulation of key messages and communication strategies
- Formal or informal research
- Website activity
- Setting up media centres, hotlines
- Information-dissemination across stakeholder bases
- Briefs to official spokespersons

Despite sharing a common view on playing advisory and tactical-oriented roles in crisis teams, in-house practitioners and consultants attribute this to varying reasons. On the one hand, in-house practitioners explain that organisational culture inherent in their work places imposes limitations on their level of strategic involvement during crises.

Working in government organisations, for instance, entails protocols to be followed. A current communications manager in a state police department mentions that she has yet to experience direct involvement in upper decision-making ladders as compared to her immediate supervisor. Often, the latter cascades down to her decisions made inside crisis rooms. She attributes this to a "heavy chain-of-command" strictly adhered to in her workplace. According to her, organizational hierarchy recognised in state police offices "dictate" who should be included in decision-making meetings. As her supervisor holds a higher rank, she represents both of them in meetings. This, however, limits the practitioner's latitudes for negotiation as a "manager" herself. She believes that "expertise" she brings into the team as a communication manager "should be there in the meeting itself."

Another communications manager in a public hospital adds that despite her capacity to formulate strategies in communicating crisis situations in her work place, she is often constrained by what she perceives to be her minister's preferences. In terms of recommending proactive strategies in communicating crises, she said, "at some point, everyone seems to be looking after themselves so that they get covered the minute the Minister starts inquiring about what is going on." She emphasises that apart from considering organisational hierarchies, working as in-house

practitioners in government offices entails conscious consideration of personalities of public figures connected to their office. There is high bureaucratic inertia that one at times contends with in terms of what should be said versus what these personalities want to be said. Similar to her colleague working in a state police department, her role is constrained by "how things are" in her work environment.

On the other hand, consultants concede the inherent nature of being "external" to organisations readily imposes limitations on how well they can "penetrate into decision-making ladders", according to some of the participants. To them, operating in a client-consultancy relationship reminds them to act as "nothing more but consultants." According to one of them who helped manage a state-wide product recall in 2005, being a consultant allows him to be "emotionally detached" from his client and the company's priorities. He meant that he can only suggest alternatives to his clients, but the hard choices whether to take these advice on board are left for them to decide. To him, "it's as if [one] can literally walk out of the crisis room the next day and not be affected." His co-consultant who worked with him in the same crisis case added that "it's about how far in a decision-making tree one reaches as a consultant".

On a similar note, a consultant hired by a private hospital said that because she was coming in as an external consultant to a hospital crisis, it made it easier for the crisis team to simply inform her of their decision outputs "by default". The hospital management decided to close its maternity ward when several cases of infection among babies occurred. She was hired by the crisis team only 24 hours later. She shared the perception that as an adviser, her membership in the crisis team was more inclined towards technical concerns about means of information dissemination (e.g. websites, content of media releases, etc.). She further views her contribution as a communication technician focusing on delivering tactics decided by her client in communicating to the hospital's stakeholder base.

Other consultants feel that crisis types may influence how crisis teams value their participation in crisis decision-making. According to them, there is "extreme reliance" on public relations when crisis cases involve death or injuries. These cases result in heavy scrutiny from the media and other sectors in a community. One consultant explains that in a contamination crisis which he managed in 2001, he found his client reliant on his advice when the media started "throwing heavy questions" about death incidents allegedly linking consumption of their products supplied to an aged care facility. In this instance, he was provided with more room for involvement in key strategic formulation. He said that he "felt like almost a decision-maker and not just an adviser" back then, and that his client may have regarded his role differently if there were no deaths involved.

Lastly, findings of the study suggest that advisory and tactical roles played by consultants depend on how "crisis ready" their clients believe they are upon crisis onset. Consultants reveal that clients who chose not to consider their vulnerabilities to crises prior to their

occurrence were the ones who relied more on them in setting up crisis response mechanisms when crises happened. This was especially observed during initial hours after crisis trigger. A "crisis cannot happen to us" attitude among these clients results in failure to develop clearly articulated crisis preparedness scenarios. Practitioners describe that their roles become more strategic-oriented than advisory when lack of crisis management plans is coupled with crisis types presenting "overwhelming implications" to their clients. They felt that these circumstances elevate their roles in decision-making ladders from mere advisers to "almost the decision-makers."

On the contrary, when organisational management has a clearer grasp of priorities and resources available in crises, consultants are expected to participate more in implementing outputs in decision-making thereby situating them at bottom positions in decision-making ladders.

Mirroring PR in crisis decision-making: A [tentative] conclusion

This work in progress points to tentative conclusions. Making sense in a crisis decision-making kaleidoscope from a public relations lens suggests the necessity that other lenses in crisis teams recognise the value of PR's contribution in managing crises. However, practitioners perceive their contribution as more confined to managing outcomes of decisions instead of managing processes involved in decision-making. In other words, public relations practitioners are key players in crisis management, but are advisers in crisis decision-making. The former puts more emphasis on PR's presence in an operational and/or tactical sense, whereas the latter describes how PR practice has yet to fully embody a front-liner decision-making seat in crisis teams. As Broom and Dozier (1986) suggest, "they are senior ranking advisors to decision-makers, but are not themselves decision-makers (p.41)." If, according to participants in this paper, "strategic" means allowing more opportunities for negotiations prior to finalising choices in crisis response, PR's role has yet to continue working on gaining a stronger hold in strategic formulation.

Revisiting a managerial-technician continuum (Broom & Dozier, 1986) mentioned earlier in this paper, findings of this study affirm that even in crises, PR's involvement is more inclined towards being technicians than managers. Public relations scholars aim for the profession to be regarded as a managerial function rather than being confined to technical tasks producing deliverables (Berger, 2005, p. 13). Text deliverables consist of actual materials such as speeches, newsletters, announcements, position statements: outputs of decision making. In order for public relations practice to grow as a profession, previous studies emphasise membership to dominant coalitions in organisations.

Nonetheless, findings of this study show that membership in dominant coalitions does not directly entail strategic decision-making opportunities among

practitioners. Setting aside what is ideal, the majority of assigned activities in crisis teams remain to be inclined either towards technical aspects with emphasis on producing text deliverables or staging tactical crisis response activities.

This paper has attempted to engage in discussion of some of emerging themes in the findings of the wider study being undertaken by this researcher. The latter is poised to continue making sense of this kaleidoscope both from a practical and theoretical sense in order to widen room for further discussion and debate on how organisations and communities may maximise the full potential of public relations in effective crisis management.

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Appendix A.
Crisis cases in retrospect

1999 salmonella outbreak

On March 8, 1999, an Australian company manufacturing and distributing fruit juices to the country issued a voluntary nationwide product recall when the state health institutions informed its management of a potential link of contamination of their products causing illness among several hundreds of customers. The outbreak was later on revealed to be caused by salmonella bacteria found in fruits supplied to the company. Amidst intricacies involved in instigating a nationwide recall, products were back to shelves a month after issuing such.

2000 airline crash

On May 31, 2000, a domestic flight from a state capital en route to its destination to a nearby region crashed into the waters at 7:01 in the evening, killing all eight passengers onboard including its pilot. Investigative reports indicated that technical aircraft failure caused the crash. A massive search and rescue operation was conducted with the State Police office coordinating the activities. Upon crisis onset, airline management refused to take part in managing the crisis.

2001 retail outlet chain re-selling

On April 2001, a major retail outlet chain was suspended from trading its stock by the Australian Stock Exchange due to accounting irregularities amounting to nearly $125 million. The company's board of directors appointed an accounting firm to investigate on the issue which smouldered into crisis point when the company was eventually sold to a new management in November 2001 causing anxieties among members of its stakeholder base.

2001 listeria contamination

On December 12, 2005, a family-owned smallgoods company issued a state-wide voluntary product recall when it received a phone call from the health authorities informing them that deaths of two patients and illness among others in a specific community were linked to consumption of its products. The latter were found to be contaminated with listeria, a type of bacterium which attacks meat products. In this particular case, sliced cold beef served in hospitals was the carrier of the contamination. It was crucial for the crisis team to manage the situation successfully as the timing of the crisis threatened the company's Christmas sales, one of its peak seasons. After eight weeks upon recall announcement, products were back into shelves in January 2006.

2005 delay of operations in domestic airport

After a widely publicised opening ceremony by a domestic airport in Australia in October 2005, the airport organisation announced that commencement of domestic flight services in the new terminal would be delayed due to contamination in the fuelling system of the terminal. Airport organisation faced intense public scrutiny when it failed to set a specific date on when operations will resume. This was after a series of cancellation of promised dates in opening the facility. The fact that this delay occurred a year preceding state elections posed additional layers of political pressures to contend with thus exacerbating the situation for the organisation.

2005 extortion threat

On July 1, 2005, a multi-national Australian confectionary company issued a state-wide recall upon receiving a third of a series of extortion letters sent by an unknown sender to the manufacturing office of the company based in another state. In the letters, the extortionist made unspecified demands on a third party which, when unmet, threatened to poison several bars of chocolates released in the market. The company did not ignore the level of threat posed by the extortionist in spite of considering itself as an innocent victim of the demands made on another organisation. There were no reported cases of contamination among consumers before and after recall announcement. Products were back into the shelves seven weeks after they were recalled from the market.

2007 maternity ward infection care

In May 2007, a leading private hospital issued announcements on a temporary closure of its maternity ward after its management has traced infection cases among 20 outpatient babies delivered in its facility. The hospital was alerted on the crisis when rashes were seen among 20 outpatients, mostly babies, who were confined in the hospital since March of the same year. Hospital management decided to close the ward for investigation and sanitation purposes. Less than a week after its closure, the ward resumed its operations.

Engaging volunteers in an emergency management organisation

Ranse and Carter present a focus group study that aims to identify the factors that assist in successfully engaging and retaining volunteers in the St John Ambulance organisation in Australia. ®

ABSTRACT

The recruitment and retention of volunteers is a perennial and significant concern for emergency management organisations. This research aimed to identify factors associated with the successful engagement and retention of volunteers in an emergency management organisation. Six focus groups were undertaken with participants from both rural and metropolitan areas of one Australian jurisdiction. A number of themes were identified for the volunteer's reasons to join, leave and stay in a volunteer emergency management organisation. The notion of retention should not be a focus for organisations; rather volunteer emergency management organisations should implement and enhance strategies to engage volunteers.

Introduction

The Australian community relies on the role of emergency management organisations for their protection and welfare, particularly in circumstances of disaster. In 2006, 175,000 Australians aged 18 years or over volunteered for an emergency management organisation. In total, these dedicated volunteers each contributed approximately 150 hours per year, or a significant 26 million hours combined (Australian Bureau of Statistics, 2007). Some consider 175,000 to be lower than actual numbers of emergency management volunteers and suggest that 400,000 is a more accurate reflection of true volunteer numbers (Gledhill, 2001). The volunteer sector has increasing pressures to provide a service to the community. Howard (2003) suggests that many volunteer emergency service organisations have concerns regarding training, legal matters, funding and recognition. These four key issues, along with building partnerships and the ability to recruit and retain volunteer members underpin the strategic direction of the Australian Emergency Management Volunteer Forum (AEMVF, 2005) and could be argued as a concern for this sector.

Motivations to volunteer are complex and multi-faceted (Esmond, 2005). Such motivations transform over time, as initial motivations to join an organisation do not necessarily represent the motivations of a volunteer to remain engaged with an organisation. Volunteers join emergency management organisations for differing reasons. The primary motivators for joining included: learning, using and enhancing skills, helping people and giving back to the community (St John Ambulance Australia – Western Australia, 2004). Additionally, gaining a sense of achievement is also a motivating factor to join an emergency management organisation (Fahey, et al., 2002; Fahey et al., 2003),

The retention of volunteer members is a perennial and significant issue for many emergency management organisations in Australia (Fahey, et al., 2003; Gledhill, 2001; McLennan & Bertoldi, 2005). The poor retention of volunteers results in a reduction in skill and experience and the loss of valuable operational and corporate knowledge. Similar to motivations to join a volunteer emergency management organisation, volunteers cease to engage with organisations for varying reasons. Such reasons include a lack of personal time (Fahey, et al., 2002) and the inability to access appropriate resources (Fahey, et al., 2002).

The establishment and maintenance of human and physical resources to support volunteers and enhance the volunteer perception of self-worth is essential to the engagement and subsequent retention of volunteers. A number of key strategies to enhance volunteer engagement in emergency management organisations have been suggested, such as, providing training that is interesting and practical (Aitken, 2000), as well developed and delivered training is seen as a retention tool for some emergency management organisations (Fahey, et al., 2003) and poorly delivered and inflexible training will result in the loss of volunteers (Fahey, et al, 2003). In addition to training in core business skills and knowledge, training should include extended skills and attributes such as leadership and coordination skills (Aitken, 2000). However, it is important that effective training is not considered the only tool for retaining volunteers (Fahey, et al 2002). Equally important is promoting a community focus, improving internal communications, providing timely access to

appropriate resources and providing access to regional and/or contact staff (Aitken, 2000). Additionally, having access to member rewards and recognition systems that represent the contemporary volunteer is essential (Aitken, 2000; McLennan & Bertoldi, 2005).

Building on the notion that the engagement of volunteers will result in their retention, Aitken (2000) suggests that more research is required to determine what makes a successful volunteer [fire] brigade. This is a topic of interest for many emergency management organisations. The St John Ambulance Australia National Board of Directors in June 2006 deemed that the engagement and retention of volunteers was one of the top three member development priorities for the organisation (personal communication).

Whilst previous research has focused on the rationales for members joining and leaving volunteer emergency management organisations, this research aims to identify factors associated with the successful engagement and retention of volunteers in an emergency management organisation. This will provide organisations with a greater understanding and insight into volunteers' motivations for remaining engaged, possibly resulting in improved membership development and management which meet the needs of volunteers, emergency management organisations and ultimately the communities in which they provide a service.

Methodology

Design

This research was exploratory and descriptive in design using focus groups as a means of data collection.

Setting

St John Ambulance Australia was the volunteer emergency management organisation who participated in this study. St John Ambulance Australia is a charitable humanitarian organisation that focuses on building community resilience through a number of programs and activities. The Operations Branch focuses on volunteer event and emergency first aid, youth development though its cadet program and member development. The operations branch is active in all States and Territories of Australia with over 10000 members.

Population and sample

The population for this study were active member of St John Ambulance Australia who volunteer in Operations Branch activities, also known as First Aid Services in some jurisdictions. The samples were members of three rural and three metropolitan divisions from the one Australian state. Divisions are operational units consisting of members who provide clinical care at public events. Additionally, some divisions consist of support personnel who do not provide clinical care, but contribute to the operations of the division by other means. Rural divisions were defined as a division at least 100km from a major metropolitan area. A major

metropolitan area was defined as a city with a population base of greater then 500,000 people.

Participant recruitment

Individual divisional managers from within the one jurisdiction were contacted to gauge their interest in their division participating in a single focus group. If interested, potential participants within the division received an information sheet outlining the purpose of the research and when it would be conducted at their division. The research was undertaken at the regular meeting times and venues of participating divisions. The selection of divisions was based on the convenience of the geographic location of the divisions, availability of the researchers and the availability of the division.

Data collection

Focus groups were utilised as the method for data collection. Six focus groups were conducted; three with metropolitan divisions and three with rural divisions. Each focus group had between 8 and 18 participants, was approximately one hour in duration and was electronically recorded. Focus group sessions used semi-structured interviewing techniques. Three key questions were asked:

- Why did you join?
- Have you ever considered leaving? If yes, why?
- Why did you decide to stay?

In addition to focus groups, demographics information was collected from each participant pertaining to; gender, age, years as a member and if the member had previously been a cadet [member under the age of 18] within of the organisation.

Data analysis

Participant narrative was transcribed verbatim and thematically analysed. Thematic analysis was undertaken by the individual researchers using a highlighting approach as outlined by van Manen (1990). Following individual analysis, themes were compared for commonalities. Comparisons of individual themes enhanced the validity and reliability of the data analysis process. Demographic information was analysed using descriptive statistics.

St John Ambulance volunteers.

Protection of human participants

This research project was approved by the St John Ambulance Australia Human Research Ethics Committee. All participants' voluntarily provided written consent to participate and could withdraw at any stage. Individual names and the names of divisions are not used throughout this manuscript to protect participants.

Findings

Participant demographics

A total of 81 members participated in this research. Demographics were similar between both the rural and metropolitan focus groups (see Table 1).

TABLE 1. Participant demographics

Demographic	Rural	Metropolitan
Total number of participants	33	48
Age (in years)	**36 (13-66)**	**34 (17-58)**
Gender - Male	19 (58%)	35 (73%)
Were previous a cadet member - No	**22 (67%)**	**35 (73%)**
Years as a member	8 (1-35)	10 (1-38)

Thematic analysis

The thematic analysis identified three main themes associated with being engaged in a volunteer organisation: reasons to join, leave and stay. Each main theme had a number of sub-themes (see table 2).

TABLE 2. Thematic analysis

Main Theme	Sub Theme
Reasons to join	Community Service Skills Friendship Different to work
Reasons to leave	**Administration** **Politics** **Time** **Access to Training**
Reasons to stay	Dynamic training Community respect Growing other members Unique experiences Family Fear

Theme 1: Reasons to join

Participants outlined various reasons and motivations for joining a volunteer emergency management organisation. Participants stated that providing a community service, developing and maintaining skills, building friendships and engaging in an activity different to their daily work were all reasons for joining.

Participants outlined a keenness to provide a service to the community and pursed a volunteer emergency management organisation for this opportunity.

> … you do give up your time, you are out there amongst the community. (Focus Group 3)
>
> … I just wanted to do work in the community and I think St John actually provides [that opportunity]. (Focus Group 4)
>
> … the motivation of wanting to help people. (Focus Group 1)

Participants joined as a means of maintaining their knowledge and skills learnt during a first aid course. Additionally, participants outlined a desire to learn more advanced skills and knowledge to enhance their practice.

> I had completed a first aid certificate at work and wanted more experience. (Focus Group 2)
>
> I did my first aid course and it [volunteering] sounded interesting. (Focus Group 1)
>
> … it allowed me to gradually increase my first aid skills. (Focus Group 4)
>
> … you find that first aid is just the first step and you're just hungry to learn more. (Focus Group 3)

Commonly, members that were new to a community [town or area] joined a volunteer emergency management organisation to forge new friendships.

> [I wanted to build] a new network of friends, this was one way of doing it. (Focus Group 5)

Many felt that an emergency management organisation provided an avenue for disconnect from their work and family activities. Participants recognised a strong distinction between work, family and participating in St John activities.

> I wanted to escape my usual day to day occupation and do something that required a different part of the brain to work. (Focus Group 5)
>
> It's like another hobby. You've got a different thing that you can do from your business degree or whatever else you do. (Focus Group 3)

Theme 2: Reasons to leave

Motivations to consider leaving or disengaging with a volunteer emergency management organisation were due to administration requirements, politics, time and accessing training. Administration volume and requirements were often discussed amongst managers of divisions and/or those with managerial activities.

Medical volunteers.

... [I was] spending too much time doing admin and going to meetings ... I think it could be simplified. (Focus Group 5)

I'm supposed to be retired. But the paperwork is getting more and more severe. (Focus Group 6)

... [there is] not adequate state and regional support. (Focus Group 2)

Most participants discussed the politics of being involved in a volunteer emergency management organisation. The politics included aspects of intra-divisional, inter-divisional and buying into the management of the region or state.

I was there to do first aid, not to play politics and I'd just had enough (Focus Group 6)

... middle management [regional staff] ... the communication that we get is ... a carrier pigeon would be better. (Focus Group 1)

Every day you get an email from State Headquarters saying you've got to do this, you've got to do that. (Focus Group 5)

Some participants outlined the need to make choices as to how they would contribute to the organisation. Often members were unable to give as much as some others, this was primarily due to work or family commitments.

Family pressures tend you get you thinking about it more than anything else. (Focus Group 5)

... it's such a small group of people and there's a lot of work ... sometimes it can be too much for family. (Focus Group 6)

Participants outlined their ability to access training as a cause of some frustration. Some training activities were limited to major centres, meaning that members outside the metropolitan area found it difficult or impossible to participate.

There is nothing outside of the metro area ... plus I do shift work ... on weekends I can't go to do training ... (Focus Group 6)

It's hard to go to a two hour course [in a metropolitan centre], it's going to take you six hours travel to get there ... (Focus Group 6)

Theme 3: Reasons to stay

The most extensive discussion was on the topic of remaining engaged within a volunteer emergency management organisation. The subthemes identified in this discussion included: having dynamic training, having community respect, growing other members, gaining unique experiences, being part of a family and fear of what will happen if they resigned.

Dynamic training was discussed frequently within all focus groups as a rationale for remaining engaged. Dynamic training provided new skills to learn and environments to practice them in.

... hands on training. (Focus Group 3)

... didn't just learn out of a book ... [this division] does realistic simulations ... it challenges people. It takes you out of your comfort zone ... keeping training challenging and interesting keeps people fresh. (Focus Group 2)

Participants stated that being associated with a volunteer emergency management organisation was viewed as being both professional and caring. Participants received community respect just by being at an event and not necessarily undertaking any duty out of what they consider the ordinary.

... [it a great feeling] at the end of the day when somebody walks past and says thanks mate ... (Focus Group 5)

... the look on the little girl's face when she gets the magic bandaid on the finger ... that look is priceless, absolutely priceless. (Focus Group 5)

I'm doing it to help people in the community so if they fall over they've got someone their. (Focus Group 3)

Participants felt mentoring and guiding the development of members provided personal satisfaction.

... it's about supporting and developing young people, and the people that haven't had the opportunity to do it before ... (Focus Group 4)

Participants outlined experiencing 'things' that they would not normally experience if they were not engaged in a volunteer organisation. They viewed such organisations as providing unique experiences, such as; liaising with members of the public, assisting in responding to a crisis situation, managing various injuries and illnesses and being part of major international events.

I like going to situations that I wouldn't ordinarily visit ... I got behind the scenes at the Olympics ... I've been at rave parties ... and those places I would not normally attend. (Focus Group 1)

I find it's [being involved] gives me a lot of confidence to step outside my comfort zone. (Focus Group 4)

A volunteer emergency management organisation was seen as a family, with like-minded people convening

Volunteer firefighters.

for a common cause. Each division shared a common purpose and cause – to service the community. However, the character between divisions differed greatly. The 'St John Ambulance Australia' family provides a strong social setting for members. Their interaction often extends beyond core activities.

> It's a family, It's a team. (Focus Group 2)

> We're friends, we're family. (Focus Group 5)

> It's a very social group here, we go camping and we have social nights … (Focus Group 6)

> I see a lot of them more as family than I do as acquaintances or co workers. (Focus Group 4)

> … all of my family have moved away, [being involved with St John Ambulance Australia], it's like having an extended family … (Focus Group 1)

Participants outlined their fear of leaving the organisation, primarily on the premise that if they are not doing the 'work', then who would? This fear was highlighted in operational and managerial aspects of the organisation.

> I got pushed into the role of superintendent because nobody else wanted it (Focus Group 5)

> Who else is going to do the job? (Focus Group 4)

Limitations

The experience of the participants in this research may differ from those in other divisions, jurisdictions or volunteer emergency management organisations. There are limitations in the use of focus groups, such that participants may not be willing to share their experience in a group. This may result in participants outlining what they think the researchers want to hear and/or what is socially acceptable.

Discussion

This research demonstrated similar reasons for joining a volunteer emergency management organisation as outlined in the literature, such as, wanting to give to the community, maintaining and expanding skills (Fahey, at al., 2002; Fahey, et al., 2003; St John Ambulance Australia – Western Australia, 2004). Additionally, it highlighted the value placed on gaining friendships and having an activity different to work as a reason to join. Similarly, reasons stated for leaving the organisation were similar to that in the published literature, such as a lack of personal time (Fahey, et al., 2002) and the inability to access training resources (Fahey, et al., 2002). Additionally, this research added that politics at all levels of the organisation and administrative burdens for those with management responsibilities were a rationale for considering disengagement.

Previous to this research, the focus of volunteers remaining engaged with emergency management organisations had focused on training aspects, such as ensuring training is flexible and well developed (Fahey, et al., 2003). Whilst this was revealed in this research, it was not the sole motivator for continued engagement. The direct questioning of: 'if you considered leaving -

why did you decide to stay?' highlighted that volunteers remain engaged for a number of reasons, such as: community respect, growing the skills and knowledge of other members, gaining unique experiences, belonging in a family feel environment and having a fear of leaving as this results in an unknown of who will conduct the 'work'. Volunteer emergency management organisations should foster these sentiments and build strategies to enhance engagement in these areas.

Training should be dynamic, interactive, flexible and accessible equally to all members. This should include alternative delivery methods, including distance education and e-learning, so rural members are not disadvantaged in progressing their skills and knowledge. A balance between training, meetings, socialising and serving the community is necessary. Individual volunteers should be considerate of their interactions with members of the public and event stakeholders as this may affect the community respect for volunteer emergency management organisations. Organisations should provide unique experiences for members in areas that they would not normally participate in their normal social circumstances. It should be acknowledged that whilst all divisions, or family units, have a common cause – their characteristics are somewhat different and should be fostered. For example, if a member from one division was to attend another division they would most likely experience a varied 'family' dynamic and functioning. The notion of being fearful to disengage should not be a concern of members as there will always be someone willing and able to undertake the 'work' of the organisation. Managers and leaders of volunteers should develop strategies to ensure members do not feel this fear, so that members can move on from St John with dignity.

In conclusion, it is unrealistic to retain all members in a volunteer emergency management organisation for extended periods, as personal circumstances and motivations change over time. However, if members are positively engaged with an emergency management organisation, when their circumstances change and they wish to volunteer again, or when recommending an organisation to friends or family, they will consider the organisation in which they were positively engaged as their organisation of choice.

Acknowledgements

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Crisis communication during an air pollution event

Hayward, Peters, van Bockxmeer, Seow, McKitrick, and Canyon explore the efficacy of public health communication on community decision-making during an air pollution crisis in Perth.

ABSTRACT

During an emergency air pollution crisis, two options exist for potentially exposed residents: shelter-in-place or evacuate. The effectiveness of public health communication in guiding this decision is thus critical. This survey collected data on the 2004 Bayswater Scrap Metal Fire relating to perception of risk, type of communication authorities, method of communication, nature of advice, decision in response to advice, most trusted advice provider, and likelihood of behavioural change. 101 surveys were obtained after visiting 983 premises. Results indicated that 35.6% perceived risk, 85% recalled receiving shelter-in-place advice primarily from loudspeakers, phone/SMS and other media providers, 91% actually sheltered-in-place. When making their decision to comply, intuition ranked highest followed by information from media. Participants ranked FESA and Police as being the most important communication authorities. While 45% of responders felt that they had been fully informed about the fire, only 25% indicated that they would change their response and 8% indicated that they would be non-compliant by evacuating. Sheltering in place thus appears to be the compliant response.

Introduction

A hazardous event involving a chemical fire results in the release of toxicants into community in the path of the smoke plume. Health outcomes can manifest in acute and chronic cancers, congenital abnormalities and psychosomatic distress. During a toxic crisis, accurate information needs to be distributed quickly and effectively. Once informed, individuals decide on a course of action, such as whether to evacuate or remain sheltered-in-place, that may critically impact their health and safety. Communication can be the most critical factor that determines the success of an emergency public health response (Bernhardt, 2004). Agencies in charge of managing crises need to efficiently and effectively communicate risks and instructions. Likewise, a trusting and accepting

community is more likely to be compliant with instructions. Thus, even before the instructions are delivered, an individual's opinion of the reliability of the communicating authority will affect compliance. Generally, trust in government, police, fire and emergency services, and information providers has diminished since the 1960s (Ludwig, 2007) and the public tends to be sceptical of visual information presented by the media (Orren, 1997). If organisations are perceived as trustworthy by the public, their use as information sources would be advantageous. The level of trust held in an organisation is influenced by including personality, experiences and economic status (Deurenberg-Yap et al., 2005). When comparing different institutions, public confidence of the medical community is generally considered to be higher than that of many others (Kiousis, 2001). In a crisis or high-risk situation, communities can have a higher level of trust in both government and medical organisations (Kasperson et al., 1992), and the public develops a broader societal trust (Koller, 1988).

During a crisis, the public tend to base decisions on perceived risk rather than on actual risk (Fischhoff et al., 2002). The knowledge that behaviour of an individual is directly related to personal risk perception (Slovic, 2000) has a bearing on how information can be effectively conveyed to people in a hyper-alert mental state. However, while much research has investigated the use and development of emergency response plans and the roles of leadership and communication in the event of a health crisis, there is a lack of evidence relating to the behavioural responses of a population in the event of crises. This study thus investigated the public's level of trust in specific organisations and how the affected community formulate their decision to ignore or follow important health information.

Methods and materials

The event selected for analysis was a scrap metal yard fire in the suburb of Bassendean, Western Australia which burnt for over two days (6-7th Dec 2004). The fire produced smoke and toxins from whitegoods (FESA, 2005) which formed a thick plume that spanned a number of northern and western suburbs within the city. While toxin concentrations were not high enough to produce health impacts (DoE, 2005, FESA, 2006b), measurable outcomes from the incident included loss of a 5000 m2 property, a damage bill of $3,000,000 and the involvement of more than 200 fire fighters (FESA, 2006a). Contaminated water run-off entered local drain

tributaries to the major city river (PRU, 2005). Due to the scale of the incident, a multi-agency response was required including the Environmental Protection Agency's Pollution Response Unit (PRU), the Fire Emergency and Services Authority (FESA), the Hazmat Emergency Advisory Team (HEAT), Department of Health (DoH), Department of Environment (DoE) and the WA Police. Management for this crisis was conducted under the guidelines of Westplan – Hazmat, the Western Australian Fire Emergency Management Plan (DoH 2004).

Communication sources

Directive information was provided to the public via the police, the Departments of Health and Environmental Protection, and general medical practitioners, who were provided advice by the Department of Health (PRU, 2005). Members of the public within range of the smoke plume were informed via media sources (TV, radio, print), a mobile repetitive loudspeaker announcement within 1.5 km of the fire whilst the plume was intact, and a public information evening involving all agencies was held two weeks after the event. When making the decision to recommend shelter-in-place or evacuation, decision makers need to evaluate factors that characterize the release, meteorological conditions, and populations that may be affected (Sorenson et al., 2004). In this case, the public were informed that there was minimal risk, but were directed to close air conditioning vents, to shelter-in-place, and to seek medical advice if experiencing adverse health effects (DoE 2005, PRU 2005, FESA 2006b).

Data Collection

The exposed population was geographically determined by the position of the plumage of the fire. Candidates were excluded if they were not in the exposure zone and if they could not recall the event or if they were under 18 yo. Door-to-door surveys were conducted by three interviewing teams and continued until a sample size of 101 participants had been acquired. An 18 question survey acquired demographic data (age, gender, marital status, highest education level and family status), and sought information on: a) behaviours of residents during the fire, b) compliance with information provided, c) most effective means of information transmission, and d) level of trust in information sources.

Bivariate statistical analysis involving Chi-Square tests employed SPSS v16. Differences were considered significant at $p<0.05$. This study was ethically cleared by the Human Research Ethics Committee, University of Western Australia (RA/4/1/1830).

Results

Of the 983 houses visited, 535 were non-contactable and 347 did not participate because they were either new residents (n=128), could not recall the event (n=94), were unwilling to participate (n=121), or could not speak English (n=4). The participation rate was 22.54% and 101 surveys were completed with a gender ratio of ♂46.5:♀53.5%. Sixty-one percent of respondents completed a technical/trade certificate or university

degree while 40% achieved primary school to high school completion.

Ninety-five participants received some information on the fire. Of these, 90 received information from the media, 33 from friends, 13 from the police, 2 from local government, 1 from a medical doctor and 1 from FESA. No information was recalled as being received from PRU. The fire caused considerable concern in the community with 35.6% of the population believing the incident posed an immediate risk. When participants were asked to recall the nature of the advice provided through all communication channels, 15% could not remember, 31% said shelter-in-place, 54% said shelter according to FESA specifications, one said go look at the fire and none said evacuate. While age and education were not significant, there were significant gender differences in the recall of shelter-in-place (♂21:♀10) and shelter with FESA actions (♂18:♀36).

When participants were asked how they were informed, results indicated that loudspeaker, media and phone/SMS were recalled the most although several other methods were used (Fig 1). Significantly more males recollected the use of loudspeakers (20 vs. 13%), while significantly more women recalled receiving information via phone/SMS (19 vs. 4%). Significantly more participants aged over 40 recalled loudspeakers (31 vs. 2%) and phone/SMS (14 vs. 9%). Media was equally

FIGURE 1. Communication channels that were recalled by the exposed public by gender (a) and age (b). Error bars 95% CI. Significant differences between gender and age groups are indicated by an asterisk - Pearson Chi-Square $p<0.05$.

1A. Gender

1B. Age
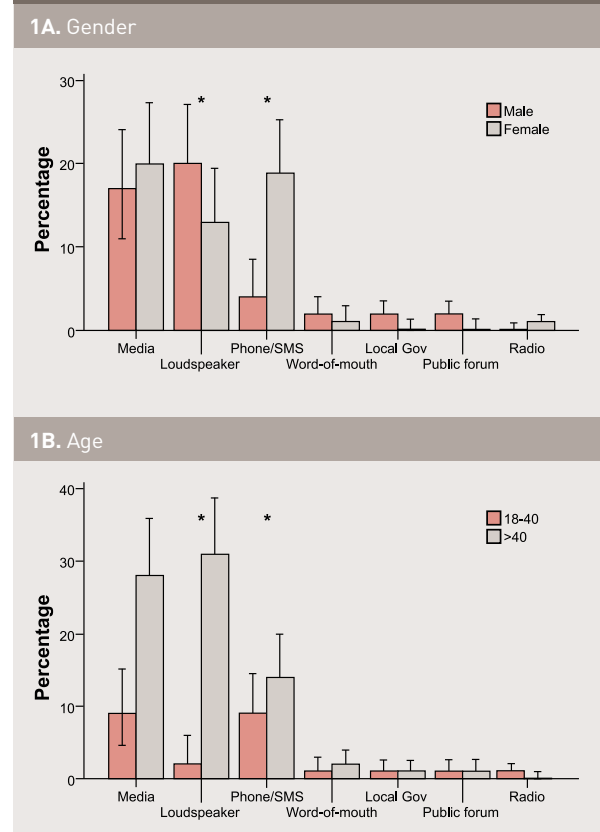
FIGURE 2. Decisions made by the public in response to communications from various sources about a toxic plume from a chemical fire by gender (a), age (b) and education (c). Error bars 95% CI – no significant differences observed.

2A. Gender

2B. Age
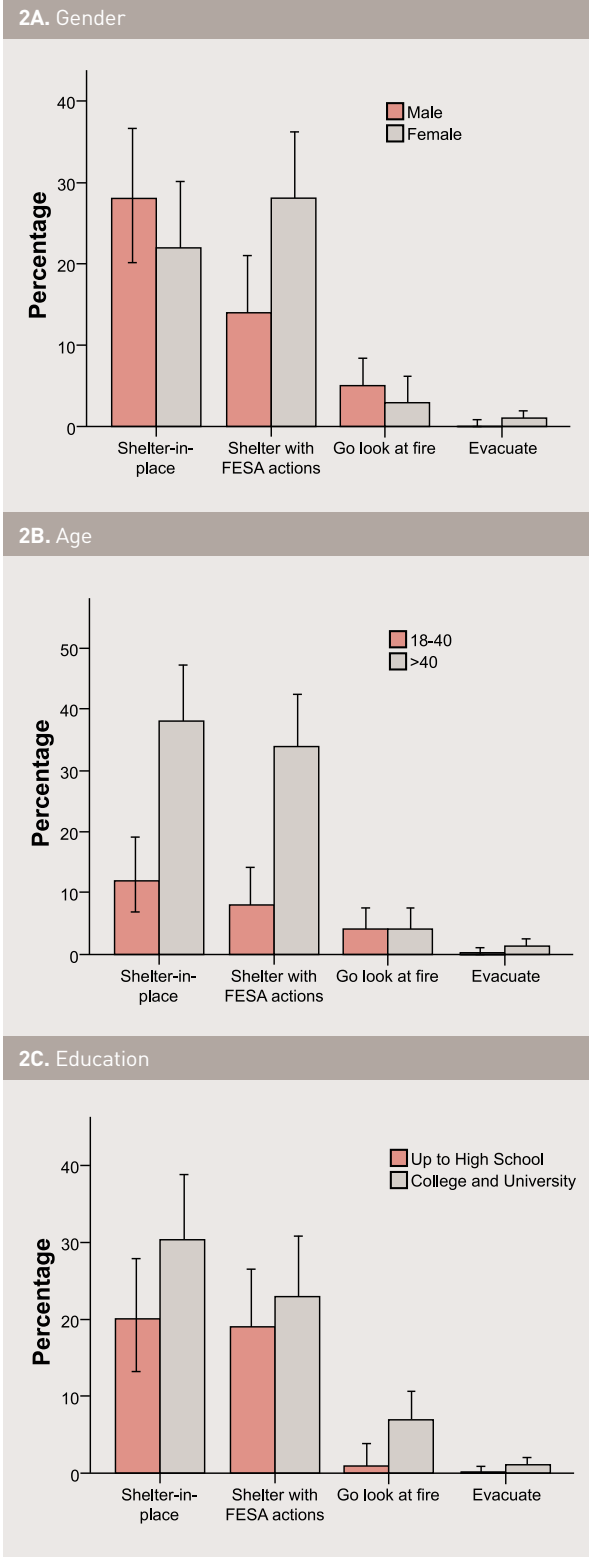
2C. Education

remembered by all participants and level of education was not significant.

Following this advice, 49.5% of participants sheltered-in-place, 42.6% sheltered according to FESA specifications, 7.9% went to see the fire and 0.9% evacuated. Gender, age and education were not significant (Fig. 2). Seven percent of higher educated participants and only 1% of lesser educated participants went to see the fire.

Participants based their decisions on intuition (41%), media sources (31%), multiple sources (14%), family (8%), police (5%) and doctors (1%). While no significant differences emerged due to gender, age and education, there were some interesting observations (Fig. 3 abc). Men were more inclined to base their decisions on intuition than women (55 vs. 45%), and women were more inclined to base their decisions on information received from multiple sources than men (71 vs. 29%). Older participants were more likely than younger participants to rely on intuition (71 vs. 29%) and more educated participants were twice as likely to rely on intuition (67 vs 33%) and media sources (65 vs. 35%) than younger and less educated participants.

Trust in information sources was ranked from one to seven, with seven indicating high trust (Fig. 4).

Twenty-five percent of participants stated that they would act differently in the future: 8% of participants said they would evacuate, 7% said they would seek out additional information, 6% said they would do a better job of sheltering and 2% said they would do a better job of avoiding the smoke due to pre-existing asthma.

Discussion

This study resulted in several important findings relating to perception of risk, type of communication authorities, method of communication, nature of advice, decision in response to advice, most trusted advice provider, and likelihood of behavioural change. Recall was fairly high with 32% remembering the basics and 54% remembering specifics. Advice recall was fairly good with only 15% unable to remember details. Inability to recall was not significantly related to age.

A third of the population perceived the fire to pose a threat which was in direct contrast to suggestions that the exposed population was highly concerned about the immediate risks posed by the air pollution crisis (PRU, 2005). Alternative explanations for the high compliance rate are: a) the information distributed during the crisis was sufficient to enable correct acute decision making to occur, b) the population had some prior knowledge on how to act during an acute air pollution incident, c) sheltering in place is the compliant, normal reaction. Burgess et al. (2001) suggested that personal perception of risk is a key element since low evacuation rates are associated with chemical release events involving substances with relatively lower vapour pressures and hazard indices in open-air locations. Personal perception also played a strong role in influencing the decision to go see the fire. That all but one of the 8%, who approached

FIGURE 3. Responses by gender, age and education to the question, "Which source of information did you base your decision on?" Error bars 95% CI – no significant differences observed.

3A. Gender

Fig. 3a: Gender

3B. Age

Fig. 3b: Age

3C. Education

Fig. 3c: Education

FIGURE 4. Seven information providers that would be most trusted in a similar crisis event. Higher scores on the Y axis indicate increasing importance while alphabetical characters indicate significant differences ($p<0.05$).
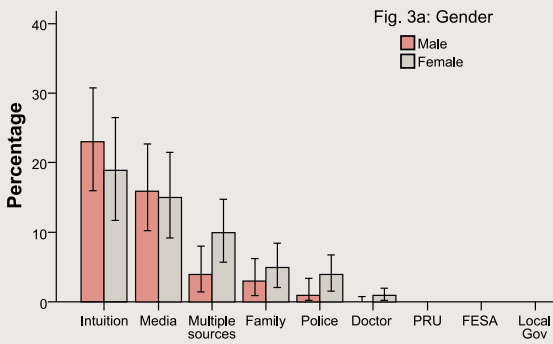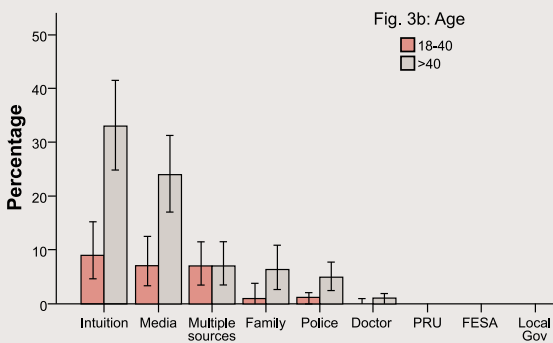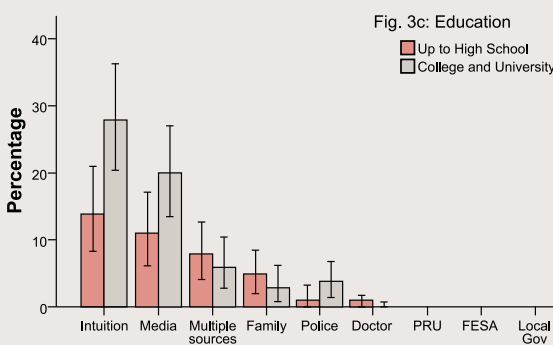
the fire after receiving advice to the contrary, were well educated either points to greater curiosity imparted by their training or greater apathy (Zavestoski et al, 2004) towards environmental contamination.

Decisions to act during an acute air pollution crisis are influenced by gender with a higher percentage of males choosing to act on their own intuition rather than on the information provided. Reliance on intuition indicates that despite extensive efforts to communicate using the police and media, much of the population will still base their decisions on their own instincts, past experiences and prior knowledge. After personal intuition, a third of the population based their decisions on information received from the media. This might be accounted for by high exposure to media within the population in contrast to other information sources. Other researchers have found that younger participants are more likely to contact multiple sources (Muha, 1998), but this was not supported here.

During exposure crises, information should be transmitted through trusted organisations, these being the police, fire and emergency services. It is important for the same organisations to be involved in information delivery during every crisis event because public perception of the authenticity of information provided to them by an organisation influences their trust in that organisation in the future (Lang, 1998). It is also important to train the public. That 8% more people would change their behaviour to evacuate during a similar event indicates that information is lacking in some areas or is not fully understood. Increased awareness campaigns may thus reduce unnecessary evacuations and their associated risks and resource implications (Kinra et al., 2005). The most effective communication to the public will depend on the age mix of the population and will change over time. For the surveyed population, media, loudspeaker and phone/SMS were seen as being the most effective means of providing information. But, as the proportion of mobile phone users grows, SMS is likely to become an increasingly important means for the communication of emergency public health information. The agencies involved in providing information believed that their advice was transmitted effectively with efficacious outcomes. However some members of the public disputed these claims at the community forum held shortly following the fire (FESA, 2005, PRU, 2005).

Hazardous airbourne pollutants.

The results from this study indicate that crisis communication should be tailored to take community characteristics into account so that unnecessary exposure to hazardous airborne pollutants is limited. Crisis communicators should be aware that tailoring will need to be adjusted over time as technologies become more available and accepted by the population. Improvements in crisis communications efforts in Perth are required to address the concerns of 55% of the population who felt incompletely informed.

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Islam for fire fighters – A case study on an education program for emergency services

Roberts and Fozdar describe an initiative by the Fire and Emergency Services Authority to build awareness and understanding among emergency services personnel of a diverse community group in Western Australia.

ABSTRACT

Emergency services are increasingly recognizing the need to engage with the diverse communities they serve. In an emergency management context, reciprocal trust based on awareness and understanding is essential during times of natural disasters, emergencies and other catastrophic events. This paper describes an initiative by the Fire and Emergency Services Authority of Western Australia to build its capacity to deal appropriately with an increasingly visible, and marginalized, minority - the Muslim community- through a program designed to raise awareness and understanding among its staff. Despite some initial internal reticence and broader community criticism, outcomes included raised levels of awareness among FESA members of diversity issues generally, improved knowledge of Islam and related cultural issues, and a number of strong partnerships leading to further community development activities. This paper describes the social, political and organizational context in which the training was developed, and reflects on the personal experiences and lessons learnt by the program developers.

Background

This paper describes an initiative designed to improve the lives of one of Australia's minority communities through raising awareness among emergency services personnel about that community. The community in question is the Muslim community, and the initiative aimed to develop bridges between a government authority and its staff, and this religious minority, through educating those working in the emergency sector to improve their service provision. In a context of overwhelmingly negative stories of racism and discrimination against Muslims, this paper is offered as a positive example of government/community engagement.

The service provider in this case is the Fire and Emergency Services Authority of Western Australia (FESA), a hazard emergency management and response organisation which deals with fires (rural and urban); hazardous materials incidents (eg. chemical spills); floods; cyclones and severe storms; earthquakes; tsunamis and landslides (FESA 2008). FESA provides combat and support services for marine, land and air searches and rescues; road and rail transport emergencies; and animal disease outbreaks. Aside from geopolitical considerations in the global security context, Australia is vulnerable to disasters arising from natural phenomena. In Western Australia intense cyclones, severe storms and bush fires are frequent. Western Australia is a vast state, with many communities settled in remote and isolated locations which are especially vulnerable due to their remoteness and lack of access to emergency services and facilities.

Emergency management, response and recovery touches the lives of all members of the community. FESA provides advice about preventing or preparing for emergencies, rendering assistance during emergencies and supporting individuals and communities to recover from emergencies and disasters. FESA has some 30,000 volunteers and 1,100 paid staff. It services all parts of the largest state in Australia, including extremely remote Indigenous communities. It also has a community education role, aiming to reduce injury, loss of life and destruction of property through proactive measures. Among its values are putting the community first; respecting and valuing each other; and continuously improving services (FESA 2008). In its efforts to achieve its goal of ensuring a safer community for all, FESA has begun to recognize the need to engage more widely with the diverse population that makes up Australia. This realization is based on an awareness that government instrumentalities that engage with their citizens are better positioned to recognize and accommodate community needs. In response, communities engaged with their governments are more inclined to understand and support government policies.

In an emergency management context, reciprocal trust, i.e. citizens of their government and government of its citizens, is essential during times of natural disasters, major incidents and other catastrophic events

(Yang 2005). Citizens rely on government to provide accurate information, adequate resources and to make decisions which will enhance their safety, wellbeing and protection. The government relies on citizens to accept and comply with information and instructions and to actively support and participate in prevention, preparation, response and recovery efforts. Australia's emergency management policy arrangements are founded upon the principle of shared responsibility where governments and citizens work cooperatively to build safer, more resilient communities (Head 2007).

The effectiveness of this community-centered approach to emergency management is predicated on certain assumptions about the relationship between government and its citizens, namely:

• Reciprocal trust between governments and citizens;

• Shared and informed knowledge about each others' needs;

• Mutual willingness to exchange information; and

• Acceptance of both collective and individual responsibilities.

Engaging and involving citizens can make a substantial contribution to improved community outcomes through the sharing of new information, identifying problems and crafting possible solutions collectively (Walters et al 2000). Participatory citizenship and inclusive public policy is fundamental to combating inequality and social deprivation which contributes to the marginalisation of individuals who may become vulnerable to extremist or radical groups. The emergency management sector is aware that certain groups (low income earners; the very young and very old; the frail or disabled; and the socially or physically isolated) are more vulnerable to, and more profoundly affected by, disasters (Camilleri et al 2007). It also recognises that resilient individuals and communities are more likely to bounce back to pre-disaster level of functionality (Maguire & Hagan 2007).

However the emergency services sector also has a number of potentially limiting characteristics.

FESA was aware of shortcomings within its organisation. For example, its traditional focus on responding to the community in times of crisis or emergency situations means relatively fleeting and isolated contact with individuals, leaving little opportunity, or impetus for, developing meaningful and sustained relationships with those communities. Likewise, like many other emergency service organisations FESA's cultural heritage is founded in paramilitary, hierarchical, regimented, 'command and control' practices, with some elements of FESA originating from a civil defence base. In addition, notwithstanding its varied and expansive field of endeavour, FESA's paid workforce remains largely male mono-cultural and Anglo which is customarily characterised by fairly conservative values and norms. FESA's volunteer workforce is more representative of the wider community in terms of greater participation of women - particularly in the
State Emergency Service (SES) volunteer population,

but there is still under-representation of ethnic minorities.

With this awareness, FESA had previously commenced a program of cultural awareness and appropriate service delivery to Indigenous Australians, one of several marginalised groups whose social, political or economic exclusion has meant their civic participation is compromised. In 2007, it also decided to develop on-going relationships with the Muslim community. Western Australia is home to an increasing number of Muslims, including many whose past experiences of uniformed personnel, together with language barriers, cultural differences and stereotyping of Islam make forming partnerships and delivering emergency services challenging. As in most countries, after 9/11 and subsequent events in Bali, Madrid and London, anti-Muslim feeling has registered strongly in attitude polling in Australia, with results indicating that Muslims are considered to be outsiders who do not belong in Australia (Dunn et al 2004; HREOC 2004; Issues Deliberation Australia 2007). Reported incidents of religious vilification and discrimination against Muslims are on the increase and there is a trend towards the culturalisation of crime and criminalisation of culture (Salek & Imtoual 2007; Humphrey 2007; Poynting 2006; Poynting and Mason 2007). Muslims are increasingly being targeted as a threat to social cohesion (Jupp and Nieuwenhuysen 2007).

This is primarily because Australian identity, despite decades of multicultural policies and rhetoric, is often seen by its population as fundamentally white and Christian (Larbalestier 1999; Hage 1998). Illustrating the popular strength of this conviction, Goot and Watson (2005) report that to be considered 'truly Australian', 58 per cent of a representative sample of Australians believe that one must be born in Australia; 37 per cent that one must have Australian ancestry; and 36 per cent that one must be Christian. In a 2007 study (Issues Deliberation Australia 2007) one third of a representative sample of Australians reported that they think Muslims make Australia a worse place to live, 35 per cent believe Muslims threaten to change the Australian way of life, culture and values, 48 per cent that Muslims have a negative impact on Australia's social harmony and national security, one in four (26 per cent) believe migrants should dress like other Australians. It has been argued that such attitudes were fomented over the last few years by a conservative government which encouraged Australians to think of Muslims and their values as alien and threatening social cohesion (see Tilbury 2007; Jupp, 2002; Dunn et al, 2007).

Yet Australia sees itself as a country that has moved beyond its racist origins (Jupp, 2002). Legislation in the 1970s was designed to guard against racial discrimination in immigration policies, employment and other local practices. For example, the Australian Racial Discrimination Act (Commonwealth, 1975) entitles Australian residents to equality of access to facilities, housing, and provision of goods and services, as well as access o employment. The Department of Immigration and Citizenship website contains a section celebrating

Representing the on-going work of the project to improve cultural awareness among emergency services and knowledge among CaLD communities are Farida Fozdar, Suellen Shea from FESA and Michael O'hara from Metropolitan Migrant Resource centre plus two members of the Resource Centre (one from Iraq, one from Sudan).

Australia's diversity (DIAC, 2008a), that acknowledges the need for culturally appropriate engagement with Australia's minority populations. It covers initiatives such as the 'Living in Harmony' program, that seeks to promote social cohesion and address issues of racial, religious and cultural intolerance through funding community projects. To target issues of inclusion, particularly the exclusion of Muslims as a legitimate part of the community, DIAC has undertaken a number of measures, including a 'National Action Plan to Build Social Cohesion, Harmony and Security' (DIAC 2008b).

With regard to the current project, two key aspects of this broader policy environment influenced FESA's cultural diversity priorities and initiatives. These were the recognition that response is not enough – contemporary emergency management places increasing emphasis on building community resilience to prevent, prepare and recover from emergencies and natural disasters. This demands a partnership approach that requires emergency service organisations to engage more meaningfully with communities. Secondly, overlaying the specific emergency management policy is the West Australian Government's Substantive Equality Framework and governmental imperatives for FESA to articulate and demonstrate how it is engaging with, and is inclusive of, culturally and linguistically diverse (CaLD) communities.

Like most mainstream Australians, FESA staff knew little about Islam, but were perhaps unusual in that they recognised this lack of knowledge. Staff were concerned, for example, that they could not go onto the grounds of a mosque should they need to rescue people after an earthquake (a complete misconception), and were uncertain how to treat Muslim women in the event of an emergency where physical contact might be necessary. A recent incident where a suburban grass fire had threatened an Islamic college had prompted local fire crews to recognise not only the need to engage with the school about fire safety, community warnings and alerts, but also a broader need for

cultural awareness and engagement. An SES unit located in a suburb that is home to a refugee settlement service wanted to talk to new arrivals, many of whom were Muslims from Somalia, Iraq, Afghanistan and Sudan, about the hazards and emergency services in their community but were unsure how to go about it. Fearful of committing insult or offence from clumsy attempts to establish relationships, the unit elected not to pursue this opportunity. Operational staff working on Indian Ocean Territories to the north of WA (Christmas and Cocos (Keeling) Islands, with 10 per cent and 80 per cent of their populations Muslim respectively) and in Indonesia also recognised the need to be more informed about the beliefs and practices of Muslims. Other triggers included the fact that FESA's community education and engagement staff were keen to form relationships with the Muslim community, especially in delivering key community safety messages and recognised that they needed help to build their understanding of Islam and their ability to connect with Muslim community leaders. FESA's Volunteer and Youth Support team saw the potential to increase the diversity of volunteers, but lacked the confidence to make forays into the Islamic community. In sum, pressure was increasing from operational staff wanting to engage with Muslim communities in their regions.

While intuitively FESA understood that it was important to improve awareness and inclusiveness, generally speaking, apart from the Muslim stereotypes portrayed in the mass media, there was limited knowledge of what it meant to be a Muslim in Australia. Negative images portrayed in the mainstream media were in many instances, the principal reference point for FESA personnel understandings of Islam and Muslims (Aly 2007, Celermajer 2007).

The goal of FESA was to work towards social inclusion by connecting with the Muslim community and raising awareness within their own ranks of issues for Muslim Australians. However, whilst feedback about the need to develop organisational understanding of Islam was reasonably consistent, it had come from relatively isolated sources. It was considered appropriate to canvas the extent of the demand for this type of information.
An expression of interest (EOI) was circulated to all FESA staff via the organisations' intranet to ascertain the level of interest in running professional development activities designed to improve understandings of Islam. The EOI generated polarised responses among the membership. Those against it recruited the attention of a high profile Perth radio personality. The DJ was derisive, criticising the workshop as divisive and of little relevance to emergency service personnel (Sattler 2007). Inviting comment on talk back radio, DJ Howard Sattler stated: *"You might want to react to this, talking about Fire and Emergency Services, somebody has sent me this, and they have said, "Enjoy your show, this c-r-a-p was on our website this morning, what do you think"?".* Negative discussion ensued.

Further correspondence was received by FESA which challenged the need to conduct this activity, since 'standard operating procedures' (SOPs) were applied

equally to all people, irrespective of nationality, race or religious beliefs. This sentiment was echoed by other staff who voiced their concern about the workshop. From their perspective, if people wanted to come to Australia they needed to embrace 'Australian values' and the 'Australian way of life' and there was no room for alternate religious or cultural practices in Australia. One argued: *"Why do I need to know anything about someone's religious beliefs? I am saving lives – I treat everyone the same".* A station officer wondered why Muslims had been singled out: *"...Having discussed this topic with FRS at XXX, XXX and XXXX fire stations the same question keeps arising that I am unable to answer. Why does FESA single out 1 group only in this workshop? Fire fighters deal with all people equally. Nationality, race or religious beliefs do not effect our SOP's...all the public we come into contact with deserve to be, and in fact are treated the same".*

On the other hand, messages of support and encouragement were also received, with personnel recognising the value and benefit of attending the activity. In light of the negative (if isolated) feedback, there was some reflection on the merits and risks of proceeding with the workshop. Nonetheless it was considered that there was sufficient interest in the issue to warrant running the activity.

Designing the workshop

The 'Understanding Islam in Australia' workshops aimed to build participant knowledge about Muslim Australians in particular and Islam more generally, as a precursor to enabling emergency service personnel to engage with Muslims in a culturally appropriate manner. The broad approach taken to developing the workshop was that of 'cultural awareness training', an approach that teaches people about different cultures to raise knowledge, understanding and empathy, but that runs the risk of homogenising and essentialising culture (Hollinsworth 2006: 275). It was therefore coupled with a 'social justice' approach, which sought to make participants aware of their own cultural baggage, within a context that emphasised fundamental human rights (including the right to access services and resources) and the dignity of all. It also included a 'racism awareness' component, to ensure that participants had the tools to challenge the negative stereotypes and fear-mongering prevalent in the media and elsewhere. Being aware that the prejudices and stereotyping that leads to racist beliefs and actions can be decreased by challenging false beliefs, encouraging empathy between peoples, providing opportunities for dialogue about racial issues and encouraging interaction between people of different groups (see Pederson et al. 2005), the workshop was designed both as an opportunity for information provision, and an intervention to challenge stereotypical preconceptions through the processes Pettigrew (1998) identified (i.e. changing people's knowledge, behaviour, emotional reactions, and challenging their definitions of their group identity) to become more inclusive.

A partnership was formed between the two authors of this paper, one (Roberts) in charge of community development within FESA, the other (Fozdar) a sociology and community development academic at a local university. Fozdar had offered an intensive unit as part of a sociology degree, open to the public as well as students, 'Islam, Terror and Multiculturalism' in an attempt to encourage more informed debate about issues of religion and integration. Roberts considered the unit had the potential to be adapted to suit the needs of the emergency service organisation. The benefit of using the university, from FESA's point of view, was that the professional development activity could be branded in such a way as to appear non-partisan – this was not training undertaken by a Muslim organisation nor by FESA itself, but by an independent and prestigious educational organisation. Certification of participation in the training provided participants with tangible evidence of their involvement.

A pilot one-day workshop was devised, combining theory, practice and personal experience, geared for emergency service personnel. The workshop aimed to provide emergency service workers with some practical skills and advice that would equip them to work with Muslims in a culturally respectful manner including managing cultural considerations under emergency conditions.

Workshop content

The initial workshop introduced participants to some of the beliefs and customs of Islam and the history and practices of Muslims in Australia. It aimed to improve cultural sensitivity in interaction with Muslims and help participants understand some of the myths and misconceptions regarding the Muslim community in Australia. This involved identifying how racism works, and its effects. To provide a broader context for the discussion, policy issues related to multiculturalism and democratic freedoms were covered. To avoid ignoring 'the elephant in the room', issues around terrorism and cultural difference were covered. The content included identifying important local Muslim figures, key practices, language, prayer, festivals, personal habits, modesty, food, birth, death, marriage, greetings, family and community decision-making protocols, and differences between culture and faith. This information was customised to explore how these considerations can interact with emergency workers in the course of their work.

Participants were encouraged to consider their own cultural influences by reflecting on Carr-Ruffino's (1999) typology of the influence of culture. Carr-Ruffino suggests all people learn the following from their culture: How to interact with the environment; how to associate with others; how to organize society; how to meet survival needs; how to think/learn/interpret; how to use space and time; how to play; how to defend ourselves; and how to use things (money, house, furniture, technology etc). Reflecting on one's own cultural influences makes one much more open to

recognizing that all people, not just the 'ethnics', are immersed in culture.

A broad outline of information about Muslims in Australia was provided – that 1.7 per cent of the Australian population are Muslim, that over a third are Australian-born, and 80 per cent are Australian citizens (Australian Bureau of Statistics, 2007a). To challenge the notion of a homogenous community with a single culture, it was pointed out that Muslims in Australia come from 70 different countries, in regions which include the Middle East, Russia, Europe, Indian subcontinent, Africa, South East Asia, China, and, particularly in WA, the Cocos (Keeling) Islands. Languages spoken by Muslims include English, Arabic, Turkish, Persian, Malay, Bosnian, Tamil, Croatian, Spanish and Maltese. Next to Buddhism, Islam is one of the fasted growing religions in Australia, with a higher growth rate in Western Australia in the last decade (92 per cent compared to 69 per cent). Many of WA's Muslims are refugees from the Middle East and the Horn of Africa (Australian Bureau of Statistics, 2007b). For many of these refugees, past experiences with men in uniform in their countries of origin are associated with fear, corruption and violence. This may affect responses to emergency services workers. There are significant Muslim populations living in regional WA, including locations vulnerable to bushfires and cyclones such as Katanning, Geraldton, Newman and Port Hedland. It was also pointed out that Indonesia, one of Australia's closest neighbours and the site of recent events requiring Australian emergency service workers' assistance (the Bali bombing 2002; the tsunami 2004; the Java earthquake 2006), is home to the world's largest Muslim population.

The workshop sought to combine theory with practice, bringing together academic sessions with sessions led by local Muslim leaders (male and female) who could share first hand their personal experiences of being an Australian Muslim and humanise the stereotypes. This was also important given that few participants had ever met a Muslim. Speakers were selected on the basis of their ability to respond to the most provocative and probing questions from workshop participants.

On the practical side, participants were encouraged to discuss a number of brief case studies and identify issues of culture and religion which could present themselves in each, and consider how they would deal with each situation. Scenarios included the following:

- A dangerous bushfire is approaching an Islamic school (consider issues for primary vs secondary school)
- You are searching for missing persons at sea – a group of Somalis who went fishing and whose boat capsized. The adult children are not practicing Muslims but their parents are.
- You have been asked to respond to and investigate a fatal house fire at an Iraqi Muslim home. There were no smoke alarms, and early indications are that the fire started from faulty electric blanket. The home is protected by lots of security,
- Your section has a new colleague who is an Indian Muslim.

- An elderly Muslim widow from Iran with a disability is lost in bushland. She does not speak English, and her adult children only have basic English
- There has been a hazardous material spill at a Bosnian business. You notice a lack of compliance with storage of dangerous substances and maintenance of emergency exits.
- A highly toxic plume is approaching the Kampong area on Cocos Island.
- There is a forecasted severe tropical cyclone to cross land a medium sized regional town in 4 days time. FESA wants to door-knock households in the predicted impact area to give advice about pre cyclone safety messages to families. You are aware the community includes a number of Muslim families from Malay backgrounds (Fozdar, 2007).

Feedback from the initial workshop resulted in a number of changes to the program including: highlighting the differences between culture and faith; reflecting on the similarities between Islam and Christianity and other faiths; how emergency service workers would deal with Muslims in both emergency and non-emergency situations; catering for the role technicians and logistical experts may take in overseas deployments; Islam in Indonesia, Christmas and Cocos (Keeling) Islands; and providing helpful information about peak bodies, key contacts, reference material/ publications, locations of significant Muslim populations or places, and so on.

Despite the initial reservations, the workshops were well supported by FESA personnel and other colleagues in the emergency and State Government sector. Over 60 people responded to the initial expression of interest, with 48 people attending the pilot workshop and 31 attending the second workshop including personnel from the Australian Red Cross and Department of Industry and Resources – International Trade Unit. Participants included on-shift station fire fighters, Urban Search and Rescue (USAR) specialists, district managers, State Emergency Services personnel, volunteers, community education and engagement officers, corporate staff, HR and recruitment staff, and training officers.

The workshops were generally well received. According to evaluation reports (response rate 63 per cent): 96 per cent agreed/strongly agreed that the content of the workshop was relevant to their interests and concerns, both as an individual and as an employee of FESA; 92 per cent agreed/strongly agreed the workshop was relevant to their vocational/professional needs; 94 per cent agreed/strongly agreed they were actively engaged in learning; 84 per cent agreed/strongly agreed that they felt motivated to learn more about the subject; 98 per cent agreed/strongly agreed that in the workshop they were encouraged to respect one another's values and beliefs; and 96 per cent agreed/strongly agreed that it helped them develop a greater awareness of cultural and social issues. Qualitative comments from the evaluation reports included:

"I had very little knowledge of Islam, only what I have heard thru the media, which I know can be very biased and untrue at times. It was great to hear the

'truth' about their beliefs and ideals, and to see that they are very similar to Christianity and basic beliefs of all people! Thank you".

"Any misconception I had about Islam, Muslims have been dispelled completely. I have a deeper understanding of all aspects".

"For myself as a fire fighter the areas of important customs was interesting for use at incidents and every day work – dispelled myths."

"Better understanding of issues raised in the media".

"More awareness of their religion. Therefore I will be more empathic to their views."

"Stereotyped beliefs were totally wiped away".

"I will be less likely to pigeon hole a particular group/ religion or so quick to judge the actions of a few as representing those of the majority. Thank you or should I say "Shukran – Asalam Alikum".

Discussion and conclusion

The collaboration between FESA and Murdoch University in adapting what was a very comprehensive full unit academic program into an interactive, practical one day workshop for emergency service workers has forged an enduring association which has continued into other areas of work.

With seed funding provided by Emergency Management Australia (EMA), as part of the 'National Action Plan for Building Social Cohesion', FESA is currently working with Murdoch University, other service providers and community groups on a project to engage Culturally and Linguistically Diverse (CALD) communities in emergency management. This is the WA arm of a nationwide strategy. FESA is also undertaking a survey of the level of cultural diversity of its statewide committee structure, to provide baseline data to be compared to the level of inclusion after the EMA funded initiative.

Aside from the personal and professional development as indicated by participant feedback, other organisational outcomes of this initiative have included raising the profile of FESA with Muslim community leaders; fire fighters committing to conducting community visits to their local mosque or Islamic college; presentation of this initiative at a number of national diversity conferences; and one of the Muslim guest speakers becoming an emergency service volunteer for the Australian Red Cross. Perhaps the most important outcome however, is that it provided tangible evidence of FESA's commitment to engage with a CALD community.

From the point of view of the academic involved, the program was an opportunity to engage in a very practical activity to enhance social inclusion and raise understanding about multiculturalism generally, and Islam specifically. While astonished at the general lack of knowledge, the level of goodwill in terms of openness in considering their own cultural influences, in challenging their own stereotypes, and in seeking to understand more about another culture, gave the academic real hope for the future of multicultural Australia, particularly in the context of such widespread

negativity post 9/11. The vocal resistance by a very small minority notwithstanding, outcomes were extremely positive.

At the outset of this paper it was noted that this was a 'top down' initiative – one that came from government rather than the Muslim community themselves. However, it is clear that the initiative was designed as a means to empower 'the consumer' (Twelvetrees, 1991), through raising levels of awareness and understanding of the service provider about not only a specific community's needs related to the service they provide, but the general level of understanding about that minority. It applied community development principles such as empowerment, respect for diversity, social justice, a recognition of both citizenship rights and general human rights, and improving accessibility to a particular human service (Kenny 2007). As such it reflects Twelvetrees' advice that "The central ideas (of community development) …. are not unique to community work. Indeed, good management, industrial relations, relations between family members, and relations between all professionals and consumers need … to reflect this ethos if they are to be effective" (Twelvetrees, 1991: 13). The Understanding Islam program is a practical example of how a partnership between a service provider and an educational institution, drawing on the assistance of members of a marginalised community themselves, can reflect such an ethos. As a result, the stage has been set for meaningful direct engagement between the service and the Muslim community of Western Australia.

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Significance of communication in emergency management

Ryan and Matheson endeavour to quantify the importance of communication activities to emergency management.

ABSTRACT

This paper examines the significance of communication in the field of emergency management through an analysis of reviews and debriefs of Australian emergency incidents and exercises.

Introduction

Operational success in responding to an emergency might easily be measured after the event in terms of the number of lives saved and properties protected. Media images of fire fighters dousing flames or State Emergency Services rescue boats in action during flood are clear and graphic evidence to the community, emergency managers and politicians that emergency agencies' resources are hard at work. However, the effect of communication activities – or a lack of communication – around the same emergency is harder to measure, and most often such measurement for the purposes of evaluation is not resourced. One effect of this difficulty may be that agency communication teams are being starved of necessary resources because the cost cannot easily be justified by emergency managers in terms of measurable outcomes. Despite this, debriefing sessions and formal reports following significant emergency events often seem to be dominated by issues surrounding communication – both with the media and the community.

This study, which attempts to quantify the importance of communication activities to emergency management, was commissioned by the Emergency Media and Public Affairs (EMPA) Research and Development committee. The results build on the work of Emergency Management Australia and other agencies that review the handling of emergencies and emergency exercises.

The research process involved a comprehensive content analysis of emergency incident and emergency exercise debriefing sessions and reports, spanning 2003 to 2008. The study found that almost 20% of recommendations made in these documents related to improving communication with the community. This is in stark contrast to the arguably small resource base of communication teams relative to their wider organisation.

The term 'communications' in this paper includes communication between: agency-community; communty-agency; intra- and inter-agency; and also covers messaging, mediums and technology.

Research questions:

1. What is the identified significance of communication activities in management of emergencies?
2. How often does communication feature as a recommendation in the post-analysis of an incident or in an exercise debrief?

Method – content analysis

Content analysis was selected as the methodology for this study because "...it allows unobtrusive appraisal of communications" (Kolbe & Burnett 1991, p. 244). Kolbe and Burnett also maintain that content analysis provides a useful foundation for further research (p. 244).

A disadvantage of content analysis is its susceptibility to the subjective view of the researchers (Kolbe & Burnett 1991, p. 244; Wimmer & Dominick 2000, p. 138), making it difficult to compare studies unless detail is provided of the content analysis development.

For this study a simple, manual content analysis was undertaken without the use of computer software, a desirable approach given the small size of the sample of documents. The following steps were pursued:

1. Formulating the research question (outlined previously)
2. Defining the population in question
3. Selecting the appropriate sample from the population
4. Selecting and defining the unit of analysis
5. Constructing the categories of content to be analysed
6. Establishing a quantification system

(Wimmer and Dominick 2000, pp. 139-50)

Selection of documents (defining the population) and selecting an appropriate sample

Emergencies and emergency exercises in Australia are usually formally discussed and reviewed once they are complete, with recommendations presented as a way of informing future activity. The documents that emerge from these reviews are generally presented in terms of "lessons learned" (Emergency Management Australia 2004, 2005; Office of Health Protection 2007) and better preparation (Asia-Pacific Economic Co-operation

(APEC) 2006; Ellis, Kanowski & Whelan 2004; Smith 2006). These reviews range in scope and influence: from a report on the debriefing session to those with more of a legal structure and possessing powers such as a national inquiry or royal commission.

This content analysis will examine 12 such documents published since 2003. The following table provides a profile of the documents included in the study.

TABLE 1. Nature of documents incorporated into the study

Document type	Generic/ miscellaneous emergency	Pandemic exercise	Bushfire/s	Tsunami
Conference outcomes	1			
State review	**2**		**1**	
National review	2	1		1
International review		**1**		
State inquiry			2	
National inquiry			**1**	
Sub Totals	**5**	**2**	**4**	**1**
Total (12)				

The documents were sourced by searching Australian emergency agency websites and making requests of the authors' contacts within agencies. A total of 20 documents were considered for this study, but eight were unsuitable for the study: six because they recounted rather than reviewed an emergency and contained no solid recommendations; and two because their focus was communication and communication issues and therefore presented a concern regarding skewed data.

Selecting and defining the units of analysis

The units of analysis for this study were the recommendations made as part of the review processes after an emergency or exercise. The total numbers of recommendations made in each document varied from five (Asia-Pacific Economic Co-operation (APEC) 2006) to 148 (Esplin, Gill & Enright 2003). Recommendations covered: operation, strategic, technical communication and community communication issues. Recommendations were also termed in some reports "outcomes" (Emergency Management Australia 2003) or "issues for improvement" (Smith 2006) and were not always clearly presented or numbered.

In some cases, recommendations contained a number of sub-points, in which case these sub-points were counted as individual recommendations (see Emergency Management Australia 2003; High Level Group on the Review of Natural Disaster Relief and Mitigation Arrangements 2004). This was necessary because the umbrella recommendation in many cases did not contain sufficient detail required to classify it using the methods outlined or because the sub-recommendations within one recommendation were too varied when compared with the themes developed for the study, and each needed to be differently classified.

This approach was then used consistently through all the documents considered.

In order to draw out the recommendations that related directly to communication, the researchers used a number of keywords that were used to define community communication and interagency communication in disaster management texts (Barton 1969; Coppola 2007; Haddow & Bullock 2006; McEntire 2007). These were labels for media and message channels such as 'press' and 'information line' and words that described approaches, such as 'community engagement', 'community information' programs. A third category described target publics such as 'communities' and 'householders'.

The following table details the keyword list utilised:

TABLE 2. Keyword list for the study

Channels and messages	Approaches	Target publics
Media	Community engagement	Householders
Press	**Community information**	**Community/ communities**
Radio (including ABC)	Promote/ promotion	
State Emergency Warning Signal	**Community education**	
SEWS	Education programs	
Call centre	**Evacuation (including Stay or Go/ Fireguard)**	
Information line	Public education	
Website	Information sharing	
Information packages	Community partnerships	
Call centre	**Public information**	
Warning/s systems		
Communication networks		

The communication related recommendations were sorted from non-communication related recommendations with the following result:

TABLE 3. Ratio of communication recommendations to total recommendations

Report	Communication Recommendation	Total Recommendation	Communication recommendations as a % of total
APEC Pandemic Response 2006	5	5	100%
Operation Tsunami Assist 2004-05: Lessons Learnt	**2**	**6**	**33.3%**
Mapping the Way Forward for large-scale urban disaster management in Australia: building on the lessons from September 11, 2001	6	20	30%
Conference Outcomes: 2003 Australian Disaster Conference, Canberra, 10-12 September, 2003	**6**	**18**	**33.33%**
National Pandemic Influenza Exercise: Exercise Cumpston 06 Report, 2007	4	12	33.33%
Natural Disasters in Australia, 2004	**11**	**66**	**16.7%**
McLeod Report, Inquiry into the Operational Response to the January Bushfires in the ACT, 2003	14	61	22.9%
A report of the response to an emergency at Melbourne Airport, 2005	**1**	**9**	**11.1%**
A Report of the Inquiry into the 2002-2003 Victorian Bushfires, 2003 (Esplin)	11	148	7.4%
Debrief outcomes: Significant Victorian Fires December 2005 and January 2006 (Smith)	**3**	**23**	**13%**
National Inquiry on Bushfire Mitigation and Management (Ellis, Kanowski and Whelan)	5	29	17.2%
Westpoint Chemical Fire: Report to the Community, 2008	**11**	**18**	**61%**
Totals	**79**	**415**	
Averages	**79/415**	**19%**	

Constructing content categories

Once the communication recommendations had been drawn out, researchers then attempted to develop mutually exclusive categories (Wimmer & Dominick 2000, p. 145), or themes, in which the recommendations could be grouped. The categories must also be exhaustive (p. 145), ensuring that every recommendation is covered by a category.

The themes that emerged (ensuring intercoder reliability through testing between authors) were:

1. Communication planning and plans (i.e. strategies that allow agencies to communicate with target stakeholder groups and/or outline a departmental process for communication during incidents)
2. Communication training, testing and exercises
3. Domestic agency/inter-organisation information sharing and relationships
4. International agency/inter-organisation information sharing and relationships
5. Resourcing (e.g. staff, budgets, equipment)
6. Warnings and pre-disaster community education
7. Technology
8. Media (usually concerned with mass media)
9. Community engagement and information during and post-emergency

Results

Almost 20% of all recommendations made in the reviews studied related to communication. 79 of the total 415 recommendations reflected the themes developed during the content analysis. Of these, 60 recommendations (14% of the total recommendations) had some impact on the jobs of public relations practitioners within emergency services. (To put this into some perspective, one emergency services department in Australia says on its website that it employs 7,700 full time and part time staff, but employs between 18 and 24 communicators: that's between 0.002 and 0.003% of the total staff).

The theme that tended to preoccupy reviews was warnings: 26 of the 79 recommendations, or 33%, related to warnings and pre-disaster education.

During-disaster and post-disaster communication and community engagement had 12 recommendations (15%); this is despite the concern about communication training and plan testing getting only two mentions.

Adding these two categories together (because of their prevalence in the work of public relations practitioners) we can see that nearly half of all communication-related recommendations refer to a need to increase and/or improve information delivery and community engagement. This is in contradistinction to the number of recommendations relating to the need for increased provision of communication resources, which, at 3 out of the 79 communication recommendations, were about staffing and technology (and, further, all three were contained in the one review (McLeod 2003, pp 235-7)).

The summary of the number of recommendations within each theme is below:

TABLE 4. Ratio of communication recommendations by theme to total communication recommendations

Theme	Number	% Total
Warnings and pre-disaster community education	26	32.9
Domestic agency/inter-organisation information sharing and relationships	**12**	**15.1**
Community engagement and information during and post-emergency	12	15.1
Media	**11**	**13.9**
Communication planning and plans	5	6.3
International agency/ inter-organisation information sharing and relationships	**4**	**5**
Technology	4	5
Resourcing	**3**	**3.8**
Communication training, testing and exercises	2	2.5

Conclusion

The methodology used in this research makes it difficult to replicate the study, and therefore puts a question mark over the validity of the findings. However, in a field in which measurement is not resourced or undertaken, this study provides us with a starting point from which we can further investigate the significance of communication activities in successful emergency management.

The data generated by this study shows a significant disconnect between governments' desires to improve emergency management in Australia and their commitment to actually doing so. Up to 20% of the flaws in emergency management in the past six years relate to one field that often comprises of one person, or for larger emergency organisations, less than 2% of total staffing (e.g. Department of Emergency Services 2008; NSW Fire Brigades 2008; State Emergency Service 2009). This must signify chronic problems with staffing, resourcing and/or training in that field and deserves further, more quantitative research.

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Effective Training of Mine Rescue Personnel: A Case Study

Ingham & Ingham present a case study of the current training practices of the Mine Rescue Team at Golden Grove, Western Australia.

ABSTRACT

A model is presented for the effective training of Mine Rescue personnel. Organising effective training sessions for a Mine Rescue team presents unique problems generated by fly in/ fly out rosters and the transitory nature of personnel on a mine site. The selection strategies and criteria for Mine Rescue team members, the structure of training sessions and the overall benefits to the workplace and specific benefits to individuals will be discussed in relation to the current practice of the Mine Rescue Team at Golden Grove, Western Australia. The transferability and application of skills learned in training will be demonstrated with an actual incident within the mine's environs.

Introduction

The value of generic skill acquisition, that is skills which can be effectively transferred from one work situation to another, is a desirable employee attribute (Bryans & Smith 2000). This situation prevails despite the ensuing instability in the workforce that it creates, as workers with transferable generic skills change jobs more frequently than workers with very specific job skills (Kubler 2002 p291). It also means that an organisation may fund the training for an employee who than moves fairly rapidly to another organisation as a result of their newly acquired transferable skills (Liu, Srivastava & Woo 1998).

Some researchers have questioned the reality of skill transferability as "knowledge is created by people in combination with each other...and is a function of persons in interaction and not a possession of individuals" (Seymour, Kinn & Sutherland 2003 p235). We suggest that in terms of a Mine Rescue team, the reality lies somewhere in the middle. That is, members acquire transferable skills, but to effectively utilise them requires a mutually supportive team environment.

The Gold Grove case study demonstrates that skills acquired through Mine Rescue training raises the desirability of the employee in the eyes of other organisations and that Mine Rescue skills and leadership training are transferable to other rescue situations.

Golden Grove background

Golden Grove, 500 km north of Perth, is a complex and challenging operation. Geographically isolated, there are no nearby services or amenities. It is owned by OZ Minerals Limited. The Company has five mining operations located in Australia and Asia, three new mining projects in development and a large portfolio of exploration projects throughout Australia, Asia and North America. Production at Golden Grove commenced in 1990, and there are two underground mines producing zinc and copper ore. Currently there are over 800 personnel on site each month, employed in equal numbers by Oz Minerals and various contracting companies. The mine operates on a fly in/fly out commuting cycle and there are daily flights to both Perth and Geraldton.

Golden Grove location map

The selection strategies and criteria for Golden Grove Mine Rescue personnel

The Golden Grove Mine Rescue team is run by a full time Mine Rescue Coordinator. The person in this role is responsible for all activities associated with emergency response at the mine site, such as conducting and organising onsite and offsite training, equipment maintenance, justifying selecting and purchasing new equipment to replace aged gear, trialling and assessing new equipment, editing and creating emergency response procedures, and recruiting new members.

A wide variety of people with a diverse range of skills and backgrounds are targeted for Mine Rescue selection. People who show initiative and enthusiasm in the workplace are invited to join by the Mine Rescue Coordinator. People with prior Mine Rescue experience from other sites often make the initial approach to join. People from the armed forces, who have closely aligned experience or who are familiar with the discipline required, are attracted to the Mine Rescue culture. Others, who have a poor safety history and need help developing a safety focus, may be put forward by their supervisor or the Health and Safety Manager, although this is generally not a common practice in West Australian mines.

Production pressures restrict the availability of people at many times. This means the first step for an interested candidate in the selection process is to gain their supervisor's approval prior to application. Next, the onsite Exercise Physiologist conducts a fitness assessment where current health issues are assessed and old injuries from both work and home are documented. People with medical conditions which make them unsuitable for strenuous activities are still encouraged to join, although not in an operational capacity. They are trained in all Mine Rescue theory, but fill other roles in an emergency. For example, relaying messages, sourcing additional equipment, advising on special needs and tracking down personnel offsite, are all tasks that are better accomplished by someone with an understanding of the requirements of a Rescue Team. People of small stature who struggle with heavy workloads, such as four person stretcher transport, are also encouraged to join, and are given roles more suited to their strengths, often filling the role of Medic or Captain in the team.

With the current dynamic nature of the employment market in the resources sector in Western Australia, the Mine Rescue Team are usually glad to accept anyone they can attract. There is no distinction made between contracted employees and Oz Minerals staff/operators. Some of the larger contractors have a clause written into their contract that they must supply a minimum number of people for Mine Rescue service. This is used to advantage when high calibre individuals are identified whom the contractor may be reluctant to release from normal duties for Mine Rescue Training. Women are actively encouraged to join the Mine Rescue team. It is not unusual for women to express feelings of not being physically strong enough for the role; a discussion of the various roles available and the benefits of setting and achieving personal challenges helps to allay these concerns.

Although individual skills are a pre-requisite for an effective emergency response, just as important is the ability for rescue members to function in a team environment. During training it is not unusual for the Team Captain to place someone in a role they are unfamiliar with or to perform duties they might struggle with, usually placing an experienced team member alongside them to provide one-on-one tuition relating to the required micro skills. Conversely, in a real 'situation' Team Captains are trained to delegate roles and functions which take advantage of existing skills and strengths. Team work is promoted through a focus on communication skills, encouraging team members to help each other out, and the more experienced team members taking part in the same tasks as the newer members.

Special problems faced by fly in/fly out commuting cycle

Golden Grove employees work either a 4/3, 4/3, 8/6 roster, or straight 8/6 roster, while contractors work a variety of rosters including 5/2 and 14/7. Training is planned for all day every Thursday, and members are expected to attend one training session per month. The result is a collection of people who do not normally work together, and indeed often have only two days per fortnight on site at the same time, coming together for a day of training. This can prove challenging when there is an emergency on any other day, as it is not unusual for people to meet each other for the first time when they attend a call out. This highlights the need for Standard Operating Procedures to be adhered to during the training process.

Surface search and rescue landscape

Another area this variety of rosters impacts on is Mine Rescue Competitions. From each of the four panels (there are four groups of people: one on day shift, one on nightshift, and two on break in Perth) one or two members will be selected to form a team for a competition. Rosters are shuffled for them train together for the seven days prior to an event. Strengths, weaknesses, and personalities all need to be shared and learnt by the group in a compressed time frame.

This re-shuffling of rosters can often result in people working up to three week stretches, and then having two weeks off as time in lieu. This whole process is very disruptive to the workforce, and frequently creates manning level issues for supervisors.

Having a variety of rosters on site, and up to four rotating crews for one job, means plenty of forward notice is required when planning training or courses. Anything under six weeks is usually 'too rushed' and rejected by mine management.

Golden Grove strip

Turnover reduction

The West Australian mining industry fluctuates between extended periods of high growth and, as has occurred recently, a slowing of demand. The flow-on effects include the mobilisation of the mining workforce and the dilution of the skill sets amongst employees. Last year the Golden Grove site experienced annualised personnel turnover figures of up to 50% for several months, and ended the year with a 21% turnover. Wages have increased in order to remain competitive, although the preference is to stay on par with the industry average.

Whilst there will always be members of the workforce who look primarily at financial remuneration, the management at Golden Grove have found that for the majority of personnel there are other priorities which increase resistance to the lure of bigger dollars elsewhere. These priorities include a friendly, challenging and rewarding workplace, a clear career progression, a reasonable standard of accommodation with a consistent quality of food, and the provision of good amenities and sporting facilities.

A new initiative saw the introduction of strength and fitness training every Monday night in Mine Rescue member's own time. The onsite Exercise Physiologist liaises with the fulltime Mine Rescue Coordinator to keep the program interesting and fun, and it is a requirement that Mine Rescue members attend if they are onsite and not on shift.

Golden Grove has introduced a new payment system for Mine Rescue members. An annual $5 000 payment is split into each half of the year, with Mine Rescue members being required to attend their monthly training, weekly Monday night gym sessions, and any courses they have been approved for, before payment is authorised. If a training session is missed due to work requirements, written explanation, countersigned by the Department Head, ensures payment continues. This system has shown very clearly who has their heart and mind committed to rescue training, as typically members are either fully eligible for payment, or a very long way from it; there is no-one who 'just' misses out. The turnover rate of Mine Rescue members is no better than the site average. Last year there was a 36% turnover (9 people) with a total pool to draw on of 25 members. Intuitive reasoning indicates that mining personnel who are also rescue trained are seen as having a safety focus by other employers, and these people are often targeted with lucrative offers.

The structure of training sessions

Every Thursday is Mine Rescue training day at Golden Grove. Across the site start times vary from 5.30 to 7.00am, but on Thursday all rescue personnel start at the same time, 6:30am.

All equipment is checked at the start of every Thursday. Trucks and racks are checked off against pre-printed checklists which need to be signed and dated, and all Breathing Apparatus are fully bench tested and the results recorded. There is a natural tendency for members to gravitate towards their own strengths, and it is not unusual for the Mine Rescue Coordinator to step in and reallocate tasks. Checking gear is a good way to get the newer members familiarised with the name and location of the gear, and also a chance for the older hands to pass on their experience in an informal manner. Missing or unserviceable gear is replaced or fixed at the time of checking; team members do not make lists of things to get fixed and ask someone else to do it. This activity is usually completed by 8.30am.

A short theory session follows the gear checking, where the discipline to be practiced for the day is discussed, and the aim of what is to be done is made clear. Each member is then allocated a specific topic and given ten minutes to research it before being asked to make a presentation to the rest of the team. For example, if the day is to be focussed on the use of Breathing Apparatus, individual members would be asked to present a short talk on aspects such as self rescuers, mine gasses, horn signals, map reading and first aid. On occasions a learning opportunity is created by asking the most knowledgeable person to talk about their area of expertise, for example a Surveyor may present on map reading. At other times a member may be asked to talk about something they have little or no knowledge about, creating a strong learning opportunity for that individual. The rescue room has an extensive range of written material freely available, as well as structured training manuals to draw information from. This activity is normally followed by a short light meal, taking the Mine Rescue team up to 10am.

Practical exercises take up the next 4 or 5 hours, where team work, communication and safety are always promoted as the priorities, as opposed to focussing on

just getting the job done. A Job Safety and Environment Analysis (JSEA) is always conducted by the Mine Rescue team prior to the commencement of exercises. At this point likely hazards are identified and discussed, and appropriate control measures are agreed upon. This is in addition to following the procedures as set out in the training manuals.

Practical exercises are usually complete by 2 or 3pm, when the team stops for another light meal. For some people this signals the time for a shower, a safety meeting, and a plane ride home to end their commute, while for others it is time to make up all the gear, clean the rescue room, and ensure things are left 'Ready to go'.

External training is provided by a variety of registered training organisations, and is usually conducted onsite. This means team members are training with the same gear they will be using in a real situation, and gives them the opportunity to become familiar with customised equipment such as fire tenders. Members are presented with nationally recognised units of competency upon the successful completion of each course, and after completing all courses are eligible to apply for Certificate 3 in Response and Rescue. Many team members place great value on achieving this certificate as it holds good currency when applying for positions at other operations.

The testing of readiness through onsite scenarios and competitions

Golden Grove Mine Rescue Team participates in four site-wide mock emergencies each year. These cover all the mining crews, and test a variety of response callouts. Airstrip crash landings, underground fires and hazardous chemical spills are the major events that involve a site wide response. These are all conducted according to Oz Minerals Golden Grove site procedures. In addition, once a year an external consultant runs a site-wide emergency with no warning. Role players act as relatives of deceased, media representatives and external government organisations are recruited onsite. The scenarios also involve Head Office, testing their coordination and rapid response protocols. All scenarios are logged and minutes kept, with much of

Hazmat snatch and grab

Underground search and rescue

Vertical rescue

the learning occurring in the debrief, where everyone involved has the opportunity to contribute.

Golden Grove sends Mine Rescue teams to annual rescue competitions with two aims. First, new members are 'blooded' in these pressured situations and gain experience in responding under emergency conditions, whilst experienced members get the opportunity to pass on skills and knowledge to the newer members. Annual competitions held in Kalgoorlie are regularly attended, Surface Competition in May and Underground in November. The Victorian competition, held in August, is attended infrequently. This latter, once in a while opportunity to travel interstate, is a 'reward' for good results in the domestic events, and typically team members push themselves hard to reach this level of excellence.

Overall benefits to workplace and specific benefits to individuals

Workplace benefit

A major company benefit for encouraging an effective Mine Rescue team is that a number of requirements placed on Mine Managers are fulfilled. Some are legislative (MSI Act 1994, ISO 14001); others involve complying with the Civil Aviation Authority, and the Local Emergency Management and Control (LEMAC) requires the mine to work in conjunction with the local Police. Maintaining an effective Mine Rescue team also fulfils a part of the mine's social obligation towards the local community.

Many workers derive great peace of mind knowing there is a trained and equipped Mine Rescue team on hand 24/7.

Examples of recent events attended by the Golden Grove Mine Rescue team include a tourist bus rollover involving eleven people, three of whom were air lifted by Royal Flying Doctor Service; extinguishing a fire in a local school house; a stores truck rollover, and attending to various underground injuries such as fractured legs and an underground finger amputation.

Individual benefit

Participating in a Mine Rescue team benefits individuals through increased personal safety behaviours and awareness, and provides the opportunity to achieve nationally recognised competency certificates in Mine Rescue, Public Safety, First Aid, and Land Search and Rescue. Being in a position of safety leadership requires consistent safety consciousness and team members take their safety credibility very seriously.

Case Study

On the Easter long weekend in 2007 Golden Grove experienced a particularly hot spell, with temperatures in the high 30's. Two families drove up from Perth on Good Friday and camped on an adjacent lease for a gold prospecting holiday. They were in two cars, with four adults and three children aged from seven to fifteen years. On the Saturday morning the fifteen year old son decided to go goat hunting, and wandered away from the campsite armed with a crossbow. When he did not return after several hours his parents became worried and arrived at the mine gates at lunchtime to report he had gone missing and requesting assistance, Golden Grove being the closest form of help for hundreds of kilometres.

The Mine Rescue team was assembled quickly and ready to go in less than thirty minutes. As it was the Easter long weekend, many personnel had taken unrostered leave, with the result that no experienced leaders were onsite. A young, upcoming rescue member assumed leadership of the situation. The Mine Rescue team were required to coordinate the search, using two local police from Yalgoo. They enlisted the help of local landowners, organised the use of a search plane from Geraldton, notified and placed on stand-by planes in Perth, and alerted the Royal Flying Doctor Service.

This was not a scenario they had ever trained for so the leader had to go back to basics and apply first principles to coordinate the ground search. He enforced a line of sight arrangement between searchers, utilised two-way radios, and used the standard Captains Briefing Sheet to obtain information from the family. This proved particularly difficult as the parents had lost their only other child the year before in a drowning accident, and consequently were in a disturbed frame of mind.

The search went from lunch time and started in the area around the family's campsite. Using local trackers to follow signs, searchers spread out in a line of sight until darkness fell; simultaneously, planes were searching overhead. The search was called off at dark and restarted at first light, resuming tracking and search patterns and utilising additional help from land owners on motor bikes working to the same grid pattern. The plane also resumed searching when it arrived back from Geraldton, from where it had returned for refuelling overnight. Tracking was only good for two or three kilometres, after which the boy's tracks were lost on the stony ground. He had followed the goats for as far as he could before realising he was hopelessly lost.

At midday on Sunday the boy was located fourteen kilometres from the family's camp by foot searchers, huddled in the burnt out shell of a caravan, semi naked, suffering mental confusion, and dehydrated. He was given oxygen therapy, taken to the Golden Grove medical centre, put on drip, and monitored until he had fully recovered. This took the rest of that day.

A debrief was held straight after the boy was delivered to the medical centre and was attended by everyone involved, including the police, Mine Rescue personnel, local land owners and trackers.

The outcomes of the debrief were to buy more hand held GPS units for the Mine Rescue team, plus radios that would work offsite away from the repeater station.

An overall benefit of the operation to the Golden Grove workplace was the increased confidence of the workforce in its Mine Rescue team.

Involving the local community, in the form of land owners, established a valuable bridge and enhanced the credibility of the Mine Rescue team.

The local Police, frequently young and inexperienced officers doing country time, commended the organisational skills of the Mine Rescue team.

The possibility of providing aviation fuel onsite so that the plane would not have to return to Geraldton for re-fuelling was discounted as it would involve too many other measures - such as fire fighting facilities and environmental measures at the re-fuelling location.

All in all it was a challenging situation with a highly successful outcome.

Conclusion

The case study illustrates a number of points for the successful functioning of a Mine Rescue team.

Transferability of skills

Mine Rescue skills are highly valued and transferable to other situations. This is demonstrated by the way in which all the arrangements were coordinated by the leader using the standard practice procedures he had learnt in training. His successful coordination of the rescue highlights the effectiveness of the Mine Rescue team selection criteria and the importance of the focus on leadership training.

Multiple benefits

The financial investment in a Mine Rescue team is offset by the organisational and individual benefits. Real pressure applied in the artificial confines of Rescue competitions gave the leader the confidence to lead the team and coordinate overall activities in a real-life situation.

Cooperative approach

The challenges of the rotating roster and continually changing mine personnel can be met with a coordinated and cooperative approach involving mine management, mine personnel and genuine financial incentives

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2009 Australian Safer Communities Awards

The 2009 Australian Safer Communities Awards ceremony was held at Old Parliament House, Canberra on Thursday 3 December, 2009. The Awards recognise best practices and innovations that help to build safer communities. They cover organisations and individuals working in risk assessment, research, education and training, information and knowledge management, prevention, preparedness, response and recovery. The Attorney-General, the Hon Robert McClelland MP, presented the Awards.

Marine Stingers – "A Marine Stinger Prevention Project" Robert McClelland, Attorney-General with Ian Day and David Kain from the Queensland Ambulance Service

ACT CALD – "Culturally and Linguistically Diverse Multicultural Awareness Project" Robert McClelland, Attorney-General with Elena Sione from ACT Emergency Services Agency and Vaughan Cubitt from Australian Federal Police

SA Councils – "Community Floodsafe Program" Robert McClelland, Attorney-General with Judith Bleechmore and Lyn Little from the South Australian State Emergency Service

Geelong – "SafeStart Childhood Injury Prevention Project" Robert McClelland, Attorney-General with Frank Giggins and Kylie Fisher from the City of Greater Geelong

Teenagers in Emergencies – "Teenagers in Emergencies" Robert McClelland, Attorney-General with Tim Liddell, Amy Fisher, Jess Bedggood and Sam Montague from Maffra Secondary College, Gippsland

Lifeline – "read–the-signs Project" Robert McClelland, Attorney-General with and Leeanne Turner from the MTAA Superannuation Fund and Dawn O'Neil from LifeLine Australia

Sundowner – "The Sundowner Project" Robert McClelland, Attorney-General with Judy McKay from the Northern Territory Human Services Advisory Council and Stephen Banderson from First Response Night Patrol

UNI NSW – RIP – "Don't Get Sucked in by the RIP" Robert McClelland, Attorney-General with Brett Williamson OAM, Surf Life Saving Australia on behalf of University of NSW.

Migrant Resource – "Inclusive Emergency Management Project" Robert McClelland, Attorney-General with Cedric Manen from the Tasmania Migrant Resource Centre (Southern Tasmania) Inc.

Category	Entrant	Award	Name of Project
State/Territory Government Agency	ACT Emergency Services Agency & Australian Federal Police	**Winner**	Culturally and Linguistically Diverse Project
State/Territory Government Agency	Queensland Ambulance Service, Palm Island Station	**Highly Commended**	Marine Stinger Prevention Project
Local Government - Collective	Collective of Mitcham, Unley, Marion, Holdfast Bay, West Torrens and Adelaide councils with SA SES as the lead agency	**Winner**	SA Community FloodSafe Program 2008-09
Local Government – Single Council	City of Greater Geelong	**Winner**	SafeStart Project
Volunteer Organisations	Teenagers I n Emergencies Project Group	**Winner**	Teenagers in Emergencies
Private Sector Organisations	Lifeline Australia and MTAA Superannuation Fund	**Winner**	"Readthesigns" campaign
Education, Training and Research Bodies	University of NSW	**Winner**	Don't get sucked in by the Rip
Education, Training and Research Bodies	Human Services Training Advisory Council Inc / Council for Aboriginal Alcohol Program Services	**Highly Commended**	The Sundowner Project
Education, Training and Research Bodies	Monash University	**Highly Commended**	Safer Community Project
Not –for-profit Organisations	Australian Red Cross, ANGLICARE NSW, Adventist Development & Relief Agency, The Salvation Army and St Vincent de Paul Society	**Winner**	Interagency Team Leader training – NSW Disaster recovery – Welfare Services Functional Area
Not –for-profit Organisations	Association for the Blind of WA Inc	**Highly Commended**	Safe Without Sight Program
Not –for-profit Organisations	Migrant Resource Centre (Southern Tasmania) Inc.	**Highly Commended**	Inclusive Emergency Management with CALD Communities
Projects of National Significance or Cross Jurisdictional	Metropolitan Fire & Emergency Services Board	**Winner**	National Community Services Training Packages Project
Projects of National Significance or Cross Jurisdictional	Australian Red Cross	**Highly Commended**	After the Emergency - A book to help kids cope with emergencies

Monash Uni – **"The Safer Community Project"** Robert McClelland, Attorney-General with Bronwyn Drake and Sally Trembath from Monash University

Safe without sight – **"Safe Without Sight Program"** Robert McClelland, Attorney-General with Susie Sim from Association for the Blind in WA

Interagency training – **"Interagency Team Leader Training for Disaster Recovery"** Robert McClelland, Attorney-General with Doug Philpott from ANGLICARE and Kirstie Meheux from Australian Red Cross

After the Emergency – **"After the Emergency"** Robert McClelland, Attorney-General with Andrew Coghlan and Catherine Gearing from Australian Red Cross

MFB – **"A National Community Services Training Packages Project"** Robert McClelland, Attorney-General with Julie Harris and Rob Taylor from Melbourne Metropolitan Fire Brigade

For more information about the Australian Safer Communities Awards (ASCA), please refer to www.ema.gov.au and select the ASCA link.

Tsunami Education Kit

As part of its contribution to national disaster resilience, the Commonwealth Attorney-General's Department provides extensive community awareness and school education resources. These are accessed via the Emergency Management in Australia website at www.ema.gov.au

Recent years have seen an additional focus on the tsunami hazard.

New resource materials are being added and updated regularly, including recently a substantial input of tsunami materials for Aboriginal Australians in remote coastal communities.

In particular the new "Tsunami Community Education Kit for Aboriginal Australians in remote coastal communities" is being distributed widely in physical format, to compliment the on-line resource. This Kit aims to educate about warnings and procedures to stay safe in the event of a tsunami. In association with the AEMC Australian Tsunami Working Group (and its State and Territory based membership), the AEMC Remote Indigenous Communities Advisory Council (RICAC) has identified prime dissemination and distribution points for the physical materials.

Further copies of the Kit are available through an Order Form process, via contact through the tsunami@ag.gov.au email address box.

Contents of the Kit include:

Two educational DVDs about tsunami:

• Tsunami Warnings...What You Should Do (for Aboriginal Australians in Remote Coastal Communities). This DVD focuses on the key messages about tsunami community safety for remote coastal Aboriginal communities. There are six different Indigenous voiceover options: (i) Tiwi (ii) Top End Kriol (iii) Yolngu (iv) TSI Kriol (v) WA Kriol and (vi) basic English.
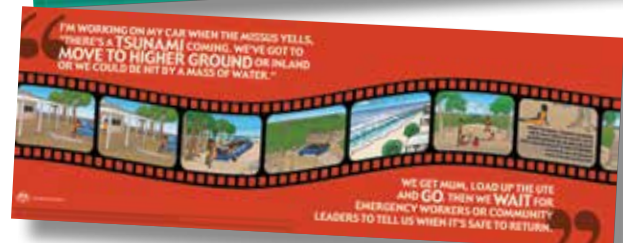
Posters aimed at raising Tsunami awareness amongst aboriginal communities

• 'Questacon Tsunami Awareness Show'. This DVD contains the 30-minute tsunami education presentation shown at Questacon - the National Science and Technology Centre in Canberra.

• Three posters that show how remote communities should respond to tsunami warnings. These posters have been designed by an indigenous artist and can be used individually or joined together as one large poster.

• One Tsunami Awareness Lesson Plan for remote area school teachers—included in this lesson plan is a poster template, great for children to draw/write their on tsunami story.

• Twenty stickers - great for reminding remote coastal communities on what to do if there is ever a tsunami.

Enquires to Neil Head, Director Information & Public Awareness, National Security Capability Development Division, Attorney-General's Department at the Mt Macedon campus on neil.head@ag.gov.au or via the AGD NSCDD Schools Education Officer, John Haydock at john.haydock@ag.gov.au or on 03-5421 5297.

These materials are complimentary to those available from the UN International Tsunami Information Center at at http://ioc3.unesco.org/itic/

New Tsunami Education Kit

Australian Government

Attorney-General's Department

**National Security
Capability Development Division**

NATIONAL
SECURITY UPDATES

NATIONAL SECURITY UPDATES

National Security Capability Development News

The following are extracts / summaries of news items and media releases that may be of interest to the emergency management sector.

17 AUGUST 2009
VICTORIAN BUSHFIRES ROYAL COMMISSION INTERIM REPORT

Attorney-General, Robert McClelland, and Parliamentary Secretary for Victorian Bushfire Reconstruction, Bill Shorten, welcomed the release of the Victorian Bushfires Royal Commission Interim Report.

The Commission is to be commended for the important work it has undertaken to date.

The Rudd Government has already begun a detailed analysis of the recommendations and will respond in accordance with the timetable set out by the Royal Commission.

The Report's recommendations will also inform the further development of emergency response policy and practice.

One important initiative referred to by the Royal Commission is the development of a telephone based emergency warning system.

The Commonwealth is already assisting the States and Territories to develop a national telephone-based emergency warning system and to conduct research to improve the technology.

The Rudd Government has invested $15 million to assist the States and Territories to establish a National Emergency Warning System (NEWS) to deliver emergency warnings to landline and mobile telephones.

The national emergency warning system is being developed to be operational by the next bushfire season, in line with the Interim Report's recommendations.

In addition, the Commonwealth has invested $11.3 million to:

* create a Location-Based Number Store (LBNS) to provide secure access for State and Territory warning systems to telephone numbers based on their billing address; and
* fund collaborative research between the Commonwealth, States and Territories with industry on ways to deliver warning messages to mobile phones based on a handset's physical location, rather than the owners billing address, consistent with the Commission's recommendations.

Other recommendations focus on the potential for Commonwealth agencies to more effectively cooperate with the States and Territories in sharing information and resources to assess fire danger and detect, track and suppress bushfires.

Relevant Commonwealth agencies, including Emergency Management Australia (EMA), will explore ways to ensure that this cooperation is made possible.

The report also recommends the promotion of more effective emergency call service arrangements throughout Australia through the COAG framework.

The Victorian Bushfires Royal Commission will deliver its Final Report on 31 July 2010.

For more information, please visit **www.attorneygeneral.gov.au**

NATIONAL SECURITY UPDATES

19 AUGUST 2009
PROTECTION FOR FOREIGN EMERGENCY SERVICE PERSONNEL

Attorney-General, Robert McClelland, today introduced into the House of Representatives the Foreign States Immunities Amendment Bill 2009.

The Bill will enable civil immunity in Australian courts to be conferred on United States fire fighters helping authorities in Australia prepare for, manage and respond to bushfires.

"This Bill is one way the Australian Government can assist the States and Territories with bushfire prevention and management to enhance the safety and security of all Australians," said Mr McClelland.

The passage of the Bill will facilitate the conclusion of a fire fighter exchange agreement with the United States currently being negotiated by the Victorian Government on behalf of all Australian States and Territories.

The agreement will also provide for Australian fire fighters to enjoy similar protection when operating in the United States.

The immunity would only apply to acts or omissions of foreign personnel in the course of their duties, and would not apply in criminal proceedings.

United States authorities continue to provide critical assistance to Australia in the lead up to and during the annual bushfire season. Since 2003, over 170 fire fighters have been deployed to Australia, including for the horrific Victorian Black Saturday fires in February 2009.

"The Bill also provides a legislative framework for immunity to be conferred on other foreign emergency service personnel where required to help Australian authorities respond to disasters and emergencies."

The protections provided by the proposed amendments will allow both Australia and the United States to be confident in the overseas deployment of their emergency service personnel.

31 AUGUST 2009
VICTORIAN BUSHFIRES ROYAL COMMISSION INTERIM REPORT

The Commonwealth today provided its response to the Interim Report of the 2009 Victorian Bushfires Royal Commission.

The response addresses recommendations of primary relevance to the Commonwealth, with implementation plans for each recommendation as requested by the Commission.

It also outlines actions by the Commonwealth in support of a number of recommendations directed to Victorian Government responsibilities.

The Commission is to be commended for the release of its Interim Report, with a focus on the protection of human life and actions that can be undertaken prior to the next bushfire season.

The Commonwealth will continue to assist Victoria in the provision of a Delivery Report, detailing progress on each recommendation relevant to Commonwealth areas of responsibility and, where appropriate, the outcomes and effectiveness of the response. The Delivery Report is due by 31 March 2010.

The Victorian Bushfires Royal Commission will deliver its Final Report on 31 July 2010.

The Commonwealth will continue to provide all necessary assistance to the Commission in its further deliberations.

NATIONAL SECURITY UPDATES

9 OCTOBER 2009
RELEASE OF FLOOD MANAGEMENT MANUALS

Attorney-General, Robert McClelland and Federal Member for Page, Janelle Saffin released key emergency management manuals to improve flood preparedness, warnings and emergency response.

"The manuals will assist Australian communities to build their resilience to flooding by providing information and expert advice to a range of relevant agencies and organisations," Mr McClelland said.

The manuals have been developed in conjunction with the Australian Council of State Emergency Services and are part of the Australian Emergency Manual series which are developed to provide information on nationally consistent best practice in emergency management.

The manuals were launched in the Northern New South Wales city of Lismore, which was hit by major floods in May.

"Local residents are unfortunately all too familiar with the tragic consequences of severe flooding. These manuals provide the community with valuable guidance on all stages of flood preparation and response," Ms Saffin said.

Further information can be found on **www.ema.gov.au/publications**

14 OCTOBER 2009
AUSTRALIA PARTICIPATES IN REGIONAL TSUNAMI EXERCISE

Attorney-General, Robert McClelland, welcomed Australia's participation in an international exercise to test response arrangements for tsunami activity in the Indian Ocean.

"The importance of such an exercise is highlighted by the tragic devastation and loss of life experienced in both Sumatra and Samoa in recent weeks," said Mr McClelland.

The exercise, Indian Ocean Wave, was led today by Indonesia and tested the ability to communicate urgent information including the size, intensity and likely land inundation of a simulated tsunami.

The exercise involved emergency services from Western Australia as well as Commonwealth agencies including Emergency Management Australia (EMA), Geoscience Australia and the Bureau of Meteorology who are involved in the Australian Tsunami Warning System (ATWS).

The ATWS is provided through the Joint Australian Tsunami Warning Centre which operates 24-hours a day, seven days a week to detect and verify tsunami threats to Australia as a result of earthquakes.

The ATWS provides a comprehensive warning system capable of delivering timely and effective tsunami warnings to affected populations. It also supports international efforts to establish an Indian Ocean tsunami warning system, and contributes to the facilitation of tsunami warnings for the South-West Pacific.

Indian Ocean Wave coincides with the United Nations International Disaster Reduction Day and follows a similar exercise conducted in June that successfully tested tsunami warning and communication arrangements for countries in the Pacific Ocean.

Eighteen nations participated in the Indian Ocean Wave exercise, including Indonesia, Bangladesh, India, Kenya, Madagascar, Malaysia, Maldives, Mauritius, Mozambique, Myanmar, Oman, Pakistan, Seychelles, Singapore, Sri Lanka, Tanzania, Timor Leste and Australia.

NATIONAL SECURITY UPDATES

20 OCTOBER 2009
COMMONWEALTH ASSISTANCE FOR QUEENSLAND BUSHFIRE VICTIMS

Attorney-General, Robert McClelland, today announced that the Commonwealth Government will provide financial assistance to communities affected by recent bushfires in Queensland.

Commonwealth assistance is being provided to the Queensland Government through the Natural Disaster Relief and Recovery Arrangements (NDRRA).

Funding will include assistance for the restoration of essential public infrastructure and relief operations, as well as personal hardship and distress assistance, including:

- Emergency Assistance Payments of $170 per person and up to $780 per family;
- Essential Household Contents Grants of $1,660 per individual and up to $4,980 per couple or family;
- Essential Repairs to Housing Grants of up to $10,250 per individual and up to $13,800 per couple or family;
- Concessional loans of up to $250,000 to eligible primary producers that have suffered physical loss as a result of the bushfires; and
- Freight subsidies of up to $5,000 to assist with the cost of transporting livestock, fodder or water and building or fencing equipment or machinery.

Inquiries in relation to personal hardship and distress assistance should be made to the Queensland Department of Communities on 1800 173 349. Further information can also be found at **www.communities.qld.gov.au**

Inquires in relation to the freight subsidies should be made to the Queensland Department of Primary Industries and Fisheries on 132 523 or by visiting **www.dpi.qld.gov.au**

Inquiries in relation to the concessional interest rate loans should be made to the Queensland Rural Adjustment Authority on 1800 623 946. Further information can also be found at **www.qraa.qld.gov.au**

The Commonwealth, through Emergency Management Australia (EMA), will continue to work closely with Queensland authorities, local government and community organisations to ensure that affected communities have all the support they need during this difficult period.

23 OCTOBER 2009
DISASTER MITIGATION FUNDING FOR TASMANIA

Attorney-General, Robert McClelland, and Tasmanian Minister for Police and Emergency Management, Jim Cox, announced that the Commonwealth will invest over $150,000 to help Tasmania prepare for extreme storm and weather events.

"This is another example of how cooperation between the Commonwealth and the States can improve the resilience of our communities to natural disasters and emergencies," Mr McClelland said.

The project will be led by the Antarctic Climate and Ecosystems Co-operative Research Centre (CRC) and will model storm surges in coastal areas and extreme rain and wind events.

Commonwealth funding will be provided to the Tasmanian State Emergency Service and will complement investments by the Tasmanian Government and the CRC.

"The project will provide fundamental climate data that will inform effective mitigation strategies and measures such as land use planning, building codes, development policies and communication and awareness programs," Mr Cox said.

Commonwealth funding is being provided under the Rudd Government's new Natural Disaster Resilience Program (NDRP) announced in this years Budget.

The NDRP integrates a number of existing emergency management programs in order to improve efficiency and allow States and Territories to focus on high priority risks including disaster mitigation works, supporting volunteers and building effective community partnerships.

Further information on the Natural Disaster Resilience Program can be found at **www.ema.gov.au**

NATIONAL SECURITY UPDATES

25 OCTOBER 2009
PRIME MINISTER MEDIA RELEASE

The Australian Government will provide $52 million to enable the rapid deployment of Australian civilians into overseas disaster or conflict zones.

This will enable the Government to send civilians with expert knowledge and abilities into disaster-struck regions or conflict zones with the urgency required in these terrible situations.

This new initiative is expected to have an interim capability by mid-2010, and is expected to be fully operational by early 2011.

The civilian specialists will be deployed across a wide range of roles. For example, they could be used to help:

*   restore the delivery of essential services like health services infrastructure;
*   restore essential infrastructure like utilities services, for example electricity and water; and
*   rebuild core government institutions to deliver
    good governance in order to support economic and social stability.

The civilian specialists will be deployed to assist in early recovery and reconstruction efforts after initial emergency response operations have concluded.

The Government will create a register of up to 500 Australian specialists who can be deployed overseas at short notice.

These specialists will be chosen for their technical expertise and their ability to work in challenging environments overseas.

They will be drawn from both the public and private sectors.

These civilian specialists will complement rather than replace existing humanitarian response mechanisms and longer-term development assistance.

Deployed civilians may work alongside the Australian military and police where present or in a stand-alone capability. They may work alongside foreign military, United Nations peacekeepers, police and civilian experts from other countries.

Assignments will range from immediate stabilisation and recovery work to longer-term capacity building roles, recognising that the consequences of disasters can be felt for many years after their immediate impact.

A new Office of the Deployable Civilian Capability will be established within the Australian Agency for International Development (AusAID) to implement the initiative. The Office of the Deployable Civilian Capability will also build strategic partnerships with equivalent civilian organisations overseas, including the United States, the United Kingdom and Canada.

Deployed specialists will undertake advisory and capacity building roles at the national, provincial and district levels in countries which require assistance across six key stabilisation and reconstruction sectors:

*   Security, justice & reconciliation;
*   Machinery of Government;
*   Essential Services;
*   Economic Stability;
*   Community and Social Capacity Building; and
*   Operational management.

As we have seen in recent weeks with the disasters in Samoa and Tonga, and in East Asia Summit member nations including Indonesia, Vietnam and the Philippines, countries affected by crises require significant assistance to alleviate human suffering and to begin the process of recovery.

Often this assistance is needed urgently, and requires specialised knowledge and skills. By providing skilled professionals through the DCC, Australia can play a greater role in this process.

For those who would like further information or to register their interest in this initiative, AusAID will provide more details in the near future.

NATIONAL SECURITY UPDATES

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30 OCTOBER 2009
COMMONWEALTH ASSISTANCE FOR NORTHERN NEW SOUTH WALES FLOOD VICTIMS

Attorney-General, Robert McClelland, announced that the Commonwealth Government will provide financial assistance to communities affected by recent flooding in parts of the New South Wales mid-north coast.

Commonwealth assistance is being provided to the New South Wales Government through the Natural Disaster Relief and Recovery Arrangements (NDRRA) and will apply to natural disaster declared areas, including Bellingen and Nambucca Shires.

Funding will include assistance for the restoration of essential public infrastructure and relief operations, as well as personal hardship and distress assistance, including:

- personal hardship and distress (PHD) grants to low-income earners whose principal residence has been damaged. Enquiries should be directed to the NSW Department of Community Services on 1800 018 444;
- concessional loans of up to $25,000 for voluntary, non-profit organisations. Enquires should be directed to NSW Treasury on (02) 9228 5198;
- concessional loans of up to $130,000 for small businesses and primary producers. Enquiries should be directed to the NSW Department of Primary Industries on 1800 678 593;
- road and rail freight subsidies of up to $15,000 to assist primary producers for the carriage of livestock and fodder. Enquiries should be directed to the NSW Department of Primary Industries office on 1800 814 647.

The Commonwealth, through Emergency Management Australia, will continue to work closely with New South Wales authorities, local government and community organisations to ensure that affected communities have all the support they need during this difficult period.

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Commonwealth assistance is being provided to the New South Wales Government through the Natural Disaster Relief and Recovery Arrangements (NDRRA) and will apply to the natural disaster declared areas of Coffs Harbour, Bellingen, Kempsey and Nambucca regions. This assistance may be extended to other local government areas following a more detailed assessment.

Funding will include assistance for the restoration of essential public infrastructure and relief operations, as well as personal hardship and distress assistance, including:

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NATIONAL SECURITY UPDATES

National Climate Change Action for Emergency Management

By Louise Mitchell, education manager and facilitator at the Australian Emergency Management Institute, National Security Capability Development Division, Attorney-General's Department.

Viewing emergency management issues through the lens of a changing climate was the challenge put to a workshop held at the Australian Emergency Management Institute in July 2009. The aim of the workshop was to further develop the National Climate Change Action Plan for the emergency management sector. The current predictions for climate change in Australia were presented along with the implications for emergency management. A discussion paper due out in December 2009 will report on some of the strategies that are being considered and implemented in the climate change adaptation space relevant to the emergency management field in Australia.

Climate Change in Australia

In March 2008, COAG referred to climate change as one of the greatest economic and environmental challenges of our age. The projections for Australia of the impacts of climate change include:

- "an increase in the severity and frequency of many natural disasters such as bushfires, cyclones, hailstorms and floods;

- "insured losses from weather related events totalling billions of dollars. The flow-on effect is a likely increase in premiums for natural disasters increasing under-insurance and putting added burden on governments and communities when disasters occur;

- "temperature rises combined with an ageing population are projected to see 3000-5000 more people die each year from heat-related illnesses by 2050. There are also expected to be around 79000 additional cases of food poisoning per year by 2050 and the threat from vector borne disease, eg Dengue Fever, will increase;

- "drought is likely to become more frequent and has the potential to disrupt electricity generation capacity and affect the reliability of electricity supplies; and,

- "significant coastal erosion and damage to infrastructure as a result of sea-level rises and storm surges. 711 000 addresses and many billions of dollars worth of assets are at risk from rising sea levels and changes in storm surge. By 2100 sandy beaches could have receded by up to 88 metres."

(Department of Climate Change, 2009).

The Australian Government has recognised the need to act on climate change and the Department of Climate Change (DCC) is tackling the issues facing the Australian community along three fronts (Figure 1):

- emissions reduction (climate change mitigation);
- adaptation (including research); and,
- international engagement.

Other government departments, such as Attorney-General's are looking at how the work in on these three fronts fits with their specific areas of interest. The focus of the July 2009 Workshop was climate change adaptation in emergency management.

FIGURE 1. The Australian Government's approach to meeting the challenge of climate change. Department of Climate Change, 2008

THE THREE PILLARS
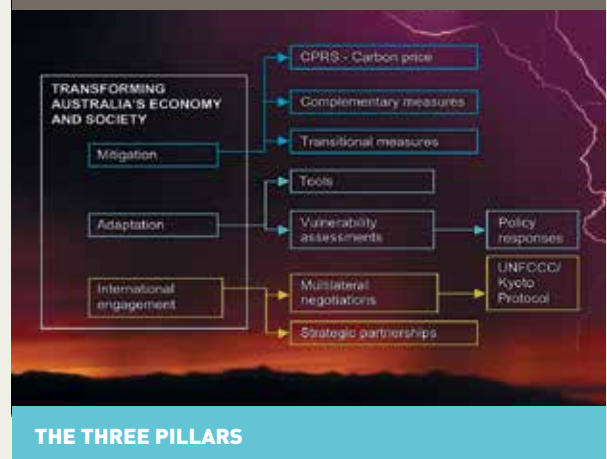
NATIONAL SECURITY UPDATES

The emergency management function will continue to be essential and "emergency management measures based on historic experience will not be adequate in a changing climate. The emergency management sector, including communities, will increasingly need information on emerging climate scenarios to enable climate change to be factored into the management of current and future disaster risks, and to inform preparation and response and recovery efforts. Some impacts from climate change are unavoidable, but implementation of appropriate adaptation strategies will lead to improvements in disaster resilience and reduction in disaster risk" (Attorney-General's Department, 12 March 2009).

The adaptation agenda is very new in Australia and it has been informed by initial national risk assessments conducted by Department of Climate Change and CSIRO (CSIRO, 2006) and by the Prime Minister's Science, Engineering and Innovation Council (PMSEIC, 2007). Further research in the Australian context specific to emergency management is planned through the National Adaptation Research Plan (NARP) for Disaster Management and Emergency Services (http://www.nccarf.edu.au/national-adaptation-research-plan-emergency-management) which is one of the projects of the National Climate Change Adaptation Research Facility (NCCARF). The NCCARF was established by the Australian government Department of Climate Change in late 2007. It is responsible for leading the Australian research community to generate biophysical, social and economic information needed to manage the effects of climate change. The facility is hosted by Griffith University (and seven others) in partnership with the Queensland Government.

The Workshop

The background to the July 2009 AGD workshop includes:

- Endorsement of the National Climate Change Adaptation Framework (Department of Climate Change, 2009) , by the Council of Australian Governments in April 2007, providing a basis for action on adaptation to climate change by Australian governments over the period 2007-2012. The Framework outlines the future agenda of collaboration between governments to address key issues on climate change impacts. It includes possible actions to assist the most vulnerable sectors and regions to adapt to the impacts of climate change;

- Agreement in November 2008, by the Ministerial Council for Police and Emergency Management - Emergency Management (MCPEM-EM) to the development of an action plan, to implement the climate change adaptation strategies for the emergency management sector.

The context of emergency management functions for the purpose of this workshop were necessarily broader than emergency response activity .

Local, State and Territory and Australian Government agencies, NGOs, community and industry representatives came to the workshop to provide input into the Action Plan, including:

Ambulance Victoria	Department of Human Services, Victoria
Attorney General's Department	**Department of Health and Ageing**
Australasian Fire and Emergency Service Authorities Council	Geoscience Australia
Australian Council of State Emergency Services	**NSW Department of Environment and Climate Change**
Australian Red Cross	NSW Fire Brigade
Australian Red Cross Blood Service	**NSW State Emergency Management Committee**
Bureau of Meteorology	Northern Territory Emergency Service
City of Greater Bendigo, Victoria	**Office of the Emergency Services Commissioner, Victoria**
Department of Climate Change	SAFECOM, South Australia
Department of Community Safety, Queensland	**Tasmania Department of Police and Emergency Management**
Department of Families, Community Services and Indigenous Affairs	WA Fire and Emergency Services Authority

[1]Emergency management functions include disaster mitigation (for example, land-use planning, building codes, building levees), preparedness actions (for example, communications, whole of community and householder education, engagement and action), immediate response and relief activities and immediate and longer term community recovery. Treatment options emerging from the emergency risk management process are another way to conceptualise emergency management functions. These functions are carried out by a wide range of government (local, state and federal), non-government organisations, private industry and individuals and communities working in partnership.

NATIONAL SECURITY UPDATES

The Climate Change Action Plan

The workshop participants considered and made suggestions for possible future national action in the following four areas:

Leadership and Coordination;

Communications;

Awareness of the Risk Environment; and,

Reducing Disaster Risk through Appropriate Development in the Built Environment.

Discussion included coordination issues, governance in emergency management, strategic communication at all levels, knowledge management, and the complex issues around land-use planning. Recent initiatives at the jurisdictional and agency level were shared and these will be included in a discussion paper to be released December 2009.

It is important to note that while the workshop focussed on adaptation, the importance of climate change mitigation measures (reducing carbon emissions) for all emergency services and other emergency management related agencies and jurisdictions was also emphasised (as in Thompson, 2008). Climate change mitigation and adaptation should not be seen as dichotomous.

The outcomes of the workshop included:

- progressing integration of the emergency management climate change issues with other climate change activities;
- stakeholder contribution to assist with the development of a proposed Emergency Management National Climate Change Action Plan; and,
- fostering linkages between the emergency management sector and other areas of government and non government sectors responsible for climate change policy, science, response measures and information.

The action plan resulting from the July 2009 workshop and broader jurisdictional consultation will be presented to the MCPEM-EM members for its approval at its meeting in November 2009. Once endorsed it will be publicly available.

The discussion paper will be available through the EMA website late 2009.

Conclusion

The Climate Change Action Plan workshop considered the adaptation challenges to emergency management through a lens of increasing risks associated with the effects of climate change. While the projections regarding climate change will not alter emergency management philosophy, they will influence our response to mitigation, and to continuous improvement in preparedness, response and recovery (including planning, coordination and communication and multi-agency & whole-of-nation responses). Climate change research being conducted will further enable an understanding of the increasing risks to communities which if not mitigated will require significantly greater response and community recovery capability. The management of the risks will require values based community engagement. It will also require political and administrative actions and processes that will enable the engagement (with the various emergency management functions) of many areas of land use planning and mitigation in order to instill awareness and action pertaining to the implications of extreme events.

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States and Territories welcome Commonwealth operational briefing prior to bushfire season

The Hon. Steve Whan, MP NSW Minister for Emergency Services, NSW Minister for Small Business, and NSW Minister for Rural Affairs, Director General Emergency Management Australia (Attorney-General's Department, Mr Tony Pearce and The Hon. Bob Cameron, MP Victorian Minister for Police and Emergency Services, and the Victorian Minister for Corrections.

In accord with the Commonwealth response to the recommendations of the Victorian Bushfire Royal Commission Interim Report, specifically in relation to Recommendations 11.1 and 11.2 Emergency Management Australia (EMA), a division of the Federal Attorney-General's Department, facilitated an operational pre-season briefing for State and Territory emergency management agencies on the 25th September 2009.

For information References 11.1 and 11.2 are as follows:

Recommendation 11.1 The Commonwealth facilitate discussions between relevant Commonwealth agencies (including Emergency Management Australia, Defence, Defence Imagery Geospatial Organisation and Geoscience Australia) and state and territory fire services to identify ways in which Commonwealth resources might be applied more rapidly and effectively during extremely dangerous bushfires, including investigating the potential for these resources to be used for detecting, tracking and suppressing bushfires.

Recommendation 11.2: The Commonwealth, through Emergency Management Australia, provide briefings at least once a year to state and territory agencies regarding arrangements available (including through Defence) to support jurisdictions during disasters and emergencies, including bushfires. State and territory representatives should advise relevant Ministers and the Chief Officers of emergency services (including fire services) of the outcomes of these briefings.

The aim of this briefing was to facilitate pre-season bushfire and seasonal hazard preparedness and planning discussions between the Commonwealth and States and Territories.

Preparedness discussions focussed on:

- Awareness of Commonwealth support arrangements to jurisdictions and advice for efficient processing of requests for assistance under the Australian Government Disaster Response Plan (Comdisplan) and Defence Aid to Civil Community (DACC) in a timely way that is not encumbered by undue process

- Provision of a comprehensive seasonal outlook in relation to severe fire weather and cyclone activity.

- Australian Government agencies will provide a comprehensive overview of the support and services available to jurisdictions during disasters and emergencies, including bushfires.

- Response arrangements and plans will be reviewed to ensure that they can be immediately activated in the most timely way where required.

- Discussion and reaching agreement on how Australian Government Liaison Officers (from any relevant Commonwealth agency) would/should be embedded into a significantly affected jurisdiction, their roles and responsibilities, trigger mechanisms for their deployment, etc.

The briefing was opened by the Attorney-General and chaired by the Director General EMA.

The briefing included the following presentations:

- Emergency Management Australia - National coordination arrangements and national plans including COMDISPLAN, DACC and the Natural Disaster Relief and Recovery Arrangements

- Bureau of Meteorology – seasonal weather outlook and support available to jurisdictions

- Geoscience Australia – geospatial and other support available to jurisdictions

- Australian Defence Force – provision of Defence support through the DACC arrangements, requests and tasking arrangements, including a presentation on the capabilities of the Defence Imagery and Geospatial Organisation.

- Centre Link and FaHCSIA will also be in attendance to provide advice on their capabilities.

ALL ON SHOW AT PARRAMATTA EMERGENCY SERVICES EXPO

Story and photos by David Weir, CALD Coordinator, NSWFB

On Friday 16 October 2009 an Emergency Services Expo was held in Parramatta Park with the NSW Police, Rural Fire Service, State Emergency Service, Ambulance Service of NSW, Red Cross, NSW Fire Brigades and Parramatta Rotary in attendance.

Representatives from the Baulkham Hills/Holroyd Parramatta Migrant Resource Centre, the local council, including Lord Mayor Cllr Paul Garrard, and the Federal Minister for Parramatta Julie Owens also attended with the aim of helping people from culturally and linguistically diverse (CALD) communities to understand the role of emergency services in the community, the work they do, and career opportunities.

NSWFB firefighters from 72 Merrylands demonstrated the dangers of kitchen fires, using one of the NSWFB's new kitchen fat fire simulators, while firefighters from 57 Wentworthville delivered the NSWFB's RescuED program, which highlights the importance of road safety with a hard-hitting education session.

The NSW Police Force conducted a demonstration with one of their Police Dog Units

The Emergency Services Expo was attended by approximately 600 people from various CALD backgrounds including Sudanese, Afghan and Syrian, just to name a few, building their capacity to prevent and prepare for emergencies.

This activity was undertaken by ACT's Jurisdictional Community Partnership project, a component of AGD's Inclusive Emergency Management with Culturally and Linguistically Diverse Communities Program.

Further information regarding this program can be provided by contacting AGD's CALD Project Officer on (03) 5421 5295

WORKING TOGETHER TO MAKE A SAFER COMMUNITY

## ACT CALD Conference – Saturday 17th October 2009

A large gathering of emergency services personnel, CALD community organisation representatives and community members attended a conference on Saturday 17th October organised by ACT's Emergency Services Agency in conjunction with the Australian Federal Police and Office of Multicultural Affairs, Department of Disability Housing and Community Services.

The conference was opened by the Minister for Multicultural Affairs, the Honourable John Hargreaves with various guest speakers from the community and emergency services, sharing information about their previous experience of and the various organisational roles in emergency management. The importance of continuing the vital work of developing relationships and actively involving and partnering with CALD communities and organisations, was a message that resonated throughout the day.

Group discussions explored 5 key areas:

- Building partnerships with multicultural organisations; improving relationships
- Building cultural capabilities in emergency services; what can the services be doing?
- Engaging newly arrived communities; challenges and opportunities
- Engaging faith communities; challenges and opportunities
- Developing effective diversity communication and information resources; are they accessible?

A summary will be developed by ACT Emergency Services Agency's CALD Liaison Officer to further future initiatives for the ACT.
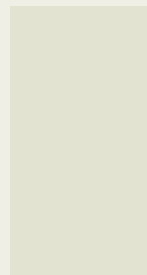
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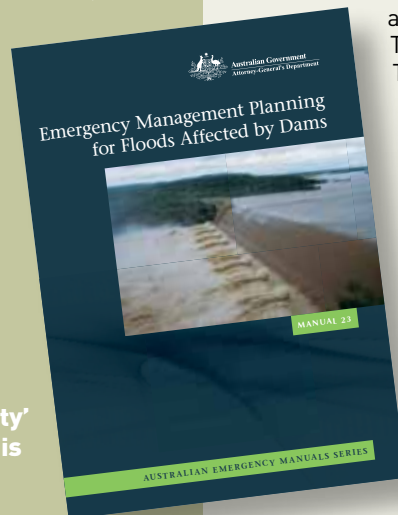
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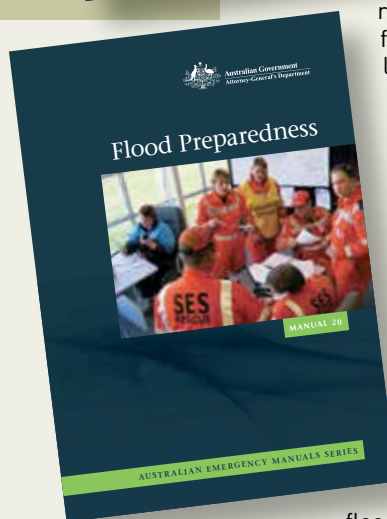# Flood Management Manuals reviewed – and available

Keys, Gissing and Godber make the case for the newly-released flood management manuals to be used by practitioners in the State and Territory Emergency Services and other agencies

Flooding is a very costly hazard in Australia but, as is often said, it is also amongst the most manageable of the natural perils which communities face. And so it is: we can know a good deal about where floods will occur, advance notice is usually given of their arrival, much can be understood ahead of time about what their consequences will be and it is invariably possible to identify and implement 'treatments' which will reduce the damage and the distress they can cause. Nevertheless the statement hides many of the difficulties which managing floods impose upon those who are responsible for doing so. Flood 'manageability' has to be earned, and earning it is no simple matter.

Who manages floods?

Foremost amongst the flood management agencies in Australia are the State and Territory Emergency Service organisations (the S/TESs), which are charged either in legislation or in emergency management arrangements with the responsibility for responding in the community's interests during times of flooding. The details of the responsibility vary between jurisdictions, but enough is common across the nation to suggest that all the S/TESs must develop the means to become expert in managing floods in ways that reduce their negative effects. The task is one which demands attention outside the periods when floods are actually occurring.

Many other organisations — voluntary groups, local councils, the Bureau of Meteorology and elements of the state, territory and federal governments —

play important roles, usually in relation to particular functions (councils in relation to flood mitigation measures and the management of the use of flood-prone land, for example, and the Bureau in the context of flood forecasting). But in the main it is the S/TESs and their thousands of volunteers that carry the key responsibility for protecting communities and their assets when floods assail them. The tasks to be performed are many. They include amongst others resupplying people or communities which are or will become isolated by floodwaters; protecting property and infrastructure; providing warning and information to people at risk of flooding; evacuating those who are or who soon will be in danger from flooding; and rescuing those who have entered or become trapped by floodwaters.

Most S/TES organisations also have responsibilities in relation to planning for floods, for contributing to arrangements designed to ensure that people are warned and given information about how to react to flooding, and in some jurisdictions for providing councils with advice about land-use decisions relating to floodplain land and helping community members to understand their flood risk and what they can do to protect themselves and their belongings from floods. Given the great dollar damage which flooding creates in this country, and the significant potential for death and injury, the responsibilities are considerable.

Yet there are in Australia few texts on the management of flooding, and no comprehensive course, to help practitioners to learn about the tools of flood management. There are, of course, training activities related to rescue activities and the use of floodboats, and in some jurisdictions S/TES members and other people are taught how to deploy sandbags to keep water out of buildings or essential installations. But these activities are skills-oriented rather than managerially-focused. In New South Wales the SES has developed the 'Nevagazunda' suite of exercises which go part of the way to filling the

gap in training material directed at building skills in flood management, and some S/TESs have developed exercise programmes to test flood management expertise and emergency plans. More is needed, though, so S/TES volunteers and staff can learn about such things as the best means of warning people about approaching floods or how to evacuate at-risk people safely and speedily before they are trapped by floodwaters. To date there are no wide-ranging courses designed to help emergency personnel to plan in advance for flooding. Often, S/TES members learn about floods and how they can be managed by dint of real-time experience — in other words, when floods are actually occurring.

While on-the-job training has a real place in emergency management, relying solely upon it is dangerous. Floods occur frequently in Australia but very unevenly in a temporal sense, and there are many areas which have seen no flooding of consequence for years on end. The Murrumbidgee River in New South Wales, for example, the scene of several catastrophic floods since the beginning of European settlement, has not had even minor flooding since the early 1990s, and some other parts of Australia, known to be liable to flooding, have gone even longer without floods. For the S/TESs, long flood-free periods create difficulties in terms of the maintenance and augmentation of flood management expertise: at the local level, complete turnovers in unit membership and leadership positions are virtually guaranteed and gaining real-time learning for later application becomes impossible. When a flood occurs, the danger is that there will be little or no practical expertise amongst those who are responsible for the management of the event. The potential for mistakes to be made, and for responses to fall well short of good practice, is considerable.

Genuinely large and catastrophic floods are quite common in Australia but they are rare at the local level, and on-the-job learning in such events to inform later responses to severe floods is virtually by definition not possible for the members of local SES units. Unfortunately, these are the floods in which high-quality management by the S/TESs and their partner organisations will be most vital. Simply because they are rare they will almost always be outside the experience of those who will be called upon to manage them, and what is appropriate in smaller, more familiar floods may be irrelevant. The potential for a flood to become a human disaster, perhaps exacerbated by poor management, is surely magnified in such circumstances.

The manuals

Expertise in managing flooding cannot be built, then, only by experience garnered during floods. It must be built at least partly by 'synthetic' means, and this is where the recently revised flood management manuals have a place. Four of the five documents which were produced by Emergency Management Australia in 1999 have been extensively revised to reflect advances over the past decade and to make them more user-friendly and useful. These documents came about because some practitioners saw a need for more written guidance in the various aspects of flood management, but in most parts of the country they have not been well utilised — indeed they have probably been used more effectively overseas than in Australia — and over time they have become increasingly dated.

The manuals deal with Flood Preparedness, Flood Warning, Flood Response and Emergency Management Planning for Floods Affected by Dams. They were revised with input from emergency managers and other practitioners from the various states and territories, with the aim of producing a body of accessible, easy-to-follow and easy-to-use material reflecting best practice in flood management as this is currently understood in Australia. Launched by the federal Attorney General, Robert McClelland, at Lismore in October 2009, the manuals are available free of charge at www.ema.gov.au. A small charge applies in relation to printed copies.

The manuals seek to cover the principles of managing floods of all origins, including riverine, storm surge and dam-failure events and events ranging from flash floods to floods with warning times of several weeks. Flood Preparedness deals with the essentials of the preparation of flood emergency plans and the means of ensuring that agency members and members of flood-liable communities can be made ready for flooding. Planning for floods has long been a vexed matter in Australia, many agency managers and S/TES volunteers being unsure of both the nature of the planning task and the best means of going about it. This manual describes and seeks to demystify 'flood intelligence' as the basis of planning activity, the planning process itself and the content of flood emergency plans. Special attention is given to planning for specific functions (such as warning, the provision of information and advice, evacuation, resupply, property protection and rescue) and special environments (flash flood environments, communities protected by levees and areas downstream of dams from which water may be released, including catastrophically as a result of dam failure).

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The manual also seeks to define the means by which members of flood-liable communities can be helped to manage floods in their own interests. This is another vexed area in Australian flood management, albeit one in which some progress has been made in very recent times in a number of states with the implementation of the FloodSafe community education programmes.

The Flood Warning guide deals with the various phases of the warning process in the context of what has become known in Australia as the 'Total Flood Warning System', beginning with flood monitoring and prediction and going on to determining (using flood intelligence) what the consequences of flooding will be in a specified area given a particular flood forecast. It then deals with the design of flood warning messages for whole populations and for subsets of them, the dissemination of messages using the increasingly wide array of 'devices' available, and the important (but often forgotten or poorly managed) task of reviewing system performance after flood events. Particular attention is given to how to choose appropriate dissemination techniques in particular types of environment, with different amounts of lead time available and given specified severities of forecast flooding.

Emergency Management Planning for Floods Affected by Dams provides guidance for preparing for dam-failure flooding and for the consequences of the unintended or deliberate releases of water when these may cause flooding. There are in Australia many dams from which water can be released, deliberately (for irrigation purposes or to maintain environmental flows) or unintentionally (because of equipment malfunctions or human error), and some dams have been found to be 'deficient' in construction, maintenance or spillway capacity to the point that their failure, usually with catastrophic consequences downstream, is possible. In preparing for water releases and dam failure, special warning procedures are often necessary along with special arrangements for evacuation. There was considerable input from dam owners and dam safety regulators in the review of this manual.

The Flood Response manual completes the quartet. It deals with the various modes of real-time flood management which are available and with the principles of flood response operations, the utilisation of flood intelligence during flood events, setting objectives for a flood response operation, making decisions to achieve these objectives, and establishing appropriate coordination mechanisms. The document then moves to the management of individual functions during periods of flooding: attention is given to the 'how-to' of flood warning, information collection, property protection, evacuation, resupply and rescue. The document concludes with developing the means of achieving an effective transition from response to recovery and with the points which must be dealt with in reviewing response operations. An important element of this manual, much needed by busy responders during floods, is the provision of a series of checklists (aides memoires) for the individual functions.

In all four manuals, much attention is given to the effective use of flood intelligence (sometimes termed flood information). These days, as a result of the many floodplain management studies which have been undertaken in flood-liable areas across the country, much more flood intelligence is available than was the case in years gone by, but not all flood managers are aware of what exists and how to use it in the planning, warning and response contexts. Guidance is given about the sources, compilation and utilisation of flood intelligence.

High-quality flood management — broadly, management which helps communities to deal better with floods by reducing damage, death, injury and disruption and facilitating recovery — cannot be achieved without expertise being consciously developed by those responsible. It is not acceptable, in this day and age, for flood responses to be developed 'on the run' without considerable preparation well in advance and genuine efforts to determine how management can best be carried out. Warning services cannot possibly be properly developed without considerable design work. Likewise, attempting a mass evacuation without a good deal of prior thinking about the most appropriate ways to stage it should be regarded as unthinkable given the inherent dangers involved in moving many people in a short period of time under stressful conditions. Unplanned mass evacuation would be likely to be chaotic and would increase the risk to people's safety.

These manuals are, in effect, the 'textbooks' by which expertise can be developed outside flood time (and added to, naturally, by experience when floods occur). Their intention is to make flood management both more comprehensible and easier to fulfil to high standards. Flood managers, both within the S/TESs and in other agencies, should seek to come to grips with the contents of the manuals and to plan appropriate applications for the areas for which they are responsible in the times when flooding occurs. There remains a need for a national course in the management of floods.

About the authors

Chas Keys is a former Deputy Director General of the New South Wales State Emergency Service and is now a consultant and researcher on flood and floodplain management.

Andrew Gissing spent six years as a flood planner and flood manager with the New South Wales State Emergency Service before becoming the Director Emergency Management Planning and Communication in the Victoria State Emergency Service.

Allison Godber has a background in flood research and is the Senior Planning and Project Officer in the Disaster Mitigation Unit, Emergency Management Queensland, Department of Community Safety.

These three individuals, and **Norm Himsley** of the New South Wales Dams Safety Committee in the case of Emergency Management Planning for Floods Affected by Dams, were principally responsible for the reviews of the manuals. Many other emergency management practitioners from the various states and territories contributed ideas to the review process and are acknowledged in the individual documents.

EMA's Graduate Certificate in Emergency Management

In November 2008, EMA held its last graduation for the currently accredited Graduate Certificate in Emergency Management. The Graduate Certificate was first offered in May 2004 and 68 students have graduated to date.

This qualification was specifically designed to provide training for people working in the emergency management sector who required professional development at postgraduate level. Students examined their management skills especially managing relationships within the multi-agency context; were engaged in debate in relation to emergency management theory and practice; contributed to and analysed innovation and change in emergency management; and contributed to the national emergency management research agenda from a practice base.

The Certificate comprised of four modules: Current issues and trends in emergency management, Relationships management in an emergency management context, Research methods and a Research project.

Equitability in the provision by States and Territories of personal hardship and distress assistance

Bronwyn Watson

**Senior Caseworker
NSW Department of Community Services**

All the States/Territories of Australia have arrangements that provide financial support to individuals and families, who have been impacted by disasters and critical events. These funds are known as Disaster Relief Assistance Schemes. While each State and Territory has its own criteria for assessing which individual or family is eligible for assistance, the financial arrangements for the distribution of Personal Hardship and Distress Assistance (within the Disaster Relief Assistance Scheme), vary between each State/Territory. These variations in assistance measures can impact on the ability of individuals and families to recover from a disaster event, dependant on the amount of assistance provided by each State/Territory.

A proportion of the Disaster Relief Assistance Scheme Funds, come directly from the States/Territories, but can, in significant natural disaster events, be supplemented by Commonwealth Funds, supplied under the National Disaster Relief Arrangements. This work shows that there does exist differing levels of assistance between States/Territories in the provision of Personal Hardship and Distress (PH&D) Assistance despite recommendations by COAG in 2001 to:

Ensure equitable assistance and support to individuals and communities affected by comparable natural disasters across Australia.

(COAG, 2004 p. viii)

Up to date information was obtained from each State/Territory on the current assistance rates, and any issues relating to the distribution of PH&D funds for 2008. Using the case study of a disaster impacted family, whose circumstances were transposed to each State/Territory, outcomes were obtained that clarified the assistance given to the family, as well as the consequences of residing in differing States/Territories in Australia. Only one State was able to meet the needs of the family enabling them to return to their home, following the disaster event described. The findings of this work show that there does not exist equitable assistance and support to individuals and families affected by comparable natural disaster in the States/Territories of Australia. While assistance remains available for assessed families in all of the States/Territories of Australia, the only consistent application of funds being provided to victims of a disaster event, are those provided by the Federal Government under the Australian Government Disaster Recovery Payment (AGDRP). In all, the assistance measures provided by the States/Territories remain "ad hoc and disparate" (COAG, 2004 p. viii).

To obtain a copy of the full report please contact:

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Fatigue Management in the Emergency Management Context

Manager General Emergencies Preparedness & Response and Deputy NSW Drought Coordinator and Deputy NSW Locust Commissioner Emergencies, Weeds & Pest Animals Branch NSW Department of Primary Industries

In this project fatigue management has been evaluated in the emergency management context, particularly in relation to New South Wales Department of Primary Industries (NSW DPI) emergency management activities. Fatigue is a significant problem in emergencies, and particularly long time frame emergencies like animal and plant pest and disease emergencies. However, much of the fatigue management research has been undertaken in areas other than emergency management, so it is not well known how well this fits into the emergency management context. To investigate this issue, fatigue management policies were accessed directly from emergency agencies across Australia. In the absence of sufficient of these, the focus was broadened to include other related industries whose guidelines were accessed from the web. A content analysis was undertaken to review the documents. The research revealed that the complex interactions between fatigue issues are not well understood and that fatigue management has been developed in other fields and not tested for its appropriateness in the complex emergency management context. This study showed that a flexible risk management approach, rather than prescriptive management approach, is most appropriate to the often complex, multi-agency, long time framed emergencies that NSW DPI manages. The scarcity of information in the emergency management context highlights the need for future studies in better determining interrelationships and interactions between fatigue factors and testing fatigue management systems in emergencies to evaluate their effectiveness in the emergency management context.

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INTERESTING WEBSITES:
NATIONAL RESOURCE CENTER ON ADVANCING EMERGENCY PREPAREDNESS FOR CULTURALLY DIVERSE COMMUNITIES

www.diversitypreparedness.org

This website of the National Resource Center in the US serves as a central clearinghouse of resources and an information exchange portal to facilitate communication, networking and collaboration to improve preparedness, build resilience and eliminate disparities for culturally diverse communities across all phases of an emergency.

It is intended for a broad audience including individuals, communities, government, emergency planners, emergency managers, first responders, health care providers, public health professionals, researchers, businesses and policymakers interested in preparedness for diverse populations.

The site currently includes:

- A catalog of annotated and cross-referenced resources, programs and projects by a range of topics, languages, and communities.
- Links to full-text sources, including peer-reviewed journal articles, training and education content, resource guides, measurement and evaluation tools, translated materials and other publications.
- Links to federal, state and local government, as well as private sector, academic and community-based programs and websites devoted to preparing culturally diverse populations for emergencies.
- A database of translated materials cataloged by multiple languages and cultural communities.
- Powerful search options, including a keyword search, advanced search and browse function.

- An option to submit resources as well as information on new and emerging programs related to preparedness of culturally diverse communities.
- A monthly e-newsletter featuring the latest publications, resources and events as well as promising practices, success stories, lessons learned, innovations, and policies.

The Center also has plans for an online discussion forum for the exchange of ideas and information, including experiences, lessons learned, promising practices and strategies, success stories, new resources, innovations, policies, and events. It also is in the throes of developing an online member directory of experts and professionals working to integrate culturally diverse communities across into preparedness planning and action.

BOOK REVIEW:

MAITLAND, CITY ON THE HUNTER: FIGHTING FLOODS OR LIVING WITH THEM?
BY CHAS KEYS

Reviewer:
Dr. Stephen Yeo,
Bewsher Consulting Pty Ltd

As a collector of flood histories, Maitland, City on the Hunter: Fighting floods or living with them? was always likely to be a winner with me. It is a flood history of the first order, benefiting from careful research and immaculately illustrated with flood photos from past eras. A feature is the seamless interplay between personal story—for example, of a farmer surviving a 20 km ride down the Hunter River in the 1955 flood— and the integrated whole.

Substantial chapters consider the 'science', the consequences and the management of floods in the Maitland area of NSW. The first of these describes significant floods from 1820 to 2007, flood-producing weather systems, patterns of flooding and influences on flood frequency. A particular strength of the 'consequences' chapter is the compilation and evaluation of the circumstances behind each of Maitland's 51 known flood fatalities. The 'management' chapter describes a fascinating evolution of a community's approach to dealing with flooding, from attempting to defeat floods to accommodating floods.

But as author Chas Keys points out, the book is not just a history but an examination of flooding, seeking to go beyond the stories to uncover the lessons learned from the community's attempts to live with floods. More than that, the book seeks to contribute to the development of a more flood-resilient Maitland. Keys is passionate but measured in his endeavour to persuade Maitlanders that future flooding is inevitable, requiring individual preparedness.

Given the stated aims, it seems clear that the book's intended primary audience are the residents of the Maitland district, few of whom would recall the devastating flood of 1955. Nevertheless, there are good reasons for commending the book to a wider audience.

First, Maitland, City on the Hunter provides an excellent example of a flood history, mining that history for lessons, and employing that history as a powerful tool in community education. Floodplain managers and other emergency managers would do well to peruse this book for ideas.
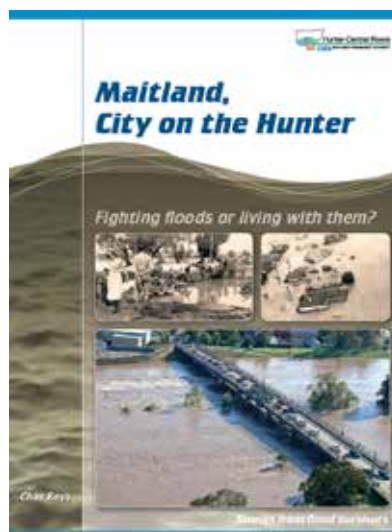
Second, scattered throughout the book is the perceptive insight of a former Deputy Director General of the NSW State Emergency Service. The reader learns about the complexities of flood intelligence, the challenges for flood warning, the imperative of the precautionary principle in evacuation decisions, and the barriers to flood education from vested interests. Lessons from other disasters both Australian and international are drawn upon for context (e.g. Hurricane Katrina).

A third reason for commending the book is its commentary on community attitudes and behaviour, perhaps its greatest strength. The enemy that confronts Maitland and many other communities in Australia is the complacency that often develops in places without a recent experience of a hazard. In the case of Maitland, the very success of the post-1955 flood mitigation works including levees has increased the separation between the community and floods. The solution proposed in the book is the purposeful instillation of 'synthetic' experience by educational processes, such as regular commemorations of the 1955 disaster.

If I were to quibble, I would wish for a more adventurous title, though the author explains why Maitland: Flood City may not have enhanced local sales! The book is also deserving of better binding. A noticeable omission is mapping of design floods such as the 100 year flood, which could contribute to the reader's 'synthetic' experience. The book does not seem to state precisely what level of protection is afforded by the modern flood mitigation scheme.

Nevertheless, the lucid style makes this book a pleasure to read (although at 141 pages, a rather lengthy read for non-Maitlanders). The experienced hazards researcher will find several points of resonance from the Maitland story, such as myths of explanation emerging after disasters, and the economic inertia that frustrates attempts to relocate hazard-prone urban centres. Learning from Maitland's long experience of dealing with floods will help emergency managers to reflect upon their own situations, to better understand their communities and consequently to better assist their communities to prepare for the inevitable, even if infrequent, hazard of the future.

Understanding Fire Danger Ratings

Victoria has adopted the new nationally agreed Fire Danger Rating scale to help communities understand information about fire danger. This new scale recognises the significant increase in severe bushfire conditions over the past decade and the subsequent greater level of danger to the community, and potential loss of life, as experienced by Victorians on Saturday 7 February 2009.

Fire Danger

Every day during the fire season the Bureau of Meteorology (BoM) forecasts an outlook of the fire danger index (FDI) by considering the predicted weather including: temperature, relative humidity, wind speed and dryness of vegetation.

The Fire Danger Rating for each weather district is determined by the BoM in consultation with the fire agencies. Each of the Fire Danger Ratings has recommended actions you should follow. These actions are shown in the table below.

Fire Danger Rating (FDR)

A Fire Danger Rating is a prediction of fire behaviour, including how hard it would be to put out a fire once it starts.

It provides information on:

- the type of threat bushfires may pose to life and property on any day given the forecast weather conditions.
- the sort of bushfire behaviour that could be experienced on that day.

The new Fire Danger Rating Barometer will alert you to danger so you can take action.

> **Fire Danger Ratings will be a feature of weather forecasts and alert you to the actions you should take in preparation for and on the day. It will be in newspapers, broadcast on radio, TV and on websites.**

FIRE DANGER RATING	Fire Behaviour	Impact Potential	What Should I Do?
CODE RED (CATASTROPHIC)	• Fires may be uncontrollable, unpredictable and fast moving – flames will be higher than roof tops. • Thousands of embers will be blown around. • Spot fires will start, move quickly and come from many directions, 20 km or more ahead of the fire.	• People may die or be injured. Thousands of homes and businesses may be destroyed. • Well prepared, well constructed and well defended homes may not be safe during the fire. **DO NOT EXPECT A FIRE TRUCK**	**If you live in a bushfire prone area the safest option is to leave the night before, or early in the morning.** • Leaving is the safest option for your survival if you live in a bushfire prone area – finalise your options for relocation. • Activate your Bushfire Survival Plan – Now. • Prepare to leave – check your *Fire Ready* Kit. • Monitor the weather and fire situation in any way you can: through CFA website, ABC or local radio, TV and newspapers.
EXTREME	• Fires may be uncontrollable, unpredictable and fast moving – flames will be higher than roof tops. • Thousands of embers will be blown around. • Spot fires will start, will move quickly and come from many directions, up to 6 km ahead of the fire.	• People may die and be injured. Hundreds of homes and businesses may be destroyed. • Only well prepared, well constructed and actively defended houses are likely to offer safety during a fire. **DO NOT EXPECT A FIRE TRUCK**	**The safest option is to leave early in the day if you live in a bushfire prone area and your Bushfire Survival Plan is to leave. Only stay if your home is well prepared, well constructed and you can actively defend it.** • Activate your Bushfire Survival Plan – Now. • Prepare for the emotional, mental and physical impact of defending your property – if in doubt, leave. • Monitor the weather and fire situation in any way you can: through CFA website, ABC or local radio, TV and newspapers.
SEVERE	• Fires may be uncontrollable and move quickly – flames may be higher than roof tops. • Expect embers to be blown around. • Spot fires may occur up to 4 km ahead of the fire.	• There is a chance people may die and be injured. Some homes and businesses may be destroyed. • Well prepared and actively defended houses can offer safety during a fire. **DO NOT EXPECT A FIRE TRUCK**	**The safest option is to leave early in the day if you live in a bushfire prone area and your Bushfire Survival Plan is to leave. Only stay if your home is well prepared and you can actively defend it.** • Prepare for the emotional, mental and physical impact of defending your property – if in doubt, leave. • Only stay if your home is well prepared and you can actively defend it. • Check your Bushfire Survival Plan – Now. • Monitor the weather and fire situation in any way you can: through CFA website, ABC or local radio, TV and newspapers.
VERY HIGH	• Fires can be difficult to control – flames may burn into the tree tops. • Embers may be blown ahead of the fire. • Spot fires may occur up to 2 km ahead of the fire.	• There is a low chance people may die or be injured. Some homes and businesses may be damaged or destroyed. • Well prepared and actively defended houses can offer safety during a fire.	**If you live in a bushfire prone area and your Bushfire Survival Plan is to leave, the safest option is to leave at the beginning of the day.** • If you live in a bushfire prone area and you plan to leave; finalise your options and leave early on the day. • Only stay if your home is well prepared and you can actively defend it. • Check your Bushfire Survival Plan – Now. • Monitor the weather and fire situation in any way you can: through CFA website, ABC or local radio, TV and newspapers.
HIGH	• Fires can be controlled. • Embers may be blown ahead of the fire. • Spot fires can occur close to the main fire.	• Loss of life is highly unlikely and damage to property will be limited. • Well prepared and actively defended houses can offer safety during a fire.	**Check your Bushfire Survival Plan.** • Make sure your family and property are well prepared for the risk of bushfire. • Review and practise your bushfire plan for different scenarios (e.g. kids at school/home, visitors). • Know where to get more information – CFA website.
LOW – MODERATE	• Fires can be easily controlled.	• There is little to no risk to life and property.	**Check your Bushfire Survival Plan.** • Make sure your family and property are well prepared for the risk of bushfire. • Review and practise your bushfire plan for different scenarios (e.g. kids at school/home, visitors). • Know where to get more information – CFA website.

PREPARE. ACT. SURVIVE.

FireReady State Government Victoria