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Echo Boards & Products are an industry leader & supplier of custom built & standard steel items to builders, wholesalers & electricians. We manufacture and supply electrical switchboard products, such as meter boxes, NSW standard meter boxes, meter panels, tee off boxes, temporary meter boxes, panel surrounds, trays & covers, as well as custom switchboards in Sydney built to specification.

ABOUT US

Echo boards and products is a family run and operated Business, that focuses on providing high quality service and products. Management prides itself in the strong relationships it has built with its customers and employees. The team are committed to the manufacturing and supply of high quality Australian owned and made goods. We provide an extensive range of electrical products like switchboards, Tee off Boxes, Cable Trays, Bakelite Panels Etc. Echo boards was established in 1988 and has been open for over 30 years. Located in the South West of Sydney the business has grown over time as it changed ownership in 2015 and now has over 20 employees.

WHAT WE STAND FOR

Echo Boards and Products believes in an ethical workplace as we maintain high values such as service quality, efficient communication, equality and diversity.

Our team prides itself on the service we provide like our on-time delivery and giving the customer exactly what they need. With us what you say is what you get. We go beyond our duty of care for the needs of our customers to ensure satisfaction and trust. We make time to recommend and suggest ways to better customer orders.

OUR CONTRIBUTION TO THE COMMUNITY

Since 2014 Echo boards has been a proud supporter of camp quality. We have managed to contribute $210,832.27 for the foundation. Our business fundraisers for the charity each year as we believe the children of our community are what will keep our futures bright.

Over the last three years the Echo Boards team has also given their support to the local firefighters in the community to acknowledge the work they do.

Call us 9791 0563 www.echoboards.net.au 55 BIRCH ST CONDELL PARK NSW 2200

Volunteer Fire Fighters Executive-Council and Representatives
2020/21

Founding President & Life Member
Peter J Cannon OAM

Executive Council
President: Mick Holton
Senior Vice President: Brian Williams
Secretary: Greg Gaddie
Treasurer: Jeanette Holton
Media Officer: Jon Russell
Webmaster: Jeremy Braithwaite
Neil Crawley
Rod Young
Graeme Jay
Don Tarrington

Consultants
Mr. Phil Cheney (Ret.) – World Respected Bush Fire Scientist – CSIRO.
Mr. Arthur Owens – Former FRNSW Bushfire Officer & RFS FCO.
Mr. David Packham (Ret) – World Respected Bush Fire Scientist – CSIRO.
Mr. Vic Jurskis (Ret) – B.Sc. (Forestry) Australian National University, Vik was a Silviculturist with the Native Forests Division of Forests New South Wales & has written extensively on Forest Management Issues.
Mr. Roger Underwood (Ret) – Former District & Regional Forester in WA & Author of numerous Books, Professor Bill Gammage AM (Ret) – Academic Historian, Adjunct Professor and Senior Research Fellow at the Humanities Research Centre of the Australian National University (ANU),
Mr. Barry Atchison OAM – one of the high country’s most experienced bushman and firefighters, former RFS FCO & Operations Officer.

Website
www.volunteerfirefighters.org.au

Social Media
Facebook:
www.facebook.com/NSW.VFFA
Youtube:
www.youtube.com/channel/UCB6WNC504D6QCGY9U6A

Contents

President’s Report 2
National Disaster Arrangements 7
RFS Tanker Design 9
Six Shades of Fire Lighters 14
RFS Catering Volunteers 16
After The Gospers Mountain Fire 20
Bushfire LTE 22
Goin’ Bush 25
What did we do to deserve this? 26
Hazard Reduction Works 34
Book Review: Fire Country 38
Membership Application Form 40

The VFIA welcomes and encourages members to send in any pictures, photos and articles of interest. Please email these to feedback@volunteerfirefighters.org.au

The Volunteer Firefighter Winter 2020

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Page 1
**President’s Report**

The 2019 - 2020 fire season scorched and soared our lives. We lost people, property and devastated the environment. The devastation would have been far greater if it was not for the efforts of our volunteer firefighters with three fighting families and three aviators paying the ultimate price.

The bushfire recovery continues under a coronavirus cloud with many of our volunteers and community members suffering as they deal with the financial, physical and mental anguish of the fire season past.

The most disappointing aspect of this most recent fire season is that it could have been avoided.

**Trending views and opinions**

The views of the public and many firefighters are now coming to light as the NSW Bushfire Inquiry and the Royal Commission sift through a huge number of submissions.

I’m deeply sceptical when it comes to inquiries of this nature that the panels of experts are often stacked to create a more favourable outcome for the government as the results are watered down and nothing seems to change.

I have noticed that a vast majority of views and opinions trending towards improvements in land management and a return to a situation where local knowledge is heeded.

**The fuel and climate change camps**

There seems to be two camps when it comes to apportioning blame for the recent bushfires.

For those who have pitched their tents on the climate change side, I offer the following statement:

Regardless of temperature and fuel moisture trends, the simple fact is that with less fuel, there is less fire intensity and less devastation.

**Getting back to basics**

As firefighters, we are taught the basic principles of fire.

The image (below) is taken from the NSW Rural Fire Service, Bush Firefighter Training Manual, Chapter 1 Introduction to Firefighting, Section 3 Basic Principles of Fire.

The components necessary for a fire to burn, or continue to burn are heat, fuel and oxygen.

The fire triangle image (below) shows heat, fuel and oxygen in the correct order because heat is required to cause the fuel to become a vapour which can then burn if there is enough oxygen.

A chemical chain reaction (fire tetrahedron) takes over as the heat caused by the combustion acts upon the remaining fuel, causing the fire to grow in intensity until the fuel is totally consumed or sufficient cooling is applied.

It stands to reason that during drier and hotter climatic conditions, the fuel will already be warmer, and less fuel moisture will need to be removed before the fuel reaches a point that ignition is likely, but the fuel must be available for this to occur.

The most disappointing aspect of this most recent fire season is with less fuel our fires would not reach the intensity that we experienced in the 2019 - 2020 fire season.

**Are we giving burning a bad name?**

You only have to conduct a Google search using the term “Hazard Reduction” to see what is happening:

Most of the images that will pop up in an internet search will reveal a trend that we are introducing too much fire (all at once) and calling that hazard reduction.

It is no wonder that many people are not supporting fuel reduction programs that use fire as a tool.

It is time to rethink how we burn and when we burn, with a trend that we are introducing too much fire (all at once) and calling that hazard reduction.

The proposed model is known as:

**The Bushfire Survival Chain**

The VFFA has been promoting a campaign of action that could become the foundation of changes to current laws, practices and strategies. This simple concept is based around prevention and early response to bushfires. Fire service standards can be developed to work within this proposed model.

Every Coronial, State and Federal government inquiry into major bushfire events have drawn the same conclusion - the severity of the fires was due to excessive fuel loads and the need for an increase in hazard reduction burning or land management.

The proposed model is developed to work within this proposed model.

Continued on next page >>

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**PRESIDENT’S REPORT continued**

Locally controlled land management programs (without the red tape) offered superior environmental outcomes, enhanced protection of the community, assets and infrastructure and a safer working environment for fire fighters.

It is time to rethink how we burn and when we burn, with a trend that we are introducing too much fire (all at once) and calling that hazard reduction.

It is time to rethink how we burn and when we burn, with a removal of the red tape that surrounds the use of fire.

The proposed model is known as:

**The Bushfire Survival Chain**

Early detection and early suppression have greatly improved the survivability of people and property in an urban firefighting context, so why shouldn’t we adopt the same principles to look after the bush?

1. Land management

The alternatives to a sensible land management regime are grim at best. Just take a look around at the devastation created by locking up public land and to make matters worse, we have a tendency
to put out naturally occurring fires (lightening) without returning to finish off the job during a safer period. Perhaps if we had let nature deal with land management without our intervention, the fuel loads would not have become so extreme.

NSW has 22 million hectares of bush fire prone land. Currently NSW was hazard reducing less than 1% of bush fire prone lands annually. The Royal Commission into the Victorian 2009 Black Saturday fires recommended a minimum of 5% of bush fire prone lands be treated annually.

The percentage difference may not seem like much, but hazard reducing 5% annually would see bush fire prone lands treated every 20 years, as opposed to 100 years at the 1% rate.

2. Early detection

Smoke detectors have had a major impact on structural fire detection and helped to promote early escape and suppression. Why can’t we embrace the technologies that already exist to detect a bushfire in its early stages?

In the past, we have operated a few fire towers in strategic positions around the state of NSW, but they are not generally staffed all year round.

With modern technology, it would be possible to install automated scanning technologies that could detect fires in the early stages all year round.

3. Early access

Easy and early access is essential if we are going to keep bushfires small. Aircraft can assist if we have the resources available at a moment’s notice and ground crews can get around a smaller fire quickly if we can get them to the fire.

Neglected fire trail maintenance that provide easy access to the bush for fire crews and plant (trucks, dozers and graders) is a contributing factor that slows our response rate to such emergencies.

Even when a fire trail remains open, the lack of turn around in 20 years, as opposed to 100 years at the 1% rate.

A good fire trail network can also be used to create strategic fire breaks if they are wide enough.

4. Early suppression

If we can get to the fire early, we stand a better chance to keep it from getting too large. Ground crews, aviation support and Remote Area Fire Teams (RAFT) are all viable suppression resources if they have early access.

When it comes to bushfire suppression, the former NSW RFS Commissioner had stated that firefighters put fires out, not aircraft. The VFFA will support any strategies that are aimed at achieving a more rapid suppression of any unwanted fire. Early intervention is the key to success.

The NSW Government should ensure that there is sufficient resourcing and training budget to cover a wide range of wildfire capability that includes:

- Ground crews.
- Remote Area Fire Teams (RAFT), and
- Aviation support.

Former NSW Fire + Rescue Commissioner, Greg Mullins (Ref: SMH February 28, 2020) stated that it was a ridiculous bushfire funding rule that is preventing emergency services from waterbombing small fires before they turn into mega blazes that destroy homes and kill people.

The “don’t put it out, it’s not big enough yet” mentality must stop.

Land management doesn’t cost the earth

The best way to improve the delivery of firefighting services to the people of NSW, in a bushfire context is to begin with improving our land management. The best thing about improved land management is that it can be accomplished on a shoestring budget when compared to the enormous cost of reactive firefighting strategies, the cost of recovery and the untold damage to our fauna and flora.

Thanks again to our volunteers

Volunteers are the backbone of the rural fire service in a wide range of roles not limited to firefighting. We thank you all for an outstanding effort during a long and difficult campaign.

Michael (Mick) Holton
President - Volunteer Fire Fighters Association
president@volunteerfirefighters.org.au

Visit bushfirelive.com for more information on a camera network for early bushfire detection.
By Phil Cheney, David Packham and Tim Malseed (President, firestickestate.com)

The past year has been a difficult one for many of our communities. bcu is here to help.

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So you’ve got $51 Million to Spend on New Tankers.
What Do You Buy?

This summer’s bushfires showed up some of the inadequacies of our tanker design, especially in the areas of vehicle rollover and the cabin’s ability to withstand falling branches. It is reasonable for volunteers to expect to have some cabin protection to keep them safe, and if our trucks were better equipped in this area we might still have some firefighters lost in the line of duty.

It may not be practical to engineer a ROPS solution into the existing fleet, especially when you consider how marginal most vehicles are in the area of weight. The Cat 1 Heavy Tanker for example has a water payload of 3,000 to 4,000 litres whereas the Cat 7 Light Tanker is in the 800 to 1,600 litres range.

So if you were the RFS Commissioner, would you not consider it’s time for a redesign of the present offerings? And if so it might be a good idea to ask the Volunteers for their opinion. Let’s have a look at some of the design options.

Weight Savings

One reason why there is so little water capacity is that most of the trucks are right up against their GVM limit, which is the maximum amount of weight of the truck plus all its contents including crew.

Weight savings should not be too hard to achieve. Just eliminate the steel tray and water tank and replace with a single aluminium tank design with incorporated lockers. Ideally the tank will sit down into the chassis rails to lower the centre of gravity and help prevent rollovers.

That should free up 200 to 300kg in a Cat 7 tanker which is the equivalent of the same number of litres of water.

Firefighter Safety

Part of this additional water capacity could be used to provide a permanent reserve tank for the water curtain system. At present the firefighter needs to leave water in the tank for this purpose and has no protection when all the water in the main tank has been used. It would be a simple matter to have two pickups from the tank with the lower one providing the reserve capacity for the water curtain.

The standard glass in the cabin could be replaced with ceramic glass which is completely heat proof and the external plastic on the cabin should be removed as it is a fire hazard.

Drivetrain Configuration

Most of the existing fleet has twin rear wheels which are not ideal for offroad use. A better solution is to use Super Singles where front and rear tyres are the same size. These give a little bit more ground clearance and offer much better performance in soft going. With the singles the front tyres compress the ground and the rears travel in the same footprint. With the twin rears they do not take advantage of the front’s footprint and both tyres have to make their own way through the ground. The singles have much better traction and stones cannot get caught between the tyres.

There are still a number of two wheel drive tankers on the fleet. Would you make 4x4 standard?

Rollcage Design

The rally raid trucks use an internal roll cage in the cabin which frequently has to earn its keep! Here is an example:

Once of the problems with this design is the danger of crew hitting their heads on the steel bars and while the bars would usually be padded with a foam covering, the skull is pretty fragile.

Another option is a conventional truck ROPS system such as this example manufactured by QMW in Australia. The problem with this design is that tree branches can get caught up in the ROPS, but one would expect it to be effective in the event of a rollover or a branch falling on the cabin.
The third option is an external rollcage that needs to be designed specifically for the vehicle. Here is one example in Europe on a Unimog. It might look a little crude but it would do the job of protecting the occupants and has a number of additional benefits. The cage can be used to mount lights and sprinklers and also serves to deflect branches from the paintwork.

It’s also useful to hang on to when getting in and out of the cabin. This Unimog is fitted with Super Singles.

Here are a couple of photos of a rally raid truck showing a simple but effective roll cage design which connects to the chassis at the rear.

**Cost Saving**

The cost of polishing the aluminium bull bars is very high and the polish is not durable. Better to incorporate the bar into the external roll cage design.

**The Base Vehicle**

There is quite a lot of choice these days in trucks with an all-wheel drive configuration. In addition to Isuzu, Hino has a compatible range with the 300 and 500 trucks available in 4x4 and in the 500 6x4. Iveco has the Daily and Eurocargo in 4x4 and the Trakker also has a 6x4 option.

The little Daily seems very well suited to adaption as a fire truck. Here is one example with a payload from 1505 kg up to 2800. Interestingly it is possible to configure it with a 4x4 GVM which makes it eligible to be driven with a car licence.

Here is a story in its use in South Australia:

https://www.iveco.com.au/whatson/iveco-daily-4x4-on-call-last-summer

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**Water Trailers**

If you want some more water capacity it would be easy to pull along one of these trailers from the Bushfire Store. They are available in configurations from 1500 to 3000l and come equipped with a Honda GX200 motor on the built in fire pump. And yes, they are fully built in Australia.

The trailers could bring a lot of flexibility. As they operate standalone you could drop them off with crew to do property protection, and you could leave them in the vicinity of a fireground for tankers to top up.

They are OK to tow with a 4WD doing crew changeover for example and they could be positioned on stations and towed behind the farm Ute. This could provide a super rapid response to fires.

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**Serious Offroad Trucks**

Lastly on the list to review is the incredible range of truly capable offroad trucks from Tatra. These are capable of serious offroad performance and are available in 4x4, 6x6 and 8x8 configurations. They are in use in Western Australia. More from https://www.offroaddrucks.com.au/applications/fire-emergency/

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**So What Would You Do?**

Over to you! Please let us know how you would like to be equipped.

- Would you specify rollover protection for your volunteers?
- Would you adopt lightweight aluminium water tanks to get a lower centre of gravity and more capacity?
- Would you choose a larger Cat 1 tanker or a fleet of smaller Cat 7 tankers like the Iveco Daily?
- Would a tanker capable of being driven on a car licence be useful?
- Would you use the 3,000l trailers or maybe a bit smaller so they could be towed behind a greater range of vehicles?
- Would you like to see the aluminium tank and rollcage and super single tyres retrofitted to your existing tankers?
- Or would you choose something completely different?

Could you please respond to editor@volunteerfirefighters.org.au and we’ll publish your responses on the VFFA website.

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**Thank You X-press Kurrajong Heights**

The Kurrajong Heights Brigade greatly appreciates the support given by their local IGA store during the 79 day Gospers Mountain Fire.

The fire threatened Kurrajong Heights from 3 sides and burnt more than 500,000 hectares.

Ricky kept his community well supplied during road closures and generously donated water, food and other supplies to the brigade. He even offered the use of his personal 4WD ute to the brigade, but fortunately we didn’t need it.

Thanks Ricky for all you do for your community.
FireCrunch Australia is offering a 20% discount to all bushfire victims those who lost property in the recent bushfires in Australia.

Register before 30 Dec 2020 and is valid for 18 months

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www.firecrunch.com.au
Six Shades of Fire-Lighters

By Viv Forbes

Australian Fire-lighters come in six colours – yellow, black, white, blood red, dark green, and light green. All are relevant to bushfires and forest management.

“Yellow” is the Fire-lighter that has been with us forever. It is the yellow flash of lightning which has always ignited the Australian bush. We’re dreaming to think we can lock yellow fire out of parks, forests and heritage areas. But good forest management can reduce the ferocity and destruction of lightning-strike fires.

“Black” Fire-lighters came with the first Australians. Without matches or tinder boxes they probably captured the fire genie from a lightning fire. Or they carried it here on clay hearths or mud walls they probably captured the fire genie.

“White” Fire-lighters were introduced by the next wave of settlers – the British, bringing matches, flint and tinder boxes. They marvellled at the grasslands and open forests they found. Soon the sheep and cattle of the squatters were flourishing on the fresh nutritious pastures of frequently burned land. They soon learned about bushfires as the “Yellow” and “Black” Fire-lighters were still operating. The squatters soon learned new skills to protect their pastures, flocks, herds, stock-yards, wool sheds and homesteads. Firstly, reduce fire loads and encourage new grass using cool season burning. And secondly, when faced with invading fires, fight fire with fire – back burn from station tracks, freshly burned bush or creeks towards the invading fire. We need to relearn these valuable lessons.

“Blood-Red” Fire-lighters are carried by the fire vandals – the arsonists. And the greater the fire danger, and the more headlines it creates, the more active are these pyro-maniacs.

“Light-Green” Fire-lighters were developed in the 1960’s and 1970’s for professional foresters to protect forests with prescribed burning. These marvellous tools were banned by political fools, and are hard to procure today.

Finally Australia was inflicted with the “Dark-Green” Fire-lighter – an imported tool that almost never works. Deep Greens keep their lighters permanently in their pockets and NEVER light anything except for token fires in small areas and to light tofu-burger barbecues or their pretentious Earth Day candles. Their attempt to look out all fire creates a huge load of forest fuel, with dead wood, leaves, bark and weeds on the ground and vines and suckers between the trees. And neighbours living in fear of the inevitable forestfire.

What should we do?

First, ban the defective Dark-Green Fire-lighters, jail arsonists caught using Blood-Red Fire-lighters for thrills or malevolence, and learn to live with Yellow lightning strike fires.

Second, mandate the use of the Light-Green Fire-lighter – an improved version of the Black & White models used by aboriginals and Squatters. Use them to remove fuel load with cool season burning. And when fire comes, use them to fight fire with fire.

Give Light-Green Lighters to all practical foresters, landowners, fire wardens and local bushfire managers. They will safely abolish the Dark-Green nightmare of massive wildfires with the power of patchwork burning.

With so much land burnt, now is the perfect time to make sure it does not happen again in those areas. Kick out the bureaucrats and the Deep Greens and put rangers, foresters, property owners and local fire wardens in charge.

Have a burn plan and stick to it.

“Stick to exotic trees - they can be removed if they becomes a nuisance.”

Reading:

Using Climate Change as an excuse for forest mismanagement: https://wattsupwiththat.com/2020/01/18/regional-forest-manager-politicians-are-using-climate-change-to-deflect-blame-forbushfires/|


We are getting through – and getting BANNED: https://www.youtube.com/watch?v=9q1AH-jGlO4&feature=youtu.be

The Power of Patchwork Burning: https://www.ted.com/talks/mark_bezos_a_life_lesson_from_a_volunteer_firefighter

Viv Forbes

Viv Forbes has been an explorer, pastoralist and weather-watcher in Queensland and NT for most of his life. He has lit fires (accidentally and deliberately), and he and his wife have fought fires with branches, rakes and knapsacks and had their camps, fences and pastures wiped out by fires. They were both members of local bush fire brigades for over 25 years. (Judy even had formal training and her own uniform).

For most of that time they have watched Northern grasslands and open forests being invaded by eucalypt weeds. In their misguided youth they were infected with the green bug, never allowed grass fires on their property and encouraged eucalypt tree suckers and seedlings to spread (even foolishly built tree guards around some of these weeds.) They eventually learned that this greatly increased the risk of a major fire and degraded the grasslands. They were suddenly alarmed when the green state government (without warning or consultation) introduced vegetation protection orders on parts of their freehold property - that grassland was lost to the invading eucalypts and became a real fire hazard. From that moment on, they tried (un)successfully to ensure that no seedling or sucker of eucalypt was allowed to reach adulthood on that property.

SIX SHADES OF FIRE-LIGHTERS

www.saltbushclub.com

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Viv Forbes has been an explorer, pastoralist and weather-watcher in Queensland and NT for most of his life. He has lit fires (accidentally and deliberately), and he and his wife have fought fires with branches, rakes and knapsacks and had their camps, fences and pastures wiped out by fires. They were both members of local bush fire brigades for over 25 years. (Judy even had formal training and her own uniform).

For most of that time they have watched Northern grasslands and open forests being invaded by eucalypt weeds. In their misguided youth they were infected with the green bug, never allowed grass fires on their property and encouraged eucalypt tree suckers and seedlings to spread (even foolishly built tree guards around some of these weeds.) They eventually learned that this greatly increased the risk of a major fire and degraded the grasslands. They were suddenly alarmed when the green state government (without warning or consultation) introduced vegetation protection orders on parts of their freehold property - that grassland was lost to the invading eucalypts and became a real fire hazard. From that moment on, they tried (un)successfully to ensure that no seedling or sucker of eucalypt was allowed to reach adulthood on that property.
Throughout the past fire season, we all saw so much action in so many places be it the North Coast, the Greater Sydney Region or the South Coast. For all of what we did & what we faced over far too many months, we could never ever have done what we did without the unwavering support of the most valuable component of our Volunteer force, we speak of our Catering Brigade Volunteers.

These people whilst not all older, most though are senior in age, these are people who have retired, people who have a semi-retired lifestyle, which gives them free time to contribute to their communities. Some are former front line fire fighters who realise that as we age, we can still make a real contribution through involvement with a Catering Group utilising their former brigade skills & local area knowledge whilst not placing their own health at too greater risk.

Regardless, no Army walks on an empty stomach and throughout the past fire season for as long as it dragged out, our Catering Brigades across NSW made one of the most incredible & historical contributions to supporting front line fire fighters so that we could extinguish that monster that took so many homes & sadly, took too many lives.

We could begin to single out a few districts for their super sterling efforts however it wouldn’t be fair so we simply want to say to every single individual member of our RFS Catering Team’s across NSW, Thank You so much for the hours that YOU gave, for the time that YOU spent from your own family, for getting up at some horrid early hour of the morning to cook breakfasts, for getting home very late at night after having prepared endless meals for those heading off early the next day and all done to support our wider firefighting family.

You are all such incredibly special people, we thank you & we love you dearly for what you do for us all.

* * *

RFS CATERING VOLUNTEERS

* * *

RFS CATERING VOLUNTEERS

Are your Membership Details up to date?

Quite often we move House, we change Email addresses or Phone numbers and we struggle to think of everything and everyone to notify of those changes. The last thing we want is that you miss out on getting your Volunteer Firefighter Magazine and emailed Newsletters. …and sadly some are.

Please send us any updated contact details to our Membership Officer at: membership@volunteerfirefighters.org.au

* * *
Bushfire standards: Timber and your home.

In 2011, the Building Code of Australia (BCA) adopted the updated Australian Standard AS3959:2009 that covers “Construction of Buildings in Bushfire Prone Areas”. The new standard was adopted by all states with some variations in VIC, NSW, SA and TAS. The new standards affect all new construction however there are some Local Authorities that require upgrades to existing structures.

Since then there have been several amendments to this standard, and in 2018 a new revised standard referred to as AS3959:2018 “Construction of Buildings in Bushfire Prone Areas” has been released.

The new standards require that every new structure built, be assessed for bushfire risk; this can be a self-assessment using instructions available from your local council, or by a qualified Bushfire Consultant. The standard refers to this as Bushfire Attack Level; or more commonly as the BAL rating. There are 6 defined BAL ratings which are based on heat flux exposure in kW/m². BAL-Low, BAL-12.5, BAL-19, BAL-29, BAL-40 and BAL-FZ. All new construction within a bush or forest environment or within 100 metres of any bush or forest is affected by the new Bushfire Standards; this includes home extensions and upgrades.

For this article, I will focus on Bushfire Attack Levels up to BAL-29 because timber can be used in all these levels. All timbers used up to this level must be tested by a NATA approve laboratory using Cone Calorimeter equipment and tested to AS3837 bushfire criteria. Under BAL-40 and BAL-FZ, very little timber can be used; in fact, there are only a few timber products approved for use in these high-risk zones.

The Bushfire Standard is about protecting the exterior of your home and preventing spark and ember penetration into the house; it also defines the types of building materials that can be used in a particular BAL rated property, and this is where it will affect your choice of timber as a building material.

Appendix F of AS3959:2018, states that a Bushfire-resistant timber is timber that is solid, laminated or reconstituted, is deemed to be acceptable to withstand exposure up to a BAL-29 condition. Timber may be “bushfire-resisting” by means of one or more of -

- The inherent properties of the material itself. These are timbers that have been tested and declared fire resistant.
- Being impregnated with fire retardant chemicals. These are timbers species that have been impregnated with fire retardant, tested and meet the requirements of AS3959:2018

The application of fire retardant coatings or substrates. These are timbers species that have been coated with fire retardant or substrate, tested and meet the requirements of AS3959:2018

Fire Defenders Timber Defence product can be used on pine timbers to comply with the bushfire standard up to BAL-29. Please read conditions of use HERE.

Throughout the lower BAL rating standards there are also other higher density timbers that can be used as specified in appendix E in tables E1 and E2 of AS3959:2018. There are very few fire retardant products available in Australia that are tested and meet the AS3959:2018 Bushfire standards, however Fire Defender are always assessing and testing new systems to try and offer more solutions to our clients.

Firefree 88 is one such product we are extensively testing for bushfire compliance – there is potential for Firefree 88 to meet a BAL-FZ compliance. Test results for this product should be available sometime in May 2020. Please monitor our website for test results.

It’s important to understand that Australian bushfire testing process, tests systems, not products. For example the system comprising timber species pine and fire retardant brand X, may be tested and approved for use in Bushfire areas; change either the timber species or the fire retardant, then retesting will be required therefore, you will be looking for a company that can supply pre tested and treated timbers of the species you need, or a company that can supply fire retardant treatments for timber that have been tested and approved for use on the timber species you need, and can be self-applied.

AT ALL TIMES, the supplier of the treated timber or the fire retardant must be able to supply you with a copy of the test results that confirm compliance.

This article is a simplified overview and consultation with a bushfire consultant or your local authority is recommended.

To find out more about our bushfire compliant products, visit the Fire Defender website www.firedefender.com.au.

Written by Greg Hooper – Technical Product Manager for Fire Defender.
After The Gospers Mountain Fire

The Gospers Mountain Fire burned hard over Scenic Hill above Lithgow and exposed the WW2 Anti Aircraft gun emplacements that many of the locals did not know even existed and is well worth a visit if you are in the area.

The guns have long been removed but you can see the bolts embedded in the concrete where they were attached. They were part of a comprehensive air defence of Lithgow with two other locations being in Kirley Street, Bowenfels and off Hassan’s Wall Rd in Lithgow.

The Lithgow Anti Aircraft Gun Stations and Dummy Station have state significance as the only known inland heavy anti aircraft gun stations of their type in NSW. The emplacements were introduced as an important part of the network of defence sites established at Lithgow during the latter half of World War Two. The defences were introduced to protect Lithgow’s important mining, manufacturing and transport industries and the Lithgow Small Arms Factory.

The fire has burned extremely hot and it was interesting to see the seed pods opened and a thick cover of seeds on the ground. (Pictured right)

We also heard a story that a dummy town was constructed on the other side of Bells Line of Road with lights that could be turned on to attract enemy bombers away from the Lithgow target.

You can read more of the history on this link and see more photos which includes the guns at Bowenfels:


The Google map below shows the gun battery at Scenic Hill in red and the Bowenfels Gun emplacements are marked in blue at the bottom left hand corner.

The Small Arms Factory is also shown and it has a museum that is quite interesting.

More at: https://www.lithgowsafmuseum.org.au/
Frustration with the inadequacies of the Fires Near Me App during the Gospers Mountain Fire prompted an investigation into better alternatives, particularly remotely operated camera systems that could provide real time information to the community and to fire fighters and ideally also interface into a fireground mapping system.

Such a system exists and is running on the west coast of the USA. It is called ALERTwildfire and it is run by a consortium of three universities, UNR, UCSD and UC. It provides a service in the states of Oregon, Washington, Idaho, Nevada and California, and interfaces with multiple fire agencies and other supporting organisations.

It began as a joint project between the Forest Guard team, and a group of young students who won the Children’s Climate Award in Copenhagen in 2009. The idea was to seed the forest with cameras.

A new subsidiary has been formed to introduce the service to Australia. It is called BushfireLIVE and the website is here: http://bushfirelive.com/

High Quality Imagery

The system uses high quality near-IR Pan Tilt Zoom cameras which offer a 40x optical zoom and a 12x digital zoom for a total zoom of 480x. This allows the operator to really zoom in on any suspicious smoke even if it is 40 km or more away. In fact fire detection at distances of 60km plus during daytime operations and up to double that at night are possible. A small number of cameras cover a large amount of country.

You can view this for yourself via “The Network” link on the BushfireLIVE home page.

Click on one of the black dots on any state and it will open up a view of all the cameras. Each of the cameras record a timelapse and you can play this back. You can also see on the live map where the camera is pointing. A full description of this operation can be found under Service on the website.

In the example below the camera at Questa Peak has been selected and this view has been triangulated with another camera at Lopez Hill enabling accurate establishment of the fire position even though it is over the top of the ridge from both cameras. Any view of people’s houses is pixelated or blacked out for privacy reasons. You will also see the operator change the view from time to time such as when they want to zoom in on an area or view a different area. Some cameras are set for 360 degree rotation.

The control of cameras (Pan Tilt Zoom) is provided to the fire agencies and in a number of instances this control will be shared with others who have an interest in that particular camera or group of cameras.

For example, an electricity utility may install cameras on its infrastructure. The view from their pylons and towers is invariably superb, and there is no better way to protect their infrastructure than to provide this view to the fire agency.

The same rationale applies to telecoms and other communications infrastructure like the government radio network. The community needs this infrastructure to remain operational and the telco, by partnering with BushfireLIVE and the appropriate fire agency in each state, helps ensure this is the case.

Fire Detection & Immediate Response

Community crowdsourced fire detection is extremely effective and in the fire season people will look out for a fire in their area and call it in on the emergency number. We are typically seeing in the USA 911 calls in the 2 – 9 minute range from ignition.

The system allows for a very rapid response to each new fire and the fire agency can immediately determine what resources to despatch. Rapid response aerial resources and quickly despatched local resources can all help to ensure that a new fire is extinguished before it takes hold.

This compares with the present system where the public can call a new fire in and the fire agency will then despatch a tanker to check it out. Only when the tanker has arrived at the location and provided a situation report are aerial resources able to be despatched and by then it is probably too late, and the fire has already taken hold. Fire Control then has to compete with other requests for the aerial resources and there is great difficulty determining which fire to despatch resources to.

Fire Management

Once the fire has taken hold, Fire Control is dependent upon firefighters on the ground to give them situation reports and then must make management decisions based on these reports. The firefighter on the ground very rarely gets a full view of the fire, so in reality everyone is working blind.

With BushfireLIVE the firefighter can see what is happening around them via their mobile phone or tablet in the tanker and Fire Control has the same view. If the local knowledge resides with the firefighter on the fireground this allows much better input to Fire Control on predicting the fire behaviour, and on planning and deploying resources.

Automatic Fire Mapping

Providing there are enough cameras in an area it is possible to use the system to complete real time automatic fire mapping. This can provide vital input to systems like Fires Near Me which currently operates up to half a day behind the actual situation. The public are then properly informed and can make good decisions on if, and when, to evacuate and what route to take.

The current delay in providing information to communities can be disastrous.

Technical Interfaces

The system provides APIs to a number of next generation predictive and support services. These include:

**TECHNOSYLVA**

Technosylva have a number of different products that provide fire behaviour analysis, fire operational management and fire protection planning. They provide services including risk assessment, fuels mapping and fire behaviour analysis.

**SIMTABLE**

Simtable creates custom agent-based simulations based on data for wildfire fire, storms, evacuation, flood, ecological behaviours and hazmat incidents in your communities.

In Australia the Department of Environment, Land, Water & Planning for the state of Victoria demonstrates a Simtable bushfire scenario, an engaging way to visually display the passage of fire through a landscape in 3D. This video explains more: https://youtu.be/D-0v0&K5g

**BushfireLIVE in Australia**

The Australian subsidiary was formed on June 30th and discussions are under way with a number of entities to see the service established in Australia.

We will keep volunteers informed of progress via the VFFA website.
Words and photos by Vic Widman

This edition our resident 4wd expert, Vic Widman relates his own personal story of the events over the past year that have had such a huge impact on all of us.

At the outset let me state that I am one of the lucky ones in regard to the impacts of weather and pandemics in 2020. I’m almost embarrassed to write about my own experiences and I sincerely hope that you are faring ok.

I N NOVEMBER 2019 I was leading two back to back 4wd tagalong tours in the beautiful isle of Tasmania, whilst I was away other members of my team were providing my 4wd training courses at my driver training centre located north of the town of Braidwood in southern NSW. The training centre is set on 240 acres of bushland property. The local bush has not seen a fire or hazard reduction for over 30 years, so the fuel build up is quite excessive. In the past years I have conducted small hazard reductions on my land, but then witnessed most of the mature trees in the area eventually die. So I have been torn between doing a large-scale hazard reduction or taking the risk. Up to the end of 2019 I had settled on the risk factor.

To mitigate the impact of any wildfire on the training centre building (this is a substantial building measuring 40 metres by 10 metres) I had cleared most of the fuel around a 100 metre perimeter (there were a few large eucalypt trees within this boundary on the western side). In addition, a couple of years ago, I installed a Bushfirepro automatic sprinkler system on the building which also protected an adjoining covered training area and my 4 x 22,000 litre water tanks – the sprinkler system drew its water from our rainwater tanks, we are not on town water.

The 100 metre cleared perimeter mainly consisted of mowed lawn, the building is located on top of a small rising slope facing to the west, beyond this slope there is another cleared area of approximately 50 metres and then the heavily fuel loaded bush commences and runs for several kilometres to the west. Any fire in that area would have unimpeded access to my property and as it would be coming from the west, it would pose a huge danger to my grounds and buildings.

Like most parts of Australia in late 2019 the area around Braidwood was in the grip of one of the worst droughts on record, even the Shoalhaven river that flows just to west of my centre had ceased flowing, I had not seen that in 40+ years. My mowed lawns had all died from the lack of rain and the normally green view down...
across my dam (now also just a puddle) provided a depressing image of browned earth and dead vegetation. Even though I had close to 100,000 litres of water storage capacity in my tanks I was down to about 30,000 litres due to the lack of rain and the fact that one of my tanks had sprung a leak in its base. Murphy’s Law would dictate that this water leak would occur when we were in a drought with the worst fire season about to hit us.

As mentioned, I was in Tasmania leading a 4wd tag-along tour during November, the contrast could have not been greater. We had virtually 6 weeks of rain, cold, sleet and snow, the paddocks everywhere hurt your eyes with their luminous green, even the locals were complaining of the ongoing wet and cold weather during November and December. It was hard to believe that across Bass Strait the mainland was in such dire circumstances.

On 29 November 2019 I took a call from one of my 4wd instructors in Braidwood to advise that a fire had broken out on North Black Range which was about 20 kilometres as the crow flies Sth West of my training centre. It could not have started in a more threatening location. From a cold and damp caravan park cabin started in a more threatening location.

So now we were shut down at the training centre and shut down from running any 4wd tours, due to closed National Parks and ongoing fires. Things were beginning to look grim, but little did I know this was just the tip of the iceberg!

I was using the “Fires Near Me” App to keep an eye on the Currowan fire. The fire’s behavior was erratic to say the least. Being located to the east of my property it was general knowledge that fires would spread from the west to the east, but this fire was not only doing that, it was spreading from the east to the west also. My training centre is located 14 kilometres north of Braidwood on the Nerriga Road, to my east lay the huge Morton National Park, beyond that was a fringe of state forests along the Princess Hwy and then the Pacific Ocean with small coastal hamlets such as Conjola, Durras and the larger towns of Ulladulla and Batemans Bay.

The App told me the fire had come within 10 kilometres of my training centre and was directly east of it. But then on Sunday evening 5 January 2020 a cursory check of the App showed the fire was now just 3 kilometres away to the east! The fear of losing what had taken me 20 years to develop overtook me and I left Sydney and drove back to Braidwood. The next 5 days were extremely harrowing, but again luck was with me. As it turned out the Fires Near Me App was incorrect and 2 days later the fire front was moved back to its original front 10 k’s away. But the threat was real, smoke constantly filled the air day and night, and in the evening a red glow was visible to our north-east, occasionally flaming as the hard working RFS personnel (and all the other emergency services) continued to work long and tiring hours. I cannot describe enough my personal gratitude for all the emergency personnel and especially the volunteers who, for some, had been working on bushfires since October. My own brother-in-law, who is now in his 70’s and deputy fire captain of the Charleyong Brigade (my local fire brigade) had been on and off the fires for two months now.

During this week, my fellow senior training officer (Wylie) and I worked on clearing the dead leaf litter etc from around my assets at the property, raking and trailing away the mounds of leaf litter. It needs to be noted that despite keeping our grounds close to the training centre building as clear as possible, the drought combined with the annual drop of bark from our Eucalypt trees meant that we needed to attend to this job almost daily.

The forecast of southerly changes were now our greatest threat, and as each one came (they seemed to be every few days) we watched the horizon, monitored local Braidwood radio, did a fantastic job of keeping us informed, and even used a radio scanner app to listen in on the local fire control office to try to understand what the fire movement situation was.
In addition to this hard, hot work (we seemed to be raking leaves and undergrowth all day) I was wondering if we should stay or leave if the fire actually came our way. It is a very difficult decision to make and I found the hardest thing was understanding what would actually happen if the fire came. With the advent of social media, it is now possible to witness firsthand as some emergency situations unfold. I watched live footage of an RFS member in Batoow as the fire front hit that beautiful town. Other footage on Facebook showed fire trucks being overrun on the south coast and none of this added to any belief I may have had that we were in a good situation at my property. When the fire front hits, it is like hell on earth (I experienced this firsthand in 1994 when bushfires ravaged my own Sydney suburb and we lost 4 homes in my street).

But, I had a plan, despite all the clearing and a very expensive sprinkler system that has a known record of saving homes in bushfires, nothing was guaranteed. I felt ember attack would be my greatest threat. I could see how, despite the sprinkler system, it was possible for embers to be blown under the corrugated iron roof and into the ceiling area of the training room. I thought my best chance of saving the building would be to stay put and be here to fight any in-ceiling fire after the fire front had passed.

But I had to be safe if my plan was to stay. The plan was to shelter in the brick block amenities room which is part of the main building, inside one of the toilet cubicles, giving me two-three layers of protection from radiant heat. I filled large cubicles, giving me two-three layers of protection from radiant heat. I had two backup generators I could saturate and throw over myself as a couple of blankets in the toilet block that I sheltered. I had two backup generators I could use.

Along with the building, inside one of the toilet cubicles, giving me two-three layers of protection from radiant heat. I filled large cubicles, giving me two-three layers of protection from radiant heat. I had two backup generators I could use. In addition to this hard, hot work (we seemed to be raking leaves and undergrowth all day) I was wondering if we should stay or leave if the fire actually came our way. It is a very difficult decision to make and I found the hardest thing was understanding what would actually happen if the fire came. With the advent of social media, it is now possible to witness firsthand as some emergency situations unfold. I watched live footage of an RFS member in Batoow as the fire front hit that beautiful town. Other footage on Facebook showed fire trucks being overrun on the south coast and none of this added to any belief I may have had that we were in a good situation at my property. When the fire front hits, it is like hell on earth (I experienced this firsthand in 1994 when bushfires ravaged my own Sydney suburb and we lost 4 homes in my street).

But, I had a plan, despite all the clearing and a very expensive sprinkler system that has a known record of saving homes in bushfires, nothing was guaranteed. I felt ember attack would be my greatest threat. I could see how, despite the sprinkler system, it was possible for embers to be blown under the corrugated iron roof and into the ceiling area of the training room. I thought my best chance of saving the building would be to stay put and be here to fight any in-ceiling fire after the fire front had passed.

But I had to be safe if my plan was to stay. The plan was to shelter in the brick block amenities room which is part of the main building, inside one of the toilet cubicles, giving me two-three layers of protection from radiant heat. I filled large garbage bins with water and kept a couple of blankets in the toilet block that I could saturate and throw over myself as I sheltered. I had two backup generators for power, plus my trailer with a 1000 litres of water plus pump. I figured the sprinkler system would envelope the building in water for at least 30 mins, surely this would keep me safe? But making the decision to stay or leave was extremely difficult.

As it turned out, the fire only came within 4 kilometres of my property, and none of my plans were needed. Thank goodness, I still wonder what would have happened in reality.

As the usual case, by early February, we received flooding rains, whilst this caused no problems for me at the training centre (thankfully it filled out tanks, dams and even put some green pick back on the ground) it was like a knife in the back for my 4wd tours. Most national parks were still closed due to fire damage and now they received massive flood damage too. All of our trips up and down the east coast were off the books for at least 6 months.

By early February and after 2.5 months of closure I was able to open the training centre and began my regular training courses, at least there was a little income. But by mid-March that all came to a crashing end once again. The coronavirus had hit Australia and we were all put into lockdown. The money flow stopped totally, my staff were laid off and all I could do was sit and wait. Running a 4wd tour business when borders are shut, a pandemic is rife and your tour locations are closed due to both bushfire damage and the fear of a pandemic, probably isn’t the best choice for a career. I had the forward deposits safely stored with the bank so I was able to refund over $200,000 in deposits for our longer outback tours that now would not be taking place. At least we were not going to provide more heart break for our customers in this regard.

So, as I said, 2020 has not been a great year, as I write this in early July, we are back up and running under new pandemic guidelines at the training centre and we have just started to organise a few day and weekend tours as some parks are opening and restrictions on the number of people that can gather are lifted – also at the same time of writing a second pandemic wave is hitting Victoria and its borders has now closed, so who knows what the future holds (as you read this no doubt the full story will have unfolded).

But, I’m the lucky one, so many more have had far greater impacts from the fires, and from the pandemic, it’s been a terrible year for sure, and we can all only hope things begin to improve as 2020 moves on. By the way, I’m arranging with the local RFS to conduct a hazard reduction on my property at long last.

Vic Widman has been in the business of providing 4wd training and 4wd tag-along tours since 1990, his company, Great Divide Tours, is the largest 4wd tag-along company in Australia and his 4wd training centre near Braidwood is considered one of the best in the country, if you would like any information on his training or tours please visit www.4wd.net.au

The accompanying photos show the scenes around Vic’s property during January, then the flooding rain and the hope of better times with new grass growing in the drought dead grounds.
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The Volunteer Firefighter Winter 2020
HAZARD REDUCTION WORKS

Hazard Reduction Works

By Mark & Tanya Jol

Mark & Tanya Jol are active members of the Kurrajong Heights Brigade. Mark is a Deputy Captain and Tanya is Secretary. They live on 53 acres to the west of the Heights in a new home purposely built to withstand the effects of fire and ember attack and had created a large Asset Protection Zone around the house and shed using hand clearing and their slasher.

The land to the south had not been burnt for more than 18 years and the Jol’s application to hazard reduce the area was put onto the waiting list. The land between the house and Bells Line of Road had been mostly cleared with the slasher but contained a large number of gum trees. The land to the north of Bells Line of Road had been hazard reduced 4 years previously.

With their preparation and a competent RFS crew from Killara, they were able to save the house and shed. They lost some other shedding, an old house on the other side of the property, a large stockpile of logs that they were using for firewood and some slabbing for use as building material.

When the Gospers Mountain fire arrived from the west on December 21st it was spotting 400 to 500 meters ahead of the fire front into the area around the house and the bush to the south. The house is protected to the south by a large cliff and when the southerly wind hit with a lot of force it drove the fire up the cliff and around the house. The APZ did its job.

The fire arrived with such intensity that it burned into the crown of the trees on both sides of Bells Line of Road but then quickly self-extinguished thanks to the hazard reduction. This is despite the 40 degree heat and the very strong southerly winds.

A video that was made of the fire around the house can be viewed here:

https://jbraithwaite.smugmug.com/Australia/NSW/Blue-Mountains/Gospers-Mountain-Fire/Mark-Tanya-Jol-Videos/

It is now 6 months since the fire came through and it was really interesting to walk with Mark through his property and see the effect of the different fuel loads on the bush.

All the bush to the south burned incredibly hot with the 18 years fuel and it has created a graveyard of gums. The area has been devastated and all the wildlife has been destroyed including a group of wallabies and lyre birds that lived by the creek.

The fire was and how much damage was done only a few hundred yards away.

But the most amazing sight is just over the ridge top:

Mark & Tanya eventually got some sleep on that night of 21st December when the wind died at about 12pm. The next morning they fully expected to discover the fire had gone through to East Kurrajong and were amazed that it had stopped in the hazard reduced area and afterwards self-extinguished over the coming days and weeks.

The hazard reduction very clearly worked.

Their summary of what needs to be done is to the point:

• The most critical thing that we Australians now must change is the attitude that we have developed around the subject of fire. Our society now teaches us from our infancy that fire is bad, that it is damaging and something to be dreaded. Our bushland however needs fire to survive. It requires the cool burn process to protect its fauna and flora and various eco systems. There is no question but that the cool burn methods that our indigenous forebears used are the best methods that we can implement to protect what we have left. It has to be clear to even the very short-sighted that what we have in our bushland environment, that is in any way worth protecting, has been protected by fire for thousands of years before now so to change these practices, as Europeans have been doing for the last 200 yrs will come and has come at a cost. So, we must embrace fire. Respect it, yes. Fear it also, but understand it and embrace what it can do, no, what it must do for our environment.
What I have learned as a RFS volunteer fire fighter with almost 25yrs experience in fire behaviour, is that if fuels get to 10yrs old they start to become more difficult to deal with. Windows of opportunity to undertake prescription burns become tighter and shorter. Scorch heights are almost impossible to keep to prescription and it requires skilled people with patience and experience to ensure burns do not burn too hot and therefore become detrimental to the environment. It is my recommendation that we look carefully at the time between burns and remove the maximum burn cycle time (10yrs in our area).

With the above point in mind, it is then my recommendation that any patch of land that is not burned within a 10yr period should automatically be raised as a potential issue and its managers should be given notice. There is at present no accountability to anyone who has not reduced the fuels on land that they are responsible for.

At present any patch of land that is put up for hazard reduction burning is done so voluntarily. This is also left largely to RFS brigade volunteers, most of which are time poor and the amount of work required is extensive. Sadly most brigades of late train for suppression rather than prevention and protection of their environments is not really on the training list of things to do as an asset protection and the like. I propose that all brigade areas are broken up into a mosaic, and each block in it has dates set to be targeted for burning by a given date. Brigades should be given first chance to do this on their own but if they can’t or if they are not able for any reason, the paid staff are to hire trained personnel to assist.

The BFMC for each area are to become responsible for the land in their management area and ensure that everything that can be done is done to keep the above mentioned deadlines up to date. They are to hold land managers to account and organise assistance where required. At present there are no firm deadlines set.

If the note above about the 10yr maximum instead of minimum time between burns statement carries any weight, it is clear that the yearly targets for prescription burning have to be 10% of lands that are deemed environmentally important enough to protect. It is to be noted gratefully that of late burning has doubled from 1% to 2%, that is fantastic but that means it would take 50yrs to treat all areas that need treating. The target has to be raised another 8% as soon as possible. This would need a concerted effort from all levels of government and costs will be high...but what is it worth? The cost of chasing these last fires, acknowledging the adverse conditions, is beyond counting. Billions.

Cool burn traditions and culture should be introduced into brigade training.

Finally and maybe most importantly, a culture that is strong in the RFS is one that recognises that hazard reduction burning is predominantly to protect properties and assets. That is great, but the forests and bushlands are also an asset and they should be recognised as such. In fact it can be said that by protecting the bushland around our assets we automatically protect the property assets as a matter of course. It must become top of mind that the environmental damage that we are inflicting on our bushland by holding back on cool burning is not sustainable into the future and that we need to change what we are doing now before it’s too late.
The Volunteer Firefighter  Winter 2020

BOOK REVIEW: FIRE COUNTRY

Fire Country by Victor Steffensen

By Jeremy Braithwaite

VICTOR STEFFENSEN has very much become the face of aboriginal burning in recent times thanks to a number of appearances on the ABC and SBS. He tells an important story of how aboriginal burning knowledge and practices can, and should, be applied to our bushland.

His book Fire Country was released in February 2020 and is perfectly timed to educate Australia at a time when the population is asking itself the question “How can these mega fires be prevented?”

The book tells the story of his life growing up in Far North Queensland. His early days were spent in Kuranda and he had a short spell at the Canberra University before the bitter winter weather sent him back home again. But what to do? An invitation to join some Kuranda friends on a fishing trip ended him up at Laura in Cape York where he decided to settle. He got a job with the local community and boarded with one of the elders Tommy George or TG for short. TG was also the head ranger and he and his brother George Musgrave basically taught the young Victor about everything they knew. As children Tommy & George had been hidden in mailbags by the local station owner, Fredrick Sheppard, to avoid removal by police and welfare officers. As a result they had grown up in their community and had been taught by their elders rather than being sent away to a Mission never to return. The two in their turn had thus become the last link to their history and knowledge.

It was a happy time in a welcoming community. They went fishing and they formed a band. But Victor’s main task was being taught how to use fire to manage the country by the two elders. It became his life’s work.

In the early days they were permitted to burn aboriginal land and maintain that using traditional techniques. The land alongside was either National Park or properties and was generally either unburnt and thick with weeds and dead vegetation, or where the National Park rangers had done hazard reduction, there were often scorched trees and destroyed canopies.

The advent of native title gave them back more of their land and an opportunity to return it to the way it was. Victor describes how the country would tell you when it was ready to burn with the boxwood being the first every season in that part of the world. The gum country was next, but they would only burn some gums, and generally not the big red gums or the river gums. Once the country is burnt new fresh grass shoots appear straight away and this becomes the fire break for the neighbouring country that will be burnt later on.

Stringybark and sand-ridge country provides an abundance of food and medicine plants and this may not be burnt unless it is being choked by old dead grass. Victor devotes a couple of chapters to discussing different country and its characteristics. This includes mixed tree country and storm burn country.

Importantly there is also No Fire country which is not burnt. This includes rainforest and you would burn around it at the right time of the year and fire would not penetrate the dappled soil and leaves. By burning around it you give it protection from a hot summer fire.

Over time Victor started to visit other parts of the country and found that what he had learnt In Cape York could be applied in other parts of the country. He says: “The trees are the key to reading country, they are like the traditional Elders of each individual ecosystem. They tell you what the place should look like and what animals and plants should be living there. To know this is understanding the bush food, medicine and bushcraft knowledge that is attached to each place.”

The old people make a strong point that when they burn country they are only burning the dead grass. It burns with a white smoke that does not choke you and the trees bathe in it to improve their canopies. It helps with the flowering of the trees and produces more seeds for germination. The leaves give a gentle shimmering dance when the smoke comes into contact with them.

The flowering gums make honey for the nectar eating birds and insects and bees. The insects are a food source for other animals and so the entire ecosystem is dependent on the fire for its health.

One thing the old people stressed was to keep the fire out of the canopy. The canopy provides shade and that is essential to all life in a hot country.

Sometimes on a trip they would see a storm brewing and the old people would collect leaves from medicine plants which would be burnt to clear the storm. Amazingly the dark clouds would divide above them and the storm go round.

In 2001 Victor left Laura and took a job as a ranger in the Queensland Parks & Wildlife Service in Cairns. It didn’t last long! But Victor fell on his feet and his application for funding to start recording aboriginal knowledge was granted. He had started to make videos with TG and George when he was approached by Peta Stanley with an offer for her to do a PhD based on their work. They ended up agreeing that the PhD would be attributed to the elders and they would receive their doctorates up front.

Victor discusses the sharing of knowledge and the traditional distrust that has arisen over the years. He has seen lots of Western researches come to a workshop and select a single item of aboriginal practice and take that away . . . never to be seen again. The aboriginal approach is a holistic one and that shouldn’t be cherry picked.

He started to develop a traditional knowledge database and became connected with the UTS in Sydney. It was there that he met with Jacqueline Gothe who was a great help to him to further develop the database to the extent that it could be shared with other aboriginal communities. Victor developed a diagram to describe the entire process of knowledge transfer:

In the same way that a fire is comprised of Oxygen, Fuel and Heat and will not exist unless all three are present, the same applies to knowledge transfer.

People know that wildfire is an environmental problem, they also know that Indigenous fire knowledge is a solution, but they don’t know how to do it.

The Traditional Knowledge Recording Project received a lot of interest from all over the world and as a result Victor was invited to North America and New Zealand. He was also invited by the Sami people in Finland to present his program and when he went over was shown a rock art site which was very similar to ours in Australia only theirs depicted a moose rather than a kangaroo. The Sami people used to worship the sacred trees and then the priests arrived and made them chop down the trees to build churches. The Sami people were disinfected and there were lots of similarities with the aboriginals in Australia. Victor’s father had come from that part of the world and Victor felt a strong connection.

Poppy died on 9 February 2008 and it took TG a couple of years to get over the loss of his big brother. They started to organise indigenous fire workshops in the Cape Work area and then started to travel more widely sharing the knowledge, initially in NSW and then later on with Traditional Owners in Victoria, Tasmania, the ACT and WA as well as Queensland. The key thing was that it was the aboriginal communities taking responsibility for organising the workshops.

Victor was a co-founder of the National Indigenous Fire Workshops which have been held in each of the eastern states and is seeing success with teaching a growing audience.

He is unusual in that, in Fire Country, he freely shares his knowledge with all people irrespective of their racial background. In doing so he gives all Australians an opportunity to understand the extent of the land management gulf that is ruining our country.

The mega fires of the 2019/2020 summer should be a wakeup call to all Australians. If we all, and especially our politicians, were to read Victor’s book then there would be a much better understanding of what needs to be done going forward.

Jeremy Braithwaite, Kurrajong Heights

The trailer for his book is here: https://www.youtube.com/watch?v=bd2Wen1n4WM

38

The Volunteer Firefighter  Winter 2020

BOOK REVIEW: FIRE COUNTRY continued
Volunteer Fire Fighters Association
Membership Application

All memberships are free of charge

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| Supporter or Sponsor (Magazine Only) |

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Please complete and return to the VFFA Membership Officer (see address below)

VFFA Membership Officer
Kittani, 2037 Dry Plains Road
Dry Plain, NSW 2830
For assistance call 0410 317 638
Alternatively, complete our online form at volunteerfirefighters.org.au
(CClick on Memberships & Subscriptions)

Looking after volunteer firefighters’ mental health when you need it

Looking after your mental health in your role as a volunteer firefighter may not be something you think about often. However, the nature of your work means you are likely to be exposed to distressing situations and potentially traumatic events, which may impact your mental health.

The levels of anxiety, depression, and suicide among police, emergency service and fire and rescue workers in general is too high and seems to be growing.

In 2014, beyondblue established the Police and Emergency Services Program to promote the mental health of police, emergency service and fire and rescue workers and reduce their risk of suicide. The program is for current and former retired workers, volunteers and their families.

As part of this program, beyondblue is currently undertaking the National Mental Health and Wellbeing Study of Police and Emergency Services. This study involves active engagement with the sector to establish important national baseline measures and provide strong evidence about the issues affecting the mental health of police, fire and rescue, ambulance and emergency services and the best ways to provide support.

Where to find more information

beyondblue
www.beyondblue.org.au
Learn more about anxiety, depression and suicide prevention or talk through your concerns with our Support Service.

Heads Up
www.headsup.org.au
beyondblue’s Heads Up website is all about supporting organisations to create mentally healthy workplaces. Access a wide range of resources, information and advice for all employees on staying mentally healthy at work.

Police and Emergency Services Program
For more information about beyondblue’s Police and Emergency Services Program, visit
www.beyondblue.org.au/pes

For more information visit headsup.org.au/pes
What everyone should know about online safety

At Firefighters Mutual Bank, we know there’s more to online safety than protecting yourself from viruses.

• How much personal information should you make public?
• What’s the optimum security setting for your social media accounts?
• What type of posts could damage future employment opportunities?

By taking just a handful of measures, you can greatly reduce your exposure to potential threats:

1. Don’t trust strangers you don’t know
You wouldn’t hand over your personal information to a stranger on the street, so why make it available for millions online? Question whether everyone needs to know your relationship status, and always keep your phone number and home address hidden.

2. Lock the front door
All browsers and operating systems have privacy-enhancing settings to help protect you. These can be hard to find because your information is valuable to companies who want to market to you. Always keep these privacy safeguards enabled.

3. The right side of the tracks
Just like there might be certain streets that you’d avoid, steer clear of certain destinations online. Avoid offers that sound too good to be true, don’t click on unsolicited links, and always keep your antivirus software up-to-date.

4. The internet doesn’t have a delete key
You can’t take back a remark you’ve made, or delete an embarrassing selfie you took at a party. Don’t post anything that you wouldn’t want your mother (or employer) to see.

5. Asking for references on a date
This won’t be a surprise, but some people you meet online aren’t always who they claim to be. Fake profiles are a popular way for scammers to trap unwary internet users, so be as cautious online as you are in the real-world.

6. Don’t leave your keys in the ignition
Other devices are just as vulnerable as our computers. Be careful what you click on, only download Apps from official App stores, and always make sure that your security software is enabled on your devices.

Staying Safe Online
Always treat your online life the same as your daily life. Be careful which sites you visit, and what information you share with others. Keep your security software up-to-date, and always backup your data regularly.

We serve firefighters Australia wide
Firefighters Mutual Bank is the dedicated bank to fire and emergency service workers and their families Australia wide. When you bank with us, you’ll find a bank that wants to serve you, just as you serve the community.

1. Membership is open to citizens or permanent residents of Australia who are current or retired employees or volunteers in the Australian emergency services sector or are family members of members (i.e. shareholders) of the Bank.

2. Before you decide on any of our products or services, we strongly recommend that you read both the Conditions of use Accounts and access and Fees and charges booklets. You can find these online at our website or ask at any of our offices. We have not considered your objectives, financial situation or needs. For further information call 1800 0800 225 or go to fmbank.com.au

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