BUSH FIRE OU Letin

THE JOURNAL OF THE NSW RURAL FIRE SERVICE





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SO SORRY

We made a few mistakes in the previous issue of the Bush Fire Bulletin Volume 33 No 3 and we want to apologise to the people affected.

Cover photo

The cover shot of the Bush Fire Bulletin was of a hazard reduction burn at Bingara in August 2011. Inspector Scott Pollard from the South West Slopes Zone was the photographer.

We had credited Jason Wall for the photo.

Apologies to Scott!

Honours to six of our finest — page 31

Under the section about AFSM recipient Roy Stacy it was noted that Roy had been instrumental in forming the Katoomba Bush Fire Brigade. It should have read the Kooba Bush Fire Brigade which is near Griffel.

Open Day 2011 — Face painting - pages 38-9

A photo at Open Day 2011 showed Jennifer Donald from Sutherland Communications Brigade painting the face of a child. Fellow brigade member Sharon Campbell from Sutherland Communications Brigade said: "and she did a stellar job all day!" We had accidently credited Heathcote/HQ Brigade with the face painting.

Remembering our fallen volunteers - page 37

David Brown from Marsden Park Brigade pointed out that the name of the firefighter placing the flowers at the Volunteer Memorial Service was actually Firefighter Mark Brown. We had said that it was Marsden Park Deputy Captain Wayne Clarke.

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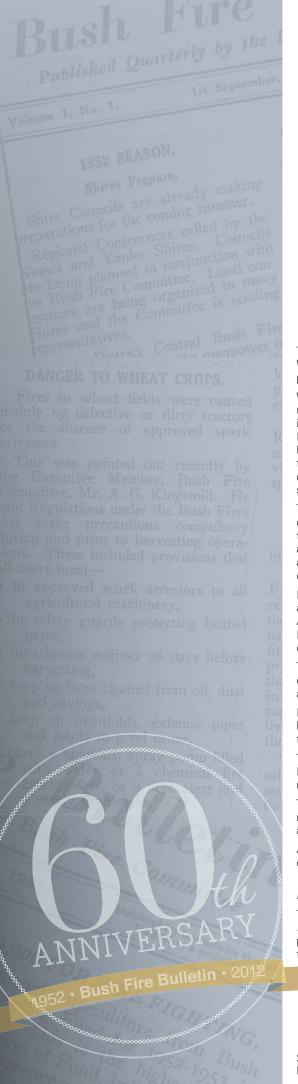
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Foreword



Welcome to another edition of the *Bush Fire Bulletin* as we celebrate the publication's sixtieth year.

With the official bush fire season and warmer months behind us it's a good time to reflect on the past fire season. In the previous edition of the *Bulletin* we featured the increasing threat of grass fires following the unprecedented rainfall around the State. I know it has come as a relief for many that we managed to avoid any devastating, large-scale grass fires - but as I travel the State I am constantly reminded that the long grass has not gone away. The chances of an El Nino weather system developing over the second half of the year are currently increasing and so too should our preparedness for the possibility of a hot and dry summer.

The overriding memory of this recent summer was the rainfall that plagued much of NSW and resulted in a large-scale flood emergency. Members who worked to assist the SES and flood-affected residents have generously shared first-hand accounts of their experiences, which make captivating reading. The dedication and professionalism of these crews, in sometimes very emotional and trying circumstances, is a testament to the whole Service.

I'd also like to make particular mention of the six outstanding members who were awarded with the Australian Fire Service Medal on Australia Day – a great honour. Another group of people worthy of congratulations are our courageous inaugural Kokoda Trekkers who recently completed the arduous journey in honour of fallen or seriously injured firefighters.

The Service uses a range of social media channels to communicate with the public every day and as such we have introduced a new Social Media Service Standard to assist members who use social media for Service activities.

I am committed to increasing the communication within the Service. This month we have launched two new innovations that complement the tradition established by the *Bush Fire Bulletin* 60 years ago – the *eBulletin* and a new MyRFS.

The *eBulletin* is a monthly electronic newsletter for all NSW RFS members. It features Service initiatives, programs and activities as well as a message from me in every issue.

The new MyRFS includes better news and information, better mapping and a wide range of really useful brigade management tools that will positively impact all members.

As we step more boldly into 21st century methods of communication, we can reflect on the words of the founding editors of the *Bush Fire Bulletin* from 1952:

The (Bulletin) will achieve its greatest value when it becomes a reservoir of knowledge built up by brigades themselves and drawn upon according to their needs.

This certainly describes the new MyRFS, the new *eBulletin* and the *Bush Fire Bulletin*. Congratulations to the *Bush Fire Bulletin* for reaching 60 years of publication. With the vision of the founding editors in mind, I encourage you all to sign up for the new MyRFS and the *eBulletin*.



Shane Fitzsimmons, AFSM NSW RFS Commissioner



facebook.com/rfscommissioner

focus

Graham lighter and brighter after The Biggest Loser



Carcoar Rural Fire Brigade member, Graham 'Gubby' Pilson changed his life by facing his fears and following his dream to lose weight on this year's series of The Biggest Loser. Graham has been a volunteer for the Carcoar Brigade for almost 20 years and was desperate to shed the kilos to get his compressed air license for firefighting – and a girlfriend. He managed to lose a staggering 64 kilograms before he was eliminated after a gutsy three month stint on the show.

His fellow NSW RFS volunteers made their support known on The Biggest Loser website:

"Hi Graham, [we] are watching every night and we know that you can do this. I am sure that all of the Canobolas Zone will be willing you on to the finish. Keep that determination going and cross that line, your mates at Lucknow Brigade."

Graham managed to turn his life around through sheer hard work and grit determination, from everyone at the NSW RFS – congratulations Graham.

Left, The Commando puts Graham Pilson through his paces. Photo courtesy of Channel 10.

New Work Health & Safety laws and the NSW RFS

As of January 2012, new Work Health & Safety (WHS) laws came into effect in NSW.

The new WHS laws replaced the former Occupational Health & Safety (OHS) laws in NSW. Under the new WHS laws the NSW RFS, employees and volunteers all have work health and safety duties.

The purpose of harmonisation of WHS laws was to introduce a nationally consistent set of laws covering Health and Safety at work. In recent years there have been variations between the Health and Safety laws of each State and Territory, and this has led to confusion for businesses and workers, as well as different safety standards depending on where the work is carried out.

The ultimate objective of the new WHS laws is to reduce the incidence of work related death, injury and illness, and to achieve the same protection for workers regardless of where they work and whether or not they are paid staff or volunteers.

All NSW RFS members need to be aware of the new laws and how they might be affected.

Read more about the new WHS laws on page 32.





Tfs A new way to share and connect

A wide range of new online services will be available to staff and volunteers of the NSW RFS from June 2012.

The new MyRFS includes many new features for volunteers to make brigade management that much more straight forward. Some of the new features include:

- Recording time for nonincident related activities like fundraising events or meetings
- Recording availability in a dedicated calendar – this can then be viewed by the Brigade Management Team and District Officers
- Nominating for training courses
- Viewing qualifications and competencies
- Better news and information, allowing Districts to directly communicate with members and send email notifications
- The ability for brigades to post information within their brigade

- A search function meaning better access to information
- Social media tools allowing discussion on Service issues in a safe environment
- Better incident and mapping information including access to the Common Operating Picture (COP)

A Brigade Information Pack

has been prepared which provides specific information about the MyRFS changes and benefits. The Brigade Information Packs are being sent to brigades via the District Offices

There are also Quick Reference Guides, Online Familiarisation Tutorials and Frequently Asked Questions available on the intranet and on MyRFS.

The Service aims to get all members with an internet connection on MyRFS - so jump on board the new site launching in June 2012.



Would you like messages from the Service direct to your inbox?

We have heard that NSW RFS members want more communication. A recent poll showed that 89 percent of members would like a regular electronic newsletter sent direct to their email inbox.

So, the ebulletin is now here.

It's a monthly email newsletter for all NSW RFS members presenting current NSW RFS news delivered direct to your inbox. Every issue will include a message from the Commissioner and Service initiatives, programs and activities from across the State. It will also address issue confronting the Service, in the interests of all members.

Sign up for a free subscription via MyRFS.

Factory fire claims Sydney pet shop By Brydie O'Connor, Media Services



In the dead of night on Tuesday 24 April 2012 more than 100 firefighters were confronted with a blaze that tore through 10 franchises at the Dural Business Centre, completely destroying seven, including a pet shop and Tyre Power franchise.





OPPOSITE PAGE: "The windows of the pet shop blew outwards with a bang, breathing new life into the fire and accelerating the blaze," said Inspector Marshall. Photo by Inspector Ben Shepherd, NSW RFS Media Services

LEFT: Crews managed to protect the adjoining Caltex Service Station from the towering flames. Photo by Melissa Byrne from the Arcadia Rural Fire Brigade

Just after 0200hrs the Dural and Galston Rural Fire Brigades received a routine call to an Automatic Fire Alarm at the Dural Business Complex in north west Sydney. Even on their approach they knew the job would be anything but routine - black smoke could already be seen billowing from the building.

Hornsby/Ku-ring-gai Deputy Fire Control Officer Inspector Peter Marshall said the crew's initial investigations revealed the fire was burning on the northern side of the building, with three out of the ten units engulfed in flames.

"Firefighters on the scene from both the NSW RFS and Fire and Rescue NSW (FRNSW) were getting as much water as possible on the burning units when there was a loud explosion," he said, "The windows of the pet shop blew outwards with a bang, breathing new life into the fire and accelerating the blaze."

At that stage a number of units in the business complex were already alight and the Arcadia and Cherrybrook Rural Fire Brigades were paged to provide further assistance. The firefighting strategy was to limit the spread of the fire with a particular focus on stopping the fire reaching the adjoining Caltex Service Station and nearby homes.

"All the surrounding homes were evacuated because of the intensity of the fire, the potential risk of the fire spreading to the service station and the cloud of toxic smoke that was emanating from the burning buildings," said Inspector Marshall.

The fire never did reach the petrol station and it suffered only minor smoke damage.

"It was a great result, the alternative would have created an incredibly dangerous situation," the Inspector said.

A dramatic fire in Sydney does attract a big crowd and a throng of breakfast media outlets gathered at the Dural Business Complex, hungry for the scoop. All of the major Sydney television and radio networks broadcast constant updates on the progress of the fire and, in particular, the fate of the animals in the pet shop.

The Dural Pet Shop was reported to have been home to

birds, chickens, fish and a renowned rainbow lorikeet called Pierre, who had been at the pet shop for 11 years. None of the animals survived the fire.

Inspector Marshall recalls when the devastated franchise owners and pet shop workers started showing up at the scene.

"A number of people who leased the units had been informed of the incident by Police and from about 0500hrs they joined the crowd," he said, "A few staff from the pet store were very distraught and we sought assistance for them from the NSW RFS Chaplain. It was a very upsetting scene to witness."

Firefighters were on scene all day, however they unable to enter the building as it was structurally unsafe following the collapse of the roof and walls in a number of places. An excavator was used to give firefighters greater access and to get water onto fires burning behind walls or under equipment. Fire investigators were also able to safely enter the building at this point in order to commence their enquiry into the cause of the fire.

The fire continued to flare-up for several days and firefighters returned to douse fires in the pet shop and the Tyre Power warehouse, where tyres continued to smoulder and burn

"Each time we had a hot spot we had to go and throw another couple of thousand litres on it to calm it down," Inspector Marshall said.

When all was said and done, more than one hundred firefighters from both NSW RFS and FRNSW, a catering brigade and key staff, who formed a mini Incident Management Team on site, all worked together to successfully contain the fire and protect surrounding properties and assets.

"The fire was the equivalent of a Class Two bush fire," concluded Inspector Marshall, "so as a result there are now a series of After Action Reviews which will culminate in the multi-agency debrief between NSW RFS, Police, Ambulance, FRNSW and the RTA."



An absentee landowner phoned Triple Zero (000) when a burnoff he was conducting on his property 15km northwest of Emmaville on Schroaders Road, got out of hand. The fire did not pose a major threat that day and it was quickly extinguished by volunteers. Little did they know they'd be back at Schroaders Road the very next day facing a very different situation.

A dangerous flare up

On Easter Monday the fire well and truly re-ignited and became one of the fastest moving grass fires volunteers have seen in the Glen Innes area in recent times. Inspector Konrad Sawczynski from the Northern Tablelands Team describes why the fire burnt so hot and fast.

"The fire was burning in an area that has a lot of Coolatai grass, which is an African species of grass that has very fierce burning characteristics," he said.

Due to the speed of the fire, which Inspector Sawczynski estimated to be between 20-30 km/h in the grass lands, eight trucks were sent to the fire.

From that moment on crews were kept busy working on containment lines for a full

week with two shifts each day starting at 0800hrs through to 0300hrs the next morning. During the week-long course of the fire, more than 150 firefighters worked to bring the blaze under control and in the process successfully protect properties in the path of the fire.

Fire Behaviour Analysis was conducted throughout the fire with a helicopter brought in to observe the fire more closely and to generate vital maps and statistics on the size and behaviour of the fire.

Challenging terrain

The fire was burning in a rocky area with a lot of hills and scrubby grass land. Establishing containment lines proved challenging. Inspector Sawczynski said that while the firefighting strategy was sound, crews on the ground were at times challenged by the ferocity of the fire.

"Our strategy was to put in containment lines along the river and roads using dry firefighting strategies such as back burning," he explained. "Members worked as hard as possible to hold those containment lines throughout the duration of the fire."

This proved to be a successful strategy, even when weather conditions deteriorated dramatically.

"We originally had manageable westerly winds of 20km/h during the first two days," Inspector Sawczynski said, "and then on Tuesday the wind changed to an easterly that blew at about 30km/h."

On Wednesday the crews faced high winds that fanned the flames and gave the fire new life. Firefighters worked hard to put in strategically placed back-burns and were forced to move some containment lines back by half a kilometre with the assistance of a bulldozer. With all the hard work, however, containment lines held strong and at no stage did crews lose their hold on the fire.

Disbelief

As Inspector Sawczynski explained, the Emmaville fire belied all the odds. A grass fire on the Northern Tablelands is very rare for autumn and on top of that, recent widespread rain and cool temperatures all pointed to a low likelihood of grass fires.

"Amazingly, ambient temperatures were only

between 11 to 15 degrees at their peak, yet at 9am in the morning the fire would already be kicking off and moving at a good pace."

"I heard experienced firefighters on the ground, many of whom had been involved the Section 44 fires of 2002 and 2009, talk about how they couldn't believe their eyes," he said.

"The heat and speed of this fire in such benign weather can only be attributed to one thing: fuel loading."

Inspector Sawczynski says this dangerous grass fire is a timely reminder, that despite mild conditions, people must not become complacent when there is so much grass growth around the State.

"It won't take much sun to dry it out, he said, "there is still the potential for fires to threaten life, property and the environment."

The fire front picked up real speed in the fast-burning Coolatai grass, even against the wind. Photo by NSW RFS Northern Tablelands District Services Assistant Stephen Prichard

Communities — Aid A



dig deep



The south west part of the State experienced one of the most significant flood emergencies in its history in the first few months of 2012. In this feature, we look at the people and places involved in the massive flood relief effort.



Exceptionally heavy rainfall across most of the State broke records in many areas especially across the south east. A persistent rain band began on the 27 February and over the next week most of inland southeast Australia recorded accumulated rain totals of more than 100mm.

Unprecedented rainfall

Many stations with over 100 years of data collection reached new weekly rainfall records, including Ivanhoe Post Office (294mm), Wilcannia (239.8mm), Hay (189mm), Mount Buffalo (525mm) and Yackandandah (324mm), between 27 February and 4 March.

Wagga Wagga experienced its highest level of rainfall on record – 188mm in one week. At Urana, the 1954 record of 131.8mm was broken by more than 40mm.

Due to the heavy rain in NSW and earlier floodwaters making their way down from Queensland, the Murrumbidgee River in Wagga Wagga rose to levels not seen since 1974.

The rising floodwaters tested the river's levee which had a recorded peak of 10.7m in 1974. After much waiting and watching the river eventually peaked at 10.56m. Almost 8,000 people living or working in the Wagga Wagga CBD were evacuated in anticipation of the levee being breached.

On the 6 March, the Premier Barry O'Farrell declared a State of Emergency for Wagga Wagga and other declarations soon followed.

Mercifully, the flood peak was within centimetres of the breach mark. The NSW RFS deployed over 200 personnel to Wagga Wagga to assist the SES. The deployment included local and out-of-area crews who worked alongside the SES and other emergency services to door-knock, evacuate residents and sandbag.

Streets of our town

In Gundagai, NSW RFS volunteers assisted the SES to fill more than 800 sandbags to help protect the town against the rising Murrumbidgee River.

In communities like Barellan and The Rock, crews were involved in helping locals with the extensive cleanup, hosing out homes, schools and businesses. In the township of Yenda, crews hosed out mud, pumped out water and removed ruined furniture from more than 300 homes alone.

It was a similar story in the major town centre of Forbes where a predicted flood peak of 10.65m was expected to cause major inundation of homes and businesses. As a result, major flood evacuation orders were issued to almost 1,000 residents.

NSW RFS Cat 1 tankers were transformed into a much needed temporary public transport service. For three days hundreds of shop owners,



BELOW: Bill Melton and Grahame

RIGH I: Prime Minister Julia
Gillard prepares to survey the
flood event at Wagga Wagga
from air in a NSW RFS helicopter.
Photo by Ben Shepherd.

RIGHT: The symmetry of the Barellan base camp was visible from the air. Photo by Lexi King.





SOUTH WEST FLOODS — KEY FACTS

- 2,258 volunteer deployments, many for up to four days per deployment
- Public Information Centre 235 volunteer deployments handled over 14,000 calls for assistance
- Volunteers doorknocked thousands of homes and businesses
- Base camps established and maintained for over 700 evacuees and 310 volunteers, providing over 15,000 meals
- 740 aviation deployments each for multiple tasks
- The State Operations Centre was activated for 16 days



nurses, police, teachers and students were shuttled through floodwaters to and from the Forbes CBD.

Setting up camp

The NSW RFS also established base camps in Barellan, Coleambally, Hay and Deniliquin to provide accommodation and meals for more than 1,000 evacuees and volunteers.

Inspector David Curry from the Bland Temora Zone said he was really impressed with the base camp setup. "It's amazing how a large number of people can be housed quite comfortably. I think a lot of the success of the base camp can be attributed to the managers, Peter Church and Tony Place and their energetic staff."

Fly in fly out

The NSW RFS also provided extensive aviation support to the SES with 740 deployments, each for multiple tasks. At times, more than 30 aircraft a day were deployed across

the State to transport people and supplies and to assist with medical transfers. Aerial inspections were also arranged to provide Prime Minister Julia Gillard and Premier Barry O'Farrell with the opportunity to inspect the extent of the flooding in a NSW RFS helicopter.

Premier Barry O'Farrell commented that the north of Wagga Wagga, viewed from the air was 'a sad and sorry picture'. Prime Minister Julia Gillard was dismayed to







ABOVE: Premier Barry O'Farrell is updated on the extent of the flooding and the emergency service's response from the SES Commissioner Murray Kear and NSW RFS Inspector Peter Marshall. Photo by NSW RFS Media Services

RIGHT: Staff from the Community Engagement team assisted in Yenda with assessment reports see the full impact of the flood that engulfed Wagga Wagga.

"Unfortunately as Prime Minister I had [the] opportunity to see too many homes that are flooded. Getting to see it from the air gives you a really good sense of the impact and when you see a house that's got floodwaters up to the eaves then you just know the damage that's been done inside that home is truly devastating."

Help is on its way

More than 230 NSW RFS members helped answer over 14,000 calls from concerned residents through the Public Information and Inquiry Centre in Sydney.

The Service also distributed important safety information through its social media channels and website, as well as material to promote the work of our members.

In some areas local NSW RFS crews were the only emergency service in town, assisting residents with flooding and recovery. These members helped their community even though many of them were themselves affected by the flooding.

NSW RFS assistance ranged from state, regional and local liaison and coordination, through to the provision of liaison officers, Incident Management Teams, catering, logistical support such as stretcher beds and bedding for evacuation centres, as well as doorknocks, sandbagging, transport and other logistics.

In North Wagga Wagga, Service crews did God's own work when they came to a church's salvation by completing a major clean up where all the pews were removed from the building, hosed down and returned in time for the Sunday service.

Garry Cooper, Team Liaison Officer, Far South Coast Team, said crews spent the majority of their time cleaning out properties, pulling up carpet and moving out damaged and destroyed furniture and household items. "Crews worked side-by-side with the Australian Army and there was a real sense of achievement after completing some of the major clean ups. Assistant Commissioner Dominic Lane also stopped in and thanked them for the tremendous job they were doing."

Team spirit

Inspector David Curry from the Bland Temora Zone said he was impressed at our volunteers and the way they conducted themselves, "they are always willing to help out in any crisis. I am proud to be involved in such a great organisation."

Garry Cooper said the effort by crews was incredible. "Crews gave up work commitments and cut into holiday time to help out those in need in what was a fantastic team effort."

NSW RFS Commissioner Shane Fitzsimmons was proud of how members went above and beyond to help communities affected by the flooding. "They assisted with the evacuation of residents and the cleaning of homes and businesses. This determination and dedication to the role of protecting communities is something the whole Service can be rightly proud of."

An isolated town stands up

On the 29 February 2012 the small town of Cowra in NSW's central west made the news for all the wrong reasons. The flood waters that had already plaqued many parts of the State descended upon Merriganowry, about 15kms west of Cowra, isolating 40 residents in the process including Merriganowry Rural Fire Brigade Secretary Roxanne Liversidge who tells her story here.

Families were bunkered down in their homes waiting for the incessant rain to ease – not that we could go anywhere as roads around the Merriganowry area near Cowra were closed. By Monday 5 March we expected that we would be able to travel into town to replenish supplies and get back into a normal routine. But when the school bus didn't arrive that day we realised that the river had broken its banks and flooded the main road.

We hadn't been able to get any new supplies for a good few days by then and had received no information about when we were going to be evacuated. The telephone line at home started playing up so we couldn't even make contact with many of the locals.

At this stage some nearby residents were in serious need of assistance. There were people running out of medication and many had started to run short on food staples like flour and sugar.

Members of the Merriganowry Rural Fire Brigade including Deputy Captain Heath Stead, Fran Stead, Captain Darrin Liversidge and I started coordinating with the Cowra Council, the SES and Cowra Neighbourhood Centre to organise the first of what would be many helicopter drops of medicine and basic food supplies.

We worked throughout Tuesday night coordinating the air drops. As soon as the sun rose Fran's daughter, who had been sick for a week, was finally airlifted out for medical treatment.

Later that day the water level of the river dropped but there was talk of more rain so we continued to organise food and medical drops throughout the day. One resident had been out of blood pressure medication for three days and risked hospitalisation without it. Another resident popped out to get his wife's medical prescription filled, but on his return he realised that the river had risen and he got caught on the other side! Thankfully the SES made a

visit to the woman's work to pick up her emergency supply of medication which they promptly airlifted into our isolated community.

Wednesday evening, we received a helicopter drop of fresh bread organised by the Department of Family and Community Services and the Cowra Neighbourhood Centre. What a welcome sight that was!

The NSW RFS members in our area were the first port of call for many of the locals who were overwhelmed with the situation. This flood story involved no sandbagging, no dramatic rescues or bogged vehicles - it was just the reallife experience of ordinary people caught in the path of a fast-flowing body of murky brown flood water.

When all was said and done we helped almost 40 families and we were proud to be of service to those who needed it most.



Way out yonder in Yenda

By Andrew Kaye, Hawkesbury Headquarters Rural Fire Brigade and Project Officer Corporate Planning and Risk Management

The Hawkesbury Headquarters Brigade spent an action packed five days on deployment in Barellan. The full day spent in Headquarters 1 on the journey down gave the crew time to bond as a team and to understand each other's strengths, concerns and experience. The road trip gave us all the opportunity to get some much needed down-time before the hard slog commenced.

We stayed at the super clean NSW RFS base camp at Barellan in 12-man tents which had everything we needed including a general mess area with coffee, tea, water, a phone recharging station, bathrooms and by Day Two - even a mini laundrette!

Apart from the inevitable cacophony of snoring, the tents were comfortable. I have to say the snoring was, at times, almost unbearable. I recall lying in bed one morning desperately wishing for the sun to rise put me out of my misery. But compared to flood-affected residents in the area I guess my discomfort was minimal.

The taskings were varied, from pumping out water from around houses, moving and removing furniture, pulling up sodden and foul smelling carpets to draining a basement. Our job was to assist the residents of Yenda in any way we could.

With the power cut off, fridges and freezers were taped shut and hauled to the footpath. To quote Kenny, the famous plumber from his eponymously titled movie: "there was a smell in there that would out-live religion!"

We provided water and ration packs where we could, as well as masks, gloves and disinfectant. I was astounded by the resilience of the people in Yenda. In areas where the sewerage system wasn't working the stench was unbearable, yet residents continued to go about their business with a purpose and calmness that was inspiring.

For me, some of the hardest work was done on Schwab Road, specifically when we were tasked to a house with a broken septic tank. The house was fully inundated with water and had been locked for a week before we got the keys... all of this spelt disaster.

A cloud of mosquitoes greeted us as we entered. We cut carpets into moveable chunks to be wrestled out onto the street. It was heavy, smelly disgusting work made harder by the constant rain.

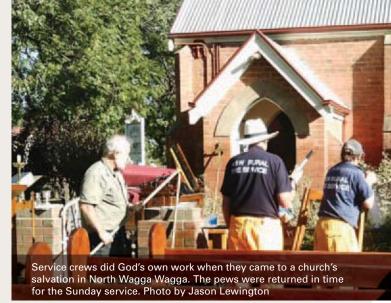
With the rain came renewed fears of another flood peak. Thankfully the next day the sun shone bright helping to alleviate people's fear of further flooding. But with the sun came the smell and that stench just got stronger, along with the mosquito population. We spent hours pumping out stagnant water that surrounded a home, all the while trying to come to terms with the sheer volume of water that had nowhere to go. The water was rancid; contaminated with human and animal waste.

chemicals and anything else the torrent of flood water had managed to scoop up along the way.

We helped a diverse range of people: a solo mother dealing with the impact of the floods alone; an elderly couple in their late 80s; a middle aged son in his elderly parents' home trying to comprehend the loss of their family photos; and a woman who struggled to let go of her treasured possessions now ruined by flood waters.

Needless to say, the journey home was a mixture of reminiscing and sharing of anecdotes, combined with regular bouts of silence while the crew caught up on well-earned sleep. Overall, the resilience and courage of the people we helped touched our hearts and we will willingly raise our hands again to assist wherever needed.





Keeping information flowing

By Alex Chesser, NSW Rural Fire Service (NSW RFS) Operations Support Officer, Warringah/Pittwater District

On the evening of Sunday 4 March I received a phone call requesting my deployment to the Lachlan Region State Emergency Service (SES) to fulfil the role of Media Liaison Officer within the SES Incident Management Team (IMT).

Despite months of on-going flooding in NSW the media's seemingly insatiable appetite for information showed no sign of waning.

I was based at the Lachlan Region SES Headquarters at Parkes which was the management hub for flood operations for the region. It was a widespread operation with a number of major townships along the Lachlan River affected including Forbes, Cowra, Condobolin and Lake Cargelligo among others.

The media attention increased as the situation worsened with a number of communities affected by SES evacuation orders. The gravity of the situation was not lost on residents who looked on anxiously as floodwaters rose around their townships and in some cases penetrated their town's main thoroughfares. At one stage the town of Forbes was bisected resulting in the isolation of many residents now reliant entirely on emergency services for food, medical supplies and medical evacuations.

Television crews from most major Sydney networks, as well

as all major regional networks, were in town so they could witness the approach of the insipid flood waters first hand. It was the responsibility of the Media Liaison Unit to keep television crews up to date with the rising height of the Lachlan River and explain what impact the water levels were likely to have on residents and infrastructure.

The amazing work being undertaken by volunteers from both the SES and the NSW RFS piqued the media's interest - there were just so many stories to be told. We worked hard to promote the excellent work of our volunteers, both locals and those who had generously travelled from out of area to assist their colleagues.

NSW RFS volunteers committed themselves wholeheartedly to anything that was asked of them; assisting the SES with doorknocking residents, sand bagging and responding to a plethora of incidents.

NSW RFS crews were also heavily utilised to assist the NSW SES with flood rescues and other urgent re-supply jobs. For that we have our high clearance trucks (Cat 1s) to thank. These trucks were often able to safely negotiate flooded roads in the Lachlan region that were not safe for smaller vehicles to attempt.

During the couple of weeks I spent in the region I was lucky enough to visit many different townships and meet some amazing volunteers and staff from the NSW RFS as well as other emergency services. The stories of people directly affected by the flooding, including those who had lost so much in the form of property, infrastructure and livestock have stuck with me.

The resilience shown by these people was nothing short of remarkable and it was humbling to be in a position where we, as an emergency service, could make a direct and positive difference to these peoples' lives.

From my own first-hand experience I can tell you that the services we provide to those who need it most should not be underestimated. Whether we are providing practical assistance or something as simple as a shoulder for a physically and emotionally

drained farmer to cry upon – our efforts are valued.

Having never been involved in major flooding operations in the past, the enormity of the situation, combined with its sometimes sluggish but devastating progression, reminded me that bush fire is not the only deadly natural disaster we face in NSW. Flooding can be crippling for those directly affected and have an equally long-lasting impact on the emergency services representatives working within flooded communities.

My deployment was an amazing experience for me and reminded me of the risks we face as inhabitants of this amazing country. Above all I am grateful for the chance to witness the Australian spirit at its finest - friends, families, emergency services and complete strangers coming together to support those in their hour of need.







FLOODS November 2011-February 2012





Even before the floods in the south west of the State, three major flood events across northern and western NSW have caused havoc and the NSW RFS was busy assisting the State Emergency Service throughout.





LEFT: Houses in low-lying areas of Moree were inundated with floodwater. Photo by Rhonda Gallagher.

ABOVE: November 2011: After lots of hard, dirty work it's safe to say the Moree floods operation was a job well done. Photos by Michael Brougham.

Moree alone had three major flood events in November, December and February. But Narrabri and Gunnedah have also been affected by severe flooding since November 2011 with significant damage to property and public infrastructure.

"The NSW RFS has played an important role providing support for State Emergency Service (SES) volunteers and other agencies including the Department of Primary Industries," said Deputy Commissioner, Rob Rogers.

"At the height of the flooding events, the NSW RFS had close to 100 members deployed on any one day, assisting affected residents with transport, medical transfers, evacuation and food deliveries.

The NSW RFS support included extensive deployment of aviation resources, with up to 40 aircraft in use at any one time. The Service also provided airbase operations and provided important communication

and logistical support across the affected areas, such as at Moree Airport.

Approximately 400 beds, normally used in NSW RFS base camps, were deployed via RAAF Hercules to evacuation centres in Moree. As the floodwaters started to recede, attentions turned to recovery efforts with crews working with residents and other emergency services to hose out homes, clean public areas and remove debris.

On the following pages Inspector Angela Daly, District Services Officer at the Moree Plains Fire Control Centre, gives a rundown of NSW RFS activity. The town of just over 8,000 people suffered the first flood in November and there was more severe flooding in December when the Mehi River peaked at 10.2 metres. Severe flooding returned again in February 2012 when the town experienced over 300mm of rain in four days leading to the evacuation of over 2,000 people.



In the cold November rain By Inspector Angela Daly, NSW RFS District Services Officer, Namoi/Gwydir Team

The Duty Officer from the Namoi/Gwydir Team started receiving calls for assistance via the SES on Friday 25 November 2011 with the initial calls being to pump out localised floodwaters. Later that afternoon the Moree Brigade was responded to assist an elderly couple trapped in floodwaters on the Newell Highway north of Moree.

Flood work began and continued with a call from the local SES requesting assistance to fill sandbags. Moree and Gurley Brigade members assisted at the council depot where a sandbag machine was set up. Brigade members filled and delivered sandbags throughout the day and later assisted with more pump outs as well as escorting a local doctor through floodwaters.

Waters rising, sandbagging begins

On Saturday 26 November 2011 the Mehi River in Moree continued to rise and houses in low-lying areas of town became inundated. At this stage we were working with minimal crew due to members from surrounding brigade areas being flooded in themselves.

As the situation began to deteriorate, three NSW RFS trucks and a Personnel Carrier formed a taskforce, assessing requests for assistance, dropping sandbags and lifting furniture.

By 1500hrs on Sunday the call went out for assistance to the districts south of Moree as the Newell Highway was the only access route left open. Eight Cat 1 tankers from the Tamworth, Liverpool Plains and Castlereagh areas responded to provide high clearance vehicles and assistance to local crews.

The SES issued an emergency evacuation order for floodaffected parts of Moree as the Mehi River rose to its peak of 10.2 metres effectively cutting the town in half. The Service was kept busy with transport of hospital staff and doctors to deliver babies, evacuate residents and assist other agencies.

One job saw a crew transport ambulance officers down a flooded street to access a patient with a dislocated knee. Once stabilised, the patient was stretchered to a waiting ambulance on the back seat of a Cat 1. Another crew successfully evacuated one adult, three children, three horses, three dogs and a bird!

Floodwaters start to recede

Floodwaters started to recede on Monday morning leaving a mess of mud and debris through the town. The eight Cat 1 tankers got into the clean up task with unbelievable enthusiasm. Nothing was too much trouble from hosing out houses, pumping out

swimming pools to washing mud from the golf club car park.

Local residents were very appreciative of the work our Service volunteers did throughout the floods with some writing letters of thanks to the local paper and others commenting 'there was just red trucks everywhere'. After lots of hard, dirty work it's safe to say the Moree floods operation was a job well done.

A new year — a new flood

By the start of 2012 most people were getting back on their feet after the November/ December floods. The SES and The Department of Primary Industries wrapped up supplies and fodder drops in mid-January and everyone was looking forward to a welldeserved break.

Unfortunately it was not to be, as the rain started again in late January and by the start of February, Moree and surrounds anticipated an even bigger flood event than 2011.

When it rains, it pours

Moree was not the only area facing floods with Narrabri and the surrounding towns of Boggabri and Wee Waa also impacted by the high volume of rain. The local NSW RFS Brigades were assisting with sandbagging, transport runs, lifting furniture and the inevitable clean up.

Up to 50 homes were inundated in Narrabri while in Wee Waa the town levee held with a little help from the Myall Vale Brigade who assisted with pumping out water following problems with a flood gate in the town.

Back in Moree, agencies started to swing into action again filling sandbags and preparing the community for what could be its worst flood in nearly 60 years. Evacuation orders were put in place for North Moree and other surrounding localities.

Evacuation centres were set up to house the hundreds of people who were relocated. The NSW RFS assisted with 400 stretchers and sleeping equipment was flown in by military aircraft.

Some of the Namoi-Gwydir NSW RFS staff were isolated by the floodwaters and unable to reach Moree. Local and out-of-area staff were flown in to assist in both Moree and Narrabri. Castlereagh and Dubbo also sent crews during the peak of the flood which was a wonderful help, particularly after the Incident Management Team's motel became isolated. Night crews woke the day shift at 0400hrs to get the cars out. The floodwater was rising so quickly that by 0700hrs all NSW RFS vehicles in the motel compound would have been stranded!

One job saw a crew transport ambulance officers down a flooded street to access a patient with a dislocated knee. Once stabilised, the patient was stretchered to a waiting ambulance on the back seat of a Cat 1.

The NSW RFS were also able to assist the Channel Seven Sunrise crew who were staying in the same motel. Reporter Edwina Bartholomew and crew were escorted from the motel by fire truck so that they could broadcast live from Moree and get information out to the rest of the community.

Region West sent two strike teams and a change-over crew to assist the local brigades. Over three hundred people had been inundated by floodwaters so the clean up job was significantly larger than in 2011.

Taking care of business

The out-of-area crews worked tirelessly to help local business owners and residents. Jobs included a complete hose-out of a nursery which had 1.4m of water through it; clean up of the Moree racecourse buildings and bookies area and pumping out a huge basement area that included two dozen small fish trapped inside.

Other jobs included a hose down of the Coles car park, checking on the welfare of elderly residents and requests to Fire and Rescue NSW to take care of Hazmat jobs such as inspecting unknown chemicals affected by floodwaters in a resident's shed.

Service crews also assisted the SES by conducting an over floor flooding assessment in areas where they were working. This information was passed back to SES, GIS and hydrologists to assist with future planning. The NSW RFS Building Impact Assessment Team also assisted in this area.

Clean up time

Within three days the town wasn't shining but it was very close! The strike teams returned home and local crews continued working on the trickle of requests that continued coming through. Again the town was very appreciative of the help they had received with some residents calling the local radio station to express their gratitude and others displaying messages of thanks on notice boards on the highway.

Commissioner Shane Fitzsimmons said the efforts shown by volunteers should make the community very proud.

"Our volunteers are on hand 24 hours a day, seven days a week to help the community in times of emergency – frequently in the most inclement weather.

"While mitigating and fighting bush fires may be our core expertise, our members have proved invaluable when it comes to assisting our colleagues in the State Emergency Service with flood rescue and recovery, and it is this diversity that the Service prides itself on."



NSW RFS aircraft help fuel Lightning Ridge

By Supt Brett Bowden, Operations Officer, Canobolas Zone

The isolated town of Lightning Ridge also experienced its own unique flood event in February with the town cut off by floodwater for around a week, leading to diesel fuel supplies running low.

To ensure supplies kept flowing for vehicles and generators, the NSW RFS Air Desk in cooperation with the SES and NSW Police Force, decided to fly 18,000 litres of diesel (around six plane loads) up to the isolated community. They tasked two AT-802 fire bombers from Scone to assist.

The bombers were loaded at Brewarrina and through the skilful work of the pilots, the loads arrived without incident. The fuel was transferred to a waiting tanker under the protection of the Combah Brigade Cat 1 tanker and was transported to the local Lightning Ridge petrol station.

In the meantime a RAAF C130 arrived at the Lightning Ridge airport to drop off equipment and personnel in preparation for a re-supply mission for the local Lightning Ridge supermarket which had run out of basic foodstuffs.

The sight of bombers unloading fuel and the C130 arriving all at the same time brought some 200 spectators to the airport fence line

With two more loads of fuel to dispense to fuel stations in Lightning Ridge, the race was now on to beat the last light. The last load was decanted, transported and dispatched to the final fuel station just before last light, completing an operation that took almost five hours.

Just over 17,000 litres of diesel fuel was transported to the Lightning Ridge community and this great effort highlights the flexibility, lateral thinking and problem solving capabilities that exist across our organisation.

ABOVE: RAAF planes joined the NSW RFS in resupplying local supermarkets and fuel supplies. Photo by Brett Bowden



The whole fire season in the season of the s

The Lakes Team on the Central Coast, north of Sydney, had an eventful day on 11 January 2012 with no less than nine incidents – some minor, some a lot more serious. Crews were called out to a kitchen fire, burning bushland, a truck collision, powerlines down and more serious fires at Munmorah Power Station and Blacksmiths Beach.

1: Nursing home smoke alarm



Time: 0834hrs

Incident: Automatic Fire Alarm (AFA) Bethshan Gardens

Aged Care Facility Wyee.

Wyee 1, Wyee 7 and Wyee Point 1 responded. Smoke alarm detected smoke in the kitchen. Fire Indicator Panel was reset and brigades returned to station.

2: Water truck collides with car



Time: 1338hrs

Incident: Motor Vehicle Accident (MVA) truck rollover

on Allinga Road, Warnervale.

Brigades responded to the incident were the Initial Response Unit (on the day Kulnura 1), Group North, Charmhaven 1, Warnervale 1,

Operation Support Brigade 17 (Salvage Unit). Units arrived on scene to find that a private water cart truck had rolled after colliding with a car. Crews treated a small oil spill on the road while providing fire protection during the recovery of both vehicles.

3: Heath fire at Pinny beach



Time: 1422hrs

Location: Bush Alight at Pinny Beach just south

of Caves Beach.

Brigades responded included Wallarah 1 Alpha, Wallarah 1 Bravo, Wallarah 1 Charlie, Wallarah 7, Gwandalan 9, Initial Response Unit (on the day Kulnura 1), Munmorah 1, Group West, Group South & Group North. All units had difficulty in accessing the area which was about 500m off the road along a very rough track. Five hectares of coastal heath was burnt with fire investigators inspecting the area due to the suspicious nature of the fire.

4: Fire threatens power station — the 'Colongra Fire'



Time: 1538hrs

Incident: As crews from Pinny Beach fire were mopping

up another fire call was received at Wyong Fire Control Centre to a report of bush alight on Scenic Drive, San Remo.

Brigades from Gwandalan, Mannering Park and Group 1 called for initial response. First arriving crews had difficulty in containing the small area of bush alight on the south eastern side of Scenic Drive. Further crews were requested with more crews coming from Munmorah, Charmhaven, Warnervale, Wyee, Wyee Point, Dora Creek, Berkeley Vale as well as Group 2 Group 2 Bravo, Group 4.

Due to the very strong winds from the south west, the fire quickly spotted over Scenic Drive with flame heights reported to be over 20m. Some isolated properties and a few buildings around the Doyalson Golf Driving range were threatened. The fire quickly spread through the surrounding vegetation and took a run towards the outer perimeter of the Munmorah Power Station.

A command post was set up at the gates to the power station and a request for aviation support was quickly made. Group 1 assumed command as Colongra Control and the fire was then named the Colongra Fire. Fire Control Officer (FCO) 2 & FCO 22 as well as Fire



and Rescue NSW (FRNSW) **Operations Commander** attended the command post. Some control lines were identified within the internal track and road network of the power station.

The initial control line was identified as the old coal conveyer that was impacted very hard by the fire due to the rubberised conveyer belt and the coal dust that was around the structure.

Three hundred metres of the conveyer was destroyed as the fire moved quickly towards the power easement leading into the substation and switching yard.

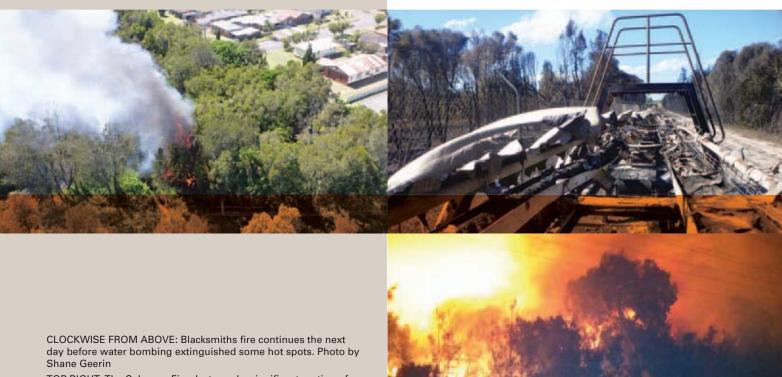
The Aircrane 'Ichabod' and two other helicopters supported ground crews and the fire began to slow as it approached the foreshore wetlands of Lake



FAR LEFT: Aircrane 'Ichabod' and two other helicopters supported ground crews and the Colongra Fire began to slow. Photo by Stacey Green Photography

ABOVE: Pinny Beach from the air after five hectares of coastal heath was burnt. Photo by Peter Murphy

LEFT: The Blacksmiths fire reported bush well alight with flame heights up to seven metres. Photo by Peter Murphy



TOP RIGHT: The Colongra Fire destroyed a significant section of a disused coal loader at the Munmorah Power Station. Photo by Stuart O'Keefe

RIGHT: Well-established Asset Protection Zones helped firefighters at the Blacksmiths blaze. Photo by Shane Wallwork

Munmorah. At 2000hrs the situation had stabilised enough to rotate night crews in and stand down several brigades who had been on scene since the initial response.

5: Powerlines down at Ourimbah



Time: 1552hrs

Powerlines down. Ourimbah Creek Road, Palmgrove.

Ourimbah 1 & Chittaway Pumper remained on scene until an Ausgrid technician arrived and rendered the area safe.

6: Kulnura smoke sighting



Time: 1653hrs

Incident: Report of bush alight on Allinga Road Charmhaven.

Initial Response Unit (Kulnura 1). Kulnura reported that nothing was found as it appeared to be drift smoke from the Colongra Fire. Kulnura was requested to return to Wyong Fire Control to be in a position to respond to any incidents in the areas from which units had come

to attend the Colongra Fire. Kulnura was stood down as the Initial Response Unit at 1800hrs.

7: Morisset Hospital smoke sighting

Time: 1758hrs



Incident: Report of bush alight at Morisset Hospital, Morisset.

Peninsula 1,
Cooranbong 1 and Dora Creek
7 responded. Crews reported
that nothing was happening but
the call was made with good
intent and appeared to be drift
smoke from Colongra Fire.
Brigades returned to station
shortly after.

8: Chain Valley Bay bush alight



Time: 1950hrs Incident: Report of bush alight, Chain Valley Bay.

Group West, Wallarah 1 Alpha, Wallarah 1 Bravo, Wallarah 1 Charlie, Wallarah 7 and Gwandalan 1 responded. Crews found a small area of bush alight which was quickly extinguished. Units returned to station at 2040hrs.

9: Blacksmiths beach bush blaze



Time: 2124hrs
Incident: Wyong
Communications

Brigade received

a request for assistance from FRNSW for bush alight at Blacksmiths Beach.

Several brigades were still on air and quickly answered the fire call. Group South, Wallarah 1 Alpha & Wallarah 1 Bravo, Wallarah 13 (Bulk Water), Gwandalan 1 and Munmorah 1 responded to the Pacific Highway, Blacksmiths.

First arriving crews reported bush well alight with flame heights up to 7m. Extensive embers were produced due to fronds of the Cabbage Palm Trees burning. Spotting was occurring throughout the site.

The fire quickly spotted over Soldiers Road due to the strong southerly change that crews at the Colongra Fire had experienced at around 2130hrs and were now battling this too. The fire was threatening old aviation hangers and buildings associated with the disused Belmont Airport.

Property protection was set up around these buildings as well as residential houses along Cabbage Tree Palm Crescent. These houses had a well established APZ (Asset Protection Zone) to the rear which significantly reduced the risk and the workload of the firefighters on scene. Brigades returned from this fire at around 0400hrs the next monring.

A job well done

Patrols of the Pinny Beach fire were made the following day. Water bombing was required at the Blacksmiths fire to extinguish some hot spots near the old airport. Crews continued to patrol the Colongra Fire for several more days until it was declared out on 13 January 2012.

Our whole fire season in one day went smoothly with crews and systems working well to plan.

The Lakes Team should be proud of their efforts in protecting the community and remain ready for action when the time comes once again.

Christmas mail destroyed in Pacific Highway truck blaze

By Inspector Corey Philip, NSW RFS District Officer Far North Coast

Christmas never made it to many people across Australia last Christmas when a mail truck was completely destroyed by fire on the Far North Coast.

Just after 0600hrs on Sunday 18 December 2011 crews from Tweed Coast and Cudgen Rural Fire Brigades were dispatched to a truck fire on the Pacific Highway near Chinderah. When NSW RFS units arrived on scene at around 0630hrs they discovered that the incident was on the Pacific Highway under the Tweed Valley Way overpass south of Crabbes Creek in the northbound lane, just off the side of the highway.

The semi-trailer was fully involved in fire and crews quickly positioned appliances upwind, out of the smoke and created a safe work area on the road. Crews set up an attack

line with 38mm hoses and started to douse the flames.

Heavy vehicle traffic on the Sydney to Brisbane run added to the chaos as the plume of black smoke and radiant heat intensified. NSW Police moved onlookers away and closed the highway in the north bound direction.

Crews realised that more water was needed to douse the flames and requested assistance from Burringbar Brigade and Group West. Burringbar responded at around 0700hrs with Burringbar 1 and Burringbar 7, Group West also sent a vehicle. The highway was closed for a number of hours while crews fought the

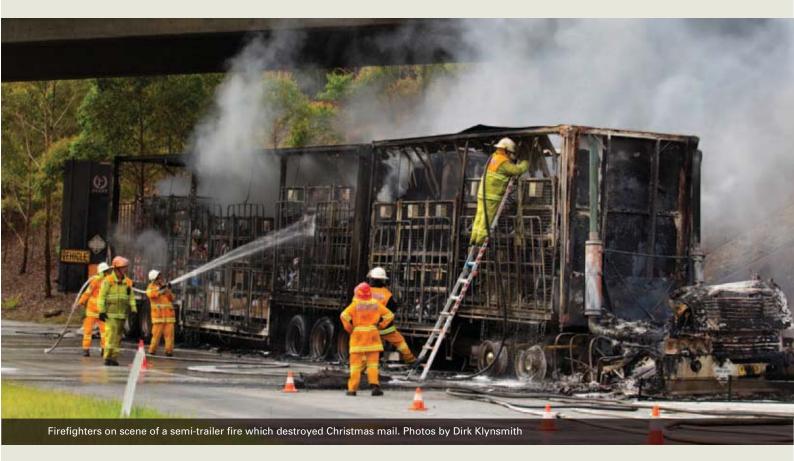
fire with traffic diverted over the Tweed Valley Way until late afternoon.

The NSW RFS had 17 firefighters on scene and once the fire was extinguished crews worked until 1200hrs overhauling and assisting with salvage. This was a dirty and time-consuming job pulling apart the load and dousing it with water. The NSW Police Force and Roads and Traffic Authority personnel arranged the salvage and removal of the wreckage, and the highway was re-opened later that afternoon.

It was confirmed later that the truck was an Australia Post contractor carrying

Christmas mail from Western Australia. The fire is still under investigation and the cause is undetermined. Initial reports suggest that the truck driver smelled smoke in the cab and pulled over to the side of the road to investigate. He discovered fire in the engine area and tried to extinguish it, but it spread too fast. The driver was fortunately not injured in the fire.

Many crew members had been part of Christmas celebrations the night before and all of us wondered about the people who wouldn't receive their gifts for Christmas, having lost them to this extraordinary fire.





Farmer escapes harvester fire



A header caught fire on a rural property on 10 December 2011 in Forest Hill near Wagga Wagga after colliding with power lines.

The fire on the property Tahara located at Brahours Road, Forest Hill, was first reported to the Lake Albert Brigade at 1606hrs with several Triple Zero (000) calls made by local residents reporting black smoke north of Forest Hill.

The Forest Hill pumper was dispatched with the Forest Hill Captain requesting further units from Ladysmith and Lake Albert Brigades, as the fire was spreading into the crops. By 1614hrs the Forest Hill pumper was on scene.

An Essential Energy crew arrived to fix power lines being knocked down to the ground by the header. Some private units from Tahara also arrived to back up the Forest Hill pumper and supply water.

At 1634hrs the Forest Hill Captain advised the spread of the fire into the crop had been extinguished and crews were applying foam to the header.

By 1700hrs the header fire was contained and crews from Ladysmith and Lake Albert were released to return to their stations.

After clean up operations and ensuring all was under control at the scene, Forest Hill 1A and the pumper headed back to station

After the incident, the header driver reported he had just started to work in the paddock and was working along the fence line and was being careful not to get the header comb caught in the new fence. He had seen the power lines in the paddock but had forgotten about them.

As he approached the corner of the paddock he looked in his mirrors and could see sparks and lights everywhere.

"It looked like a Christmas tree all lit up", the driver said.

It was then he realised that

he had knocked down the overhead power lines. To the driver's credit he remained calm and tried to reverse up, but this only made the power lines put on a better display of sparks.

Then the flames seemed to be all around him, so he grabbed the fire extinguisher and jumped off the header. (Luckily, the header driver's son works for Essential Energy and had shown him how to get out of a vehicle if it was caught in power lines.)

The driver then attacked the fire with an extinguisher and nearly had the fire out when the extinguisher ran out of foam. The driver went to get the second fire extinguisher located at the back of the header but saw the power lines on the ground at the rear of the header and decided not to.

Crews learned some valuable lessons from the incident

including:

- header drivers must know how to get out of a vehicle trapped in power lines safely
- using log probes and foam is useful to extinguish hot spots within the machinery
- · crews had not previously put a newer type header fire out before and gained valuable experience in where covers were and how they were undone to remove for accessibility
- header drivers should frequently look up and around the paddock for power lines and be aware where electricity installations are so they can be avoided.

ABOVE: Forest Hill Brigade finish the job - note the power lines directly above which caused the blaze. Photo by Luke Baker Forest Hill Brigade



The Big Hill fire raged on three fronts and burnt a significant area. Photo by Ian Kennerley

Big Hill - big effort

In the mid-afternoon on 12 November 2011 three fires were reported near Big Hill near Moss Vale.

By Superintendent Ian Kennerley, Operations Officer, Southern Tablelands Zone





The Big Hill Brigade was dispatched to the scene at 3227 Brayton Rd, Big Hill. Due to the fire's difficult location, it took 30 minutes for the first crew to arrive.

Crews found a grass fire burning quite strongly in a paddock just south of the Tarlo River, on the western side of the Brayton Rd and the fire was gathering momentum at quite a speed.

As the grass fire continued to spread, a further five appliances were dispatched from the Marulan and Towrang Brigades to support the Big Hill Cat 1. The crews worked hard to contain the fire on three sides but by 1900hrs the northern flank had dropped into very steep terrain next to the Tarlo River.

The Goulburn-Mulwaree Remote Area Fire Team (RAFT) leader was quickly dispatched to undertake reconnaissance in the area with the view to using a handtool crew and a helicopter to mop up the steep terrain the next morning.

Operations commenced early the next day, 13 November, following an onsite briefing with the helicopter crew, truck crew and ground crew. The helicopter worked until 1400hrs and the crews departed later that afternoon after handing back responsibility to the owner.

Despite 65kph winds the following day there were no re-ignitions which showed the excellent work put in by the crews on the day.

NSW RFS State Training Calendar

Month	Program	Training Location
July		8
1	L & D Forum	Bathurst
2-6	ICMI Workshop 3 Group 1	Homebush
9-13	ICMI Workshop 3, Group 2	Homebush
10-11	Advanced Diploma	Cumberland RFS Warnervale
13-15	Air Base Operator (ABO)	Dubbo
21	Reconnaissance (RCN) Workshop	Coffs Hb
21-22	Volunteer to Career Workshop (V2C)	HQ
21-22	Units from Cert IV in Youth Work,	Canobolas
23-27	IMW	Orange
28-29	Community Safety Facilitator (CSF)	Homebush
31-3rd	ICMI Workshop 4	Homebush
August	TOWN WORKSHOP 4	
2-5	Aircraft Officer (AOF)	Taree
4-5	Volunteer to Career Workshop (V2C)	Penrith
4-5	· ·	. Grandi
1 0	Air Base Operator (ABO) Aviation Radio Operator (ARO) Air Attack Supervisor (AAS), Aircraft Officer (AOF) Recert	Taree
9-10	Advanced Diploma	Cumberland RFS
9-10	Introduction to Intelligence (INT) W/Shop	Dubbo
13-17	Command Control Comms (CCC)	Sutherland
16-17	Air Observer (AOB) Recert	
18-19	Aircraft Officer (AOF) Air Attack Supervisor (AAS), Air Base Operator	Orange
18-19	(ABO) & Aviation Radio Operator (ARO), Recert	0.00000
00	State Operations Exercise	Orange
23	Helicopter Winch Skills (HWS)	
24-26	Community Safety Facilitator (CSF)	Sydney
25-26	Command Control Comms (CCC)	Yass
27-31		Queanbeyan
September		0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
4-5	Advanced Diploma	Cumberland RFS
4-7	ICMI Assessments	
7-9	Remote Area Firefighter (RAF)	Cataract
10-14	IMW,	Sutherland
15	Helicopter Winch Skills (HWS) Recert	Blue Mountains
16	Helicopter Winch Skills (HWS) Recert	Blue Mountains
22-23	Community Liaison Officer (CLO)	Yass
24-28	IMW	Queanbeyan
October		
9	Advanced Diploma Project Presentation	Cumberland RFS
12-14	Helicopter Winch Skills (HWS)	Sydney
20	Helicopter Winch Skills (HWS) Recert	Armidale
21	Helicopter Winch Skills (HWS) Recert	Lismore
27-28	Remote Area Firefighter (RAF) Assessment	Sydney
November		
3	Helicopter Winch Skills (HWS) Recert	Taree
4	Helicopter Winch Skills (HWS) Recert	Cessnock
17	Helicopter Winch Skills (HWS) Recer	Blue Mountains
18	Helicopter Winch Skills (HWS) Recert	Cataract
December		
Nil		

Note: Nomination for training programs and workshops close four weeks prior the commencement date. Further information on each program can be found in the 2012 Training Information Book (TIB). All nominations should be through your District Learning and Development Officer or Manager/Supervisor.

Members can also view this calendar on MyRFS. Log in and use the 2012 State Training Courses tab at the top of the home page.

Disclaimer: All information is correct at the time of printing. Please confirm programs by checking with your District Officer or on MyRFS and the Intranet.



Remote Area Firefighting

— Taking On the challenge By Chris Ryder, Operations Officer and Glenn Woods, Business Support Officer, Operational and Mitigation Support Services

Since early 2011, the Operational and Mitigation Support Services (OMSS) **Group of Operational** Services has coordinated the Remote Area Firefighting Teams (RAFT) and Rapid Aerial Response Teams (RART) programs.

In 2010, the NSW Government responded to the Victorian Bushfires Royal Commission Final Report and committed to establishing

Rapid Aerial Response Teams across the State in both the NSW RFS and NSW National Parks and Wildlife Service (NPWS).

Following this recommendation, the **NSW RFS RAFT program** was enhanced and OMSS was tasked with assisting brigades and districts by coordinating the training, equipment and policy implementation for the RAFT and the RART programs across the State.

Group Manager OMSS Rebel Talbert said that RAFT and the new concept of RART are a priority for Service. "The Service has a long and proud history of remote area firefighting with many potentially devastating bush fires burning in remote areas controlled by a small number of specially-trained volunteer firefighters.

"The new RART Program has been built on the ideas and experiences of RAFT volunteers from across the State," she said, "Our first RART deployment in September 2011 was an operational success and this is due to the planning and discussion that took place at the State RAFT Workshop in May 2011."



RAFT and RART — what is the difference?

RAFT – Remote Area Firefighting Teams

Remote Area Firefighting
Teams are specialised teams of
firefighters, who typically hike
into difficult or remote areas
to help contain or extinguish
fires. Due to the difficult terrain
of some of these fires, RAFT
members may be taken to the
fire front by boat or flown in
by helicopter.

NSW RFS RAFT volunteers are highly trained in mapping, navigating in day and night environments, using equipment such as chainsaws, blowers and McLeod tools and are specialised in the art of dry firefighting techniques. RAFT members may also be required to cut helicopter landing pads, mop-up and patrol fires edges, establish containment lines, set up remote area communications and undertake reconnaissance activities

Currently there are 14 NSW RFS RAF Teams located throughout the State. They are managed locally though Districts and supported by the Remote Area Firefighting and Specialised Operations section of OMSS.

RART – Rapid Aerial Response Teams

RART is a new concept for the NSW RFS which will increase the capability of the Service with its immediate response to bush fires.

On days of increased fire risk, such as during periods of lightning activity, RAFT volunteers with Helicopter Winch Skills (HWS) certification are on standby for RART deployment by dedicated aircraft. RAFT volunteers are always the first point of call for RART standby and deployment.

Where RAFT volunteers are not available to be on standby for deployment, State Mitigation Support Services (SMSS) crew members with RAF and HWS certification will fulfil this role until RAFT volunteers are available.

Two RART-dedicated medium-winch helicopters are strategically placed throughout the State based on the four-day forecast and a series of triggers. RART is manned by four RAFT volunteers with current HWS certification and are activated by a District through the RART Dispatch Officer who is based with the aircraft and crew.

The role of a RART Dispatch Officer is to deploy the RART, inform the State Air Desk and relevant Region as well as updating ICON to maintain records of each deployment.

The RART Dispatch Officer also manages the logistical needs of the crew and coordinates back up RART members if the initial crew is deployed for a sustained period. While on standby, the RART Dispatch Officer also oversees training skills maintenance and training activities where possible.

RAFT volunteers are always the first point of call for RART standby and deployment.

Workshops lead the way

In May 2011, a two-day State RAFT Workshop was open to all NSW RFS RAFT members and district officers. The workshop was held at the NSW RFS Headquarters and was attended by 60 NSW RFS members from 17 Districts across the State. The workshop was divided into five streams:

- Aviation
- Equipment
- SÖP/Guidelines
- Training/Recruitment/ Retention
- RART

Participants were rotated through the five streams and discussed equipment upgrades, changes to training, SOP reviews and the development of the RART Program. At the completion of the workshop, participants made a series of presentations that resulted in 67 recommendations to enhance the NSW RFS RAF Program.

The success of the workshop was a direct result of the ideas put forward by RAFT members including:

- Funding and supply of RAFT equipment should be managed at a State level with maintenance and repairs of equipment undertaken locally
- NSW RFS RAFT members should be utilised for other relevant emergencies and operations
- Standard radio kits should be developed for RAFT and include PMR, fire ground, UHF CB, personal locator beacon, spot messenger and satellite phone with one spare battery per device
- Standard personal equipment kits should be issued to all qualified RAFT members

- Standard team equipment kits should be issued to all teams across the state and include blowers, chainsaws and portable pumps
- The number of opportunities to train with aircraft should be increased.
- Identification of helicopter bases for RART should be based on geographical location, potential bush fire risk, facilities, effective flight time, resources and RAFT trained members
- The current RAFT
 Operational Protocol is too
 prescriptive and should
 reflect a principle-based,
 risk assessment approach
- A joint-agency RAFT
 Operational Protocol
 between the NSW RFS
 and NPWS should be
 developed.

Many of the recommendations from the workshop required implementation prior to the 2011/12 fire season which resulted in equipment and training audits being undertaken, RAF and HWS training taking place, equipment gaps being filled and new equipment issued.

Longer term recommendations include undertaking a trial of rappelling (the technique of descending down a rope at a controlled rate of speed) as part of the RART Program, reviewing the Arduous Pack Test against RAFT requirements and reviewing helmets for winching operations.

Following the equipment audit in May 2011, equipment lists have been produced and gaps in equipment have been filled across the State. Most RAFT districts have received Standard RAFT Radio Kits based on the suggestions at the State RAFT Workshop.

Remote Area Firefighter and Helicopter Winch Skills Training

Following the workshop, in mid 2011, two Remote Area Firefighting (RAF) and two HWS training courses were coordinated by the Remote Area Firefighting and Specialised Operations section.

The RAF Course is held over two days and incorporates advanced navigational skills including map reading and use of a GPS, a number of practical exercises including day and night navigation activities, with participants camping in Base Camp-style accommodation. The course is designed to promote team work and responsive decision making through challenging navigation and practical exercises.

The HWS course is conducted over two and half days and focuses on theory-based procedures, policy, communications, site selection and working safely around aircraft. The second day includes winch simulator training at the Westpac Lifesaver facility in Cape Banks and undertaking live winch training with a medium helicopter.

Two HWS courses took place in Sydney and included RAFT volunteers from Northern

Rivers, Manning, Hawkesbury, Far South Coast, New England, Cudgegong and Southern Tablelands districts.

RAFT volunteers from New England, Northern Rivers and Manning districts attended the Coffs Harbour RAF course and RAFT volunteers from Hawkesbury, Macarthur, Cudgegong, Northern Rivers, Manning, Lake George, Far South Coast and Southern Tablelands districts attended the course based at the Cataract Scout Camp in Appin.

Bill Cox from the Northern Rivers Remote Area Firefighting Team said, "I haven't done a course that's both empowered and made me question what I don't know since Urban Search and Rescue training with the Melbourne Metropolitan Fire Brigade in 1996."

In late 2011 a formalised training calendar for RAF was completed and incorporated into the State Training Calendar. 2012 training includes a number of RAF and HWS courses and re-certifications as well as RAF Instructor/Assessor workshops. In early 2012 the first three HWS recertification courses for the year took place in Tumut, Canberra and Moruya.



Inter-agency Operational Protocol for RAFT with NPWS

One of the key recommendations of the State RAFT workshop was to develop an Inter-agency Operational Protocol for RAFT with the NPWS. Feedback from the workshop was used to develop the protocol which will facilitate cooperative RAFT operations by being less prescriptive and reflecting a principle based, risk assessment approach.

The protocol, which was signed by both agencies in December 2011, applies to any class of remote fire and includes remote prescribed burning operations utilising RAFT. Both the NSW RFS and NPWS have a duty of care to ensure that their staff, volunteers and contractors tasked to RAF operations are competent and capable of undertaking the tasks allocated to them and that those tasks are undertaken as safely as possible.

If you are interested in finding out more information about the NSW RFS RAF Program, contact your local District Operations Officer or members of your closest Remote Area Firefighting Team.



FIRST NSW RFS RART DEPLOYMENT FOR 2011-12 BUSH FIRE SEASON

Date: 20 September 2011

BK117 Helicopter – Call Sign: HELITAK 220

Dispatched: 14:05hrs

Mission: Fly towards the Putty Road North to the Hawkesbury Boundary and then fly to the Lower Blue Mountains to look for fire activity and then return.

Team: Hawkesbury/ Blue Mountains RAFT

Crew Leader: Craig Burley

Crew: Jim Hunter, Vic Zucov, Hugh Paterson

Fire Located: 15:00hrs

On Scene: 15:08hrs

Sit-Rep: An uncontained fire had crossed a creek

north of Wheelbarrow Ridge Road and Green Swamp for approximately 50m. RART advised Hawkesbury District and State Operations of the situation, located a landing site within walking distance to the fire. Helitak 220 landed, the crew disembarked and undertook a direct attack on the fire while the aircraft flew back to Richmond RAAF Base, collected its bucket and commenced bucketing operations in support of the ground crew. The crew was extracted by helicopter after the fire was contained.

RAFT Extraction: 17:00hrs

Shut Down: 17:20hrs

Following return to Richmond RAAF Base at 17:20hrs, the RART was de-briefed and stood down. Hawkesbury District deployed local crews the next day to continue working on hot spots.



Remote Area Firefighting Team Firefighting Equipment

The following equipment is designed as a minimum for Remote Area Firefighters.

Equipment can be added to the kits on an as needed basis at the local level.

Hand Tool Kit

4 x McLeod Tools 2 x Summit gear splat mats or equivalent

1 x Summit Gear winch bag winch 3-PB

Chain Saw Kit

- 1 x MS261 Stihl chainsaw with 16 inch bar
- 1 x Chain saw tool kit
- 1 x Helmet with visor and ear muffs
- 1 x Chainsaw chaps Stihl
- 1 x File kit .325
- 2 x Wedges alloy large
- 2 x Fuel bottles MSR 887ml
- 1 x Bar oil, bottle MSR 590ml

- 1 x Axe with cover
- 1 x Spare chain for chainsaw
- 1 x Stump vice
- 1 x Summit Gear chainsaw winch bag RFS-CB

Pump Kit

- 1 x 4 Stroke 25mm outlet pump Honda Gaam WX10 or similar, with suction hose and strainer
- 1 x Pump tool kit
- 3 x 25mm x 10m percolating storz coupled hoses
- 1 x Dial a Jet Nozzle

- 2 x Fuel bottles MSR 887ml
- 1 x Summit Gear pump winch bag RFS-PB

Blower Kit

- 1 x Stihl BR600 leaf blower hi pressure
- 1 x Blower tool kit
- 2 x Fuel bottles MSR 887ml
- 1 x Summit Gear blower winch bag RFS-BB
- 1 x Ear protection



Photos by Glenn Woods

Remote Area Firefighting Team Personal Equipment List

The following equipment is designed as a minimum for Remote Area Firefighters. Equipment can be added to the kits on an asneeded basis at the local level.

- 1 x 30 Litre Back Pack Summit Gear Cockatoo RFS or Similar
- 1 x 3 Litre Camelback Bladder or similar
- 1 x Sleeping Bag
- 1 x Sleeping Mat
- 1 x Emergency solid fuel stove
- 1 x Spare fuel stove tablets box
- 1 x Headlight Yukon HL
- 1 x Leatherman type tool
- 1 x Compass with mirror Silva Ranger S or similar
- 1 x 5 metres x 6mm Light rope
- 1 x Insect Repellent Bushmans Ultra
- 1 x Oz Hiker Fly 350 x 210 hoochie
- 2 x Matchbox waterproof
- 1 x Screw gate Carabiner
- 1 x Personal First Aid Kit
- 1 x Whistle Plastic Torpedo 1 x Emergency Space Blanket
- 1 x Nylon Poncho or Raincoat
- 1 x Roll Heavy Duty 50mm tape
- 2 x Cyallume sticks
- 1 x 420ml Polypropylene cup
- 1 x Polypropylene deep plate
- 1 x Knife Fork Spoon set
- 1 x Small aluminium billy
- 1 x Notebook + Pencil



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Social media, social dividend

During an emergency such as a bush fire, timely information can help people make informed decisions. In recent years, social media has become an accepted way for agencies to engage with communities before emergency events and keep them informed during an emergency. Now, than ever before, social media is becoming an increasingly useful source of information for emergency services as well.

It's no surprise given 10.7 million Australians use Facebook and 11 million have used YouTube. During the Queensland floods of January 2011, the number of 'likes' on the Queensland Police Facebook page rose from 17,000 to more than 100,000 in just 24 hours.

How the NSW RFS uses Social Media

The Service's social media presence has expanded since its early days to include a number of channels like Facebook, YouTube and Twitter.

It's also grown to provide information to members, the general community and specialised groups like Community Engagement and Learning & Development.

Commissioner Shane
Fitzsimmons is a supporter of
the appropriate use of social
media, even having his own
Facebook page to communicate
with members and highlight
many of the Service activities
and events he attends.

Best practice

While social media can be a great way to engage with the community or your fellow members, it also comes with some risks.

For this reason, following extensive development, the Service has developed a Service Standard which provides guidance to members wishing to use social media for Service activities.

The Service Standard also provides some helpful advice for members who are using social media in a personal capacity, especially when discussing NSW RFS related activities. This Service Standard is available on MyRFS.

A toolkit has also been developed for members and brigades looking to get involved in social media, providing a simple checklist on things to consider when establishing an online presence.

Our top five tips

Know your audience – think about who's in your local community

Have a plan – write down what you'll post, how often and who will do it

Be relevant – talk about things happening in your community

Be aware – monitor your social media sites, respond if necessary

Gauge your success – work out how you'll measure your success, whether it's 'likes', hits or the level of engagement

The Social Media Toolkit will help you with these decisions. Check MyRFS for details.

Stay up to date...follow us

Facebook

Official page: facebook.com/nswrfs

Commissioner: facebook.com/rfscommissioner







Twitter

twitter.com/nswrfs

YouTube

youtube.com/nswrfs

Community Engagement

facebook.com/nswrfscommunityengagers



Case Study: Arcadia Brigade

Arcadia Brigade in north west Sydney were early adopters of social media. They have become a model of how to use social media appropriately, effectively and dynamically to enhance brigade life.

When and why did you start using social media?

Arcadia Rural Fire Brigade launched its Facebook and Twitter sites in 2010 and has built a network of over 400 followers with a potential connection to 60,000 in the area. The brigade uses social media to promote NSW RFS messages and we tailor content to key areas of the Bush Fire Survival Plan. We also broadcast general messaging about local weather conditions and hazard reduction messages.

What sites are you using and which are the most effective?

We use Facebook and Twitter linked together which allows for a single posting point for both services. Twitter is a more powerful platform with the ease of keyword search and better potential for content exposure. Facebook is a more personable space, with equally the same potential but getting users to click on the 'Like' button is the challenge. Every post where appropriate, is tagged with #NSWRFS to ensure that our message is consistent. We have recently

launched a Google+ page however we are still exploring the capabilities of this site.

What communication goals do you have with social media?

Our key focus is to boost our Facebook and Twitter followers to 300 on each site within the next six months. We want to provide an online discussion space for the community to have a day-to-day relationship with the brigade and improve engagement with regular, consistent messages.

What effect has it had on improving your message to the community?

We are using traditional promotional methods such as printed flyers and pamphlets to promote our message and include information on our website. This drives traffic to our social media sites over time. Also on our website we have Facebook 'Likes' for all our articles. We have noticed

increased attendance at events by the community and believe our message is spreading further than it has before.

What advice would you give to a brigade thinking of setting up a social media strategy?

If you are looking to establish a social media strategy, take the time to look at how other brigades are interacting with their followers and the messages they are communicating. Content that is timely and relevant is critical. You also have a responsibility to ensure your posts are appropriate and do not reflect badly on your brigade or the Service. If in doubt, do not post it! To ensure the success of your social media platform, post content regularly and appoint a brigade member to monitor the sites you are using.

Written by James Baird, IT Officer/Social Media Administrator, Arcadia Rural Fire Brigade



New Work Health & Safety laws

As of January 2012, new Work Health & Safety (WHS) laws came into effect in NSW. The new WHS laws replaced the former Occupational Health & Safety (OHS) laws in NSW. Under the new WHS laws the NSW RFS, employees and volunteers all have specific work health and safety duties. To assist everyone to understand these new laws, the following Frequently Asked Questions and responses have been developed.

What is a Duty of Care?

A duty of care – also known as a responsibility – is a specific obligation placed on a person or organisation or business. In WHS legislation, everyone has a Duty of Care (responsibility) to themselves and others.

What does Duty of Care mean for NSW RFS?

The NSW RFS, as a 'person conducting a business or undertaking' (PCBU), has a Duty of Care to ensure the health and safety of its workers (including volunteers and

employees) and others, consult with them on health and safety matters, and provide them with the necessary information, instruction and training related to the work they perform for the Service.

Do Duty of Care obligations for the NSW RFS as a PCBU change because we are an emergency service?

No. Even though it is an Emergency Service Organisation, the NSW RFS is still a PCBU under the new WHS laws, and therefore is required to



ensure, so far as is reasonably practicable, the health and safety of its workers (employees and volunteers) and others whenever they are carrying out work for the NSW RFS.

Is the NSW RFS considered a Volunteer Association under the WHS Act?

No. The NSW RFS employs personnel to assist in carrying out its work and is therefore a PCBU.

Are these new laws going to affect the NSW RFS operationally?

As indicated by Safe Work Australia, "the ability of emergency services to respond to incidents will not be affected as long as they continue to ensure, so far as is reasonably practicable, the health and safety of their workers and others." The NSW RFS will continue to review and monitor our operational needs and ensure that the Health and Safety of our members is the first priority.

Do these new laws mean a great deal of changes for NSW RFS volunteers?

The NSW RFS has always taken the safety of volunteers and employees very seriously and has treated volunteers in the same way as employees. This change in legislation simply formalises that arrangement and ensures that everyone within the NSW RFS shares in the responsibility for Work Health and Safety to some degree.

The Health, Safety & Welfare (HSW) Section is currently enhancing the Health and Safety Management System. The system will build on current policies, Service Standards, Standard Operating Procedures and other documentation, outlining the ways that NSW RFS work practices are to be conducted to ensure the health and safety of NSW RFS members and others.

What responsibilities do workers have?

All workers (including employees and volunteers) have a responsibility to take reasonable care for their own health and safety, and take reasonable care that their actions or omissions do not adversely affect the health and safety of others. NSW RFS members (employees and volunteers) as 'workers' under the new WHS laws in summary are required to:

- ✓ take reasonable care for their own health and safety;
- take reasonable care that their actions do not adversely affect the health and safety of others; and
- comply with any reasonable instructions, policy or procedure regarding health and safety.

Who is an 'Officer' of the NSW RFS under the new WHS laws?

An Officer is a senior executive or senior member (e.g. NSW RFS Commissioner and Directors) of the organisation who makes, or participates in making, decisions that affect the whole, or a substantial part, of the business or undertaking.

What responsibilities do Officers have?

Officers must exercise due diligence which means taking reasonable steps to ensure

that the NSW RFS as an organisation complies with its WHS obligations.

Can a Group Captain or a Captain of a Brigade be an 'Officer' under the new WHS laws?

Group Captains, Captains and Deputy Captains are unlikely to fall within the definition of an 'Officer' as they do not make, or participate in making decisions that affect the whole, or a substantial part of the NSW RFS. However, even if a volunteer is deemed to be an Officer under the WHS laws, they cannot be prosecuted for not complying with Officer responsibilities.

Is an 'Incident Controller' an Officer?

Safe Work Australia have advised that "An Incident Controller is unlikely to be an Officer under the new Work Health & Safety laws. This is because, although incident controllers may direct particular response operations, they do not generally make, or participate in making the key decisions on how the person conducting a business or undertaking operates. An Officer is determined by their ability to influence decision making for the whole or a substantial part of the organisation and by their substantive position within the organisation, not one they may assume in response to a particular incident.'

What has been happening in the NSW RFS in relation to the new WHS laws?

A Working Group was formed from key stakeholders and the group has identified tasks for the NSW RFS to complete in order to meet the requirements of the new laws. The NSW RFS Work Health & Safety Working Group has been meeting monthly since October 2011. The tasks so far have included:

- Review current NSW RFS health and safety systems;
- Review consultative arrangements and committee structure:
- Review NSW RFS WHS Laws gap analysis and recommendations;
- Conduct document review of current NSW RFS OHS literature;
- Developing communication

strategies / plan (including presentations and fact sheets posted on MyRFS and NSW RFS Intranet).

The Working Group has also been involved in:

- Monitoring WHS information in the media that applies to the Service:
- Inclusion of WHS laws in NSW RFS Organisational Statement and Role Statements;
- Reviewing Health & Safety Induction options.

What to expect next?

The HSW Section will continue to publish updates on legislation and health and safety system changes as they occur.

The NSW RFS is reviewing current Service Standards, SOPs, Policies and other system documents to ensure they reflect the requirements of the new Laws. Changes to these documents will be published and communicated after all necessary consultation. A specialist Health & Safety System Technical Writer has been selected to work on this project.

As required by the WHS legislation, there is ongoing collaboration with other emergency service organisations to ensure that we have consistent safe work practices.

Work Health and Safety System changes will be supported by training programs.

Who to contact for more information?

In the first instance, please contact your Manager / District Manager. Alternatively, you can contact the NSW RFS Health, Safety and Welfare Section via telephone on 02 8741 5221 or via email safety@rfs.nsw.gov.au

Where to look for further WHS Information:

- MyRFS (for volunteers Safety and Welfare)
- → NSW RFS Intranet (for staff)
- → Safe Work Australia: www.safeworkaustralia. gov.au
- → WorkCover NSW: www.workcover.nsw.gov.au

DGR What it means for your brigade

By now you may have heard or read about DGR – Deductible Gift Recipients.

There are more than 600 NSW RFS brigades which have DGR status, meaning people who currently donate money to those brigades can be issued with a receipt and claim a tax deduction

Federal taxation laws have changed, however, meaning a change for the way these brigades conduct some fundraising activities. Put simply, if a brigade wishes to raise funds and give the person donating the money a tax-deductible receipt, they need to either set up a DGR fund or pay the money into a centralised DGR fund.

The changes only affect brigades who want to issue tax-deductible receipts to people donating money. If a brigade only collects donations through activities like bucket donation drives or sausage sizzles, there should be no impact.

It's the choice of each brigade.

Setting up a brigade Public Fund

Each brigade, whether they currently have DGR status or not, can set up their own Public Fund. The process for setting up a brigade Public Fund is relatively straightforward if you meet certain requirements and is explained on the DGR page on MyRFS.

One requirement is the establishment of a management committee. Due to the public expectation that any money donated by



The changes only affect brigades who want to issue taxdeductible receipts to people donating money. If a brigade only collects donations through activities like bucket donation drives or sausage sizzles, there should be no impact.

the public will be managed appropriately, the fund needs a committee of a majority of 'responsible persons' to manage it.

Many brigades have already identified 'responsible persons' in their brigade or community. The Tax Office has advised that NSW RFS officers (roles such as Group Captains, Deputy Group Captains, Brigade Captains, Senior Deputy Captains and Deputy Captains) will be considered 'responsible person'.

The Tax Office has also advised that the brigade fund management committee can include two brigade officers.

Join the central Public Fund

The NSW RFS has been working to establish a central

fund – that is a DGR Fund set up by the NSW RFS itself. This means brigades can simply deposit the funds donated into a central fund where they will have their own 'sub-account'. This option removes the administrative burden associated with setting up an individual brigade Public Fund.

Each brigade that joins the central fund will be given its own 'sub-account' within the fund bank account, which is held with Westpac. Brigades joining the fund will have full online access to their funds and have the ability to check balances, print statements, earn interest on deposits and even establish term deposits or initiate transfers to brigade bank accounts.

Your brigade. Your choice.

It's up to each brigade about which option to take. It's also an option to not have DGR status.

No matter which choice your brigade makes, it's important that everyone understands their responsibilities to ensure funds which are donated by the public are used in an appropriate way.

Check www.myrfs.nsw.gov.au for regular updates including frequently asked questions.

You can also call the ATO non-profit info line on 1300 130 248 between 8am-6pm, Monday to Friday or visit the ATO website at http://www.ato.gov.au/nonprofit

CLCAINING enhances flexible training

By Stephen Glassock

The Service has entered a new era of training and learning with the introduction of three eLearning programs in the past year and many more programs to be introduced in the coming years.

Safety Inductions, Volunteer and Staff Inductions are all now available online via MyRFS and the NSW RFS staff intranet. The content is based on existing programs yet provides an alternative way to learn.

What is eLearning?

eLearning delivers training using current electronic media such as internet, intranets, extranets, satellite broadcast, audio/video tape, interactive TV and CD-ROM.

eLearning gives wider choice on what, when, where and how people can learn. It supports different styles of learning and allows the Service to respond to the changing needs and expectations of members. It does not replace trainers and facilitators, but works with existing methods to enhance the quality and level of training and reduce administration.

eLearning is broader than online learning and involves a number of applications and processes to deliver training including:

- the internet, CD-ROM or computer-based learning resources in the classroom, workplace or home
- online access to course activities (e.g. online simulations, online group discussions)
- directed use of the internet, mobile and voice technologies for learning and research purposes

- structured learning-based email communication
- online assessment activities.

It does not include:

- email distribution of course information
- email communication between a teacher/ trainer and learner on a single learning issue
- online administration of learning activities.

The approach in the Service

The general approach to eLearning in the NSW RFS includes three aspects:

- Online Programs: The content for these courses will be drawn from the theory components of NSW RFS programs and developed to complement the practical aspects of the programs.
- 2. Competency Maintenance
 Tool Box short video clips
 on key skills. E.g. How to use
 an AED which can be found
 on MyRFS. More of these
 are planned and are designed
 to provide volunteers with a
 refresher for key skills.
- Wiki as a knowledge management tool to hold the relevant and related Service and learning and development-related information.

Examples of eLearning in the NSW RFS

As existing training programs are reviewed they will be considered for eLearning opportunities. Throughout the coming year, the Bush Fire Awareness program, Bush Firefighter, Village Firefigher and Advanced Firefighter are all being considered for eLearning.

The recently developed Incident Controller: Major Incidents (ICMI) program has two examples of eLearning used in a blended approach.

- Computer Simulation using the Network Fire Chief application, participants exercise their skills of managing a developing fire with realistic simulated fire behaviour as an actual fire
- Podcast and Forums –
 between the face-to-face
 workshops participants listen
 to podcasts then interact in
 online forums based on the
 content of podcasts

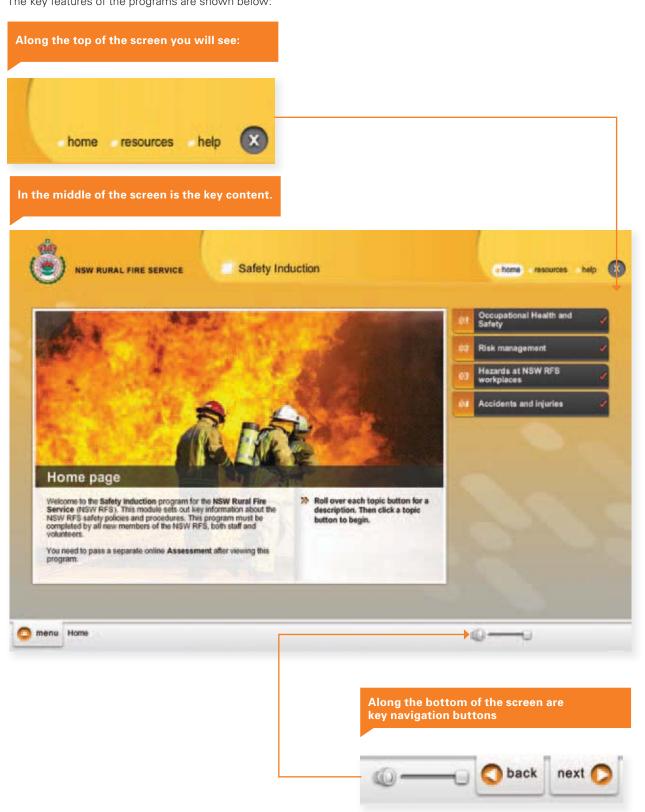
Further information

If you would like further information about the roll out of the eLearning programs, or would like to give feedback please contact the Learning and Development Unit elearning@rfs.nsw.gov.au.

eLearning enhances

How to get access to NSW RFS eLearning

The eLearning programs have been given a NSW RFS look and feel making them more familiar and user-friendly. You can gain access via MyRFS and the NSW RFS intranet. Look for the section on Training which will take you straight to the programs. The key features of the programs are shown below:



flexible training

eLearning at a glance



Safety Induction (SI)

The Safety Induction program is for all new members.

It provides general awareness of the Workplace Health & Safety (WHS) laws relevant to the NSW RFS.

This program is done in conjunction with an onsite induction.

Volunteer Induction (IND)

The Volunteer Induction provides new volunteer members with an overview of NSW RFS general operations, organisational structure, policies and procedures based on the Bush Firefighter Manual.





Staff Induction

The Staff Induction is for new salaried members and provides information on working conditions and NSW RFS policies and procedures. This program is done together with an onsite induction.





Engagement strategy brings together By Phillip Byrne, Assistant Editor, Bush Fire Bulletin

In the small rural community of Wollombi Valley in the Lower Hunter, the local brigades of Wollombi, Laguna, Bucketty and Millfield are working with residents to create a bush fire safe community and to ensure all locals have a Bush Fire Survival Plan.

THIS PAGE: The Wollombi Valley community comes together to learn about fire safety in an innovative community engagement workshop. FAR RIGHT: Workshop where locals learn the basics of bush fire preparation and how to make critical survival decisions. Photo by Donna Gargano

The team's journey from what started as just a good idea some years to ago, to their current highly successful program was achieved by seeking community feedback and continually measuring their success.

The Wollombi Valley is in a region of high bush fire danger and comprises a community of old time locals and 'tree changers', many of whom are 'weekenders' and have little or no bush fire experience.

Despite this greater risk, many in the community did not have a Bush Fire Survival Plan. So a team of volunteers from the four brigades in the Valley set out to do something about it.

After the 2009 Black Saturday Bush Fires in Victoria, new Fire Danger Ratings

were introduced and an accompanying media campaign - Prepare. Act. Survive - urged people to have a Bush Fire Survival Plan. This has made community engagement that much more important.

The Team initially devised an engagement strategy focused on educating locals through a range of street meetings and bushfire safety forums. Great results were achieved in lifting the community's knowledge and understanding of the risk of bushfire as well as the importance of preparation and the need to have a Bush Fire Survival Plan.

However, feedback from those who attended highlighted they were having difficulty translating what they had learned at the forums into their own Bush Fire Survival Plan.



Community Engagement Officer for Wollombi Valley, Glenn O'Rourke, said that "in response to community feedback, we developed a workshop where locals could not only learn the basics of bush fire preparation and how to the make the critical survival decision to leave early or to actively stay and defend, but also be guided through how to develop their own Bush Fire Survival Plan".

The workshop format consists of locals learning about the basics of fire and fire behaviour, the fire danger ratings and warnings, ember attack and how houses burn, how to prepare, including the need to create Asset Protection Zones (APZ), and most importantly how to make the decision to stay and defend or leave early.

The workshop participants then break off into smaller groups for a more personally-focused session where a facilitator guides them through the preparation of their own Bush Fire Survival Plan. This approach takes into account their own family situation and house design, as well as the bush fire hazards of their individual property and location.

"The small groups achieve so much and the residents take ownership of their plan and leave with confidence knowing their plan has been formulated with the assistance of an experienced, local firefighter," Glenn continued.

Again in response to feedback from the participants, the workshop also now includes a hands-on practical session, during which locals have an opportunity to learn how to use a portable pump along with basic firefighting techniques.

Strategic thinking

A key to the success of this program has been the strategic approach adopted by the Wollombi Valley team. The local Bush Fire Risk Management Plan is the cornerstone of the program and is used to identify and target high bush fire risk communities.

Once identified, the team developed an integrated program of initiatives aimed at mitigating the risks and actively engaging with locals to Prepare. Act. Survive.

The team also understands that no project can succeed unless

the outcomes are measured. When locals complete a workshop they have to answer a detailed analysis of what they have learned and provide an evaluation of the workshop. This way the team can understand the strengths and weaknesses of their program and suggest improvements.

"Measurement is critical to this process. If we don't know what people have learned and what they have done with the information we won't understand the success or otherwise of our workshops. Community feedback has also driven ongoing innovation in the development of our program," Glenn said.

Interstate recognition





The Wollombi Valley Team and their community engagement program have also received interstate accolades in Victoria with the Country Fire Authority inviting Glenn O'Rourke to speak at a forum of senior leaders and community engagement volunteers. Ali Martin, Manager Member Engagement Project Community Safety CFA Victoria said that Glenn's presentation topped the feedback sheets as the 'highlight' of the forum.

"Glenn had an enormous impact on our people who attended – it was a wonderful achievement to inspire and motivate people to make a difference in their own communities," Ali said.

Wollombi also recently hosted Captain David Webb Ware from the Glenburn CFA Brigade in Victoria with Captain Webb Ware meeting with the team and experiencing first hand a Bush fire Safety Workshop. David has since introduced elements of the Wollombi Valley workshop including the hands-on practical firefighting session in his own community.

The Wollombi Valley community has been full of praise for the work the brigades have been doing. Comments are very positive and supportive such as:

"Thank you all for your energy, knowledge, warmth and fun at the workshop. I'm so much more aware of fire issues now - and I don't feel quite so helpless either."

Further innovations

The Wollombi Valley team has not rested on its laurels though. Once again based on community feedback, they have also established a FireWise café where locals can gather to have Brigade members review their completed Bushfire Survival Plans, ask questions and be more connected through knowing the members better.

"This has been so successful for us. It is building a network of connected people in our community who understand what we do and feel comfortable and not intimidated by asking for advice and assistance. Also, as a side benefit, it has also lifted the profile of our Brigades in our local community," Glenn said.

Sound advice

So what advice would Glenn give to those thinking about taking on a similar community engagement strategy? Glenn says it is important to target high-risk areas and to plan, promote, educate, empower and measure.

"You must create a plan and then actively promote your forums and workshops to the community. We target our local newsletter, do a letter box drop across the Valley in September just before the bush fire season begins, as well as using our local networks. You need to identify the high-risk areas and target the residents there very closely. Word-of-mouth accounts for over 40 percent of our forum and workshop enrolments.

"Then work with your community to understand the risks they face, educate them on the meaning of Fire Danger Ratings and most importantly empower them with knowledge and confidence regarding how to make the all important survival decision as well as how to develop their own personal Bushfire Survival Plan.

"The most critical element is measuring the success of what you are doing. We seek constant feedback on what's working and adjust our program accordingly. This way we make sure we are reaching our goals and continually finding ways to innovate and engage with our community. Also, take risks, try new ideas, but always ensure you are professional in everything you do.

"Lastly, success requires a great team," Glenn concluded.

Next moves

The Wollombi Valley team plans to keep innovating in ways to engage with the community and improve bush fire safety in the region. Glenn says it's not about the brigade or recruiting members.

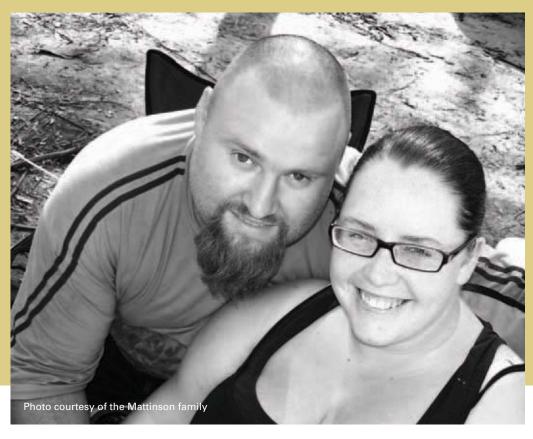
"We all genuinely want to see our community face the threat of bush fire with confidence and in the knowledge that they are supported by the brigades across the Wollombi Valley. Everything we do is about helping our local community to Prepare. Act. Survive."

TOP: Glenn O'Rourke presented at a Country Fire Authority Victoria Forum and had an enormous impact.

BOTTOM: Glenn O'Rourke speaking with CFA Chief Officer, Euan Ferguson (right) and Captain David Webb Ware (left). Photos courtesy of CFA

VALE: Scott and Jane McRae Mattinson

By Tim Butcher, Learning and Development Officer, New England Zone



Deputy Captain Scott Mattinson and his wife Jane McRae-Mattinson, from Herbert Park Brigade died tragically in a car accident just west of Armidale on 18 August 2011 while off duty travelling to Newcastle.

Scott and Jane were driving their cousin to Newcastle to visit family. Apparently the car slipped on an icy part of the road onto the wrong side of the road and was hit by oncoming traffic.

Coincidentally, a member who knew Scott and Jane was following close behind. He rendered first aid until NSW Rural Fire Service, Fire and Rescue NSW, State Emergency Service and NSW Ambulance arrived on scene. Unfortunately Scott and Jane died at the scene and their cousin died in hospital a short time later.

Senior Deputy Captain Stephen Bishop Dumaresq Rural Fire Brigade who rendered first aid at the incident was later awarded with the Commissioner's Certificate of Commendation for his actions on that day. Scott joined the NSW RFS on 1 September 2001 and was a member in several brigades including Armidale HQ, Dumaresq, New England Catering Brigade and Herbert Park Brigades. Scott was a popular, active member who mentored less experienced firefighters and who was highly regarded for his professionalism, dedication and community service.

Jane joined the NSW RFS on 8 November 2004 and was also a member of several brigades including Dumaresq, New England Catering Brigade and Herbert Park brigades. Jane was particularly active behind the scenes supporting Scott and the brigades and was popular with her peers and supported female members as they started training.

As a couple Scott and Jane volunteered together in the NSW RFS and formed many friendships both within the New England Zone and throughout the State during large campaign fires and at events like the Region North Exercise.

Scott and Jane's funeral was attended by hundreds of people including Commissioner Fitzsimmons, the Senior Chaplains Ian and Kerry Spall and a large number of emergency services people from all services.

The NSW Police Force Local Area Commander Supt Lyons spoke at the funeral praising the sense of community, dedication and commitment shown by both Jane and Scott.

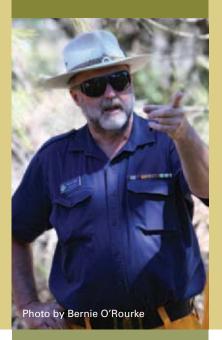
A guard of honour formed by NSW RFS volunteers and staff who knew Jane and Scott escorted them to the cemetery and the funeral procession was provided a police escort.

"Our thoughts and prayers are with the families and the fellow NSW RFS members of the Herbert Park Rural Fire Brigade and the New England Zone," Commissioner Shane Fitzsimmons said, "Both Scott and Jane were active members in their local community and they will be sorely missed.

"This is a devastating time and I would like to praise the ongoing professionalism of our firefighters who worked both on duty and off-duty under difficult conditions at the accident scene.

"Their courageous efforts are testimony to the difficult and challenging tasks that our volunteers are confronted with from time to time."

VALE: Dennis Joiner, AFSM



Dennis Joiner, who was a life member of the Duffy's Forest Brigade, and a member of the Service for over 50 years, passed away from leukaemia in November 2011 aged 63.

Dennis joined the Terrey Hills Rural Fire Brigade in 1961 at the age of 12 and was a founding member of the Duffy's Forest Rural Fire Brigade in 1964 where he rose to captain, a position he held with distinction for 10 years.

His leadership skills and experience were vital during major incidents and hazard reduction in the Warringah-Pittwater District from the 1970s until his death. Dennis also offered his assistance during other major bush fires including the 2003 Canberra bush fires.

A huge highlight for Dennis was being awarded the Australian Fire Service Medal in 2009 and the celebration of his 50 years in the Service in 2011.

"Dennis gave an extraordinary 50 years of service to the NSW RFS and we are sorry to lose such a fine and dedicated member," Commissioner Shane Fitzsimmons said. "Our thoughts are with his family and close friends."

AFSM medals awarded on Australia Day

Another six of our most dedicated and committed members were awarded the Australian Fire Service Medal as part of Australia Day celebrations on 26 January 2012. These outstanding individuals will receive their medals from the NSW Governor in a ceremony at Government House, Sydney later in the year.

AUSTRALIAN FIRE SERVICE MEDAL **RECIPIENTS**





Senior Group Captain Jeff Bowers Greater Taree

Jeff joined Rainbow Flat Rural Fire Brigade in 1976 and is currently a Senior Group Captain of the Greater Taree Fire Control Centre. He is a major contributor to Crew Leader and NSW RFS Driving training. His integrity, passion and commitment to the Service have been an inspiration to all who know him and especially those who have had the pleasure to work with him.

Deputy Captain Russell Deaves Wvee Brigade

Russell joined the Wyee Rural Fire Brigade in 1960 and was appointed a Group Captain in 1980. He is currently Deputy Captain of the Wyee Rural Fire Brigade. Russell is founding member of the Lake Macquarie Welfare Group and has worked as mediator and mentor to young members. In 1986 he received the Captains Committee Award for leadership and outstanding service and in 2007 was awarded the inaugural Volunteer of the Year for the Central Coast.

Group Captain Paul Gleeson Shnalhaven

Paul joined the Cunjarong Rural Fire Brigade in January 1988 and is currently a Group Captain of the Shoalhaven Fire Control Centre. He has participated as leader or participant in many out-of-area strike teams and task forces and is a major contributor to the strategic development and planning of training. He also assists in the organisation of the Shoalhaven Local Emergency Management Committee annual interagency training exercise. His dedication and leadership have made him a valuable member of the firefighting community in NSW.

Group Captain Chris Powell Palerang

Chris joined Leura Rural Fire Brigade in 1965 and is currently a member of Wamboin Rural Fire Brigade and a Group Captain at Palerang and is an active member of the Lake George Bush Fire Management Committee. Chris was instrumental in the formation of the Workers Compensation Working Group in 2007.





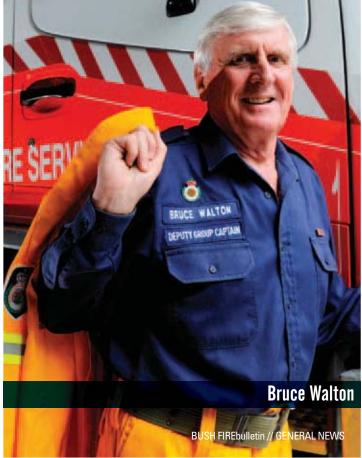


Group Captain Geoffrey 'Boots' Towner Clarence Valley

Geoffrey joined Brooms Head Rural Fire Brigade in 1979 and is currently a Group Captain of Clarence Valley. He is an active volunteer representative on the Senior Management Group and has had significant involvement in major out-of-area and interstate fire campaigns. 'Boots' leadership in the Brooms Head fires of 2001 and 2009 minimised losses and he took a leading role in assisting in the Clarence flood operations in 2007 and 2009.

Deputy Group Captain Bruce Walton

Bruce joined the North Rocks Rural Fire Brigade in 1973 and is currently a Deputy Group Captain of the Hills District. Bruce has done extensive work in NSW RFS Critical Incident Support and represented the NSW RFS at World Congress on Trauma and Coping in the USA in 2005. He is renowned for his ability to build trust and maintain confidentiality when supporting people during emotionally demanding times.



For more information about the Australian Fire Service Medal see: www.itsanhonour.gov.au



Cadets

The nation's youngest fire service volunteers had the opportunity to put their firefighting skills to the test at the third Australian National Fire Cadet Championships, which was once again proudly co-hosted by the NSW RFS and the Rural Fire Service Association (RFSA).

The Championships, held at Myuna Bay Sport and Recreation Centre from 4-7 October 2011, were an outstanding success with a record 30 participating teams from across Australia and New Zealand. Established in 2007, the Championships are held every two years and are designed to bring together cadets from across the country to have fun, participate in friendly competition and promote the values of emergency service volunteering.

The nine competition events test the skills, initiative and safety procedures of the cadets. Teams competed in the portable pump relay, tanker and ladder, station response drill, and knapsack relay among others. Also introduced in 2011 were a range of noncompetitive activities which were all well received.

Two NSW RFS teams jointly took out first place in the Championships – Oakville Cadets and South West Cadets, closely followed by Western Australian team Serpentine Jarrahdale Sierra.

The Championships also welcomed cadets from across in the ditch. The Brightwater Volunteer Fire Force in New Zealand is one of only two in the country to run a cadet program. They were thrilled to participate

in the Championships as Team Manager, Andy Allen mentioned in a letter sent the NSW RFS shown below.

At the closing ceremony Commissioner Shane Fitzsimmons congratulated all participants before announcing that the NSW RFS would support the Championships again in 2013, at the same venue. Dates have been set for 30 September to 3 October 2013 – watch out for more information as planning progresses.



"A huge THANK YOU to the organisers ... what a fantastic four days of competition and building friendships,"

Karen Wilkinson, Team Manager, Queensland Fire and Rescue Service 'Charlie' Team





Shine at National Championships

Photos by Shane Geerin and Anne Bell









"Had sooo much fun.
Congrats to every team
who competed. Won't easily
forget my new friends from
other states or the great
times I had,"

Jacqui Chapman, competitor



Kiwi cadets compete

Thank you for inviting Brightwater Fire Cadets to the Championships and for organising such a great event, everyone here is still talking about it. At the last practice we invited all the cadets and their parents to attend a presentation on the event complete with video and photos, which has focused some of the younger ones hoping that one day it could be them!

The events proved quite difficult on the first day as they run different pumps in Australia, so it was a bit of a learning curve but in true Kiwi spirit the cadets dug deep and made a fantastic effort on the second day to place 19th overall, this was an excellent achievement considering the equipment and events were completely new to them.

When we first got the invitation we were extremely happy, but wondered how the heck we could fundraise the \$10,000 we would need. We had massive support from local Nelson and Tasman businesses who stumped up close to \$18,000 – without their help we would not have been able to attend.

The whole trip had the cadets very excited, some had never even flown before! On the first day of arriving in Sydney we used the tickets supplied by Ausgrid for Taronga Zoo – what a magical trip, again we were blown away by the generosity. It was funny for one of the cadets as he had not flown, not been on a train, not been on a boat or been to the Zoo before – and we did all that in the first two days!

We would like to say thank you again for the hospitality given to our team from New Zealand and I know we have made a lot of friends in the process.

> Andy Allen, Team Manager, Brightwater Volunteer Fire Force in New Zealand



Brightwater Fire Cadets TOP ROW (L-R) Samuel Harrison, Jack Oakley, Kacey Heath, Taylor Devine. BOTTOM ROW (L-R) Ben Devese, Lawrence Ewers. Photo by Anne Bell

Life savers and firefighters join forces for youth out west

By Amanda Scott, A/Youth Development Officer, Volunteer Relations and Workforce Planning. Photos by Brendan Doyle, Media Services

In February 2012 volunteers from NSW RFS and Surf Life Saving partnered with Father Chris Riley's Youth Off The Streets program to deliver emergency services training for young people in Narrandera and Walgett.



WALGETT

NARRANDERA





This trip has opened my eyes to a much broader community and has helped show me a possible direction for my future.

OPPOSITE PAGE: Kids in Walgett get to inspect the fire truck. LEFT: Young people in Narranderra learn new firefighting skills through practical demonstrations. ABOVE: Trying on the structural protective uniform for size.

The Youth Indigenous Education Program reached about 100 of some of the State's most disadvantaged young people.

Commissioner Shane
Fitzsimmons said the Service
recognises the need to educate
young people about fire safe
behaviour and survival skills in
the event of a fire.

"This program assists us in developing community-minded and resourceful individuals while giving young people an appreciation of the contribution that volunteers make to local communities," he said.

It was young volunteers from the NSW RFS and Surf Living Saving NSW who delivered the training sessions. Local NSW RFS District staff and volunteers also actively participated in the delivery of the program.

With the assistance of a number of props, the NSW RFS volunteers taught participants how to report a fire, the principles of 'fire-safe housekeeping', what to do if there is a fire at home or at school as well as the role of a firefighter.

"It was obvious the kids had a good time," said Walgett

Brigade Captain, Arthur Carbery, "There isn't much happening for young people in Walgett so having this type of program was really different for them. The crew enjoyed it too. Hopefully we can do something like this again in the future – maybe even get a few to join the local brigade.

The Surf Life Saving NSW volunteers held interactive sessions on aquatic safety such as the role of a lifesaver, identifying basic surf rescue equipment, personal safety and most importantly how to

raise an alarm when in trouble. The focus was on all aquatic environments including the beach, rivers, dams, creeks, pools and other waterways.

"Engaging with young people in these towns has exposed them to a group of dedicated volunteers and possible pathways for themselves to become involved in contributing to their community by becoming volunteers," said Director of Member Services, Surf Life Saving NSW and Thirroul Surf Life Saving Club member, Gary Chapman.

"This program showed me how much fun volunteering can be!" said Alex Larkin from the Freshwater Surf Life Saving Club. "This trip has opened my eyes to a much broader community and has helped show me a possible direction for my future."

This year's program was made possible by a Federal Government Indigenous Sport and Recreation Grant and builds on a similarly successful program held two years ago by Surf Life Saving NSW.



Angus reaps the rewards

Angus McDowall from the NSW RFS Young Members Group and a member of Dangarsleigh Brigade, helped deliver the fire safety programs and believes he learnt just as much from the experience as the kids did.

"I had an amazing and rewarding experience. It provided me with an opportunity to develop myself both professionally and personally.

"During our day in Walgett, we travelled out to two of the nearby Aboriginal communities. It gave me an insight into the local lifestyles of indigenous Australians within western NSW.

"I was also able to learn about how Surf Life Saving functions as an emergency service and how beneficial their Beach to Bush Program can be to young people in rural NSW."



Predicting fire from DRY LIGHTNING

Fires caused by lightning are responsible for a large proportion of the area burnt by bush fires throughout Australia and the world.

Bushfire CRC researcher Dr Andrew Dowdy and project leader Graham Mills – both with the Bureau of Meteorology – tracked lightning data to identify when and how often fires were likely to follow.

Their research shows that the Bureau's real-time computer models can forecast — with typical lead times of 24 to 48 hours — locations and times where dry lightning (lightning not accompanied by rain) is more likely, and where ignitions from that lightning are more likely to be sustained.

Such forecasts would potentially enable fire services and land management agencies to reduce their response time to these ignitions, and thus reduce the damage resulting from these fires. Lightning-induced fires are the main naturally-caused fires in the landscape, although it should be noted that human actions can influence lightningfire occurrence to some extent by modifying fuel availability.

Fire occurrence information was obtained for this project from the Victorian Department of Sustainability and Environment (DSE) for fires ignited on public land from 1 January 2000 until 31 January 2009.

Lightning fires were found to account for 90 percent of the total area burnt by all fires, despite the fact that only 30 percent of the fires were caused by lightning. This imbalance can partly be attributed to the Victorian alpine fires of January to March 2003 that burnt over one million hectares. Even without this event, lightning fires still account for a high proportion (55 per cent) of the total area burnt by all fires.

Almost all (96 percent) of the lightning fires occurred between November and March, with January being the most common month for their occurrence (see Figure 1).

There does not appear to be a typical size for the total area burnt by a lightning fire, though smaller lightning fires generally occur more frequently than larger lightning fires (see Figure 2).

Similarly, there does not appear to be a typical duration of lightning fires, though shorter duration lightning fires generally occur more frequently than longer duration lightning fires (see Figure 3).

The lightning connection

Lightning data was obtained from GPATS (Global Position And Tracking Systems), an Australian company that provides high technology lightning tracking devices and applications. Matching the starting time of each fire in the DSE database with the most recent lightning flash at the fire location indicates that the majority of lightning fires grow

large enough to be observed less than a day after the lightning occurs (see Figure 4), with about three quarters of lightning fires being observed within three days, similar to reports from other parts of the world (Wotton and Martell, 2005).

On average, one fire occurred for every 160 lightning flashes that hit the ground. This is within the typical range of values reported elsewhere in the world (Wierzchowski. Heathcott and Flannigan, 2000). A single lightning flash, as seen by the human eye, can sometimes consist of two or more separate lightning discharges known as strokes. In terms of lightning strokes, it was found that one fire occurred on average for every 240 lightning strokes that hit the ground.

The time of day (or night) that lightning occurs was not found to have a large influence on the chance of a fire starting from each lightning stroke. Most lightning fires started in the afternoon, as this is when lightning most frequently occurs in Victoria. A strong seasonal influence exists, with the highest chance of fire per lightning stroke occurring during January. Lightning occurs most frequently in

Victoria in January, thus compounding the problem.

Ignition when fuel is wet

Studies have shown that the chance of fuel ignition by lightning is relatively independent of fuel moisture, with some fuels igniting even though they may be very wet (Latham et al, 1997). However, the chance that an ignition is sustained is highly dependent on fuel moisture.

The amount of rainfall accompanying lightning in Victoria was found to have a large influence on the chance of fire per lightning stroke (see Figure 5). The likelihood of fire per lightning stroke is double the normal value when less than 2mm of rainfall occurs, and four times the normal value with less than 1mm of rain. If the rainfall is in the range 4-7mm, the chance of fire per lightning stroke is about normal, with rainfall above 7mm corresponding to a lower than normal chance of fire per lightning stroke.

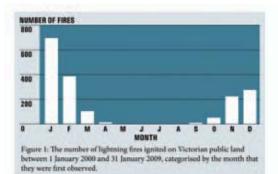
Dry lightning can occur in a number of ways, including:

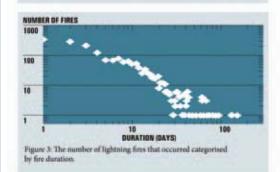
 If a thunderstorm is highbased with relatively dry air at lower levels such that rain evaporates before reaching the ground (known as 'virga').

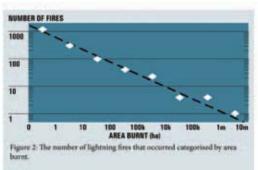
- If a thunderstorm is fast moving such that rainfall is spread thinly on the ground.
- If lightning occurs outside of the rain shaft of a thunderstorm – a phenomena commonly known as a 'bolt from the blue'.

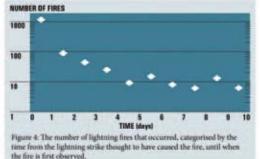
A method for predicting the likelihood of dry lightning has been developed for North American conditions (Rorig and Ferguson, 1999). The method uses two parameters: one parameter to indicate low atmospheric moisture levels (as represented by high dewpoint depression at the 850hPa atmospheric pressure level) and another parameter to indicate high atmospheric instability (as represented by a large temperature difference between the 850hPa and 500hPa atmospheric pressure levels).

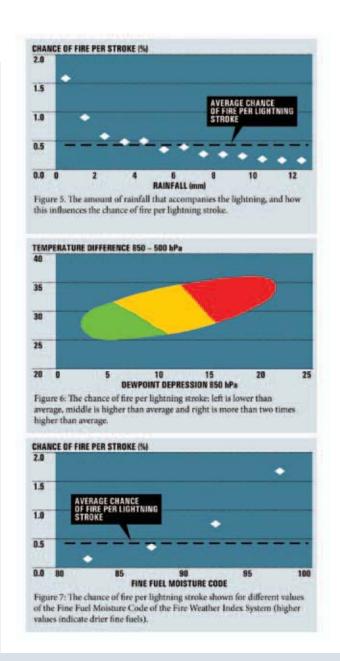
For Victorian conditions, it was found that high values of these two parameters indicate a higher than normal chance that lightning will be 'dry' – similar to the results for North American conditions (Rorig and Ferguson, 1999), as well as a higher than normal chance that lightning will cause a fire (See Figure 6).











Fuel moisture and weather conditions

An ignition is less likely to be sustained if the fuel is already wet before a lightning strike, regardless of whether the lightning is dry or wet. Fuel moisture was examined for three different classes of fuel using the Fire Weather Index System developed in Canada (Van Wagner, 1987, Dowdy et al, 2009A). The best indicator of a higher chance of fire from lightning was the moisture content of the fine fuels (see

Figure 7) rather than the fuels of medium size or depth or the fuels of large size or depth.

There was some indication that when one particular fuel type has high moisture content, an ignition can still sometimes be sustained by one of the other fuel types. However, it was also found that lightning fires are very unlikely to occur if the fuels of medium depth or size are very wet (as represented by the Duff Moisture Code of the Canadian Fire Weather Index System).

In terms of the weather conditions, relative humidity is better at indicating a higher than normal chance of fire per lightning stroke than temperature or wind speed. This order of importance is different to that of commonly used fire weather indices for which wind speed has the largest influence, followed by relative humidity and then least of all (contrary to popular belief) by temperature (Dowdy et al, 2009B).

A higher than normal chance of fire per lightning strike occurs for relative humidities below 38 per cent, temperatures above 26°C and wind speeds above 30kph. Lower temperatures and higher relative humidities indicate a lower than average chance of fire per lightning flash, although this was not found to be the case for lower values of wind speed. This is once again different to what would be expected from fire weather indices for which lower wind speeds tend to indicate less severe fire weather conditions.

Research outcomes

This research shows that the atmospheric conditions in which dry lightning occurs in southeast Australia are similar to those that have been shown to support dry lightning in the USA. This gives some confidence that the results of the research can be applied to other parts of southern Australia. In addition and for the first time, it was shown that forecasts of fine fuel moisture content indicate the probability of a lightning ignition being sustained. A forecast system based on these two

components would provide an alert to those regions where lightning ignitions are more likely, with lead times of 24 to 48 hours.

How this research could be used

The characteristics of lightning fires, and the atmospheric states associated with them, show considerable similarities between different parts of the world. It is therefore likely that results obtained for Victorian conditions will have value for other locations.

It is intended that a forecasting method for lightning fires will be developed for trial in the extratropical states, based on the chance of dry lightning combined with forecasts of fuel moisture and weather conditions.

This forecasting method could potentially be adapted to examine the influence of climate change on lightning fires. A North American study (Price and Rind, 1994) suggests a 44 percent increase in the number of lightning fires for a doubling in atmospheric carbon dioxide level and there have been reports from other parts of the world of an increase in the number of lightning fires that have been occurring (Vazquez and Moreno, 1998). However, as yet there has not been any research undertaken into how lightning fires could be expected to change in Australia's future climate.

For more information about this research, contact Dr Dowdy via email at a.dowdy@bom.gov.au

This FIRE NOTE is published jointly by the Bushfire Cooperative Research Centre (Bushfire CRC) and the Australasian Fire and Emergency Service Authorities Council (AFAC) www.bushfirecrc.com.au. This Fire Note is prepared from available research at the time of publication to encourage discussion and debate. The contents of the Fire Note do not necessarily represent the views, policies, practices or positions of any of the individual agencies or organisations who are stakeholders of the Bushfire CRC.

Lightning Fires

By R.H. Luke, Fire Control Officer, N.S.W. Forestry Commission and Member, Bush Fire Committee

DURING THE EARLY STAGES OF THE DEVELOPMENT OF A NEW COUNTRY LIGHTNING DOES NOT SHOW UP MUCH AS A MAJOR CAUSE OF BUSH FIRES. LATER, WHEN MOST OF THE LAND CLEARING HAS BEEN DONE, THE WIDESPREAD USE OF THE FIRESTICK TENDS TO GIVE WAY TO AN ATTITUDE OF EXTREME CARE IN ALL MATTERS PERTAINING TO FIRE AND IT IS THEN THAT LIGHTNING EMERGES AS A MAJOR CAUSE DEMANDING SPECIAL CONSIDERATION.

n the Northern Rocky Mountains of the U.S.A., access is most difficult and therefore not many fires are caused by man. Lightning on the other hand causes about 60 per cent. Of all fires and these may run into several hundreds by number in one year. To get to most of these fires in this rough terrain could take ground parties days of travel. Hence it has been necessary to develop more dashing methods of delivering the fire fighters such as the use of smoke jumpers who drop in on fires within a few minutes of their discovery and after untangling themselves from the pine trees fold up their parachutes and proceed

To spot these lightning fires quickly and accurately is very important and it is quite usual for fire watchers to stay up all night in their towers locating the paths of electric storms so that spotting aircraft can be directed next day into the areas where they will be most likely to succeed in their job.

More recently, consideration is being given to sending aircraft into cloud formations along well-known storm routes. The clouds are then seeded with silver iodide. Rain then falls, reducing fire hazard, but more important still is the reduction of the electrical charges in the clouds. This is really getting down to tintacks with fire prevention by means of electrical storm prevention.

In this country, of course, we do not seem to be able to afford any of these more fancy methods even if they were necessary or practicable. Fighting lightning fires is just as much a chore as any other fire fighting. In the eastern part of the State lightning fires don't amount to much, mainly because burning-off

-0/0/0F

"...it has been necessary to develop more dashing methods of delivering the fire fighters such as the use of smoke jumpers who drop in on fires within a few minutes of their discovery and after untangling themselves from the pine trees fold up their parachutes and proceed to work."

escapes dwarf all the other causes into insignificance. West of the Dividing Range we have a different picture and during the last fire season nearly all of the State's 137 recorded lightning fires were in this region representing about 10 per cent of all the fires recorded throughout the whole of the State

Month by month this is how they occurred:—

,			
November .			8
${\bf December}\;.$			11
January .			94
February .			13
March .			10
April			1

The peak period for lightning fires was the first week of January when 51 fires were recorded. January 3rd was the worst individual day with 16 outbreaks including the one million acre Wanaaring fire which gave the scattered population back of Bourke a great deal of trouble for a week or so.

Altogether, the lightning fires of 1956-57 covered 1,320,000 acres and caused damage estimated at £80,000.

In our increasingly fire conscious State lightning is becoming a major force for our consideration, especially in the western grasslands after a flush season. Because there may be a number of strikes during on electrical storm, there can be a great strain on the fire fighting force especially in sparsely settled areas. The forecasting of electrical storms and arrangements for quick discovery of strikes and prompt suppression action are therefore most important matters.

This extract from a 1957 Bush Fire Bulletin shows that the risk of fires lit by dry lightning has been of concern for some time.

Take a bow



1952 · Bush Fire Bulletin · 2012

Bush Fire Bulletin

Published Quarterly by the Bush Fire Committee

Volume 1, No. 1.

1st September, 1952.

Registered for transmission through the post as a periodical.

1952 SEASON.

Shires Prepare.

Shire Councils are already making preparations for the coming summer.

Regional Conferences called by the Namoi and Yanko Shires. Councils namoi and Yanko Shires. Councils are being planned in conjunction with the Bush Fire Committee. Local conferences are being organised in many Shires and the Committee is sending representatives.

Bega District Central Bush Fire Committee is to have the manpower of Bega and other larger towns in the district equipped and trained as volun-

£109,000 FOR FIRE FIGHTING.

Estimated expenditure from Bush Fire Fighting Fund for 1952-1953 is £109.970. This is the highest since the inception of Fund, half of which is met by insurance companies. Balance comes in equal parts from State Government and Councils.

The Shires Association is now examining a recommendation from the Bush Fire Committee that limit of one-twentieth of a penny in the pound may be exceeded in any area where Council concurs. The purpose of this is to give local fire fighting organisa-tions fuller scope for building up

- STOP PRESS -

Bush Fire Committee at meeting held on 27th August, agreed danger of bush fires coming summer likely to be extremely serious. Suggestion made to Councils that equipment be checked over immediately: also, to assist local organisation and detection of fires, that names, addresses and 'phone numbers of Captains of brigades be published in local press, and up to date particulars supplied to Police and other public authorities.

Regulations under the Bush Fires Act now prohibit use of phosphorous laits during months of January, February, March, September, October, November or December, Action was taken by the Chief Secretary, Mr. Kelly, following a recommendation by the Bush Fire Committee in its recent report.

Statistics show numerous fires to have been caused by phosphorus.

*19365-1

BAN ON PHOSPHOROUS BAITS. DEMONSTRATION AT HAWKESBURY COLLEGE.

A successful demonstration of fire A successful demonstration of fire fighting methods was staged at Hawkesbury Agricultural College on 16th July last. The demonstration was part of the Agricultural Bureaux Conference and was given by personnel of the Board of Fire Commissioners under Deputy Chief Officer of Fire Brigades, Mr. G. H. Gilmour, who is a member of the Bush Fire Committee.

The Bush Fire Bulletin is 60 years old

The Bush Fire Bulletin has been keeping you informed about brigade life and bush firefighting for the past 60 years and it's time to mark the occasion.

The first issue of the Bulletin appeared in September 1952 and was published by the Bush Fire Committee – a committee comprising 20 representatives from the farming and insurance industries as well as State and local government.

The bush fire season of 1951-52 had been tragic and ferocious and had 'deeply shocked the Nation'. Eleven people died and four million hectares in the north-west of the State were burned. Estimates of the time were that over £6 million worth of damage was wrought on the countryside.

The introduction of the Bush Fire Bulletin formed part of the Committee's heightened response to that fire season. In the Bulletin's first editorial the Committee exhorted:

"...bush fire brigades must get busy now and call into service local knowledge, planning and co-operation in the shortest possible time.

The Bush Fire Committee believes that ...bush fire

brigades provide the most effective bush firefighting service in purely rural areas. It is to assist them that Bush Fire Bulletin No 1 appears today."

The very first issue of the Bulletin was a modest affair with 20 pages of neat type and a sprinkling of black and white illustrations. The articles were filled with passion, opinion and good common-sense advice about fire safety.

After the first issue was published the editor noted: Bush Fire Bulletin No 1 seems to have earned a few bouquets and so far no brickbats!

This is encouraging to the Bush Fire Committee which regards the Bulletin as one of the most important weapons in its educational armoury.

The magazine has seen many changes over these years, but the Bush Fire Bulletin has been published regularly since 1952 - a testament to that early vision of the Bush Fire Committee and to the enduring quality of the bush fire fighters of NSW





PhotoCompetition

The *Bulletin* and brigade life are bound together. Editions of the *Bulletin* are stored, stashed and shared in brigades all over the State. Some brigades have an entire library of *Bush Fire Bulletins* dating back 60 years, others routinely hand them out to new members.

We'd like to see how you use your *Bulletin*.

Enter your best snaps in our *Bush Fire Bulletin* 60th Anniversary competition

We're looking for photos taken at your brigade or FCC, but there's a catch...Each photo should feature a copy of the Bush Fire Bulletin!

So get creative and impress our judges for the chance to win a grand's worth of photographic gear.

How to enter

Send your digital image to: Email: bush.fire.bulletin@rfs. nsw.gov.au or upload them to www.flickr.com/nswrfs.

Please be sure to label your photos with your name and contact information.

Conditions of entry

- The competition is open to all members of the NSW RFS and the general public.
- There is no age restriction.
- To be eligible, photos submitted must be digital
- Proof of consent may be required
- Photo must be fully released by the owner (in writing)

for reproduction by the NSW RFS

- Photos of children under the age of 16 years of age require a written consent from parent or guardian
- Winners will be selected at the discretion of the RFS and all decisions are final
- Winners will be announced in September 2012 and will be contacted in person.

Overall Winner Prize

• \$1,000 Photographic Equipment Gift Voucher

2nd Overall Winner Prize

• \$500 Photographic Equipment Gift Voucher

3rd Overall Winner Prize

• \$300 Photographic Equipment Gift Voucher

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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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