



2nd May 2019

Dr Felicity Novy,
Review Team
AFAC Review
GPO Box 1526
Hobart Tasmania 7001

Dear Dr Novy,

AFAC Review into the 2018/19 Tasmanian Bushfires

This submission has been prepared on behalf of Tasmanian members of the Institute of Foresters.

The Institute is in the process of completing a formal merger process with Australian Forest Growers, which commenced from resolutions passed late last year.

The Institute of Foresters of Australia has been a professional body with members engaged in all branches of forest management and conservation in Australia, since 1935. The Institute is strongly committed to the principles of sustainable forest management and the processes and practices which translate these principles into outcomes.

The membership represents all segments of the forestry profession, including public and private practitioners engaged in many aspects of forestry, nature conservation, resource and land management, research, administration and education.

There are Divisions of the IFA in each State and the Australian Capital Territory, headed by the Divisional Chair and coordinated through volunteer Committees.

Australian Forest Growers (AFG) is the national association representing and promoting private forestry and commercial tree-growing interests in Australia. AFG was incorporated in 1969 and has branches in all States.

AFG members grow trees for timber and other products and benefits, on small and large holdings, on farms, in plantations and in private native forests

AFG members include farmers and foresters, plantation investors and investment companies, researchers, consultants, tree and equipment suppliers, industrial forestry



companies, urban dwellers with rural land, small block holders, and tree growing enthusiasts.

Many IFA and AFG members are involved in fuel reduction burning, planned burns and fire-fighting as part of their employment with forest companies, Parks and Wildlife, Fire Services and as members of volunteer brigades. Members were involved during the recent Tasmanian bushfires at a range of levels.

Terms of Reference:

1. The causes, chronology and response of the 2018-19 bushfires in Tasmania on and following 28 December 2018.

The major 2018-19 fires that impacted on private and public forests were the Riveaux Road and the Great Pine Tier fires. These were reported to TFS on either the 15 or 16 January, 2019.

Their apparent cause was lightning strikes occurring at that time. We do acknowledge that there were a very large number of lightning strikes at this time and that the Gell River fire, which commenced in late December, had required considerable resources before the Riveaux Road and Great Pine Tier fires compounded the bushfire threat.

Anecdotally, both the Riveaux Road and Great Pine Tier fires were not aggressively engaged for a number of days after the main ignition points were reported. This appears to have been because these ignitions occurred in reserves. Apparently, there was a decision made not to aggressively suppress these fires until they emerged from these reserves.

Our advice is that there was local experience and also machine operators available, that could have tracked these fires to provide mineral earth breaks or improved access for ground crews. This meant that the fires increased significantly in perimeter and scale. There was also obviously, the risk of worse weather conditions, before the fires reached existing roads or places where suppression could be attempted. This meant that the fires were active and too severe to stop, when they came out of the reserve system.

This decision making process appears at odds with the fifth TFS Strategic Control Priority of protecting community assets, which is better explained by the Victorian version - Protection of assets supporting individual livelihoods and economic production that supports individual and community financial sustainability (pg 89 2013 Tasmanian Bushfires Inquiry | PART E).



There is forest industry concern that the value of public and private forests, principally managed for wood production, was not taken into account in the decision-making process. It is extremely difficult to put an exact figure on the value of wood production lost and it depends upon at which point in the production chain, the loss is materialised, but the losses could quickly be in the order of magnitude of tens if not 100's of \$millions. This is addition to tourist \$ losses (Airwalk), vineyards, infrastructure (power lines), wood production facilities (veneer and sawmill) and the large number of volunteer fire-fighter and community support hours due to these fires. The reserve system should not be so cosseted that all other assets are put at risk by inaction.

It could be surmised that, if the fires were coming out of wood production areas and threatening reserves, then a far more aggressive suppression approach would have been undertaken. Given the fire-fighting costs plus the economic, business, and employment losses caused by these very large fires a more aggressive approach to initial suppression is warranted.

Given that the majority of the reserve system is to the west of production forests and that this is the prevailing wind direction, then there needs to be very clear protocols about how fires in the reserve system over high fire danger periods are contained and prevented from causing significant suppression costs, economic hardship and employment losses outside the reserve system.

Key points

- **The Riveaux Road and Great Pine Tier fires were not aggressively engaged for a number of days**
- **There was an unwillingness to use machinery within the reserves to improve access and to create bare earth fire breaks**
- **The value of forests utilised for wood production is not fully appreciated**
- **There is a need for clear protocols on management of fires within reserves to limit the risk to assets, which affect livelihoods, as well as other risks**

2. The effectiveness of community messaging and warnings.

There was community concern that the warnings about fire fronts and fire activity, particularly in the Huon Valley, were not up to date. There are reports that other sources of on-line information were far more current than the TFS system. These web-



sites use satellite data and include Sentinel Hotspots (<https://sentinel.ga.gov.au/#/>), Weatherzone (<http://www.weatherzone.com.au/tas>), and Landgate (<https://firewatch-pro.landgate.wa.gov.au/home.php>).

It is also noted that, unlike most other states, Tasmania does not have a mobile phone app for engaging with fire warnings, and that the map on the TFS website is difficult to use on a mobile device.

Key Points:

- better on-line information from TFS
- a mobile phone app for fire warnings
- TFS map should be more mobile phone friendly

3. The timeliness and effectiveness of the fire response and management strategy, including accommodating the priorities of life, property, environmental and cultural values, and timber production and forest asset values by Tasmanian fire agencies.

As under our comments for the first Term of Reference, there is concern that the initial suppression attempts were too slow and were hindered by decision-making because the fires were within the reserve system.

As above we do not consider that priorities in the decision-making process adequately addressed the potential impact outside the reserve system. There appears to have been too much emphasis on potential impact on environmental values over and above other values by not aggressively attacking these fires at an early stage.

This slow action does not appear to take into account the risk of far greater environmental and cultural damage through the increased scale of the fires. In turn the potential risk to life, property and livelihoods is correspondingly increased.

We note Recommendation 22 from the 2013 Tasmanian Bushfire Inquiry and from other similar inquiries over recent years in other Australian States and Territories.

“Initial Suppression Action Questions were raised about a lack of commitment to suppressing fires in their initial stages, particularly if they are in bush settings. Sometimes this is due to a misunderstanding of accessibility, safety and scale issues. However, in most cases it would be expected that this is the best time to suppress a fire and it would be expected that this would be



an important tactical approach imbedded in all fire operations. It would be appropriate for TFS to reinforce this as an important principle in its operations.

Recommendation 22 – that Tasmania Fire Service considers adopting a primary tactic of an aggressive first attack on fires.”

The six point Strategic Control Priorities (page 89, 2013 Tasmanian Bushfire Inquiry) developed for Victoria is a reasonable objective.

“Strategic Control Priorities

- 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 support 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.”*

http://www.dpac.tas.gov.au/divisions/osem/2013_tasmanian_bushfires_inquiry_report/2013_tasmanian_bushfires_inquiry_report

We point to two particularly pertinent clauses of the Institute of Foresters Policy Statement on Fire Management (December 2017 – appended).



- *“All fire management operations should put a high priority on fire-fighter safety. However, the level of risks taken should be commensurate with the potential benefits to be gained, cognisant of the fact that fire-fighting is inherently risky and that trying to avoid all risk may inhibit the capacity to control fire in a timely manner and result in greater impacts and losses.*
- *Fire-fighting aircraft, tools and technology are not a substitute for effective on-ground firefighting. The primary focus of fire control should always be around on-ground efforts with aircraft, tools and technology being used to make on-ground efforts safer and more effective.”*

Of particular concern to many people involved is the delay in getting Incident Action Plans (IAPs) from Incident Management Teams (IMT) and the lack of local knowledge input if the IMT is too remote from the fire. This is also significant where there are rapid changes in conditions on the ground. It is a concern where crews are ready to attack sections of the fire or could responsibly be back burning and/or blacking out sections of the fire front as examples and are waiting until 10 am in the morning for instructions. This is not a good outcome from a morale or effectiveness point of view.

We refer to two comments in the Senate Select Committee on Agricultural and Related Industries, Report: “The incidence and severity of bushfires across Australia”, 13 August 2010, Commonwealth of Australia 2010 ISBN 978-1-74229-349-3, at pp. 112 and 116, which were repeated on page 85, 2013 Tasmanian Bushfire Inquiry:

“The committee received considerable complaint about the negative consequences of restrictions on local decision-making and local action once control of a bushfire suppression effort has passed to a centralised incident control structure. The basis for this complaint was the inability of locals on the ground to exercise their local knowledge and respond quickly to changing circumstances hampers bushfire suppression.

The committee understands that bushfire emergencies do require a formalised incident control structure to ensure that suppression measures in one area are not countering efforts in another or risking the lives of fire fighters. However, it appears ... that this objective is impeding the legitimate actions of fire fighters on the ground, who are attempting to deal with changing conditions in the most effective way. The benefits of a centralised incident control structure are totally nullified if fires are allowed to burn out of control while local fire fighters wait for approval to respond by those likely to be unfamiliar with local and up-to-date conditions. The committee is of the view therefore that bushfire agencies should review their incident control management systems to ‘better incorporate local knowledge and expertise and better



understanding of the needs and circumstances of local rural communities in the management of major bushfires’.”

The above comments would appear to reflect the concerns of some of our members and were addressed partly by a series of recommendations (14-19) in the 2013 Tasmanian Bushfire Inquiry report.

We understand from our members that there was a standing order included in the IAPs to change from offensive to defensive firefighting at an FDI of 25. We believe that these decisions are best made by commanders in the field, based on the local conditions rather than as blanket rules that do not consider the local conditions or situation.

From a pre-fire preparation point of view, mapping of minor bush roads, tracks and logging access is often disregarded, when these would allow a quick starting point for construction of bare earth firebreaks and often on predetermined best alignments. To ignore this local knowledge and local minor infrastructure incurs more cost and more risk of fire escapes.

Key Points:

- **There needs to be increased capacity and urgency around initial suppression in bush and reserve areas**
 - **The need for aggressive initial suppression is an outcome of several past bushfire inquiries and needs to be reinforced**
 - **TFS Strategic Priorities should reflect the need to protect assets supporting livelihoods in similar context to the Victorian priorities**
 - **Emphasis needs to remain on effective on ground fire fighting**
 - **IAP’s need to reflect local knowledge, be current and be able to adapt to changing conditions on the fire ground**
 - **Mapping and planning used to prepare IAP’s should make use of all existing road, track access options**
- 4. The impact and effectiveness of fuel management programs in the fire affected areas on the management and containment of the fires.**

The Press report 2016 (see links below) page 17:

“Research undertaken through the Research Project indicates that the occurrence of lightning fires in the TWWHA and adjacent areas has greatly increased over the past 45 years, and particularly in the past 15 years. All of the recorded lightning fires between 1980-81 and 2015-



16 were ignited in long unburnt vegetation. It is probable that the risk of lightning ignition in buttongrass increases with time post-fire."

This statement in the Press report is probably indicative of the situation for most of the treatable vegetation within Tasmania, but not only for lightning strikes as the ignition source. The build-up of fuel in many production forests and their surrounds is a major concern and needs more management scrutiny.

There has been considerable strategic fuel reduction burning around urban areas for the protection of communities and increasingly within the reserve system. However, it is very difficult to get comprehensive figures on the areas treated year by year, State-wide, and this should be more easily accessible.

The report entitled *Bushfire in Tasmania – A new approach 2014* (http://www.fire.tas.gov.au/bootstrap/pdfs/Bushfire_In_Tasmania_V1.2_pdf_web_version_LOW.pdf) made the following recommendations:

1. *"A strategic fuel reduction burning program is developed that reduces bushfire risk to communities by strategically identifying high priority areas for treatment.*
2. *The Tasmanian Government supports a tenure-blind approach to fuel reduction.*
3. *Any fuel reduction strategy implemented must aim to reduce Statewide relative risk to below 80% within eight years.*
4. *A period of three years is allocated to build up to a fully implemented fuel reduction burning program.*
5. *A minimum of 31,000 ha of treatable vegetation on both public and private land is targeted each year, measured using a five year rolling average.*
6. *A long term commitment is made to implement a centrally coordinated fuel reduction burning program that incorporates the entire fuel reduction burning management process, including an ongoing commitment to improve strategic selection of burning priorities."*

We would support a review as to whether more emphasis on fuel reduction on, or surrounding, production forests or to protect production forest assets, should be part of the treated area each year. This may assist to protect other assets, including communities and the greatly increased but scattered reserve system.

Key Points:

- **The detail about the hectares and targeting of fuel reduction burning needs to be more accessible**



- **The level of fuel reduction burning within and also bordering wood production forests needs review**

- 5. **The effectiveness of state, regional and local command, control and co-ordination arrangements, to include agency interoperability and the co-ordination of emergency management activities with government and non-government organisations.**

There has been some concern about whether three principle fire-fighting agencies within Tasmania is warranted. There appears to have been some confusion as to responsibility on the ground and controls of resources between agencies. The coordination protocols may need closer review at least.

The 2016 Press report (see report links below) made several recommendations about reviewing Parks and Wildlife Service's capabilities and planning (recommendations 9-12). We are uncertain whether this has occurred, but it should be a priority given the vastly expanded responsibilities of the service.

Having the IMT's less remote and able to interact in daily planning with people on the ground could have significant benefits.

Key Points:

- **Interagency protocols should be reviewed and made more transparent**
- **Consider whether past recommendations for reviews of PWS capabilities have been adequate given the expansion of reserve areas managed by PWS**
- **IMT's should be closer to on ground operations on extended campaigns or mechanisms for more local input implemented**

- 6. **The effectiveness of the arrangements in place for requesting and managing interstate and international assistance and the significance of interstate and international assistance in managing the fires.**

We support interaction with interstate and overseas fire-fighting people as a means of gaining expertise as a benchmark for State and regional practices. However, there is concern that in some instances, with the interstate and overseas firefighters, local knowledge was not being sourced and there was excessive waste not using existing tracks and instead building new breaks. Where TFS does appoint the local brigade as the fireground manager there is experience that this works very well.



It is also important to get access to the limited number of trained remote area fire-fighters, which could make a significant difference in containing fires in some of Tasmania's wilderness areas. In addition, the relief of Tasmanian fire-fighters and particularly volunteers over an extended campaign as experienced in Tasmania over this summer is critical.

We are not familiar with the detail of arrangements for requests for assistance. However, there should be an emphasis on training enough local people in case severe conditions in other States mean that the options for external assistance are limited.

It is also important that all local resources are properly utilised. We understand that in some cases there were issues utilising fire fighters and equipment from the private forest industry due to concerns around liability. Adequate structures, such as Memorandums of Understanding or Forest Industry Brigades should be put in place so that private forest industry firefighters can assist in fire-fighting. This should be fixed well before each fire season.

Key Points:

- **More remote area fire fighters, including possibly volunteers, need to be trained for reserve area fire-fighting and rapid deployment**
- **On extended periods of fire threat, there needs to be mechanisms and enough resources to rotate fire fighters, particularly given that many are volunteers**
- **The role of industry brigades and standards should be urgently fixed. It is not something that should be under discussion in front of a wildfire.**

7. **The use and effectiveness of aviation firefighting resources, in particular, the suitability of aircraft types for the protection of environmental values, forest assets and the rural/urban interface in Tasmania.**

We note a number of appropriate recommendations made in the Press report (Tasmanian Wilderness World Heritage Area Bushfire and Climate Change Research Project Dr Tony Press Final Report, December 2016)

http://www.dpac.tas.gov.au/_data/assets/pdf_file/0011/313013/TWWHA_Bushfire_and_Climate_Change_Research_Project_December_2016_Executive_Summary.pdf



For example “*Recommendation 7 – Lightning and ignition detection*” – this refers to incorporating emerging detection technologies. Obviously, these are improving, particularly with up to date satellite imagery. It is understood that a Victorian strategy is to fly the route of lightning strike storm paths and to water bomb early ignition points with fire retardants. This makes perfect sense and should be far more economical than needing to attack ignition points at any later stage.

The Press Report (2016 above) in recommendation 13 also makes suggestions on the use of aerial fire suppression for remote area firefighting teams and other fire suppression. It would be a concern if this was done in isolation of Tasmania’s other fire fighting agencies and this is an example where there should be a combined approach.

Recommendations 14 -15 of the Press report are relevant to the two fires, which we are most concerned about. Fire retardants were used on the Gell River fire but at a stage where the fire had already burnt 1000’s of hectares within TWWHA.
(<https://www.abc.net.au/news/2019-01-04/tasmania-weather-watch-and-act-issued-for-wilderness-fire/10683440>)

The ABC report states that PWS had reviewed the type of fire retardant to be used in reserve areas as was recommended. The earlier use of fire retardants may greatly assist the initial attack of future ignition sources and should be a high priority.

The effectiveness of water bombing, in our opinion, diminishes as the scale of the fire increases. With a large active fire front, the scope for control by aircraft reduces dramatically and is probably more important for protecting specific assets.

With the expense of aerial operations, the use of aircraft does need to be carefully considered. There is a view that aircraft are sometimes used to appear to be seen to doing something and to keep the media occupied as it makes great imagery. There needs to be careful analysis on its effectiveness and the cost / benefit.

Key Points:

- **The use of aircraft to fly the route of lightning strikes to assist with early suppression is recommended**
- **The protocols for use of retardants within reserves, needs to be finalised so that these can be used in initial suppression**



- **The approvals for the use of machinery to provide bare earth fire breaks, back burning and blackout of burnt fringes, need to be more timely and flexible, whether or not the fire is within the reserve system so that there is not too much reliance on aircraft**
- **The effectiveness of aerial operations in terms of cost / benefit should be carefully and transparently reviewed**

8. Any other matter that the Review team identifies in the course of its activities as warranting discussion.

The private landowner's liability for fuel reduction fires, is a point of confusion for landowners, and is a factor in their involvement in fuel reduction. An understanding is that, if a permit is issued, and a burn plan adhered to, the land owner is not liable for fire-fighting costs, in the case of an escape. However, there is uncertainty as to whether this extends to civil liabilities for property damage. If there is a clear answer, then this needs to be communicated to landowners to give them confidence for fuel reduction in the shoulder season.

We urge agencies to encourage landowners to prepare properties for fuel reduction burning, run training sessions for fuel reduction programs and look at the current insurance/liability consequences should a fuel reduction burn get out of control and cause neighbour damage. I believe landowners have possibly lost fuel reduction burning skills and are very hesitant to responsibly light fires, because of the insurance/liability issues.

There were some Northern fires this season, which had extreme potential to damage farmland, plantation and urban areas. These fires were wilfully lit. There was an apparent reluctance of TFS to prosecute offenders. We recommend greater resources and effort allocated to catch and prosecute offenders.

Kind Regards,

Tony Cannon

On Behalf of Jim Wilson, Chair of the Tasmanian Division of the Institute of Foresters and Nigel Calvert, Chair of the Tasmanian Branch of Australian Forest Growers



ATTACHMENT A - IFA FORESTRY POLICY STATEMENT 3.1 – The Role of Fire and its Management in Australian Forests and Woodlands

ATTACHMENT B – AFG POLICY STATEMENT No. 19 FIRE MANAGEMENT