

To the Inspector-General for Emergency Management
GPO Box 4356
Melbourne VIC 2000

INQUIRY INTO THE 2019-20 VICTORIAN FIRE SEASON

PERSONAL SUBMISSION FROM MICHAEL FORSTER

1 'Increasingly longer and more severe bushfire seasons as a result of climate change'

Terms of Reference: '*Consider all challenges and implications for bushfire preparedness arising from increasingly longer and more severe bushfire seasons as a result of climate change*' and '*State evacuation planning and preparedness processes/practices and their effectiveness with an emphasis on remote/isolated communities and Victorian peak holiday season locations*'

- The Terms of Reference rightly acknowledge the role of climate change in the rising scale and intensity of bushfires. Some points need special emphasis:
 - 2019 was Australia's warmest and driest year on record.
 - Single events can have many causes, but decades of climate modelling have accurately foreshadowed more frequent and extreme climate events driven by rising temperatures and greenhouse gas emissions.
 - Australia is one of the most vulnerable of developed countries to climate change, and Victoria will likely encounter more dangerous conditions than other states.¹
 - Bushfire conditions are already more hazardous, risks to people and property have increased and fire seasons have lengthened. The recent wildfire in SE Australia and SA has caused damage to unique eco-systems that goes beyond any natural patterns of burning and regrowth in fire-adapted landscapes.
 - It can be reasonably anticipated that the bushfire threat will only get worse—a global phenomenon in which wildfire seasons extend and overlap as temperatures trend upwards.
- Costs to State and Federal budgets and the economy will continue to escalate. Less visible are the cumulative impacts on community wellbeing and the irreplaceable toll on Victoria's natural landscapes, forests and wildlife.
- Climate change, and all its consequences for the natural world is no less threatening to our values and way of life than the COVID-19 pandemic. It demands an equally radical and urgent response to its root causes.
- The State Government deserves credit for policies / targets to address climate change, but there remain many inconsistencies between its avowed objectives in cutting greenhouse gas emissions and other policies that contribute to their growth (e.g. logging).
- The Federal Government's 'do minimum' greenhouse targets (Paris target of 26% below 2005 emissions) and weak climate diplomacy stand in sharp contrast to its actions on the Corona pandemic. Its actions on climate fall far short of a proportionate response to the climate consequences anticipated by scientists. Federal failure in this area expose States to a disproportionate share of rising costs from fire rebuilding and recovery programs, excluding other climate related costs—severe storms, sea level rise, acidification.

¹ Scientific Assessments Part 3, State of Environment Report 2018. Commissioner for Environmental Sustainability.

2 'Opportunities and approaches to bushfire preparedness'

Terms of Reference : *'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':*

- The context for considering opportunities and approaches need little restating. For many residents the 2019-20 fire season was characterised by:
 - continuous presence of acrid smoke and fumes and impaired visibility,
 - rapid speeds of fire travel, and self-generating weather extremes,
 - presence of fire in the landscape over large distances
 - consequential stretching of emergency services and the inevitability of service gaps,
 - extended periods of evacuation alerts and warnings running into months.
- There have been unusually large and destructive bushfires before (five since 2003) but if the 'new normal' now resembles the 2019-20 fire season, the parameters and priorities in existing approaches to bushfire preparedness need close review.

Planned Fuel reduction burning

- A popular response to bushfire disaster is to blame inadequately planned fuel-reduction burning. At issue is how and in what circumstances planned fuel burns best protect people / property whilst preserving important natural values and avoiding counterproductive damage to eco-systems.
- It can be noted that prior to the 2019-20 fire season, significant areas were subject to planned burning—between 2003–04 and 2016–17 just over 2 million hectares of native vegetation were subject to planned fires in Victoria, Gippsland accounting for the largest area. Many of these fuel-reduction burns were in the national parks of East Gippsland, areas subsequently devastated by wildfires.
- The Inquiry should revisit the established research findings to highlight that whilst broad based fuel-reduction burning has a role if conducted appropriately, its effectiveness is limited in extreme conditions such as those of the 2019-20 fire season.
- Planned burns in the broader landscape may:
 - reduce ground fuel only temporarily, and from repeated burning, promote younger more flammable growth;
 - threaten older less flammable vegetation critical for habitat—tree and log hollows;
 - and, in severe conditions of low humidity, high temperature and wind have little impact on wildfire as it is driven by fire crowning in treetops and ember spotting well ahead of fire fronts.
- Planned burns and other fuel-reduction processes should be directed to where they give most protection to people—close to townships and built assets. The Inquiry should draw on the existing body of research to reconfirm this **risk based** approach to fuel reduction burning whilst affirming improved guidelines for appropriate broad-based fuel-reduction burns. Improved guidelines should:
 - acknowledge the value of Indigenous traditions of controlled mosaic burning as a low risk option,
 - consider fuel-reduction options such as removal of woody weeds prior to controlled burning,
 - set targets to protect and promote older less flammable vegetation,
 - minimize ineffective and counterproductive burns critical for biodiversity,

- be funded to enable better pre and post-fire monitoring of flora and fauna, and pre and post-fire monitoring of fuel loads.

Extend Aircraft Rapid Response Capabilities

- There is an urgent need for increased capacity for control of fire at the point of ignition. The benefits have been well demonstrated from the use of aircraft to quickly attack fires at the point of ignition around the greater Melbourne area.
- This capability needs to be extended across the state—particularly to areas too inaccessible or dangerous to reach on the ground, areas of high conservation value and the state border areas with multiple jurisdictions.
- Properly coordinated with firefighting services on the ground, a strategic shift towards greater use of firefighting aircraft offers a significant step-up in the speed and reach of state-wide capabilities.
- This may be achievable by incremental expansion of the existing service model, but fire seasons are longer and overlapping—globally and locally, leaving less room to rotate and share air assets as the fire season moves across the continent.
- A greater role for the Australian Defence Force should be considered using their specialist skills in logistics and communications and examining what supplementary firefighting equipment could quickly installed to convert air force transport aircraft to firefighting roles. Procurement proposals by the ADF might assessed against more dual use criteria for this end.
- Consideration should also be given to a national air firefighting fleet to service states' needs, with economies of staffing, training and support systems

Other issues to prioritise

- **Support for private bushfire shelters**—an approved design standard was recommended in the 2009 Royal Commission. Little has been done since. The Inquiry should revisit the issue and the financial or other impediments making shelters / bunkers compulsory for new buildings and consider facilitating bunkers for existing homes in relevant fire prone areas.
- **Compulsory evacuation**—an issue to be revisited, not least because the scale of the 2019-20 fire season stretched firefighting services to the limit and placed fire fighters in heightened danger. USA and Canada laws facilitate compulsory evacuation, and have saved lives.

3 **'Protect biodiversity threatened by bushfire'**

Terms of Reference *'In considering effectiveness of Victoria's operational response to the 2019-20 fire season, IGEM should particularly consider: planning and response mechanisms to protect biodiversity threatened by bushfire'*

- The context for considering mechanisms to protect biodiversity in light of the 2019-20 fire season begins with the long-term processes which have degraded Victoria's biodiversity prior to the 2019-20 bushfires season.
- These processes arise from:
 - interactions between commercial logging, feral species invasion, land fragmentation and clearing combined with too frequent burning;
 - the progressive loss and isolation of old-growth forest providing the anchors for a complex web of understory trees, shrubs, ferns and plants offering a vast range of habitat niches for birds, mammals, invertebrates.

- The result is a younger dryer and less diverse forests, and landscapes more prone to high severity burning (Central Highlands and East Gippsland).
- The full dimensions of the destruction from the 2019-20 fires to the natural environment may never be known, but include irreplaceable rain forest, ancient old growth forests, and rare habitat.
- The most effective response to protect Victoria’s damaged and threatened biodiversity is to more quickly phase out further commercial logging :
 - The scarcity values (water retention, carbon sequestration, biodiversity) from the remaining stocks of “older-growth” forest now far exceed any values as pulp feedstock or timber products.
 - Reset priorities which minimise further disruption to ecosystems which sustain this biodiversity.
 - And redirect resources to more systematic pre and post-fire monitoring of flora and fauna.
- Secondly, modify a number of fire-management practices which are destructive of the forest’s natural recovery processes after wildfire:
 - Islands of unburnt vegetation within burn areas must be protected from burning out by fire crews, whenever possible—the burning of these natural refuge areas inhibits recovery of plants and wildlife.
 - Salvage logging compounds the impacts of both fire and logging, and subjects fire-affected forests to mechanical disturbance during the critical recovery stage of the vegetation, and should be avoided in fire impacted regions.
 - In addition, there needs to be much clearer regulation and assessment of hazardous tree removal to avoid the wholesale roadside clearing that happened in this fire season.

4 Emergency Management

Terms of Reference : ‘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’:

Community Engagement and Preparedness

- It was known in winter /spring of 2019 that the forests of East Gippsland and elsewhere were unusually dry. Earlier public advice on the conditions of the forest might have alerted holidaymakers before travel plans and accommodation bookings were locked-in.
- Bushfire preparedness requires a wider dialogue with local communities:
 - for example, how to bring together the historic experience of fire in local communities with the large body of knowledge now available from ecological research and other sources?
 - This argues for a more interactive conversation with communities on how plans to protect people and built assets can draw on knowledge of fire in specific landscapes and vegetation types to also conserve natural values
- Holiday periods—primarily Christmas—now involve large peak holiday traffic movements the along Victoria’s west coast and eastwards on the Princess highway into NSW. Much of this traffic is generated by urban residents unfamiliar with bushfire risks.
- There can be major fire risks where highway traffic is cut off and isolated. Good management largely avoided this in 2019-20 but the risk remains. Fireproof freeway-

style overhead electronic information signage should be considered for public alerts and road status.

- Fire Apps worked well but are state based and tracking basically stops at borders. Apps should preferably have a total regional view for users in border areas (e.g. Mallacoota).

Local communications

- More can be done to ensure that residents are able to stay connected in real time as a fire crisis unfolds. Some simple local measures might provide more resilience for local neighbourhoods:
 - A cheap but reliable means of staying in touch is essential. If mobile phone networks cannot be fireproofed, what other devices are suitable at low cost (e.g. older style beepers for urgent one way 'push notifications' or small person-person radios)?
 - Promote local neighbourhood cohesion such as shared contact lists, agreed locality evacuations plans and stay-in-touch procedures.
 - Seek to 'regionalise' neighbourhood plans for greater consistency across communities in order facilitate coordination of Councils, SES and fire services, irrespective of location

5 Adequacy of existing *administrative and funding mechanisms*

Terms of Reference 'Consideration of the adequacy of existing administrative and funding mechanisms in place at a state level to support the operational response efforts' and 'In considering the timeliness and effectiveness of activation of Commonwealth assistance, and Commonwealth resource availability':

- There needs to be major increase of secure state and federal funding to support the operational costs of fighting wildfires. Inquiry consideration should include:
 - Federal funding for firefighting aircraft flows to states only when targeting imminent risks to lives and property. Funding arrangements need to be re-negotiated to support wider use of firebombing, especially points of fire ignition, given the potential for small fires to quickly grow out of control.
 - Emergency recovery funding for Councils need to accompanied with core funding commitments into the medium term for many infrastructure repair and environmental restoration works.
- Other forms of State / Federal assistance to support operational response efforts might include:
 - Building on COVID-19 experience, planning and testing disaster recovery plans which embrace wider geographic areas, longer durations, and incorporating disruptions to critical infrastructure and transport networks.
 - Support for employers of current volunteers—offset the costs of workers absent for the extended periods now more likely under extreme fire conditions.
 - Extended health preparedness (e.g. wider levels of first aid and emergency training).
 - Looking at additional ways to bring business into disaster planning.