

LIFT-OUT: STEP BY STEP PROPERTY INSPECTIONS

VOLUME 37 NO 3/2015

# BUSH FIREbulletin

THE JOURNAL OF THE NSW RURAL FIRE SERVICE



## Fire and ice winter fire activity



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IN THE NSW RURAL FIRE SERVICE

# WE VALUE

- community and environment
- support, friendship and camaraderie
- knowledge and learning
- integrity and trust
- one team, many players and one purpose
- adaptability and resourcefulness
- mutual respect



# Foreword

From providing temporary housing for communities devastated by cyclones in the country's north, to some surprising winter fire activity and assisting the SES with major storms and flooding at home, the men and women of the Service were kept busy across recent months.

In August a fast moving fire at Wentworth Falls in the Blue Mountains threatened homes and engaged firefighters for a week, despite the fact that temperatures dropped below zero and snow had been seen in the area only two weeks prior.

Showing the diversity of the work we engage in, support was provided to remote Indigenous communities in the Northern Territory which had been badly affected by Cyclone Lam. Our people also provided support further afield, with recent deployments to Canada, the United States and Indonesia.

While the incidents of winter and spring of 2015 have been wide-ranging and varied, our focus remains on the 2015/16 bush fire season, which based on forecasts, appears to be shaping up as a difficult one.

The Southern Australian Seasonal Bushfire Outlook from the Bushfire and Natural Hazards CRC was issued in September 2015 and shows that most of NSW can expect above normal fire activity. More recently the Bureau of Meteorology has indicated that the confirmed El Nino conditions have continued to strengthen. Indeed, we have not seen an El Nino weather pattern like this since the late 1990s.

As always, it's important our people are well prepared and supported. This year, our troops on the ground will be supported by an enhanced array of firefighting aircraft and equipment. For the first time, this fire season will see the use of Very Large Air Tankers and Large Air Tankers in NSW. *Southern Belle*, a DC 10 Very Large Air Tanker and *Thor*, the Hercules C130 Large Air Tanker, will be available to work alongside the 100 aircraft already available to the NSW RFS.

The safety of our firefighters remains the highest priority, which is why we've been reviewing Personal Protective Clothing (PPC) in consultation with our members. Our PPC is world-class, and work is continuing to ensure our members have access to the best PPC. A trial of a new style of PPC is being run this fire season. While about 100 members will be wearing the garments during the trial, further sample garments will be available for all members to see and review. I encourage you to take this opportunity to give feedback and provide suggestions for improvement. Details appear on page 27-29 of the *Bulletin*.

We know too well that community preparation is critical. For this reason, the Service has launched our new public awareness campaign. The *I Am Fire* campaign is based on extensive research and has been tested within at-risk communities. To support the campaign, the Service has established the [www.myfireplan.com.au](http://www.myfireplan.com.au) website, which provides simple tips on getting ready for bush fires. We have also reviewed and revamped the Bush Fire Survival Plan, again using the latest research and with extensive consultation with our members, to give people access to clear and concise information.

I trust you'll enjoy this edition of the *Bulletin*.



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## Get Ready Weekend



It was an all of Service event - every single district in NSW got involved in the second ever Get Ready weekend held on 12-13 September 2015. Over 400 brigades participated in 600 activities which are all focused on encouraging the community of NSW to take action and prepare for the upcoming fire season. Held in partnership with Bunnings Warehouse, members were encouraged to start conversations with community members by holding simple events, such as taking a fire truck to the local shops, holding a BBQ, street meeting or casual get together.

## 10/50 changes



A review of the 10/50 Vegetation Clearing Scheme was announced in August 2015. The 10/50 scheme allows people in a designated area to clear trees on their property within 10 metres of a home and clear underlying vegetation such as shrubs (but not trees) on their property within 50 metres of a home, without seeking approval. The review took recommendations and suggestions from 3,500 interested parties and includes greater protection for critical habitat and animals and minimises tree clearing for views. The NSW RFS website has a comprehensive online tool and Frequently Asked Questions to help residents and members understand and apply the new laws.

## Faster and larger



Large Air Tankers (LAT) and Very Large Air Tankers (VLATs) have arrived in NSW for the 2015/16 fire season. Faster airspeed and larger fuel tanks enable LATs and VLATs to deliver more suppressants in a shorter time frame than the aircraft currently in use in Australia to date. The *Hercules* C130 (a LAT named *Thor*) was launched on 1 September 2015 with a media conference attended by the Minister for Emergency Services David Elliott and Commissioner Shane Fitzsimmons. The LAT can drop 15,000 litres of water or suppressant at a time and can execute up to 13 trips in a day. The even larger VLAT DC10, *Southern Belle*, arrived at the Richmond Airbase in October 2015, and has an even larger capacity of 44,000 litres. These Air Tankers can reach almost any location in NSW within an hour while carrying a full payload and the capacity to immediately contribute to the local firefighting effort. Photo by Corporal David Said, courtesy of the Commonwealth of Australia, Department of Defence

## Canadian deployment



The 2015 fire season in Canada was the worst that country had seen in 40 years. In July, with 1.4 million hectares burned, 13,000 residents evacuated from their homes and more bad weather on the way, Canada made a formal request for Australian assistance. A total of 104 Australian firefighters and specialists were deployed including 14 from NSW RFS. Camping with 200 firefighters from Canada and Mexico, our members were tasked to the surrounding four wildfires, the biggest being over 20,000ha. Conditions were challenging with a difficult peat bog landscape and long hours of daylight ending at 10pm each day. By the time the Australian crews returned home in late August all four fires were contained and handed back to local control.

## 'I Am Fire' Campaign Launch



'I Am Fire' is the theme of the new Prepare Act Survive public awareness campaign, which hit TV screens in September 2015. The campaign is based on research following the 2013 fires as well as feedback received during recent Community Engagement forums across the state. The research found that while the majority of people in fire prone areas have an appreciation of the risk to their area, they don't personalise the risk and think a fire won't happen to them. People also believed that their home would withstand a fire even if they did nothing to prepare. Along with the TV commercials will be radio, newspaper and online advertising.

## Enthusiastic, motivated and well-connected



A project to identify and train of Deaf Liaison Officers who will be 'champions' for delivery of information on hazards and emergencies to the Deaf Community in their area is underway with participation by the NSW RFS. Deaf Liaison Officers (DLOs) are enthusiastic, motivated and well-connected deaf people like Natalie Milligan (pictured) who is a member of Plumpton Brigade and who is one of the DLO's for the metropolitan Sydney. Included in the project is the delivery of up to 10 Deaf Awareness Training sessions for agency staff and volunteers. The NSW RFS hosted one such session at Lidcombe HQ on August 28 2015.



# Help on the horizon

Launch of the fire season 2015/16

Ground crews will be bolstered with additional help from the air during the 2015/16 fire season.

In what is predicted to be a challenging season, firefighters will be strengthened by a range of aerial resources including two large aircraft being trialled during the 2015/16 fire season.

The official start of the Bush Fire Danger Period was marked with an impressive demonstration of NSW RFS aircraft fleet including the additional large fixed-wing aircraft that will be on hand this season. With the capacity to drop 15,500 litres and 44,000 litres, the two specialised aircraft will be used along with other aircraft and heavy plant to assist firefighters with fighting bush and grass fires. These aircraft have already been put to good use both in Australia and overseas.

The Minister for Emergency Services, David Elliott, Defence Minister Marise Payne, and Commissioner Shane Fitzsimmons witnessed the aircraft's systems checks in Western Sydney where some of our state's firefighting aircraft were put through their paces.

DC10 *Southern Belle*, the Very Large Air Tanker (VLAT), *Thor* the Hercules C130 Large Air Tanker (LAT), Erikson Air Crane *Gypsy Lady* and the

NSW RFS fleet of helicopters conducted flyovers and water drops, demonstrating just how valuable they will be in helping our firefighters to build containment lines.

Commissioner Fitzsimmons reminded the public of the outlook for the bush fire season.

"With a confirmed El-Nino weather pattern in place, we are prepared for what could be a difficult fire season. Despite the imposing firefighting capacity of these aircraft and the commitment of our firefighters, people should not be complacent when it comes to bush fires."

The Bushfire and Natural Hazards Outlook for the 2015/16 fire season can be found on the following pages.

October 1 2015 was the official start of the Bush Fire Danger Period for the remaining 118 LGAs across NSW, joining the 27 LGAs who declared their bush fire period earlier.

### LAT assists in Indonesia

*Thor*, the C130 Hercules LAT, quickly proved itself useful being deployed several times in September. The aircraft was deployed in NSW and a few days later was called to Victoria to assist with fires. Later in the month the aircraft

was also part of an Australian deployment assisting with fires in Indonesia.

Hundreds of fires across Indonesia had caused a massive smoke haze across the region. In October the NSW RFS, with the assistance of the Australian Government, deployed the *Thor* and a smaller spotter plane to Indonesia. The deployment lasted seven days and saw the waterbomber working to protect villages, homes and crops.

"The sheer number of fires over there is something to see," said Superintendent Ben Millington who led the deployment. Both forest fires and peatland fires have been causing authorities concern. The Indonesian firefighting response has been significant with 22,000 firefighters on the ground and supporting coming in from the Malaysian, Singapore and Australian governments.

### Revised climate outlook

An update of climate outlooks issued by the Bureau of Meteorology (BOM) in late September predicted rapidly deteriorating weather for the 2015/16 summer.

The BOM released a special update recording September as the third driest on record for Australia. Later they

reported October to be the hottest on record. October to December has been forecast to be drier than average across the southeast and northeast and warmer days and nights considered likely for most of Australia.

The dry outlook is due to the strengthening positive Indian Ocean Dipole which is now reinforcing the impacts from a mature and strong El Niño in the Pacific.

### New public awareness campaign

A new public awareness campaign has been launched, strongly underpinned by the research from recent fires and reflection on ten years of community safety research. The new 'I Am Fire' campaign aims to break complacency and get people doing things like talking with their family, preparing their home and knowing what they will do if they are threatened by fire.

To help residents plan for the fire season, NSW RFS members are urged to encourage the community to visit the My Fire Plan website.

There are ten simple animated videos containing bush fire facts and how to prepare for a bush fire which are designed to be shared with residents as they get ready for the fire season.



ABOVE LEFT: Minister for Emergency Services, the Hon. David Elliot addressing the media at the launch of the Bush Fire Danger Period. Photo by Paul Best. ABOVE RIGHT: *Thor* lands in Palembang, Indonesia amongst the thick smoke haze. Photo by Sam Crothers. OPPOSITE: DC10 *Southern Belle*, the Very Large Air Tanker at the launch of the Bush Fire Danger Period in Western Sydney. Photo by Anthony Clark

# Bush Fire Outlook 2015/16: above normal

The 2015/16 bush fire season could see 'above normal' fire activity for much of NSW, according to the latest outlook from the Bushfire & Natural Hazards Cooperative Research Centre (BNHCRC).

The BNHCRC released its annual outlook for Australia, which looks at weather forecasts, along with levels of moisture and ground fuel to give a general indication of what to expect during bush fire season in September 2015.

The current strong El Niño, combined with a forecast for drier and warmer than average conditions in much of north east NSW and along the coast, could lead to an increase in fire activity this season.

For districts along the coast and ranges, particularly those from Sydney north there is the potential for above average fire season. This is because the outlook is forecasting potentially warmer and drier than average conditions over the next three months.

For districts south of Sydney, the forecast for the above average conditions may seem contrary to those conditions experienced in August which saw above average rainfall, the concern is that further into the season, conditions could be influenced by the strong El Niño conditions.

Western NSW can expect a normal fire season thanks to average rainfalls. Spring rains in the west, however, could produce prolific grass growth which, following a normal curing pattern, could create an above average fire season for that region as well.

## Developing a Bush Fire Outlook for 2015/16: Overview

The Seasonal Bush Fire Outlook for southern Australia is used by fire authorities to make strategic decisions on resource planning and prescribed fire management for the upcoming fire season. The outlook is developed at an annual workshop convened by the Bushfire and Natural Hazards CRC and the Australasian Fire and Emergency Service Authorities Council (AFAC) and included all Australian fire agencies.

At the 2015 workshop in Perth in August, the outlook was assessed and a range of broad climate factors were considered.

In assessing the bush fire potential for any given year, it is important to take into account not only the amount of rainfall in the immediately preceding months but the long-term rainfall deficit across southern Australia.

Leading into this year, many areas have consistently received below average annual rainfall across successive

years. This has produced a cumulative reduction in soil moisture levels and increasingly dry forests and grasslands.

In addition to these long-term trends, other climate drivers, such as the currently strengthening El Niño-Southern Oscillation event across the Pacific and the warmer waters associated with the Indian Ocean Dipole, may further increase the severity and duration of the upcoming fire season.

Such impacts will challenge the limited resources of the fire and land management agencies and have created the situation where each fire season is likely to be more demanding than the last, both in economic and human costs.

The above map shows the bush fire outlook for Australia through to 2016 to show the areas of fire potential for all of Australia in 2015/16.

The Southern Seasonal Bush Fire Assessment Workshop was hosted by the Department of Parks and Wildlife in Perth on 20–21 August. The workshop, supported

by the Bushfire and Natural Hazards CRC and AFAC, brought together fire and land managers, climatologists and meteorologists to evaluate the upcoming season for the southern part of Australia.

## Bush fire potential

Fire season potential depends on several factors. The amount, location and timing of rainfall in the period leading up to the fire season are critically important for estimating fuel loads and dryness. The temperature and rainfall outlooks for the next few months are crucial factors for influencing the development of fire threat.

Of particular importance are the future tendencies of sea surface temperatures in the Pacific Ocean, associated with the El Niño-Southern Oscillation, and those in the Indian Ocean. These are major drivers of climate over much of Australia. Other factors considered in the analysis of fire potential include the distribution of firefighting resources to meet potential threats, as well as previous fire activity and the amount of

prescribed burning, which can reduce threat.

The workshop discussed the weather, landscape conditions and cross-border implications leading into the fire season and determined areas that had the potential for a fire season that was above normal, normal or below normal. Attendees included representatives of the Bushfire and Natural Hazards CRC, AFAC, the Bureau of Meteorology, Tasmania Fire Service, the Australian Capital Territory Emergency Service Agency, the NSW Rural Fire Service, South Australia's Country Fire Service, Queensland Fire and Emergency Services, Victoria's Country Fire Authority and Department of Environment, Land, Water and Planning, and Western Australia's Department of Parks and Wildlife and the Department of Fire and Emergency Services.

## Antecedent conditions

The 2015/16 southern fire season comes against a backdrop of long-term drying, record warmth in the Indian Ocean and the continued

development of a major El Niño event in the Pacific. Across southern Australia a pattern of drier southern wet seasons (April to October) has continued for more than 10 years leaving substantial rainfall deficits. The below average rainfall has been accompanied by above average temperatures, with the past decade being the warmest on record in many areas. The pattern of long-term below-average rainfall and above-average temperatures means that conditions such as soil moisture and fuels are prone to rapid drying with the approach of summer.

Fire conditions in summer are affected by rainfall in the preceding cool season, as well as conditions during the summer itself. Since the start of autumn, rainfall has been mixed over Australia as a whole, though tending to be below average across southern areas. Rainfall from May to July 2015 has been below average in south west Western Australia, southern parts of South Australia, much of Victoria, and the east coast of Tasmania. Relatively good rainfall has occurred for most of NSW, with small areas of above average rainfall. Inland Western Australia south of the tropics has been mostly wetter

than average as a result of unseasonal rainbands.

Soil moisture reflects the net balance between rainfall and evaporation, and includes the impact of warmer or cooler temperatures. Lower-level ("root zone") soil moisture is below average across south west Australia, central and western Victoria, almost all of Queensland, south east South Australia and parts of eastern Tasmania. It is these regions that are most likely to see an early drying of fuels leading into summer. Elsewhere, soil moisture is average to above average, particular across inland areas.

### Seasonal climate outlook

Seasonal outlooks in 2015 are being influenced by significantly warmer than normal sea surface temperatures in both the tropical Pacific and Indian Oceans.

Since an El Niño was declared by the Bureau of Meteorology in May, the event has become well-established and is currently tracking as one of the strongest on record as measured by sea surface temperatures in the central Pacific. All international climate models surveyed by the Bureau of Meteorology suggest the

2015 El Niño will continue to strengthen and last into (at least) early 2016.

While there are significant existing long-term rainfall deficiencies in the western half of Victoria, southern South Australia and parts of south west Western Australia, the 2015 El Niño has not been associated with significant rainfall deficiencies across the winter months across much of southern Australia. This pattern may have been influenced by unusually warm waters in the Indian Ocean to Australia's west, which are generally favourable to rainfall in southern parts of Australia. Rainfall, however, has been below average south of the Murray River, in far south west Western Australia and south east Queensland. Each of these regions also have longer-term deficiencies.

The climate outlook indicates that the direct impact of El Niño may continue to be modest over spring, with likely above average rainfall over most of western and central Australia. Rainfall shifts are modest for eastern parts of Australia, with small areas favouring below average rainfall.

The outlook for maximum temperatures for the coming spring shows that above

average temperatures are most likely in the east and the far south west. Elsewhere, forecasts probabilities favour cooler than normal maximum temperatures, though probability shifts are relatively modest. The below average maximum temperatures are related to the (likely) increased rainfall coming out of the Indian Ocean. It is worth noting that the temperature forecasts use a 1981-2000 base period, which means that even average conditions will be above the historical longer-term normal (for 1910 to present). This highlights the difficulty in defining what is meant by average temperatures in a warming climate.

The climate outlook will be updated by the Bureau of Meteorology around the end of each month leading into summer, providing new insights on the likely upcoming seasonal conditions.

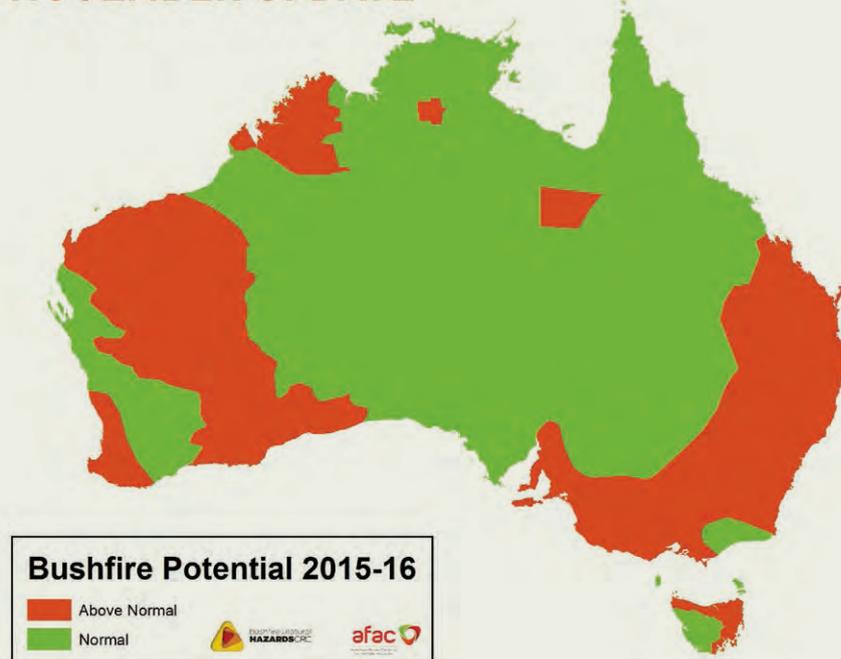
### The impact on NSW

The effects of the current strong El Niño event are being offset by warmer than normal temperatures in the Indian Ocean. However, the three-month climate outlook suggests drier than average conditions are favoured in north east NSW and the far south coast combined with increased chances of warmer conditions in the north east and along the coast. This outlook, coupled with the traditional El Niño risk of higher than average temperatures, could result in a rapid drying of forest fuels and lead to above normal fire potential in the forested eastern parts of the state.

Winter rainfall totals have been near the long-term average over central inland areas. The three-month climate outlook is suggesting further average rainfall. As a result, high grass growth could be a concern when the soils begin to warm in spring. An above normal fire season is expected in these areas.

The western half of NSW has generally received useful winter rainfall, close to or above the long term average. However, a normal fire season is expected as there has not been enough rain for significant grass growth.

## SOUTHERN AUSTRALIA SEASONAL BUSHFIRE OUTLOOK 2015-16: NOVEMBER UPDATE





# Hazard reduction this year

The window of opportunity.

The Service's hazard reduction activity is focussed on improving protection to people and properties, particularly the interface between the bush and built up areas in villages and towns across the state.

In every area where there is bush fire prone land, there's a Bush Fire Risk Management Plan. These plans help to identify

assets at risk of bush fire and assist in establishing priorities and schedules for hazard reduction activities to manage those risks. Activities are assigned to fire services and land managers responsible for their completion.

The identification of these activities is only the first step towards increasing the safety of our communities. Hazard reduction activities can take

many forms and involve several agencies, but the one that often involves NSW RFS volunteers is burning. Often, brigades submit burn proposals to their district for inclusion into this process.

Once the activities are identified, planning and preparation commences. Brigades and land managers become involved, burn plans are prepared, planned dates for the burns are

chosen, access tracks and containment lines are cleared and prepared.

Once this preparatory process is complete, it can take some time for the so-called 'window of opportunity' to open, where conditions are suitable for the burns to proceed. As the planned burn date approaches, residents and businesses in the area are informed. This can happen



through media, letterbox drops, roadside signs or community meetings.

The goal is to have all of the planning ready to go so that when that opportunity presents, we are ready.

More than half of all hazard reduction work is traditionally completed between March and May each year – but sometimes, weather conditions make it difficult for this work to be completed effectively. This

was certainly the case during this past autumn and winter.

Autumn 2015 saw NSW experience significant rainfall events throughout the east of the state, including an East Coast Low which caused significant flooding and damage in Sydney and the Hunter. This had an impact on the ability to perform hazard reduction burning, at what would normally be one the busiest times for brigades and land managers.

While the NSW RFS leads the coordination and reporting of hazard reduction activities across the state, a number of agencies are involved such as National Parks & Wildlife Service, Fire & Rescue NSW, Forestry Corporation, and local government and land managers.

Despite adverse weather conditions in 2014/15 all land and fire management agencies completed substantial works to reduce

bush fire hazards in the period. In the 12 months to 30 June 2015 a total of 152,157 hectares was treated by hazard reduction activities, providing protection to 116,977 properties. (See 2014/15 NSW RFS Annual Report)

ABOVE: Hazard Reduction in Ku-ring-gai burn, August 2015. Photo by Adam Streichler

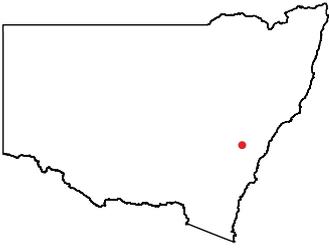


# Fire and Ice

Hordern Road, Wentworth Falls (Blue Mountains LGA)



TOP: Snow at Shooters Hill, Oberon on 12 July 2015  
BELOW: Firefighters standing their ground at Coronation Parade  
Sunday 2 August 2015. Photo by Ben Shepherd



Just two weeks after snow blanketed the ground in the Blue Mountains, a bush fire flared in Wentworth Falls in the same location. Despite the cool weather, the fire quickly became dangerous fuelled by strong and gusty winds and heavy fuel loads. Homes were threatened on the Sunday night 2 August, but a massive effort by fire services over seven days kept damage to a minimum. Even as the fire was burning, firefighters found themselves dealing with cold winds and single digit temperatures. On some overnight shifts, temperatures dropped below zero.

The NSW Police Force is treating the fire as suspicious and is conducting an investigation into the cause of the blaze.

### Friday 31 July 2015

In the early evening a fire was reported to be burning out of control in inaccessible country between the cliff top and Little Switzerland Drive, near the intersection of Hordern Road and to the west of Tableland Road in Wentworth Falls in the Blue Mountains. Heavy winds reaching 80kph were increasing fire activity. The fire was active on top of the plateau as well as within the Jamison Valley below. NSW RFS and FRNSW sent resources to the fire and by midnight around 150 firefighters were on scene battling the blaze and protecting property. Property in the vicinity of Coronation Parade, Tablelands Rd, and Hordern Avenue were under possible threat. Backburning and direct attack was conducted throughout the night.

### Saturday 1 August

Due to winds gusting 40kph to 50 kph from the SW, driving fire behaviour towards properties in Hordern Road, Tablelands Road, Coronation Road an Emergency Warning was issued at 0520hrs for homes in the area. The fire had burned 30 hectares overnight and crews were setting up for property protection and door knocking residents in area.

Water-bombing aircraft got to work and within a few hours fire activity had lessened and the Alert level was downgraded to Watch and Act. The rest of the day was focussed on containment strategies under gusty conditions and the forecast for stronger winds to come. By the evening the fire was contained and no properties were under threat.

### Sunday 2 August

Winds remained low on the fireground throughout most of the night but wind gusts picked up early morning substantially increasing fire activity.

Due to the resourcing levels and the nature of the fire, the NSW RFS Acting Commissioner Rob Rogers made a Section 44 declaration early on Sunday morning.

Around 20 fire appliances and 100 firefighters comprising specialist fire crews, crews from FRNSW and NPWS and waterbombing helicopters, were brought in to assist local crews working to contain the fire. Crews battled strong winds which continued to whip up the fire's intensity. Throughout the morning the fire crossed Tablelands Road, at one stage threatening the air services tower in the area however there was no direct threat to properties.

Crews concentrated their efforts between the cliff top and Little Switzerland Drive, including small areas of bushland burning in the Jamison Valley. About 130 firefighters were on the ground, including Remote Area Firefighting Teams (RAFT), to focus on the fire that dropped over the escarpment.

Firefighters were also on standby near homes on the southern side of Wentworth Falls in case the fire burned towards properties.

By midday the weather had provided an opportunity for firefighters to take a more aggressive approach towards containing the fire including backburning at the southern end of Tableland Rd near the old disused Queen Victoria Hospital.

Waterbombing helicopters were busy all day helping firefighters contain the blaze but were stood down at night fall.

Within 15 minutes, fire activity had increased significantly and at 1752hrs an Emergency Warning was issued. Homes were under direct threat as the bush fire flared up and moved quickly up the escarpment toward homes on Coronation Parade.

"It was impressive, flame height was 15-20 metres," said NSW RFS Media Manager Inspector Ben Shepherd who was on the scene.

"Firefighters from the NSW RFS and FRNSW did some outstanding work over those few hours," he said. "As the fire moved quickly towards homes in Coronation Road they stood their ground and as a result there has been no serious damage or losses to homes in the area."

By 1900hrs the immediate threat to homes around Wentworth Falls had eased and, to the relief of firefighters, some rain fell on the fireground. Around 160 firefighters from NSW RFS, FRNSW and National Parks and Wildlife Service (NPWS) remained on scene throughout the night.

Throughout these few hours some residents chose to self-evacuate from Tablelands Road and Coronation Road as a precaution. One dwelling on Tablelands Road sustained minor damage to its roof as a result of ember attack during this period.

The Hordern Avenue fire was downgraded to Advice level by the end of the day, however it had spread to 350 hectares.

### Monday 3 August

Over 100 firefighters and three aircraft continued to work to contain the fire throughout the day although the fireground remained relatively quiet. The fire continued to burn in the Jamison Valley in blustery conditions but did not pose any threat to property.

Overnight the temperature in the Blue Mountains dropped to -1°C and while the cold conditions made it challenging, crews were able to deepen containment lines to a depth of 10 to 20 metres.

### Tuesday 4 August

Over 160 firefighters from NSW RFS, NPWS and FRNSW continued to strengthen containment lines, this included 14 Remote Aerial Firefighters who were winched into the western flank of the fire to direct attack hot spots and strengthen containment lines. Good progress was also made to contain the eastern side of the fire along the Ingar Fire Trail.

Aircraft with thermal imaging cameras were used to identify hotspots on the fireground in the rugged terrain below the escarpment. Subsequently RAFT from NSW RFS and NPWS were sent in to undertake close containment on these hotspots including direct attack and mop up supported by aerial bucketing.

### Wednesday 5 August

Backburning continued along the Ingar Fire Trail along with mop up and patrol throughout the fireground. The fire had burnt close to 400ha by now and a close eye was kept on the level of fire activity which remained low.

### Thursday 6 August

Calmer conditions assisted the firefighting effort and gave firefighters the confidence to conduct a large back burning operation including the use of Aerial Incendiary. Consequently there was a significant increase in fire activity and smoke which

drifted down through the mid and lower Blue Mountains. RAFT were once again winched into the Jamison Valley to work on extinguishing the western side of the fire.

A Fire Investigation was conducted by NSW RFS Fire Investigators and the cause of the fire is considered suspicious.

### Friday 7 August

The Hordern Road Fire in Wentworth Falls was declared contained. RAFT continued to work in the Jamison Valley and firefighters assessed and removing dangerous trees across the fireground, allowing local roads to be re-opened. This work will continued over the weekend.

### Saturday 8 August

The fire was downgraded to a Class One fire under the control of NPWS and a revocation of the Section 44 declaration was completed that evening. NPWS continued to utilise RAFT for a number of days and the fire was declared out on Wednesday 12 August 2015.



Backburning continued along the Ingar Fire Trail along with mop up and patrol throughout the fireground. The had burnt close to 400 hectares and a close eye was kept on the level of fire activity which remained low.



TOP: Weather conditions at night we so cold, that despite the proximity of the bush fire, firefighters on Coronation Parade had their flash hoods on to keep warm. ABOVE: Backburning across the top of the plateau. Photos by Ben Shepherd



# Why did it burn so bright?

Wentworth Falls Brigade Deputy Captain Tim Parsley explains the local fuel conditions at Hordern Road in Wentworth Falls

So why did the fire burn with the intensity it did only two weeks after being covered in snow? First we need to look at where the fire was and what influences the local fuel type.

The broader landscape where the Hordern Rd fire occurred is commonly known to locals as 'tablelands', coming from the name Kings Tableland. If there is one thing 'tablelands' is synonymous with its wind. So windy, in fact, that in the past some houses have had their roofs guyed to the ground with steel cables. As westerly winds flow along the Jamison Valley floor they reach the vertical escarpment of Kings Tableland. Rather than turn 90 degrees and head south down the Kedumba Valley, they rise up over the escarpment. As the wind rises 200 to 300 metres it accelerates.

The constant strong wind influences the dominant fuel type on the escarpment which

is closed heath. So the fire at Hordern Road in August 2015 was predominantly a heath fire.

Heath fires are a fickle beast. Their propagation is dominated by fuel continuity and wind speed as the fire is almost all in the elevated fuel layer. A fire in 4m heath running under a 60kph wind will move very quickly - in excess of 100 metres per minute! If the wind drops below a certain threshold, the fire will drop to the surface layers and the Rate of Spread (RoS) will drop significantly. The next gust of wind, however, could see it moving quickly again.

In the example of the Hordern Road fire conditions were ideal for cooking up intense fire behaviour. These were:

- Snow had fallen two weeks earlier accelerating the curing of any fine fuels
- Average wind was in excess of 50kph from the west

- The heath varied in height from 1 to 4 metres
- Fuel had been accumulating in this area for more than 50 years. Hazard reduction in this area is difficult due to accessibility and complicated containment strategies and the nature of heath which is difficult to hazard reduce effectively.

When all of these factors are taken into consideration, it becomes a lot clearer why the Hordern Road fire's RoS and intensity were so high. The fire's intensity was a function of the immediate weather conditions being experienced by the fuels rather than the time of year and cool temperatures.

Ironically when we tried to back burn around the old hospital in areas out of the wind as part of the Hordern Road fire effort, we couldn't get the darn thing to go. That's heath for you.

Once the fire had exited the heath land it transitioned into a mixture of closed heath and low open woodland east of Tableland Road, then found its way into hanging swamp, which burned exceptionally quickly and finally it arrived in Dry Sclerophyll forest where its RoS slowed and more traditional fire behaviour models took over.

The heavy heath-type fuel loads have been a concern for the local firefighters for many years and we were not surprised by this fire despite its intriguing and changeable nature.

ABOVE: A few weeks before the Hordern Road Fire the Wentworth Falls Brigade had been inspecting/measuring fuel loads in the heath nearby. This photo shows just how dense and high the heath in the area is. Photo by Tim Parsley





# I WAS THERE

**Date:** Sunday 2 August 2015  
**Time:** 6pm  
**Location:** Coronation Parade, Wentworth Falls  
**Name of fire:** Hordern Road Fire  
**Photographer:** Ben Shepherd, NSW RFS Media

*Just after 5.15pm the helicopters were stood down due the fading light. Within 15 minutes the fire had escalated and was moving quickly toward the homes on Coronation Parade. Really, within 15 or 20 minutes homes were under threat. At that point I had a discussion with the Group Officer and the Incident Controller about raising the warning level. An Emergency Warning was subsequently issued.*

*Right on 6 o'clock the fire impacted on those homes in Coronation Parade. The crews there did some amazing work, really exceptional work. They stood their ground and protected the property. It was impressive. The flame height was 15 to 20 metres as it came flying up over the escarpment. What you see here is two NSW RFS firefighters protecting property. Just to the right of the photo is a home and they are stopping the flames from moving toward the house. There were about 20 or 30 NSW RFS and FRNSW firefighters right at this spot protecting several homes.*

*There were a lot of firefighters in the area, in fact there was a fire truck in every driveway. The fire moved quickly through, flanking to the east and towards Tablelands Road. Within 20 to 30 minutes the threat to the houses had eased, then came the rain and the winds eased off. Within an hour there was no threat to property.*

Ben Shepherd, NSW RFS Media

# They called it the Worst storm in a decade

An East Coast Low impacted the Greater Sydney and Hunter regions on 20 April 2015 causing widespread storm damage and major flooding. This situation was exasperated by the impact of severe thunderstorms in parts of the Sydney metropolitan area on Saturday 25 April. The NSW State Emergency Service (NSW SES) was the lead agency for this event supported by others including the NSW RFS. A second East Coast Low rolled across the State on 30 April

and emergency services were stretched to the limit.

It was said to be the worst storm in a decade. Twelve areas across NSW were declared natural disaster areas by the NSW Government. In all, NSW SES received 20,159 calls for assistance including total of 169 Flood Rescues. Some parts of NSW saw over 300mm of rain over three days of heavy rain and strong wind gusts. Extensive damage was caused by flooding and swollen waterways, uprooted trees

and fallen powerlines. Some schools and major roads were closed, public transport was affected and around 200,000 homes and businesses were without power.

The most significantly impacted Regions include the Hunter, Sydney Northern and Sydney Southern. Localities affected include Sutherland, Mt Druitt, Wyong, Lake Macquarie, Newcastle City, Gosford, Dungog and Maitland. The worst hit area was Dungog in the Hunter region, where some

homes were swept off their footings and three residents died – including a former member of NSW RFS, Robyn Macdonald.

Between Tuesday 21 April and Friday 24 April NSW RFS crews attended more than 3,500 storm and flood-related incidents including assisting stranded residents, clearing trees, pumping flood water out of car parks and helping to direct traffic.



Four days after the initial flood event, the skies were clearing but the earth remained sodden and many communities remained isolated. HK201 flew over the Lower Hunter region toward Gillieston Heights on 24 April 2015 with supplies. Photo by Stephanie Looi, Hornsby/Ku-Ring-Gai Down-the-Wire Technician

# All hands on deck

## How the storms affected the Hunter Valley NSW RFS

Lower Hunter District Officer, Leanne Bell explains the impact of the floods on the Hunter Valley NSW RFS.

All 46 of the 46 brigades of the Lower Hunter District were affected by the storm and flood event on 21 April 2015.

Brigades became isolated by flood waters, not one station had power, phones or mobile service. The biggest issue for all of us was the lack of communication. Telephone and mobile was severely affected which had a big impact for emergency services and the community. The only form of contact with brigades was by pager and radio. Although radio communications were also down in the Dungog area. Resources were tasked to keep our radio towers going by refuelling the generators and in some cases, chainsawing their way up the track to replace a broken generator!

The Lower Hunter Fire Control Centre was operating on generator power. It was all hands on deck here with 50 Triple Zero (000) calls coming in between 4am and 6am on that first morning. Eight people were tasked to answer the constant phone calls which didn't stop until late Tuesday afternoon. We happened to

have several State Mitigation personnel at our office who were conducting job interviews that day. They were seen in the pouring rain feeding our generator in order to keep the phone lines open and driving around the district trying to locate a diesel for the generator. Needless to say they did attend their interviews but a little wet and worse for wear.

As the information came in from our crews on the ground, we focussed on sending that information out via the Lower Hunter Facebook page – just in case someone had internet connection.

Wollombi Fire and Flood Facebook page was a great source of local information for the Bucketty, Laguna and Wollombi areas – although many locals could not access the internet. Wollombi set up a post so that concerned family and friends could ask about loved ones and as someone heard from them they replied to the post. It was very popular. Information was sourced by listening to local radio traffic and local crew's radio from the field. There was much relief

when the call came in from the Wollombi Captain to advise the flood waters had almost, but not quite, reached floor level of the Wollombi Tavern. Many of us remembered the 2007 flood when waters were 1m deep through the tavern. You could have moored your boat on the verandah railings!

A specialised team of community engagement practitioners was quickly established made up of SES staff, NSW RFS staff and NSW RFS volunteers (some being CISS). The object of this team was to make contact with isolated communities and check on their wellbeing. Even though communities have suffered with this storm and flood event, we saw that isolated communities had rallied together, helped each other out and looked after one another. Their spirits were high! Friendships have been formed and a new level of community pride and resilience has been developed. The kids were having a ball - they could play cricket on the street, ride their bikes in the middle of the road and not have to worry about

traffic. Common comments I heard included: "It is like it was 50 years ago – everyone knows everyone", "Everyone is too happy to share what they have with all their neighbours", "I didn't know my neighbours until we became isolated" and "I wish I had made the effort before this to get to know my neighbours."

It was the ideal time for communities to get together and build on their capacity to prepare and recover from disasters. At a community meeting at Wallalong held at the local brigade station, an isolated community of the Port Stephens LGA, an issue arose from one community member. Almost immediately another community member was able to provide the solution.

Many of the affected communities have begun creating their own local disaster plan using an 'all hazards' approach with the help of NSW RFS and local brigade members. Planning has already started for the community of Wallalong and other communities.



24 April 2015: "In the recent flood event, Jeff Hodder and I (both Hornsby/Ku-Ring-Gai/RAFT) were deployed to the Lower Hunter to work with HK201 as Down the Wire Techs. This photo was taken as we ferried pallets of food and essential supplies into Gillieston Heights, a community that had been isolated by floodwaters," Stephanie Looi.



Clean up operations continued across Greater Sydney and the Hunter Region for several weeks. Photo by Sharon Quandt

A total of 377 NSW RFS personnel and 94 appliances were deployed to support the NSW SES throughout the flood events.

### NSW RFS Support

A total of 377 NSW RFS personnel and 94 appliances were deployed to support the NSW SES throughout the flood events. In addition to local resources, the NSW RFS also provided six Out-of-Area Strike Teams from around NSW.

The NSW RFS State Air Desk coordinated aviation requirements on behalf of the NSW SES and NSW Department of Primary Industries (NSW DPI). This included the operation of Air Bases located at East Maitland Fire Control Centre, Grafton and Goonellabah. Aircraft were busy with resupply, transport of crews and reconnaissance. Nineteen aviation resources were allocated over the two main storm/flood events including nine Firebirds, eight

Helitaks, one transport aircraft and one refuelling vehicle. The NSW RFS helicopters Helitak 220 and Helitak 201 delivered supplies to Gillieston Heights in the Hunter Valley which was isolated by floodwater. Remote Area Frighting and Specialist Operations teams provided three Down the Wire Technicians who worked on Helitak 201.

A NSW RFS Task Force consisting of 48 specialist chainsaw personnel (16 teams) made up of personnel from Region South, Region West and Region East was deployed to operate in the Newcastle and Port Stephens areas to assist with complex outstanding requests for assistance. Each team consisted one Problem Tree Feller and two Cross Cut

operators. Other specialist chainsaw personnel were deployed throughout the affected areas until early May.

The Service's assistance extended behind the scenes as well, with NSW RFS Liaison Officers in place at the NSW SES State Headquarters (Wollongong), NSW SES Hunter Region Headquarters (Metford) and NSW SES Sydney Western/Northern Region Headquarters (Seven Hills). A Planning Officer was provided to the NSW Department of Primary Industries to assist with livestock reconnaissance and resupply operations in Maitland. In early May NSW RFS Building Impact Assessment Teams assisted in the Gosford LGA.



## Small community hit hard by tragedy



Tragically NSW RFS and SES volunteer Robyn Reid Macdonald was one of three people who lost their lives in the floods in the Lower Hunter region in April 2015.

Ms Macdonald, 68, lived in Dungog, and had been a NSW RFS volunteer between 1985-1992. Robyn held the position of secretary for Dungog Brigade from 13 July, 1989 until 10 July, 1992 and an active firefighter at that time. She had also been an active member of the local SES for 18 years.

Ms Macdonald's neighbours Brian Wilson and Colin Webb also died on that same morning of the floods just a few hundred metres away from her home.

Here, Robyn Macdonald's friend and fellow brigade member, Nolene Ralston, pays tribute to her friend and fellow volunteer.

Robyn MacDonald was a quiet achiever, one who didn't need or want accolades - she just wanted to be part of a community.

Originally born in Scotland, Robyn came to Australia in 1973 but kept her beautiful accent throughout her life. She will be missed by those who knew her and served the community beside her.

When it came to firefighting, Robyn wanted to get out amongst it. Fighting fires out on the fireground was her main interest in the NSW RFS. Breaking into that male-dominated world must have been very challenging. As a result of her many years as a NSW RFS volunteer in Dungog, Robyn paved the way for women to be accepted as an equal in the field.

Ms Macdonald had no family in this country but relatives in the UK had sent their condolences. In an eerie coincidence it emerged that Ms Macdonald's half-brother, David Watters, had died on the Friday following Robyn's death in the UK.

About 200 people attended Robyn Macdonald's memorial service and the numbers were a testament to the place she held in the Dungog community.

Robyn, I know you're here although I cannot see you. We will meet again where the red stuff burns and the wet stuff flows. God Bless and Rest in Peace.

TOP: Only a handful of Ms Macdonald's photos were rescued from her home after the flood waters swept through.



TOP: 22 April 2015: Stranded driver at Woodberry. Photo by Grahame Chevalley in FB200. CENTRE AND ABOVE: Clean up operations continued across Greater Sydney and the Hunter Region for several weeks. Photo by Sharon Quandt



## Camp Elcho

# A tent city for a devastated community



When a small and remote community in northern Australia was struck down by Cyclone Lam in February 2015, NSW RFS was immediately able to assist. Within just a few days of arrival, NSW RFS crews had built a tent city of emergency accommodation for 240 on Elcho Island. Ben Millington, Manager, Emergency Management Co-ordination, explains how the project unfolded.

On 19 February 2015 Tropical Cyclone Lam devastated a number of remote communities across the Northern Territory. Shortly thereafter, the NSW RFS was requested to assist with the provision of emergency accommodation for 300 residents of the Galiwinku community living on Elcho Island. Elcho Island is an indigenous community located approximately 300 kilometres east of Darwin and home to approximately 2,000 residents.

State Mitigation Support Services (SMSS) Base Camps are used during fire campaigns to provide accommodation close to the fireground since their introduction as a fully equipped department in 2012. The operation in Elcho Island was the second time Base Camps had been used to provide emergency accommodation within affected communities.

Through consultation with Emergency Management Australia (EMA), personnel from State Operations, SMSS and volunteers were deployed to Elcho Island to work with the Northern Territory government and community leaders to establish the facility now known as 'Camp Elcho'.

An inspection of the community was undertaken and a site was identified to establish emergency accommodation for up to 300 displaced residents using NSW RFS base camp equipment. Equipment from Glendinning was transported to RAAF Base Richmond and flown to Darwin by C17. Upon arrival at Darwin, the equipment was loaded onto a barge and arrived on the island some 36 hours later.

A multi-agency team of 18 was formed comprising personnel from NSW RFS and Northern Territory Fire and Rescue (NTFRS). This team established the camp in just over 24 hours with all necessary utilities connected, including electricity, toilets and showers completed over coming days. Community members also assisted in the establishment process before taking up residence.

Prior to constructing the camp, NSW RFS personnel worked with Elders and community groups to ensure the appropriate consultation and cultural needs were met.

## A second cyclone

A week after the Camp Elcho had been successfully established, warnings came in about Tropical Cyclone Nathan. Indications were that a number of Northern Territory communities, including Elcho Island, would be impacted.

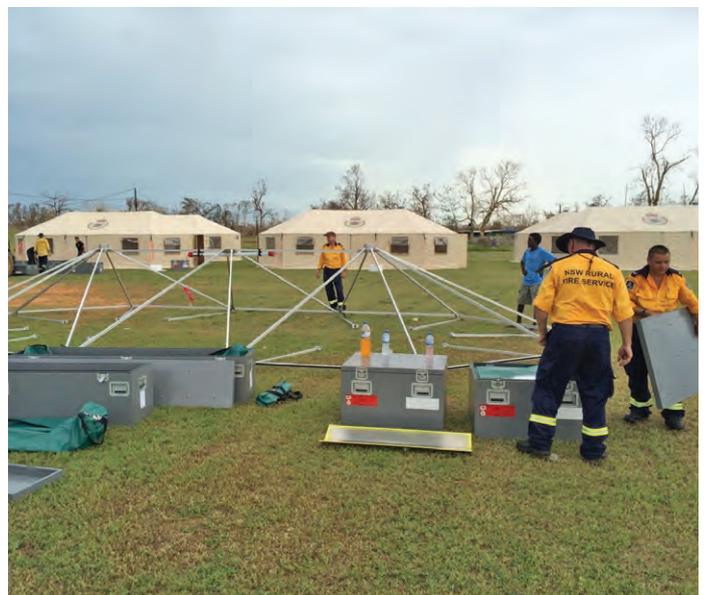
Agencies acted quickly to undertake an emergency demobilisation of Camp Elcho. A NSW RFS Liaison Officer and team were re-deployed and a multi-agency team re-established comprising of NSW RFS and NTFRS personnel.

This team was joined by 14 local community members and undertook an emergency demobilisation of camp infrastructure. They worked tirelessly, in very hot and humid conditions, to pack up and secure all equipment in a single day.

Once Tropical Cyclone Nathan had passed, another multi-agency team was formed comprising of NSW RFS, NTFRS and Northern Territory Emergency Services personnel. This team and another 14 community members reconstructed the camp infrastructure to allow displaced residents to return to Camp Elcho.

NSW RFS has maintained at least two personnel on Elcho Island to support the community and the Northern Territory Government from February to June when the camp was demobilised and equipment returned to Sydney.

"This operation was protracted and saw many significant logistical challenges overcome," said Inspector Simon Davis, Manager, State Mitigation Support Services. "Conditions were difficult to work in with extreme heat, humidity and rain combined with the remoteness of the location. I am proud of all the NSW RFS personnel involved in this operation both deployed and supporting back in NSW. It was a big effort with the NSW RFS represented in a positive light. My first hand experience on the ground talking to community members and the Northern Territory Government representatives reinforced the importance of the support provided to this community by the NSW RFS and highlighted the success of the operation overall."







# I WAS THERE

**Date:** 16 December 2014

**Time:** 1:30pm

**Location:** Mullion, north west of ACT in the Yass LGA, Southern Tablelands Zone  
**Name of fire:** Sawyers Gully Fire

**Photographer:** Matthew Clark, Lake George RAFT

*The morning aircraft brief for our Rapid Aerial Response Team (RART) on Helitak 275 took place in the rain. No fires today I thought as I retreated to the aircraft hanger at Hume Airbase.*

*At 1pm, I overheard a call from an ACT fire tower reporting a column of smoke to the north, surely not. Within a few minutes the phone rings and we are on. I quickly program the GPS with the coordinates as the helicopter starts up.*

*Within 10 minutes of being airborne a small white column of smoke appears above the nose of the helicopter. Looks manageable, maybe.*

*This photo was taken as we completed initial reconnaissance of the fire in Helitak 275. It was growing by the second, too quick to fully comprehend. These photos are sent direct from the air to RART Dispatch in State Operations and contribute towards valuable early intelligence for new fires.*

*The fire behaviour was different, something I not seen before. The smoke was lying flat in the strong wind, the critical factor driving the fire. A benign fire turned into a serious situation within minutes. The fire front was fragmented with running fingers everywhere.*

*By the following day the fire had burned 1,200ha and was not contained. Over 70 firefighters from the NSW RFS and 25 from ACT RFS concentrated their efforts on putting out hotspots. There was no property loss.*

*The fire was clearly too large for a typical RART response of dry firefighting and helicopter water bucketing. We landed on the road and quickly offered assistance. Our RART of four firefighters split into two groups and jumped onto local trucks. Helitak 275 left to commence water bucketing and saved an isolated homestead.*

*I spent the next few hours chasing running grassfires from a Cat 7. The front seemed to be running everywhere, not helped by the steep hills. I watched in awe as an Erickson Airplane attacked the grassfire. The day was still a blur as I returned to Hume Airbase at 1930hrs. Lesson learnt – be prepared for the unexpected.*

Matthew Clark, Lake George RAFT

# A surprise bush fire

One house was completely destroyed while the second sustained significant damage in a surprising winter bush fire on the Central Coast.

By Captain Clint Pressley, Copacabana Brigade. Photos by Kurt Pressley, Copacabana Brigade

Just after 0730hr on 1 June, fire crews from the NSW RFS, Gosford District, responded to reports of a fire in the coastal suburb of Copacabana.

Copacabana Brigade arrived at the location within 12 minutes of the first Triple Zero (000) call to find one house completely engulfed by fire. A neighbouring house and a small area of bush behind the houses were also alight. A large LPG gas bottle had been affected by fire and was venting its contents.

For some time, the crew from Copacabana Brigade battled the blaze without the support of other units. The first priority for the crew was to contain the fire in the second house in order to minimise damage to that property. Secondly, the bush fire behind the dwellings needed to be contained so it didn't spread to other houses in the area.

Firefighters from the NSW RFS wearing breathing apparatus worked extremely hard in hot and dangerous conditions in the second house to extinguish the fire. Upon arrival, firefighters from Fire Rescue NSW (FRNSW) worked with additional NSW RFS crews to extinguish the bush fire and fight the initial fire that had completely destroyed one house.

Once the fires were extinguished, crews were able to assess the damage. One house was completely destroyed while the second sustained significant damage to over 20 percent of the dwelling. Only one injury was sustained during the firefighting operation – a minor injury to one resident with burns to his hand and arm.

Firefighters from the NSW RFS and FRNSW worked extremely well together and under difficult conditions, were able to contain the fires, which had the potential to damage a great number of properties in

the area. Fire crews remained on scene for six hours to mop up and ensure the fire did not reignite.

The fire was attended by Copacabana Brigade (first responders), Avoca Brigade,

Empire Bay Brigade, Wamberal Brigade, Gosford Bulk Water Carrier and operational support, along with crews from FRNSW. NSW Police Force, Ambulance NSW and Ausgrid were also in attendance.



A neighbouring property sustained significant damage

## PROPERTY INSPECTIONS: STEP BY STEP

Property inspections are a key part of the protection of the community and many brigades are actively and regularly visiting homes to help them determine the risk at their home and develop a relevant bush fire survival plan.

This Bush Fire Bulletin Liftout is the first in a series about Property Inspections designed for NSW RFS members.

### STEP 1

#### BUSH FIRE THREAT

What is the threat from a bush or grass fire for the area and the particular property?

### STEP 2

#### FIRE HAZARDS AND RISK

Assisting residents to identify and manage fire hazards to reduce their risk.

### STEP 3

#### PREPARING A BUSH FIRE SURVIVAL PLAN

How you can assist people to prepare their Bush Fire Survival Plan specific to their family and property risk.

## » BUSH FIRE THREAT STEP 1 OF THREE STEPS

### STEP 1

#### DETERMINING BUSH FIRE THREAT

In this *Bush Fire Bulletin* Liftout we will provide information on determining bush fire threat for a property. Identifying the fire threat is based on three aspects of bush fire behaviour however, the type of bush or grass fire that may impact a given property is wide and varied and cannot be easily generalised across all houses at threat. The three bush fire threats are:

- A** **Direct Flame** impact is caused by:
  - » Flames from the approaching bush fire
  - » Flames from hazardous material catching fire near to or against the property
  - » Flames from an adjoining structure fire
- B** **Radiated Heat** is excessively high temperatures caused by:
  - » The approaching bush fire

- » Burning hazards that emit very high temperature
- » Very hot winds coming from the bush fire
- C** **Ember Attack** is a variation of burning or smouldering material from a fire driven by winds. These are the main categories of ember attack:
  - » Large strip type bark material that may be distributed over lengthy distances
  - » Smaller bark, leaf and twig material that impact over shorter distances
  - » Powdery ash or soot that causes short distance smouldering impact

#### Case Study

Members from Westleigh Brigade in Sydney's north-west attended a property inspection in June 2015 at a house in Western Crescent, With the permission of the residents, we have taken this property as a case study.

A Bush Fire Risk Management Plan identifies a level of risk (threat) for wide areas within the scope of the plan. In this case the BFRMP for the Hornsby/

Ku-Ring-Gai District had determined the level of risk in Westleigh was Extreme.

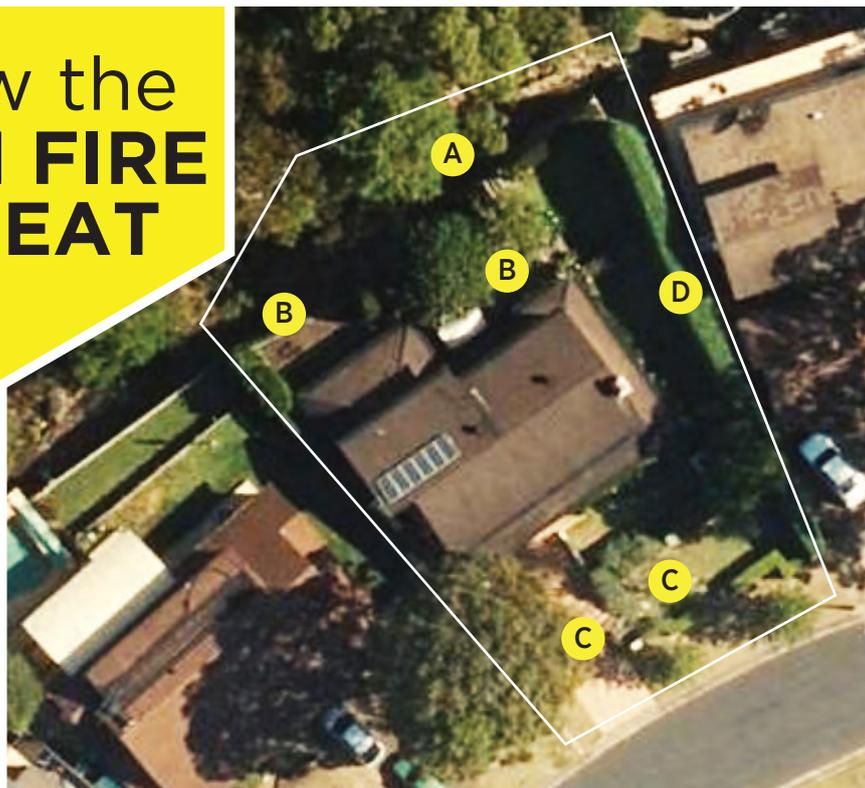
The level of risk can change from property to property due to a wide variation of factors, some beyond our control. To assist people with determining their individual level of risk we need to work with them at their own properties. We have identified the bush fire threat for the property in Westleigh on the following pages, however, the same principles can apply to any property regardless of location.

Considerations in determining bush fire threat include:

- » Fire History
- » Fuel types and structure
- » Bush Fire Danger Rating
- » Aspect
- » Time since last fire
- » Drought conditions
- » Slope- topography
- » Typical fire paths
- » Wind patterns



# Know the **BUSH FIRE THREAT**



## **Types of bush fire threat**

- A Direct Flame**  
Close exposure to bushland means flames from north-west could directly attack this home
- B Radiated Heat**  
High temperatures caused by the radiant heat of a nearby bush fire can crack windows or cause gardens to dry out sufficiently to combust
- C Ember Attack**  
A vortex in the gully to the north-west can lift embers over the top of the house and land in front gardens or nearby property
- D Hedge - The 'Wick' affect**  
A hedge the length of the property could act as a 'wick' transferring the fire from bush to the streets behind

## Case Study: Westleigh Home

### Topography

The property in Westleigh is located in a typical ridge top development surrounded by extensive bushland areas with varying aspect, exposures and slopes.

### Vegetation

While the forested area is typical Dry Sclerophyll Hawkesbury Sandstone there are extensive concentrated patches of species in some locations that will have an impact on some properties but not on others. These concentrated patches include high volatile Eucalypts, extensive groves of Casuarinas or Banksia, Scribbly and Angophora gums plus a wide variety of intermediate fuel species and grasses.

### Fire History - duration since last fire

The last serious fire to impact the area was in 1976 in which three houses were destroyed in Westleigh. Major high threat fires are indicated when it has been more than seven years since the last major fire.

### Typical fire paths

The typical fire path in this area is from the west and north-west.

### Time since last fire (fuel loads)

Fuel loads may be influenced by recent wild fire or hazard reduction burning. Recent hazard reductions include the entire bush interface from Westleigh Drive around to and including Duneba Drive, bushland to the North of the Water Reservoir adjacent to Koorngal Ave, Thornleigh. Fuel loads are estimated to be 15-25 tonnes per hectare.

### Fuel types and structure

Fuel types are a combination of Eucalypt, Apple Gum, Casuarina groves and intermediate Banksia, Teatree species with various fern species. Together these provide a variety of embers.

### Aspect

The house faces west to north-west and is adjacent to extensive bushland.

### Slope – Topography

The house is on a ridge with a general 26 deg slope for about 105 metres running down toward a creek to the north-west. About 45 metres from the home, the slope increases to a 34deg slope. A fire moving across this landscape would move quickly up the slope and increase in intensity on the steeper slope as it neared the home.

### Wind patterns

Prevailing winds are from the north-west but typically swing to the south-west during an afternoon or late evening 'change'. Winds around this property are also influenced by the local topography. A south-east/north west ridge just to the north of the property may cause winds to swirl in the gully adjacent to the house, this may cause a vortex over the roof of the house, delivering embers to the far side of the house and neighbouring properties.

### Drought conditions

Long or short term drought conditions will have an impact on fire behaviour or direction. In this example, lengthy dry or drought conditions may alter typical fire patterns. The areas east and south-east of Westleigh typically receive less sun than the area north-west of the suburb so remain wetter and less likely to burn. In a long-term drought this may not be the case therefore the threat of fires coming from the south-east may be higher.

### Bush Fire Danger Rating

The prevailing Bush Fire Danger Rating has a significant impact on the intensity of fire threat to be expected. For example radiant heat may be less of a threat on a day of low Fire Danger Rating.

## Types of fire threat determined at the Westleigh home

As a result of this analysis, it is determined that the home has a high chance of bush fire impact from all three threats. An overall risk rating for this home would be determined after a personal property inspection is completed, which we will explore in the next Liftout.

### A Direct Flame

A high intensity fire impacting on this residence is possible.

Due to the nature of the fuel types and structure in the area, the buildings could be exposed to the threat of direct flame carried by the continued intermediate fuels and tree canopy.

### B Radiated Heat

Windows could be cracked due to sudden heat transfer from direct exposure to radiated heat. Garden shrubs and hedges around the property could reach a combustible level if sufficiently dried out by high temperature winds.

### C Ember Attack

Before a fire occurs, wind effect from the local topographical features combined with the structural design of the house may cause a vortex or turbulence effect that enables a build-up of leaf litter around the building away from the expected approach direction of fire. During a fire the same wind influences may carry embers into those fuel litter built up locations.

Embers would likely be large pieces of strip bark (candle bark) that have a lengthy burning period and long travel distance. This was evidenced during a fire in 2013 in Quarry Rd, Dural which saw embers impacting on Westleigh. Leaf, twig and smaller bark particles would be prevalent. Fine soot and ash ember attack could cause build up of hot material in cracks or corners of windows and doors and under roof tiles or loose roof edges.

## COMING UP

**In an upcoming Bush Fire Bulletin Liftout we will look at Step 2 on identifying and managing hazards around the home in order to reduce the level of fire risk.**



# An update on the PPC review

How your Personal Protective Clothing feedback is helping us to develop a more functional uniform.

A review of the bush fire personal protective clothing (PPC) was instigated in September 2014. In October 2014 the NSW RFS Personal Protective Clothing Working Group (PPC Working Group) met for the first time. The Working Group has had three meetings since then, most recently in May 2015, at which time the considerable second round feedback received since March 2015 from members and brigades was reviewed and considered. Also reviewed were sample garments incorporating the features that were agreed upon so far.

The general features agreed to date are:

**1.** The fabric to be selected is to have:

- a. Improved breathability and wicking moisture characteristics than the current fabric.
- b. A better balance in terms of the protection against burn injury and the benefits that come from lighter fabrics in terms of reduced metabolic heat build up.

**2.** While the existing over pants philosophy will remain available a more tailored and closer fitting cargo styled pants with more pockets will become an option.

**3.** Pants are to be available in male and female sizing.

**4.** The jacket to be more tailored than current PPC.

**5.** A three piece ensemble (shirt, jacket and pants) that would suit activities from firefighting, RAFT to community engagement activities.

The key design features adopted are:

## Cargo-styled and more fitted pant

Fitted waist band, wide belt loops, no vent pocket, lower rise in crutch, button for waist band, strengthened pockets with self fabric, (instead of current calico), cargo pockets, articulated and reinforced knee, ankle cuff with elastic and toggle, velcro on pockets with cross stitching for strength, deeper flaps on pockets.

## Over pants

Elastic and drawstring waist band, wide belt loops, vent pocket with zip, lower rise in crutch, strengthened pockets with self fabric (instead of current calico), cargo pockets, articulated and reinforced knee, ankle cuff with elastic and toggle, velcro on pockets with cross stitching for strength, deeper flaps on pockets.

## Jacket

Squarer back design with 'action' panels, four pockets on front of jacket, one pocket inside of jacket, radio pockets, velcro on pockets with cross stitching for strength, two radio

microphone tabs, deep flaps on pockets, digital transfer of the NSW RFS logo on rear of jacket (instead of current panel).

Based on these agreements, prototype PPC garments are being manufactured for field trials during the 2015/16 fire season. The trial will be made up of 100 active members involving 30 percent female sizes and 70 percent male sizes (broadly in line with the current membership profile) from the following groups:

- Brigades (50 sets) – selected from those that made a submission (we will try to get a reasonable state wide distribution)
- Targeted Members from RART/RAFT (20 sets), SMSS (25 sets), Boat Brigades (five sets),

As well as ensuring compliance with Australian Standards relating to visibility and a variety of aspects around general product performance (tensile strength, tear strength, abrasion resistance etc ) the NSW RFS has for many years also undertaken burn injury assessments, using a specialised mannequin fitted

with 110 thermal sensors designed to measure body surface temperature and predict body burn injury. This enables us to better understand the risk or extent of burn injury, inherent in differences of garment design.

The Australian Standards outline the requirements for what is known as a swatch test, which is a one metre square piece of fabric. This has been done on the chosen fabric and has delivered on all aspects of the Standards requirements.

Notwithstanding and to maintain principles utilised over many years, it is again proposed to test the new garments at the University of Alberta, Canada in early 2016. This will evaluate the relative performance in a flash over situation. Log on to MyRFS to see a video of the PPC flash over testing done in 2009 (for NSW RFS members only.)

Comments on the above features and aspects are welcomed and encouraged. Send your feedback to [PPCReview@rfs.nsw.gov.au](mailto:PPCReview@rfs.nsw.gov.au).

# PPC trial 2015



## NEW FEATURES IN THE TRIAL GARMENTS

- A.** An internal pocket is being provided suitable for glasses/phones (the pocket will have a closure added)
- B.** A double action zipper closure will be used, allowing the jacket to be opened from the top and bottom
- C.** The over pants will have a zip on the opening which provides access to internal pockets.
- D.** Addition of pleats allows more movement
- E.** Radio pockets (one on each side)

# Updates

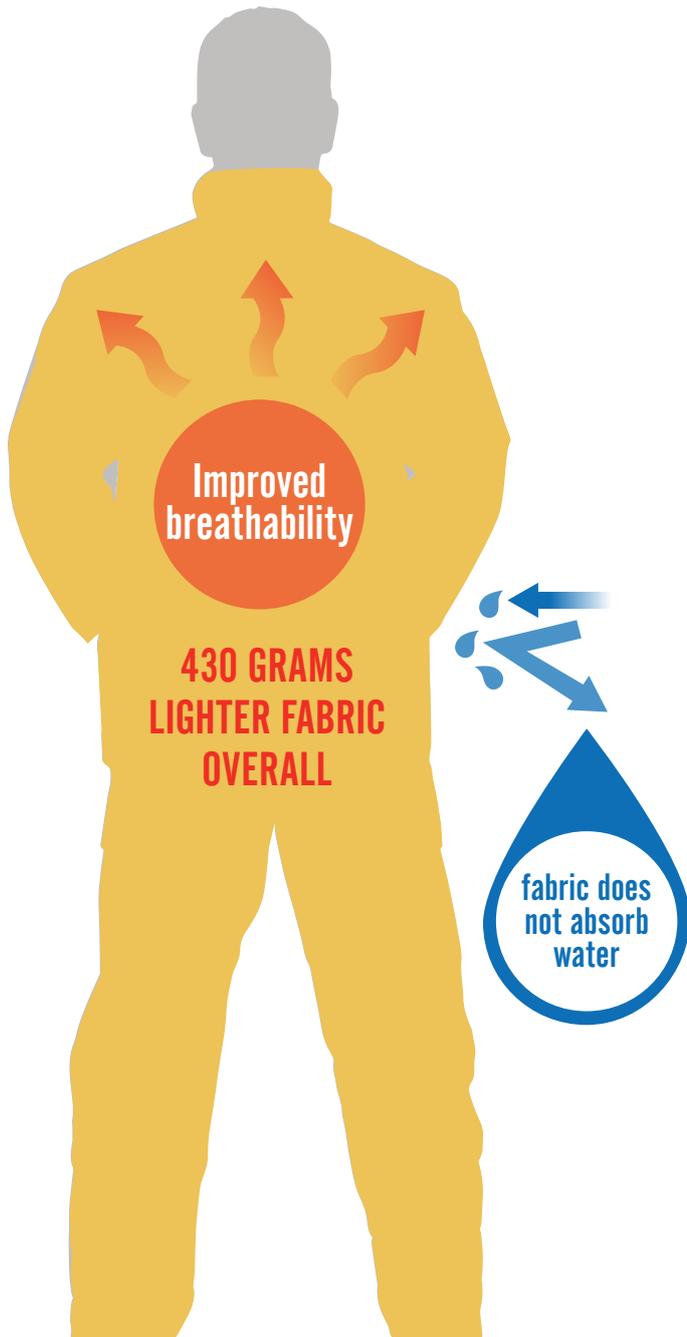
to the NSW RFS PPC will be trialled throughout NSW in the 2015/16 fire season.

Updates to the NSW RFS PPC will be trialled throughout NSW in the 2015/16 fire season. The trial will commence in November 2015 and conclude around May 2016. A total of 100 members will be using sample garments during their normal duties. In order to allow as many members as possible to take a look at the new design and see what the new style fabrics look and feel, extra garments will be made available for viewing to as many members as possible.

## Less weight, more breathability

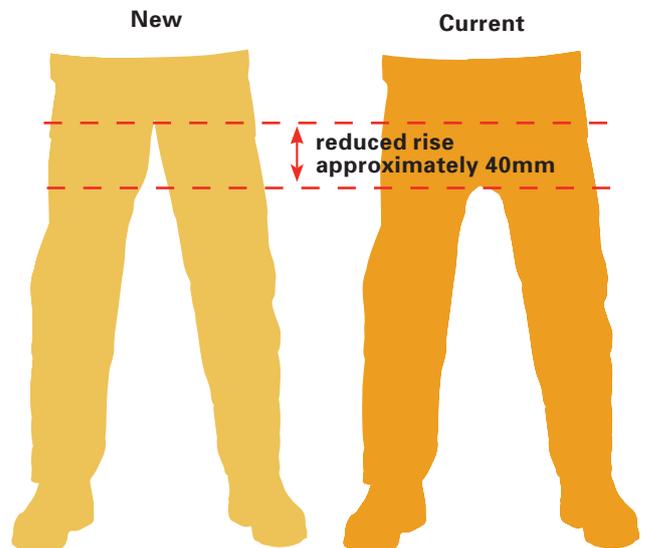
The fabrics being trialled are significantly lighter than current NSW RFS PPC. Current garments are made using fabric which weighs 340 grams per square metre, the new fabrics being assessed weigh 240 grams per square metre.

It means that the jacket and pants combination will be around 430 grams lighter. More significantly, the fabrics have an improved breathability and do not hold water when wet, unlike the current cotton fabric used.



## Better fit

The over pants will have a reduced rise when compared to the current design, being approximately 40mm shorter. This will address the most common complaint received in comments about the pants, 'the crutch is too low'. The pants will be made in male and female sizing.



CURRENT JACKET + PANTS = 1,460 GRAMS  
NEW JACKET + PANTS = 1,030 GRAMS



# Tough times

Three days in the bush  
for remote area teams





In recent years, NSW RFS Remote Area Firefighting volunteers have become more involved in Land Search and Rescue. The arduous nature of the work, the need for remote navigation and survival skills, plus the high level of fitness required, make the RAFT volunteers perfect for the role. Here Operations Officer, Remote Area Firefighting & Specialised Operations Simon Topp, describes how in 2015 the NSW RFS has played a key role in the largest search and rescue exercise to date. Photos by Dave King.

In June 2015, the NSW RFS Remote Area Firefighting and Specialist Operations team partnered with the NSW Police Force to host SAREX - Search and Rescue Exercise - on the South Coast. The Exercise included 140 participants, six emergency services with the NSW RFS providing key equipment, including a helicopter NSW RFS logistics vehicles, NSW RFS logistics vehicles, fire trucks and even a substantial Base Camp in remote and difficult terrain.

Planning began in early 2015 when the NSW RFS and NSW Police Force decided to plan a large inter-agency SAREX in the south of the state. The Bendethera Valley, within the Deua National Park, was identified as a suitable and challenging location which could house a large Base of Operations. It was decided the exercise would simulate the disappearance of a light aircraft in remote bushland.

The agencies involved include all those regularly called upon to

help in remote area search and rescue operations: the NSW Police Force, NSW RFS, NSW State Emergency Service, NSW Volunteer Rescue Association, Ambulance Service NSW and NSW National Parks and Wildlife Service (NPWS). The NSW RFS took a lead role, along with the NSW Police Force, in the planning, exercise control and logistical functions of this exercise.

After a reconnaissance trip to the valley and several

more planning meetings, the SAREX began to take shape. The exercise was endorsed by the State Rescue Board and funding was provided. Word had spread among the volunteers that the exercise would be an interesting one and the numbers of personnel involved grew to almost 150. This in itself was a challenging number for transport, accommodation and catering – which was mainly handled by the NSW RFS.

Bendethera Valley is located west of Moruya and is accessed via 60km of 4WD trail. The drive in is scenic and the roads climb to almost 1,000m above sea level, before dropping into the valley. Although surrounded by pristine bushland, the valley has a chain of camping grounds with views of the surrounding mountain ranges. Before reaching base, all vehicles had to cross the Deua River three times.

The bushland surrounding the valley is a mix of Eucalypt and Wattle Forest with sharp ridges and spurs, rocky outcrops and tors, escarpments, cliffs and gullies. Much of the bushland is steep and the vegetation coverage is variable. These were challenging but very rewarding environments for searching and walking.





The NSW RFS involvement was significant with 35 volunteers and staff taking part. Support from NSW RFS included Exercise Planning, Exercise Development, Exercise Management, Base Camp Management, Provision of Remote Area Base Camp for 140 people, catering, the establishment and management of a Remote Airbase and deployment of the NSW RFS helicopter, HT201.

### Three days in remote bushland

NSW RFS and NSW Police Force personnel arrived in the valley at lunch time on Thursday 11 June to establish the Base of Operations, including four large tents for the Incident Management Team (IMT), Search Controller, Catering and Exercise Control.

Due to the difficult access, NSW RFS vehicles were relied

upon heavily to transport the bulk of the infrastructure. Importantly, support volunteers from the Far South Coast Team (Eurobodalla) managed to transport a six-metre long fuselage from a decommissioned Cessna aircraft which was to be the centrepiece of the exercise. While NSW RFS volunteers knew about an exercise, the location of the search, the scenario was kept secret until Thursday at 1500hr to simulate real time information flow about an operation.

At 1030hrs on Friday 12 June, the Service's HT201 helicopter arrived to assist with placing the plane wreckage in a remote location within the Deua National Park. It would of course, be the goal and focus of the exercise. All 140 personnel involved in the Exercise would be dedicated to finding the

fuselage over the coming three days.

The broken aircraft fuselage was transported very carefully into position near the top of a hill toward the northern end of the search area – a very impressive sight!

Search teams were instructed to arrive in the Bendethera Valley before 1800hr on Friday. By 1830hr an impressive 140 personnel from all agencies were in the valley and being catered for by very capable NSW RFS volunteer caterers from Gosford and Eurobodalla. A briefing was provided by the NSW Police Exercise Controller, Safety Officer and NSW RFS personnel. Two senior NSW RFS Remote Area volunteers were assigned the role of Commander (to be shared throughout the weekend).

After a hot breakfast, crews were briefed and deployed

from 0800hr on Saturday. HT201 deployed many teams to remote helipads in the search area and NSW RFS teams were tasked with searching in a range of different environments. At 1130hr, NSW RFS Search Team Delta sighted the plane wreckage, and in conjunction with a NPWS Search team, located the area where the wreckage was likely to be.

All helicopters were grounded and the NSW Police Unmanned Aerial Vehicle (UAV/Drone) was launched to locate, record footage and provide intelligence of the crash site. Once the site was confirmed, NSW SES Search Teams in the area were tasked to access the crash site and an Ambulance Special Operations Team was also dispatched.

A little over two hours after the crash site was first spotted by air, the NSW SES Search



Team (Delta), comprising four members, reached the plane wreck and debris. They were confronted with two people injured and one person deceased at the scene. After providing immediate first aid, the team worked quickly to gather intelligence, preserve the scene and relay information on the injured casualties.

SES Team Delta also deduced two people were unaccounted for, most likely because they had walked off to find help. The complexity of the operation increased as Search Coordinators needed to attend to the survivors but also search for the two passengers elsewhere in the national park.

The search continued until late afternoon when teams established a camp site for the night. All NSW RFS remote area operators are trained and capable of spending the night

in remote areas. Overnight equipment carried in a remote area personal kit includes a hiking fly (similar to military hootchie tent), sleeping mat and sleeping bag as well as other equipment. This exercise also saw the first issue of merino thermal layers and a microfleece layer to ensure volunteers remained warm and safe in the near freezing temperatures overnight.

The exercise continued until 1200hr on Sunday when both remaining missing passengers were found by a VRA search team and all teams returned to the base of operations to debrief. All participating agencies performed well in the planning and operational phases of the SAREX and NSW RFS teams were outstanding in their organisation, professionalism and bush skills.



# St Florian's Day

## The NSW RFS Internal Bravery and Service Awards



The Commissioner of the NSW RFS, in recognition of acts of bravery and outstanding service, has established an internal awards system. The Awards were instituted on 1 February 1999. The establishment of an internal awards system is authorised under the *Rural Fires Act 1997* and accompanying regulations. Eligibility for these Awards is extended to all members of the Service as defined within the *Act* and regulations.

At the Awards Ceremony on 4 May 2015, 21 individual and seven group recipients were acknowledged by The Commissioner. Drawn from the Service's Regions and Headquarters these recipients were presented with awards in recognition of outstanding bravery or service. The fourth of May is chosen each year for the awards ceremony as it is the Feast Day of St Florian, patron saint of firefighters, and International Firefighters' Day.

The NSW RFS Pipes and Drums and State Protocol Squad assisted the day's festivities.

## COMMISSIONER'S COMMENDATION FOR BRAVERY

*Awarded to recognise an act of courage under hazardous circumstances where the risk to life has not been as significant as to warrant the Commissioner's Award for Valour but is worthy of recognition.*



**Firefighter Joshua Denney**  
**Firefighter Gary Sambridge**  
**Ingleside Brigade**  
**Warrindah Pittwater, Region East**

On 1 October 2013 Firefighters Joshua Denney and Gary Sambridge were crew members on Ingleside 1A, which responded and arrived first on scene to a fuel tanker crash and resulting fire on Mona Vale Road, Warriewood.

Upon arrival, Firefighters Denney and Sambridge were faced with many significant risks including downed powerlines, several vehicles on fire, bush alight as well as a flowing fuel fire coming from the overturned fuel tanker.

The flowing fuel fire had already resulted in the death of one person, severely burned a second person, burned a number of other casualties and posed a clear, direct and imminent threat to more than 100 members of the public downhill.

Working together, Firefighters Denney and Sambridge commenced Compressed Air Breathing Apparatus (CABA) operations and worked from below the tanker, directly attacking the fire with foam to protect the injured, the

members of public and other emergency service personnel who were under direct threat from the flowing fuel fire.

To undertake this critical task, they had to position themselves downhill of the burning fuel tanker, directly between the overturned tanker and the people the CABA team was trying to protect. Firefighters Denney and Sambridge undertook this task at great personal risk.

They remained in this position of direct and significant danger for more than 30 minutes while the fire was being contained, and eventually extinguished.

Firefighters Denney and Sambridge worked bravely to minimise the loss of life of members of the public as well as that of fellow emergency service personnel.



**Captain Anthony Lord,**  
**Cobar Headquarters Brigade**  
**Deputy Captain Christopher Snelson,**  
**Geandale Brigade**  
**Deputy Captain Timothy Lord,**  
**Cobar Headquarters Brigade**  
**Far West Team, Region West**

Just before 0800hr on Sunday 17 August 2014 a call for assistance was received for a fire in the Occidental Hotel, Cobar.

Upon arrival at the scene, Captain Tony Lord of the Cobar Headquarters Brigade reported that the hotel was well involved in fire and that all responding units were deploying to provide direct attack support to the Fire and Rescue NSW (FRNSW) firefighters who were undertaking search and rescue operations within the residential areas of the hotel.

At approximately 0905hr a substantial brick facade along the southern wall of the building suddenly gave way, collapsing outwards onto two FRNSW firefighters and narrowly missing a NSW RFS hose crew, who were forced to run from their position to avoid the falling masonry which showered across the road into buildings and onlookers on the opposite kerb. As a result of the wall collapse, one FRNSW firefighter sustained

fatal injuries, while another was seriously injured.

Captain Lord provided initial assistance to an injured FRNSW firefighter and made safe his venting BA cylinder. He also coordinated fire protection for the rescue efforts underway to the second seriously injured FRNSW firefighter. The FRNSW Incident Controller, Tony Walkinshaw, commended Captain Lord's actions by saying they were of the highest calibre as he effectively moved into the Incident Controller role while Tony Walkinshaw coordinated the rescue operation.

Deputy Captain Christopher Snelson was undertaking fire suppression activities in close proximity to the injured FRNSW firefighters at the time of the wall collapse. He immediately ran to the assistance of the injured firefighters, assisting with the recovery of one and subsequently locating the second under the rubble, at this time he commenced work with other firefighters before returning to his allocated fire suppression duties.

Deputy Captain Tim Lord redeployed a hose line to provide fire protection to the rescue team. He continued to operate in extremely dangerous conditions due to the risk of a further wall collapse during this part of the operation.



**COMMISSIONER'S  
COMMENDATION FOR SERVICE  
(INDIVIDUAL)**

*Awarded for service of a meritorious nature, or for outstanding actions in relation to fire service duties, administrative leadership, or for exemplary performance of a specific difficult project or task, not involving bravery.*

**Firefighter Timothy Agnew  
Duffys Forest Brigade  
Warringah Pittwater,  
Region East**

Firefighter Timothy Agnew is recognised for his actions and quick thinking which saved a member of the public on 28 November 2014. A horse rider had suffered a heart attack and fallen off a horse in the arena near the Duffys Forest station. Firefighter Agnew successfully administered defibrillation shocks using the Automatic External Defibrillator from the brigade station until paramedics arrived. The patient regained consciousness and was transported to hospital.

- Deputy Captain Colin Brooker**
- Firefighter Selin Carroll**
- Captain Trent Dowling**
- Deputy Captain Timothy (Tim) Eliot**
- Deputy Captain Scott Lawrence**
- Firefighter Graeme (Tim) MacGregor**
- Firefighter Daryl Meppem**
- Firefighter Michael McIlwraith**
- Senior Deputy Captain Darryl Pearson**
- Davidson Brigade**

**Warringah Pittwater,  
Region East**

From 2012 to 2014 Davidson Brigade implemented a far-reaching community engagement project known as Operation Proactive. It is estimated that Operation Proactive has provided greater protection to over 8,000 residents on the Davidson Brigade's urban interface.

**Firefighter Robert (Bill) Duncan  
Kenthurst Brigade  
The Hills, Region East**

Firefighter Bill Duncan served as the NSW RFS State Protocol Officer from August 2011 to July 2014, bringing a vast amount of knowledge and experience to the role. His belief in the team and what it can achieve was infectious. Through Firefighter Duncan's diligence and enthusiasm, the State Protocol Team grew and the reputation of the team has been enhanced.

**Deputy Captain Norman Fountain  
Crookwell Brigade  
Southern Tablelands,  
Region South**

The Service has greatly benefited from Deputy Captain Fountain's contribution across fireground activities, community engagement and training. His service is well above that normally expected, giving up a significant amount of his personal time, and showing a willingness to take on any additional responsibilities to assist his brigade, the Southern

Tablelands Zone and the NSW RFS with daily operations.

**Firefighter Richard (Rick) Miller  
Wyong Headquarters  
Brigade  
The Lakes, Region East**

Firefighter Rick Miller's service as an Authorised Fire Wildfire Investigator began in 2006. Since then he has completed more than 400 fire investigations in his own district and across the state. Firefighter Miller also mentors other Wildfire Investigators, conducts training in Wildfire Investigation, and has assisted in the rewriting of the Service's Wildfire Investigation Course.

**Deputy Group Captain Sean McLoughlin  
Ingleside Brigade  
Warringah Pittwater,  
Region East**

Deputy Group Captain McLoughlin undertook the NSW RFS Commander role at the fuel tanker crash and the resulting fire on Mona Vale Road, Warriewood on 1 October 2013. He worked diligently to reduce the risk of further injury or loss of life to those involved.

**COMMISSIONER'S  
COMMENDATION FOR SERVICE  
(UNIT)**

*Awarded for service of a meritorious nature, or for outstanding actions in relation to fire service duties, administrative leadership, or for exemplary performance of a specific difficult project or task, not involving bravery.*

- Peter Devaney, Thomas Gates, Michael Hrnjak, Matthew Lancaster, Joshua Sheedy, Douglas Simpson, Joshua Beran, Georgia Christensen, Fadl (Fred) Hijazi, Christopher Hurley, Brendan Kusmenko, David Vane, Joshua Alexander, Andrew Johnston, Scott Molenaar, Gordon Smith, Matthew Kerrigan, Andrew Miller, Lars Steele-Mills, John Watson, Terry Brett, David Golack, Jessica Phillips, Luke Robinson and Kevin Shadforth**

**Belrose 1A, Belrose 1B, Ingleside 1A, Tumbledown Dick 1 and Warringah Pittwater Headquarters 1, Warringah Pittwater, Region East**

On 1 October 2013 these units responded to a fuel tanker crash and resulting fire on Mona Vale Road, Warriewood. The crews faced many significant risks including downed power lines, vehicles on fire, bush alight and a flowing fuel fire. They supported Compressed Air Breathing Apparatus operations and provided an ongoing supply of water and foam.

- Anthony (Tony) Lord, Timothy (Tim) Lord, Travis Buckman, Shane Jones, Robert Cummins, Michael Davies, Joel Mahwhinney, Krystie Clarke-Smith, David Snelson, Christopher Snelson and Ian Maidens**

**Cobar Headquarters Brigade, Geandale Brigade and Far West Team Region West**



At a fire at the Occidental Hotel, Cobar on 17 August 2014 these units were the initial response and provided firefighting support to Station 256 Cobar FRNSW units who were also responding to the incident. When one of the FRNSW crew was killed and another seriously wounded, these personnel assumed control of the incident and maintained an effective operational response capability.

**NSW RFS: Michael Aquilini, Philip Brockett, Sean Cappell, John Cuthbertson, Adam Davies, Rory Firkins, Adam Hill, Ian Jauncey, Richard Jennings, Robin Miller, Robert Nicol, Damian Oborn, Colin Orman, Robert Pate, Daniel Perriman, Craig Smith, Josh Stannard, Phillip Walker, James Wharton and Bradley Zerbes**

**National Parks and Wildlife Service: Jason Abel, Chris Banffy, Mark Barrow, Richard Bjork, Nathan Clark, Scott Colefax, Richard Collins, Shane Edmonstone, Dean Egan, Steve Eke, Michael English, Alfred Fazldeen, Greg Frankham, Kim de Govrik, Nigel Holland, Darren Jol, Patrick Kirton, Stephen Mills, Shayne O'Sullivan, Greg Pearce, Tony Pearson, Dough Pritchard and Michael Splisted**

**Remote Area Firefighting Teams**

During significant fire activity in the Blue Mountains in October 2013, an aggressive and robust containment strategy was

employed. These Remote Area Firefighting Teams, made up of NSW RFS and National Parks and Wildlife crews, conducted back-burning during high-risk, night-time operations in steep and rugged terrain. The crews completed this difficult and essential work admirably and their efforts protected many lives and properties.

**COMMISSIONER'S CERTIFICATE OF COMMENDATION (INDIVIDUAL)**

*Awarded to recognise service or outstanding actions in relation to fire service duties, administrative leadership, or exemplary performance of a specific project or task. The Certificate of Commendation may be awarded to an individual or unit for service beyond the scope of responsibility normally expected of that person or unit in their assigned duties and is therefore worthy of acknowledgement and commendation.*

**Deputy Captain Matthew Esson Hornsby Brigade, Hornsby/Ku-ring-gai, Region East**

Deputy Captain Matthew Esson was travelling along the Berkeley Fire Trail in Berowra Heights on 9 March 2014 when he found Mr Tim Bridge, wandering injured and disoriented after a mountain bike accident. Deputy Captain Esson's acts saved Mr Bridge and his family from significant pain and recovery time.

**Captain Stephen Price Valley Heights Brigade, Blue Mountains, Region East**

Faced with extreme odds, Captain Price saved a significant number of children and adults from potential harm with his quick thinking and actions on 17 October 2013 when a fire was reported at Linksvie Road Springwood in the Blue Mountains.

**COMMISSIONER'S CERTIFICATE OF COMMENDATION (UNIT)**

*Awarded to recognise service or outstanding actions in relation to fire service duties, administrative leadership, or exemplary performance of a specific project or task. The Certificate of Commendation may be awarded to an individual or unit for service beyond the scope of responsibility normally expected of that person or unit in their assigned duties and is therefore worthy of acknowledgement and commendation.*

**Blue Mountains Rural Fire District Region East**

On 17 October 2013, the Blue Mountains community faced three major and out-of-control bush fire events. Further destruction of property and possibly life could have occurred if it were not for the diligence of the Blue Mountains District. All brigades and Group Officers demonstrated incredible levels of response, support and community involvement.

**Bourke Headquarters Brigade, Geandale Brigade, Nyngan Headquarters Brigade and Far West Team Region West**

At a fire at the Occidental Hotel in Cobar on 17 August 2014, these brigades provided additional assistance and relief to the on-scene crews.

**Davidson Brigade Warringah Pittwater, Region East**

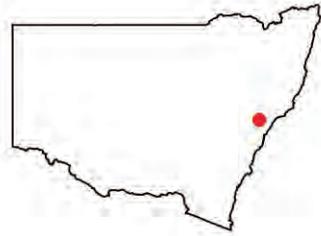
From 2012 to 2014 Davidson Brigade implemented a far-reaching community engagement project known as Operation Proactive. Davidson Brigade has gone beyond normal expectations of a brigade with the implementation of Operation Proactive, and is therefore worthy of commendation.

**Warringah Pittwater Supporting Units**

**Beacon Hill 1, Davidson 1, Duffys Forest 1, Ingleside 1B, Terrey Hills Pumper, Warringah Pittwater Communications Unit, Warringah Pittwater Group 5 and Warringah Pittwater Staff, Region East**

At Mona Vale Tanker fire October 2013 these units provided critical first aid, supplying water, foam and breathing apparatus operators to the firefighting operation, and assisting the first-in NSW RFS crews. They also evacuated and protected properties adjacent to the fire.

# Building trust in your community



Building trust within the community is the work of all brigades. The brigades of Wollombi Valley in the Lower Hunter are using national research findings to support their bush fire community safety strategy. While experience and common sense had led these volunteers in the right direction, Cooperative Research Centre material reinforced their approach and added credibility to their place within the community. Nathan Maddock, Communications Officer, Bushfire and Natural Hazards, CRC



Nestled in a valley of the Lower Hunter region of New South Wales is the town of Wollombi, bordered on all sides by extensive eucalypt forest. National parks and state forests completely surround the town and there are only three roads in and out. The risk of a bush fire is high, with major fires occurring in 1994, 2001, 2002 and 2004.

But with this high fire risk comes a unique approach to combating it, driven through local volunteer fire brigades. It doesn't just involve big red trucks, orange air cranes in the sky or scores of yellow-clad volunteers dousing roaring flames. Their mode of attack has been to use evidence-backed research to increase the knowledge of local residents

about their level of fire risk and how to combat it.

"I could see the value of us educating the locals," says Glenn O'Rourke, Deputy Captain and Community Safety Officer at the Wollombi Rural Fire Brigade.

"When we'd have a fire, with smoke across the valley, people would ask us 'where is the fire, what's happening?' They'd be concerned about the threat of bush fire and what they should do. They would engage with us [the brigade], but I could see many of our brigade members not knowing how to respond, or not understanding that we had a role to play beyond just fighting the fire. We had a lot of knowledge we should've been sharing."

This was back in 2005 when Wollombi Brigade's first foray into community safety came in the form of a visit to a small, remote community located within the Yengo National Park, about 45 minutes from the village.

"Residents were very concerned about their bush fire risk, so we said we would come out and have a chat," explains Deputy Captain O'Rourke.

"We hopped in the truck, had the BBQ on the back and off we went. On the way we were talking to each other, wondering what we were going to say.

"When we got out there we stood around and chatted, answering questions. The

residents were thanking us and saying how great it was. On our way home we reflected on how fantastic the visit was – we gave them a lot of information, increased their confidence levels and made a risky area safer for the community and the brigade.

"That was really the start. We then started to target areas of highest risk and where we knew locals would be interested."

National research conducted by the Bushfire CRC, and now the Bushfire and Natural Hazards CRC, after major bush fires since the 2009 Black Saturday fires in Victoria has shown a significant percentage of residents interviewed did not believe they were at risk from a bush fire, and therefore neither planned nor prepared for the possibility that a bush fire would occur. Written plans, which are strongly advocated by fire agencies, were a rarity, with only 5.4 percent of the 1,669 people surveyed across Victoria, Western Australia, Tasmania and New South Wales indicating they had a written survival plan. Few interviewees had participated in organised community bush fire safety activities.

Deputy Captain O'Rourke has followed the research closely and used the findings to inform the brigade's community engagement strategy.

"The research for me is really powerful. It really reinforces and gives you confidence that these are the critical things we need to focus on," he says.

"From my experience, I had a sense of what was important to prepare our community for fire. And when I saw the CRC research strongly and objectively confirmed our approach was right, it reinforces our strategy to stick to the fundamentals."

Deputy Captain O'Rourke analysed the findings of CRC research conducted after the January 2013 fires around Yass, Shoalhaven and Coonabarabran in NSW. He broke down the findings into seven key engagement areas:



- survival planning
- preparation
- local information
- naming of fires
- warnings and alerts
- fire danger ratings
- survival decision making

The brigade has four main community engagement principles that cover these seven key engagement areas:

1. Understanding the level of risk
2. Understanding how to effectively prepare
3. How to make a really good survival decision
4. Document a practical plan that reflects this decision

Deputy Captain O'Rourke believes the Wollombi community has responded positively to a friendly but highly professional approach to bush fire safety; an approach that is backed by the latest independent research.

"It's about two key things: accessibility and credibility," he observes.

"Our doors are open to come in and we have strong, credible evidence from a research base to say 'here is the level of fire risk'. It reinforces the professionalism of the brigade.

"These relationships are built during a time when there is no fire. They [the community] see us as professional, trusted and that we know what we're talking about.

"When a fire occurs, we become repositioned as leaders. There is a level of trust

and respect when it is really needed."

The Wollombi brigade has a number of forums it uses to increase community safety and conducts its own evaluation to measure success.

Before a workshop or forum, each participant is asked to rate their level of understanding of a subject, for example risk of fire. After the workshop, the same question is asked again.

"We haven't scared people, but have shifted their knowledge and given them confidence," says Deputy Captain O'Rourke.

But what happens, after the workshop, when the community member is back in their home or out on their property?

"I had always thought, we have generated all this energy in the workshop, but have we actually translated that into changed behaviour?," wonders Deputy Captain O'Rourke.

To measure this, in January 2013 when there were three fires in the area, he surveyed people who had participated in a local bush fire safety workshop or attended a bush fire safety information forum. 162 people responded, a response rate of 36 percent.

"We were able to determine that not only do people leave a workshop saying, 'yes, you have changed my level of understanding', but also 'I have taken that knowledge and changed my behaviour'," Deputy Captain O'Rourke says.

Eighty-eight percent of those surveyed were aware of the fires, with 51 percent declaring that they had a written Bush Fire Survival Plan. This written plan figure is remarkably more than the 5.4 percent of the 1,669 people surveyed between 2009 and 2014 by both the Bushfire CRC and the Bushfire and Natural Hazards CRC.

Wollombi Rural Fire Brigade's evaluation also showed an increase in the preparation for a bush fire, with 91 percent indicating they were very well prepared, well prepared or prepared, with 79 percent taking steps to implement their survival plan.

"This is evidence that we were changing people's behaviour,"



## Research you need to know about

A summary of CRC research findings from interviews conducted after bush fires in Victoria, Western Australia, Tasmania and NSW is available in Hazard Note 004 at [www.bnhcrc.com.au/hazardnotes](http://www.bnhcrc.com.au/hazardnotes).

Of particular interest are the following articles:

### Living on the edge – living with risk

Bradstock R, Penman T, Price O, Penman S, Wilkinson C, Gill N, Dun O, Brennan-Horley C, Eriksen C (2014) Living on the edge – living with risk, Bushfire CRC Fire Note 129 <http://www.bushfirecrc.com/resources/firenote/life-edge-living-risk>

### Prepared for action: new tools and insights

Dunlop P, McNeill I, Boylan J, Skinner T, Morrison D (2014) Prepared for action: new tools and insights, Bushfire CRC Fire Note 132 <http://www.bushfirecrc.com/resources/firenote/prepared-action-new-tools-and-insights-0>

### Promoting community bush fire preparedness

Frandsen M, Paton D, Middleton P 2013, Promoting community bush fire preparedness, Bushfire CRC Fire Note 107 <http://www.bushfirecrc.com/resources/firenote/promoting-community-bushfire-preparedness>

### Warning fatigue is not a myth

Mackie B (2014) Warning fatigue is not a myth, Bushfire CRC Fire Note 122 <http://www.bushfirecrc.com/resources/firenote/warning-fatigue-not-myth>

### Capturing community bush fire readiness: post-bushfire interview studies 2009-2014

McLennan J (2015) Capturing community bush fire readiness: post-bushfire interview studies 2009-2014, Bushfire and Natural Hazards CRC Hazard Note 004 <http://www.bnhcrc.com.au/hazardnotes/004>

# It's only neighbourly



Open Day - Fire Safe Neighbours morning tea. Photo by Wollombi Brigade

Wollombi's latest initiative is the Fire Safe Neighbours, where the brigade take their bush fire safety program to the community and are helping neighbours from the same road work together to be bush fire safe.

"Milson's Arm is our first road," says Leanne Bell, Deputy Captain, Wollombi Brigade. "On Open Day 2014 we visited every property on the road and invited all residents to a morning tea to have a chat over a cuppa about bush fire safety.

"We proposed to those who came, that as neighbours, they could talk about their shared bush fire risks and look for ways to help one another.

"Following the morning tea, the first Fire Safe Neighbours meeting was held at a resident's property and they

now have an understanding of their bush fire risk, basics of how to prepare their properties and most importantly how to make a good survival decision. As well, these residents have established a shared contact list – this was a great result. We plan to return and conduct property inspections and pass on useful trips on defending their properties."

Deputy Captain O'Rourke adds: "As well as working with neighbours to support each other to be FireWise, the Fire Safe Neighbours program is also about

establishing a network of connected communities across the Wollombi Valley, with a representative of the various neighbour and special interest community groups such as the Pony Club, coming together to form a community-based Bush Fire Safety Committee.

"Our plan is to partner with this group of locals to both better prepare our community, as well as in the event of a bush fire respond so as to ensure the community's safety and survival."

## **Study captures insights on bush fire risk and responses: research findings from the October 2013 NSW bush fires**

McLennan J (2014), Study captures insights on bush fire risk and responses: research findings from the October 2013 NSW bushfires, Bushfire CRC Fire Note 131 <http://www.bushfirecrc.com/resources/firenote/study-captures-insights-bushfire-risk-and-response>

## **Residents intentions and reasons in the face of bush fire**

McLennan J, Beatson R, Elliott G (2014) Residents intentions and reasons in the face of bushfire, Bushfire CRC Fire Note 117 <http://www.bushfirecrc.com/resources/firenote/residents-intentions-and-reasons-face-bushfire>

## **How three communities reacted to bush fire: research findings from the January 2013 bush fires in NSW**

McLennan J, Wright L, Mackie B (2013) How three communities reacted to bush fire: research findings from the January 2013 bush fires in NSW, Bushfire CRC Fire Note 119 <http://www.bushfirecrc.com/resources/firenote/how-three-communities-reacted-bushfire>

## **Defend or evacuate? Why residents delay this decision**

McNeill I, Dunlop P, Flatau H, Skinner T, Morrison D (2013), Defend or evacuate? Why residents delay this decision, Bushfire

CRC Fire Note 112 <http://www.bushfirecrc.com/resources/firenote/defend-or-evacuate-why-residents-delay-decision>

## **Predicting bush fire preparedness from bush fire expectations**

McNeill I, Dunlop P, Flatau H, Skinner T, Morrison D (2013), Predicting bush fire preparedness from bush fire expectations, Bushfire CRC Fire Note 108 <http://www.bushfirecrc.com/resources/firenote/predicting-bushfire-preparedness-bushfire-expectations>

## **National study profiles bush fire preparedness**

Morrison D, Lawrence C, Oehmen R (2014) National study profiles bush fire preparedness, Bushfire CRC Fire Note 133 <http://www.bushfirecrc.com/resources/firenote/national-study-profiles-bushfire-preparedness>

## **How three South Australian communities responded to the 2014 bush fires**

Trigg J, Rainbird S, Thompson K, Bearman C, Wright L, McLennan J (2015) How three South Australian communities responded to the 2014 bush fires, Bushfire and Natural Hazards CRC Hazard Note 005 <http://www.bnhcrc.com.au/hazardnotes/005>

# Global impact

The high standard of community engagement within NSW RFS brigades, has been acknowledged at a global conference.

Deputy Captain Glenn O'Rourke was invited to represent the NSW RFS as a presenter at the 13th International Wildland Fire Safety Summit and 4th Human Dimensions of Wildland Fire, Boise, Idaho, USA.

Deputy Captain O'Rourke's presentation 'INSIGHT + ACTION = RESILIENCE' showcased the Wollombi Valley Firewise program as a highly effective localised research based approach to community bush fire safety... a program that has delivered tangible behavioural change and significantly improved community resilience. The presentation can be viewed on YouTube at the following address: <https://youtu.be/GbSqAojpN5g>

The Conference was presented by the International Association of Wildland Fire as a forum for discussion and review of the diverse aspects of human behaviour and safety in wildland (bush fire) management involving a spectrum of academics, administrators and practitioners from across the various disciplines and authorities working in the field of wildland fire management. The three-day conference program comprised 150 oral presentations, 30 poster presentations, plus a number of plenary and special panel sessions.

The conference was attended by in excess of 250 people from nine countries including Spain, New Zealand, Canada, Portugal, United Kingdom, France, Russian Federation and the United States of America. Australian representation included the New South Wales Rural Fire Service, Victorian Country Fire Authority, Tasmania Fire Service, Kuringai Council (NSW), University of Western Australia, Australian National University, and RMIT University.

In addition, Jane Hayward, Principal of Strathewen Primary School, in Victoria was a keynote speaker sharing her experiences of the devastating Black Saturday bushfires of

2009, as well as the post-fire challenges of recovery of the small rural community of Strathewen.

## Conference themes

The conference addressed a broad range of topics in regard to both fire management and human safety. However, an over riding topic was the changing nature of wildfire, with fires becoming more frequent and more intense due to the combined factors of climate change, expansion of the 'urban interface' and the impact of altered wildland vegetation.

The changing focus of fire suppression as the primary goal of fire management was also discussed. Presenters highlighted an increased focus on the controlled management of a wildfire vs. immediate suppression for the purpose of ecological restoration of natural environments and its establishment as a resilient

landscape, better able to withstand wildfire without the loss of life or property.

An important community bushfire safety theme addressed the challenges and achievements of developing 'fire adapted communities' as a key strategy to address the increasing population living in the wildland urban interface. It was acknowledged that despite a "policy" of mandatory evacuation the high risk wait and see option is also a major issue for US fire authorities.

However, at both local and national levels a range of 'firewise initiatives' are undertaken to seek to build communities better prepared for the threat of wildfire, with the major focus being on preparation, 'layered' landscaping and the single option of 'evacuation' planning, rather than a 'leave early or actively stay and defend' survival decision.

## Common challenges

Not unexpectedly, US and other international fire services, policy makers and community safety practitioners are faced with the same challenges as in Australia.

Reducing the risk of loss of life and property due to the impact of wildfire, the lack of understanding of fire risk, preparation and planning, as well as the high percentage who choose to adopt the high risk 'wait and see' option remain as common challenges.

Despite the common challenge, however, conference presentations clearly demonstrated that the NSW RFS model of volunteer delivered community safety programs supported by NSW RFS staff, community safety messaging and most significantly fire event warnings and alerts proudly leads as global 'best practice' community safety.



ABOVE: Deputy Captain Glenn O'Rourke at the Poster Session of the 13th International Wildland Fire Safety Summit and 4th Human Dimensions of Wildland Fire, Boise, Idaho, USA



# Climb in a million

By Deputy Captain Darryl Luck, Medowie Brigade

When people think of firefighters helping people, it's usually images of bush fires, burning buildings and vehicle accidents; but how many people think of thousands of stairs?

The sport of stair climbing is another way firefighters save lives, by ascending skyscrapers on foot around the world to raise money for charities. It's extra challenging because most participants climb in full structural kit with breathing apparatus (BA).

I was introduced to the sport after entering the stair climb at the 2014 Australasian Police and Emergency Services Games in Melbourne. We climbed 43 floors of the Rialto in kit and I've since competed in several climbs, including the 70-floor Sydney Tower climb.

The Sky Tower Firefighter Challenge is held annually in Auckland. It's 51 floors high and registrations are limited to 770 people but I was lucky enough to score a place. Many fire stations in New Zealand hold a ballot to see who gets to attend and who has to remain behind to provide fire service.

The climb raises money for Leukaemia and Blood Cancer NZ - I raised money by selling biscuits at work. The excitement increased as

I prepared for the trip across the ditch. I had a sponsor in Draeger Fire, who loaned me one of their top-of-the-line structural helmets which is well balanced and reduces neck strain. It's also bright red so you can't miss it!

I arrived in NZ a couple of days before to attend a dinner and do last-minute fundraising. Apart from the Kiwis and me, the first firefighter from NSW to attend the event, firefighters from Victoria, Queensland, South Australia, Germany, USA and Chile were represented.

On the morning of the climb the surrounding streets were filled with firefighters and fire trucks and the tower was lit red especially for the climb. There was also an impressive Haka - if seeing this didn't get you pumped, I don't know what would!

Climbers were released at 15-second intervals and the sound of hundreds of boots plodding on concrete steps echoed throughout the structure. After just four floors, we exited at street level to run a lap outside the tower in front of supporters, before re-entering the building to continue the ascent.

In the early stages I was alone because of the staggered

start times but I began to encounter other climbers as fatigue took hold of everyone. It was common to round a flight of stairs and see someone hunched over trying to suck in air and take a short break.

It quickly became a mental battle once the body got tired. You have no choice but to keep moving because once you're in the tower, there are no floors to catch a lift down - but nobody would ever think of quitting anyway.

Counting the floor numbers on each level became my obsession. As I neared the top, I could hear voices at the finish line and it encouraged me to drive hard towards the end. I was knackered, but I wanted to finish strong.

The finish line of a stair climb is like a scene from a medical show. People collapsing as they finish, exhausted physically or literally running on empty with no air left in their cylinders but refusing to remove the mask. They just hold their breath and push as far as they can. Insane determination!

That night there was a grand dinner and an announcement they had reached the magic million dollar mark, which was awesome to be a part of as the climb is the primary source of income for the charity.

To train for a climb, you need to work on all aspects of your fitness. Cardio, upper-body strength and of course leg strength. Fatigue is your enemy. The leg muscles tire quickly, the arms weaken as you use them to pull yourself up using the hand rails and your heart rate and breathing goes through the roof as you struggle to get in enough air from the regulated BA set flow rate. Each week I did one session of stairs in full kit using BA, as well as daily circuit training and running.

I wore a monitor and my heart rate peaked at 193 beats per minute, which is 109 per cent of my max heart rate, so I can say I gave it 100 percent effort on the day. The experience was rewarding, memorable and I will definitely be going back!

To see a short Gopro video of Darryl's experience on the day: [www.youtube.com/watch?v=gtPCEztQWOY](http://www.youtube.com/watch?v=gtPCEztQWOY)

ABOVE LEFT: Darryl Luck crossing over the finish line. Photo by Phillip Kite. ABOVE RIGHT: Sky tower in Auckland, NZ where the Sky Tower Firefighter Challenge took place. Photo by Phillip Kite

# VALE

## Senior Deputy Captain Colin Pyne

**Brigade:** Penrose Brigade, Southern Highlands

**Died:** 7 July 2015

**Written by:** Mark Compton, AM, Penrose Brigade



Col shared his knowledge and experience with others freely, wisely, compassionately – never making the trainee feel incompetent

Col joined the NSW RFS at Penrose Brigade after a black Christmas in 2001, when fires burned across NSW for several weeks. He felt the call to serve, a calling he has vigorously and faithfully answered for the last 13 years as a NSW RFS volunteer.

Since joining the Service, Col gave as much time and effort as a volunteer reasonably could. Formal courses completed and qualifications Col achieved include; Bush Firefighting, Village Firefighting, Advanced Firefighting, Crew Leader, Rural Fire Driving, Senior First Aid, Chainsaw Operator, Traffic Control Operator.

Col never expected other members of the brigade to do things he could not do himself. He set an example to others that continuing education and training is a must in order to offer a professional response – the mark of a true and great leader. It's little wonder that he ultimately became one of our senior officers in the brigade.

Col gave generously of his time to help others learn but he never sought the limelight. A humble man with much to offer and be proud of, he did it in a quiet, dignified manner. He shared his knowledge and experience with others freely, wisely, compassionately – never making the trainee feel incompetent; never giving the impression that his knowledge

made him powerful. He simply wanted to share.

Col showed strength and courage when he took on teaching a couple of us in the brigade to drive the larger fire truck – the Category 1 appliance, 14 tonnes of pure driving pleasure! Learning to move this beast around, my wife Elizabeth and I had our moments. I didn't always find the correct gear on the first attempt. Sometimes it took a little bit of 'work'. But we grew confident as a result of Col's gentle, careful, wise guidance. Not once did I ever hear a sudden intake of breath; a lunge for the nearest grab rail or a loud "Oh strewth" from the passenger seat. It was always calm advice and comments of praise. An example of Col's warm sense of humour was when Elizabeth and I gained our truck licenses and he presented us with blue truckie singlets!

Col was always a big hit at brigade Open Days as he was so caring with the children in particular. From the beaming smile that adorned Col's face, I think I know who was having the most fun. The same words keep popping up from all who have written or spoken to us or posted on the Penrose Brigade Facebook page: generous, selfless, wonderful, caring, gave his all, humble, warm, smiling, cheerful, giving, a safe pair of hands.

When the call came, Col was ever-willing to help. Not only in Penrose but also further afield. He was an active participant in deployments to the devastating Canberra fires in 2003, the 2009 Black Saturday bush fire in Victoria and the Delegate Fires in 2014.

Col's wise, calm approach at any incident always made us feel safe and able to do the best job we were capable of. That legacy remains with all those he guided and taught and continues as a valuable lesson for all those who teach others.

Knowing Col Pyne is like being hit in the backside with a rainbow - we have all been so lucky to have known him. Our sense of loss as a Service, and the Penrose Brigade in particular, is tiny compared with the huge loss that Heather, Kellie, Simon, Scott and all the family must be feeling. We stand with Heather and the family to give support in any way we can.

We mourn and grieve for the loss of a great friend and colleague, but we celebrate Col's friendship and his enormous contribution to community and in helping us all to be stronger, safer and more resilient.

Col Pyne, we thank you, we admire you, we respect you and we salute you.

# AUSTRALIAN COMMUNITY ENGAGEMENT AND FIRE AWARENESS CONFERENCE

Albury Entertainment Centre  
19–21 May 2016

The Australian Community Engagement and Fire Awareness (ACEFA) Conference brings together Community Engagement practitioners from emergency services, government and private sectors with the aim of sharing knowledge, experiences and best practice in engaging with our communities to improve community safety. Hosted by the NSW Rural Fire Service every two years, the 2016 ACEFA Conference will be held in Albury for the first time.

## Applications to Attend

If you would like to attend the 2016 ACEFA Conference, you will need to lodge an **'Application to Attend'** for approval by your District Manager.

Applications to attend will open in late 2015. Details on how and where to lodge an application will be posted on MyRFS.

**"Came home with a buzzing mind full of ideas to put forth to my brigade and area"** 2014 ACEFA delegate

For more information about the 2016 Australian Community Engagement and Fire Awareness Conference, visit the Community Engagement section of MyRFS.

**SAVE THE DATE AND  
WATCH THIS SPACE  
FOR MORE DETAILS!**

# Puff creates a little magic of its own

*Puff the Tragic Waggon*, a rebuilt Blitz fire truck located in the Hornsby area, has brought together distant relatives and rekindled childhood memories. Sharon Willis from Mooneba/Turners Flat Brigade writes here about the chain of events that followed when she saw a photo of *Puff*.

"I spent most of my childhood living at Hornsby Heights. Whenever *Puff* had something to do I was there.

As a small girl I was in the marching girls for Hornsby RSL and *Puff* always attended the march. We kids used to go on *Puff* through the streets of Hornsby after the march.

My grandparents, Nan and Pop Weick, managed the tip in Kookaburra Road, Hornsby Heights for years. It's where I spent most of my childhood. Sometimes *Puff* would stay there for the weekend.

I remember once being in trouble with Nan. I went and hid in *Puff* one day and fell asleep on the front floor.

My father, Sonny Peters, worked for Hornsby Shire Council for about 30 years.

He was an honorary ranger which meant he worked after hours and weekends maintaining fire trails in The Gorge. So *Puff* was a big part of his life as well and sometimes I would go out with Dad in the council truck and *Puff* would also attend.

Now as a bush firefighter and President of Mooneba/

Turners Flat Brigade, I recently received the RFSA Newsletter where I saw an article on *Puff* (see below). It brought tears to my eyes as my childhood memories came flooding back. In one of the photos was my Pop on the back of *Puff*.

My husband Allan rang the RFSA to get a copy of the photo for me.

They contacted Terry Donnelly from Hornsby Brigade who has been largely responsible for the renovation and rebuild of *Puff*. They gave him my phone number and when he rang I told him about my Pop. Terry replied: "That's my Pop."

We spoke for a while and worked out that we are distant relatives. Terry, Sharon and *Puff* reunited after 50 years!

I came down to Galston to meet Terry and see *Puff* once again.

That day was very emotional. *Puff* was looking so beautiful just as I remembered her. And of course Uncle Terry! God love him! He's 83 now and so very proud of *Puff*. It's a credit to Uncle Terry and everyone concerned in *Puff*'s restoration that she's back to her original condition. She's a big part of history and brings back great memories.



From the RFS Newsletter

# Puff the Tragic Waggon

If you live in the Hornsby Heights area, there is a good chance you have come across a little red fire truck by the name of *Puff the Tragic Waggon*\*

Affectionately named due to its slowness climbing hills, *Puff* arrived in Hornsby in 1966 as a 1942 Chevrolet Blitz passed on to members of the recently formed The Gorge Volunteer Bush fire Brigade. Arriving at the station in tired condition the little Blitz was brought up to standard by brigade members in preparation for the 1966-67 bush fire season.

Before long *Puff* was joined by *I'm Puffed Two*, a Ford light truck converted to carry equipment and personnel. *Puff* served with distinction in and around Hornsby and was the popular winner of the 'Best Tanker' at many local field days.

In 1973, after the arrival of a new Bedford 4 x 4 tanker, *Puff* moved to West Pennant Hills Brigade for several years. Also around this time The Gorge Volunteer Bush Fire Brigade changed its name to Hornsby Heights Volunteer Bush Fire Brigade.

Eventually, West Pennant Hills Brigade was also issued with a new Bedford tanker and *Puff* was retired along with all Blitzes across the state. In retirement, a farmer in the Mudgee district bought *Puff* along with a number of the old tankers from the Hornsby Council to use as farm vehicles.

*Puff* spent a couple of decades working the land until 2000, when a group from the brigade went in search for the *Tragic Waggon* and discovered poor *Puff* in pieces and about to be buried in an erosion ditch.

*Puff* Coordinator and former Captain of Hornsby Heights RFB Terry Donnelly remembers the discovery.

"What a sight, pulled to pieces and spread around the area, the largest piece was the chassis and running gear."

After bargaining with the farmer, *Puff* was purchased by the firefighters, "[for] around \$200 and two slabs of 'Crownies'"; and work began to restore the truck to its original glory.

After eight years of hard labour and help from locals including Hornsby Shire Council, clubs, firms and dedicated volunteers, *Puff* was brought back to life.

Today, *Puff* is completely rebuilt and used in community engagement for Hornsby Heights RFB as it accompanies foundation brigade members to parades, school fairs, static displays, Santa Runs, motor shows and Easter shows.

"We are very proud to have *Puff* in Hornsby Heights RFB, we are well aware that many other brigades would love to have her," said Terry.

\**Waggon* was traditionally the preferred British English spelling of *Wagon* until the late 20th Century.

As a small girl I was in the marching girls for Hornsby RSL and *Puff* always attended the march. We kids used to go on *Puff* through the streets of Hornsby after the march.



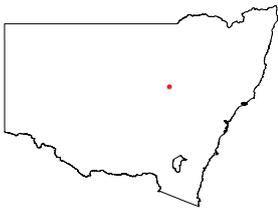
OPPOSITE PAGE: The photo which drew Sharon and Terry to have their reunion. Sharon and Terry's 'Pop' is on the truck in the foreground. TOP: After 50 years Sharon Willis was reunited with *Puff* and met her relative Terry Donnelly, one of the NSW RFS members who has lovingly restored the truck. Photo courtesy of Sharon Willis. ABOVE: Sharon is in the foreground holding a doll. Photo courtesy of Terry Donnelly.

## BRIGADE IN PROFILE

# Jamberoo



**Name of Brigade:** Jamberoo  
**Year brigade formed:** 1940  
**Current Captain:** Craig Harris  
**D/T/Z:** Illawarra



Jamberoo Brigade held their 75th Anniversary and Medal Presentation at the fire station on Saturday 16 May 2015. With family and friends present, 11 members received a Long Service Medal – six for 10 years, two received a 20-year clasp, while one medal each was awarded for 30, 40 and 50 years' service.

An impressive line-up of speakers addressed the assembled audience. First up was Superintendent Richard Cotterill, AFSM, Manager Illawarra Zone, who emphasised the value of family

members to volunteers. He was followed by Craig Harris, Jamberoo Brigade Captain, who gave a brief history of the brigade.

From humble beginnings in 1940, when the brigade's basic equipment (a stand pipe, triple director and a length of canvas) was stored in a box at the post office, through to today's new fleet (Isuzu Cat 1, Hino Pumper, Landcruiser Cat 9 and a PC), Craig reflected on how far the service has progressed in the last 75 years.

Next to speak was Brian Petschler, Mayor of Kiama, who lauded former and currently serving members for their community commitment. Gareth Ward, State Member for Kiama (who represented The Honorable David Elliott, Minister for Emergency Services), relayed the Minister's tributes and personally congratulated the brigade on a commendable feat.

Finally, Assistant Commissioner Stuart Midgley, AFSM took to the lectern and praised

the efforts and commitment of members. Reiterating the value that family members play in our role as volunteers, Assistant Commissioner Midgley reminded us that the community has come to rely on the brigade for direction in times of need.

Assistant Commissioner Midgley also presented the recipients with their Long Service Medals. While all the awards represent a significant achievement, it was particularly special to present Life Member John Downes with his 50-year clasp.

With the formalities complete, members, family and guests enjoyed catching up over refreshments, including a spit roast kindly provided by Illawarra Group 6, Andrew Sweeney. In addition to the official dignitaries, the event was attended by Group Captains from the Illawarra region as well as Captains from neighbouring brigades.

A great day was had by all and old stories and memories were shared as newer members

listened on. By the completion of festivities, everyone went away safe in the knowledge that with the NSW RFS, they are in safe hands.

### List of recipients

#### 10 year Long Service Medal:

Gerard Blunden (Apology)  
Kay Brennan  
Leanne McParland  
Susan Downes  
Kathleen McInerney  
Robert Budd (Apology)

#### 20 year Clasp:

Lindsay Delamont  
John Friedman

#### 30 year Clasp:

Craig Harris

#### 40 year Clasp:

John Fry (Life Member)

#### 50 year Clasp:

John Downes (Life Member)



TOP: Members of Jamberoo Brigade pose for an official brigade photo ABOVE LEFT: Life Member John Downes receives his 50-year clasp from Assistant Commissioner Stuart Midgley, AFSM. Gareth Ward, Member for Kiama, applauds, while Kiama Mayor Brian Petschler looks on. ABOVE RIGHT: 50-year clasp recipient John Downes with dignitaries: (L-R) Michael Forsyth (General Manager, Kiama Council), Brian Petschler (Mayor of Kiama), Gareth Ward, MP (State Member for Kiama) and Assistant Commissioner Stuart Midgley, AFSM

# VALE

## Inspector Elan Palmer

**Brigade:** South West Slopes Zone

**Died:** 18 July 2015

**Written by:** Commissioner Shane Fitzsimmons, AFSM



### 23 July 2015

Inspector Elan Palmer from the South West Slopes Zone passed away Saturday 18 July 2015 after a terribly tragic accident. Elan and his son, Adam, were collecting firewood with friends, who are also NSW RFS members, when in the process of felling a tree, Elan was struck and trapped by the tree. He was 43 years old.

Elan's operational experience, training and qualifications were extensive, including Advanced Tree Felling and Chainsaw Cross Cut. I have spoken to a number of people this week who've all noted how particular Elan was with all he did, including the delivery of specialist training programs and when conducting operations. This accident has clearly shocked all of us and I keep hearing people saying things such as: "I can't believe this would ever happen to Elan," and "He's the last person I would have expected to suffer such a tragic accident," and "It just doesn't make sense, I still can't believe it".

Elan started his career with the NSW RFS in 1995, when he joined the Bourke team as Deputy Fire Control Officer, before being appointed the Fire Control Officer for Bogan in 2000. Following the transfer to state employment in 2001, he was appointed Fire Control Officer for Bogan/Warren

and in 2003, became the Operations Officer for the North West Team. In 2009, Elan transferred to the South West Slopes Zone and he was due to receive his 20 Year NSW RFS Long Service Medal in July 2015 at the Region West Staff Meeting in Dubbo. Region Manager Paul Smith shared with me that Elan's colleagues read his citation, recognises and honoured his service at the ceremony.

I've spoken with Elan's wife Tammy and while naturally very distressed and devastated, she was remarkably strong and composed. As mum to their two children, Adam, 15, and Emma, 11, her focus is on their welfare and providing all the love and support she can during this most difficult time, and also in the knowledge that Adam was with his dad at the time of the accident.

Tammy spoke about how overwhelmed she was with the support and generosity of the NSW RFS family, in particular Andrew Dillon and the team at South West Slopes Zone, as well as our local Chaplains Brad and Katie Collins, who have been providing care and assistance beyond her expectations.

Elan's funeral service was held on Tuesday 28 July at the Uniting Church in Cootamundra. The funeral was attended by hundreds and hundreds of mourners - the

funeral director said it was the largest funeral seen in Cootamundra.

It was a difficult, yet fitting day for our South West Slopes Team in Cootamundra. Hundreds of colleagues, friends, community and family gathered at the Uniting Church to honour the life of Elan and to support his wife Tammy and their children, Adam and Emma. There was a series of wonderful tributes to the extraordinary life of a very generous and caring man many of the tributes focussed on training and developing others and simply seeking to make a positive difference in all that he did.

I had the privilege of presenting Elan's wife, Tammy, with her husband's NSW RFS 20 Year Long Service Medal. It was the medal that Elan had been scheduled to receive the previous week at the Region West Staff Conference.

There was a Guard of Honour that lined the street, comprising NSW RFS members, the local Fire and Rescue NSW crew who had attended the accident, as well as other emergency service personnel.

This show of support reminds us what a wonderful organisation NSW RFS is. Elan was not just a colleague and mentor but also a very dear friend. The funeral was a very sad day but it showed how the NSW RFS makes a difference in the community and how we come together when times are hard. It is why I love this organisation so much.

I know you all join me in extending our sincere condolences to Tammy, Adam, Emma and all the family. Our thoughts, prayers and best wishes are with them as well as Elan's friends and colleagues across the NSW RFS, in particular Region West and the South West Slopes Zone.

The funeral was a very sad day but it showed how ...we come together when times are hard

# Bush Fire Bulletin Survey

## About you

### Are you a:

- Volunteer
- Volunteer and staff
- Staff
- Member of the general public

### What is your primary location?

- Regional NSW - North
- Regional NSW - South
- Regional NSW - West
- Regional NSW - East
- Sydney

### For NSW RFS volunteers:

Are you a:

- Junior member
- Bush Firefighter?
- Officebearer in the Brigade?
- Group Captain?
- Community Safety Officer?
- Other:

### How often do you attend NSW RFS events, meetings or training sessions?

- More than once a week
- Once a week
- Once a month
- Several times a year
- Once a year

## Communications from the NSW RFS

### How do you currently source news about the NSW RFS? (Please select all that apply)

- Your local brigade
- Your local Fire Control Centre
- Bush Fire Bulletin*
- MyRFS
- Ebulletin
- NSW RFS Intranet
- Facebook
- The general media

### How would you prefer to receive communication about the NSW RFS?

- Email
- Website
- MyRFS
- Social media
- Post

### Would you prefer to receive more or less information from the NSW RFS?

- More
- Less
- Same

### How do you rate the quality of information from the NSW RFS?

- Excellent
- Good
- Could be improved

### Do you consider online communication more effective than printed material?

- Yes
- No

### Would you read the *Bush Fire Bulletin* if it were presented as an online magazine or website?

- Yes
- No

### For the *Bush Fire Bulletin*, what kind of information interests you?

Choose all those that apply.

- Incidents
- Operational Liftouts with 'how to' information
- Messages from the Commissioner
- Good news – successful programs
- Profiles of specific brigades and volunteers
- History
- Awards and Events
- Training information
- Community Engagement tips for volunteers
- Fire Safety messages for the general public
- Information suitable for children
- Innovations and research in firefighting
- Other – please indicate or make suggestions:

.....

.....

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# BUSH FIRE BULLETIN

SIGN UP TO RECEIVE BUSH FIRE BULLETIN DIRECT TO YOUR HOME OR UPDATE YOUR DETAILS



Cut out and mail to:

**Bush Fire Bulletin  
NSW RURAL FIRE SERVICE**

Reply Paid 67059 Locked Bag 17  
Granville NSW 2142  
(No stamp required)

or email your details to:

Bush.Fire.Bulletin@rfs.nsw.gov.au

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(Please include any post-nominals)

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