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## CONCLUSION AND RECOMMENDATIONS

This analysis demonstrates the importance of a prioritised and strategically targeted fuel reduction burning strategy. Importantly, it shows how bushfire risk analysis is a sensible tool to prioritise activity; where outcomes measure success rather than activities. Whilst a hectare-based target may inspire action, in itself it is not a feasible strategy for reducing risk to communities. The results have demonstrated the importance of approaching risk reduction in a tenure-blind way – that is addressing the highest risk areas regardless of who owns or manages the land. For each scenario the tenure-blind approach provided the greatest reduction in relative risk. It is acknowledged however, that extensive community engagement and consultation is required and encouraged by the State Fire Management Council before any program of this nature is implemented.

The relative risk measure should be used as a means to monitor the benefits of fuel reduction for community safety, and is an appropriate measure of outcomes. Recent experience from Victoria and South Australia has shown that it takes approximately three years to build up the structures and resources required to implement a significantly increased fuel reduction burning program. Given the complexities that are expected when implementing any strategic fuel reduction burning program (for example the management of competing land, ecological and environmental objectives) a challenging target would therefore be a reduction in relative risk to below 80% within the next 8 years. This timeframe includes a build-up period of three years to a fully implemented fuel reduction burning program.

Testing of the fuel treatment strategies using a zoning approach, based on the recommendations from the National Inquiry in Bushfire Management (Ellis, et al., 2004) and research into the effects of fuel on fire severity (Bradstock, et. al., 2010) produced some interesting results. This approach involves all treatable vegetation inside Asset Protection Zones (within 1.05km of human settlement areas) having fuel ages of no more than five years old, by the fifth year of treatment. Further out, half of the treatable vegetation would have a fuel age of less than five years inside the Strategic Fuel Management Zones (between 1.05 and 6.05km from human settlement areas). The Full Fire Management Zone scenario involved treating approximately 100,000 hectares of treatable vegetation each year (on both public and private land) all within 6.05km of settlement areas. At a whole-of-state scale, this approach was the most effective strategy at reducing relative risk on an ongoing basis – though this would be at considerable financial, amenity and ecological cost to communities. In contrast, under the scenario tested, achieving only half this strategy was the least effective method to reduce relative risk at a Statewide scale, even though it still involved treating approximately 50,000 hectares per annum. The modelling has demonstrated the advantages that can be obtained through strategically selecting blocks where the highest risk reduction results can be realised. In 2014 we have developed a more nuanced approach beyond zoning (which certainly have their place in local plans) where the strategic selection of highest risk treatment areas in the landscape can produce a better reduction in relative risk.

Of the scenarios tested, the strategy of burning 31,000 hectares of treatable vegetation on both public and private land, where the treatment blocks were prioritised by risk, presented the most effective fuel reduction option given the relative expense, the reduction in relative risk and the increase in ease of suppression in the broader landscape. SFMC therefore recommends that a tenure-blind fuel reduction burning program is developed to strategically reduce bushfire risk to communities, based on a target of burning 31,000 ha of treatable vegetation each year, measured using a five year rolling average. This equates to total of 155,000 hectares over five years, and allows for variations to occur from year to year.

Based on the fire history records available (which are incomplete for private land), Tasmanian fire and land management agencies have successfully completed burning close to 31,000 hectares in a season

only once in the last 20 years. However, most of the burning occurred on public land and is unlikely to have been as effective at reducing bushfire risk to communities. This level of burning was undertaken partly to achieve other objectives on public land in very remote areas. The challenge for the future will be to introduce burning into areas of private and public land, increase burning by at least three times the amount that is currently carried out, while effectively managing the complexities and impediments to burning on private land and on multiple tenures.

The bushfire risk assessment that was conducted as part of this report has developed a risk assessment process that has not been used before in Tasmania. SFMC can use this process on an ongoing basis to identify fuel reduction in areas that can achieve the greatest risk reductions. This bushfire risk assessment process is in early stages of development, and the review process will refine strategic selection to further improve potential risk reductions. This body of work has also demonstrated that a tenure-blind approach to risk reduction can achieve better results than restricting burning to public land. By strategically identifying areas that are unconstrained by tenure, fuel reduction can be more targeted and effective by reducing bushfire risk at identified high potential ignition sources, as well as close to vulnerable communities.