



Victorian
Farmers
Federation

IGEM – 2019-20 Fire Season

Submission on behalf of the Victorian
Farmers Federation

Victorian Farmers Federation

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About the Victorian Farmers Federation

The Victorian Farmers Federation (VFF) is the only recognised consistent voice on issues affecting rural Victoria and we welcome the opportunity to provide IGEM our reflections on how outcomes for agriculture can be improved from reviewing learnings from the 2019-20 fire season.

Victoria is home to 25 per cent of the nation's farms. They attract neither government export subsidies nor tariff support. Despite farming on only three per cent of Australia's available agricultural land, Victorians produce 30 per cent of the nation's agricultural product. The VFF represents the interests of our state's dairy, livestock, grains, horticulture, flowers, chicken meat, pigs and egg producers.

The VFF consists of a nine person Board of Directors, with seven elected members and two appointed directors, a member representative General Council to set policy and eight commodity groups representing dairy, grains, livestock, horticulture, chicken meat, pigs, flowers and egg industries.

Farmers are elected by their peers to direct each of the commodity groups and are supported by Melbourne-based and regionally located staff.

Each VFF member is represented locally by one of the 200 VFF branches across the state and through their commodity representatives at local, district, state and national levels. The VFF also represents farmers' views on hundreds of industry and government forums.

A handwritten signature in black ink, appearing to read "David Jochinke", with a long horizontal flourish extending to the right.

David Jochinke
President

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Executive Summary

Emergency Management is fragmented – across jurisdictions and within jurisdictions. Each agency has its own priorities, and despite progress in terminology and procedures there has been little progress on understanding agriculture within the ‘economic environment’.

The issues raised in this submission is focused on agriculture, and that the economic environment is just as important a consideration for emergency management that all other considerations. There are a plethora of relatively simple opportunities to ensure emergency managers understand agriculture and local economies, have the information available to consider management options impacts on a range of issues, including the economy, as well as ensuring that economic costs of fires are reported on by fire management agencies and that the methodology underpinning this reporting is robust.

The 2019-20 fire season had a devastating direct impact on farming businesses in the North East, Alpine, Gippsland and South West areas of Victoria, compounding the impacts of a prolonged drought. The whole Victorian rural and farming communities were directly impacted through volunteer activities which took them away from their own businesses – such as involvement in fire suppression through to donation and transport of fodder and other essential supplies.

In this and previous fire seasons our members have raised concerns regarding increasing regulatory barriers to the management of roadside fuels. Previous inquiries and post fire reports have raised the importance of roads as breaks, as well as the increased risk to life from dangerous trees blocking roads in fires.

A review of changes and barriers to maintaining safe fence lines and roadsides clear of dangerous trees and dropping branches should be undertaken as an urgent priority, including recommendations to the Minister for Planning about necessary changes to the native vegetation regulation exemptions to ensure the primacy of life and a tenure blind set of exemptions for removal of vegetation that creates hazards / risk to life and property.

This submission provides indications of the level of impact on Victorian communities and focuses on a case study in the South West to demonstrate failings and opportunities in how emergency management systems operate in relation to the State Emergency Management Priorities.

Victorian Farmers Federation recommendations

- That the Emergency Management Manual Victoria (EMMV) be updated to:
 - include references to agriculture and farming in relation to considerations of life and property;
 - ensure all roles outlined in reference documents are reflected in the manual;
 - identify roles and responsibilities for issues relating to agriculture from ensuring the State Control Centre layers reflect, at a minimum, the main commodities produced in areas and the ability to contact landholders in an emergency to who is responsible for assisting landholders in the recovery of missing livestock when fences have been removed;
 - provide clear guidance to principles guiding the funding and operation of recovery programs such as the fodder drive; and
 - require written consent of the landholder (including by email or text) before management actions occur on private land;
 - encourage the creation and lodgement of strategic land access agreements which give consent for access subject to certain requirements.

- That the Victorian Animal Emergency Management Plan be reviewed and updated with input from Agriculture Victoria, Victoria Police and Victorian Farmers Federation.
- That a working group be established with membership from fire incident control agencies, Emergency Management Victoria, Bushfire Recovery Victoria, The Victorian Farmers Federation, the Municipal Association of Victoria, Victoria Police and Agriculture Victoria to work towards incorporating the issues outlined in Procedural lessons – from the Budj Bim Fire and Procedural opportunities – VFF 3 phase approach. This group should meet prior to each fire season to identify gaps and opportunities in preparation for the coming season and post each fire season to identify areas for improvement.
- That the impact of the native vegetation regulations on the management of roadside fuels, and the functioning of roadsides as mineral earth breaks be reviewed.ⁱ
- That asset protection zones be applied to farm land adjacent to any crown land area of 10 hectares or greater.
- That policies and procedures be developed to ensure fuel load be management plans be created, implemented and maintained for all asset protection areas to ensure defensible space to dwellings and the ability to stage operations to protect life and property on private land, including livestock and fences, from impact from grassfire, bushfire and fire suppression and control activities.
- That Agriculture Victoria investigate opportunities to store genetic material to assist in recovery processes, adapting the ‘Victorian Collections’ model post 2009 fires.

VFF Recommendations to Government for Bushfire Management – 2014 Bushfire Policy

The following is the current Bushfire Policy of the Victorian Farmers Federation in their entirety. More recent work has focused on how the understanding of ‘property’ in relation to agriculture underpins a majority of the issues within this position – in terms of operational understandings, knowledge gaps, and accountability for outcomes / impacts.

1. Preparation – Before

a. State emergency management agencies recognise and engage suitably equipped local CFA resources, owners of private firefighting equipment and volunteers in fuel load reduction on public and private land.

b. Emergency management agencies ensure that sufficient resources are focused on a hands-on operational approach which engages with local communities to prepare for and respond to bushfires.

c. Victorian Police improve training of staff on Traffic Management Points to undertake a range of functions as part of a bushfire emergency including a better understanding of animal welfare aid requirements.

d. The State establishes and funds a framework of Community Reference Groups to engage with community leaders. Community Reference Groups would enable improved local engagement on fire operational plans and fire management plans. The structure of reference groups should be established at State, regional and township level and should deliver actions in earnest.

e. The State amend its Guidelines for Traffic Management Points (Emergence Response Only – A Status) to permit access by farmers to their land. The VFF encourage its members to have private firefighting equipment certified by the CFA for improved access during bushfires.

f. The Guidelines for Traffic Management Points should provide farmers authorised access to a property beyond the Traffic Management Point in cases where the Traffic Management Point is located at a significant distance from the fire risk for the purpose of detouring traffic but unintentionally preventing reasonable access for landowners.

g. The Commonwealth and State expand vegetation removal planning provision exemptions to reduce fuel loads and create fire breaks. There should be clearly defined exemptions that apply state-wide for fuel reduction on private and public land. The distance from a fence that can be removed without a planning permit should be 10 metres or the height of the largest tree plus 1 metre, whichever is greater (as per VFF policy).

h. Local governments use a standardised process for issuing permits to clear and burn for farming related needs. Standardised permit conditions should be made to reduce inconsistencies between local governments and CFA.

i. The State establish a strategy to better provide sufficient fire breaks and containment lines within public parks and around public land to improve fire suppression and prevent private land being unnecessarily damaged during a bushfire event.

j. The State Government prioritises roadside fuel reduction. Streamline approval process and red tape for agencies with fire management obligations. Engage local landholders to identify roadside areas requiring fuel reduction.

k. Improve ease of contracting local landholders equipped to assist agencies in fuel reduction actions. Local governments should work with farmers to consult on standard provisions for farmers to be engaged to clear vegetation along roadsides.

l. The State maintains its commitment to an annual rolling target of 5% of public land for its prescribed burning as per Royal Commission recommendations.

m. The State should set up a public campaign aimed at improving awareness of landowners' rights and responsibilities in accessing land blocked by a Traffic Management Point.

n. The State should continuously improve communication methods between emergency response agencies and private parties. Given the number of public and private parties involved in bushfire response, there should be strategies to avoid breakdowns in communication between emergency agencies.

o. State Government implement improvements to electricity supply to reduce bushfire risk, such as the replacement of Single Wire Earth Return lines with three-phase power.

p. Government invest in a campaign around surveying for arsonists on days of high bushfire risk.

2. Response - During

a. The State invest in communication technologies to ensure there is capacity for real time and accessible public information to show bushfire risk and location.

b. The State introduce a resource responsible for updating website information (CFA, VicRoads or EMV) showing location and status of Traffic Management Points, bushfire conditions, evacuation routes and community shelters. This information should be a single online source that the public and the ABC radio can use to provide accurate and real-time information back to the community on fire advice and road closures.

c. The State develop a strategy to collect relevant real-time information from on-ground sources where appropriate: there could be a contact point collating the information, passing the information to a reliable medium and the information would be obtained effectively and from an onsite party.

d. The State should require telecommunication providers to monitor their infrastructure and maintain active service to rural communities during high risk bushfire periods.

e. The State should establish a program of continuous improvement to mobile communications and cellular network capacity each bushfire season.

f. The State should reduce deployment time of aerial firefighting aircraft for fire spotting purposes. Policy should ensure that arrival is timely to attack the head of the fire. Engaging resources before dawn for fire spotting following a storm event is considered likely to be highly successful in terms of tackling a fire before a wind change or change in weather conditions.

g. The State should improve staffing arrangements and policies around Traffic Management Points to reduce delays to provide essential access to livestock. There should be a dedicated traffic management point decision maker with local knowledge in the Incident Control Centre to expedite authorised access to farmers, DEPI and Vets. There should be priority access to farmers to care for and provide first aid to livestock, particularly if there is a delay in Department of Environment and Primary Industries animal health staff arriving.

h. The State Government should reduce the bureaucracy of authorising access past a Traffic Management Point during a bushfire. A TMP attendee or a single person at the Incident Control Centre should have power to approve access, subject to conditions, past a Traffic Management Point without delay when warranted regardless of the status of TMP.

i. The State should develop a strategy to coordinate authorised access provisions for Vets / milk trucks and fodder / water delivery to access without delay past a Traffic Management Point.

j. The State and local government increase resourcing of Access Safety Assessment Teams and arborists to reduce road reopening delays. The list should be shared for both State and municipal road reopening assessments.

3. Recovery - After

a. The State amend policies to provide expedited access for local Vets, DEPI and animal health staff to assist farmers to care for livestock and animals affected by the fires.

b. The State should pay the full cost of fire control line rehabilitation where a control line was established by government agencies.

c. Consistent with planned burns on public land escaping onto private land, the Government pay the cost of asset restoration resulting from damage caused during fire suppression back-burns undertaken by the fire agencies during a bushfire emergency.

d. The State, working with the VFF, publish a set of rehabilitation standards for reinstating land, fencing and other assets with targeted timeframes to assist in working with private landholders.

e. The State should share the burden of cost in replacing boundary fencing, public and private landowners on adjoining properties should be treated equally in terms of paying for fencing under the Fencing Act 1968, particularly after the devastation of a bushfire event.

f. The State Government prioritise the return of electricity to farming enterprises where animal welfare and production systems depend on the supply of power.

Background to VFF interests in emergency management and fire

The VFF is the peak body representing over a hundred years of advocacy for Victorian farming communities. Our membership base have a long history of involvement in a range of volunteer groups who have involvement in emergency management including the CFA, SES, Red Cross and CWA.

The VFF has a recognised role in the Emergency Management Manual Victorian (EMMV) but believes that the emergency management system could be improved to better understand how to avoid and minimise the impact of fire and other emergencies on rural communities and food and fibre production. There is a critical need to improve the range and timeliness of programs to support the sector post fires. This includes clear lines of responsibility within the EMMV and agency operational guidelines and improvements to the fodder program.

Understanding of Property

For the past three years the VFF has been promoting discussion of 'property' in the context of Victorian emergency management priorities and promoting better understanding of each agencies role in relation to all four aspects of 'property' at prevention, response and recovery phases of emergencies.

The VFF believes that no key responding agency has a full understanding of agriculture and how they can best ensure their management procedures and protocols are delivering the on the ground outcomes envisaged in our emergency management priorities.

Previous letters and submissions are provided to show how these issues have been raised with the sector previously, and a case study based on the Budj Bim fire will show how better consideration of these processes in agency operations and protocols could have avoided significant impact on agricultural businesses. This case study will also be utilised to demonstrate how procedures and protocols could be developed to avoid / minimise similar outcomes occurring in the future.

Terms of Reference

The elements of the terms of reference that the submission will focus on are highlighted by italics on in the terms of reference below.

In regards to Phase 2 of the review the VFF would like an opportunity to discuss how to progress better considerations of economic matters across all emergency bodies and within the operations of both EMV and Bushfire Recovery Victoria.

Initially this submission will discuss this seasons Budj Bim fires and the insights this case study gives in how the emergency management system operated in a smaller fire that was not a state of emergency / disaster and where there were opportunities to follow operational procedures and factor in a wider range of considerations in incident management decisions. It is the level event where you get the clearest insight into 'normal operations' rather than outlier events.

Phase 1 - Community and sector preparedness for and response to the 2019-20 summer season Matters for consideration:

- *Effectiveness of emergency management command and control and accountability arrangements in Victoria.*
- *Effectiveness of Victoria's operational response to the 2019-20 fire season.*
- Review of the effectiveness of the declaration of a state of disaster under the *Emergency Management Act 1986* – including the appropriateness of supporting legislative and administrative processes, communication, and community compliance.
- *State evacuation planning and preparedness processes/practices and their effectiveness with an emphasis on remote/isolated communities and Victorian peak holiday season locations.*
- The timeliness and effectiveness of activation of Commonwealth assistance, and Commonwealth resource availability
- *Preparedness ahead of the 2019-20 fire season; including the effectiveness of regional emergency management work undertaken to inform and educate the community about the coming season, community engagement, impact of lengthening fire seasons, and any relevant legislation, policy and practice.*
- *Consider all challenges and implications for bushfire preparedness arising from increasingly longer and more severe bushfire seasons as a result of climate change.*
- *In the context of bushfire preparedness, assess the readiness and responsibilities of statutory agencies, Local Government and State Government bodies.*
- *Review of all opportunities and approaches to bushfire preparedness, including different methods of fuel and land management (for example 'cool burning', mechanical slashing, integrated forest management, traditional fire approaches) to protect life and property as well as ecological and cultural values.*
- Consideration of the effectiveness of Victoria's Code Red day arrangements and their application in practice.
- In considering effectiveness of Victoria's operational response to the 2019-20 fire season, IGEM should particularly consider:
 - *effectiveness of the State's response priorities, including primacy of life*
 - effectiveness of public information and warning systems, including cross-border coordination and communication
 - *impact of increasingly longer fire seasons on the ability to prepare, deploy and sustain efforts directed towards emergency events in Victoria*
 - impact of providing Victorian responder officers to other Australian jurisdictions to assist with emergency events (as early as September 2019 this summer season)
 - *availability and utilisation of private assets and resources (including plant equipment) to support emergency preparedness and response*
 - *planning and response mechanisms to protect biodiversity threatened by bushfire*

- effectiveness of the existing workforce model to support response, relief and recovery.
- Review support available to staff and volunteers in terms of mental health and wellbeing.
- *Consideration of the adequacy of existing administrative and funding mechanisms in place at a state level to support the operational response efforts.*
- In considering the timeliness and effectiveness of activation of Commonwealth assistance, and Commonwealth resource availability, IGEM should particularly consider:
 - effectiveness of current national resource sharing arrangements when multiple and simultaneous fire events are occurring
 - effectiveness of existing governance arrangements supporting access to Commonwealth and State air fleets
 - use and integration of Australian Defence Force assets into Victoria's emergency response and relief operations.

Phase 2 – Progress and effectiveness of Victoria's immediate relief, and recovery arrangements concerning the 2019-20 fire season

Matters for consideration:

- Effectiveness of immediate relief and recovery work and arrangements, including at the regional and incident levels.
- *Creation of Bushfire Recovery Victoria, the National Bushfire Recovery Agency and how these entities will work together for the benefit of affected Victorian communities, including consideration of long term efforts directed at social, economic (including small business, tourism and agricultural sectors) and environmental recovery.*
- *Effectiveness of how roles and responsibilities for recovery have been divided between Emergency Management Victoria and Bushfire Recovery Victoria.*

Case Study – Budj Bim fires

The Budj Bim fire was a relatively small fire occurring over the Christmas – New Year period. It was an event of a scale and rate of spread that one would expect textbook compliance with legislative and procedural processes. The failures identified in managing the response to the fire and its impacts on adjoining properties align with the issues VFF has discussed with management agencies post previous fire seasons. This case study demonstrates how ensuring agencies understand why these procedures and protocols are in place, and have a greater understanding of balancing all aspects of ‘life and property’ could have avoided significant impact on agricultural businesses. This case study will also be utilised to demonstrate how procedures and protocols could be developed to avoid / minimise similar outcomes occurring in the future.

Although the VFF was not involved in the preparation of the August 2019 Victorian Inspector General Emergency Management Report - Impact assessment and consequence managementⁱⁱ the VFF has been advocating with emergency management agencies for a more holistic response to ‘property’ as defined in the State Emergency Management Priorities. As the VFF is a key landholder representative, and recognised in the EMMV in relation to fodder / recovery, the VFF is keen to work with IGEM and all emergency management agencies to better understand the economic environment.

The Budj Bim case study is a good example of how systemic information gaps in relation to the economic environment can lead to perverse outcomes. The learning from the case study are particularly relevant to the issues raised in the summary of the report outlined below.

Impact assessment and consequence management are two discrete but related initiatives in Victorian emergency management.

Both initiatives are concerned with understanding the implications of the emergency for the community.

This review explores current arrangements for impact assessment and consequence management in the emergency management sector, and opportunities for improved emergency planning, response and recovery through efficient and leading practice.

In the context of Class 1 and 2 emergencies, the review of impact assessment and consequence management examines:

- *the three forms of impact assessment undertaken in Victoria: initial impact assessment, secondary impact assessment, and post-emergency needs assessment*
- *the consequence management approach used to identify, communicate and minimise the potential adverse consequences of an emergency*
- *the role and value of local knowledge in both impact assessment and consequence management*
- *activities and direct implications of impact assessment and consequence management at the preparedness, response and recovery phases of emergency management.*

In reviewing these two initiatives together, IGEM identified opportunities for improved integration of impact assessment and consequence management to drive continuous improvement across the sector.

The VFF is presenting this case to illustrate the policy and property issues raised by VFF with the emergency management sector since 2014. We do not want individuals or teams scrutinised beyond constructive considerations of how these issues could be avoided in future. Since the onsite meeting of 28 January, 2020 the local DELWP Heywood staff have made efforts to address the issues on landholders and have sought to keep up regular discussions with VFF.

Identifying risk with land managers prior to the fire season

In the winter of 2019, a member of the VFF contacted VFF regarding his concerns regarding the lack of fuel load management at Budj Bim National Park. The members family had farmed to the south of Mount Eccles National Park / Budj Bim for generations. Traditionally the crown land managers had maintained a 15 to 20 metre mineral earth break on the park side of their boundary.

In the more recent era Parks Victoria had failed to maintain a barrier and vegetation had encroached the fence line and was regularly dropping limbs (risk to life) or was run through by kangaroos so that the neighbour was unable to maintain their fence line.

The neighbour had contacted council to remove some vegetation to maintain a break and allow safe maintenance of his fence line. Council initially said no permit would be required for these works however when confirmation was sought in writing the crown land manager undertook a site inspection and refused consent, and suggested that the landholder move the fence-line 100 feet into his property. No action was taken to manage the litter and ladder fuels in the park which was considered a fire risk by the neighbouring private property. It should be noted that dozens of trees failed the dangerous tree test during and post the incident and were removed.

Concerns regarding the stance of the crown land manager was raised by VFF at DELWP Regional Directors in November 2019 in regards to both the fuel loads and the safety of the landholder in regard to maintaining their fence line.

For the assistance of the Commission, a planning permit is required to remove native vegetation, including lopping. Despite a fence line exemption, often this only applied to the 'minimum extent necessary' and a maximum of 1m to crown land – with the crown land manager often refusing consent. The Crown is not responsible for maintaining the fence and response to referrals do not include a risk assessment to life and property. These issues were raised in the 2009 Royal Commission and in the VFF Policy, but not addressed in the 2017 revision of the Native Vegetation Provisions.

Incident issues

In late December 2019 a fire started in Budj Bim National Park. The two landholders to the south of the park, a angus beef stud and a mixed livestock operation implemented a 'watch and act' position. The landholder with sheep herded the flock and kept them in the yards for several days as no clear information was being given by the Incident Controllers to neighbouring properties. Due to the heat and smoke the sheep were stressed and losing condition. A decision had to be made to take a large number of stock to sale – at a significant loss due to the loss of condition of the flock.

After several days fire control agencies entered both properties without contacting the landholders or seeking their permission. Two control lines were dozed across both properties, taking out

internal and external fences, at several points within metres of gates which could have been utilised. As the owners were not contacted and not given the option to discuss how control could be gained with minimal impact on their properties there was significant impact from this action on farm operations. Two separate angus bloodlines were mixed on one property and on both properties stock were no longer contained on the site and began to wander to look for water.

Management vehicles were accessing the property at regular times, spooking livestock and driving them into the National Park. A decision was then made, again without discussion or consent of the landholders, to backburn from the dozer lines into the park, which destroyed 7km of boundary fencing and led to the loss of a majority of stock on the properties.

Initial issues post control actions

When the fire appeared on VicEmergency the VFF contacted our member who had previously raised his concerns regarding the fire risk within the park and lack of action by the crown to respond to landholder concerns. Early in the New Year concern regarding the unauthorised activities on the properties and the loss of fencing and livestock was raised via email with DELWP, with a request for rectification of the issue.

After several emails to DELWP without response an email was received stating a belief that there was no need for DELWP to undertake any rectification. There was mention that Agriculture Victoria had been on site and there was no missing stock in their report.

As the VFF had images of the damage and the issues and previously raised the fire risk in the area the VFF again contacted the Regional Director and Forest Fire Management Victoria (FFMV) requesting a site meeting to demonstrate the impact on these properties. A site meeting was booked on 28 January, nearly a month after the initial reports of property impacts to DELWP by the VFF. Two FFMV staff members met with a VFF staff member and the 2 impacted farmers to the south of the site.

When arriving on site FFMV staff verbally apologised for undertaking the action without seeking landholder consent and acknowledged that it was required. FFMV explained that they believed that the owners had been contacted but did not have any processes to require evidence that consent had been or whether any 'land access' consent issues were identified in giving consent. They subsequently agreed that having a better understanding of the farm operations via a discussion of options could have reduced the impact on the properties.

During the tour of the properties the FFMV staff saw that all external fences between the farm land to the south and Budj Bim National Park had been damaged by control actions. The site inspection was the first time they acknowledged that there was livestock on both sites despite FFMV staff being on the site for 4 weeks by that point and the reports of the VFF. Sheep within the Park were pointed to FFMV and for the first time they requested an aerial search for missing stock. This should have been commenced 4 weeks earlier when first reported.

One landholder told FFMV that his rare bloodline angus cattle had travelled through the park to a bluegum plantation north of the park. It was pointed out that it was critical for him to have fence lines to be able to reclaim his stock and would need assistance to gain lawful access to the property back to reclaim his stock. As none of these issues had been included in the impact assessment by Agriculture Victoria there was a commitment given to redo the recovery assessment process as it

had not identified the loss of stock and impact of fencing loss on next years breeding program for both properties.

Actions post meeting

As of 14 April, 2020 temporary fencing has been completed at the sheep property and no temporary or permanent fencing work undertaken at the cattle property.

Dozer lines are currently being rehabilitated.

Hundreds of dangerous trees have been removed along the fence line by the crown due to safety concerns for their staff and fencing contractors. These trees were unsafe last year and the safety of the private landholders and their livestock were not considered in the crown land managers response to landholder concerns.

Agriculture Victoria took no action to assist landholder retrieve livestock and suggested Victoria Police. Agriculture Victoria staff stated (incorrectly) that control actions did not need landholder consent. As FFMV staff have very little understanding of agricultural issues, they rely on Agriculture Victoria to provide advice in incident and to assist with livestock issues / assessments post incident. Poor understanding of the emergency management system, roles and responsibilities, and poor assessment paperwork means that representatives on the ground are not providing information to incident controllers to ensure that grader lines or back burns are done in a way that minimised impact.

Victoria Police were contacted locally as per the instructions of Agriculture Victoria. Local police did not understand their role and refused to take any action. It seems that local police do not fully understand the full extent of their role in emergency management beyond road blocks and evacuations as this role is not included in the EMMV but in the Victorian Animal Welfare Plan – an EMMV Reference Document.

VFF provided agricultural liaison officer contact details and an attempt was made to report the issue at Warrnambool – nearly an hours drive away. The liaison officer was not in and it seems no message or report was passed on by the duty staff. In response the VFF contacted a more senior officer with primary responsibility in relation to agriculture who followed up and a fortnight later (and a month after visit to Warrnambool) police attended the site where the stock had moved to. The next morning the stock was ‘moved’ after having been there for three months. Angus stock of a similar size were sold at Warrnambool and a request for DNA sampling of the stock sold made to the Police while this was still possible but at the time of writing no resolution had been achieved.

Monetary losses to business

A beast the same size as one of the heifers (with visible marking to the bloodline) was sold for over \$1200 which was reported to police so they could follow up with DNA tracking. That sale price values the angus cattle at over \$100,000 and as many were heifers that is significant ongoing losses due to the loss of breeding stock and bloodlines.

The total impact of stock losses, stressed animals and purchase of feed and materials at one property is estimated to be close to \$400,00.

The conservative estimate of losses across both properties, including to future earnings is likely be to \$750,000. All losses could have been avoided if crown land managers had better managed the process and managed risk in the area.

Cost of rectification to government

The cost of fencing temporary and permanent for 7km – at 100% to the crown, as well as rehabilitating the control lines and reseeding, will be significant. Fencing would be around \$175,000 and 140,000m² of control line rehabilitation at control lines is \$90,000 in seed as well as several days labour and machinery to rehabilitate the site. \$300,000 for this would be a conservative figure.

Additional damage was also done at one property by a management vehicle accessing the site without permission and overturning. This was a total write off of the vehicle and did physical damage to the property during the incident and its extraction.

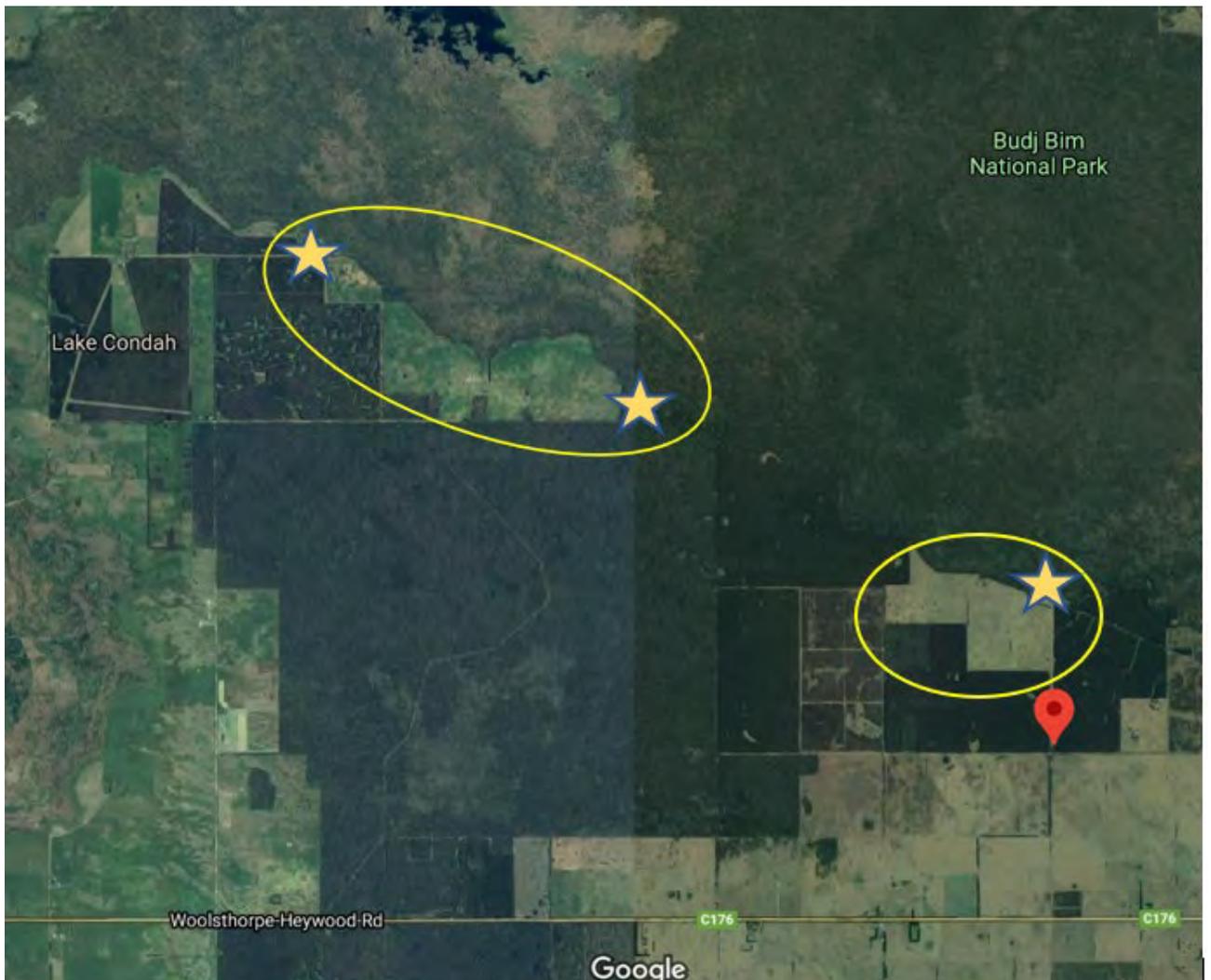
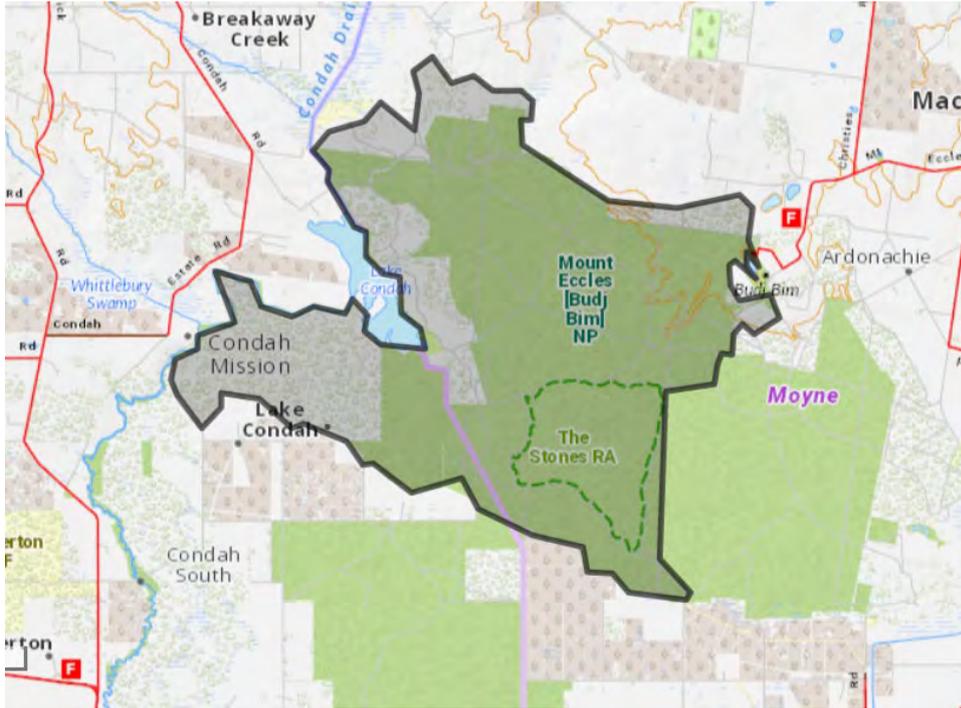


If the mineral earth break had been maintained

Without considering the active management costs, the loss to landholders and the costs of government to rehabilitate damage at just these two properties is over \$1 million dollar.

That section of Budj Bim National park is accessible by public roads – McCabes Road to the east and Sharrocks Road / Lake Track and Coustleys Road to the west. If a mineral earth break had been maintained on the park side of the fence, as was historically the case, then all management actions could have been staged from within the park with no impact on private land or loss of external fences saving the government and the landholders \$1million in expenses and saving significant and

ongoing mental and financial stress to the landholders and their farm businesses.



Wider context – agency skills and knowledge

Issues relating to the impact of fire and fire management on agriculture has been an issue for some time. Over time there has been increasing specialisation within crown fire management services, less technical ‘forestry’ and fire knowledge and a greater focus on ‘biodiversity’. In the 2006 Grampians fire a backburn was lit of farm land without landholder permission. This fire burnt so hot that the site still cannot sustain a crop and \$3 million dollars of organic matter is required to restore soil health.

DELWP has not compensated this landholder and says they should claim insurance – however your soil cannot be insured. VFF has attempted on several occasions to ensure that DELWP looks at soil chemistry and the risk factors in different soil types. This would assist in both the agricultural context and biodiversity.

Similar issues were also raised post Black Saturday. In the 11 years since there has been negligible focus on understanding on farm impacts of fire by management agencies. While it is difficult to achieve a perfect response in a large event – like Black Saturday, or this summers fire complex, if the lessons had been learnt through improved processes and procedures, and these were so ingrained in practice, the experiences of the Budj Bim fires would have been totally avoided.

The following two examples from Black Saturday highlight the need for better consideration of agriculture in preparedness, response and recovery.

2009 Case A

1. The very hot burn significantly impacted our soil. Interestingly, when I attended a Department “fire recovery” field day soon after the event, I asked the question about impact on soil biology and different approaches to support recovery. The Department response was so dismissive, almost scoffing at the suggestion. I decided to go home and applied our own methods to support soil biology, which we believe sped up the recovery process.

We need a lot more research in this field of soil biology. We know so little about the complexities of soil.

2. Post fires we saw weeds we had not seen on this country before. It was particularly noticeable in the containment lines cut by dozers which were inflicted upon farmers post fires.
3. Shared fencing costs did not apply to us for the boundary shared with Parks Victoria/Melbourne Water. The impact of very hot burn was also noticeable in these adjoining paddocks due to such high fuel load in the Crown Land.
4. Post fires, while delivering feed into affected areas, we noticed numerous homes which survived and we wondered how. The common denominator seemed to be the vegetation – exotic trees, shrubs, which protected the site. Despite this, our Councils still insists on land management plans which require indigenous plantings and not exotic species. Surely there’s a place for both, recognising the benefits of exotics eg English Oak, in protecting assets.

2009 Case B

1. 85% of our farm was burnt in the Black Saturday fires of 2009 and although the fire wasn't so hot due to less available fuel in our paddocks the slow burn eliminated the topsoil humus / organic matter contributing to significant nutrient loss in the seed bed.

2. We also experienced shocking weed infestations due to nutrient loss and lack of plant competition in the first couple of years post fire.
3. 300 acres of our farm is bordered by state forest on 2 sides and although we had considerable fencing insurance, when you are forced to pay 100% of the replacement cost plus clearing of the fence line (chainsaw operator and excavator for 6 days) all in difficult terrain you discover pretty quickly that \$8/mtr (standard fencing cost used by insurance company) doesn't cover much!
4. Narrow roads with decadent brush and overhanging trees was a significant hazard for fire fighters and as the trucks that attended were from other regions and unfamiliar with the terrain they were instructed to remain on main roads and forced to sit and watch the fires' slow progress.
5. Following the fires, council brought in arborists to clean up the damaged trees, however they were instructed (as per state policy) to leave all burnt trees and just remove overhanging limbs so for the next several years we had dead trees regularly falling across roads creating a further safety hazard.

Procedural lessons – from the Budj Bim Fire

The following points stem directly from the Budj Bim case study. They should be read in conjunction with the following section – procedural opportunities – VFF 3 phase approach.

Preparedness

- Ensure mineral earth breaks are maintained on and within the perimeter of national parks, state forests and plantations;
- Review 'good neighbour' processes to ensure that reports of extreme fuel loads are acknowledged and assessed
- Independent processes and review to ensure dangerous trees on crown land which impact on private property are assessed for risk to life and property.
- DELWP risk assessment processes be totally overhauled. Rather than assessments being undertaken under the Forest Act all emergency risks should be assessed under the auspices of the Emergency Management Act and priorities.
- The EMMV Manual needs to reflect the full gamut of 'life and property' and how to assess potential
- DELWP incident controllers and all FFMV Staff should be fully trained in all aspects of assessing potential risks / impacts to life and property
- Dwellings should not be the only 'default' for life in rural communities.
- 'Access' agreements should be prepared to be forwarded to owners prior to any control action being undertaken. Over time these could be drafted in concert with landholders including plans to minimise impact on farm operations.
- The SCC data layer should include owner and occupier details for each property including email and mobile phone contacts which may be accessed during incidents
- The SCC data layers should include information on the 'commodity' type of all agricultural land.
- If SCC data layers should include private information on farm businesses for use in incidents where this information has been provided by the landholder. This may include location of inground infrastructure, priorities for asset protection and location of stock containment or other areas for animal welfare.

- Forms should be developed to assist landholders identify key assets and risk issues on their property and how to consider loss of production from fire or management actions.
- All prescribed burning programs should be based on a detailed assessment of the impact of the actions on minimising risk to / impact on all aspects of life and property rather than on towns and biodiversity.

Incident management

- Incident controllers must ensure consent in writing has been given prior to control actions being undertaken.
- Incident controllers must ensure that where control actions require removing internal or external fences that opportunity and assistance is given to ensure any stock are moved to a safe and secure location on the property.
- Where fences or property are damaged by control actions this must be formally logged in incident control centre and reports forwarded to council and relevant agencies for reference in recovery.
- Where stock is missing due to fence impact aerial images should be copied to Agriculture Victoria to review for evidence of lost stock.
- Agriculture Victoria and / or the VFF should be involved in every ICC where farm land is impacted by fire or control actions.
- The VFF should have a clear line to incident controllers to ensure any concerns of landholders regarding ways to minimise the impact of operations on their livelihoods can be considered.

Immediate post recovery

- The EMMV should be reviewed to have:
 - Guidelines on the assessment of impact on agriculture properties;
 - Clear roles and responsibilities for recovery actions – such as who is responsible for the recovery of livestock that have wandered due to fence loss;
- Training should be undertaken for Council and Agriculture Victoria in assessing impact on farms.
- Landholders should be given a copy of the assessment and options to query or appeal the assessment. In this case study a month was lost in recovery as post fire assessments had not identified the loss of fencing and stock.
- Temporary fencing should be provided within a week of the fire where fences were damaged by control actions and permanent fencing provided within a month of the fires.

Long term recovery

- Bushfire Recovery Victoria (BRV) should ensure that there is a single point of contact for recovery – to triage action and co-ordinate grants, funding and on ground actions.

Procedural opportunities – VFF 3 phase approach

Since the St Patrick's Day fires in 2017 the VFF has kept a 2 page synopsis of potential improvements to emergency management to not only avoid and minimise impacts on farming but to assist recovery where impact occurs. At the end of the fire season this document is reviewed and reported back to Policy Council. The document is shared with emergency management agencies.

As many of our members concerns relate to crown land management and FFMV activities the document utilises DELWP environment language – where the aim is first to avoid, then to minimise and then finally – rather than 'offset' to 'support' recovery.

Opportunities to avoid and minimise impacts on agriculture and to assist / support recovery are outlined in the VFF's 3 phase process document. This is a high level approach which can be utilised as a base for a range of protocols, procedures and responsible agency considerations for each sub point of the document.

As fires can be devastating for the agriculture sector it is important for emergency managers to understand the nature of this impact. As DELWP and CFA often consider 'dwellings' as interchangeable for 'property' it is important for these agencies to understand that for agriculture it is not only the potential loss of dwellings but includes:

- the loss of the means of earning an income; including fodder, livestock and machinery;
- long term impacts on productivity and loss of livestock and genetic gains from breeding programs;
- damage to fencing.

Avoid

- Prevention is better than recovery. Fuel load management / risk reduction is a key tool in avoiding the likelihood of a fire that is uncontrollable.
- Risk assessment needs to be undertaken to assess impact on all elements of 'property' rather than a focus on town protection or environmental asset protection.
- Clear guidance to secondary industry is essential to avoid loss / animal welfare impact from inability for transport companies or others to access locations that are within a lower level and extensive warning area but where there is still safe egress.

Minimise

- Fuel management and strategic planning / knowledge are key elements of minimising impact. Ensuring timely access to good information is critical for incident control. In and above ground farm infrastructure, dairy sheds, intensive livestock sheds, stock containment yards and machinery sheds would assist incident controllers plan how best to reduce impact of fires on economic production.
- To improve response and reduce impact the following actions could be implemented.
 1. Map agricultural areas – type of production; key locations / assets; nature of systems (eg dairy power type). (Tailor response effort to need on the ground & streamline recovery by identifying likely need).
 2. Ensure fuel reduction plans minimise impact on areas of agricultural production.
 3. Develop standard 'suites' of information and response to improve initial stages of recovery and minimise longer term recovery issues (approvals etc).
 4. Ensure Agriculture Victoria presence in SCC / ICC during events impacting agricultural areas.
 5. Ensure agreement in writing is gained before control actions are undertaken on farms and that actions to be undertaken to minimise impact on farm operations are included in the agreement.
 6. Watch and Act Messages. Ensure that messaging clearly state if it is safe to travel through the area.
 7. Ensure agriculture industry membership on municipal fire prevention committees.
 8. Ensure that evacuation areas with bio secure holding facilities (such as showgrounds) are identified where landholders may transport key breeding stock.
 9. Provide clear education to the agriculture sector regarding the role of Agriculture Victoria in incident management and response.

10. Ensure traffic management point selection is selected to facilitate access to areas not impacted by fire.

Support / Assist

- The community and government focus is often on the initial phases of loss. The process of rebuilding is often long and stressful. It is important for farming communities to have information available as well as a dedicated resource that knows their issues and is helping them through a streamlined and cost effective approvals system.
- Rebuilding.
 1. Dedicated website with resources outlining:
 - Site clearance;
 - Rebuilding advice
 - Agriculture advice - recovery
 - Assistance
 - Links to resources
 - Community information
 2. Dedicated 'recovery' co-ordinator and 'fast track' planner / approvals system – funded by state government
 3. Streamlined approvals processes by government (where required)
 4. Application fee reimbursement by government
 5. Rate relief / assistance package for primary producers
- Outreach. Part of a successful recovery process is effective outreach with affected parties. Maintaining contact and information can assist in recovery and build the foundations for an even better farm business in the future. The following items will help create the conditions to thrive not just survive.
 1. Dedicated 'recovery' co-ordinator – maintaining regular contact / newsletters etc & organising community sessions with speakers.
 2. Targeted information packages on how to regenerate your pasture, feeding quantities for stock etc with outreach contacts / resources at DEDJTR.
 3. Business bus visits (RDV)
- Feed / power – logistics. It is important to get food through in the very short term as well as to have supplies to see farmers through at least one year. Review past programs to reduce response times and reduce impact.
 1. Opportunities for learning on 'feed / fodder' collection. Could there be a register of transport companies willing to assist in transport.
 2. Info packages for feed 'donations' – how to mark a grade (quality) so it can be directed to the appropriate recipient.
 3. Government assistance on establishing stock feed depots (where required).
 4. Clear assistance / guidance on fencing and a review / improvement for the impacted landholder of the December 2006 Policy 'Fencing and Assets Impacted by Fire'.
 5. Have established channels with Defence for emergency generators; including Defence understanding which equipment is most appropriate for different 'dairy' systems (for example).

Response to the Terms of Reference

VFF believes that a Phase 3 of this review is required as the terms of reference prioritise one aspect of property, biodiversity, over all other aspects of property. This fire season has had enormous impact on agricultural production and the means of economic production. At a minimum the cost of the fires on agricultural production should be accounted for.

The following table is raw data from the North East fires only. Similar information should be sort for all this seasons fires and estimates given to the value of / replacement costs, including ongoing impacts of losses on productivity. For example, at an average of \$1200 a head for beef cattle 3000 dead cattle in Towong Shire is \$3.6 million dollars in lost sales value as well as ongoing impact on herd sizes as it includes the loss of breeding stock.

Losses of 3 pear orchards or 5 olive groves will also have long term impacts as trees need to be removed, new stock replanted and income loss for several years until the trees are mature enough to fruit.

The failure of updated figures to be kept and reported, including by DELWP in post season assessment highlights the imbalance between consideration and reporting on the 4 key aspects of property.

	Alpine	Towong	Wangaratta	Wodonga
Infrastructure				
Woolsheds		23		
Dairy sheds		2		
Hay sheds		129		
Machinery sheds		92		
Irrigation pumps		16		
External fencing	23.1 km	1947 km	147 km	5.5 km
Internal fencing	1 km	1340 km	3 km	5.5 km
Crown boundary fencing				
Animal losses				
Dairy		186 dead 16 missing		
Beef	30 dead 16 missing	2991 dead 337 missing		
Sheep		1577 dead 114 missing	3 dead	
Goats		155 dead		
Horses		33 dead		
Pigs				
Poultry		40 dead		
Bee hives		85 dead		
Horticulture losses				
Apple pear		3		
Summer fruit				
Nuts				
Citrus				
Berries				
Olives		5		

Table grapes				
Wine grapes		1		
Carrots				
Potato				
Asparagus				
Lettuce				
Asian				
Grains				
Field crop – standing		926 ha		
Field crop – stubble				
Stored grain				
Hay/ silage		19,839 t		
Grazing pasture	50 ha	35,110 ha	4 ha	

Effectiveness of emergency management command and control and accountability arrangements in Victoria.

The VFF believes that the issue in fire response is not that there is a complex group of agencies acting in fire response but that there is no real overarching co-ordination of purpose across the agencies. Emergency Management Victoria (EMV) serves that role to a certain extent, however each agency primarily views their actions through the lens of their own organisational priorities and legislation.

The key agencies, noting recent changes to MFB and CFA, are:

- Metropolitan Fire Brigade (MFB)– Metropolitan Fireⁱⁱⁱ
- Country Fire Authority (CFA)– Country Fire Authority Act 1958^{iv}
- Forest Fire Victoria (FFV)– DELWP (Forests Act 1958^v
- Parks Victoria (PV) -DELWP – National Parks Act 1975^{vi}
- Emergency Management Victoria (EMV)– Emergency Management Act 2013^{vii}

While EMV does not have a direct line of control over other agencies, there should be a common understanding of the strategic priorities and each agencies roles and responsibilities in the context of the Emergency Management Act and Strategic Priorities, and how these relate to other legislative and organisational priorities.

This legislation also charges Local Government with emergency management roles.

While there is active attempts to co-ordinate agencies emergency response there is no requirement for each agency to clearly respond to the emergency management strategy^{viii}. Where attempts are made to respond to not only life but property each agency has their own interpretations and priority

within the 4 key elements of property, which no agency focusing on the economic contribution of agriculture. (See attached letter to EMV)

Without each agency looking at the whole spectrum of 'life and property' there is the potential for certain impacts not to be taken in to account in prevention, control and recovery activities. We believe each fire management agency should be required to consider how to manage their actions and co-ordinate to get the best outcome balancing all of the state emergency management priorities.

This concern flows through to terminology. Although Victoria has moved to 'Safer Together' the key partners use different terminology and interpret priorities in different ways.

At the risk of over simplification the four elements of property, the CFA have traditionally focused on 'dwelling protection' rather than primary residence. FFV and PV prioritise environmental and conservation assets and EMV ensure that critical state infrastructure is mapped. Local Government may identify certain community assets and often identify major factories for economic production. No emergency management body overseeing preparation, response or recovery has a primary focus or understanding of agricultural land and commodities as an asset supporting individual livelihoods and economic production.

The recent 'Strategic Bushfire Engagement' process by DELWP highlights this inconsistency in understanding the emergency management priorities. Although badged as Safer Together each region used different questions and different terminology, with no region having a comprehensive and balanced set of options. Some regions are using a values approach and making assumptions based on questions which could be interpreted in more than one way.

As no agency has a clear responsibility to consider economic impact, these considerations are not well planned for or reported on at any stage of the process, as the Budj Bim Case Study indicates. There is limited guidance to agencies or council in relation to the consideration of economic impact, and many risk committees focus on industrial and commercial areas, with no consideration of agriculture. This then flows through to fuel minimisation and asset protection activities focusing on urban areas.

Agriculture is rarely mentioned in the EMMV. Where it is, the connections to the economy and regional development and not fully explored and the focus is on recovery – not avoidance or mitigating the impacts in incident control decisions. The VFF believes that this manual should be reviewed to ensure all agencies have a responsibility to consider all aspects of property in undertaking their emergency management roles. This should be backed up by information and data on agriculture and through greater presence of agriculture bodies in liaison roles and on emergency management committees.

Clear lines of responsibility for animal welfare; land owner consent and responsibility for recovery of missing livestock are urgent issues to be addressed to improve consideration and accountability arrangements in relation to economic production in Victorian emergency management activities.

Effectiveness of Victoria's operational response to the 2019-20 fire season.

The Budj Bim case study is an example of poor outcomes due to failures in knowledge and information available to incident controllers and poor understanding of existing operational procedures and the consequences to individuals when they are not followed.

Large fires are always difficult to manage and lead to not only wide impact and loss but lead to increased difficulty to 'recover' due to the scope of the issues to the resource and materials available, including community resilience. This is why the VFF believes it is critical to spend money on avoiding the impact rather than repairing the damage.

In this context it is important to look at fuel management and management tracks in the alpine areas. Changing the status of parks in the high country has led to reduction in the number of fire management access tracks, and therefore in the ability to undertake regular fuel management activities to reduce the intensity of fire and the ability for it to be kept within containment lines.

There have been studies questioning the effectiveness of fuel reduction in the impacts of a landscape level fire. This is logical as a landscape level fire creates its own weather system and has significant heat and rate of spread potential. The VFF believes it is critical to manage fuel so that the likelihood of a fire start growing to a landscape level fire is minimised. VFF is aware of the impacts of a hot fire on crops and soil, but this understanding is not well developed within DELWP. Our flora has evolved to recover from a cool fire, however a hot fire which changes soil chemistry can change the flora of an area and therefore impact on biodiversity and faunal habitat.

Over the past 5 years and exacerbated by the Strategic Bushfire Engagement process by DELWP there has been increasing resistance to fuel reduction programs within crown land, especially those aimed to reduce risk to rural communities. Victoria was nearing not meeting its residual risk level.

Members of the community have voiced concern that fuel load had built up since the Alpine fires and not enough effort was made to black out lightning ignitions in mid November before they broke containment lines and fuelled multiple landscape level fires 6 weeks later.

State evacuation planning and preparedness processes/practices and their effectiveness with an emphasis on remote/isolated communities and Victorian peak holiday season locations.

VFF is concerned that in many remote communities the local emergency services volunteers are often farmers. This places stress on them to leave their own families and businesses to assist visitors to the area. This is part of a social contract that rural communities willingly enter. The cost of this on their own livelihoods and well being should therefore be considered by the professional emergency management community in reducing risk and likelihood of actions; in management actions to protect their properties when under threat (as often they are elsewhere helping other communities) and in ensuring that recovery actions prioritise getting their farm business operational.

During the 2009 Black Saturday Bushfires several cherished community assets – historical societies - were totally destroyed. The Government funded 'Victorian Collections' as a free online database available to collection bodies and groups which is backed up on Museum Victoria's servers. While it may not save the collection, it does retain a detailed record of the collection, which helps the community recover.

A similar approach could be taken to agriculture through seed banks or sperm banks to provide a form of disaster recovery for significant genetic material through breeding programs.

Similarly, many councils will provide shelter for pets but little consideration is given to utilising pens at showgrounds to shelter key breeding stock. Just as many residents may not leave if they cannot take their pets, many farmers will stay to protect their livestock or are on a fire truck protecting

other communities. The ability to apply ‘collection’ management principles of minimising risk of total loss on extreme fire days could be applied through local government – giving the agricultural community an opportunity to safely pen some livestock. May 1, Blueshield Day^{ix}, could be adopted as the day where agriculture sector disaster preparedness and recovery is promoted and reviewed.

VFF raised the issue of ‘evacuating’ key stock / genetic material in the ‘council and emergencies’ process. Local Government Victoria identified ‘pets’ as key for encouraging evacuation but were silent on how to plan for facilities that can house key breeding stock or genetic material. It was pleasing to see some Council’s utilising showground facility for agistment of livestock. Identifying opportunities for remote communities to be able to relocate some livestock to a lower risk area where their welfare will be treated should be core to state and local emergency preparedness.

Preparedness ahead of the 2019-20 fire season; including the effectiveness of regional emergency management work undertaken to inform and educate the community about the coming season, community engagement, impact of lengthening fire seasons, and any relevant legislation, policy and practice.

Many major fires in Victoria occur from natural and non natural causes in state controlled land. Fires starting on farm land has a lower fuel load and a quicker response time – often by the landholder in the first instance.

Each year the VFF undertakes a grains roadshow preparing for harvest. How to minimise fire risk is a key element of this program. The CFA provides harvest specific advice and support. It would be beneficial for other agencies to work with the farm sector under the ‘Safer Together’ banner.

While VFF supports fuel reduction burns out of fire season we believe the quicker a fire is extinguished in fire season the better the outcome for the community. Over the past two years there have been increasing discussion regarding barriers to use to private fire fighting equipment on fire grounds. Most farmers have their own equipment – to help protect their business, or to quickly manage any fires starting on their properties. Extinguishing a fire before it grows in size is the best way to avoid a landscape level fire.

Barriers to equipment travelling across a road or a paddock to a neighbours property should be removed as requiring people to leave the scene to travel to the station to access the appliance or to take no action in the 15 – 30 minutes until an appliance gets to the scene by which time the fire might be out of control.

The Strategic Bushfire Engagement process for the 2019-20 season demonstrated that there was no clear consideration of agriculture underpinning DELWP preparations for the season. It is essential that DELWP seek full information and undertake full considerations of all aspects of life and property outlined within the State Emergency Management Priorities.

The failure of no ‘incident control’ emergency (fire) management agencies being directly responsible for considering the “*protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability*” can flow through to the information collected and made available in an incident control centre. On a tour of the State Control Centre the VFF asked to see the layers on agriculture. What was shown indicated whether it was a farm – or viticulture. There was a plethora of environmental layers available.

This fire season again outlined that incident controllers had little access to information about agriculture. Due to the scale of some of the fires this also led to significant delays in getting to recovery, causing animal welfare issues for many farmers. Often these issues needed to be escalated into the ICC when members or our fodder depots were reporting problems in delivering feed. A direct line from the fodder drive to incident control centre would improve the response time to resolve these issues, especially when military assets are available to overcome traditional logistic problems.

As outlined in our letter to EMV in 2017 (attached) the ability to utilise GIS to identify a wide range of community and economic assets was identified in 2009. Ten years on there has been little work or funding to improve the information on agricultural land. What commodity type (and its risks and needs); in ground infrastructure (irrigation, laser graded) to be protected; key assets/property in machinery or livestock sheds and their location; landholder priorities for protection.

In the recent past with increasing pressure on managing fuel loads on crown land (including road reserves) councils and other bodies have been requesting landholders to maintain mineral earth breaks for township protection. There is no consideration of the economic impact to the farmer of not planting their potato crop in a 50m strip along a roadside. In this instance the horticultural property is between the state forest and the town.

There is a need to educate the emergency management community on agriculture and economic consideration if they are going to be able to identify the consequences of their decisions at all stages of the process. The value of agricultural production in Victoria is over \$12 billion dollars, and this supports secondary processing industries. Understanding the value of produce in farmland by emergency management agencies is critical to ensuring it isn't seen as 'vacant' land there for emergency managers to use as they see fit for township protection. The Budj Bim example demonstrates this issue.

Consider all challenges and implications for bushfire preparedness arising from increasingly longer and more severe bushfire seasons as a result of climate change.

Review of all opportunities and approaches to bushfire preparedness, including different methods of fuel and land management (for example 'cool burning', mechanical slashing, integrated forest management, traditional fire approaches) to protect life and property as well as ecological and cultural values.

VFF is concerned that the burning window is reducing due to climate change and that the focus has moved from the Royal Commissions recommendation about landscape level fuel reduction to township protection focus.

Fuel reduction window

With a reduction in the fuel reduction burn window it will be critical that crown land managers are resourced to meet programmed burning and access track / mechanical fuel reduction. Machinery and labour needs to be available and tasked to the job in a timely manner – eg not dozers being

delivered to a depot over Christmas when they were in Melbourne for 4 months prior awaiting allocation.

The role of smoke modelling as a consideration needs to be questioned. The government's risk appetite for fuel reduction burning is decreasing which is reducing an all ready shrinking window to days low wind, dry and cool but not cold days. These are also the days were smoke is less likely to disperse. As this season demonstrates failure to manage fuel load due to a low level of smoke can lead to prolonged periods of smoke exceeding health standards due to landscape level fires.

Fuel reduction strategy

This season also exposed the danger in the current fuel reduction strategy to 'key environmental' and 'urban' assets. Any fire that can grow in size and become a 'landscape level' fire will then negate the benefit of relatively small areas of fuel reduction around these assets.

It is critical that there is a mineral earth break within the crown side of all external edged of all state parks (any IUCN category) to provide access and staging. Within these parks there should be a regular network of maintained fire access tracks and a plan to mosaic burn the entire park over a period which takes into account the fuel load and the nature of the vegetation and ecological classes. This plan should be flexible enough to avoid ignition when there is bud burst or seeding to allow food source and utilisation of bee sites.

In areas of the Snowy River National Park there are areas with 7 to 10 km between any level of fire access track. Forest explorer shows that there is an area of 53.5 thousand hectares with a single perimeter track, which was fully burnt during this fire season and which there was no fuel reduction history.^x

Any ignition which starts in the middle of such a large area will be very difficult to access. There can be the temptation to let the fire 'burn out' to the perimeter and to treat it as controlled. In a cool burn period this may be an option, however over summer, and after drought, a large hot fire can develop quickly and break containment. This area is in the middle of an extensive area of forest, where landscape level fires can spot over containment and lead to larger fire complexes which need large containment barriers when fuel has not been managed.

Hot landscape level fires are a risk for isolated farming communities. Agency failure to recognition or value rural life and property in their town based protection zoned can lead conditions which breed catastrophic landscape level fires which threaten urban areas and where farmland can be seen as expendable land to help reduce the urban threat.

Biodiversity values are often used as a reason to minimise fuel reduction in these areas. VFF recognises that indigenous culture used fire stick management programs in these areas, and since the 1850s to late 1990s these areas were managed through a range of fuel reduction which, in some instances, included grazing. The heat generated by the Alpine fires to delicate biodiversity may have to permanent changes to habitat and biodiversity loss. The appropriateness of the 'Yellowstone' Model of park management to Australian conditions should be reviewed as a matter of urgency post this fire season.



Decision making matrix for fuel reduction

The Strategic Bushfire Engagement process should be ceased and replaced by a statewide strategic process utilising the State Emergency Management Priorities. DELWP should be an input into this process, however it should not be run by a single agency or manager by be auspiced by EMV. Strategies and outcomes to be delivered can then be delivered to DELWP and CFA to co-ordinate programs to deliver the strategic objective.

Fuel reduction tools

A common thread to many VFF submissions is the need to keep all tools available in the mix. Each scenario is likely to have a different range of issues and available solutions. Management options in an area such as Hepburn Regional Park will be very different to management options in the 53,500ha area discussed above. One is relatively small in area, bounded by farmland and townships, and regularly dissected by fire access tracks with generally trafficable terrain. The other a large area with limited access, steep topography and surrounded by similarly remote terrain.

Each area should have a plan produced specific to its physical and ecological parameters, as well as the risk the area represents to surrounding areas – (SEMP). All possible tools should then be considered against their suitability to manage risk with limited risk to ‘property’ including biodiversity. These plans should also consider temporal factors such as when ‘burning’ may be appropriate or not (wine taint, budding (apiary)) and alternative activities.

Although the 2009 Bushfires Royal Commission recommended a 5% fuel management regime per annum Victoria has moved to a ‘residual risk’ model. VFF does believe a physical target is appropriate in conjunction with a ‘risk’ approach. There would be an opportunity to develop a

hybrid approach with individual plans for each park / reserve – considering the appropriate fuel management level and regime to address risk across all elements of ‘property’. This way prescribed burning could achieve much more in protection, minimization of side effects to private property and the economy as well as ensuring environmental outcomes. This could achieve better protection with less land burnt and would probably reduce the opposition to prescribed burning. VFF supports all forms of ‘cool’ burning, including traditional methods.

This regime should also consider the importance of roadsides as staging points, as evacuation and access / egress points, and as linear reserves which might form corridors of higher fuel load impacting on the spread of fires.

In the context of bushfire preparedness, assess the readiness and responsibilities of statutory agencies, Local Government and State Government bodies.

The confusion over the Strategic Bushfire Engagement process shows the level of confusion within statutory agencies, Local Government and State Government process. Rather than a whole of agency or cross agency strategy an autonomous by region process was developed with different language, processes and key considerations.

When this process was queried by the VFF as to which legislation it was under, as although branded Safer Together it did not seem to be based on the State Emergency Management Priorities. A definitive answer was not given at the meeting, with a presumption that it would have been guided by the Forest Management Act.

It is critical that ‘strategic’ processes aim to collect all relevant information and inputs into decision making. It should clearly identify partner agencies as well as the property values that need to be identified and understood. Victoria has an Emergency Management Manual that goes some way to identify agencies and responsibilities but individual agencies do not seem to use this manual in their ‘preparedness’ processes.

The Budj Bim example also shows that there is a lot of confusion within the response and recovery processes between roles and responsibilities for issues relating to agricultural impacts leading to critical issues failing to be acted upon.

Agricultural aspects of property should be embedded throughout the EMMV – in what information is collected on farm businesses and their priorities, on how local government and other agencies consider risk, on roles and responsibilities to minimise impact on stock and crops and on who is responsible for resolving issues arising from fire on agriculture, such as stock loss. The manual is close to silent on any agricultural issues with the exception of post fire fodder.

Each agency should show how they have developed plans considering the types of agriculture within their areas and the critical on farm and logistics issues relating to these businesses. This information can then not only help in responding to incidents but in the messaging and communications given. Poor messaging can lead to logistical issues such as trucking companies not collecting batches of broilers when the road was open and safe to do so (Bunyip fire 2018). In this current fire season understanding the needs of dairy farmers before the season could have improved processes to prioritise the clearance of roads / safety checks to minimise these impacts, including consideration of utilising federal / army resources.

Having better procedural guidance in the EMMV regarding utilising the State Emergency Management Priorities for agencies will help gain a consistent approach to data and information based decisions and holistic action plans that can integrate across preparedness, response and recovery. This is especially important for Local Government where emergency duties are often and add on to other statutory roles and functions.

In considering effectiveness of Victoria's operational response to the 2019-20 fire season, IGEM should particularly consider:

effectiveness of the State's response priorities, including primacy of life

effectiveness of public information and warning systems, including cross-border coordination and communication

impact of increasingly longer fire seasons on the ability to prepare, deploy and sustain efforts directed towards emergency events in Victoria

impact of providing Victorian responder officers to other Australian jurisdictions to assist with emergency events (as early as September 2019 this summer season)

availability and utilisation of private assets and resources (including plant equipment) to support emergency preparedness and response

planning and response mechanisms to protect biodiversity threatened by bushfire

effectiveness of the existing workforce model to support response, relief and recovery.

This submission has created examples to be considered against this range of considerations. It is concerning that one aspect of SEMP property outcomes has been included in this list at the expense of other key property considerations.

The VFF refers IGEM to our letter regarding property and the two page summary of how to better consider agriculture in emergency management.

Until the State Emergency Management Priorities (SEMP) are embedded into the manual and all supporting documents and procedures in a holistic and balanced way every agency there will continue to be critical information and response gaps, confusion and perverse outcomes which could have been avoided. We can never avoid emergency completely but the more universal and rigorous our understanding of risks and outcomes are the better prepared we can be to avoid perverse outcomes, minimise impact on life and property and support our communities to recover.

The VFF also wishes to include the following elements from the 2009 and 1983 Bushfires in the context of learnings and outstanding issues relating to the consideration of agriculture and the economic environment.

2009 Victorian Bushfires Royal Commission

The VFF refers IGEM to the final report of the 2009 Bushfires Royal Commission in Victoria. In doing so it is important to note a couple of major differences between the fires of 2009 and 2019-20. Firstly, Black Saturday was a major fire on a fire index rating that would now be classified as ‘Code Red’. The fires occurred on one day and were generally ‘contained’ within a short period and the areas impacted were generally periurban areas around Melbourne and regional centres.

Consequently, the Royal Commission focused on building standards and planning provisions as well as biodiversity impact rather than a focus on loss of agricultural production aspects of the economic environment.

The VFF would like to draw this Commission to the 2009 Commissions finding in relation to:

- *Local knowledge*
- *Focus on point of ignition*
- *Commonwealth aerial resources automatically incorporated*
- *Prescribed burning*
- *Data collection – biodiversity*
- *Roadside vegetation (also need to broaden to boundary / fencelines)*
- *Continued funding of CRC*
- *Terminology and methodology*

The VFF will make comment about relevance of, or potential expansion of these topics of discussion in relation to lessons from the 2019-20 fire season. DELWP is the current name for any reference to DSE in the excerpts from the 2009 Royal Commission.

Local knowledge – including improving incident managers knowledge of agriculture and the economic environment^{xi}

The Commission not only looked at state-level management but also at the management of individual incidents. Overall, AIIMS (the Australasian Inter-service Incident Management System) was well understood and accepted by fire agencies. The Commission supports its continued use with some minor modifications to increase the profile of the Information Unit and recognition of the importance of local knowledge within level 3 incident management teams.

RECOMMENDATION 15 *The Country Fire Authority and the Department of Sustainability and Environment: ■ amend their procedures to require that an incident action plan summary be completed within the first four hours of an incident being reported and be provided to the State Control Centre and, where established, to the relevant Area of Operations Control Centre ■ adopt DSE’s incident action plan summary as the template to be used by all incident management teams and ensure that the template is included in the online IMT Tool Box ■ provide regular training to IMT staff, highlighting the importance of information and reinforcing the support available from specialists within the State Control Centre.*

RECOMMENDATION 16 *The Country Fire Authority and the Department of Sustainability and Environment improve mapping support in the following ways: ■ DSE providing mapping data free of charge to emergency response agencies ■ greatly increasing the CFA’s ‘write’ access to FireMap for incident management team staff ■ establishing a joint DSE–CFA training program to ensure that mapping officers in level 2 and 3 incident management teams are fully trained in*

using FireMap, including in producing fire prediction maps ■ requiring before the 2010–11 fire season that FireMap be used for joint incidents.

The VFF believes that this fire season demonstrates the need to all incident controllers to be trained in the economic environment, especially the impact of fire management / operations on different agricultural commodities. The use of local knowledge, landholder advice, and Agriculture Victoria information to populate GIS layers for use in emergencies should be considered.

Focus on point of ignition^{xii}

The best opportunity to bring a bushfire under control is at or near the point of ignition, when the fire is small. The role of first attack is to contain the fire swiftly and minimise the risk to life and property. This is particularly important on days of extreme fire danger, when initial attack might be the only opportunity for containing a fire. Aircraft are an integral part of initial attack and, together with ground crews, provide continuing support during an extended fire. Depending on where they are stationed and their dispatch protocols, aircraft can often get to a fire and start the initial attack before ground crews arrive.

Commonwealth aerial resources automatically incorporated (high fire risk)^{xiii}

The Commonwealth owns and controls aircraft that could be used for firefighting. Before the 2009–10 fire season it held an operational briefing, outlining its resources and capabilities to the states and territories. The Commission considers, however, that cooperation between the State and the Commonwealth would be strengthened by an agreement that allows Commonwealth aerial resources to be automatically incorporated in the State's preparedness planning and, where available, used on days of high fire risk.

RECOMMENDATION 21 The State, in conjunction with Emergency Management Australia and the Department of Defence, develop an agreement that allows Commonwealth aerial resources that are suitable for firefighting and support activities to be incorporated in preparedness plans and used on days of high fire risk.

Prescribed burning^{xiv}

Land and fuel management

Prescribed burning is one of the main tools for fire management on public land. It cannot prevent bushfire, but it decreases fuel loads and so reduces the spread and intensity of bushfires. By reducing the spread and intensity of bushfires, it also helps protect flora and fauna. Ironically, maintaining pristine forests untouched by fuel reduction can predispose those forests to greater destruction in the event of a bushfire.

About 7.7 million hectares of public land in Victoria is managed by DSE. This area includes national parks, state forests and reserves, of which a large portion is forested and prone to bushfire. DSE burns only 1.7 per cent (or 130,000 hectares) of this public land each year. This is well below the amount experts and previous inquiries have suggested is needed to reduce bushfire and environmental risks in the long term.

The Commission recognises that prescribed burning is risky, resource intensive, available only in limited time frames, and can temporarily have adverse effects on local communities (for example, reduced air quality). Nonetheless, it considers that the amount of prescribed burning occurring in

Victoria is inadequate. It is concerned that the State has maintained a minimalist approach to prescribed burning despite recent official or independent reports and inquiries, all of which have recommended increasing the prescribed-burning program. The State has allowed the forests to continue accumulating excessive fuel loads, adding to the likelihood of more intense bushfires and thereby placing firefighters and communities at greater risk.

The Commission proposes that the State make a commitment to fund a long-term program of prescribed burning, with an annual rolling target of a minimum of 5 per cent of public land each year, and that the State be held accountable for meeting this target. DSE should modify its Code of Practice for Fire Management on Public Land so that it is clear that protecting human life is given highest priority, and should report annually on prescribed-burning outcomes.

To ensure continuing environmental protection, the State needs to improve its understanding of the effects of different fire regimes on flora and fauna. The Commission proposes that DSE expand its data collection on the effects of prescribed burning and bushfire on biodiversity. Maintenance and extension of data collection on Victoria's flora and fauna assets has not been a high priority. It needs to be improved so that more informed and scientifically-based decision making can accompany the development of prescribed-burning regimes that meet conservation objectives as well as accommodating bushfire safety considerations.

RECOMMENDATION 56 The State fund and commit to implementing a long-term program of prescribed burning based on an annual rolling target of 5 per cent minimum of public land.

RECOMMENDATION 57 The Department of Sustainability and Environment report annually on prescribed burning outcomes in a manner that meets public accountability objectives, including publishing details of targets, area burnt, funds expended on the program, and impacts on biodiversity.

RECOMMENDATION 58 The Department of Sustainability and Environment significantly upgrade its program of long-term data collection to monitor and model the effects of its prescribed burning programs and of bushfires on biodiversity in Victoria.

RECOMMENDATION 59 The Department of Sustainability and Environment amend the Code of Practice for Fire Management on Public Land in order to achieve the following: ■ provide a clear statement of objectives, expressed as measurable outcomes ■ include an explicit risk-analysis model for more objective and transparent resolution of competing objectives, where human life is the highest priority ■ specify the characteristics of fire management zones—including burn size, percentage area burnt within the prescribed burn, and residual fuel loading ■ adopt the use of the term 'bushfire' rather than 'wildfire'.

The VFF would like to draw IGEMs attention to an article in the February 2009 Journal of the Institute of Emergency Management which looks at the use of mapping tools for a wider purpose. The VFF have raised this article in discussions regarding full and proper consideration of 'property' by emergency management agencies.

Data collection – biodiversity and the need to broaden this recommendation to all aspects of property^{xv}

In addition, the Commission makes detailed proposals about the planning regime in order to improve information and understanding of bushfire through better mapping of both bushfire risk and Victoria's biodiversity. It also recommends that bushfire risk be accounted for in the application of

controls on clearing native vegetation and that the construction of houses be restricted on high-risk blocks that are too small to enable a defensible space to be created and maintained.

RECOMMENDATION 43 The Department of Sustainability and Environment conduct biodiversity mapping identifying flora, fauna and any threatened species throughout Victoria and make the results publicly available. The format used should be compatible with that used for Bushfire-prone Area mapping.

The VFF believes that this fire season demonstrates the need to data collection to relate to all aspects of life and property. It is also noted that current biodiversity mapping is not ground truthed to a scale equivalent for a statutory planning tool (bushfire mapping).

Roadside vegetation and the need to broaden this recommendation to boundary / fence lines^{xvi}

Managing clearing along roadsides is a particular challenge for municipal councils. The councils are responsible for bushfire prevention and mitigation and biodiversity management along local and some arterial roads; VicRoads has similar responsibilities for rural freeways and arterial roads. In some cases these roadsides contain the only remnant native vegetation in an area and offer important wildlife corridors and shelter. Consequently, differing objectives for road safety, biodiversity protection and bushfire prevention can be difficult to reconcile.

In the case of bushfires, roads and roadsides can be important fuel breaks, so road managers need to reduce the fuel levels in preparation for the fire season. Roads are also essential for people seeking to escape fires and for emergency services seeking access to fires. Since the 2009 fires land and road managers and the CFA have identified high-risk roads and are carrying out fuel-reduction work to reduce the future risks of bushfire.

The Commission is aware of the unresolved tensions between mitigation of bushfire risk and environmental conservation in the approach to roadside clearing and the legislative complexities to do with road safety, biodiversity and bushfire risk mitigation that affect roadside management. These concerns would be reduced if the State's planning provisions were amended to facilitate a broad range of roadside works to reduce bushfire risk, if municipal councils received better guidance to help them resolve competing environmental and bushfire management objectives, and if VicRoads implemented a systematic state-wide assessment of bushfire risk for all roads.

RECOMMENDATION 41 The State: ■ amend the Victoria Planning Provisions to require that, when assessing a permit to remove native vegetation around an existing dwelling, the responsible authority and the Department of Sustainability and Environment, as referral authority, take into account fire hazard and give weight to fire protection purposes ■ develop guidelines for determining the maximum level of native vegetation removal for bushfire risk mitigation, beyond which level the application would be rejected.

RECOMMENDATION 42 The Department of Sustainability and Environment develop and administer a collective offset solution for individual landholders who are permitted to remove native vegetation for the purpose of fire protection.

RECOMMENDATION 60 The State amend the exemptions in clause 52.17-6 of the Victoria Planning Provisions to ensure that the provisions allow for a broad range of roadside works capable of reducing fire risk and provide specifically for a new exemption where the purpose of the works is to reduce bushfire risk.

RECOMMENDATION 61 The State and Commonwealth provide for municipal councils adequate guidance on resolving the competing tensions arising from the legislation affecting roadside clearing and, where necessary, amend environment protection legislation to facilitate annual bushfire-prevention activities by the appropriate agencies.

RECOMMENDATION 62 VicRoads implement a systematic state-wide program of bushfire risk assessment for all roads for which it is responsible, to ensure conformity with the obligations in s. 43 of the Country Fire Authority Act 1958 and with the objectives expressed in the VicRoads 1985 Code of Practice.

Continued funding of CRC and the need to broaden this recommendation to consider all aspects of property^{xvii}

Research and evaluation

Governments need to invest more in bushfire research to enable Australia to rebuild the capacity it once had as a leader in this field. ... A permanent national centre for bushfire research is needed with reasonable surety of long-term funding. In developing the model for such a body, governments should consider incorporating the following features:

- *pure and applied research as well as long-term research projects*
- *strong governance arrangements—including research independence*
- *the location of the research centre, preferably in Victoria*
- *a balanced focus that includes physical, biological and social research*
- *links with teaching and promotion of graduate scholarships*
- *cross-institutional and jurisdictional collaboration*
- *international collaboration and sharing of knowledge*
- *the research priorities highlighted in evidence before the Commission*

The Commission’s work revealed a number of research gaps and priorities. Some were raised by expert witnesses; others became apparent when the Commission was conducting its analysis. These gaps are a good starting point for considering short- and long-term priorities for bushfire research in Australia. They include the following areas:

- *the effects of prescribed burning and bushfire on biodiversity and on reducing bushfire risk*
- *the establishment of databases to map Victoria’s flora and fauna, to register Victoria’s fire risk and to identify its bushfire-prone areas*
- *the extent of deliberately lit bushfires and the causes of fire-setting behaviour*
- *the long-term effect of trauma resulting from the experience of bushfire*
- *the effects of fire activity and smoke on radio communications*

- *the extent of road deaths in bushfires, including use of cars as shelters in bushfires*
- *house defendability in extreme conditions*
- *the circumstances of the thousands who survived the Black Saturday bushfires by leaving early or late or by defending their homes or sheltering*
- *the shelter options—including factors affecting the safety of different places of shelter and particularly motor vehicles in the open, dams, pools, creeks and water tanks.*

In relation to shelter options – a range of agriculture commodity specific considerations should be developed. It is likely that this Commission may identify a new range of research priorities.

Terminology and methodology and the need to widen to better understand aspects in relation to life and property considerations in non urban areas.^{xviii}

In addition to this, the Commission invites the Commonwealth to take the initiative on two matters outside the proposed research framework. The first is to consider the development of nationally acceptable bushfire terminology. It became apparent during the Commission’s hearings that a number of bushfire-related terms are cumbersome, have obscure meanings or are potentially confusing to the general public. The second matter arises from there being no agreed methodology for estimating the cost of bushfires. The Commission experienced difficulty performing its analysis because of the lack of data and the absence of an agreed methodology for estimating various costs. This is a deficiency in the nationally available bushfire information and an area in which further collaborative work is warranted.

The VFF believes that the lack of a definition of ‘property’ in emergency management legislation in conjunction with different agency interpretations of the VSEMP terms and how they apply to their operations is an area for urgent attention.

Report of the Bushfire Review Committee: On Bushfire Disaster Preparedness and Response in Victoria, Australia following the Ash Wednesday fires 16 February 1983.^{xix}

The Ash Wednesday fires in Victoria were a mixture of fires impacting on grazing / dairy country in the South West of Victoria and forested periurban areas around Melbourne. These fires underpinned Victoria’s shelter in place policy in place until Black Saturday as a majority of lives lost were outside / in vehicles.

The reporting of these fires by Victoria’s two main fire agencies – DELWP (public land ignition) and CFA (private land ignition) – show the divergence in understanding of property. DELWP only reports on buildings and lives lost^{xx} whilst CFA does include high level reports on stock losses and other non dwelling losses.^{xxi} 36 years on agricultural loss and impacts are regularly excluded from DELWP reporting where actions relating to aspects better understood by emergency managers such as communications, warnings, training, messaging, resources/ appliances have been resolved. Issues such as fuel break management / roadside vegetation raised in 1984, to the VFFs understanding, are no longer key considerations in native vegetation controls which are increasing roadside fuel loads and reducing fuel management along roadsides.^{xxii}

Native vegetation controls on roadsides should be reviewed to ensure that they deliver the following outcome from the 1983 report “*Main access/egress roads should be cleared of all trees; and the*

trees replaced by fire-resistant shrubs. Cleared safe areas must be maintained." This should also include access and egress to farms in Bushfire Prone Areas or in a Bushfire Management Overlay.

Excerpts from the 1983 Report

224. **The Peaks of Fire Severity.** This aspect has been referred to in various ways in earlier parts of the report. However, it must be repeated here because it has a basic and inescapable bearing on future fire occurrences and the relevant counter-measures. It is well illustrated in W. S. Noble's account of the Black Friday fires of 19394 which, inter alia, states: "Victoria is one of the most hazardous bushfire areas in the world. Its climate, the nature of its forests, the fierce northerly gales that sometimes accompany days of searing heat, make it peculiarly susceptible to outbreaks of fire that can mount in fury within a few hours to uncontrollable proportions. Although predictions based on weather cycles may be made from time to time, no one can forecast accurately when one of these great outbreaks of fire will occur. For bushfires of that order, as distinct from grass fires which occur in different years, the combination of factors involves prolonged drought, high temperatures and winds up to sixty miles an hour or more. Nothing can be done to alter the periodical occurrence of these natural forces. **Only the most rigorous policy of fire suppression can give any hope of preventing outbreaks such as this book describes. But we must never forget that a forest fire which burns in heavy fuel on a hot, windy day can release so much energy when it is in full flight that it cannot be stopped.**"

Levels of Destruction 58. The levels of destruction resulting from the fire impact amounted, in many instances, to 'total wipe-out'. Houses, business premises, government properties, churches, farms and vehicles, were destroyed or damaged beyond repair and, often, recognition. Moreover, because of the severity and extent of the fires, the post-impact demands on fire-fighting authorities for mopping-up and similar operations were enormous.

Community Requirements 66. These traumatic post-impact conditions produced some very urgent and immediate requirements; and clearly these had to be met as a matter of high priority if communities were to be safeguarded, as far as possible, from the marked long-term sociological and psychological effects which may emanate from severe disaster. In essence, the major requirements were: Clothing Sustenance Shelter/temporary accommodation Personal and household effects Medical assistance Sanitation and health protection Information (e.g. to and from relatives) Counselling Guidance on relief, insurance and similar matters.

67. Added to these more directly people-related requirements there were, of course, massive tasks in restoring or regularising essential community aspects such as: communications power supplies water road clearance making safe damaged buildings, burnt trees, etc. **repair and replacement of fencing in rural and semi-rural areas provision of emergency fodder disposal of dead animals and care for injured ones.**

Rehabilitation of Communities 84. Apart from the re-housing of victims, **communities also faced significant problems in rehabilitation of businesses, farm properties, and community services and facilities.** In some cases, owners of small businesses and farm properties found the prospect of rehabilitation too difficult and daunting altogether, and sought their future along alternative lines. For others, the building priorities necessarily given to re-housing often meant delay in re-establishing business effort. Others, yet again, were obliged to seek new sources of employment because their original ones had been wiped out by the fires. It was clear, therefore, that the longer-term rehabilitation of communities and those persons in need of extended health care was bound to be a complex and protracted process.

Fuel Reduction 119. The subject of fuel reduction was comprehensively covered in representations to and discussions with the Committee and a preponderance of opinion favoured increased emphasis on this aspect of mitigation. Points particularly emphasised were: **Fuel reduction by controlled burning is the only effective means of significantly reducing forest fires. Fuel reduction measures should be increased and the FCV should be allotted more funds for this purpose.** The need for fuel reduction is not confined to forest areas; it also applies to other rural areas. **Whilst conservation aspects must be respected, they should not be allowed to override reasonable safety measures achievable by fuel reduction.**

124. However, given that communities already exist in fire-prone areas, and are likely to do so in the future, certain special measures to improve counter-disaster effectiveness were suggested to the Committee. **They included: Main access/egress roads should be cleared of all trees; and the trees replaced by fire-resistant shrubs. Cleared safe areas must be maintained.** More effective measures are required to ensure that power supply systems cannot cause fires, **including the installation of underground supply lines. Special attention should be paid to fire-prone areas by local government authorities, such as provision of fire breaks, home protection measures and evacuation arrangements.**

Comments on Mitigation and Preparedness 128. In commenting on the many aspects of mitigation and preparedness presented for its consideration, the Committee's view is that: **(a) Mitigation and preparedness must always be regarded as a major bushfire counter-measure;** it needs to be enhanced and maintained for the future. (b) Many discrete aspects influence effective levels of mitigation and preparedness; they include: general apathy within the community; the policies and attitudes of governments; use of legislation and regulation; fuel reduction policies; the roles, responsibilities and powers of involved organisations, including local government; individual responsibility; special policies and measures in fire-prone areas; emergency training, public awareness and education; preservation of the environment; insurance aspects.

Improved arrangements are needed for covering the operating costs, serviceability and capability of privately-owned fire fighting vehicles and equipment. These vehicles and equipment represent a valuable resource during operations and all practicable steps should be taken to ensure their optimum effectiveness.

187. For ease of reference **the major relief requirements** which arose from the Ash Wednesday fires are summarised below. They were: Immediate Relief Requirements People-related requirements Clothing Sustenance Shelter/temporary accommodation Personal and household effects 98 Medical assistance Sanitation and health protection Information (e.g. to and from relatives) Counselling Guidance on relief, insurance and similar matters. Community requirements Communications Power supplies Water Road clearance Making safe damaged buildings, burnt trees, etc. **Repair and replacement of fencing in rural and semi-rural areas Provision of emergency fodder Disposal of dead animals and care for injured ones. Long Term Relief Requirements Financial compensation Re-housing of victims Rehabilitation of communities Rehabilitation of the environment Major planning measures.**

Fire-Fighting Capability 313. The experience of Ash Wednesday emphasised the problem of dealing with bushfires in semi-rural areas. In these areas, concentrations of dwellings tend to be closely surrounded by the high fuel levels inherent in trees and thick vegetation. The resultant fire problem is very difficult to handle and differs significantly from the grass-fire problem more usually associated with strictly rural areas. **There is an indicated need, therefore, to view the overall fire problem under separate categories of: urban semi-rural other rural forest and to develop resources and techniques accordingly.**

Training 318. *The effectiveness of combined CFA/FCV fire-fighting capability depends significantly on adequate standards of training. This applies particularly to fire-fighting techniques, utilisation of equipment **and mutual understanding of roles**. Recommendation: Training within the CFA and FCV be maintained at the highest possible standards and cross-training between the two organisations be further developed. [Reference paragraph: 182]*

The Interaction Between Local Government and the Community 332. *Community support groups played a significant part in assisting local government in various post-disaster activities following the Ash Wednesday fires. Recommendation: The involvement of community support groups in counter-disaster affairs at local government level be subject to further investigation. [Reference paragraphs: 234 to 236 and 287(e)]*

Overall Assessment of Relief Measures 326. *Relief measures were not carried out as effectively as expected. This was because of the severe post-impact situation, the magnitude of the response requirement and inadequacies of planning. **The result was that those in need did not always receive assistance in the appropriate manner, in the appropriate measure, at the appropriate time.** However, after the initial difficulties had been overcome, relief measures reached acceptable standards.*

Consideration of the adequacy of existing administrative and funding mechanisms in place at a state level to support the operational response efforts.

In considering the timeliness and effectiveness of activation of Commonwealth assistance, and Commonwealth resource availability, IGEM should particularly consider:

effectiveness of current national resource sharing arrangements when multiple and simultaneous fire events are occurring

effectiveness of existing governance arrangements supporting access to Commonwealth and State air fleets

use and integration of Australian Defence Force assets into Victoria's emergency response and relief operations.

As discussed the EMMV could be improved in relation to understanding impacts of fire on agriculture extends far beyond short term fodder and destruction of stock. Unless the roles of Agriculture Victoria and Victoria Police in facilitating safe movement of farmers and farm produce during and post fire impact, in locating and recovering missing livestock, in ensuring the return of essential infrastructure and in facilitating the protection of key genetic material the necessary staff resources, processes, respite and recovery / biosecure storage of livestock and genetic material will continue to be overlooked.

The role of Police in relation to "ensure animal welfare is included in all state, regional incident plans" is not included in the EMMV, but the reference document The Victorian Animal Welfare Plan,

included below. At a minimum the EMMV should reference the responsibilities outlined in referred documents and a review of the Animal Welfare Plan be undertaken against the principles outlined in this submission regarding embedding agriculture in all 3 stages of Emergency Management.

8.11 Victoria Police

Prevention / Mitigation / Risk reduction	<ul style="list-style-type: none"> • Ensure animal welfare arrangements are included in all state, regional and incident plans.
Response	<ul style="list-style-type: none"> • When a control agency, ensure approved animal welfare messages are provided to the community and media. • Ensure arrangements are in place at traffic management points that allow effective and timely delivery of animal welfare support services into impacted areas consistent with agreed guidelines. • Ensure animal welfare and other rural issues identified through initial impact assessment activities are referred to DJPR and DELWP.

Understanding infrastructure requirements can be critical to army or other support – knowing what type of generator is needed for a dairy farm, or understanding opportunities for mobile communication (CoWs or MEOWs) to overcome communication black spots or outages.

Given the widespread area of this fire season the extended closure of roads made it difficult for landholders to check on their livestock or to access the fodder and other services required. Contingency plans should be put in place to utilise airdrops and defence force capability and for there to be clear lines of communication from the agricultural sector regarding logistic requirements to be addressed.

Phase 2 – Progress and effectiveness of Victoria’s immediate relief, and recovery arrangements concerning the 2019-20 fire season

Matters for consideration:

- Effectiveness of immediate relief and recovery work and arrangements, including at the regional and incident levels.
- *Creation of Bushfire Recovery Victoria, the National Bushfire Recovery Agency and how these entities will work together for the benefit of affected Victorian communities, including consideration of long term efforts directed at social, economic (including small business, tourism and agricultural sectors) and environmental recovery.*
- *Effectiveness of how roles and responsibilities for recovery have been divided between Emergency Management Victoria and Bushfire Recovery Victoria.*

The VFF is willing to discuss how our submission and recommendations can relate to IGEM considerations of Phase 2 topics.

Appendix A – references to agriculture and farming in EMMV

Recovery

Recovery is defined in the 2013 Act as ‘the assisting of persons and communities affected by emergencies to achieve a proper and effective level of functioning’. Recovery operations involve cooperation between all levels of government, non-government organisations, community agencies, the private sector, the affected community and emergent organisations in consideration of the:

- **people, social, community and health environment** - the emotional, social, spiritual, financial and physical wellbeing of individuals and communities
- **economic environment** - the revitalisation of the economy of the community
- **built environment** - the restoration of essential and community infrastructure
- **natural environment** - the rehabilitation of the environment, and
- **agricultural environment** – the restoration of affected agricultural activities.

5.2.5 Impact assessment

The Emergency Management Commissioner is responsible for collecting and reporting information on the impact of emergencies in order to inform priorities in consequence management and the provision of relief and recovery services.

There are three stages of impact assessment:

- Initial impact assessment is a high level assessment conducted as soon as possible after the impact of the emergency and is managed by controllers during the emergency response.
- Secondary impact assessment is the subsequent assessment of the impact of the emergency on the natural, built, social, economic and **agricultural** environments and is managed by relief and recovery coordinators/managers.
- Post emergency needs assessment is a longer term, more thorough estimate of the effects and consequences of the emergency on the health and wellbeing of the community, property, the economy and the environment. This is managed by relief and recovery coordinators/managers.

Impact Assessment Guidelines can be obtained from the Emergency Management Portal (login required) at: <http://portal.em.vic.gov.au>

7.5.3 Agriculture

Objective: *To assist the agriculture sector to recover and minimise long term social and economic impact on primary producers and other animal owners.*

The focus of a DEDJTR rural recovery program is on:

- supporting the wellbeing of rural communities
- revitalising the economy of rural communities through reestablishment of agricultural enterprises
- rehabilitation of productive land and the surrounding environment.

DEDJTR coordinates this functional area.

Animal welfare assistance is presented in section 4.5.3.

Activities:

7.5.3.1 Implement available financial assistance under the NDRRA to assist primary producer recovery

- Under the NDRRA, DTF administers:
 - a low-interest concessional loan scheme to primary producers
 - recovery grants for primary producers, subject to approval by the Australian Government.
- DEDJTR gathers impact and loss information for primary producers and provides this information to DTF and EMV.
- The Rural Assistance Commissioner administers the low-interest concessional loans and clean up and restoration grants through an agreement with The Bendigo and Adelaide Bank under the Trade Mark Rural Finance
- EMV supports DTF as the lead agency for this activity by advising the Minister for Emergency Services to request that the Treasurer activate Category B direct concessional loans and/or consequential effect concessional loans for primary producers where the NDRRA criteria are met; and/or the Premier request the Prime Minister activate Category C Clean up grant funding where the NDRRA criteria are met. Under the NDRRA Category D Exceptional Circumstances, co-funding may also be available, subject to the Prime Minister's approval.

7.5.3.2 Deliver recovery programs and advice to primary producers, and rural land managers and other animal businesses

- DEDJTR:
 - ensures effective communication between various agencies, organisations and communities
 - provides advice on ongoing treatments
 - provides advice about fencing (for safe ongoing containment), feed planning and pasture management, water supplies including dam management, and animal health considerations.

7.5.3.3 Provide technical advice to primary producers and rural land managers on re-establishment or alternative strategies

DEDJTR provides technical advice and services to primary producers, rural land managers and other animal businesses on strategies for the re-establishment of rural enterprises, rehabilitation of productive land and economic recovery.

7.5.3.4 Assist farmers repair and restore fences damaged by fire or suppression activities

It is the responsibility of the owner of private land to fence their property and secure stock within their boundary. Landholders are expected to manage risks to their assets from the potential impact of emergencies. All landholders are expected to have appropriate levels of insurance cover for boundary and internal fences.

The Victorian Government will pay 100 per cent of the restoration costs of fences damaged on private land as a result of machinery used by fire agencies to control bushfires. This includes damage to fences by machinery such as bull-dozers entering the property and/or constructing fire control lines, and other fire emergency vehicles obtaining access.

The Victorian Government will meet half the cost of materials to replace or repair fencing between private land and all national parks, state parks and state forests destroyed or damaged by bushfires.

Further details can be found at www.delwp.vic.gov.au/fences

- DELWP and the Country Fire Authority are the lead agencies for this activity, supported by Municipal Councils. They:
 - determine eligibility of damaged fences for Victorian government funding
 - restore/repair/replace fences damaged by fire bordering national or state parks or state forest
 - restore/repair/replace fences damaged by fire agencies, i.e. machinery/cutting
 - coordinate payment to landholders for materials to repair/replace affected fences.
- DEDJTR normally collects impact information from affected primary producers after most emergencies. During this process, DEDJTR may identify primary producers who have had their fences damaged by fire or suppression activities. DEDJTR will refer these primary producers to:
 - municipal councils to coordinate local volunteer efforts after emergencies, for private fencing damage
 - to DELWP for damaged fences on public land boundaries.

8.3 Plan resources

This plan should be read in conjunction with:

- *Emergency Management Act 1986*
- *Emergency Management Act 2013*
- Other parts of the *Emergency Management Manual Victoria*
- *National Strategy for Disaster Resilience*
<https://knowledge.aidr.org.au/resources/national-strategy-for-disaster-resilience/>
- *National Principles for Disaster Recovery* https://www.dss.gov.au/sites/default/files/documents/05_2012/recovery.pdf
- *Community recovery handbook*
<https://knowledge.aidr.org.au/media/4108/handbook-2-community-recovery.pdf>
- *Communicating in recovery guide* www.redcross.org.au/communicating-in-recovery.aspx
- *Emergency relief handbook 2013: A planning guide*
http://www.dhs.vic.gov.au/__data/assets/pdf_file/0003/612372/Final_Emergency-relief-handbook_2013_WEB.pdf
- *LAP2 Guidelines* <https://www.iap2.org.au>
- *Victorian Emergency Animal Welfare Plan*
<http://agriculture.vic.gov.au/agriculture/emergencies/response/victorian-emergency-animal-welfare-plan>

Emergency Risk Assessment

This section of the plan should include a brief description of the risks to the community. History and existing municipal risk assessments conducted by Municipal Emergency Management Planning Committees will often indicate them. Typical headings are:

- Bushfires
- Floods
- Windstorms

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- **Agriculture** (exotic animal diseases, plagues)
- Transportation
- Public utility
- Special: e.g. hospitals, industrial complexes.

Emergency Plan

ECONOMIC ENVIRONMENT			
<i>The economic environment considers the direct and indirect impacts that an event may have on business, primary producers and the broader economy</i>			
FUNCTIONAL AREA (lead coordinating agency)	ACTIVITIES	LEAD	SUPPORT
Local Economies (DEDJTR) Mitigate the impact of emergencies on economic activity in affected communities	<ul style="list-style-type: none"> Implement available financial assistance under the NDRRA to assist voluntary non-profit groups, communities and economies 	<ul style="list-style-type: none"> DTF 	<ul style="list-style-type: none"> DPC DEDJTR RFCV
	<ul style="list-style-type: none"> Implement approved actions and projects to assist economic recovery 	<ul style="list-style-type: none"> DEDJTR 	
	<ul style="list-style-type: none"> Encourage and bring forward the resumption of local trade and economic activity 	<ul style="list-style-type: none"> DEDJTR 	
	<ul style="list-style-type: none"> Monitor broad economic impacts and consequences 	<ul style="list-style-type: none"> DEDJTR 	
Businesses (DEDJTR) Information, advice and support to businesses to facilitate good decision making and assist their recovery	<ul style="list-style-type: none"> Assist businesses to access available information and advice following an emergency 	<ul style="list-style-type: none"> DEDJTR 	
	<ul style="list-style-type: none"> Information and advice to small businesses to support decision making and encourage return to business 	<ul style="list-style-type: none"> DEDJTR 	<ul style="list-style-type: none"> Small Business Mentoring Services
	<ul style="list-style-type: none"> Implement available financial assistance under the NDRRA to assist small businesses' recovery 	<ul style="list-style-type: none"> DTF 	<ul style="list-style-type: none"> RFCV DEDJTR DPC
	<ul style="list-style-type: none"> Implement approved actions to assist business recovery 	<ul style="list-style-type: none"> DEDJTR 	
	<ul style="list-style-type: none"> Provide opportunities for the enhancement of knowledge and skills within small businesses 	<ul style="list-style-type: none"> DEDJTR 	

	<ul style="list-style-type: none"> • Coordinate the insurance industry response, information, advice and government liaison 	<ul style="list-style-type: none"> • DTF 	<ul style="list-style-type: none"> • ICA • VMIA
<p>Agriculture (DEDJTR)</p> <p>To assist the agriculture sector to recover and minimise long term social and economic impact on primary producers and other animal owners</p>	<ul style="list-style-type: none"> • Deliver recovery programs and advice to primary producers, and rural land managers and other animal businesses 	<ul style="list-style-type: none"> • DEDJTR 	<ul style="list-style-type: none"> • DPC • DTF
	<ul style="list-style-type: none"> • Implement available financial assistance under the NDRRA to assist primary producers' recovery 	<ul style="list-style-type: none"> • DTF 	<ul style="list-style-type: none"> • RFCV • DEDJTR • DPC
	<ul style="list-style-type: none"> • Provide technical advice to primary producers and rural land managers on re-establishment or alternative strategies 	<ul style="list-style-type: none"> • DEDJTR 	
	<ul style="list-style-type: none"> • Assist farmers repair and restore fences damaged by fire or suppression activities 	<ul style="list-style-type: none"> • DELWP • CFA 	<ul style="list-style-type: none"> • DEDJTR • Municipal councils

Relief / Recovery Activities

CFA supports DELWP to deliver the following recovery activities:

- assisting farmers to repair and restore fences damaged by fire or suppression activities
- ensuring essential water taken from private landholders during bushfire suppression activities is replaced.

CFA supports the Controller by:

- providing assistance and advice to individuals, families and communities who have been affected by fire or other incidents as described above
- providing assistance, advice and information to other agencies responsible for, or involved in, recovery activities.

CFA is the lead agency for undertaking the assessment, restoration, clearing and rehabilitation of public buildings and assets, where the CFA is the manager of that building or asset.

Relief / Recovery Activities

Relief and recovery coordination responsibilities summary:

- DEDJTR is responsible for the relief coordination of:
 - ◆ food and grocery supply logistics continuity
 - ◆ animal welfare

DEDJTR is responsible for the recovery functional area coordination of:

- local economies
- businesses
- agriculture
- telecommunications
- transport.

DEDJTR is lead agency for the following relief activities:

- animal welfare support services, other than wildlife, which sits with DELWP, in co-lead with municipal councils who hold responsibility for housing of displaced and lost/stray companion animals. DEDTJR will work with the Victorian [Farmers' Federation](#), RSPCA and Australian Veterinary Association where required
- As per the *Victorian Emergency Animal Welfare Plan*, animal welfare support services during relief include, but are not limited to:
 - ◆ management of displaced animals (including relocated animals)
 - ◆ animal welfare assessment, veterinary treatment, humane destruction, salvage slaughter and disposal
 - ◆ provision of emergency pet food, livestock fodder and water
 - ◆ liaise with DELWP, local government and animal welfare support agencies and organisations to ensure effective allocation of resource
 - ◆ advise local government of containment needs of stray or roaming animals and disposal needs of dead or injured animals (e.g. location, number and type of animals)
 - ◆ inform and coordinate animal welfare organisations, volunteer groups or community groups wanting to contribute

- ◆ assess and report losses and damage to agricultural assets and animals, and needs of affected persons and communities to government
- ◆ liaise with DHHS where emergencies impacting on human health may also have associated animal health issues.

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- Food and grocery supply logistics continuity by providing strategic and expert advice to government and emergency agencies regarding impacts on food and grocery supply logistics
- Promotion of resilience through:
 - ◆ emergency planning and preparedness
 - ◆ business continuity
 - ◆ linkages to emergency services
 - ◆ communication and networking
 - ◆ food and grocery supply logistics prioritisation in an emergency
 - ◆ surge capacity.

DEDJTR is lead agency for the following recovery activities:

- referring primary producers and animal owners to services. DEDJTR will gather information on affected primary producers and other animal owners' properties to assess the impact, loss and damage. Relevant information will be shared with municipal councils and appropriate departments
- supporting local community events by providing seed funding for events that aid recovery through restoring social networks and functioning
- working with municipal councils to develop and implement appropriate actions and projects that support local and regional economy recovery priorities. Initiatives will be tailored to address the specific consequences of an emergency
- delivering a wide range of marketing/public relations and industry/product development activities, in partnership with regional tourism boards, to assist the affected tourism region/s and businesses recover, including "Open for Business" messaging and campaigns
- working with municipal councils to implement appropriate actions and initiatives that encourage and bring forward the resumption of local economic activity, including:
 - ◆ tourism visitation when safe to do so
 - ◆ the use of local business in recovery activities
 - ◆ buy-local initiatives
 - ◆ events that attract visitation
 - ◆ other relevant activities.
- monitoring broad economic impacts and consequences in partnership with other agencies and municipal councils, and
 - ◆ ensuring this information is shared across government to inform responses
 - ◆ working with agencies to prioritise planned activities in order to minimise economic consequences
- assisting businesses to access available information, advice and support following an emergency including from:
 - ◆ Australian Tax Office
 - ◆ financial institutions
 - ◆ Australian Securities & Investment Commission
 - ◆ Centrelink
 - ◆ Victorian Government
 - ◆ other sources and resources

- providing information and advice to small businesses to support decision making and, where appropriate, encourage a return to business. This may include:
 - ◆ mentoring and business counselling
 - ◆ support through the small business bus
 - ◆ connection to other services
- working with municipal councils to develop and implement appropriate approved actions to assist business recovery. Initiatives will be tailored to address the specific consequences of an emergency
- providing opportunities for the enhancement of knowledge and skills within small businesses by supporting the delivery of small business workshops and training, with a particular focus on resilience and business continuity
- delivering recovery programs and advice to primary producers, and rural land managers and other animal businesses by
 - ◆ ensuring effective communication channels between various agencies, organisations and communities
 - ◆ providing advice on ongoing treatments ensure effective communication channels between various agencies, organisations and communities
 - ◆ providing advice on ongoing treatments
- providing technical advice and services to primary producers, rural land managers and other animal businesses on strategies for the re-establishment of rural enterprises, rehabilitation of productive land and economic recovery
- providing advice about fencing (for safe ongoing containment), feed planning and pasture management, water supplies including dam management, and animal health considerations
- undertaking the assessment, restoration, clearing and rehabilitation of public buildings and assets (e.g. roads, bridges, public amenities) where DEDJTR is the manager of that building or asset.

Relief / Recovery Activities

DELWP is lead agency for the following relief activities:

- animal welfare in co-lead with DEDJTR and municipal councils (who are responsible for housing displaced and lost/stray companion animals). DELWP is the primary agency for wildlife animal welfare support services. DELWP will work with the Victorian Farmers Federation, RSPCA and Australian Veterinary Association where required.
- ◆ establish links with other agencies and organisations with emergency responsibilities as well as those organisations involved in the management of animal welfare to coordinate the delivery of animal welfare support services
- ◆ as per the *Animal Welfare Plan*, animal welfare support services during relief include, but are not limited to:
 - management of displaced animals (including relocated animals)
 - animal welfare assessment, veterinary treatment, humane destruction, and disposal
 - liaise with DEDJTR, local government and animal welfare support agencies and organisations to ensure effective allocation of resources
 - advise local government disposal needs of dead or injured animals (e.g. location, number and type of animals)
 - inform and coordinate animal welfare organisations, volunteer groups or community groups wanting to contribute
 - liaise with DHHS where emergencies impacting on human health may also have associated animal health issues.
- Provide drinking water for households.

DELWP is lead agency for the following recovery activities:

- Works with CFA to assist farmers repair and restore fences damaged by fire or suppression activities by:
 - ◆ Determining eligibility of damaged fences for restoration /repair/ replacement
 - ◆ Restoring/repairing/replacement of fences damaged by fire bordering national or state parks or state forest
 - ◆ Restoring/repairing/replacement of fences on public lands
 - ◆ Restoring/repairing/replacement of fences damaged by fire agencies, i.e. machinery/cutting
 - ◆ Coordinating payment to landholders for materials to repair/replace affected fences.
- Recovering and rehabilitating essential water supply for domestic use for areas where reticulated water services are not in use. Oversee activities undertaken by water authorities
- Restoring sewerage, sanitation systems and wastewater management systems for domestic use for areas where reticulated services are not available. Oversee activities undertaken by water authorities
- working with CFA ensuring essential water taken from private landholders during bushfire suppression activities is replaced
- DELWP and CFA in assisting farmers repair and restore fences damaged by fire or suppression activities by collecting information from affected primary producers and refer private fencing damage to municipal councils, and fences on public land to DELWP

MEASURE	PURPOSE	AGENCY	OTHER DETAILS
Replacement of essential water taken from private land for use in wildfire suppression	To relieve genuine hardship in the community by replenishing essential private water supplies.	DELWP/ CFA	Water taken from household tanks or agricultural dams for fire fighting will be replaced (up to the quantity taken) when requested by the landholder and water is needed for essential use. The aim is to ensure that landholders have a sufficient water to sustain: the health of residents and pets, and the health and productivity of livestock and crops.
Assistance for the transport of donated fodder to affected rural landholders	To ensure the immediate welfare of livestock in fire or flood affected areas	DEDJTR	

Name	Victorian Emergency Animal Welfare Plan
Objective/Purpose	To provide the efficient and effective management of animals and coordination of animal welfare support services before, during and after an emergency.
Contents	The Plan details the principles and policy for the coordinated management of animal welfare impacts to companion animals, livestock and wildlife as a direct result of an emergency event.
Date of Publication	January 2016 (Revision 1)
Website for Access	www.agriculture.vic.gov.au/agriculture/emergencies/response/victorian-emergency-animal-welfare-plan
Custodian Agencies	Department of Economic Development, Jobs, Transport and Resources & Department of Environment, Land, Water and Planning
Related Plan	N/A
Contact Person	Agriculture Victoria Customer Service Centre, Ph: 136 186

Support Services for Response

In addition to the list of control agencies, there are a range of functional support services for response. All agencies listed in Part 7 of this manual, may potentially be support agencies in the event of an emergency, where they have the skills, expertise or resources to contribute to the management of an emergency. Refer to each agency's role statement for a list of the services provided.

The agency with portfolio responsibility for the subject area will generally be the lead agency for the functional area and will coordinate the involvement of service providers within the portfolio.

Functional support area	Lead agency (state)
Agriculture	DEDJTR
Animal Welfare (livestock and companion animals)	DEDJTR
Animal Welfare (wildlife)	DELWP
Ambulance / first aid	AV

6.3.6 Animal welfare

Companion animals, livestock and wildlife impacted by emergencies could need access to adequate feed and water, provision of shelter, housing and adequate space, freedom from pain, injury, disease and obvious discomfort, and freedom from unnecessary fear and distress. *The Victorian Emergency Animal Welfare Plan* defines animal welfare support services in relief.

Key animal welfare considerations include:

- maintaining acceptable animal welfare standards for all animal species
- destruction of the minimum number of animals during the emergency response
- best use of available resources (personnel, infrastructure, feed and water).

Companion animals and livestock welfare (other than wildlife) support services:

- DEDJTR is the lead agency
- it is supported by the Victorian Farmers Federation, the RSPCA, the Australian Veterinary Association and municipal councils
- Municipal councils are responsible for the housing of displaced animals and lost/stray animals.

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7.4.2.5 Referrals to psychosocial services for primary producers and animal owners

The impacts of the loss of companion animals, pets and livestock on wellbeing of individuals, households and farmers must be considered in the development of recovery programs.

- DEDJTR gathers information on affected primary producers and other animal owners' properties to assess the impact, loss and damage. Relevant information is shared with municipal councils and appropriate departments
- DEDJTR supports the needs of affected primary producers and animal owners with referrals to support for assistance.
- DHHS refers affected primary producers and other animal owners to available services as needed.

Deficiencies in Guidance to Councils – preparedness

Membership

Section 21(3) of the 1986 Act recommends that each Council appoint to the MEMPC representatives of:

- the municipal council (members and employees)
- response agencies
- recovery agencies; and
- local community groups involved in emergency management issues.

The actual size of the committee will depend on the risk profile for the municipality and whether councils decide to conduct joint emergency management planning. The number of committee members must be relevant and manageable.

Membership could include the following:

- Executive officer to the Committee (council officer)
- Municipal Community Safety Manager/Municipal Emergency Manager or Councillor as chairperson
- Municipal Emergency Resource Officer
- Municipal Recovery Manager
- Municipal Fire Prevention Officer
- Municipal Emergency Response Coordinator (Victoria Police)
- Regional Recovery Coordinator or representative (Department of Health and Human Services and other Government departments)

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The Municipal Emergency Management Planning Committee
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- local emergency services' representatives
- local recovery agencies' representatives
- local representatives of other relevant agencies as needed (e.g. catchment management authority, Department of Environment, Land, Water and Planning, infrastructure bodies such as VLine, Electricity distribution companies)
- local medical representatives
- interested community groups
- local media representatives and others as required.

Establishing the Context

The information gathering stage provides the MEMP committee with a comprehensive picture of the municipal district; the people who live there, its geographic features, infrastructure, and the history of emergencies in the district.

Information can be obtained from a number of sources including:

- municipal databases e.g. the planning scheme
- previous risks assessments
- local historical societies
- emergency service organisations
- Government departments and agencies such as the Department of Environment, Land, Water and Planning, Department of Health and Human Services, Department of Education and Training, Catchment Management Authorities and Parks Victoria
- essential services such as electricity, water, gas and public transport bodies
- major industrial facilities in the area, or adjoining municipal districts, and
- the Australian Bureau of Statistics.

The development of risk criteria serves the determination of priority risks for preparation of sub-plans and for risk treatment.

Appendix B - Confidential Attachment – feedback from NE CFA

This information is provided for context. Please do not publish or supply to agencies for follow up as we want to ensure we get honest feedback from these processes.

After Action Review Summary 2019 / 2020 - Tallangatta Group

Preseason Preparedness:

▲ Worked well:

- Brigades ready to respond to incidents

▲ Need improvement:

- Private track maintenance – need more done before an incident
- Disc ploughing of fire breaks just prior to incident – was a hinderance because of dry grass amongst soil
- Locked gates & narrow gateways – hinderance to access for resources.
- Protection for houses – some were undefendable

Resource turnouts

▲ Worked well:

- ▲ The number of CFA members willing to lend a hand at short notice.
- ▲ Contractors notified & tasked accordingly
- ▲ Contractors worked well together with other organisations

▲ Need improvement:

- ▲ More aggressive initial attack including aircraft where practical & fire ground night work
- ▲ Need better understanding between agencies
- ▲ Agencies combining fire ground sectorising & planning together
- ▲ Better tracking of resources on fire ground for ICC's & S/T leaders etc.
- ▲ Use of UHF 24 was non existant for incoming resources
- ▲ Better co-ordination of "local" CFA resources - need to form "local" Strike Teams

Fire Ground

▲ Worked well:

- Good leadership
- Crew leaders briefed & tasked appropriately
- CFA S/T Leaders gaining more experience and confidence
- Support from District Officers & Staff
- Members seeing a risk or situation contrary to a Strike Team or ICC's orders act on that if reasonable and communicate to Strike team leaders and others.
- FFMV fatigue management process without compromising fire ground
- FFMV used local knowledge extensively when on their shifts
- Fire ground communications worked well between FFMV, Contractors
- Traffic Managements Points – worked well for contractors & off siders
- Water & meals supplied regularly at appropriate times (for contractors)
- Large water tankers available at or near fire grounds for appliance refilling
- Local CFA resources were stood down when Strike Teams arrived.

▲ Need improvement:

- FFMV not considering CFA crews – should sectorize & allow CFA to participate in a given sector
- Better radio communications between Contractors & Strike Team leaders / Sector Commanders (UHF radios not adequate in some circumstances)
- Use of UHF 24 or alternate channels were non-existent for resources e.g. private appliances
- Local Brigade UHF channels worked well but unknown to outside resources
- Radio communications for cross border situations – need common fire ground & command channels
- Local knowledge should have been used more - a lack of this was most evident when “outside” teams were brought in.
- Better tracking of resources on fire ground for ICC's, Sector Commanders & S/T leaders
- CFA need better control of Fatigue Management – shifts too long at times
- Fuel for resources when power is not available
- Quick fill pump locations need to be identified with “sandwich boards” or similar and if accessible for large water tankers – need to identify in map books
- Quick fill points - needed more as there were lengthy trips to refill tankers
- Bulk water tankers were available to ALL appliances. Some CFA appliances thought that they were only there for FFMV only. Need better education on working together
- Risks taken by appliances without fall back points – safety concerns for crews
- A lot of time wasted waiting for the fire to come to the control line.
- Too much emphasis placed on preserving environmental assets
- S/T leaders being too specific with crews regarding actions to be taken – should be a coordination role only.
- Tasking should be done on the fire ground

Incident Control

▲ Worked well:

- Despite the noted minimal amount of Tallangatta Group personnel at the staging area and ICC, those group members who did engage at this level must be highly commended for their actions

▲ Need improvement:

- Lack of empathy from ICC management shown towards volunteers at times.
- Need more information forwarded to Groups & Brigades for local dissemination
- Use of more local knowledge - in particular with ICC planning
- IAP's need to be less descriptive with regard to fire ground actions
- IAP's produced but seem to be 'out of date' with fire ground actions. Is there enough information coming from fire grounds for IC's to plan up to date IAP's?
- More CFA Group involvement needed in ICC's.
- Need for alternate communication plans when “every day” systems fail between ICC's & DCC's – portable systems i.e. phone towers, repeater links, etc.
- Use of WICEN for communications – this organisation is available but was not utilised.
- Situation changes when a “State of Emergency” is declared – this needs to be delivered better and understood by everyone.
- Better knowledge of Critical Infrastructure within Group's and the ICC (Dams, Hydro Power Stations, Telecommunications assets, Water Services etc.) embedded in Brigade Assignment Areas.

- Consideration to road access to areas & townships under emergency conditions as per the MFMPC guidelines

Staging Area

👉 Worked well

- Catering worked well

👉 Need Improvement

- Management at staging area. ICC had no idea as to what was happening
- Bus transport not properly organised
- Strike team leaders should be at the staging ground one hour prior to buses and or teams arriving, this may mean they drive themselves to the staging ground in their FCV pick up their local driver, have their briefing and be prepared when teams arrive.
- Some brigades were asked to travel home in trucks well past their recommended shift durations – unsafe work practice.
- Bad communication at the staging area resulting in long delays

Interstate Strike Team Deployments

👉 Need improvement:

- Interstate Registration Process
- Fatigue Management – Don't keep sending the same people

Other comments

👉 Need Improvement:

- Fit for duty
- Responsibility for checking for appropriately CFA qualified member

After Action Review 2019 / 2020: (Mongans Bridge & Walwa fires)

Preseason Preparedness:

👉 Need improvement:

- 👉 Private track maintenance – need more done before an incident
- 👉 Disc ploughing of fire breaks just prior to incident – was a hinderance because of dry grass amongst soil
- 👉 Locked gates & narrow gateways – hinderance to access for resources.
- 👉 Protection for houses – some were undefendable

Resources turnouts

👉 Worked well:

- 👉 Contractors notified & tasked accordingly
- 👉 Contractors worked well together with other organisations

👉 Need improvement:

- 👉 More aggressive initial attack including aircraft where practical & fire ground night work
- 👉 Better understanding between agencies
- 👉 Combining fire ground sectorising & planning together for better working
- 👉 Better tracking of resources on fire ground for ICC's & S/T leaders etc.
- 👉 Use of UHF 24 was non existant for incoming resources
- 👉 Better co-ordination of "local" CFA resources need to form "local" Strike Teams

Fire Ground

▲ **Worked well:**

- FFMV fatigue management process without compromising fire ground
- FFMV used local knowledge extensively when on their shifts
- Fire ground communications worked well between FFMV, Contractors & CFA
- Traffic Managements Points – worked well for contractors & off siders
- Water & meals supplied regularly at appropriate times (for contractors)
- Large water tankers available at or near fire grounds for appliance refilling
- Local CFA resources were stood down when Strike Teams arrived.

▲ **Need improvement:**

- FFMV not considering CFA crews – should sectorize & allow CFA to participate in a given sector
- Better radio communications between Contractors & Strike Team leaders / Sector Commanders (UHF radios not adequate in some circumstances)
- Use of UHF 24 or alternate channels were non existant for resources e.g. private appliances
- Local Brigade UHF channels worked well but unknown to outside resources
- Radio communications for cross border situations – need common fire ground & command channels
- Better tracking of resources on fire ground for ICC's, Sector Commanders & S/T leaders
- CFA need better control of Fatigue Management – shifts too long at times
- Fuel for resources
- Quick fill pump locations need to be identified with “sandwich boards” or similar and if accessible for large water tankers – identify in map books
- Risks taken by appliances without fall back points – safety concerns for crews
- S/T leaders being too specific with crews regarding actions to be taken – should be a coordination role only of crews
- Bulk water tankers were available to ALL appliances. Some CFA appliances thought that they were only there for FFMV only. Need better education
- Local knowledge should have been used more - a lack of this was most evident when “outside” teams were bought in. **Incident Control**

▲ **Need improvement:**

- More information forwarded to Groups & Brigades for local dissemination
- Use of more local knowledge - in particular with ICC planning
- Tasking to be done on the fire ground
- IAP's need to be less descriptive with regard to fire ground actions
- IAP's produced but seem to be 'out of date' with fire ground actions.
- Is there enough information coming from fire grounds for IC's to plan up to date IAP's?
- More CFA Group involvement needed in ICC's – how can we do this?
- Need for alternate communication plans when “every day” systems fail between ICC's & DCC's – portable systems i.e. phone towers, repeater links, etc.
- Use of WICEN for communications – this organisation is available but was not utilised.
- Situation changes when a “State of Emergency” is declared – this needs to be delivered better and understood by everyone.

Bethanga

Strike Team Leadership:

⤴ Worked well:

- Good leadership
- Crew leaders briefed & tasked appropriately

Incident Command / Leadership:

⤴ Need Improvement

- Management at staging area. ICC had no idea as to what was happening
- Bus transport not properly organised

DARTMOUTH FIRE BRIGADE

Interstate ST Deployments

Positives

- ⤴ The number of members that made themselves available at short notice was encouraging.

Negatives

- ⤴ Registration Process
- ⤴ Fatigue Management – spread the workload. Don't keep sending the same people. There were members ready to go that were overlooked for members who'd already been on a deployment. If we don't share it around, members will lose interest.

Neighbouring Group Deployments

Positives

- ⤴ The number of members willing to lend a hand.

Negatives

- ⤴ Fatigue Management (as per Interstate)
- ⤴ Tasking – too much "hurry up and wait" (although expected at large incidents).

Strike Team Leadership

Positives

- ⤴ ST Leaders gaining more experience and confidence

Negatives

- ⤴ DGO's should not be Strike Team leaders if they are going to leave the LCF vulnerable. If the LCF is fully manned and capable of providing assistance to brigades as required, then I have no trouble with a DGO fulfilling a ST Leader role.
- ⤴ I'm not sure whether it's the rostering system or availability, but it is obvious that a select few remain the Group's preferred ST Leaders, with other qualified members consistently overlooked for ST Leader duties.

Incident Command/Leadership (Group & ICC)

Positives

- ⤴ I would like to thank Ross Smith for some of the updates he provided, as well as his prompt follow up of requests from our brigade. A difficult task when you're getting limited info out of the ICC, combined with a lack of resources and an undermanned LCF.

- ⤴ A phone call from Ian Hillas informing us that local appliances had returned from NSW was appreciated.

Negatives

- ⤴ Leadership was notably absent. Rosters were getting thrown together at the last minute without structure or forward planning, liaison with brigades was minimal and the group did not have the capacity to assist brigades as they should.
- ⤴ The underlying arrogance of a DGO in assuming they had authority over a brigade to deploy one of its members without consultation of any of its BMT members...
- ⤴ The abuse of a leadership role by another DGO and the misleading representation to a visiting RDO that the Mitta Valley FCV (a brigade funded vehicle) was to be prepositioned in the Eskdale Station for the security of the group. It would be fair to assume that this move was not for group security as such, but so our Group Leader had a private vehicle to utilise, as demonstrated by its subsequent positioning a further 15km away at Swan's cutting. The FCV remained at this private residence for the next two days, despite a requirement for reconnaissance and planning activities by our brigade (a funding participant of the vehicle) and the Tallangatta Group FCV being made available from approx. midday on the first day.
- ⤴ The manning of the LCF needs to be given more consideration. I would suggest that it is the DGO's responsibility to ensure it is adequately manned. If they can't find people to take on roles, then they need to fill those roles themselves to provide adequate assistance, structure and leadership to the brigades of the Tallangatta Group.
- ⤴ Limited knowledge within Tallangatta Group and the ICC of the Critical Infrastructure (Dams, Hydro Power Stations, Telecommunications assets, Water Services etc.) embedded in Dartmouth's Assignment Area. The consequences, including risk to life, property and environment, surrounding failure of these assets is unfathomable. Add in the susceptibility to Dartmouth Road being cut by fire... In future, there must be a more proactive approach in the prepositioning of additional resources, with serious consideration of accommodating a Strike Team within the Dartmouth Township...

Local Fire Response & Readiness (Brigade Level)

Positives

- ⤴ Commitment from members, both firefighters and auxiliary.
- ⤴ Rostering - The ability to rotate 25-30 firefighters through a roster.
- ⤴ The ability to man the Station for 24hrs with members capable of maintaining situational awareness through radio traffic, EMCOP, EMAP, FireWeb, BOM site etc.
- ⤴ Support from District Officers & Staff
- ⤴ Additional Appliance – Bungaree.
- ⤴ Ability to access extra stores.
- ⤴ Community Meetings/Information – formal with multiple agencies (Dart Hall), and informal (update at community dinner and community members calling in to the manned station seeking information).
- ⤴ Community & Progress Association Support in providing meals, rations and essential supplies.
- ⤴ NSP Operational and contacts on call as required.
- ⤴ Sat Phones and comms redundancies in place at Hotel and GMW Office.
- ⤴ Assistance from local earthmoving contractors in cutting mineral earth lines for township protection at short notice (unpaid labour, later reimbursed through community funds).

- ⤴ Support from Earthmoving Contractors & local landholders included – 12H Grader, D6H Dozer, 30T Excavator. (Also, a 30,000L Water Cart for 2 days).
- ⤴ Support from GMW – provided a 37,000L Water Cart, Backhoe, Tractor with Blade, 2,000L Slip On Unit, all with operators. Maintained maximum ULP & Diesel Storage. Workshop was set up for DMO's to walk in and commence work if required.
- ⤴ Support from AGL Hydro & MDBA – maintained river releases at a level to assist firefighting operations, setting quickfills, draughting points etc.
- ⤴ Support from NE Water in providing two generators to ensure ongoing operation of town water supply pumps and associated equipment in the event of power failure.

Negatives

- ⤴ Issues around reliable water supply – to be addressed with NE Water post FDP
- ⤴ Issues around reliable power supply – lodge Helen Haines Grant Application for assistance in funding a Diesel Generator.

Actions:

- ⤴ BMT to meet with NE Water post FDP to strengthen the reliability of the towns reticulated system. To include discussion around direct charging of mains from Reservoir and the alteration of policies to ensure the ongoing power supply to pumps and plant.
- ⤴ Brigade has purchased a 110,000L Water Tank and supply pumps at a cost of \$12,000 to secure a reliable static water supply in the event of mains failure and/or ongoing dry conditions. Tank is to be installed 24/2 and be operational by 28/2/20.
- ⤴ Brigade has lodged a grant application with Helen Haines to assist in the purchase of a 3 Phase 11kva 240V Diesel Generator. This ensures that our station remains operational in the event of isolation, meaning we receive the latest information and maintain the ability to keep the community informed.

Group Involvements

- (as per IC and Leadership)

Talgarno Rural Fire Brigade

Date: 13 February 2020

Upper Murray Fire debrief

Talgarno Tanker and crews operated as part of Strike Team 2475 mainly in the Walwa, Burrowye, Mt Alfred and Guys Forest areas as well as doing a shift in the Nariel Valley. Talgarno Ultra-Light operated as part of a Strike Team 2400 at Lucyvale.

During this period 23 members of the Talgarno Brigade attended the fires.

Brigade level

- ⤴ On whole most organisation at the brigade level was very good.
- ⤴ Many thanks to Anthea Redman (Communications Officer) for her organising of crews during the incident.
- ⤴ Big thanks to the local women for providing the food packs for the various shifts.
- ⤴ Everyone felt safe on all crews which is a great reflection of all members taking the safety first approach.

- ⤴ Crew mix was good throughout with junior and senior members working together well.
- ⤴ Good to see sharing shifts to manage fatigue
- ⤴ Important to stay adequately hydrated through these incidents and to pack adequate food when on early shifts in a large incident.
- ⤴ Some shifts received no food at all.
- ⤴ Recognition that first and second responders take meals.
- ⤴ Crew members worked well together and helped junior members.
- ⤴ Need to ensure crews have a pager where many brigade members rely only on BART.
- ⤴ Acknowledged that many of us may have seen some distressing scenes and to seek support and speak out if needed.

Fire Ground & Strike Team Leaders

- Quick fill points - could have been more as there were lengthy trips to refill tankers
- Good that Burrowye and Walwa tankers were situated locally and not taken further away from their home base.
- In areas where damage occurred to phone and communications towers, there was no communication other than through the digital and UHF radios. At times these communications were performing at substandard levels.
- Query about satellite phone for communication as a way to overcome this problem e.g. School buses in remote areas carry a satellite phone.
- Need for back burning to be more strategic.
- A lot of time wasted waiting for the fire to come to the control line.
- Too much emphasis placed on preserving environmental assets that are going to be eventually burnt.
- Acknowledged that the strike team leader role is a very difficult one.
- Would be appropriate when extreme fire/weather conditions are expected for the Strike Team Leaders to have local knowledge and/or a driver and scribe with similar knowledge.
- There were 2 instances where the conditions described under the Red Flag Warning did not eventuate but created unnecessary tension in the meantime.
- Couple of times directions were inappropriate i.e. direction to move away from fire front to inappropriate locations with impending wind changes and bans on back burning.
- Noted that if members see a risk or situation contrary to a Strike Team or ICC's orders then to act on that if reasonable and to communicate with Strike team leaders and others.
- Strike team leaders should pass on Red Flag warnings if received, be aware that not that everyone has a pager.

ICC, Staging Areas

- Despite the noted minimal amount of Tallangatta Group personnel at the staging area and ICC, those group members who did engage at this level must be highly commended for their actions
- Lack of empathy from ICC management shown towards volunteers at times.
- Delays at staging area and changeovers at brigade stations.
- Long waits for buses between staging area and Burrowye
- Shifts became unnecessarily extended.
- Some other brigades were asked to travel home in trucks well past their recommended shift durations – unsafe work practice.
- Lots of miscommunication at the staging area resulting in long delays

- Noted that Crews liaised with ICC and DMOs about problems with oil light on tanker, however the maintenance items were not logged in the tanker log book. This caused misunderstanding as to whether issues were rectified or not.

Noted that weather advice shared with community members at Community Meetings and through the Media was at times inaccurate and may have caused hysteria rather than just raising alert.

Noted that as CFA Firefighters we are expected to undergo regular training that includes the annual entrapment procedure and the recognition of dangerous trees. While taking into account the scale and ferocity of the Upper Murray Fire it remains **unforgivable** the ICC and supporting agencies fail to recognise the needs of the CFA volunteers in the first 24 to 48 hours of the event. **Obviously adequate training is lacking at this level.**

CFA staff associated with the ICC need to have an updated data base of CFA volunteers training qualifications. This became very evident with one member of Talgarno brigade whose qualifications were questioned 3 separate times despite the qualifications showing as attained with CFA records. (Talgarno Captain has official CFA emails to verify)

Cannot understand then strike team members names are recorded at the ICC that this information is not passed on the Fire Incident Reporting System (FIRS).

The **CFA website** is a **dog's breakfast**. It is not user friendly and this is further highlighted when CFA staff openly comment that they have trouble with the website.

Tallangatta Brigade

Strike Team Leadership:

Positives - What worked well?

- ⤴ Great leaders but ham strung not having any local knowledge.

Negatives - What could be improved?

- ⤴ I believe it would be advantageous to all involved if all strike team leaders vehicles especially on the night shift be driven by a local fire-fighter or alternatively a fire-fighter who is familiar with the area as part of STL crew.
- ⤴ This would be an advantage during hot change overs. It does creates confusion when you have teams and leaders not from the local area

Incident Command / Leadership:

Positives - What worked well?

- ⤴ Meals etc where fantastic.

Negatives - What could be improved?

- ⤴ Staging area change overs just to slow and very frustrating.
- ⤴ The quick hurry up and wait issue could be resolved in a small way I believe if all strike team leaders are summoned to the staging ground one hour prior to buses and or teams arriving, this may mean they drive themselves to the staging ground in their FCV pick up their local driver, have their briefing and be prepared when teams arrive.

- ⤴ Whilst they are tidying up loose ends at the briefing, teams would have been fed and ready to go and fire-fighters at the other end are not left frustrated, hungry, tired etc. waiting to be relieved.

Group involvements:

Positives - What worked well?

- ⤴ I found the Group guys worked extremely hard and kept us up to date with most everything we needed to know.

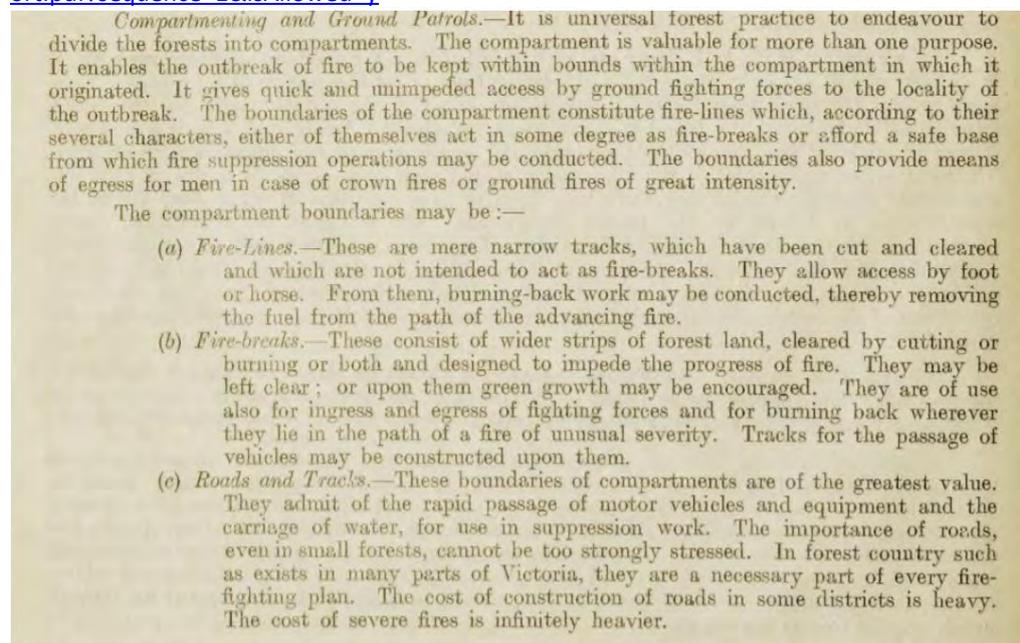
Any other comments

Negatives - What could be improved?

- ⤴ The other glaring issue which I never addressed was the age of a lot volunteers I engaged with on the fire ground. You will agree an older generation are now more prominent than ever on the fire ground and I feel CFA should implement a fitness and medical test pre-season say From 55yo onwards. It doesn't take long to do a stress test and in my view it highlights the fact the CFA are exercising their duty of care.

End notes

ⁱ 1939 Bushfires Royal Commission https://digitised-collections.unimelb.edu.au/bitstream/handle/11343/21344/112962_1939_Bushfires_Royal_Commission_Report.pdf?sequence=1&isAllowed=y



ii

https://www.igem.vic.gov.au/sites/default/files/embridge_cache/emshare/original/public/2020/04/9a/188dc2e63/Review%20of%20impact%20assessment%20and%20consequence%20management.pdf

iii 7A Duty to assist in major emergency

- (1) In addition to any other of its duties and functions under this Act, the Board must assist in the response to any major emergency occurring within Victoria.
- (2) In this section—

emergency agency means—

- (a) the Board;
- (b) the Country Fire Authority established under the **Country Fire Authority Act 1958**;
- (c) the Secretary to the Department of Sustainability and Environment when performing functions or duties or exercising powers under section 62(2) of the **Forests Act 1958**;
- (d) the Victoria State Emergency Service Authority established under the **Victoria State Emergency Service Act 2005**;

S. 7AA(2) def. of major emergency amended by No. 73/2013 s. 90(b).

major emergency means—

- (a) a large or complex emergency (however caused) which—
 - (i) has the potential to cause or is causing loss of life and extensive damage to property, infrastructure or the environment; or
 - (ii) has the potential to have or is having significant adverse consequences for the Victorian community or a part of the Victorian community; or
 - (iii) requires the involvement of 2 or more emergency agencies to respond to the emergency; or
- (b) a major fire within the meaning of the **Emergency Management Act 2013**.

iv 20 General duty of Authority

The duty of taking superintending and enforcing all necessary steps for the prevention and suppression of fires and for the protection of life and property in case of fire and the general control of all stations and of all brigades and of all groups of brigades shall, subject to the provisions of this Act, so far as relates to the country area of Victoria be vested in the Authority.

v Functions of Chief Fire Officer

The Chief Fire Officer of the Department of Environment and Primary Industries has the following functions—

- (a) to exercise any functions authorised by the Secretary in respect of fire related activities in every State forest, national park or on protected public land;
- (b) any other function conferred on the Chief Fire Officer by or under this or any other Act.

S. 61C inserted by No. 73/2010 s. 50.

61D Emergency Management Victoria

The Secretary must, in performing its functions and exercising its powers under section 62(2)(a), collaborate and consult with Emergency Management Victoria.

S. 61E inserted by No. 73/2010 s. 50, substituted by No. 73/2013 s. 86 (as amended by No. 41/2014 s. 14).

61E Compliance with operational standards of Emergency Management Commissioner

The Secretary must use its best endeavours to carry out its functions in accordance with the operational standards developed by the Emergency Management Commissioner under the **Emergency Management Act 2013**.

S. 61EA inserted by No. 73/2013 s. 86 (as amended by No. 41/2014 s. 14).

61EA Report on compliance with operational standards developed by the Emergency Management Commissioner

- (1) The Secretary must, at the expiration of each period of 6 months, report in writing on the action it has taken during the preceding 6 months to comply with the operational standards developed by the Emergency Management Commissioner under the **Emergency Management Act 2013**.
- (2) A copy of the report prepared by the Secretary under subsection (1) must be given to the Emergency Management Commissioner.

S. 61EB inserted by No. 73/2013 s. 86 (as amended by No. 41/2014 s. 14).

61EB Strategic Action Plan

- (1) The Secretary must implement the applicable work program to give effect to the Strategic Action Plan.

- (2) The Secretary must prepare a written report on the progress made, and achievements attained, by the Secretary to give effect to the Strategic Action Plan at intervals determined by the State Crisis and Resilience Council.
- (3) The intervals must not be less than one a year.
- (4) The Secretary must give a copy of a report prepared by the Secretary under subsection (2) to the State Crisis and Resilience Council and the Inspector-General for Emergency Management.

^{vi} 17(2)(b) consult, as far as is practicable, with the Secretary to ensure that, as far as is practicable, appropriate and sufficient measures are taken to protect each national park and State park from injury by fire;

^{vii} **17 Functions of Emergency Management Victoria**

- (1) Emergency Management Victoria has the functions conferred on Emergency Management Victoria under this Act or any other Act.
- (2) Without limiting the generality of subsection (1), Emergency Management Victoria has the following functions—
 - (a) to act as the agency responsible for the coordination of the development of the whole of government policy for emergency management in Victoria;
 - (b) to provide policy advice to the Minister in relation to emergency management;
 - (c) to implement emergency management reform initiatives given to Emergency Management Victoria by the Minister;
 - (d) to liaise with the Commonwealth Government on emergency management;
 - (e) to provide support to the Emergency Management Commissioner to enable the Emergency Management Commissioner to perform the functions conferred on the Emergency Management Commissioner under this Act.
- (3) In performing its functions, Emergency Management Victoria must—
 - (a) have regard to decisions made by the State Crisis and Resilience Council; and
 - (b) collaborate and consult with the emergency management sector; and
 - (c) have regard to the fundamental importance of the role that volunteers play in the performance of emergency management functions in Victoria.

18 Powers of Emergency Management Victoria

Emergency Management Victoria has power to do all things that are necessary or convenient to be done for or in connection with, the performance of its functions.

^{viii} **Definitions from the Emergency Management Act**

major emergency means—

- (a) a large or complex emergency (however caused) which—
 - (i) has the potential to cause or is causing loss of life and extensive damage to property, infrastructure or the environment; or
 - (ii) has the potential to have or is having significant adverse consequences for the Victorian community or a part of the Victorian community; or
 - (iii) requires the involvement of 2 or more agencies to respond to the emergency; or
- (b) a Class 1 emergency; or
- (c) a Class 2 emergency;

major fire means a large or complex fire (however caused) which—

- (a) has the potential to cause or is causing loss of life and extensive damage to property, infrastructure or the environment; or
- (b) has the potential to have or is having significant adverse consequences for the Victorian community or a part of the Victorian community; or
- (c) requires the involvement of 2 or more fire services agencies to suppress the fire; or
- (d) will, if not suppressed, burn for more than one day;

State Emergency Management Priorities

The State Emergency Management Priorities are:

- **Protection and preservation of life is paramount. This includes**

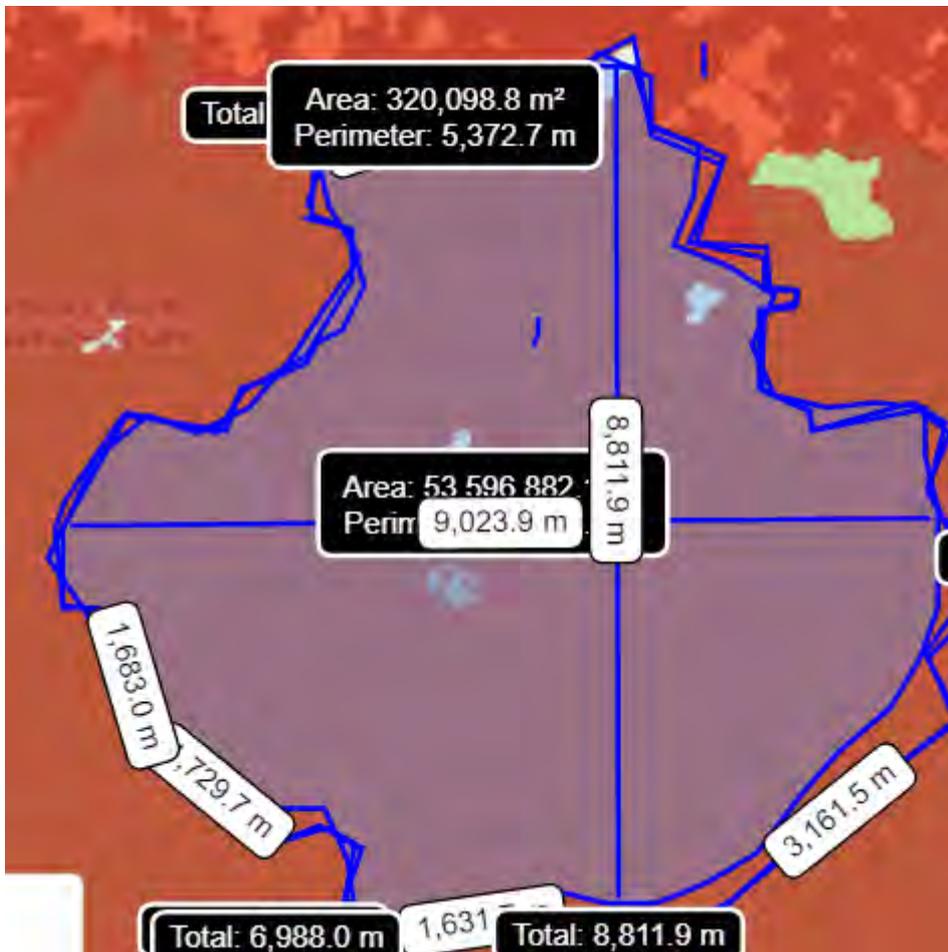
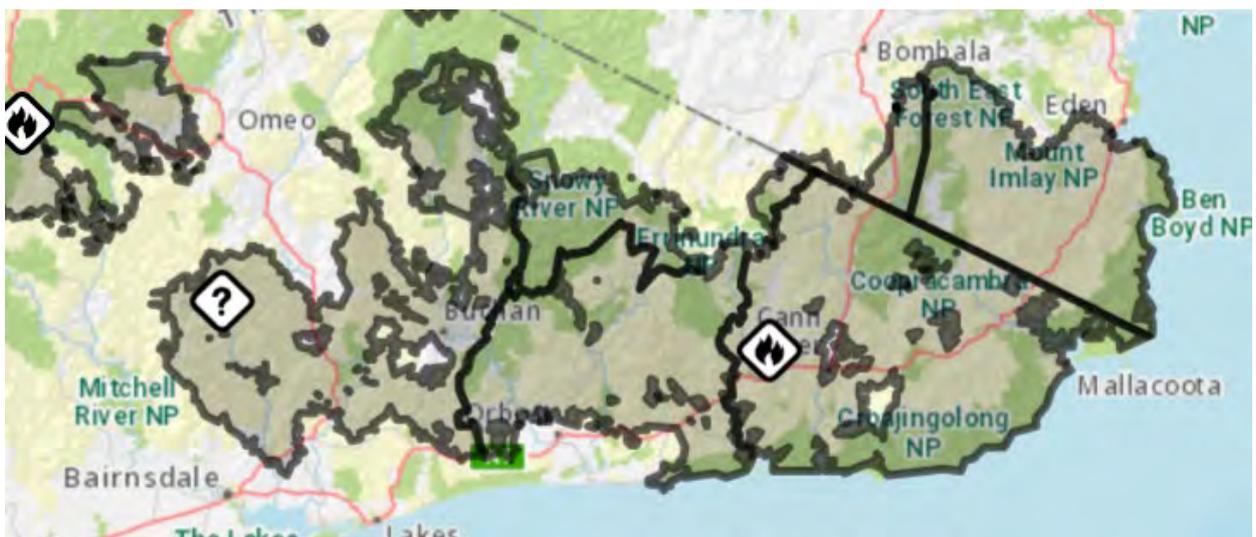
Victorian Farmers Federation | ABN: 67 079 980 304 | 24 Collins Street Melbourne, 3000
 p: 1300 882 833 | f: 03 9207 5500 | e: vff@vff.org.au | www.vff.org.au

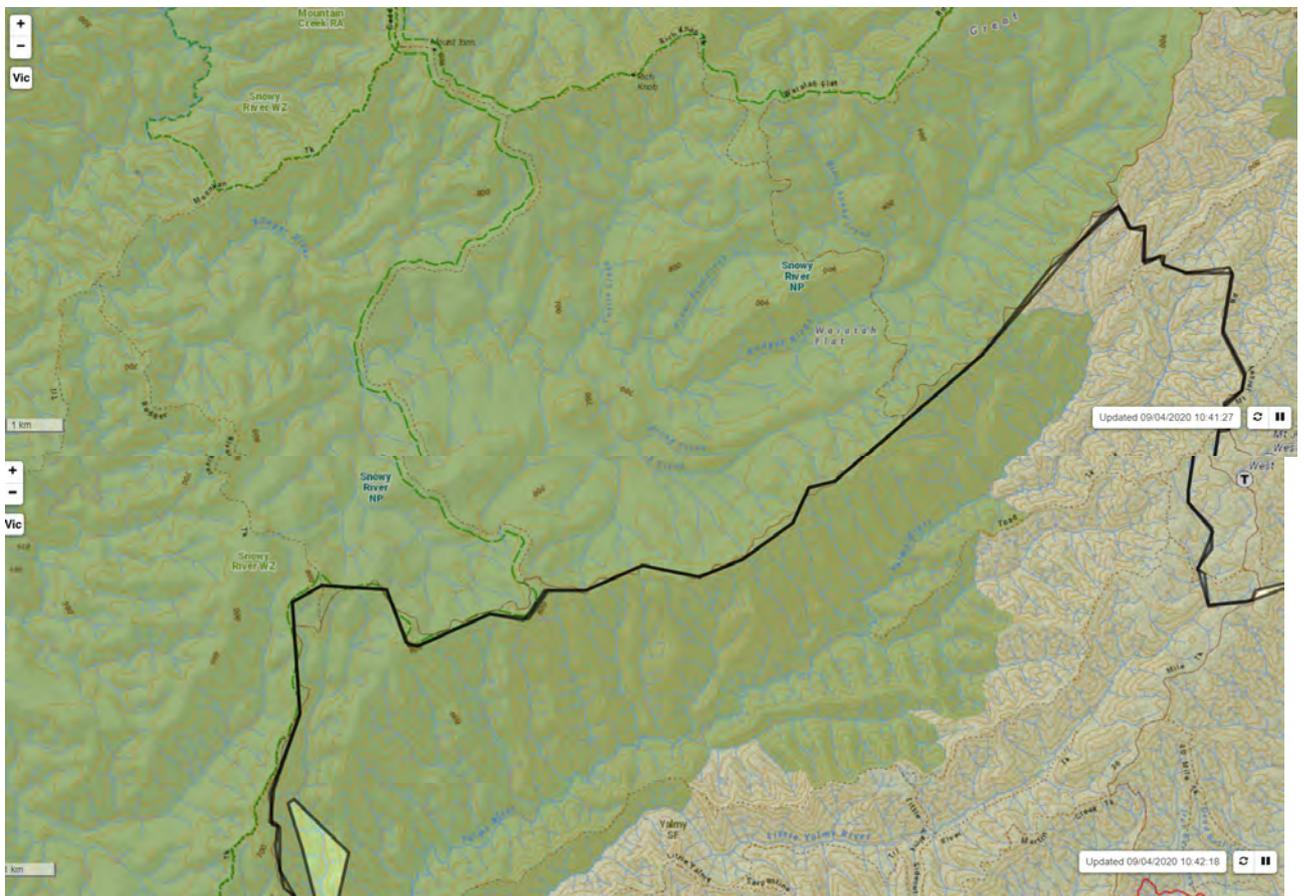
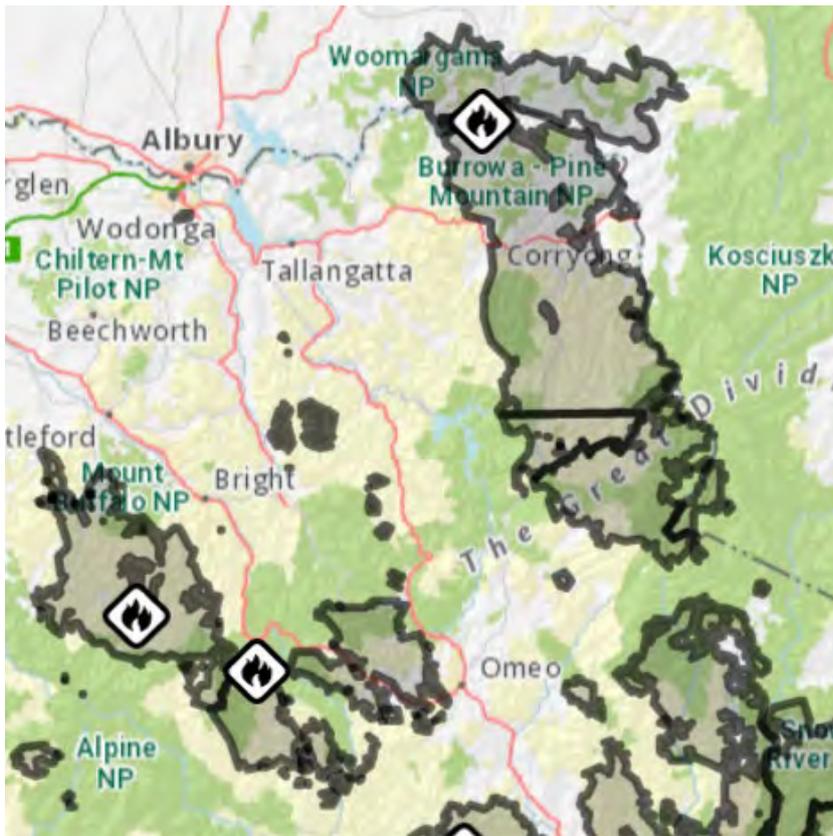
- Safety of emergency services personnel; and
- Safety of community members including vulnerable community members and visitors/tourists located within the incident area
- Issuing of community information and community warnings detailing incident information that is timely, relevant and tailored to assist community members make informed decisions about their safety
- Protection of critical infrastructure and community assets that supports community resilience
- Protection of residential property as a place of primary residence
- Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability
- Protection of environmental and conservation assets that considers the cultural, biodiversity and social values of the environment.

^{ix} <http://blueshieldaustralia.org.au/>

^x







^{xi} <http://royalcommission.vic.gov.au/Commission-Reports/Final-Report/Summary.html> pg 9.

^{xii} [ibid](#) pg 9.

^{xiii} [Ibid](#) pg 10

^{xiv} [Ibid](#) pg 16

^{xv} [Ibid](#) pg 14

^{xvi} [Ibid](#) Pg 15-16

^{xvii} [Ibid](#) pg 19

^{xviii} [Ibid](#) pg 20

^{xix} <https://www.eclecticparrot.com.au/references/15-Report%20of%20the%20Bushfire%20Review%20Committee%201983.pdf>

^{xx} <https://www.ffm.vic.gov.au/history-and-incidents/ash-wednesday-1983>

^{xxi} <https://www.cfa.vic.gov.au/about/about-ash-wednesday>

^{xxii} (b) University of Melbourne, School of Environmental Planning This program has included comprehensive study of events relating to the Ash Wednesday fires. Its aim has been to investigate areas of need in long term research, relative to recurrent bushfires in Victoria. Four main areas of research have been identified, as follows: What are realistic and effective communication techniques for all groups of people, agencies and institutions which can address both the preventive needs and post-disaster concerns? What are the vegetation behaviour and management characteristics which can minimise destruction and risk before, during and after fires? What are acceptable and effective fuel break designs and management schemes to insulate existing bush communities from fire? What are the roadside corridor management schemes that resolve ecological, aesthetic, economic and fire safety principles? Research under this program could make a valuable contribution to bushfire preparedness and response, and should be supported accordingly. P115-116

Opportunities to assist farmers rebuild after fires and recover economic production

Fires can be devastating for the agriculture sector. Not only the potential loss of dwellings but the loss of the means of earning an income, long term impacts on productivity and loss of livestock and genetic gains from breeding programs. It is critical to ensure that all parties act to avoid and then minimise the impact of fire on agricultural production and producers.

A 3 step approach to mitigating impact of fire should be considered. Avoid. Minimise. Support/assist.

Avoid

Prevention is better than recovery. Fuel load management / risk reduction is a key tool in avoiding the likelihood of a fire that is uncontrollable. Risk assessment needs to be undertaken to assess impact on all elements of 'property' rather than a focus on town protection or environmental asset protection.

Clear guidance to secondary industry is essential to avoid loss / animal welfare impact from inability for transport companies or others to access locations that are within a lower level and extensive warning area but where there is still safe egress.

Minimise

Fuel management and strategic planning / knowledge are key elements of minimising impact. Ensuring timely access to good information is critical for incident control. In and above ground farm infrastructure, dairy sheds, intensive livestock sheds, stock containment yards and machinery sheds would assist incident controllers plan how best to reduce impact of fires on economic production.

To improve response and reduce impact the following actions could be implemented.

1. Map agricultural areas – type of production; key locations / assets; nature of systems (eg dairy power type). (Tailor response effort to need on the ground & streamline recovery by identifying likely need).
2. Ensure fuel reduction plans minimise impact on areas of agricultural production.
3. Develop standard 'suites' of information and response to improve initial stages of recovery and minimise longer term recovery issues (approvals etc).
4. Ensure Agriculture Victoria presence in SCC / ICC during events impacting agricultural areas.
5. Watch and Act Messages. Ensure that messaging clearly state if it is safe to travel through the area.
6. Ensure agriculture industry membership on municipal fire prevention committees.
7. Ensure that there are evacuation areas with bio secure holding facilities (such as showgrounds) where landholders may transport key breeding stock.
8. Provide clear education to the agriculture sector regarding the role of Agriculture Victoria in incident management and response.
9. Ensure traffic management point selection is selected to facilitate access to areas not impacted by fire.

Support / Assist

The community and government focus is often on the initial phases of loss. The process of rebuilding is often long and stressful. It is important for farming communities to have information available as well as a dedicated resource that knows their issues and is helping them through a streamlined and cost effective approvals system.

Rebuilding.

1. Dedicated website with resources outlining:
 - Site clearance;
 - Rebuilding advice
 - Agriculture advice - recovery
 - Assistance
 - Links to resources
 - Community information
2. Dedicated 'recovery' co-ordinator and 'fast track' planner / approvals system – funded by state government
3. Streamlined approvals processes by government (where required)
4. Application fee reimbursement by government
5. Rate relief / assistance package for primary producers

Outreach

Part of a successful recovery process is effective outreach with affected parties. Maintaining contact and information can assist in recovery and build the foundations for an even better farm business in the future. The following items will help create the conditions to thrive not just survive.

1. Dedicated 'recovery' co-ordinator – maintaining regular contact / newsletters etc & organising community sessions with speakers.
2. Targeted information packages on how to regenerate your pasture, feeding quantities for stock etc with outreach contacts / resources at DEDJTR.
3. Business bus visits (RDV)

Feed / power – logistics

It is important to get food through in the very short term as well as to have supplies to see farmers through at least one year. Review past programs to reduce response times and reduce impact.

1. Opportunities for learning on 'feed / fodder' collection. Could there be a register of transport companies willing to assist in transport.
2. Info packages for feed 'donations' – how to mark a grade (quality) so it can be directed to the appropriate recipient.
3. Government assistance on establishing stock feed depots (where required).
4. Clear assistance / guidance on fencing and a review / improvement for the impacted landholder of the December 2006 Policy 'Fencing and Assets Impacted by Fire'.
5. Have established channels with Defence for emergency generators; including Defence understanding which equipment is most appropriate for different 'dairy' systems (for example).

Craig Lapsley
Emergency Services Commissioner
craig.lapsley@justice.vic.gov.au



Cc: The Hon James Merlino MP

Dear Mr Lapsley,

Definition of Property – Emergency Management

I am writing to raise an issue where the failure to clearly define 'property' is having real consequences for the ability of the agriculture sector to prepare, respond and recover from emergencies. I am also offering some simple solutions which will improve Victoria's disaster preparedness and response.

Definitions of emergency and fire relate to, amongst others, "extensive damage to property". It is our experience that responder agencies often interpret this as protection of the dwelling. The State Emergency Management Priorities also support a broader interpretation as there are a range of issues relating to "property" which includes "assets supporting individual livelihoods and economic production" and "critical infrastructure and community assets".

Our members report issues relating to poor understanding of the presence of both critical infrastructure and property that supports livelihoods and economic production in rural areas. Until landholders are able to identify the "assets supporting individual livelihoods and economic production" incident controllers will not have the information available to determine priorities for protection and the default protection to a dwelling will continue. This undervalues the impact of loss of stock, fences, machinery, soil structure and agricultural infrastructure on regional economies in considerations at all stages of the emergency management cycle.

The consideration of ways to provide better intelligence to Incident control centres so that information on the location of 'critical infrastructure' and infrastructure and property which supports production can be readily available during an event. The potential benefits of GIS technology in preparedness through to response was the subject of an article in the February 2009 Australian Journal of Emergency Management.

Agencies could improve how they work with farmers to identify the key assets and property to be protected in various events – and the priority for protection.

The VFF would be pleased to discuss our members concerns with your staff. Please have your office contact Lisa Gervasoni, Senior Policy Advisor Land Management and Planning at lgervasoni@vff.org.au if you have any queries.

Kind regards,

A handwritten signature in black ink, appearing to read "David Jochinke".

David Jochinke
President - Victorian Farmers Federation



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- *Protection and preservation of life is paramount. This includes*
 - *Safety of emergency services personnel; and*
 - *Safety of community members including vulnerable community members and visitors/tourists located within the incident area*
- *Issuing of community information and community warnings detailing incident information that is timely, relevant and tailored to assist community members make informed decisions about their safety*
- *Protection of critical infrastructure and community assets that supports community resilience*
- *Protection of residential property as a place of primary residence*
- *Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability*
- *Protection of environmental and conservation assets that considers the cultural, biodiversity and social values of the environment.*

The Wildfire Project: An integrated spatial application to protect Victoria's assets from wildfire

Flett, Hine and Stephens describe the Victorian Identification and Consequence Evaluation (Wildfire) Project that draws upon statewide data sets to support integrated fire management planning.

Abstract

This paper provides an overview of the Wildfire Project undertaken by Victoria's Office of the Emergency Services Commissioner (OESC) in collaboration with Spatial Vision Innovations Pty Ltd, the Country Fire Authority (CFA), the Department of Sustainability and Environment (DSE) and the Municipal Association of Victoria (MAV).

The Wildfire Project provides an opportunity to bring together the best quality statewide datasets to identify, classify, quantify and value the state's economic, environmental and social assets to assist fire management planners to enhance their capability to plan for, respond to and recover from wildfire, using a standard set of online statewide spatial information products.

Introduction

Geographic information systems (GIS) play a major role in emergency management, by providing the capability to rapidly gather and summarise data about geographic features and locations. By combining spatial data with asset related information in a modern, service-oriented architecture, a particularly powerful geospatial solution can be created—one that provides shared understanding and enables decision-makers across a range of stakeholders to make better-informed decisions (IBM, 2007).

The Wildfire Project products will enable fire management planners to view assets in a geospatial context, so they can more easily visualise the spatial relationships between managed assets and other mapped features around them, enabling levels of awareness and insight not provided by figures in tables. Consolidation of a wide range of asset-related data will support both GIS specialists and non-GIS users in their decision-making. Duplication of data will be avoided via this unified view of asset and geospatial data.

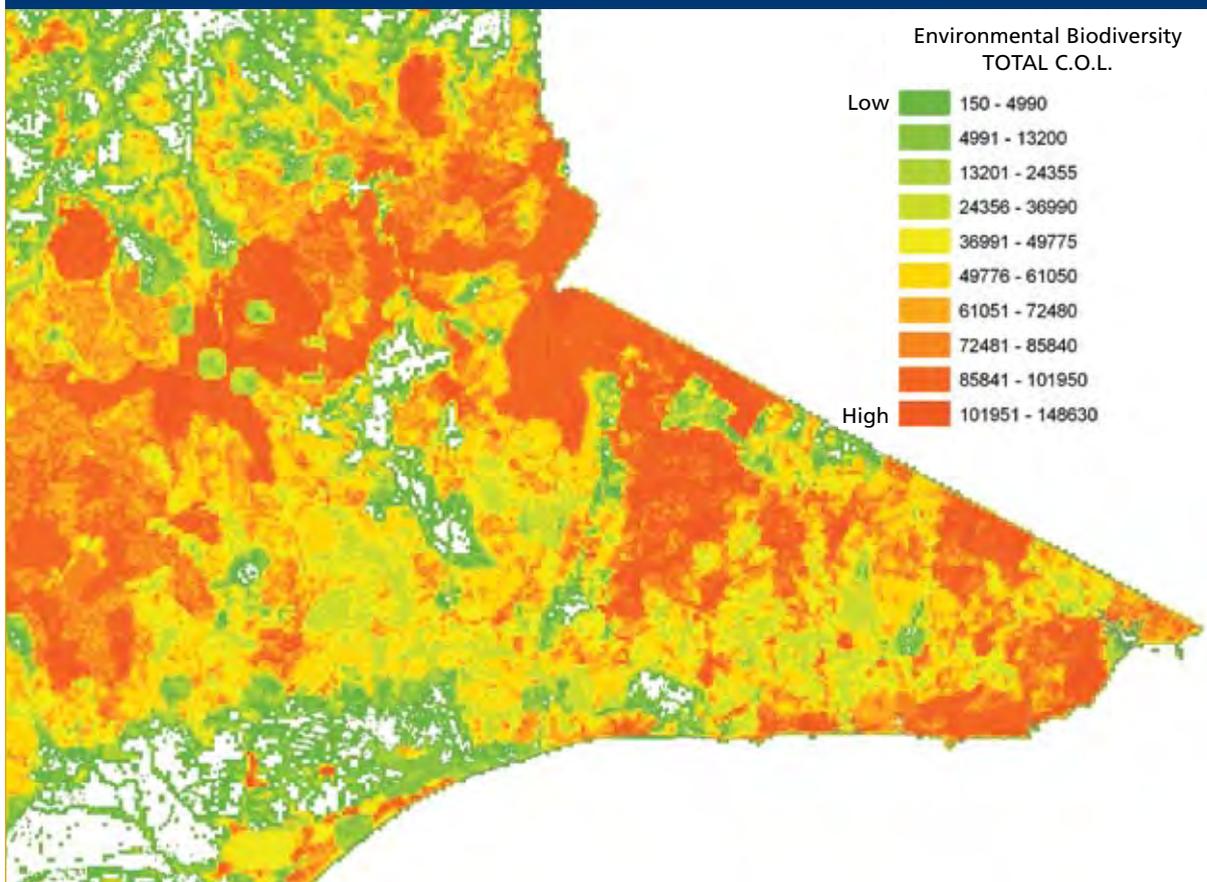
Improving our knowledge of where assets are located improves and supports integrated strategic planning and decision-making. Visualisation through mapping enables planners to view and understand the landscape more holistically. Maps provide an intuitive, visual framework, allowing people to conceptualise and understand the environment, and make more informed and considered decisions regarding wildfire risk (IBM, 2007). Figure 1 provides an example of the spatial representation of the Wildfire Project consequence of loss in relation to environmental biodiversity assets.

Context of Wildfire Project

Emergency services have long been recognised for their ability to respond to rapid impact events that threaten human safety, often under extreme circumstances. The traditional approach is to deliver action based treatments, what Cronstedt (2002) describes as a focus on hazard rather than vulnerability. Salter (1998) identified the emergence of a shift in emergency management from the traditional internal agency (response) focus to a community centred (risk management) focus. He described this as the emergency management community reinventing itself, to better meet the needs of communities. In Salter's view, such a paradigm shift would be evidenced by focusing on vulnerability via proactive multidisciplinary approaches in collaboration with communities. This trend has also been identified by Gabriel (2002) which he described as reconceptualising emergency management.

The emergency riskscape is changing and there is an increasing expectation that emergency managers are preparing for the impacts of urbanisation, climate change, pandemics, terrorism and energy, fuel and water security. Such preparedness requires much more than the traditional focus on competent rapid response. Success will ultimately depend upon long term integrated community planning (Handmer & Dovers, 2008). Ten years after Salter published his observations, emergency management in Victoria still has some way to go in developing the integrated, community based strategic planning capability to adequately fulfil this essential future requirement.

Figure1. Spatial Representation of consequence of loss in relation to environmental biodiversity assets.



The Victorian Department of Justice’s strategic priorities include a commitment to developing an integrated long term strategic plan for the state’s emergency services sector. The Future Horizons Discussion Paper (OESC, 2007) identifies a certain lack of imagination in emergency management planning, which has traditionally been based upon historical events. The paper indicates that such an approach is inadequate for future challenges and proposes a new approach based upon the following layers of thinking:

- strategic: There is significant potential within Victoria’s emergency management arrangements to adopt sector-wide, whole of government approaches across a range of strategic outcomes. The main constraints to this are the complexity of the existing administrative arrangements and the lack of capacity to initiate change within these;
- imaginative: The need to anticipate previously unanticipated hazards has been underscored by the emergency management experience of the past decade;
- flexible: Changing scenarios and threats will continue to demand a more flexible approach within the sector to delivering outcomes. Some of the traditional constraints may demand to be revisited; and

- community-focused: The need to engage the community across a range of outcomes in emergency management – including service delivery – will continue to inform all processes within the sector.

The Wildfire Project is a practical step down the path of this new approach. The project is part of Victoria’s fire safety strategy, Fire Safety Victoria (FSV) which provides the framework for a whole of government approach to fire safety. It is based upon comprehensive triple bottom line considerations that incorporate local knowledge and adopts a risk management approach to improving local planning and coordination. The strategy’s objectives are based around community engagement and understanding (OESC, 2006).

Wildfire planning

The role wildfire plays on public land is complex. As well as being a potential seasonal threat to life and property, fire also plays an integral role in the maintenance of much of Victoria’s environmental biodiversity. Considerable work is required to improve understanding of wildfire and develop integrated approaches which can be applied uniformly across the state.

Planning for the management of wildfire involves an analysis of wildfire risk. The Wildfire Project develops approaches, principles and tools (in the form of both spatial and aspatial data) to develop a shared statewide understanding of the consequences of wildfire in relation to assets. It does not produce a range of products encompassing the full risk management spectrum, but rather focuses on the 'consequence' as opposed to the likelihood characteristic of the risk management equation.

To assess vulnerable elements within communities effectively, planners need to understand the community and the assets potentially at risk from the impact of wildfire. Commonly a subjective approach, it is predominantly focussed on the elements of 'life and property' which is not sufficiently comprehensive to ensure that communities are well prepared and resilient.

How can we understand what the consequences would be in terms of economic, environmental and social impacts to local communities and in fact, Victoria as a whole? Without fully understanding these triple bottom line consequences, how can we effectively plan asset protection regimes based upon identified vulnerability rather than potential hazards?

The Wildfire Project aims to establish an evidence-based product to support a consistent statewide approach to wildfire planning and decision-making. It enables the consequences of wildfire on assets to be classified, quantified and mapped in a uniform way across the state, meeting the needs of a range of stakeholders involved in wildfire planning, irrespective of organisational or geographical boundaries.

Project scope

In Victoria, responsibility for wildfire planning and response correlates to public (DSE/Parks Victoria), private; and CFA and Metropolitan Fire and Emergency Services Board (MFESB) land boundaries. The interests of people living in wildfire prone areas of Victoria can be assessed in the context of the economic, environmental and social wellbeing on both public and private land. The need to develop integrated management approaches across administrative, organisational and land tenure boundaries, is increasingly recognised.

The Wildfire Project was developed with two primary objectives:

- to develop a methodology that identifies, classifies, quantifies, evaluates and summarises the consequences of wildfire on assets throughout Victoria; and
- to develop statewide wildfire consequence maps and datasets derived from existing primary source datasets, presented in a uniform and accessible format that supports integrated wildfire planning and decision making across DSE, CFA and Local Government.

The Wildfire Project is 'tenure blind' and makes no distinction between public and private land in wildfire planning. It has developed integrated spatial products that identify assets at risk from wildfire on both public and private land and attempts to demonstrate the significance of the consequence of asset loss on both.

The project focuses on community assets that are typically static - those that do not alter frequently. The products can be used not just for wildfire, but applied to a range of emergencies such as floods, major landslides or earthquakes.

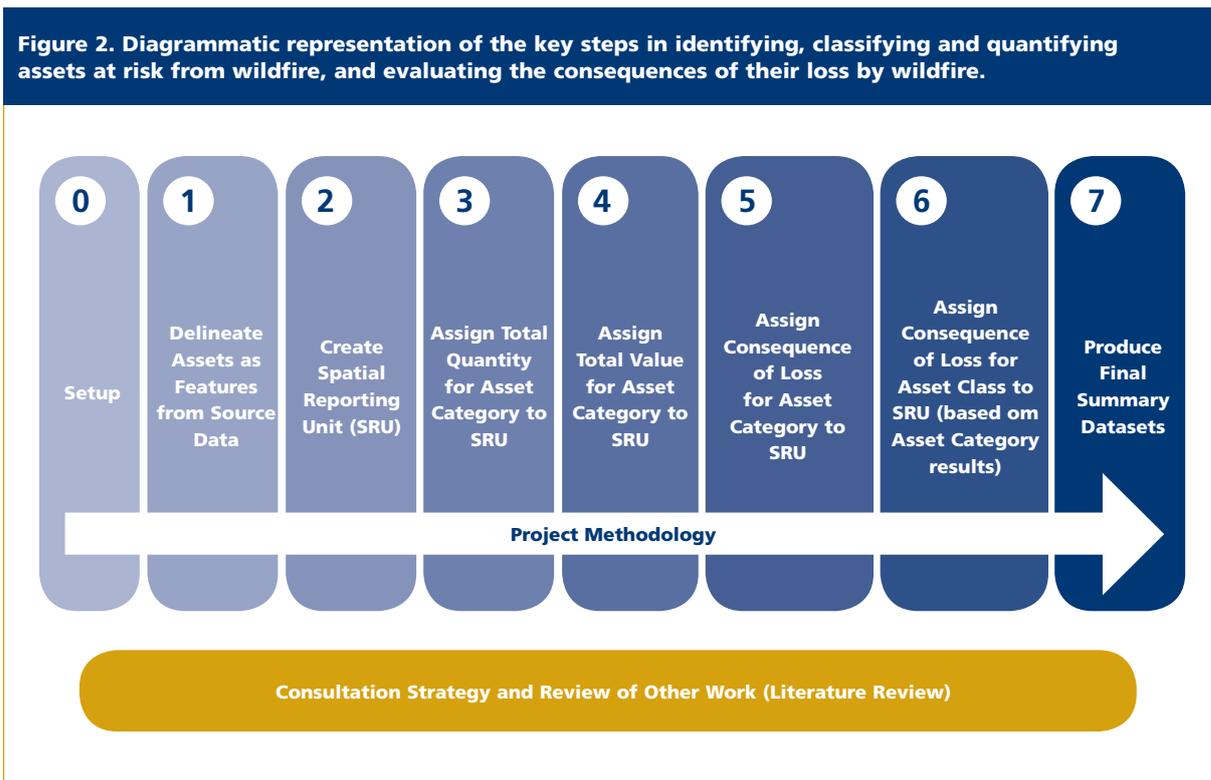
Methodology framework

OESC engaged geospatial and information technology company, Spatial Vision and its team comprising Beca, RMIT Centre for Risk & Community Safety and Ecology Australia, to undertake the project and develop the project methodology.

To provide a robust framework for the methodology, a process logic was developed for the methodology. In its simplest form, this involved:

- identifying and defining the assets - identifying existing, suitable spatial datasets that describe the asset;
- obtaining and incorporating the primary (source) spatial dataset(s) and supporting classification schema to represent the asset, into the methodology;
- assigning the primary spatial dataset (in which the asset is represented as a point, line, or area) to a 'reporting unit' (where the "amount" of the asset within the reporting unit is used to determine the quantity of the asset);
- translating the asset quantities into an asset value for each 'reporting unit';
- translating the asset value into an asset consequence of loss rating for the loss of the asset, or loss of the function the asset provides; and
- aggregating the Asset Category results for each Asset Class.

Seven key stages underpin the methodology and the approach to assessing the consequence of losing assets from a wildfire event, as shown in Figure 2.



Classification of assets

To classify the diverse range of assets, a three tier hierarchy was applied comprising asset groups, classes and categories.

Asset Groups: Three groups represent the contextual or thematic levels of environmental, economic and social. This comprises a triple bottom line approach in accordance with Government policy.

Asset Classes: Ten classes represent the level at which asset categories are summarised and reported on for the purposes of key project outputs. Eight of the ten classes have been applied as insufficient relevant data is currently available for two of the classes.

Asset Categories: 173 categories represent the level at which assets are defined for the purpose of assigning values, measures of disruption, and consequence of loss. They represent the lowest level of asset classification. This level of asset classification is required to accommodate the varied representations of assets in existing spatial datasets and to be able to classify types of assets (for example power stations of a certain size, or roads of a certain type).

A breakdown of the 173 Asset Categories implemented on the basis of the eight Asset Classes for which a consequence of loss rating was assigned, is presented in Table 1.

Table 1. Representation of the asset classification system.

Asset group (TBL Theme)	Asset Class	Number of Asset Categories
Environmental	Biodiversity	29
	Land	NIL
	Water	2
	Air	NIL
Economic	Economic production	24
	Infrastructure	37
	Property	19
Social	Cultural Heritage	12
	Social Infrastructure	40
	Human Life	10
Total		173

Many spatial datasets have an existing classification schema or attributes on which a classification of the asset types can be made. For example, many environmental assets are classified by a conservation rating, while for infrastructure the asset category may be based on physical parameters, like road surface, school or hospital type. Other assets may have a value related to production capacity (for example, agricultural capacity or power station capacity), which may be used as the basis for grouping assets for the purpose of assigning asset value. Other assets (for example land value, or gross timber value produced) have a dollar value that can be used to group assets.

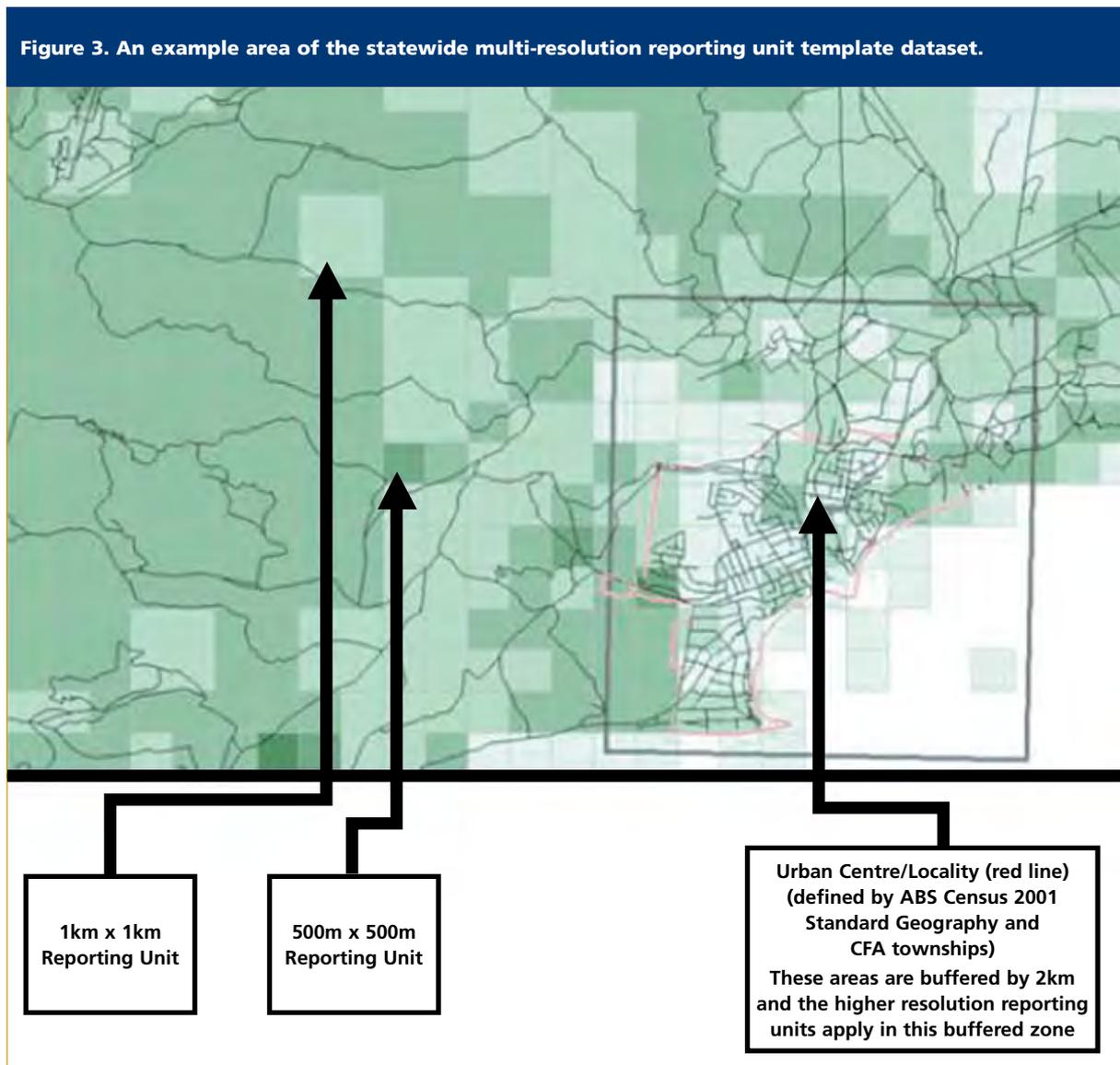
Reporting construct

A key requirement of the project was to provide a tool for planners that take a large number of assets represented in a variety of ways (as spatial datasets) and create an informative and focused summary.

This is achieved by aggregating the assigned consequence of loss for individual assets on an area-based reporting unit. This can be thought of as the “reporting” resolution of the database containing asset information in summary form. The spatial reporting unit enables the aggregation of summary information related to a diverse range of physical features represented as lines, points and areas.

This approach provides planners with a concise summary of the consequences of asset loss in any particular area of interest. A key issue in deciding the appropriate resolution for the reporting unit is identifying at what resolution the information ‘adds value’ from a strategic perspective.

A reporting unit of 1km by 1km is adopted for the State and a reporting unit of 500m by 500m was adopted for towns and urban areas as represented in Figure 3. Spatially, this is represented by statewide grids for each asset class.



Valuing assets

All assets are valued from a statewide perspective and in a strategic planning context. It was determined that assigning a 'relative value' to the assets was the most appropriate approach to valuing the assets. Understandably, there are many complexities involved in valuing all assets with an 'absolute' dollar value, particularly with respect to the environmental and social groups.

Environmental assets incorporate a number of statewide datasets that apply existing classification systems. Independent valuations are not readily available for assets. To overcome this, all assets for a particular Asset Category are assigned a relative statewide value between 1 and 100, where 1 is assigned to the asset type of least value and 100 to the asset type of most value.

Using biodiversity assets as an example, the value of 100 may be assigned to those assets of greatest value from a statewide viewpoint. For this project every hectare of old-growth forest is assigned a value of 100 and every rare and threatened species site a value of 100 per count (or site). In the case of native vegetation that has no conservation status rating, a value of 25 is assigned, based on it having a lower value. A cleared area may be assigned a value of 0 in relation to its contribution to biodiversity.

Consequence of loss

Consequence of asset loss is represented spatially using a colour ramp to indicate the level of consequence. The methodology assigns the consequence of loss to an Asset Category (for example, power stations of a certain size, or roads of a certain type). The underlying premise is that the consequence of loss of an asset is a combination of the damage to the asset and the potential disruption (or flow on effect) that occurs as a result of losing the function or service provided by the asset.

Consequence of loss is calculated as follows:

Consequence of Loss = DAMAGE + DISRUPTION

Where:

DAMAGE = total loss of asset value (based on replacement value and/or intrinsic value); and

DISRUPTION = impact from the loss of an asset (based on the loss of a function and/or service provided by the asset across disruption elements).

Although the two components are generally seen as closely related, in a wildfire context, they can be independent of each other. In the project methodology, it is assumed that the components are independent - for example, a power station or road may not be damaged by a wildfire, but the function or service it provides may be significantly disrupted by such an event.

Disruption

Disruption impacts arising from the loss of the service or function provided by an asset are often significantly greater than the replacement or intrinsic value of the asset itself. The approach taken in classifying assets accounts for this issue. Hence, the classification of power stations, or hospitals, or agricultural production capacity, for example, should include consideration of the level of disruption that their loss, or loss of service and/or function will cause, and not just their value.

In many cases, the classification of assets is not suitable for rating local disruption impacts such as in the case of certain roads. For example, a single road to an isolated township will have the same road type classification as many other roads in the state with the same basic parameters (sealed, single lane, major road). However, the disruption impacts caused if this only form of access was severely damaged or closed as a result of fire, would be significant to the community.

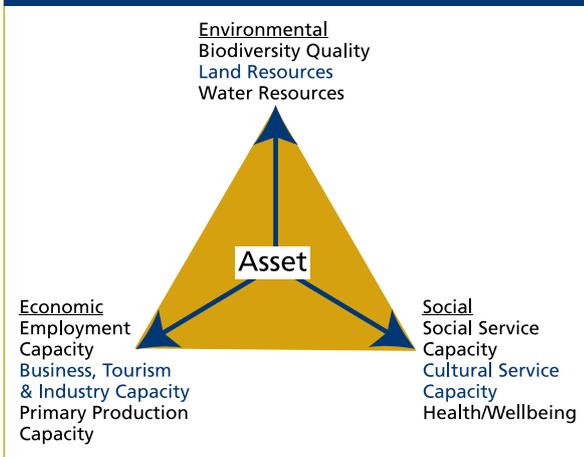
This is an example of where the classification available for statewide spatial data cannot always be used to assign meaningful disruption element ratings from a local perspective. It illustrates the limitations of what can be undertaken centrally through the Wildfire Project, and what must be undertaken at a regional or local level through the provision of local user interaction and the incorporation of local knowledge.

Disruption elements

Disruption is 'measured' using a set of elements that describe a range of disruptive impacts that can occur due to the loss of an asset type. Those that are relevant to an asset category are used in assigning a disruption rating or measure.

Nine disruption elements are identified and used in the methodology (Figure 4). The use of disruption elements allows the potential multiplicity of flow-on impacts associated with the loss of an asset to be clearly identified. It also provides planners with useful information on the drivers for the consequence of loss associated with particular asset types; and thereby it assists in planning treatments to minimise that consequence.

Figure 4. Disruption Elements (that relate to the loss of service or function of an asset), grouped on the basis of Asset Groups.



Project trial and delivery

The Wildfire Project underwent an evaluation trial by field users who applied the project methodology and spatial products in a number of areas throughout Victoria. This involved a range of agencies and local government areas across Victoria. Participants were able to share their experiences in using the outputs of the project.

The trial sought to validate and further refine the methodology and products. The methodology and format of the outputs delivered have been reviewed based on the feedback and key refinements implemented into the development of an application to make the final project outputs available to stakeholders.

To deliver the Wildfire Project outputs, OESC has partnered with the Cooperative Research Centre for Spatial Information (CRC SI) and other organisations in the National Data Grid (NDG) Project. The NDG project is a data access and modelling support tool being undertaken by the CRC SI as a research project. The NDG Project will provide a platform for updating, hosting and providing interactive access to identified use cases. A delivery application for the Wildfire Project will be developed as part of the NDG project.

Conclusion

In the planning context, the Wildfire Project will enable fire management planners to make shared decisions with the community - people who have not traditionally had a say in the decision making – people who are not necessarily fire or GIS specialists.

The ability to factor in local community knowledge is an important and unique feature of the project. This is important not only in appropriately determining likelihood, but also in considering the impact of

disruption downstream. Disruption can only be realistically understood with the benefit of local knowledge. This approach empowers communities in this important decision making process.

The application of products from the Wildfire Project will enable a comprehensive, evidence based assessment of identified assets and the consequence of their loss resulting from wildfire. The Wildfire Project application will enable fire management planners to make better decisions about risk priorities in their planning and response strategies when facing wildfire threat.

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About the authors

Brian Hine, Mark Stephens and **Bob Flett** produced this paper on behalf of the Office of the Emergency Services Commissioner in Melbourne. For further information, contact Bob Flett, Senior Project Officer, Office of the Emergency Services Commissioner. Email bob.flett@justice.vic.gov.au.

25 January 2019



Please find attached the VFF submission in support of the NFF submission prepared in conjunction with state farming organisations and agricultural industry groups.

Yours sincerely

A handwritten signature in black ink, appearing to read "David Jochinke". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

David Jochinke
President
Victorian Farmers Federation



Submission

Inquiry into the impact on the agricultural sector of vegetation and land management policies, regulations and restrictions

Victorian Farmers – Our Place in Victoria



OUR PLACE IN VICTORIA

What we do

- 
 - ▶ Victoria's **20,775 farms** cover **10.6 million** hectares
 - ▶ We are **24.2%** of Australian farmers
 - ▶ **91%** family operated, with only **2%** foreign owned
- 
 - ▶ We employ **87,800** people mostly in regional areas
 - ▶ **\$4739** of food consumed each year by every Australian
 - ▶ As a net exporter we have long term food surity
- 
 - ▶ Our annual production is **\$13.16 billion**, **3.5%** of Victoria's economy
 - ▶ **27.8%** of Victoria's exports are agricultural product valued at **\$11.9 billion**

How we do it

- 
 -  Farmers invest **\$80 million** in R&D
 -  Every R&D **\$1** converts to **\$12** in farmer generated impact
 -  **2.7%** productivity growth through innovative efficiency gains
 -  Farmers receive less than **1.5%** in government support
- 
 -  **63%** reduction in greenhouse gas emissions between 1996-2016
 -  Water consumption reduced by **7%** from 2014-2015
 -  Land conservation has increased to **18%** of total land mass.
 -  Farmers spend **\$20,000** annually on feral animals and pest weeds
- 
 -  **3.5 million** beef cattle
 -  **22.7 million** chickens
 -  **1.1 million** dairy cows producing **6.186 billion** litres of milk
 -  **65,992** sows
 -  **13.1 million** breeding ewes and a fleece clip of **66,100 tonnes**
 -  **9 million** tonnes of grain
 -  **\$2.35 billion** in horticultural production



Victorian Farmers Federation

Making Victorian farmers lives better; enhancing Victoria's future.

MISSION: A community of farmers creating a profitable, sustainable and socially responsible agricultural industry connecting with all Victorians.

The Victorian Farmers Federation is an active, powerful lobby group dedicated to the interests of farmers and making a difference to communities. With a strong record of successful political and industry advocacy and leadership, the VFF has generated substantial benefits for the agriculture sector since its formation in 1979.

Even though farming has its own natural challenges from droughts, bushfires and floods, our members have collectively earned the VFF a reputation as a respected leader, strong voice and lobbyist.

The VFF consists of eight commodity groups; dairy (United Dairyfarmers of Victoria), livestock, grains, horticulture, chicken meat, eggs and pigs, and Flowers Victoria – and expert committees representing; water, land management, agricultural and veterinarian chemicals, farm business and rural development and workplace relations.

VFF members lead these groups and committees with the support of Melbourne and regionally based staff. As a team, we provide the power to effectively influence all levels of government on the wide range of issues that impact modern farming.

Our vision is to create an environment for farmers that enables profitable, safe and sustainable production, within a community that values and respects the farm sector.



Victorian Farmers Federation – Our Position

The VFF endorses the NFF submission to this Inquiry which should be seen as the main submission from the VFF.

The VFF has been involved in the preparation of the NFF submission. We would welcome the opportunity to provide additional Victorian examples..

In particular we would like to discuss how the fire agency priorities interact and emergency management legislation and priorities. This is relevant to:

- The science behind activities such as back burning, clearing and rehabilitation;
- The economic impact of vegetation and land management policies, regulations and restrictions;
- The impact of severe fires on the agricultural landscape, agricultural production and industry in regional, rural and remote areas;
- Factors that contribute to fire risk in regional, rural and remote areas; and
- The role the agricultural sector has in working with emergency services and forestry management officials in managing fire risk.

Victorian Emergency Management Agencies

In Victoria there are several agencies involved in fire fighting who operate under different legislation. The key agencies are:

- Metropolitan Fire Brigade (MFB)– Metropolitan Fireⁱ
- Country Fire Authority (CFA)– Country Fire Authority Act 1958ⁱⁱ
- Forest Fire Victoria (FFV)– DELWP (Forests Act 1958ⁱⁱⁱ
- Parks Victoria (PV) -DELWP – National Parks Act 1975^{iv}
- Emergency Management Victoria (EMV)– Emergency Management Act 2013^v

Overseeing Emergency Management, but without a direct line of control is Emergency Management Victoria who operate under the Emergency Management Act and Strategic Priorities. This legislation also charges Local Government with emergency management roles.

While there is active attempts to co-ordinate agencies emergency response there is no requirement for each agency to clearly respond to the emergency management strategy^{vi}. Where attempts are made to respond to not only life but property each agency has their own interpretations and priority within the 4 key elements of property, which no agency focusing on the economic contribution of agriculture. (See attached letter to EMV)

Without each agency looking at the whole spectrum of 'life and property' there is the potential for certain impacts not to be taken in to account in prevention, control and recovery activities. We believe each fire management agency should be required to consider how to manage their actions and co-ordinate to get the best outcome balancing all of the state emergency management priorities.

Co-ordination and terminology

Although Victoria has moved to 'Safer Together' the key partners use different terminology and interpret priorities in different ways.

At the risk of over simplification the four elements of property, the CFA have traditionally focused on 'dwelling protection' rather than primary residence. FFV and PV prioritise environmental and conservation assets and EMV ensure that critical state infrastructure is mapped. Local Government may identify certain community assets and often identify major factories for economic production. No emergency management body overseeing preparation, response or recovery has a primary focus or understanding of agricultural land and commodities as an asset supporting individual livelihoods and economic production.

The recent 'Strategic Bushfire Engagement' process by DELWP highlights this inconsistency in understanding the emergency management priorities. Although badged as Safer Together each region used different questions and different terminology, with no region having a comprehensive and balanced set of options. Some regions are using a values approach and making assumptions based on questions which could be interpreted in more than one way.

Member Experiences of fire and recovery

Black Saturday

The following two examples highlight the need for better consideration of agriculture in preparedness, response and recovery.

Case A

1. The very hot burn significantly impacted our soil. Interestingly, when I attended a Department "fire recovery" field day soon after the event, I asked the question about impact on soil biology and different approaches to support recovery. The Department response was so dismissive, almost scoffing at the suggestion. I decided to go home and applied our own methods to support soil biology, which we believe sped up the recovery process.

We need a lot more research in this field of soil biology. We know so little about the complexities of soil.

2. Post fires we saw weeds we had not seen on this country before. It was particularly noticeable in the containment lines cut by dozers which were inflicted upon farmers post fires.
3. Shared fencing costs did not apply to us for the boundary shared with Parks Victoria/Melbourne Water. The impact of very hot burn was also noticeable in these adjoining paddocks due to such high fuel load in the Crown Land.
4. Post fires, while delivering feed into affected areas, we noticed numerous homes which survived and we wondered how. The common denominator seemed to be the vegetation – exotic trees, shrubs, which protected the site. Despite this, our Councils still insists on land management plans which require indigenous plantings and not exotic species. Surely there's a place for both, recognising the benefits of exotics eg English Oak, in protecting assets.



1. 85% of our farm was burnt in the Black Saturday fires of 2009 and although the fire wasn't so hot due to less available fuel in our paddocks the slow burn eliminated the topsoil humus / organic matter contributing to significant nutrient loss in the seed bed.
2. We also experienced shocking weed infestations due to nutrient loss and lack of plant competition in the first couple of years post fire.
3. 300 acres of our farm is bordered by state forest on 2 sides and although we had considerable fencing insurance, when you are forced to pay 100% of the replacement cost plus clearing of the fence line (chainsaw operator and excavator for 6 days) all in difficult terrain you discover pretty quickly that \$8/mtr (standard fencing cost used by insurance company) doesn't cover much!
4. Narrow roads with decadent brush and overhanging trees was a significant hazard for fire fighters and as the trucks that attended were from other regions and unfamiliar with the terrain they were instructed to remain on main roads and forced to sit and watch the fires' slow progress.
5. Following the fires, council brought in arborists to clean up the damaged trees, however they were instructed (as per state policy) to leave all burnt trees and just remove overhanging limbs so for the next several years we had dead trees regularly falling across roads creating a further safety hazard.

Options to better identify and protect agriculture / economic values

The failure of any or all agencies being directly responsible for considering the “*protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability*” can flow through to the information collected and made available in an incident control centre. On a tour of the State Control Centre the VFF asked to see the layers on agriculture. What was shown indicated whether it was a farm – or viticulture. There was a plethora of environmental layers available.

As outlined in our letter to EMV (attached) the ability to utilise GIS to identify a wide range of community and economic assets was identified in 2009. Ten years on there has been little work or funding to improve the information on agricultural land. What commodity; in ground infrastructure (irrigation, laser graded) to be protected; key assets in machinery or livestock sheds and their location; landholder priorities for protection.

In the recent past with increasing pressure on managing fuel loads on crown land (including road reserves) councils and other bodies have been requesting landholders to maintain mineral earth breaks for township protection. There is no consideration of the economic impact to the farmer of not planting their potato crop in a 50m strip along a roadside. In this instance the horticultural property is between the state forest and the town.

The value of agricultural production in Victoria is over \$12 billion dollars, and this supports secondary processing industries. Understanding the value of produce in farmland by emergency management agencies is critical to ensuring it isn't seen as 'vacant' land for township protection.

Many major fires in Victoria occur from natural and non natural causes in state controlled land. Fires starting on farm land has a lower fuel load and a quicker response time – often by the landholder in the first instance.

Options to protect key livestock / assets

During the 2009 Black Saturday Bushfires several cherished community assets – historical societies - were totally destroyed. The Government funded ‘Victorian Collections’ as a free online database available to collection bodies and groups which is backed up on Museum Victoria’s servers. While it may not save the collection, it does retain a detailed record of the collection, which helps the community recover.

A similar approach could be taken to agriculture through seed banks or sperm banks to provide a form of disaster recovery for significant genetic material through breeding programs.

Similarly many council’s will provide shelter for pets but little consideration is given to utilising pens at showgrounds to shelter key breeding stock. Just as many residents may not leave if they cannot take their pets, many farmers will stay to protect their livestock or are on a fire truck protecting other communities. The ability to apply ‘collection’ management principles of minimising risk of total loss on extreme fire days could be applied through local government – giving the agricultural community an opportunity to safely pen some livestock.

Options to improve consideration of agriculture in preparedness, response and recovery.

The VFF has some working points for consideration in how to improve government response.

Opportunities to assist farmers rebuild after fires and recover economic production

Rebuilding

The community focus is often on the initial phases of loss. As is demonstrated by the Black Saturday control dates extending for nearly a decade the process of rebuilding is often long and stressful. There is a lot of information to absorb at a time where you are overloaded with information. The Scotsburn recovery process has shown how important it is for farming communities to have information available as well as a dedicated resource that knows their issues and is helping them through a streamlined and cost effective approvals system. To following items will help support the communities through rebuilding.

1. Dedicated website with resources outlining:

- Site clearance;
- Rebuilding advice
- Agriculture advice – recovery, including soil condition and weed management
- Assistance
- Links to resources
- Community information



2. Dedicated 'recovery' co-ordinator and 'fast track' planner / approvals system and land management co-ordinator (soil and weeds) – funded by state government
3. Streamlined approvals processes by government (where required)
4. Application fee reimbursement by government
5. Rate relief / assistance package for primary producers
6. Access to Government supported seed bank / sperm bank storage facilities for farmers to safeguard genetic breeding programs.
7. Local Government Emergency Management Planning to plan for biosecure and watered stock refuge centres on extreme or catastrophic fire days.

Outreach

Part of a successful recovery process is effective outreach with affected parties. Again a dedicated resource that keeps in contact with those impacted and provides opportunities for them to discuss issues and receive information that can help them not just recover but build the foundations for an even better farm business in the future. The following items will help create the conditions to thrive not just survive.

1. Dedicated 'recovery' co-ordinator – maintaining regular contact / newsletters etc and organising community sessions with speakers.
2. Targeted information packages on how to regenerate your pasture, feeding quantities for stock etc with outreach contacts and resources at DEDJTR.
3. Increased funding and assistance through Councils and CMAs for weed management.
4. Business bus visits (RDV)

Feed / power – logistics

Victorians are generous. Fodder drives and willingness to help in the immediate response is well documented. It is important to get food through in the very short term as well as to have supplies to see farmers through at least one year. While the system works well there are always opportunities to reflect on past experiences in the 'preparation' phase to further reduce response times and reduce impact.

1. Opportunities for learning on 'feed / fodder' collection. Could there be a register of transport companies willing to assist in transport.
2. Info packages for feed 'donations' – how to mark a grade (quality) so it can be directed to the appropriate recipient.
3. Government assistance on establishing stock feed depots (where required).
4. Clear assistance / guidance on fencing.
5. Have established channels with Defence for emergency generators; including Defence understanding which equipment is most appropriate for different 'dairy' systems (for example).

Transitioning from recovery to preparedness.

Each emergency has unique circumstances to be managed. We know that the better information available and the timeliness of access to that information is critical to response and recover. It is important to improve 'property' information for incident controllers. Knowing where there are livestock, critical in ground farming infrastructure, dairy sheds, intensive livestock sheds, stock

containment yards and machinery sheds would assist incident controllers reduce impact of fires on property linked to economic production.

With increasing understanding of the potential impact of fire, especially hot fire, on soil health programs that look to understand different soil types susceptibility to fire should be undertaken. This could then be included to understand potential economic loss from fire, options to enhance recovery and fuel management regimes to reduce the likelihood of a hot fire occurring.

Post Incident review.

Similarly after each event various regulatory responses are required to implement streamlined responses. There are opportunities to have responses ready to be tailored and implemented as part of the initial government response.

Strategic prevention actions that assist in recovery

To improve response and reduce impact the following actions could be implemented.

- 1. Better 'mapping' of agricultural areas – type of production; key locations / assets; nature of systems (eg dairy power type). (Tailor response effort to need on the ground & streamline recovery by identifying likely need).*
- 2. Utilisation of state geology / soil maps to understand the impact of fire on different soils.*
- 3. Developing standards for restoration of dozer or other damage done from fire agency activities on crown land.*
- 4. Developing standard 'suites' of information and response to improve initial stages of recovery and minimise longer term recovery issues (approvals etc).*
- 5. Reducing regulatory red tape to roadside vegetation management and fuel reduction.*
- 6. Development of seed and sperm bank storage facilities.*
- 7. Development of guidelines to plan for a network of evacuation /refuge facilities suitable for farmers and key breeding stock.*

Clean Air

In the recent past there has been increasing pressure on fire management bodies to implement smoke models in fuel reduction burn ignition windows. In Victoria there are very few windows of the year where fuel reduction burns can occur, and these windows generally require low wind conditions which does not allow for the dispersal of smoke.

Managing fuel loads can influence the rate of spread and intensity of a fire. As a farming body we are aware of farm land where, nearly 15 years after a 'hot backburn' by the crown, fodder cannot grow. This economic loss of \$120,000 per annum is not compensated by the crown and soil cannot be insured. The beneficial fungi in the soil that has been lost due to chemical changes in the soil will required \$2 -3 million dollars of organic matter to restore soil health.

That is the consequence in one instance of not managing fuel in the National Park and unwillingness of the incident controllers to back burn on the crown land.

Conclusion

Thank you for the opportunity to provide our insights and experience in these matters that are of critical importance and interest to our members. While we understand and support the need to manage biodiversity this is one of 4 key aspects of 'property' that needs to be balanced in all decisions regarding environmental regulation and fire management. For instance fuel load management on crown land is not only important for biodiversity, it is critical for managing risks to life and property arising from that land on others in the landscape.

ⁱ 7AA Duty to assist in major emergency

(1) In addition to any other of its duties and functions under this Act, the Board must assist in the response to any major emergency occurring within Victoria.

(2) In this section—

emergency agency means—

- (a) the Board;
- (b) the Country Fire Authority established under the **Country Fire Authority Act 1958**;
- (c) the Secretary to the Department of Sustainability and Environment when performing functions or duties or exercising powers under section 62(2) of the **Forests Act 1958**;
- (d) the Victoria State Emergency Service Authority established under the **Victoria State Emergency Service Act 2005**;

S. 7AA(2) def. of major emergency amended by No. 73/2013 s. 90(b).

major emergency means—

- (a) a large or complex emergency (however caused) which—
 - (i) has the potential to cause or is causing loss of life and extensive damage to property, infrastructure or the environment; or
 - (ii) has the potential to have or is having significant adverse consequences for the Victorian community or a part of the Victorian community; or
 - (iii) requires the involvement of 2 or more emergency agencies to respond to the emergency; or
- (b) a major fire within the meaning of the **Emergency Management Act 2013**.

ⁱⁱ 20 General duty of Authority

The duty of taking superintending and enforcing all necessary steps for the prevention and suppression of fires and for the protection of life and property in case of fire and the general control of all stations and of all brigades and of all groups of brigades shall, subject to the provisions of this Act, so far as relates to the country area of Victoria be vested in the Authority.

ⁱⁱⁱ Functions of Chief Fire Officer

The Chief Fire Officer of the Department of Environment and Primary Industries has the following functions—

- (a) to exercise any functions authorised by the Secretary in respect of fire related activities in every State forest, national park or on protected public land;
- (b) any other function conferred on the Chief Fire Officer by or under this or any other Act.

S. 61C inserted by No. 73/2010 s. 50.

61D Emergency Management Victoria

The Secretary must, in performing its functions and exercising its powers under section 62(2)(a), collaborate and consult with Emergency Management Victoria.

S. 61E inserted by No. 73/2010 s. 50, substituted by No. 73/2013 s. 86 (as amended by No. 41/2014 s. 14).

61E Compliance with operational standards of Emergency Management Commissioner

The Secretary must use its best endeavours to carry out its functions in accordance with the operational standards developed by the Emergency Management Commissioner under the **Emergency Management Act 2013**.

S. 61EA inserted by No. 73/2013 s. 86 (as amended by No. 41/2014 s. 14).

61EA Report on compliance with operational standards developed by the Emergency Management Commissioner

- (1) The Secretary must, at the expiration of each period of 6 months, report in writing on the action it has taken during the preceding 6 months to comply with the operational standards developed by the Emergency Management Commissioner under the **Emergency Management Act 2013**.
- (2) A copy of the report prepared by the Secretary under subsection (1) must be given to the Emergency Management Commissioner.

S. 61EB inserted by No. 73/2013 s. 86 (as amended by No. 41/2014 s. 14).

61EB Strategic Action Plan

- (1) The Secretary must implement the applicable work program to give effect to the Strategic Action Plan.
- (2) The Secretary must prepare a written report on the progress made, and achievements attained, by the Secretary to give effect to the Strategic Action Plan at intervals determined by the State Crisis and Resilience Council.
- (3) The intervals must not be less than one a year.
- (4) The Secretary must give a copy of a report prepared by the Secretary under subsection (2) to the State Crisis and Resilience Council and the Inspector-General for Emergency Management.

^{iv} 17(2)(b) consult, as far as is practicable, with the Secretary to ensure that, as far as is practicable, appropriate and sufficient measures are taken to protect each national park and State park from injury by fire;

^v 17 Functions of Emergency Management Victoria

- (1) Emergency Management Victoria has the functions conferred on Emergency Management Victoria under this Act or any other Act.
- (2) Without limiting the generality of subsection (1), Emergency Management Victoria has the following functions—
 - (a) to act as the agency responsible for the coordination of the development of the whole of government policy for emergency management in Victoria;
 - (b) to provide policy advice to the Minister in relation to emergency management;
 - (c) to implement emergency management reform initiatives given to Emergency Management Victoria by the Minister;
 - (d) to liaise with the Commonwealth Government on emergency management;
 - (e) to provide support to the Emergency Management Commissioner to enable the Emergency Management Commissioner to perform the functions conferred on the Emergency Management Commissioner under this Act.
- (3) In performing its functions, Emergency Management Victoria must—
 - (a) have regard to decisions made by the State Crisis and Resilience Council; and
 - (b) collaborate and consult with the emergency management sector; and
 - (c) have regard to the fundamental importance of the role that volunteers play in the performance of emergency management functions in Victoria.

18 Powers of Emergency Management Victoria

Emergency Management Victoria has power to do all things that are necessary or convenient to be done for or in connection with, the performance of its functions.

^{vi} **Definitions from the Emergency Management Act**

major emergency means—

- (a) a large or complex emergency (however caused) which—
 - (i) has the potential to cause or is causing loss of life and extensive damage to property, infrastructure or the environment; or
 - (ii) has the potential to have or is having significant adverse consequences for the Victorian community or a part of the Victorian community; or
 - (iii) requires the involvement of 2 or more agencies to respond to the emergency; or
- (b) a Class 1 emergency; or
- (c) a Class 2 emergency;

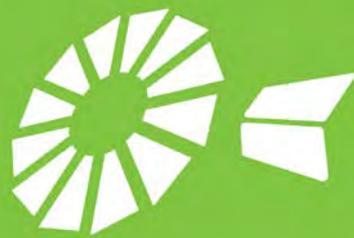
major fire means a large or complex fire (however caused) which—

- (a) has the potential to cause or is causing loss of life and extensive damage to property, infrastructure or the environment; or
- (b) has the potential to have or is having significant adverse consequences for the Victorian community or a part of the Victorian community; or
- (c) requires the involvement of 2 or more fire services agencies to suppress the fire; or
- (d) will, if not suppressed, burn for more than one day;

State Emergency Management Priorities

The State Emergency Management Priorities are:

- *Protection and preservation of life is paramount. This includes*
 - *Safety of emergency services personnel; and*
 - *Safety of community members including vulnerable community members and visitors/tourists located within the incident area*
- *Issuing of community information and community warnings detailing incident information that is timely, relevant and tailored to assist community members make informed decisions about their safety*
- *Protection of critical infrastructure and community assets that supports community resilience*
- *Protection of residential property as a place of primary residence*
- *Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability*
- *Protection of environmental and conservation assets that considers the cultural, biodiversity and social values of the environment.*



Victorian
Farmers
Federation

DELWP – Strategic Bushfire Engagement

Submission on behalf of the Victorian
Farmers Federation

Victorian Farmers Federation

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Victorian
Farmers
Federation

The Victorian Farmers Federation

The Victorian Farmers Federation (VFF) is the only recognised consistent voice on issues affecting rural Victoria and we welcome the opportunity to comment on the Strategic Bushfire Engagement Process.

Victoria is home to 25 per cent of the nation's farms. They attract neither government export subsidies nor tariff support. Despite farming on only three per cent of Australia's available agricultural land, Victorians produce 30 per cent of the nation's agricultural product. The VFF represents the interests of our state's dairy, livestock, grains, horticulture, flowers, chicken meat, pigs and egg producers.

The VFF consists of a nine person Board of Directors, with seven elected members and two appointed directors, a member representative General Council to set policy and eight commodity groups representing dairy, grains, livestock, horticulture, chicken meat, pigs, flowers and egg industries.

Farmers are elected by their peers to direct each of the commodity groups and are supported by Melbourne-based and regionally located staff.

Each VFF member is represented locally by one of the 200 VFF branches across the state and through their commodity representatives at local, district, state and national levels. The VFF also represents farmers' views on hundreds of industry and government forums.

David Jochinke
President

Foreword

Thank-you for the opportunity to provide feedback in relation to DELWPs strategic bushfire engagement process.

The VFF is the peak body representing Agriculture in Victoria. Agriculture employs less than 100,000 people however ABARES estimates that agricultural production in Victoria in the 2016-17 financial year was in excess of \$14 billion. Agricultural products as well as processing and transporting these products are key economic drivers of the Victorian economy.

Background to areas of concern with the process

Since mid 2016 the VFF has been raising the issue of how well the emergency management sector understands the economic contribution of farming and how best to minimise the consequences of emergencies on farm businesses.

Our concern regarding the potential misunderstanding of the term “property” across the Emergency Management sector including Forest Fire Management Victoria and DELWP stems from a series of presentations to the mid 2016 Land and Fire Stakeholder Forum where all views except the landholder were presented. The DELWP officer made a comment about being shocked about low property values in the study area – and when quizzed this was purely dwellings.

Our concern is that failure to properly understand and utilise the broader meaning of ‘property’ as defined in the State Emergency Management Framework not only leads to inconsistencies in incident management but serious consequences for farm businesses through loss of the means of economic production. Sheds, machinery, crops, stock, fences or soil quality were not considered.

In 2017 as an action to discuss landholder views on property had not been scheduled the VFF wrote to the Emergency Management Commissioner regarding the definition of property and opportunities to minimise / avoid consequences through better preparation and data to incident controllers.

We understand that often there is unconscious bias to what is known or seen as important to an organisation. The consequence of uninsurable damage to soil, loss of machinery or stock is not always well understood or able to emotive with than for example dwelling loss.

As has been seen in recent media coverage there is often a perception that 'insurance' is the answer, however insurance is complicated for farm businesses. In addition, recovery timeframes can also be long – total loss of stock that had generations of selective breeding – or decades to return organic matter to the soil. Better engagement with farm businesses would allow the identification of priorities for protection based on that business and their knowledge of the ability to recover from loss.

Given the length of time where these issues have been raised with DELWP and given that the Land and Fire Management Stakeholder Roundtable was held only days after the 'engage' process had commenced it was disappointing that key stakeholders were not given a chance to give input in to the consultation process.

Workshopping the engagement process would have assisted in gaining consistency in language and format, allowed for review of any unconscious bias, determined which legislation was guiding the survey (and have clear information available) and allowed greater awareness to be able to promote greater response.

Confusion over purpose

As each regional survey is branded under Safer Together with EMV and CFA labels the VFF has assumed that it is based upon the Emergency Management Act and the State Emergency Management Priorities.

No regional survey has full compliance with, or balance across the life and property messages within the State Emergency Management Priorities.

Consistency in format across the regions

The six regions have six very different set of questions, some without any ability to provide feedback to assist in interpretation. There were several questions where you were forced to select an answer but the options were very easily interpreted in many different ways. The inability to make a comment to state your actual priority or what you meant in the answer was a missed opportunity.

Other surveys seemed to have value loaded questions, sometimes repeated with a slight variation, which suggests some form of personality profiling that should be undertaken with appropriate ethics clearances and safeguards.

None of the six regions appropriately cover the definition of an emergency in the Emergency Management Act or the meaning of 'property' and 'consequence' from this definition as outlined in the State Emergency Management Priorities.

Consistency in language and statutory meaning

There was inconsistency not only in the questions asked but the language used. This not only makes it difficult to compare results across regions or to the legislative (EM Act) requirements, but it makes it difficult and confusing for the audience to complete the survey. It can lead also to perceptions of bias in the survey.

The lack of clarity in language makes it difficult to ensure that the survey writers interpretation of the question matches that of the respondent.

For example – the metropolitan survey only asked about half of the priorities and was unclear within some of them. For example –'cultural heritage'. Was this the international UN sanctioned meaning of the term as included in Victorian Statue (Heritage Act) or indigenous cultural values? This issue is also confusing in other surveys with Barwon South West using Aboriginal cultural heritage without reference

to built or natural heritage or Grampians with reference to ‘old buildings or historic sites’ which is a misunderstanding of cultural heritage.

This analogy is also relevant to farming and farming types which are also diverse but do not have definitions in statutes. The shorter surveys lose any detail on agriculture – which is included with all other economic loss where the longer surveys attempt to break up issues but with gaps and duplications which can be confusing. For example the Grampians Region has in one question farming elements relating to livestock and then 7 statements later sheds, fence and machinery (no mention of crops). Then the next question has “protect farming land” from bushfire – is this then meant to be interpreted as the soil (eg land) or is it about protecting agricultural production or the means or production?

The State Emergency Management Priorities provided an opportunity to ensure consistency across the engagement process. There could have been qualitative and quantitative questions on each element, with the community given the opportunity to specify what was important to them in each category and how conflicting objectives might be managed.

The language in the priorities could have been the basis for questions and referred to when giving examples. Quantitative questions would then give respondents the opportunity to provide other examples relevant to their situation.

This missed opportunity has then made it more difficult to map and address the assets listed as important which then flows on to a less effective messaging, preparedness, response and recovery outcome. It is nearly ten years since the Office of Emergency Services Commissioner’s Wildfire Project Paper in the Australian Journal of Emergency Management (Vol 24 No 1, Feb 2009) concluded *“In the planning context, the Wildfire Project will enable fire management planners to make shared decisions with the community - people who have not traditionally had a say in the decision making – people who are not necessarily fire or GIS specialists.*

The ability to factor in local community knowledge is an important and unique feature of the project. This is important not only in appropriately determining likelihood, but also in considering the impact of disruption downstream. Disruption can only be realistically understood with the benefit of local knowledge. This approach empowers communities in this important decision making process.

The application of products from the Wildfire Project will enable a comprehensive, evidence based assessment of identified assets and the consequence of their loss resulting from wildfire. The Wildfire Project application will enable fire management planners to make better decisions about risk priorities in their planning and response strategies when facing wildfire threat.”

Conclusion

The strategic engagement process should be urgently revisited to ensure a consistent and unbiased approach to the Emergency Management Act definition of emergency and the State Emergency Management Priorities that give meaning to the terms of property and consequence.

The VFF is willing to work with DELWP and other agencies to improve emergency managers understanding of agriculture so that improved preparedness, response and recovery actions can be facilitated and adverse social and economic consequences minimised.

Definitions from the Emergency Management Act

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- Protection of **critical infrastructure** and community assets that supports community resilience
- Protection of residential property as a **place of primary residence**

- Protection of **assets supporting individual livelihoods and economic production** that supports individual and community financial sustainability
- Protection of **environmental and conservation assets** that considers the cultural, biodiversity and social values of the environment.



Submission

Councils and Emergencies

Victorian Farmers Federation

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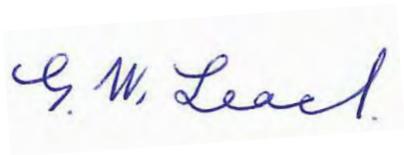
May 2017

The Victorian Farmers Federation is Australia's largest state farmer organisation, and the only recognised, consistent voice on issues affecting rural Victoria.

The VFF consists of an elected Board of Directors, a member representative Policy Council to set policy and eight commodity groups representing dairy, grains, livestock, horticulture, chicken meat, pigs, flowers and egg industries.

Farmers are elected by their peers to direct each of the commodity groups and are supported by Melbourne-based staff.

Each VFF member is represented locally by one of the 230 VFF branches across the state and through their commodity representatives at local, district, state and **national levels. The VFF also represents farmers' views** at many industry and government forums.

A handwritten signature in blue ink that reads "G. W. Leach". The signature is written in a cursive style and is placed on a light-colored rectangular background.

Gerald Leach
Chair – Land Management Committee
Victorian Farmers Federation

Summary of position

The Victorian Farmers Federation is interested in many aspects of emergency management as often our members are directly impacted.

The VFF Submission relates to key themes of:

- Animal welfare. Access to stock. Impact on willingness to leave early.
- Prevention. Regular planned burning on crown land. Concern of impact of burning on private land and uninsurable loss.
- Inequities in definition of an asset. Legislative focus on dwellings leads to reduction in consideration of consequence of loss of soil, fences, sheds, machinery, livestock etc. Impacts of machinery on topography and in ground infrastructure (and failure to rehabilitate)
- Expediting Access / Communications.
- Opportunities for improvement

Relevant legislation discusses impact on property but does not define what is meant by this term. Many agencies focus on dwellings rather than the wider meaning of property. Greater focus needs to be given to the third dot point below extracted from the state emergency management priorities:

- Protection of critical infrastructure and community assets that supports community resilience;*f*
- Protection of residential property as a place of primary residence; *f*
- Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability *f*
- Protection of environmental and conservation assets that considers the cultural, biodiversity and social values of the environment.

In relation to '**assets supporting** individual livelihoods and economic production' machinery, water infrastructure, soil, fencing and livestock are all relevant factors to be considered.

Definition of Asset

An emergency is defined as *“an emergency due to the actual or imminent occurrence of an event which in any way endangers or threatens to endanger the safety or health of any person in Victoria or which destroys or damages, or threatens to destroy or damage, any property in Victoria or endangers or threatens to endanger the environment or an element of the environment in Victoria”* and does **include a “plague”**. Property however is not defined.

The common perception is that property is **“Protection of residential property as a place of primary residence”**. This is only one of four ‘property’ related priorities for emergency management in Victoria. *f*

VFF members are often more interested in *“Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability”*. An emergency management agency may see a shed and consider this a low priority. Within that shed may be several million dollars of agricultural machinery or livestock. The loss of which, can have severe impact on economic production. In the case of breeding stock or damage to soil structure this impact may be long term and costly to rectify.

Emergency services are likely to prioritise activity on dwelling protection however there is no way for a landholder to determine the priority property / asset for protection. There can be perverse outcomes from the failure to consider **non domestic items as “property” as in many circumstances the dwelling will be the least** valuable and easiest insured / replaced property / asset on the land.

Damage can be done to property by fire fighting action. Dozer lines across irrigated or laser graded land may have significant impact on future production. Back burning may take out fence lines, and in some instances, has completely altered soil structure so that over a decade later productivity on the site is still compromised.

Councils need to provide landholders with the opportunity to identify key assets on their site: soil, irrigation, profiling, fences, sheds, machinery, livestock etc should be able to be identified and given priority for protection. This information could then be utilised in preparing, response and recovery.

Knowing what property assets are on the site will also assist in ensuring appropriate compensation/restoration when property is damaged during emergency management activities.

Animal Welfare

Animal welfare is often a key priority for our members. Although the discussion paper looks at encouraging a “leave early” approach the system is flawed in relation to ensuring that landholders can ‘leave early’.

Many farmers will not leave their stock as post the event they are not allowed to access their property to check on stock. In some instances stock may contain genetic material which has been bred over generations.

There are often places for those who leave early to locate to, and even to bring pets. There is rarely any thought given to the identification of evacuation centres where breeding stock could be contained and biosecurity risks managed – such as a saleyard or a show ground.

Ways to expedite landholder return to sites, for instance being escorted in with the DEDJTR vets should be investigated.

Consultation should occur with primary industry owners regarding the barriers to ‘leaving early’ and how these can be overcome.

Prevention

There is an increasing focus on undertaking preventative action on private land. There have been adverse outcomes from the appropriate procedures and protocols regarding land holder authorisation of these activities in the past which have had **significant impact on the individual’s** livelihood even a decade later.

The majority of ‘risk’ factors for the more common emergencies (flood and fire) arise from unmanaged risk on crown land including waterways. The VFF believes increased attention should be given to regular planned burning of crown land and better management of linear reserves (roads and rivers).

Expediting Access / Communications

Ability to access property and access information about events is of critical concern for our members. Rural areas often have poor mobile reception making it difficult to access real time information regarding events. Opportunities to improve mobile communications, both voice and data, should be promoted.

Many farmers now have property over a wide area – **sometimes up to an hour’s drive from the “home” property. Being able to access information in a time critical manner to allow access to relocate stock or assets could be considered.**

Opportunities for improvement

- Better use of GIS mapping in conjunction with primary industry - move towards much better mapping all social, economic, cultural and infrastructure assets so agencies can better plan response. Knowing – where are the key assets – chicken sheds, intensives, large machinery, in ground infrastructure – how can this be shared with ICC for operations.
- <https://ajem.infoservices.com.au/items/AJEM-24-01-07>
- **Clearly define 'property' and 'asset' to include soil, sheds, machinery, fences, livestock, profiled land, in and above ground irrigation / stock watering etc.**
- Resolving gaps with what can be insured – for instance soil.
- Ensuring agency compliance with legislative requirement on landholder notification and consent of burns on private land.
- Provision of evacuation centres with ability to safely house stock.
- Warnings need to clearly state there is stock handling / biosecurity available and where
- Relief efforts need to be improved for farming. Often lose income and place of resident. Should not be reliant on volunteers such as blazeaid filling the gap.
- Have something similar to a **'natural and cultural heritage rehabilitation' for agriculture** – be proactive and plan to avoid loss and have effective / targeted recovery efforts.