

Conference Proceedings



Living with bushfire

COMMUNITY CONFERENCE 2017

Friday 6 October - Saturday 7 October 2017

Federation University Australia Mt Helen Campus – University Drive, Mt Helen (Ballarat)

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Environment,
Land, Water
and Planning



Welcome to the 2017 *Living with Bushfire Community Conference*

Welcome and thank you for coming along to the fourth annual *Living with Bushfire Community Conference*.

This two day conference includes presentations from community leaders, community planning and recovery groups, and leading industry experts including fire ecologists. Both days provide an opportunity to ask questions, engage with people working in the bushfire space, hear the latest research and knowledge, gain a greater understanding of bushfire risk, and network with like-minded people. Themed 'working together for a safer future', the conference will explore the way in which community members and the natural environment cope with fire.

The *Living with Bushfire Community Conference* is proudly hosted by Federation University Australia in association with its conference partners.

Conference Partners



Conference Organising Committee

Committee member	Organisation	Role in Organisation
Grant Palmer	Federation University Australia	Academic, Faculty of Science & Tech.
Helen Wade	Federation University Australia	Conference administration
Fred Cahir	Federation University Australia	Academic, Faculty of Educ. & Arts
Sarah McMaster	Federation University Australia	PhD candidate, Faculty of Educ. & Arts
Wendy Wright	Federation University Australia	Academic, Faculty of Science & Tech.
David Watson	Department of Environment, Land, Water & Planning	Acting Regional Manager
Michael Boatman	Country Fire Authority	Manager Community Safety
Tony English	Parks Victoria	District Manager
Mark Cartledge	City of Ballarat	Fire Prevention Officer
Belinda McKnight	City of Ballarat	Acting Municipal Emergency Manager
Cherie Graham	Moorabool Shire Council	Manager, Emergency Management
David George	Hepburn Shire Council	Community Safety Coordinator
Laura Buchanan	Pyrenees Shire Council	Emergency Management
David Draffin	Pyrenees Shire Council	Emergency Management Coordinator
Dale Smithyman	Golden Plains Shire Council	Natural Resources Officer
Kathy Overton	Department of Environment, Land, Water & Planning	Learning Networks Facilitator
Ange Wright	Yarra Ranges Council	Emerg. Manage. – Community Projects





Living With Bushfire Community Conference: Themes and Focus

'Working together for a safer future'

Place: Federation University Australia, Mt Helen Campus

Date: Friday 6 October and Saturday 7 October 2017

The Conference Message:

Safer together is a bushfire management approach that is more effective in reducing bushfire risk and is driven by local knowledge and expertise. By bringing together the expertise of our land and fire managers with the knowledge of local communities and what they value, successful partnerships will be established to strengthen communities before, during and after bushfires. By building in the latest science, data and technology, enables actions to be targeted more effectively, reducing bushfire risk and protecting community safety and values.

The Conference Attendees

The *Living with Bushfire Community Conference* provides a forum to build and share knowledge around bushfire management in Victoria. The conference provides an opportunity for communities, including rural, town-based and urban-fringe landholders and residents, to have the opportunity to hear from leading emergency personnel, agency and industry experts, scientists and community emergency groups to gain valuable insight and provide practical knowledge on bushfire risk, as well as to share their knowledge and information needs. The general community is being urged to gain a greater understanding of bushfire risk and improve their bushfire knowledge at the fourth annual *Living with Bushfire Community Conference*.

Conference objectives:

The objectives for the 2017 *Living with Bushfire Community Conference* are to:

- Share knowledge and create connections around living with bushfire
- Engage communities in all aspects of living with bushfire risk
- Highlight responsibilities associated with bushfire management



Conference scope

The *Living with Bushfire Community Conference* has been structured around three key strands:

- Social
- Economic
- Environment

For each of these strands, the considerations and consequences of bushfires are explored during each of three phases. These three phases are:

- Before
- During
- After

The simple matrix shown below shows the coverage of the conference in relation to the themes and their phases. This approach has guided the presentations included in the conference program.

	Social	Economic	Environment
Before	<ul style="list-style-type: none"> • Community planning • Bushfire education and engagement • Community bushfire connection 	<ul style="list-style-type: none"> • Insurance • Bushfire planning – BAL and building modification 	<ul style="list-style-type: none"> • Monitoring, evaluating, reporting • Fuel management • Indigenous burning practices
During	<ul style="list-style-type: none"> • Emergency management • Community safety • Animal management • Evacuation procedures 	<ul style="list-style-type: none"> • Emergency management (Command and control structure) 	<ul style="list-style-type: none"> • Wildlife response to fire • Bushfire behaviour
After	<ul style="list-style-type: none"> • Community and personal recovery • Community lessons • Community resilience 	<ul style="list-style-type: none"> • Insurance • Economic recovery • Small business recovery • Implementing on-ground works following bushfire 	<ul style="list-style-type: none"> • Recovery of environmental values • Wildlife response in the years following fire • Wildlife as indicators

Living With Bushfire 2017 Community Conference Program

Day 1 – Friday 6 October 2017				
8.30	Arrival and registration – Geoffrey Blainey Theatre (Building C, Mt Helen)			
Room	Keynote Session - Geoffrey Blainey Theatre			
9.00	Conference welcome Prof. Leigh Sullivan, DVC FedUni			
9.10	Welcome to country			
9.15	Conference opening - Prue Bentley (ABC Radio) MC			
9.20	Emergency Management Victoria - Before, during, after bushfire - Craig Lapsley, EMV			
10.00	Forest Fire Management Victoria - Matt Potter, Acting Chief Fire Officer FFMV			
10.30	Morning Tea			
Room	Plenary Session - Geoffrey Blainey Theatre			
11.00	An overview of mental health and personal recovery in the context of bushfire – David Younger			
11.30	Victorian fire season outlook - James Pescott, Bureau of Meteorology			
12.00	The emotional context of bushfire: Learning from Black Saturday - Dr Graham Dwyer, Uni of Melb			
12.30	Lunch			
	Concurrent sessions			
	G Blainey Theatre	B901	B902	C004
	Prue Bentley, ABC	Tony English, Parks Victoria	Michael Boatman, CFA	
1.30	How myth and language influence successful restoration and environmental management: learning from two major bushfires Samantha Strong, CSU	Bushfire predictive services Dr Trent Penman, Uni of Melbourne	Blazeaid and its role in farming recovery Barry Thompson	WORKSHOP Let's Get Ready Jennie Schoof & Ange Wright Yarra Ranges Council
1.55	Benloch - recovery after the Lancefield 2015 fire Vince Cafari (CFA), Louise Scott & David Watson DELWP	The use of bushfire simulation modelling to analyse bushfire risk Phil Brien & Stephen Balharrie, DELWP	Animal and wildlife welfare management before, during and after bushfires Paul Beltz, DEDJTR	
2.20	Ballarat Community Health's role in Scotsburn recovery Robyn Reeves, BHS	Fire, landscape pattern and biodiversity in the Otway Ranges A/Prof. Alan York, UoM	Traditional burning': Reviving Indigenous cultural burns for bushfire management Trent Nelson (Parks Vic) & Mick Bourke (DELWP)	Let's Get Ready Jennie Schoof & Ange Wright Yarra Ranges Council
2.45	Responding to bushfire and what is expected of community? Brett Boatman, CFA	What do animals do during a fire? Insights from the Henderson Creek fire experiment Dr Matt Swan, Uni of Melb		
3.15	Afternoon tea			
	Geoffrey Blainey Theatre			
3.45	Emotions and wellbeing in emergency management before, during and after Louise Scott (DELWP)			
4.15	Day 1 Question Session with Panel			
4.45	Day 1 Conference close - MC			
6.00	Conference Dinner			



DAY 2 – Saturday 7 October 2017				
8.30	Arrival and registration – Geoffrey Blainey Theatre			
	Keynote Session - Geoffrey Blainey Theatre			
9.00	Welcome and Introduction to Day 2 - Penny Johnston (ABC Radio), MC			
9.20	<i>Safer Together: agencies and communities reducing bushfire risk</i> Rachaele May (FFMV) and Peter O'Keefe (CFA)			
10.00	Bushfire behaviour - what we should expect and prepare for Dr Kevin Tolhurst, Uni of Melbourne			
10.30	Morning Tea			
Room	G Blainey Theatre	B901	B902	C004
Chair	Penny Johnston, ABC	Fred Cahir, FedUni	Laura Buchanan, Pyrenees	
11.00	The St Andrews Conversations - we're better together	Return of the Firestick Project Bryon Powell, Wadawurrung	Bushfire planning - BAL and building modification Mark Holland, CFA	WORKSHOP Social risk factors: exploring demographic drivers of bushfire resilience Phil Brien & Louise Scott
11.30	Scotsburn recovery - implementing on ground recovery through Landcare projects	Cultural heritage - impacts and considerations in planned burning Shu Brown, DELWP	Landscaping and property management in bushfire prone areas Owen Gooding, CFA	
12.00	Scotsburn bushfire experience - from a residents perspective	The art of roadside burning Michael Rowe, Cape Clear CFA brigade	Insurance and bushfire Laurie Ratz, Insurance Council	
12.30	Lunch			
Room	G Blainey Theatre	B901	B902	C004
Chair	Penny Johnston, ABC	Grant Palmer, FedUni	David Watson, DELWP	
1.30	The bushfire is now - how are emergencies managed (Command and control structure) Jon Rofe, DELWP	Planned burning and biodiversity Matt Chick, DELWP	Community based fuel management planning - an example of successful collaboration in Kalorama & Monbulk Steve Pascoe	WORKSHOP Bushfire Scenario Hypothetical Reinhard Pohl CFA
2.00	Bushfire warning systems - learnings from Moorabool/Blackwood evacuation exercise Cherie Graham, Moorabool Shire Council	Laughing Kookaburra's message: Not all birds respond positively to post-fire regrowth Diana Kuchinke, FedUni		
2.30	Evacuation procedures and management of human access during a bushfire event Neil Cheney, Victoria Police	What can ants tell us about when it is suitable to burn from a biodiversity perspective? Greg Horrocks, FedUni		
3.00	Conference finisher and close - MC with Community rep – Geoffrey Blainey Theatre			
3.30	Afternoon Tea			

*Please understand program may change, as circumstances require.

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CRAIG LAPSLEY

COMMISSIONER
EMERGENCY MANAGEMENT VICTORIA

Craig Lapsley is Victoria's Emergency Management Commissioner and has overall responsibility for coordination before, during and after major emergencies. Craig has more than 30-years' experience in emergency management, working mostly with the Victorian Country Fire Authority (CFA) including service as a volunteer firefighter. He has also worked with the NSW Fire Brigades (Sydney), the Victorian State Emergency Service, and the Department of Health and Human Services where he was appointed Director Emergency Management - Health and Human Services.

Emergency Management Victoria
– before, during, after bushfire

Craig's vision for an *all communities, all emergencies* approach to emergency management will work to ensure a systematic and coordinated approach before, during and after major emergencies. It provides an opportunity for the alignment of strategy, planning and investment across multiple agencies, to champion unified information systems, a culture of information sharing, and a sharp and deliberate focus on better decision making with the community as a central partner in emergency management.



Forest Fire Management Victoria

MATT POTTER

ACTING CHIEF FIRE OFFICER
FOREST FIRE MANAGEMENT VICTORIA
DELWP

Matt Potter is a Deputy Chief Fire Officer for Forest Fire Management Victoria and has the portfolio of Operational Improvement and Quality Management.

Matt joined the Department of Conservation, Forests and Lands in 1989 as a project firefighter based in Orbost, Victoria and has an operational background working in fire and land management at various locations across Victoria and Western Australia.

Matt is a Level 3 Operations Officer, has a background in planned burning and has performed key emergency response and relief and recovery roles both interstate and overseas in USA and Canada.

Forest Fire Management Victoria comprises staff from the Department of Environment, Land, Water and Planning (DELWP), Parks Victoria, VicForests and Melbourne Water. Our aim is to reduce the risk and impact of bushfires on Victoria's parks, forests and other public land. Our firefighters are easily identifiable by our distinctive green overalls and are responsible for responding to all bushfires on public land and assisting our CFA and MFB colleagues on private property.

We are responsible for planned burning and preparedness activities, like slashing, mowing and creating fuel breaks on public land. We also maintain assets like roads, water points and fire towers that are used for detection of fires in our forests and parks. We have specialist firefighting resources such as rappel crews for first attack in remote areas and the provision of heavy machinery. We manage community and environmental recovery when a fire does occur. We work alongside the CFA, other emergency services and local communities year round to protect people, property and our iconic landscapes. We are the lead agency for bushfire management on public land, whale stranding or entanglement, dam safety, oiled wildlife, water and wastewater service disruption. We also play a support role in emergency management for food or drinking water contamination, flood, heatwave, marine pollution, exotic marine pest incursion and search and rescue.



DAVID YOUNGER

CLINICAL & CONSULTANT PSYCHOLOGIST

David Younger is a Clinical & Consultant Psychologist with over ten years' therapy and clinical intervention experience. He runs a warm and compassionate practice providing assistance to individuals across a range of mental health difficulties. David is also highly experienced in community recovery following emergency events. He provides advice, training & development, and encourages innovation in emergency management and the private sector. The philosophy underlying David's work is the provision of high quality evidence based treatment that promotes resilience, recovery and growth.

An overview of mental health and personal recovery in the context of bushfire

The spectrum of mental health issues that have the potential to emerge in a community following bushfire are well identified. It is also well understood that the vast majority of individuals do not develop a diagnosable condition, but this does not mean that quality of life is not reduced for a period of time afterwards. Taking into consideration the fact that many Victorians live in bushfire prone areas, this talk will outline differences between healthy adaptation and ill health after a bushfire. Consideration will also be given to psychological preparedness and bushfire recovery. A main theme of the talk is healthy adaptation and the preservation of personal well-being amidst ongoing bushfire risk.



Victorian fire season outlook

JAMES PESCOTT

FIRE WEATHER TRAINING PROGRAM
MANAGER
BUREAU OF METEOROLOGY

James Pescott has been a meteorologist at the Bureau of Meteorology for over 10 years. In his current role, as Fire Weather Training Program Manager, he is responsible for ensuring the Bureau's fire weather forecasters are qualified to provide the Bureau's fire service. During the summer, he also works as a Fire Weather Forecaster in the Victorian Regional Office.

In this presentation, a review of the 2016/17 fire season will be given before the background climate signal and the outlook for the 2017/18 fire season are presented. Whilst NSW suffered an above average 2016/17 fire season, Victoria had an average to slightly above average season. Against a background climate signal of increased duration and severity of the fire season, the 2017/18 season is looking like being normal to above normal in terms of bushfire potential for Victoria. This is largely due to the dry start to winter and forecast of above average temperatures with only average rainfall in the spring and early summer period.



GRAHAM DWYER

UNIVERSITY OF MELBOURNE

Graham Dwyer is a postdoctoral researcher at the University of Melbourne. His research examines how organisations understand and manage risk. He has previously worked for the state government of Victoria in several portfolio areas responsible for emergency management.

The emotional context of bushfire: Learning from Black Saturday

Natural disasters are extremely challenging for individuals who find themselves in operational response roles. Such events transpire rapidly and bear little comparison with what has gone before. Consequently, organizational systems become overwhelmed, response capacity is constrained and stressful, as well as dangerous work environments emerging for individuals seeking to ameliorate the effects of the disaster. Surprisingly, commentaries to date have often overlooked the emotional toll that these events take on these individuals. Accordingly, this presentation will focus on the individuals who fought the Black Saturday fires, were then cross examined by a royal commission (sometimes on multiple occasions and while the disaster is still ongoing), which often emphasized blame and culpability. While commentaries have detailed much of the proceedings surrounding public inquiries, less is known about the emotions that arise afterward. We know little about the emotions individuals carry forward into their future as they begin to make sense of public inquiry recommendations in their organization and learn for the future. Accordingly, this presentation focuses on the way emotion shapes learning in emergency management organizations.

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'Working together for a safer future'

SAMANTHA STRONG

CHARLES STURT UNIVERSITY

Sam Strong lived on the family farm near Ruffy until 2015, when she moved to Clunes. She has worked as a project co-ordinator for volunteer natural resource management programs, the Parks Victoria Bushfire recovery Program in 2010-11, and is a member of Landcare. In 2013, she decided to explore questions that arose from experiences following the Black Saturday bushfires in a PhD at Charles Sturt University.

How myth and language influence successful restoration and environmental management: learning from two major bushfires

Influences of powerful language and imagery used during and after major bushfires were the focus of Sam's qualitative research that considered the context of two of the most catastrophic 21st century bushfires in SE Australia. Two case studies - the ACT 2003 and Victorian 2009 Kilmore-Murrindindi complex of bushfires - were explored via print media, public memorials, bushfire and native vegetation management policies, environmental histories and interviews with fire and environmental management agency staff. Findings suggest that perceptions of the environment, and those who manage it, are shared and shaped by retelling vivid cultural myths to help make sense of the crises. The myths frame the environment and people in contradictory and polarising narratives, which result in a range of paradoxical responses. This presentation will provide insights into how understanding myths can assist us in understanding the evolution of contradictory and reactive environmental management decision-making.



VINCE CAFARI
BENLOCH CFA CAPTAIN

DAVID WATSON
LANCEFIELD FIRE RECOVERY CASE MANAGER
DELWP

LOUISE SCOTT
LANCEFIELD RECOVERY MANAGER
DELWP

Vince Cafari - From working in the tall forests of the California Red Woods to the mountain ranges of the NT. On first sighting Benloch – Benloch was to be home and the place to relocate family and be part of a community that seemed to get on with it and take care of themselves. Taking care of themselves is the Benloch way. Looking out for each other and giving a hand when needed is the Benloch way.

David Watson is the Regional Manager, West Central Bushfire Risk Landscape at Forest Fire Management Victoria in Ballarat. He manages a specialist team responsible for developing the strategy for fuel treatment on public land between Ballarat and Bendigo. David has been with the department for 9 years across a range of leadership roles, including Lancefield Fire Recovery Case Management. He has a Graduate Certificate in Australian Rural Leadership and a Bachelor of Science.

Louise Scott is a Strategic Bushfire Planner and was the Lancefield Recovery Manager. She has worked both in operational and incident management roles, as well as with fire affected communities including after both Black Saturday and the Lancefield fire, and has also worked with agricultural industries experiencing challenges.

Benloch – recovery after the Lancefield-Cobaw 2015 fire

Following the Lancefield Cobaw Fire in October 2015, an extensive recovery process was undertaken with impacted residents in Benloch, Lancefield and surrounds. Losses included four houses, and other impacts on 132 properties, including outbuildings and machinery. Around 130 km of fencing was destroyed and an extensive recovery process was required to help affected residents recover following the fire. An apology from the Secretary of DELWP provided a foundation to help start to rebuild trust in the community. Community fire planning in Benloch was enhanced following the fire with the assistance of agencies through the *Safer Together* approach. Learn about how these communities have approached recovery and the processes involved, and hear some of positive changes both within the community and Forest Fire Management Victoria following the independent investigation following the event.



ROBYN REEVES

CHIEF EXECUTIVE OFFICER
BALLARAT COMMUNITY HEALTH

Robyn is currently the CEO of Ballarat Community Health, and has had many years of experience in emergency recovery both with BCH and also previously in the role of Municipal Recovery Manager for the City of Ballarat.

Her early professional roles were in social work and this background has contributed valuable experience relevant to emergency recovery.

BCH currently assists the City of Ballarat, Golden Plains Shire and Pyrenees Shire with personal support and case management following emergencies, including bushfire.

The role of Ballarat Community Health in the Scotsburn Recovery effort

On 19 December 2015 a bushfire at Scotsburn burnt through 4,600 hectares of land and destroyed 16 homes, 48 sheds, miles of fencing and thousands of head of livestock. The fire burnt for 14 days, impacting 150 area properties, and was not declared safe until 1 January 2016.

Sixteen families, including many children lost their homes and possessions. This fire spread across parts of two municipalities: The City of Ballarat and the Shire of Moorabool.

Local Government has clear responsibility as the lead agency in emergency recovery, supported by Department of Health and Human Services, Department of Environment, Land Water and Planning, and many others. This presentation will outline the role of Ballarat Community Health in recovery following the Scotsburn fire.



BRETT BOATMAN

OPERATIONS MANAGER
CFA DISTRICT 15

Brett Boatman has been a Career Officer with CFA for 23 years and is the District Operations Manager for CFA District 15, based in Ballarat. He leads Fire and Emergency Service delivery provided by 61 Brigades across the Central Highlands. Brett is passionately committed to delivering CFA's services within the community using an integrated model of Volunteers and Career staff working together.

Responding to bushfire and what is expected of community?

What do responders expect of the community? Have fire agencies ever truly asked this question and if we did, what would the answer be? How do we define community and what channels are available to not only connect with the people we protect, but meaningfully engage?

This stories-based session will explore the key messages of Victoria's fire agencies for before and during bushfires as viewed through the lens of a Level 3 Incident Controller and Fire Service Leader. Drawing on his two decades of experience working in communities being impacted by bushfire, Brett seeks to align the expectations of responders and community. This session will layout the latest practices from the Emergency Management Sector and draw on academic research to answer the question.



TRENT PENMAN

SCHOOL OF ECOSYSTEM AND FORESTRY
SCIENCE
UNIVERSITY OF MELBOURNE

Trent is a bushfire risk modeller whose research focuses on quantifying the risk trade-offs in landscape fire management considering a range of human and environmental assets. Trent is a Project Leader of the *Threshold conditions for extreme fire behaviour* project in the Bushfire and Natural Hazards CRC.

Bushfire predictive services

Future fire modelling research needs to bridge the gap between fire danger prediction systems based on the science of the 1950's and 60's to one that exploits current research, technology and conditions.

The Bushfire Predictive Services cluster under the Bushfire and Natural Hazards CRC is contributing to:

- the science underpinning a new national fire danger rating system and the national capability to support bushfire predictive services;
- the ability to deliver better warnings to the community prior to and during bushfires;
- the ability to predict fire behaviour and hence inform decisions on deployment of fire fighting resources, while at the same time trying to ensure the safety of firefighters;
- the ability to mitigate the threat of bushfires through more effective prescribed burning.

The ability to understand, predict, forecast and monitor bushfire is fundamental to improving resilience through better planning, preparedness, risk management and response.



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PHILLIP BRIEN
BUSHFIRE RISK ANALYST
WEST CENTRAL VICTORIA
DELWP

STEPHEN BALHARRIE
BUSHFIRE RISK ANALYST
WEST CENTRAL VICTORIA
DELWP

Phillip Brien is the Bushfire Risk Analyst for West Central Victoria. He graduated from the Uni. Of Sydney with a Master of Environmental Science in 2013, specialising in both ecology and social sciences. Phillip draws upon this dichotomy of philosophies to underpin his work in strategic fire planning. With operational experience across western Victoria, his grounding in fire behaviour, computer and statistical analysis' have quickly made him a respected fire behaviour expert.

Stephen Balharrie has worked as a Bushfire Risk Analyst at DELWP since 2013. He completed a Bachelor of Environmental Science at Charles Sturt University and an honours year at Monash University. His honours research focused on bushfires caused by lightning and the spatial characteristics of their ignition locations. Stephen recently spent a year working as a Research Advisor within the Sri Lankan Forest Department, where he trained researchers to analyse data and use geographic information systems.

The use of bushfire simulation modelling to analyse bushfire risk

The location and circumstances under which bushfires occur, greatly influence their potential to cause damage. Bushfire simulation models enable bushfires to be simulated based on a range of different scenarios. Forest Fire Management Victoria are using the bushfire simulation model Phoenix Rapid-fire to analyse the potential behaviour and impacts of bushfires across Victoria. Bushfires are simulated from a grid of ignition points across the landscape and the results combined to identify areas most at risk. This information is then used to plan fuel management and other risk mitigation activities.



A/PROF ALAN YORK

SCHOOL OF ECOSYSTEM AND FOREST SCIENCES UNIVERSITY OF MELBOURNE

Alan leads the Fire Ecology and Biodiversity research program within the School of Ecosystem and Forest Sciences at the University of Melbourne. His research group, based at Creswick, is currently investigating how fire causes patterns in the landscape, and how plants and animals respond to these patterns. They are researching how land managers might use planned fire to develop mosaics of post-fire age classes in space and time, and how biodiversity responds to these mosaics. Alan has been involved in applied fire ecology research for over 30 years; working primarily in universities and State research agencies in NSW and Victoria.

Fire, landscape pattern and biodiversity in the Otway Ranges

Research into the effects of unplanned and planned fire on native plants and animals in the Great Otway National Park by a team of researchers from the University of Melbourne was awarded the 2017 Nancy Millis Science in Parks Award.

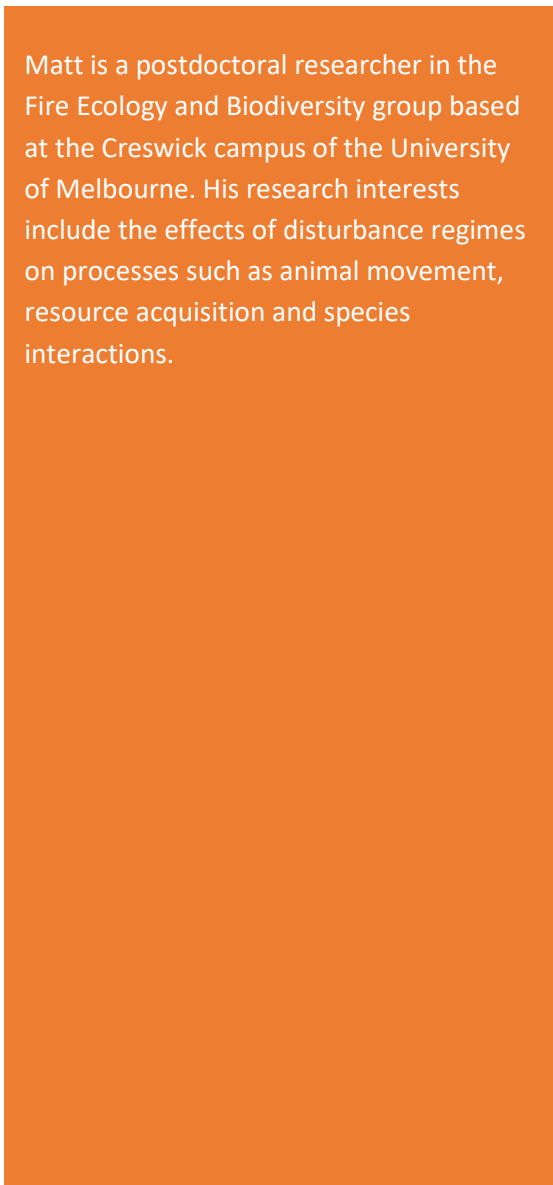
The project covered 60,000 hectares in the Great Otway National Park and Forest Park over 6 years and investigated how the arrangement of fires over space and time (known as fire mosaics) affects plants and animals. The many sub-projects over the six years included using GPS tracking to identify how swamp wallabies use of habitat changes during and after a fire, and the influences of fire on how native bush rats select habitat. Remote cameras also helped to identify that fire can lead to a 5-fold increase in introduced predators and some native animals can become more vulnerable to predators such as foxes after a fire.

The findings have provided a better understanding of how planned burns can be best applied to help conserve native plants and animals in the Great Otway National Park. The program was funded by the Department of Environment, Land, Water and Planning (DELWP) and was a collaborative effort, involving the team led by Melbourne University's Associate Professor Alan York working in close collaboration with local teams from Parks Victoria and DELWP.



MATT SWAN

RESEARCH FELLOW
SCHOOL OF ECOSYSTEM AND FOREST
SCIENCES
UNIVERSITY OF MELBOURNE



Matt is a postdoctoral researcher in the Fire Ecology and Biodiversity group based at the Creswick campus of the University of Melbourne. His research interests include the effects of disturbance regimes on processes such as animal movement, resource acquisition and species interactions.

What do animals do during a fire? Insights from the Henderson Creek fire experiment

Managing fire regimes for biodiversity conservation requires an understanding of both the long term effects of fire regimes and the short-term effects of fire events on species and communities. However, many questions remain about the short-term effects of fire on animal populations. For example, how do individuals avoid injury from fire? What role do unburnt patches play in allowing individuals to survive and persist after fire events? Where do species recolonise burnt areas from? In this presentation results are presented from a fire experiment conducted in the Otway Ranges. We followed animal populations before, during and after the burn event and at a nearby unburnt control site. The results provide insight into the ways animals survive and persist after disturbance.



Blazeaid and its role in bushfire recovery

BARRY THOMPSON

BLAZE Aid COORDINATOR

Barry is a coordinator at Blazeaid, a volunteer-based organisation that works with families and individuals in rural Australia after natural disasters such as fires and floods.

As Blazeaid coordinator, Barry has the responsibility for coordinating works and equipment across Australia and has worked in communities after fires, floods and drought. In 2015-2016 he had overall responsibility for all camps across Australia, including the camp that assisted in recovery after the Scotsburn bushfire.

In his role, Barry has had the opportunity to work around the world in project management. He has been a member of the Board of Blazeaid since 2015.

Blazeaid was formed in 2009 following the Black Saturday fires in Kilmore on the property of Kevin and Rhonda Butler. In the time since, Blazeaid has expanded to work across Australia in recovering communities impacted by natural disasters.

This presentation will describe Blazeaid's involvement in the recovery process, and the organisation's unique approach to building community spirit following destructive events such as bushfire. For example, once a disaster occurs and the community requires support how does this happen and who should be involved in the process?

Blazeaid is an amazing on-ground operation that is nimble and offers high levels of support to people who have suffered as well as its volunteers working in challenging conditions. This is highlighted by its Farmers Nights, held on a Saturday during camps, where people who have had a loss or been impacted by fire are invited for a meal to meet the volunteers and enjoy some social time, which is an important part of the healing.



DR PAUL BELTZ

SENIOR VETERINARY OFFICER, SOUTH WEST
AGRICULTURE SERVICES AND BIOSECURITY
OPERATIONS

Dr Beltz is an experienced veterinarian in both private and government roles, working as a veterinarian for almost 25 years. He has expertise in the treatment of burns in animals as an emergency consultant veterinarian and now, as part of Agriculture Victoria, significant experience in assessing and managing livestock and wildlife, before, during and after bushfires.

Animal and wildlife welfare management before, during and after bushfires

Dr Beltz will take you through what information is available for you to prepare your livestock and pets for an emergency situation – and what to do if you are caught out and do not have time!

He will discuss many topics, including:

- The Victorian Emergency Animal Welfare Plan (VEAWP) and how it links the emergency management agencies together to make sure that all animals are looked after as well as possible in the event of a bushfire;
- What you can do to prepare to reduce the risk to your livestock prior to a bushfire;
- How to manage your pets in the event of bushfire warnings; and
- What to expect after a bushfire comes through your property – and how Agriculture Victoria will help.



LOUISE SCOTT

LANCEFIELD RECOVERY MANAGER
WEST CENTRAL RISK LANDSCAPE PLANNER
DELWP

Louise is a Strategic Bushfire Planner and was the Lancefield Recovery Manager. Louise is passionate about improving resilience within communities with a particular interest in wellbeing of emergency managers. She has training in Psychological First Aid, Family Violence after Natural Disasters, is a Peer Supporter and is on DELWP's Diversity and Inclusion Council, and is a participant in the Loddon Murray Community Leadership Program.

Emotions and wellbeing in emergency management – before, during, after

It is no surprise that emergency managers and communities experience a range of emotions when faced with preparing for (before), during, and after emergencies. Hear about some research findings, some current research that is being undertaken, and learn about why we experience these emotions. Recognise what we can do to manage our own wellbeing, and that of our colleagues, families and communities. Find out what services are available to us when things “get too much”, and recognise that there is no shame in talking about either our physical, or mental health. Let’s go away with a better understanding, and some strategies that we can all implement (personally, with our colleagues, and within the sector and our communities) to support wellbeing.



RACHAELE MAY
 ASSISTANT CHIEF FIRE OFFICER
 FOREST FIRE MANAGEMENT VICTORIA

PETER O'KEEFE
 ASSISTANT CHIEF OFFICER, WEST REGION
 CFA

Rachaele May is an Assistant Chief Fire Officer in Forest Fire Management Victoria. She has over 14 years' experience in public land and bushfire management, with policy and operational experience. Living in regional Victoria, Rachaele is passionate about the linkages between communities and their natural environments, and the many services public land provides. She is keen to see better partnerships between government agencies and communities when delivering emergency and public land management programs.

Peter O'Keefe is CFA's Assistant Chief Officer West Region which extends from Bacchus Marsh to the East and the South Australian border to the West. Peter's involvement in CFA has spanned 40 years since joining as a junior volunteer member at Beechworth to the senior leadership position which he holds in the organisation today. Peter's commitment to volunteerism and broad knowledge and experience in the emergency services sector has contributed to the strong working relationships that CFA has developed with other agencies over recent years. Whilst being respectful to the way in which CFA has operated in the past, Peter is a strong advocate for change and innovation in order for us to meet the challenges that lay ahead.

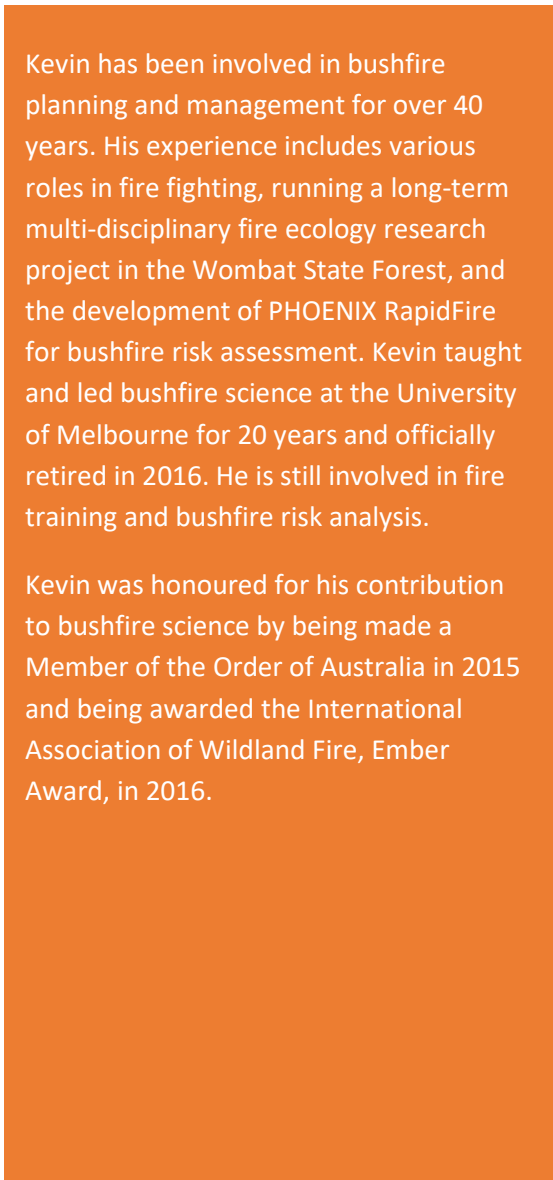
Safer Together:
 agencies and
 communities reducing
 bushfire risk

Fire and emergency agencies need to continually improve how we work together and how we work with the community and our partners in bushfire management. The *Safer Together* program is about further developing this joined-up approach to bushfire management; it makes use of the latest science and technology and combines this with the extensive knowledge of our agencies, and a continued emphasis on shared responsibility with communities, to better manage bushfire risk. Peter and Rachaele will demonstrate how *Safer Together* is the foundation for the way their two agencies are working together - to concentrate efforts on where the greatest gains can be made to reduce bushfire risk to communities and the environment.



DR KEVIN TOLHURST

HONOURY PRINCIPAL FELLOW
UNIVERSITY OF MELBOURNE



Kevin has been involved in bushfire planning and management for over 40 years. His experience includes various roles in fire fighting, running a long-term multi-disciplinary fire ecology research project in the Wombat State Forest, and the development of PHOENIX RapidFire for bushfire risk assessment. Kevin taught and led bushfire science at the University of Melbourne for 20 years and officially retired in 2016. He is still involved in fire training and bushfire risk analysis.

Kevin was honoured for his contribution to bushfire science by being made a Member of the Order of Australia in 2015 and being awarded the International Association of Wildland Fire, Ember Award, in 2016.

Fire behaviour – what we should expect and prepare for

There is a lot of ignorance about bushfire behaviour in the community. Many people believe that bushfires progress across the landscape as a single flaming front, but the reality is much different.

Fires propagate by convective and radiative heat transfer, but also by spotting – the process of burning embers being blown ahead of the fire front and creating an “area of fire” rather than just a simple fire front.

Under mild fire weather and in relatively simple fuels such as grasslands, the role of spotting on fire spread is minimal and can be dealt with relatively simply, but under extreme weather and in more complex fuels, such as is found in shrublands and forests, the “area of fire” can be several kilometres ahead of the main flaming front. Under these conditions, the scale of the fire changes fire behaviour and the propagation process significantly.

Large-scaled fires interact with the atmosphere, the terrain as well as the weather and fuels on the ground. Some examples will be given on how the scale of fire changes with time and across the landscape and what this means for bushfire planning and protection.



KATHY OVERTON

LEARNING NETWORKS FACILITATOR
EAST CENTRAL BUSHFIRE RISK LANDSCAPE
DELWP

MATTHEW CAMPBELL

COMMUNITY DEVELOPMENT OFFICER
NILLUMBIK SHIRE COUNCIL

Kathy Overton has been a practitioner in community education and engagement about bushfire for the past 16 years. In her current position as Learning Network Facilitator with DELWP, Kathy has been working closely with other agencies and local government, particularly Nillumbik Council, to enhance how agencies work together, and with communities, about bushfire management.

Matt Campbell is a Community Development Officer at Nillumbik Shire Council with 15 years local and international community development experience addressing issues from public health to disaster resilience. His practice is characterised by a focus on how dialogue stimulates learning, trust, understanding, and shared responsibility, and currently facilitates The St Andrews Conversations in conjunction with DELWP and community partners as part of Council’s “Nillumbik Odyssey” program.

The St Andrews Conversations

The St Andrews Conversations represent a collaboration between Nillumbik Shire Council and the Department of Environment, Land, Water and Planning, with the support of informal and formal community partners, and emergency management agencies.

For more than twelve months “place-based conversations” in the St Andrews township have been trialled as a vehicle for facilitating sustained behaviour change and fostering collaborative problem solving, planning and action. Conversations are a fundamental way humans build understanding and knowledge, as well as assign meaning to issues and events. Place-based conversations involve a dynamic process of relationship building, problem exploration, action and reflection. The pilot has explored how iterative facilitated place-based dialogue can:

- **Generate understanding**
- **Build social connections**
- **Value different perspectives**
- **Enable learning**
- **Help local values to be integrated** into agency planning and strategy.

The conversations are changing emergency management engagement practice and informing how agencies work together with the people of St Andrews. This presentation discusses how the collaborative pilot was conceived, the importance of process design, and describes the rich relational and learning outcomes that have been achieved within both the community and agencies.



JANE BEVELANDER
LEIGH CATCHMENT GROUP

ANDREA MASON
LEIGH CATCHMENT GROUP

The Leigh Catchment Group is partnering with the Corangamite Catchment Management Management Authority to restore and revegetate the Scotsburn bushfire affected area. The Victorian Government has provided a grant of \$624,000 to assist the group to work with affected landholders in Scotsburn. LCG Chairperson Andrea Mason, said “Our Landcare network is a community based organisation which has delivered natural resource and community projects into the area since 1999. We have the expertise and ongoing commitment to deliver this important project into our community.”

Scotsburn recovery – implementing on ground recovery through Landcare projects

Landcare has played an integral role in supporting properties in the Scotsburn area in their recovery efforts after the fires of last summer. The Corangamite CMA have supported farmers to replace fences, shelterbelts, and riparian vegetation. Landcare has provided support for local school students to plant over 300 trees. Local Landcare Coordinator from the Leigh Catchment Group, Nick McKinley, said “Landcare has provided support to many property owners affected by fire. We have provided help in tangibles such as tree planting and environmental advice, and perhaps more importantly have delivered activities that bring the community together.

The Scotsburn Phoenix Project will deliver a range of programs designed in consultation with the affected landholders, CCMA, local Landcare groups, council, agency and local expertise to provide informative, educational and on ground activities that will help restore and create a more resilient natural environment and community in the fire-affected landscape. Property plans and environmental advice will inform where activities such tree planting, waterway protection, sustainable agriculture and bushland enhancement are best-placed.



Michelle Richards was appointed the Fire Recovery Coordinator for Moorabool and the City of Ballarat in January 2016. During the Scotsburn Fires Michelle was the Recovery Centre Manager for Moorabool, operating from Buninyong until January 2017. Michelle continues to work in partnership with the Community Recovery Committee to implement the \$65,000 of Government funding designated for capacity building programs and events and has recently secured additional funding for the Scotsburn Community Leadership Program. Prior to the Scotsburn Fires Michelle spent 10 years in State and Local Government delivering community, economic and recovery development programs.

Janie Power and her husband Adrian purchased their 50 acre property in Scotsburn in 1995 for their growing family. Since losing their home in the Scotsburn Fires, Janie has become very active in the Scotsburn community, holding a place on the Community Recovery Committee and the Scotsburn Art Project subcommittee. Janie has continuously advocated for the residents in the community for increased support from the State Government and is currently in the process of re-building her home.

Donna Hart and her husband Trevor have lived on their 57 acre property in Clarendon since 2006 and serve on the Committee of Management for the Clarendon Recreation Reserve. Donna is also on the Community Recovery Committee and Scotsburn Art Project Subcommittee. Donna works tirelessly to advocate for the community and has hosted Art Project days and community meetings at her home for residents. Donna and Trevor's property was severely impacted by the Scotsburn Fires where numerous outbuildings and kilometres of fencing were lost.

Murray Arnel, and wife Cheryl bought their 6.5 hectare Clarendon life style property at 23 Nugent Court in 1982 to raise their young family in a peaceful rural environment. In the years since they have become active Clarendon community members, Murray serving the past 30 years as the Committee of Management secretary of the Clarendon Recreation Reserve. Murray is also more broadly known across southern Australia for his 35 years as a livestock markets reporter and rural journalist with the highly regarded Stock & Land newspaper. Murray and Cheryl's property was extensively damaged in the Scotsburn Fires which required almost a total rebuild of their fences, sheds, water tanks and garden areas, and refurbishment and re-wiring of their partially-damaged home.

Scotsburn bushfire experience – from a resident's perspective

Michelle Richards, Fire Recovery Coordinator for Moorabool and the City of Ballarat will give an overview of the event and the community recovery program and events leading on from the Scotsburn Fires in December 2015. Residents Janie Power, Donna Hart and Murray Arnel will talk about the individual planning, impact and recovery from a resident's perspective.



MICHAEL ROWE

CAPTAIN
CAPE CLEAR CFA BRIGADE

Michael joined the Clunes Fire Brigade in 1981 and transferred to Cape Clear in 1989. He is currently 8 years into his second term as Captain. Michael is passionate about the Brigades activities, the welfare of its members and the safety of his community, hence his extensive interest in preventative burning. Michael has learned his skills from the good firefighters he has always had around him forming a fantastic firefighting and fire prevention team.

The art of roadside burning

To successfully live with bushfire we need to work with nature rather than against it. This is what preventative grassland burning does. At Cape Clear we spend 6 days burning the roadsides and we have evidence that this work has stopped a number of wild fires from taking off: fires with enormous potential to cause harm to people, animals, crops and which would undoubtedly have scorched the earth. I feel that it is better practice to spend those 6 days on preventative burning than lose family time and income fighting fires during a poorly planned and ill-prepared fire season.

While doing any kind of burning safety is our main concern. We adhere to all CFA guidelines and municipal permits. We identified the need for a Safe Work Practices Document under the OH&S Act and were the first brigade to work with this for our preventative burning.

I believe that roadside burning is one of the greatest community protection tools rural brigades have at their disposal and I wrote the book *The Art of Roadside Burning* to persuade others that it really is not too difficult; the native grasses that do not burn as easily as introduced species will return and the community will be that much safer.



MARK HOLLAND

SERVICE DELIVERY TEAM LEADER
FIRE AND EMERGENCY MANAGEMENT
CFA

Mark has been with CFA for 13 years, mostly within the Community Safety Department working with the State's bushfire planning and building requirements. Mark holds a Graduate Diploma in *Bushfire Planning & Design* from the University of Western Sydney and has been involved in research into impacts of bushfire on structures on numerous occasions.

Bushfire planning – BAL and building modification

In Victoria development in areas exposed to bushfire are regulated through both the planning and building systems. Areas broadly exposed to fire hazard are identified as *Bushfire Prone* under the *Victorian Building Regulations 2006* with areas of high bushfire hazard also subject to the Bushfire Management Overlay, a control within planning schemes. These controls are important in increasing community resilience and limiting the impact of bushfires.

This presentation will provide a brief explanation of these controls and the minimum requirements which need to be met for development in these areas. While the planning and building systems set the minimum requirements there are measures which can be implemented to further enhance the resilience of new home in bushfire risk areas. These will also be discussed.



Landscape and property management in bushfire prone areas

OWEN GOODING

TEAM LEADER – VEGETATION
MANAGEMENT
CFA

Owen currently leads a state-wide CFA program which provides technical support to CFA fire brigades who are involved in fuel reduction work including planned burning. Prior to this role, Owen provided support to CFA's land use planning program and was a member of the team that created CFA's *Landscape for Bushfire* publication. Throughout his 15 years at CFA, Owen has been involved post incident assessment programs, including the national Black Saturday Task Force, which examines house loss mechanisms in bushfire.

Landscaping and property management in bushfire prone areas

Australian fire services have access to more than 30 years of International and Australian research into house loss mechanisms in bushfires. The research has examined building and building material performance, and the human factors that contribute to property defence and shelter options. There is strong agreement within the research that fuel management within 40 metres of a house has a significant impact on house survival.

After the Black Saturday fire in 2009 CFA embarked on a journey to develop products that would assist landowners to minimise bushfire risk through garden design and management.

A review of plant flammability literature from around the world revealed that the attributes of plant flammability were known. However, it was obvious that reliance of the flammability performance of plants was dangerous and it told only part of the bushfire survival story. Home owners need to consider garden design and maintenance, not just plant selection.

In response, CFA assembled a panel of technical experts from Melbourne and Latrobe universities to develop advice for community which included garden design principles, a plant selection key, and model gardens as examples of designs suitable for different types of bushfire risks. CFA published this work as a booklet and an online resource known as *Landscape for Bushfire*. The presentation today will explain the role of gardens in bushfire house loss and the practical steps residents can take to minimise bushfire risks.



JON ROFE

SENIOR ADVISOR
FOREST FIRE MANAGEMENT VICTORIA
DELWP

Jon Rofe commenced his firefighting career in 1987 on a rappel crew based in Horsham, and has an operational background working in forest and fire management at various locations across Victoria.

Jon has been a Level 3 Incident Controller since 2011, has a background in planned burning, and has been deployed to significant fires across Victoria and overseas in Canada. Jon has also been an Incident Controller at numerous local fires in the Ballarat area including the Chepstowe (2013) and Scotsburn (2015) fires.

The bushfire is now – how are emergencies managed (Command and control structure)

Bushfires are a part of life in Victoria. The management of emergencies such as bushfire is a shared responsibility involving many organisations and people in the community, where we work as one and we all have a role to play.

Victorian emergency response management operates across three tiers – state, region, and incident. This presentation will focus on how an emergency is managed at the incident level on the day of the fire. Topics to be covered will include who is involved, what systems and processes are used, where resources come from, the use of weather information and fire danger ratings by agencies and communities, decision making and information sharing. Discussions will include references to a number of significant fires that have occurred both locally and overseas in recent times.



CHERIE GRAHAM

MUNICIPAL EMERGENCY MANAGER
MOORABOOL SHIRE COUNCIL

Cherie Graham is the Municipal Emergency Manager at Moorabool Shire Council where she has responsibility for the management of Councils emergency management planning, response, recovery and mitigation processes.

Cherie joined Moorabool Shire Council in November 1997 and has held various roles within local government before moving into the Emergency Management area in 2010. Cherie attained her Diploma of Public Safety (Emergency Management) from the Australian Institute of Emergency Management in Mt Macedon in 2013.

Cherie has worked in the response and recovery fields for the 2014 Northern Grampians Complex fires and most recently for the Scotsburn Fires that occurred on 19 December 2015.

Bushfire warning systems – learnings from the Blackwood Evacuation Exercise

A presentation on the objectives set for a planned evacuation of the high risk area of Blackwood, Dales Creek and surrounds in 2012 using Community Warning Sirens, Phone Alerts and different techniques in evacuation of community members. This was to exercise the newly developed Blackwood Evacuation Plan and to engage the community in enacting their own bushfire plans so that they could be tested, trialled and refined.

Emergency Service personnel took part in a sectorised evacuation using door knocks, loud speakers, emergency alerts, etc. and determined what worked, what needed improving and what could be maintained into the future.

Residents evacuated to a local reserve and took part in an Emergency Services Expo at the conclusion.



NEIL CHENEY

REGIONAL EMERGENCY MANAGEMENT
INSPECTOR
VICTORIA POLICE

Inspector Neil Cheney APM is the Regional Emergency Response Co-ordinator for the Grampians Region thereby covering 11 Local Government areas including the Grampians National Park. He was appointed to this role in 2010 as one of the inaugural appointments following the devastating and tragic 2009 Black Saturday fires. He has a wide range of Police operational and administrative experience of over 40 years in crime investigation, traffic law enforcement and for the past seven years, emergency management. His current role specifically involves the co-ordination of multi-agency responses to large scale emergency events, the dissemination of public information during such times and the acquisition and allocation of resources. He also undertakes a direct oversight role in the planning and implementation of evacuations as well as traffic management plans to allow access and egress of both emergency personnel and community members to areas impacted by emergency events. He is responsible at the regional level for the training and exercising of Victoria Police members and other agency partners in evacuation, liaison officer and traffic management planning.

Evacuation procedures and management of human access during a bushfire event

The now nationally recognised five stages of an evacuation require considerable planning, resources and, perhaps most importantly, the commitment of time and personnel by all agencies involved.

These stages are: Decision to recommend evacuation; Warning to community; Evacuation; Shelter; and, Safe Return.

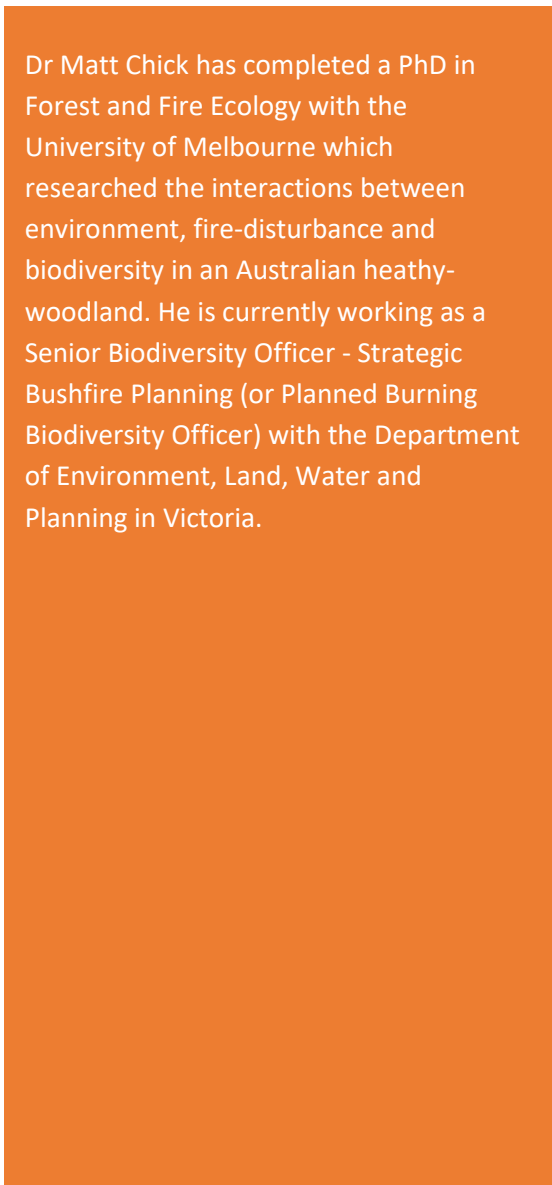
The circumstances of a particular emergency event, such as a fast moving bushfire, may not allow adequate time to plan and scope a full evacuation process. However, the underlying principles remain, and the flexibility necessary to conduct an efficient and safe evacuation should enable all parties to move through the process safely.

As Victoria Police are responsible for the management of all stages of a planned evacuation they are now, in close liaison with the Incident Controller, able to provide properly trained personnel to perform the role of Deputy Incident Controller (Evacuation) during the response to an emergency event. Inherently linked with any such planned evacuation must be the development and deployment of a traffic management plan to ensure the appropriate levels of access to emergency responders, support agency personnel and community members are safely and appropriately managed. A key point of criticism in numerous past events has been the lack of access back to an affected area by community members when inflexible Police manned road blocks have been in place. To reduce these incidents of conflict and confusion all traffic management points are now assessed and graded with a flexible level of access to ensure a timely and safe entry is managed. This process is managed through the relevant incident control centre to ensure all agency partners and the community remain properly informed.



MATT CHICK

SENIOR BIODIVERSITY OFFICER – STRATEGIC
BUSHFIRE PLANNING
DEPARTMENT OF ENVIRONMENT, LAND,
WATER & PLANNING



Dr Matt Chick has completed a PhD in Forest and Fire Ecology with the University of Melbourne which researched the interactions between environment, fire-disturbance and biodiversity in an Australian heathy-woodland. He is currently working as a Senior Biodiversity Officer - Strategic Bushfire Planning (or Planned Burning Biodiversity Officer) with the Department of Environment, Land, Water and Planning in Victoria.

Planned burning and biodiversity

Ecosystem resilience is the capacity of an ecosystem to absorb natural and management-imposed disturbance and retain its basic structure — the composition and function of its species — over time. The ecological risk is that inappropriate fire regimes can have negative impacts on biodiversity and decrease an ecosystem’s resilience. There is significant focus on determining what the most ecologically appropriate planned burning regime is. Forest Fire Management Victoria (FFMV) use three key measures to estimate appropriate regimes in Victoria’s different vegetation types. These are Tolerable Fire Intervals, the Geometric Mean Abundance of species diversity, and Growth-Stage Optimisation. These measures are based on the ecology and fire response of the present species and require constant updating with new information. This presentation will give an overview of these measures and how they are incorporated into ecological risk assessments and planned burning regimes.



DIANA KUCHINKE

PHD CANDIDATE
FEDERATION UNIVERSITY AUSTRALIA

Diana Kuchinke is a PhD candidate at Federation University Australia. Her research investigates responses by the woodland birds of western Victoria to fire interval, fire frequency and prescribed burn severity.

Laughing Kookaburra's message: Not all birds respond positively to post-fire regrowth

The broad community response by woodland birds is an increase in abundance in the dense regrowth vegetation post-fire. There is limited community response to an increase in fire frequency, based on one or two bushfires (since the 1970's) and prescribed burns applied to the landscape. One species however, the Laughing Kookaburra, does not respond in this manner. This research suggests that not only does occurrence drop in the dense regrowth vegetation but that the Laughing Kookaburra may also be avoiding all burn sites, preferring the older, more open vegetation stands.

Barrett et al., (2003) noted that there was no change in Laughing Kookaburra abundances from the 1977-81 atlas to the 1998-2002 atlas however, in the current State of Australia's Birds Report (2015), they are in major decline. Little more than a decade has passed, and the reality is that one of Australia's most iconic wildlife species is threatened due to processes from 'synergistic wicked problems'. One of the factors impacting the Laughing Kookaburra may be a rapidly changing fire regime.



GREG HORROCKS

RESEARCH FELLOW
FEDERATION UNIVERSITY AUSTRALIA

After completing a BSc at Melbourne University, Greg has been involved in wildlife research for over 35 years with conservation agencies including Parks Victoria, Zoological Board and DELWP in all its recent incarnations. After working on floodplain and box Ironbark forest vertebrates for several years at Monash University he is currently an Honorary Research Fellow at Federation University focussed on wildlife ecology and entomology.

Greg acknowledges his co-workers in this research, Geoff Brown and Ben Fansom from the Arthur Rylah Institute, DELWP.

From little things, big things known: Ants as management tools for Pink-tailed Worm-lizard

The Pink-tailed Worm-Lizard *Aprasia parapulchella* is a threatened fossorial pygopid lizard patchily distributed in suitable woodland and grassland environments. The lizard is highly sensitive to environmental changes and its reliance on ants as its only food resource intensifies its vulnerability. In Victoria it only occurs in the Bendigo area.

This study investigated the effect of prescribed burns on ants and by association lizard populations. Active and passive ant surveys were carried out at each of the 47 sites established within the park. Both burn treatment and control sites were sampled pre-fire and at various stages post-fire (1 month, 1 year, and 2 year) over two years. All sites showed similar patterns in both ant species richness and abundance. Ants showed some resilience to low-intensity disturbance from fire and after the initial positive response in abundance, the pattern of ant diversity in the study area appears to return to pre-fire levels. Indications are that low-intensity burning has little effect on ant communities over time, at least in the short-term, and may have a limited impact long-term.



STEVE PASCOE

EMERGENCY MANAGEMENT
VICTORIA

Steve Pascoe has been working in community based emergency planning for over 20 years, as a Community Fireguard Facilitator with CFA, Emergency Management Coordinator with Knox City Council, and most recently as Project Coordinator of the Dandenong Ranges Bushfire Landscape Project for Emergency Management Victoria. In 2009 Steve's property and his community of Strathewen were devastated by the Black Saturday bushfires and Steve continues to play a leadership role in planning and managing the recovery of the Strathewen community.

Community based fuel management planning – an example of successful collaboration in Kalorama and Monbulk

In the Dandenong Ranges bushfire catchment, 40% of the bushfire threat to communities comes from public land, 60% from privately owned land. While there are good resources, knowledge and methodologies available for planning and implementing bushfire fuel management on public land, very little is available for managing bushfire fuel on private land. Research indicates that undertaking bushfire fuel management close to townships and settlements is not only more effective at reducing risk, but also has significantly lower costs than undertaking fuel management in the broader landscape.

Planning and implementing tenure-blind fuel management for the protection of townships and settlements provides opportunities for enhancing sheltering options in 'safer centres', reduces the impact on houses, protects community infrastructure such as shops, schools and meeting places, and ensures that these critical resources are available to support the recovery of fire impacted communities.

A Working Group consisting of community representatives, local government, and fire and land management agencies, developed a set of draft guidelines for cross tenure fuel management, which was then tested in four locations through *Phoenix rapidfire* modelling. Based on the positive indications of this modelling, the draft guidelines were trialled in the townships of Monbulk and Kalorama. Through this testing a collaborative methodology was developed for planning and implementing fuel management for the protection of towns and settlements. This collaborative process built new, positive and respectful relationships between fire and land management agencies, local government, and the communities they serve.

Not only did this process deliver tenure blind fuel management plans for the two towns and built strong collaborative relationships, it also demonstrated the application of 'shared responsibility'. Rather than being about the sharing of blame, this process demonstrated 'shared responsibility' as being about the sharing of information, the sharing of resources and the sharing of power.



LANCE KING

CO-ORDINATOR EMERGENCY MANAGEMENT
LATROBE CITY COUNCIL

Lance has lived in the Latrobe Valley most of his life where he has been involved in a range of community activities which he continues to this day. Lance's current community volunteer roles include:

- Deputy Chairperson for the Yallourn North Hall and Recreation Reserve Committee
- Chairperson for the Yallourn North Community Housing Committee
- CFA member at Yallourn North
- Volunteer Fire Brigades Victoria District 27 President

Lance is a Life Member of the CFA and has received the National Medal with two Bars, Gold Star award and the Australian Fire Service Medal

Community Bushfire Connection

The **Community Bushfire Connection** program is all about what people do before, during and after a bushfire, either individually on their property, collectively in their township or as an organisation involved in emergency management. Our committee is committed to engaging with our communities to facilitate greater community awareness about bushfires and bushfire planning at an individual level. The Community Bushfire Connection program will deliver three community-based, bushfire-related events across Latrobe Valley communities in the near future.

The Community Bushfire Connection program is an initiative that grew from the two Latrobe Valley conferences titled Living with Bushfire. In November 2016 the Living with Bushfire Conference won a State Fire Awareness Award, this recognised not only the conferences held in the Latrobe Valley in 2014 and 2015 but also the event in Lilydale in 2016. Following the 2017 conference in Ballarat, it will return to Churchill in 2018.



JENNIE SCHOOF

EMERGENCY MANAGEMENT COORDINATOR
YARRA RANGES, KNOX, MAROONDAH COUNCILS

ANGE WRIGHT

YARRA RANGES COUNCIL

Jennie has been working in the emergency management sector in both Queensland and Victoria for approximately 10 years. She has also been a volunteer with SES, CFA, Australian Red Cross, ShelterBox Australia and VMR Qld. In 2013 Jennie was awarded the Commissioners Qld Fire and Emergency Services Commendation under the category of Closing the Gap for the project 'Don't Let Thursday Island Burn'. She was also awarded with the Paul Harris Fellow International Award; for tangible and significant assistance given for the furtherance of better understanding and friendly relations among people of the world for her work in disaster education and indigenous literacy projects.

Ange is an emergency management practitioner at Yarra Ranges Council, working in conjunction with community, government, agencies and business. In 2016 Ange coordinated the Living with Bushfire Community Conference for the Yarra Ranges Municipal Fire Management Planning Committee. She recently coordinated the inaugural regional Community Disaster Resilience Forum for the Eastern Metro Councils partnership. Ange works extensively with Community Based Emergency Management groups across the municipality, managing projects and initiatives to build disaster resilience and community capacity for recovery. She has expertise in building strong networks and working relationships, managing projects and engaging with community.

WORKSHOP

Lets Get Ready – youth leadership disaster education project

The Let's Get Ready [LGR] project is a strategy to engage youth in disaster education and recognises the valuable contribution they make as young leaders in their communities. LGR project is a cluster council project with Yarra Ranges, Maroondah and Knox City councils in partnership with project partners. This project will be delivered across the three councils schools during the next three years. The [LGR] project will have three goals:

1. Empowering youth to become leaders in community safety/disaster preparedness with their peers, families, communities and school
2. Partnership delivery with emergency service stakeholders that place a high priority on youth engagement in the delivery of [LGR] and
3. Encouraging collaborative delivery amongst emergency services, schools, families and communities.

While youth may face particular vulnerabilities during a disaster, they also have unique abilities to be leaders within their families, schools and communities.

LGR project partners include: CFA, MFB, DELWP, SES, Life Saving Victoria, Australian Institute for Disaster Resilience, Victoria Police Service and Save the Children.

RMIT will be undertaking research based on participatory action for the duration of the project for all phases.

Join us today for a journey of discovery of the LGR project where you will learn and get to participate.



PHILLIP BRIEN

BUSHFIRE RISK ANALYST WEST CENTRAL RISK
LANDSCAPE
DELWP

LOUISE SCOTT

LANCEFIELD RECOVERY MANAGER
DELWP

Phillip Brien is the Bushfire Risk Analyst for West Central Victoria. He graduated from the University of Sydney with a Master of Environmental Science in 2013, specialising in both ecology and social sciences. Phillip draws upon this dichotomy of philosophies to underpin his work in strategic fire planning. With operational experience across western Victoria, his grounding in fire behaviour, computer and statistical analysis' have quickly made him a respected fire behaviour expert.

Louise is a Strategic Bushfire Planner and was the Lancefield Recovery Manager. Louise is passionate about improving resilience within communities with a particular interest in wellbeing of emergency managers. She has training in Psychological First Aid, Family Violence after Natural Disasters, is a Peer Supporter and is on DELWP's Diversity and Inclusion Council, and is a participant in the Loddon Murray Community Leadership Program.

WORKSHOP

Social risk factors: exploring demographic drivers of bushfire resilience

This workshop aims to challenge the conventional thinking of what bushfire risk really is. Together we will discuss the less publicised drivers of risk such as human psychology and preparedness, education, income, and age.

We will explore how social demographics can drive a community's resilience/vulnerability before, during, or after a fire event. We identify these new concerns for fire management authorities, and discuss how to use this information to keep you safe.

From this workshop, we hope to develop some general principles around how community and agency members think we should analyse, evaluate and incorporate demography into fire planning; with the aim of informing long term strategic bushfire management plans.



REINHARD POHL

COMMUNITY LIAISON – BUSHFIRE
 ENGAGEMENT FACILITATOR
 COUNTRY FIRE AUTHORITY

Reinhard Pohl has been a casual Community Liaison - Bushfire Engagement facilitator for CFA since 2011, presenting bushfire safety information at community meetings. He is also an active CFA volunteer firefighter.

WORKSHOP

Bushfire Scenario Hypothetical

This is a workshop utilising a realistic bushfire scenario that gives participants an opportunity to reflect on their bushfire preparedness and response arrangements, and learn about bushfire behaviour and the manner in which people affected by bushfire may respond.

This fire scenario has been carefully prepared to demonstrate what might happen during a bushfire event. The scenario utilises fire knowledge to accurately predict fire behaviour and fire spread.

The scenario is presented as a 'hypothetical'. The participants are given roles and locations in the path of a threatening bushfire and asked to respond to the scenario according to their role.

Mt Helen Campus, Ballarat | Map



NOT TO SCALE

Legend

- | | | |
|---|----------------------------|--|
| Buildings | Flagpoles | For security assistance call 5327 6333 |
| Roads | Bike Parking | For disability access assistance call 5327 9470 |
| Car Park Number
(Restrictions may apply) | Bus Stop | For Mobility Access Map refer Page 3 |
| Disability Car Spaces | Parents Room | All Federation University Australia Campuses
are Smoke-free |
| Pathway/Route | Health Centre | |
| Disability Access Toilet (Level) | Food and Drink | |
| Lift | Designated Assembly Point | |
| Entry Point | Prayer Room/Place of Peace | |
| | Muslim Prayer Room | |

Mt Helen Campus, Ballarat | Mobility Access Map



Legend

- Buildings
- Roads
- Car Park Number (Restrictions may apply)
- Disability Car Spaces
- Accessible Pathway/Route
- L1 Accessible Pathway/Route
- Disability Access Toilet (Level)
- Lift
- Parents Room
- Health Centre
- Food and Drink
- Bus Stop
- Prayer Room/Place of Peace
- Muslim Prayer Room

For security assistance call 5327 6333

For access assistance call 5327 9470 or email disability@federation.edu.au

Accessible routes do not contain any stairs, however some gradients may not be suitable for some users.

The most up to date version of this map is located at federation.edu.au/maps



6 - 7
OCTOBER
2017



Living with bushfire

COMMUNITY CONFERENCE 2017

'Working together for a safer future'

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