Malua Bay Rural Fire Brigade

Bushfire Risk Management Plan Submission to the Far South Coast Bushfire Management Committee

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Abbreviations

APZ - Asset Protection Zone

BFEAC - Bushfire Environmental Assessment Code

BFCC – Bushfire Coordinating Committee

BFMC - Bushfire Risk Management Committee

BFRMP - Bushfire Risk Management Plan

FAFT - Fire Access and Fire Trail Plan

FEZ – Fire Exclusion Zone

FSC - Far South Coast

LALC - Local Aboriginal Land Council

LMZ - Land Management Zone

MBT - Mountain Bike Trail

MBRFB - Malua Bay Rural Fire Brigade

REF - Review of Environmental Factors

RFS - Rural Fire Service

SFAZ - Strategic Fire Advantage Zone

1. Introduction

The Malua Bay Rural Fire Brigade (MBRFB) is an experienced and innovative volunteer bushfire brigade. Its members come from various backgrounds, including experience at all levels of bushfire risk management, management, and government. They also have academic qualifications and practical knowledge in emergency management and various other fields. The brigade demonstrates a steadfast commitment to serving and protecting the community.

The MBRFB's members understand the importance of effective Bushfire Risk Management Plans (BFRMP).

Before the 2019-20 Black Summer fires, members regularly requested an Asset Protection Zone (APZ) between the brigade's shed and the thick scrub surrounding it on three sides. The answer was always no, as the BFRMP did not provide for an APZ to protect the shed.

Fortunately, on 31 December 2019, during the height of the Black Summer fires, when the brigade was doing its best to save what it could in Malua Bay, one of the brigade's members stayed in the shed as a fire passed over it and extinguished the roof where it had caught alight.

Some of our members, whose cars were destroyed or damaged, were less fortunate. The partially destroyed communications tower beside the shed also fared poorly.

In some cases, it took months for our members to have their cars replaced or repaired.

There was no mobile phone reception immediately after the fire, and communications were complex until a temporary, less effective fix was implemented a few weeks later. The temporary arrangements remained in place for months.

Local communications may not have been so severely affected if the plan had been less prescriptive. In this case, hundreds of thousands of dollars of damage may have been avoided. Perhaps all our members could have driven home in their own cars after an arduous day on the fireline rather than relying on their colleagues.

An APZ was authorised after the fires.

Figure 1: An under-construction APZ around the Malua Bay RFS shed. A crane can be seen in the background, replacing important communications assets destroyed by a fire on 31 December 2019. (Source Berkeley Braham, 2020)

In another example, in August 2024, the brigade conducted a hazard-reduction burn west of Guerilla Bay with assistance from Surf Beach, Mogo, and Batemans Bay Brigades. However, a large section of the potential burn area was mistakenly excluded from the burn plan.

The brigade tried rectifying the exclusion zone to reduce the bushfire hazard. In September, the MBRFB was told that completing the hazard reduction was not a priority because the exclusion zone had not been identified as an SFAZ in the risk plan. Confusingly, the original burn area had not been identified as one either.

Further, Mitigation Crews had already completed most of the control lines needed to finish the burn. Completing the hazard reduction will now require more costly work from Mitigation Crews and involve more risk to the community.

An aspirational and agile plan that is not overly prescriptive and does not confuse tactical and strategic matters may have avoided these unfortunate incidents.

These submissions are *evidence-based*, thoroughly researched, and *relevant*. They relate to matters that directly or indirectly increase *bushfire risk*. While they are of direct interest to bushfire risk management in the Far South Coast (FSC), they can easily be applied to many other BFRMPs across NSW.

Some submissions relate to issues or programs subject to other plans, sometimes subordinate to the BFRMP. In these cases, the increase in bushfire risk is sufficient to warrant mention in the BFRMP.

1.1 Bushfire Coordinating Committee, Bushfire Management Committees, and Bushfire Risk Management Plans

The BFRMPs and the Bushfire Management Committees (BFMCs), which draft them, are multi-agency initiatives to manage bushfire risk across NSW (NSW Rural Fire Service, 2024). The BFMC should not be dominated by the NSW Rural Fire Service (RFS) but should reflect a partnership among various land managers and agencies, each with specific responsibilities.

While the RFS administers the BFMCs and exercises jurisdiction over private lands for bushfire management, its authority primarily supports the coordination of the BFMCs and implementation of the BFRMP, among other plans.

The Bushfire Coordinating Committee (BFCC) develops policy that is meant to guide BFMCs in managing bushfire risk and preparing plans (NSW Rural Fire Service, 2024).

This critical analysis of the FSC BFRMP indicates that the BFCC's overly prescriptive directions restrict the BFMCs' effective planning for bushfire risk across NSW and increases rather than reduces risk.

To prevent the recurrence of the Black Summer fires, the BFCC must address the systemic flaws in its guidance to BFMCs. It needs to offer evidence-based practical guidance that enables BFMCs to manage bushfire risk at the local level.

1.2 The FSC Bushfire Risk Management Plan

Next-generation BFRMPs in NSW supposedly represent a shift towards more strategic, locally tailored, and dynamic approaches to managing bushfire risks (NSW Rural Fire Service, n.d.).

Unfortunately, the FSC BFRMP is not locally tailored, considering that most of its written sections are identical or nearly identical to those of most other NSW BFRMPs. This is reportedly an initiative by the BFCC to ensure uniformity across the state. Consistency is reasonable in administrative sections covering areas like *risk identification and analysis* and *monitoring and review* because they are standard in most emergency plans.

However, where there are no similarities, applying consistency where it is non-existent does nothing to address risk, which is sometimes unique to a Rural Fire District; it increases it.

Global research emphasises the importance of place-based approaches to fire management, where risk mitigation strategies are tailored to local environmental, social, and economic conditions (Bradstock, 2020). Using a *pro forma* approach to risk planning makes achieving nuanced, locally relevant outcomes difficult, if not impossible.

An example of this is including the unique scenario of the Wollemi Pine as an endangered species in the plan. This is a wasted opportunity, as it is not locally applicable. Using a local endangered species could increase awareness. For example, the Eastern Bristlebird (*Dasyornis brachypterus*) is an endangered, ground-dwelling songbird native to the coastal regions of southeastern Australia, including Nadgee in the FSC (NSW National Parks and Wildlife Service, 2012). Considering how fire risk is managed to protect this species would be more helpful.

A more serious example of a lack of *local nuance* is that the BFRMP does not mention numerous serious local drivers of bushfire risk, such as inadequate funding for maintaining the area's fire trails. Although this problem is not exclusive to the FSC, it is a pressing local issue that significantly increases the area's already high bushfire risk and should be addressed in the plan.

In the local context, the plan must recognise necessary strategic changes as more fire trails become too difficult and dangerous to use – in other words, unsuitable for their legislated purpose. This includes using them to assess fuel loads and other matters directly related to measuring bushfire risk and informing the content of the BFRMP.

While there are dedicated fire trail management plans, the BFRMP must address the direct strategic implications of the fire trail network's poor state for bushfire planning, preparation, response, and recovery. This is especially important if the BFCC acknowledges that the FSC Fire Access and Fire Trail Plan (FAFT) is well past its renewal date. One inference that can be drawn from this vital plan's out-of-date status is that there is little point in updating it without funds to begin repairing the trails.

It is also difficult to argue that the next-generation BFRMPs are more strategic. In addition to missing essential strategic items such as poorly managed fire trail risk, the BFRMP includes tactical items that should be included in an annual works program, a tactical document, rather than a primary strategic document.

For example, by concentrating on *Focus Areas* (a tactical prioritisation issue) rather than classifying many important, at-risk areas as Strategic Fire Advantage Zones (SFAZs), large swathes of the FSC are not zoned or are incorrectly zoned.

If these unzoned areas are Land Management Zones (LMZs) (which they should be according to the RFS's submission to the Senate Finance and Public Administration Reference Committee's inquiry into the lessons to be learned in relation to the Australian Bushfire Season 2019–20 (n.d)), biodiversity management takes precedence over community safety for significant areas.

If they are not zoned, as indicated in the map (likely, given that a few very small LMZs are shown), the situation will be worse, as there is no bushfire risk management strategy for most of the FSC.

The MBRFB is concerned that the bushfire risk will not be managed by not zoning or misclassifying these areas. In this case, we are bound to see a repeat of the events of the 2019-20 Black Summer Fires.

The MBRFB has advocated for protected areas on the interface west of Malua Bay's built domain by implementing Asset Protection Zones (APZs) complemented by SFAZs. These measures must be included for all at-risk communities if the BFRMP is to be relevant and agile and reduce the likelihood and severity of events like Black Summer.

1.3 The 2019-20 Black Summer Fires

The BFRMP fails to address the significance and impacts of the 2019-20 fires, particularly the destruction of much of the forest crown and the consequent prolific understory growth.

It fails to explain how, especially in the context of the 2019-20 fires, *modifications* to the Bushfire Risk Environmental Assessment Code or a *Review of Environmental Factors* (REF) should be implemented to address fuel loads within temporal burn threshold limits.

The environmental impacts and management implications of this locally significant event are relevant to risk management and community safety, and the BFCC should direct BFMCs in the FSC and similarly affected districts to address them.

1.4 Indigenous Perspectives

The BFMC, presumably directed by the BFCC, has missed a significant opportunity to acknowledge the importance of cultural burning and Indigenous perspectives in managing bushfire risk.

Aboriginal people on the Far South Coast have taken strong leadership in this area. Not recognising this leadership in the BFRMP creates the potential for the broader community to be confused about risk management approaches and specific cultural activities.

1.5 A Changing Climate

The BFRMP should include a separate section on climate change to address the increasingly significant role climate change plays in exacerbating bushfire risks. Rising global temperatures, prolonged droughts, and shifts in rainfall patterns intensify fire weather conditions, leading to more frequent, severe, and prolonged bushfire seasons.

1.6 Summary

The brigade's intention in making these submissions is for the BFRMP to be a more locally relevant document, generating better outcomes for assessing and managing bushfire risk.

The 2019–20 Black Summer bushfires underscored the urgency of addressing systemic issues that have heightened bushfire risks and threatened community safety (Filkov et al., 2020). MBRFB submits that these systemic issues have made next-generation BFRMPs obsolete before their implementation and trusts that the BFCC will allow the BFMC to make changes in the community's best interests.

The MBRFB submits this document to advocate for a more locally tailored and strategic approach to the FSC BFRMP. Key recommendations include:

1. **Fire Trail Maintenance**: Acknowledge the increased bushfire risk due to degraded fire trails and develop strategies to account for this, which is critical for bushfire mitigation and response efforts.
2. **Correct Zoning Misclassifications**: To improve community safety, at-risk areas should be accurately classified as Strategic Fire Advantage Zones (SFAZs) and complemented by Asset Protection Zones (APZs). Ensure all LMZs are mapped, and all areas are assessed for risk management.
3. **Incorporation of Review of Environmental Factors (REFs)**: Use REFs to reassess and mitigate risks where current thresholds hinder effective hazard reduction.
4. **Integration of Cultural Burning**: Recognise and integrate cultural burning practices led by Indigenous communities as part of the broader bushfire management strategy.
5. **Addressing Climate Change**: Include a dedicated climate change section to reflect its impact on bushfire risk and incorporate adaptive management strategies.

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2. Fire Trails

The BFRMP should acknowledge the damage caused to the FSC fire trails by the 2019- 20 fires, the weather and vegetation-related degradation since, and the nearly complete lack of remedial work. Figures 2 and 3 illustrate the state of some trails in the MBRFB area; many fire trails throughout the FSC are in a similar or worse condition.

Figure 2: Cpt 149/3, which connects Burri Road to Dunns Creek Road, showing encroaching vegetation (Source: John Raymond, 2024)

Research (which aligns with MBRFB's members' experience) highlights the role of fire trails as pre-existing control lines for prescribed burns, reducing costs and enhancing safety (Gill et al., 2017). This reduces the need for time-consuming and costly work by Area Mitigation crews, which are still overly reliant on brushcutters and other small plant. Many fire trails that are not already too difficult and dangerous for this purpose will soon be, and preparation for prescribed burning will become more expensive and impractical. Other less effective preparation/mitigation strategies may be required.

The fire trails also provide an essential network for assessing fuel loads throughout the area.

Fire trails are an integral firefighting tool, and their poor condition will require changing bushfire fighting methods. For example, direct attack, backburning, and property defence of many of our farming, remote, and peri-urban residences will become less practical. This will shift our strategy further to urban property defence, potentially against large fire fronts. Firefighting under such conditions can be dangerous, is often unsuccessful, and is always riskier.

If a broader range of options, using a reliable network of fire trails, are available in the preparation and response phases of bushfire management, large fire fronts are more likely to be contained or reduced.

Figure 3: Washout and fallen tree blocking access on Cpt 150/2 in the Malua Bay RFS Brigade area (Source John Raymond, 2024).

Inadequate maintenance of fire trails in New South Wales (NSW) has been a persistent issue, frequently highlighted in post-fire inquiries. These trails are vital for effective firefighting and hazard reduction, yet their deterioration has compromised bushfire management efforts. Research by Cary et al. (2012) emphasises that well-maintained fire trails are crucial for rapid response and containment during bushfire events. The study notes that neglecting these trails can lead to increased response times and reduced effectiveness in controlling fires.

Additionally, a study by Penman et al. (2011) discusses the challenges posed by inadequate fire trail networks in NSW. The authors argue that insufficient maintenance hampers access for firefighting units, thereby exacerbating the spread and impact of bushfires.

These studies underscore the critical need for regular maintenance and strategic planning of fire trails to enhance bushfire management and mitigate risks to

communities in the FSC. Many fire trails throughout the state were already unusable during the 2019-20 fires, with overgrown vegetation, erosion, and blockages exacerbating the challenges for fire crews (The Guardian, 2020).

The MBRFB runs a program to map its fire trail network and regularly familiarises members with the trails. As part of this program, members have liaised closely with the rural and peri-urban landholdings across this trail network, working with these landholders to understand and manage bushfire risk. These community engagement activities provide important opportunities for our volunteers to assess fuel loads at multiple locations across the brigade area.

However, the brigade is acutely aware that since this familiarisation program began, many of our fire trails are no longer fit for purpose. Many others will soon be in a similar state of dilapidation.

The brigade constantly upgrades its mapping to reflect the degradation of its fire trail network and the increased risk to its members. However, we do not see a similar commitment from the coordinating committee allowing BFMC to inform the BFRMP.

There is little will to repair these essential fire trails. Given their importance for access and safe containment, it is illogical not to acknowledge their degradation and the corresponding increase in risk in the BFRMP.

On the ground, the opportunity to reduce risk to our whole community – urban and rural – and our members by investing in these fire trail networks seems worthwhile as an obvious way to address risk. The plan should note the importance of the trails and the corresponding increased bushfire risk faced by our members and community to begin to build a case for their maintenance.

While it is not directly related to the BFRMP, the significant investment of public funds in mountain bike trails (MBTs) in the FSC is perplexing compared to funding for fire trails. It can easily be argued that this point could be made in the BFRMP, particularly as the MBRFB does not understand how the MBTs, some adjacent to our brigade area, will be protected from fire or why these significant public assets have not been referred to in the BFRMP.

The inequity in funding, as seen in the prioritisation of recreational MBTs over fire trails, illustrates a disconnect between risk management priorities and community needs (Williams, 2020), which should be a priority for the BFMC and explained in the BFRMP.

Again, outside the scope of this submission, a functional fire trail network could deliver the recreation benefits that the MBTs are trying to address. Many locals regularly use our trail network for bike riding and dog walking. These users are also an important source of intelligence on the condition of the trails, especially in areas

like Malua Bay with effective volunteer RFS brigade community engagement programs.

In this submission, MBRFB has demonstrated the imperative of managing our fire trail networks, but it cannot address the identified issues alone. The BFMC must be allowed to recognise the network's essential role in reducing bushfire risk in the BFRMP and advocate for acknowledgment of these risks at higher levels.

The plan should clearly state the implications of poor fire trail maintenance for mitigation and bushfire fighting and how these risks will impact volunteers and the community now and throughout the plan's life.

3. Focus Zones, APZs, SFAZs, and LMZs

Asset Protection Zones (APZs) and Strategic Fire Advantage Zones (SFAZs) are integrated into bushfire risk management planning to create a multi-layered defence system.

APZs provide immediate protection to assets by reducing local fuel loads, while SFAZs manage broader landscape-level risks by controlling fire behaviour before it reaches the APZs.

This combination enhances properties' resilience against bushfires (NSW Rural Fire Service, n.d.; Penman, Price, & Bradstock, 2015). The Victorian Government's bushfire management strategies also demonstrate that such zoned approaches effectively reduce bushfire risks across public and private lands (Victorian Government Department of Environment, Land, Water and Planning, 2021).

The BFRMP, in an unusual step repeated across NSW, is using a *Focus Zone* approach to define SFAZs and *set priorities* for mitigation activities. The author has been informed on numerous occasions that the BFCC has determined, using an interesting interpretation of S63 of the *Rural Fires Act 1997* (the Act), that SFAZs can only be classified where they can be treated within the plan's life.

Consequently, SFAZs are restricted to small areas prioritised within current budgets (focus zones). Any area within the BFRMP not classified as an SFAZ is not zoned (apart from a few small LMZs), contrary to a previous policy, where it would have been automatically classified as a LMZ if it was not an APZ or Fire Exclusion Zone (FEZ) (NSW Rural Fire Service. n.d.).

At least LMZs attracted a cursory level of risk management where they were adjacent to the built domain. Presumably, land that is not zoned will not be managed. If the policy has changed, this should be communicated; if it was, it was ineffective.

The BFMC may argue that the unzoned areas in the new plan were burnt in the 2019-20 fires. However, this does not mean these areas are risk-free, as illustrated by the Coolagalite fire in 2023, when significant areas of previously burnt country (2019-20) experienced intense, difficult-to-control fires. Moreover, by the end of the plan's life, it will have been more than 10 years since the 2019-20 fires. Everywhere in the FSC should be managed for bushfire risk regardless of how recently it has been burnt.

It is impossible to imagine why such large tracts of land are not zoned, especially considering that the two most significant land managers in the FSC, Forestry Corporation and the National Parks and Wildlife Service, sit on the BFMC and must have bushfire management plans. BFRMPs are supposed to be tenure-blind, and as an exercise in good public relations, it might benefit the BFMC (and its agency members) and the BFCC if they explained and rectified this discrepancy.

While government funding must be spent effectively, risk assessment should not be compromised for budgetary purposes. Instead, an SFAZ should be classified according to the long-settled definition found in the Bushfire Environmental Assessment Code (BFEAC), and priorities should then be set at a tactical level within budgetary and other resource restraints. The BFRMP should explicitly stipulate this. Including tactical matters, such as burn prioritisations (focus zones), ensures a strategic plan is overly prescriptive and cumbersome; needs-based decisions become more difficult as the plan ages.

Whether by design or accident, this focus zone approach (a tactical approach) classifies only those areas deemed urgently needing treatment as SFAZs. It fails to consider the need for strategic, fuel-reduced zones elsewhere in the FSC to Protect assets and facilitate effective firefighting operations (Bradstock et al., 2012).

If the BFCC justifies the classification of SFAZs by using the unusual interpretation (most likely a misinterpretation) of the Act, then the planning approach is unsatisfactory. The identification of SFAZs should be exhaustive and not limited by budgetary or resource constraints. This is even more concerning when there are valid arguments that some BFMC member agency's resources are not effectively utilised for bushfire mitigation in the first place.

A better approach to satisfying the Act would be for the plan to ensure that prescribed burning - a *notified step* in the Act - is contingent upon other conditions (also notified steps) being met. This would ensure that the plan complies with the legislation and the BFEAC, which it currently does not. This way, important notified steps like fuel load assessments can be implemented *strategically* and integrated into *tactical* planning decisions for prescribed burn prioritisation in *subordinate plans*.

This is one simple and obvious example of better legislative interpretation for risk planning (addressing any concern regarding the Act) rather than the narrow interpretation and rigid application currently informing the plan. It has the added benefit of being compliant with the BFEAC. Under the proposed plan, bushfire risk management in the FSC is driven by misinterpreted legislation and budgetary constraints rather than by need – reversing the logical order of actions.

Another benefit would be to include provisions in the BFRMP for tactical plans to involve RFS volunteers in assessing and reporting fuel levels and all other levels of the prescribed burning planning process. This would ensure that local brigades are *aware* of all mitigation activities within their area of operations and can prepare appropriately for them, which is not currently the case.

The primary concern about the focus zone approach is that land that should be classified as an SFAZ is either not zoned or zoned as an LMZ. LMZs are identified and

managed to provide the optimum fire frequencies required to prioritise biodiversity over community safety. Areas that are not zoned are presumably not managed.

This misclassification or failure to zone means that, at best, in the area immediately west of Malua Bay's *built* domain (and many other at-risk areas in the FSC), biodiversity in the *natural* domain takes precedence over protection from bushfires in the *built*, *environmental*, and *economic* domains, putting life and property at *extreme* and *unacceptable* risk. Either that or the risk is not managed at all. Figure 4 illustrates an area with rapidly accumulating fine fuels close to vital infrastructure, which will be classified as a LMZ or not zoned under the plan.

While the BFCC, resource-constrained agencies, and local government on the BFMC are reluctant to zone these risk areas correctly, they are effectively denying the extent of the risk across our brigade area and the rest of the FSC. This denial prevents effective hazard reduction and agile tactical planning.

Additionally, if the BFMRP *thoroughly* and *correctly* assesses the levels of risk, all parties will have the opportunity to advocate at higher levels for appropriate treatments and commensurate funding. Without this, there is no justification for advocacy on behalf of the community because the risk has been ignored.

Volunteer brigades' preference for *proactive* prescribed burning and other mitigation activities rather than *reactive*, *expensive*, and *dangerous* responses to large-scale fires comes from hard-fought experience. However, risk must be appropriately recognised and clearly defined for these preferences to become a reality. Classifying areas as LMZs or failing to zone them when they should be SFAZs does nothing to address this.

Figure 4: Rapidly increasing fuel loads due to the 2019-20 fire in what will be unzoned or classified as a LMZ in the BFRMP adjacent to the Malua Bay RFS Station, town water and communications infrastructure. Fortunately, this area is protected by an APZ, but it should be strengthened with an SFAZ (Source Berkeley Braham, 2025)

The amount of land classified as SFAZs in the plan appears modest in its targets for prescribed burning. If the next few years present plenty of opportunities for burns, and these areas are completed, the plan must be reviewed and updated before any new annual works plans can be completed. This will require more BFMC meetings. If the plan excludes tactical matters, each agency's annual works programs are more agile and can react to changing seasonal conditions quickly and efficiently.

Moreover, including tactical matters in a strategic plan complicates reviewing and updating them, requiring painstaking changes from SFAZs to LMZs and vice versa for no sensible or practical reason.

The BFEAC does not include prioritising a *focus* zone as a criterion for an SFAZ, nor does it include the criterion that an SFAZ must be treated during the BFRMP's life. It also does not mention budgetary or resource constraints as criteria. Thus, it is difficult to understand why it is appropriate for BFRMPs across the state to use these criteria. A casual reader of the plan could develop a false sense of security if they see land adjacent to their properties misclassified and not recognised as requiring management for bushfire risk.

The BFMC must classify land within the FSC according to the definitions outlined in the BFEAC. The BFEAC defines Strategic Fire Advantage Zones (SFAZs) as areas managed to provide fuel-reduced zones that enable asset protection, complement

APZs, and facilitate fire suppression through strategic vegetation management (NSW Rural Fire Service, 2021). Furthermore, APZs must be used in conjunction with SFAZs to protect interface properties and community infrastructure in Malua Bay and the FSC.

International studies on bushfire-prone regions, such as California and the Mediterranean, demonstrate the benefits of dynamic zoning systems that adapt to evolving environmental and social conditions (Moreira et al., 2020). The FSC BFRMP should adopt similar adaptability, prioritising community safety.

MBRFB applies local knowledge to understand where areas that are not zoned or zoned as LMZs pose a high risk to community safety and will continue to advocate for the correct zoning. The BFRMP must also correctly identify these areas and provide sufficient strategically located fuel-reduced areas, thereby enabling fire suppression and asset protection (Hughes et al., 2018).

4. Review of Environmental Factors and Bushfire Assessment Code Modifications

In areas where fuel loading represents a risk to the community, prescribed burning is often not an option because of burn period thresholds (which are time-dependent rather than fuel-dependent). Environmental factors should be reviewed in these situations to determine whether a hazard reduction burn is necessary and allowable or whether other mitigation measures can be implemented.

Apparently, similar results can be achieved using BFEAC Modifications. However, the brigade does not understand the legislative (or any other) basis for code modifications and will limit its submissions to REFs.

Anecdotal evidence, including the experience of MBRFB members, suggests that temporal threshold limits (rather than thresholds based on fuel loading) likely do not consider a changing climate, the impacts and intensity of the 2019-20 fires, including the obliteration of the forest crown, prolific understory growth, or consequent rapid fuel accumulation.

Prolific regrowth is one of the most frequent concerns raised by community members with the brigade during our regular engagement activities and fire trail mapping work.

The community recognises this fuel is hazardous and wants to know how it will be managed. This is particularly pertinent for those who experienced the catastrophic events of 2019-20.

Broader community consultations have also raised widespread concerns over understory regrowth (ABC News, 2023). Therefore, the REF approach is an important risk management tool that aligns with community expectations.

There is a valid argument that current temporal burn thresholds achieve the opposite of what they set out to accomplish. Rather than reducing bushfire risk, they allow bushfire fuels to accumulate to an extent that makes low-intensity prescribed burning difficult. They ensure that under extreme and catastrophic fire danger days, fires will destroy the forest crown, large areas of ecologically important sclerophyll forest will be destroyed, houses and other structures will potentially be lost, and lives will be put at risk. The MBRFB would support more research and local monitoring to determine whether these temporal thresholds are locally relevant, as many of our members question whether they are.

The MBRFB is unaware of how the temporal burn threshold intervals were formulated, what work has been undertaken to investigate their suitability for the FSC, or whether they are accurate in a changing climate. The brigade sees only the impediments they represent, especially their rigid application and the corresponding

reluctance to implement REFs to keep its area of responsibility safe. Studies indicate that one-size-fits-all approaches to fire management are ill-suited to southeastern Australia's dynamic and diverse ecosystems (Clarke et al., 2021).

The MBRFB understands that the RFS and other agencies sitting on the BFMC have allocated very few resources to undertake REFs. However, this should not be a limiting factor in utilising them, nor is it a valid reason for ignoring them in the BFRMP.

The BFRMP should refer to REFs as a tool for undertaking prescribed burning in SFAZs (and LMZs in more limited circumstances) within burn threshold periods. This would ensure the safety of people and their property in places like Malua Bay. It should also be a starting point for building a case for increased capacity to review environmental factors.

MBRFB has identified many areas of risk that cannot be treated under the current temporal burn threshold regime. The BFRMP must also identify these burnt and unburnt areas and consider how these risks can be managed proactively, with immediate practical implementation of REFs, which, with research, may also help verify fire thresholds, particularly given the 2019-20 bushfires.

5. Cultural Burning

The plan should recognise cultural burning as a tool for reducing bushfire hazards. These low-intensity burns are designed to maintain biodiversity and reduce fuel loads, providing an alternative to conventional hazard reduction techniques in certain conditions (Smith et al., 2022). However, care needs to be taken to recognise the different aims and objectives of a cultural burn compared to a hazard reduction burn in an SFAZ undertaken to protect life and property from bushfires.

Community members must recognise that while cultural burning is an important tool in maintaining environmental and ecological health, it does not necessarily reduce bushfire fuels sufficiently to provide an acceptable level of safety in the relatively small areas that SFAZs should occupy.

Conversely, in the early stages of reintroducing cultural burning, using culturally appropriate methods is often impossible because of excessive fuel. Other agency's assistance might be required to manage risk or sometimes undertake burns in these situations. In such situations, the MBRFB has assisted by conducting prescribed burning on private property, as illustrated in Figure 5.

Figure 5: A low-intensity burn run by the MBRFB at Burrawangs Coastal Club in Guerilla Bay. The Batemans Bay LALC has undertaken significant cultural burning in the area but was concerned with excessive fuel loading. (Source Wayne Dawson, 2023)

These concerns are ameliorated as cultural burning becomes embedded as a management tool and more frequent but lower intensity fires are added to the environment. Media reports have highlighted the success of these practices in

reducing fire risk while fostering community education and reconciliation (ABC News, 2023).

Local Aboriginal Land Councils (LALCs) in the FSC are recognised leaders in the re-emergence of this traditional cultural practice, and cultural burns occur regularly in the brigade area. Figure 6 shows Batemans Bay LALC's Andrew White conducting a cultural burn at the Burrawang's Coastal Club. The leadership shown by groups such as Batemans Bay LALC should be acknowledged, celebrated, and supported as part of our local heritage.

Figure 6: Batemans Bay LALC's Andrew White discussing the finer points of cultural burning at the Burrawang's Coastal Club in Guerilla Bay. (Source Andrew White, 2023)

The purpose of cultural burning is often misunderstood, causing confusion to brigade members and the broader community. Acknowledging these activities within the BFRMP is essential in reducing this confusion, encouraging more communication and coordination between agencies and LALCs, and promoting reconciliation. The BFCC and BFMCs must lead in promoting cultural burning and its benefits.

Cultural burning is essential to bushfire risk management and should be included in the BFRMP.

6. Climate Change

The FSC BFRMP's omission of climate change is a critical oversight. Climate change is a well-documented driver of bushfire risk, with rising temperatures and prolonged droughts contributing to the frequency and severity of fire events (Hughes et al., 2018).

Scientific evidence strongly indicates that climate change, primarily caused by greenhouse gases emitted from burning fossil fuels such as coal, oil, and gas, intensifies extreme weather events. These include prolonged heatwaves, increasingly severe hot days, intense rainfall, rising coastal flooding, and more destructive bushfire conditions. The overlapping bushfire seasons further illustrate the escalating risks driven by human-induced climate change (Emergency Leaders for Climate Action [EFCA], 2022).

The Bureau of Meteorology (2023) projects a significant increase in extreme fire weather days in southeastern Australia, further highlighting the urgency of adaptive management. Current burn thresholds may not be suitable under changing climatic conditions, again underlining the need for REFs, further investigation of burn thresholds (where they are fuel rather than time-dependent), and an adaptive BFRMP.

Integrating climate projections into the BFRMP would enhance its relevance and effectiveness. This likely includes increasing prescribed burn frequencies and investing in climate-resilient firefighting infrastructure. Research shows that proactive adaptation to climate impacts is more cost-effective than reactive disaster responses (Filkov et al., 2020), and the plan must reflect this.

7. Submissions

Recognition of Fire Trails

- Acknowledge the damage to fire trails caused by the 2019-20 fires, weather, and vegetation-related degradation.
- Highlight the importance of fire trails for prescribed burning and fire control.
- Address the increased bushfire risk due to degraded fire trails and an out-of-date FAFT Plan, as well as advocate for changes in firefighting and mitigation strategies.
- Emphasise the need for investment in fire trail maintenance as a community-wide risk reduction measure.

Focus Zones, Asset protection Zones, Strategic Fire Advantage Zones (SFAZs), and Land Management Zones (LMZs)

- Correctly classify at-risk areas as SFAZs rather than LMZs or not zoning them.
- Ensure at-risk interface properties in villages and towns along the coast have APZs supplemented by SFAZs.
- Strategic plan to follow Bushfire Environmental Assessment Code (BFEAC) zone definitions.
- Move tactical matters, like focus zones, to annual works programs rather than the strategic BFRMP.

Acknowledgement of the 2019-20 Fires' Impact

- Address the failure to incorporate the lessons and impacts of the 2019-20 fires, such as forest crown destruction and understory growth.
- Highlight the need for strategies to mitigate rapid fuel accumulation due to these changes.

Review of Environmental Factors (REFs) and Bushfire Assessment Code Modifications

- Incorporate REFs into the BFRMP to address fuel loads within temporal burn threshold limits.
- Explain the previously limited use of REFs and the inflexible application of burn thresholds.
- Advocate for investigating the suitability of burn thresholds, especially in the FSC context.

Inclusion of Cultural Burning

- Recognise and integrate cultural burning as a bushfire hazard reduction tool.
- Respect Aboriginal communities' leadership in cultural burning practices and align the broader bushfire risk management strategies with these practices.

Climate Change

- Acknowledge the increasing risk of high-intensity bushfires because of climate change and the need for new approaches to risk management.
- Integration of climate projections into the BFRMP.

8. Conclusion

The MBRFB strongly advocates for a BFRMP that is locally tailored, evidence-based, and forward-thinking to address the challenges of the Far South Coast (FSC).

The lessons from the 2019–20 Black Summer fires underscore the urgency of prioritising fire trail maintenance, correctly classifying risk zones, and integrating Indigenous knowledge and cultural burning practices. Furthermore, the escalating risks driven by climate change demand a dedicated section within the BFRMP to ensure adaptive, climate-resilient strategies are embedded in bushfire management.

While the Bushfire BFMC is not responsible for funding critical infrastructure, the BFRMP must highlight the strategic importance of fire trails, fuel management zones, and other essential mitigation measures. By identifying these risks, the BFRMP can provide a clear framework for informed decision-making and advocacy at higher government levels and among key stakeholders.

This submission strongly advocates for a comprehensive and locally relevant BFRMP that reflects the realities of the FSC. By addressing systemic gaps and prioritising evidence-based strategies, the BFRMP can significantly enhance community safety and environmental resilience.

The MBRFB urges the BFCC to allow the BFMC to adopt these recommendations to ensure a safer, more sustainable future for the FSC.

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