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The State Emergency Service of New South Wales

an address¹ to the Institute on 29 September 2009 by

Commissioner Murray Kear, AFSM²
New South Wales State Emergency Service



In this paper, Murray Kear explains the role of the State Emergency Service and how it fits into the wider emergency management framework which addresses prevention of, preparation for, response to and recovery from natural disasters and other emergency incidents in New South Wales. Under this framework, the State Emergency Service is the lead combat agency for flood, storm and tsunami, and maintains a separate sub-plan under the State Disaster Plan for each of these contingencies. It also supports other combat agencies when they have the lead in disasters and emergencies such as bushfires, road-crash rescues in regional areas, and search and rescue (urban, alpine and bush). It delivers its services via some 10,000 registered volunteers grouped into 230 units spread across the state. The recruitment, training and retention of the unpaid volunteers are ongoing challenges and will become increasingly so as the impact of climate change increases the intensity and frequency of disasters and more is demanded of the volunteers.

Thank you for giving me an opportunity to tell you about the work of the State Emergency Service of which I have been the Commissioner since 4 November 2008.

Natural disasters are not a recent phenomenon. They have occurred throughout recorded history and are common in the legends of pre-history. Prior to the European settlement of New South Wales, indigenous communities had dealt with the ravages of storms, floods, tsunamis and bushfires for thousands of years; and floods were recorded by early European settlers in the Hawkesbury area in 1790, 1806, 1807 and the 1860s. These communities, however, had to deal with flood on their own, at times assisted by police, some of whom had boats, and owners of private craft.

Following the Hawkesbury floods in 1860, a flood relief committee was established focused on resupply efforts, but it is evident from media criticism of the time that coordination also needed to be improved. This led to formation of a Windsor Water Brigade in 1869, which trained and equipped its members for flood rescue and relocation. Over the next half-century, many flood-vulnerable communities formed their own water brigades following the Windsor model and they continued to serve for much of the 20th century. Indeed, the last brigade to close was at Grafton in 2000.

Floods, however, were rare between 1920 and 1945 and society was distracted by the great depression. This led to a reduced focus on flood preparation and mitigation measures. The immediate post-war decade

from 1945 to 1956, however, was a period of severe flooding in New South Wales. Floods in the Hunter killed 20 people in 1954 and a further 22 in 1955, when 15,000 people were evacuated and huge damage occurred to infrastructure and housing.

In response to the 1955 floods, the New South Wales Government formed the State Emergency Services and appointed Major-General Ivan Dougherty³ as Director⁴. Later in the year, in view of the tense world situation at the time, the government decided that there also was a need for a civil defence organisation in the event of a nuclear attack. In September 1955, the emergency services and civil defence organisations were merged under the leadership of General Dougherty and the merged agency was titled the Civil Defence Organisation. Subsequently, in 1972, the *State Emergency Services and Civil Defence Act* was passed by the state parliament and it remained in force until it was replaced by the current act, the *State Emergency Service Act 1989*.

Examples of State Emergency Service Involvement in Natural Disasters

Since its formation, the State Emergency Service (SES) has responded to numerous natural disasters, both in New South Wales and nationally. Among the more prominent have been:

¹Attended by 86 members and guests

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³Major-General I. N. Dougherty, CBE, DSO, ED, a citizen-soldier who had been a school teacher and schools inspector in civil life, was president of the United Service Institution of New South Wales from 1957 to 1958. Sir Ivan was appointed a knight bachelor in 1968.

⁴Until my appointment last year, the directors of the organisation all had either a defence or police background.

- the evacuation of Darwin after the city was struck by Cyclone Tracey on 25 December 1974;
- the Newcastle earthquake on 28 December 1989 – a 10-day operation involving 1,000 SES volunteers from 43 units addressing damage ultimately costing \$1.1 billion;
- the Thredbo landslide on 30 July 1997, which involved 1,300 SES volunteers from 11 of the 18 regions;
- the Sydney hailstorms of 14 April 1999 – 270 SES volunteers, along with other emergency services, deployed on the first night, 600 on day 2, and over the next few months 3,000 personnel were in the field responding to an avalanche of calls (some 15,700 by the end of the first week) from the public to address damage which ultimately was to cost \$1.5 billion;
- the Brisbane storms of November 2008 (during my second week as Commissioner), to which some 400 New South Wales SES volunteers responded – the largest interstate assistance team;
- the Tamworth floods of November 2008 – when the Brisbane storm moved south – during which 20 flood rescues were made; and
- the subsequent three flooding events on the New South Wales north coast affecting Bellingen, Coffs Harbour, Kempsey, Grafton and other smaller towns during which over 150 flood rescues were recorded, but the actual number was more like 300.

Climate Change

In December 2008, Prime Minister Rudd made Australia's first National Security Statement to the Commonwealth Parliament in which he said that: "climate change represents a most fundamental national security challenge for the long term future".

A special report on climate change by the Australian

Strategic Policy Institute in August 2009 stated that: "Evidence now suggests that the impact of climate change is being realised in Australia more rapidly than previously estimated. The observed changes include more extreme events such as droughts and storms. A new report from the Commonwealth Department of Climate Change suggests that these impacts will increase over time. We should therefore immediately start adapting to the new environment. Delays will only result in more costly disasters in terms of life and property." In order to respond to climate change in Australia, this report offered some adaptation ideas for homeland security planners as well as other key domestic stakeholders such as our emergency services.

As the above quotation demonstrates, the latest detailed assessment of the impacts of climate change in Australia is that the climate system is changing faster than earlier thought likely with more costly and dangerous impacts. More extreme weather events will result in the significant destruction of infrastructure and buildings. Australia's average annual insured losses from natural disasters are now already around \$1 billion, mainly the result of floods, hailstorms and cyclones. Climate-change-induced extreme events will pose growing risks to Australian lives and property.

As a result of climate change, disasters are likely to become larger, more complex, occur simultaneously and in regions that have either not experienced the natural hazard previously or at the same intensity or frequency. For emergency services and disaster management organisations, this means increasing demand for existing response services and the need to provide additional services.

According to the Insurance Council of Australia, 19 of the 20 largest property losses in Australia in the previous 40 years have been weather related. Since 1966, floods and storms have made up 55 per cent of all costs, cyclones 25 per cent, earthquakes 13 per cent and bushfires (excluding the recent bushfires in Victoria) 7 per cent.



SES volunteers providing emergency repairs to the storm-damaged roof of a home in Sydney's eastern suburbs following a hailstorm in April 1999
[Photo: State Emergency Service]

Emergency Management Framework

In New South Wales, we acknowledge the inevitable nature of emergencies and their potentially significant social, economic and environmental consequences. As a result, we need a coordinated approach to the management of emergencies. The framework for this is provided by the *State Emergency and Rescue Management Act 1989* and the State Disaster Plan (known as DISPLAN) made pursuant to it. The Act enshrines a model for emergency management based on prevention, preparation, response and recovery.

The State Disaster Plan details emergency preparedness, response and recovery arrangements for New South Wales to ensure the coordinated response to emergencies by all agencies having responsibilities and functions in emergencies. The various combat agencies, such as police, fire and ambulance, have lead responsibility for different emergencies and hazards and are required to maintain DISPLAN sub-plans for each of these separate responsibilities. In the case of the State Emergency Service, we have lead responsibility for flood, storm and tsunami and maintain a separate sub-plan for each.

The State Disaster Plan and its sub-plans are coordinated through the State Emergency Management Committee of which I am a member and the chair of the New South Wales committee sits on the Australian Emergency Management Committee. At the district level, there is a District Emergency Management Committee and corresponding Local Emergency Management Committees at the local level. I also sit on the State Rescue Board, the principal function of which is to ensure the maintenance of efficient and effective rescue services throughout the State.

Core Roles and Services

The State Emergency Service has some 10,000 volunteers grouped into 230 individual units in New South Wales. These volunteers are supported by only 189 permanent staff – a ratio of one staff member to 53 volunteers. Of these permanent staff, only five do not have a real operational role. When an event occurs, the remaining 184 permanent staff stop doing their day job and take on roles in operations and support areas.

As indicated above, the State Emergency Service is the combat agency for floods, storms and tsunamis in New South Wales. It also provides the largest number of road-crash rescues in regional areas. Ten units across the state provide a full community first-responder programme where there is no ambulance station in the vicinity. This is a full medical response service, except for the transport component. SES volunteers receive training from the New South Wales Ambulance Service. When an incident occurs, they respond to the scene and provide full patient care until an ambulance arrives.

The State Emergency Service also has the largest number of Category 1 urban search and rescue operators in the state. In the event of another 'Thredbo', or a terrorist attack or earthquake involving building collapse, these SES operators will provide the 'troops' to assist the New South Wales Fire Brigades deal with the emergency.

The State Emergency Service also provides logistic support to the New South Wales Rural Fire Service during

major bushfires. It also provides the major component of training search and rescue operators to support police in searching for lost bushwalkers, or for searching for evidence in criminal searches. Similarly, the Service also works alongside the police in the provision of alpine search and rescue services in the Snowy Mountains. In addition, the Service provides support to the Police State Operations Controller in supporting any other event where a combat agency is not specified.

You may also be aware that local State Emergency Service units provide an enormous amount of support to local governments and communities in the form of road traffic control and support for local events.

In short, the State Emergency Service is the 'Swiss army knife' of the New South Wales emergency services.

Funding for Emergency Services

Up until 30 June 2009, the entire budget of the State Emergency Service came from the New South Wales Government. From 1 July, the budget has been contributed to by: insurance companies 73.7 per cent; state government 14.6 per cent; and local government 11.7 per cent. When there is an operation or a natural disaster, most operational expenses are reimbursed to the State Emergency Service from the national Natural Disaster Relief Fund, which receives contributions from the various state and federal governments.

The State Emergency Service is the smallest and newest of the state's emergency services and this new funding model aligns the agency's funding with that of the two fire services. There has been vigorous discussion of the model both inside and outside of government, with a range of perspectives expressed, particularly by the Insurance Council of Australia. Essentially, though, provided I receive sufficient funding



*SES flood-boats during training on Darling Harbour, Sydney
[Photo: State Emergency Service]*

for my agency, it is to an extent irrelevant from an agency perspective who provides that funding.

The State Emergency Service's current budget is \$59.7 million. Just to put that into perspective, the Rural Fire Service budget is \$216 million, the Fire Brigades budget is \$589 million and the Police budget is \$2.62 billion.

Super Agencies

A contemporary discussion of agency arrangements in New South Wales would not be complete without reference to the changes afoot. As a consequence of the New South Wales Government's recent mini-budget, there is to be a major reform of the New South Wales public sector – the biggest in more than 30 years⁵. Thirteen super departments are to be formed from the current 160 state agencies. The State Emergency Service will now be grouped with the Police, Fire Brigades, the Rural Fire Service, the Crime Commission and Emergency Management NSW to form a Police and Emergency super agency. All the Commissioners and heads of those constituent agencies will become members of a single board of management, with the Police Commissioner, Andrew Scipione, being the chair of the board and director-general of the super agency.

Although I am biased, after three decades in the New South Wales emergency services, I believe that the state's emergency management structures and networks are already the best in the nation, if not the world. This has been recognised by many stakeholders, including the government. Under the new arrangements, the leadership and management of each of the constituent agencies will continue to be solely the responsibility of each agency's Commissioner, while the super agency will drive efficiencies by reviewing what corporate services can be aligned or merged. This makes sense as there are many similarities among agencies in procurement, information technology, human services and the like. As the smallest emergency service in New South Wales, the State Emergency Service welcomes the opportunity to align itself with the purchasing power of the larger agencies.

Community Expectations

As previously mentioned, the impact of natural disasters is mammoth, both from a human and financial



*SES volunteers loading a helicopter which was taking part in a logistic resupply operation in support of the Rural Fire Service during a bushfire
[Photo: State Emergency Service]*

perspective. The framework for delivering services is via the prevention, preparation, response and recovery framework. It is fair to say that a lot of effort, energy and budget goes into maintenance of response services. This becomes a challenge for emergency services regarding finding the funds to grow capability, particularly in the areas of prevention and preparation.

This is particularly so since recent legislative changes in New South Wales have focused on the delivery of recovery services, with changes to the *State Emergency Service Act* and with the appointment of a State Recovery Officer, Mr Stacey Tannos, who is the head of Emergency Management NSW. Stacey appointed the former Police Commissioner, Ken Moroney, to head up the recovery operations following the recent floods on the north coast.

Now it would be logical to assume that it would be difficult to have any immediate effect on preventing floods, storms and tsunamis, aside from long-term objectives regarding reducing the impact of climate change. What can be done then to prevent the impact of these emergencies on communities? The challenge is to grow prevention services. After all, for many emergency services, it is the only true method of managing a reduction in response.

The first focus of prevention is to make the habitat of communities the safest it can be. In a flood sense, this means ensuring that we have logical rules for building in flood-prone areas, in the design and durability of buildings, in the building and maintenance of the state's levee system and in the installation and maintenance of the state's river gauge network. In a fire scenario, this would be in making buildings fire safe, not building in bushfire-prone areas, and the installation of passive and aggressive suppression and warning devices and the like.

⁵This will be the biggest reform of government administrative structures since Premier Neville Wran modernised the state government by implementing the recommendations of the Wilenski Report in 1979.

The second focus is the ability of agencies to affect human behaviour, at both an individual and community level. Hazard education and developing a plan – be it personal, home, business or community – have the effect of altering human behaviour in the event of an emergency. They also educate individuals, encouraging them to become the entity responsible for their resilience such that they decide on the nature of their habitat and the way they react to it.

The third focus is preparation, which is a by-product of the last issue. Being ready for the inevitable, having an evacuation plan ready, having an emergency kit ready to take with you, ensuring that your habitat does not add to the complexity of the damage (e.g. you should put your car under cover when a storm is approaching and move loose items from your yard) are key elements.

The fourth focus is planning and preparing the response by the emergency agencies, activities which are well developed. But this capacity needs to keep pace with the demand and complexity of the hazard.

Finally, the fifth focus is implementing the lessons learnt from previous events. This discipline allows an agency to review, research and implement changes to the first four layers and must be the driving force behind continuous improvement.

Before moving off community expectations, I wish to comment on the cycle of feedback and discussion that follows an emergency. The services provided by government agencies regularly come under close public scrutiny. For an emergency service, this traditionally has occurred following an emergency. There, however, now seems to be an ever decreasing timescale for public comment following an emergency. There are often three parts to this: amazement, sympathy, empathy *etc.*; praise for those responding to the event; and criticism regarding the need for better

response, better warnings, better resources, better integration and the like. The timescale for this cycle is reducing to something like amazement on day 1, praise on day 2 and criticism on day 3. This means that scrutiny is now immediate and it increasingly consumes a part of the emergency agencies' energies at the time of crisis.

I think it right and necessary for agencies to be accountable. However, this narrowing of the timescale – to days, instead of weeks or months following an event – no longer allows time for a thorough and formal review process before agencies are called on to publicly address these issues. This may be linked to the instant nature of media coverage; and/or to the demand from the communities affected for instant response to individual needs. But to expect agencies to respond in such a timescale may not be a realistic expectation. For example, during the Sydney hailstorm in 1999, 15,000 people were affected and all wanted immediate individual attention. It could not be given and it was unrealistic to expect that such a response would be possible.

Reasons for Becoming a Volunteer

Before I discuss the challenge of recruiting and retaining a volunteer workforce in New South Wales, I would first like to mention some of the motivators for becoming a volunteer and the value of volunteers to the state.

There is considerable research that shows that volunteers join an agency for a variety of reasons: altruism; to contribute to their communities; to utilise their skills in a volunteering environment; to be trained in skills that they can use internally and externally; and as a social outlet; among other reasons.

The State Emergency Service currently has approximately 10,000 registered volunteers – certainly a large workforce. Naturally, the numbers available at any one time would be less than this total and most agencies would sub-divide this total into number available and number in reserve. In the case of the State Emergency Service, we would have around 7,500 volunteers available to respond to community needs at any one time.

Research has also been undertaken on the value that volunteers provide to the community. Data collected by researchers⁶ at RMIT University show that the value of volunteer time given to the State Emergency Service for operational response, training and unit



SES volunteers undertaking a road-crash rescue in regional New South Wales
[Photo: State Emergency Service]

⁶Gamindar Ganewatta, James Bennett and John Handmer of the Centre for Risk and Community Safety, School of Mathematical and Geospatial Science at RMIT University

management over the period from 1994-95 to 2004-05 averaged around \$52 million per year. Stand-by time⁷ equates to a further \$86 million per year to bring the total value of the costed volunteer effort to \$138 million – worth noting when the State Emergency Service budget this year is \$59.7 million. There is, of course, a further unknown amount resulting from the volunteers' efforts – the amount saved when the volunteers respond, save lives, reduce damage to infrastructure, and resupply and recover communities.

Recruiting, Retaining and Managing Volunteers

The pressures on a volunteer which determine whether he/she maintains membership are varied and include factors both internal and external to the State Emergency Service. External factors include an individual's ability and desire to commit to supplying their time free of charge to a specific cause. This varies with family commitments, work commitments, competition from recreational activities, geographical relocations and the like. Internal factors include work load, organisational culture, sense of worth and ability to contribute, and unit leadership, among others. It is a challenge for the State Emergency Service to address these issues and to resolve and overcome them sufficiently to retain sufficient numbers of trained members, particularly when one recognises that other worthwhile volunteer agencies are also competing for their services.

Although the Service is maintaining overall volunteer numbers at about 10,000, it is not keeping pace in real terms given that the state's population is increasing. There is also the issue of demographic sifts to contend with, with many rural communities experiencing a decline in population. For example, in one rural town which has been dependent on its local SES unit to provide motor vehicle accident response, the number of volunteers in the unit has declined to five. As a consequence, the unit can no longer provide that service.

An alarming statistic is the turn-over of volunteers which is increasing. Research between 1995-96 and 2006-07 indicates that, for the State Emergency Service, 60 to 70 per cent of its volunteers have less than 5-years service; that is, 60 to 70 per cent of the work force is turning over every five years. Training replacements on this scale can be an issue in itself, but the training task is compounded when coupled with the need to provide volunteers a non-intrusive training timetable, which focuses on personal and team safety, before hazard-specific skills are imparted. Currently, it takes around three years for an SES volunteer to become fully accredited to perform a full range of storm

and flood operations, so with the bulk of the workforce turning over every five years, its maximum potential is achieved for less than three years at best. On the other hand, most of those volunteers that serve for more than five years generally go on to serve for a considerable period. I know of one volunteer who has 54 years of service to his credit.

To address these challenges, the State Emergency Service is reviewing and implementing changes to the training regime, so as to shorten the initial training period without sacrificing the focus on safety. We are attempting to have volunteers on the road to events following a shorter induction process. We are trialling and implementing a variety of training models which cater for a diverse population, including both weekend and mid-week training and also distance learning. We have a cadet programme aimed at 15- to 16-year-olds to ensure that we have a workforce for tomorrow and we are working closely with employers and recognising the contribution that they make to the agency.

Conclusion

Natural disasters are guaranteed to occur as they have throughout history. With the impact of climate change becoming more evident now, increasing the frequency and intensity of disasters, we are asking more and more of our volunteers. Yet we are doing this against a background of competition for the public dollar and for volunteers, changing population demographics and increasing challenges in recruiting, training and retaining volunteers. Against this, there are opportunities to move increasingly towards a preventative culture while maintaining our response capability, to engage future generations and to fully realise the opportunities that come with utilising a volunteer workforce.

The Author: Murray Kear was appointed Commissioner of the New South Wales State Emergency Service on 4 November 2008. For 28 years prior to that he served as a permanent firefighter in the New South Wales Fire Brigades, including six years as Assistant Commissioner, three years leading an operational command which covered two-thirds of the state – 115 fire stations, \$115 million budget, 1500 firefighters and staff, 2000 volunteers – and three years as Director of Community Safety with responsibility for fire prevention services state-wide. In the last role, he developed and implemented the Fire Brigades' community safety plan which transformed a predominantly response-orientated agency into one that now actions all prevention, preparation, response and recovery options. In 2002, he assisted the authorities in Oregon and Northern California fight wildfires in wilderness areas – then the largest wildfires in United States history. In recognition of his outstanding service to firefighting, he has been awarded the Australian Fires Services Medal (AFSM). [Photo of Commissioner Kear: State Emergency Service]

⁷Stand-by time is the time when volunteers make themselves available to respond to an emergency, but are not called on to respond. They have to make considerable sacrifices in their daily lives to be on-call to respond.