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## **Developing a Fire Management Plan for the Tasmanian Wilderness World Heritage Area (TWWHA) – TNPA comment on PWS discussion papers**

**September 2020**

With the recent release by the Tasmanian Parks and Wildlife Service (PWS) of a range of discussion papers for public comment, we are pleased to see belated progress towards the development of a Fire Management Plan for the TWWHA, as recommended by the 2016 report by Tony Press (*Tasmanian Wilderness World Heritage Area Bushfire and Climate Change Research Project*) and prescribed by the *2016 TWWHA Management Plan*.

The *TWWHA Management Plan* (p.113) notes that ‘fire is perhaps the greatest challenge for the management of the TWWHA, particularly in the context of a changing climate.’ We concur, but the Plan also states (p.169) ‘there is a clear need to reintroduce a significantly greater level of fire back into the landscape to help maintain specific cultural and natural values ...’ But, disappointingly, the recently-released discussion papers (on which we comment specifically below) contain insufficient detail of this ‘clear need’.

The PWS discussion papers acknowledge both the impacts of climate change on fire frequency and intensity and the need for further scientific research but there is little explicit acknowledgement of the direct impacts of climate change (e.g. temperature, precipitation, evaporation rates), beyond the acknowledgement that some of the ‘OUV of the TWWHA ... require different climatic conditions to ensure their continual replacement and regeneration’.

These changed climatic conditions, especially increased soil dryness, have the potential to cause local, if not total, extinction of particular plant species or communities, even in the absence of fire. For example, a stand of Cider Gums south of Miena (not far outside the TWWHA) has already succumbed to altered climatic conditions that are attributed to climate change, and inferences based on the *Climate Futures for Tasmania* project outcomes suggest some alpine communities may be unable to adapt or relocate.

This is relevant to both the fundamental question of what values are we trying to protect/maintain and also the prioritisation of fire-fighting efforts; e.g. if there is a choice between protecting a vegetation community that is viable in the long-term and one that is doomed to extinction by climate change, the resources should go into protecting the community with a long-term future.

The following sections comment on the the various specific PWS fire issue discussion papers released in September 2020 for public feedback.

## **Background**

The 2016 TWWHA Management Plan (p.170-171) states a ‘holistic fire plan’ is required and list a range of components that must be included, whereas this PWS discussion paper contains only a more general objective (below) for the TWWHA Fire Management Plan. It is important the Fire Plan contains sufficient detail on all the components noted in the Management Plan.

*The objective of the Tasmanian Wilderness World Heritage Area Fire Management Plan will be to provide strategic direction underpinned by a contemporary adaptive management framework in order to protect human life, the Outstanding Universal Value of the TWWHA, and other fire-sensitive assets.*

While we support objective quoted above, we also believe it is crucial to spell-out what is meant or intended by ‘fire-sensitive assets’, and that this includes or comprises natural values.

And that this should also be spelled out

We also note the following acknowledgement:

*Some of the above values are more at risk from the fire response than the fire itself. For example, shell middens and hut depression sites may be not be severely impacted by a bushfire but are easily destroyed by earth-moving machinery or water bombardment.*

But we again argue that reference to natural values should be explicitly noted, as some can also be damaged by fire response activities.

The section ‘Transition in Vegetation Communities’ (p.9) does not sufficiently emphasise the importance of even minor changes in fire frequency on both transitions and the viability of individual species which require a minimum interval between fires to reach reproductive maturity. The discussion paper also implies by omission (as have numerous documents before it) that vegetation patterns are basically fire history related, ignoring the substantial influence of soils and geological substrate factors. This therefore influences both the perception and interpretation of fire in the landscape by the land managers, some commentators and the public.

### **1. TWWHA fire management objectives**

This PWS discussion paper is a good summary of the overall situation, issues and challenges, noting “the overall question of ‘*what are we managing for?*’ has to recognise that complete fire suppression in the TWWHA is not only impractical, but also undesirable.”

Recommendations from the post-2016 fire Press report are quoted and we strongly support these:

*“Clear, well-defined objectives for fire management should be incorporated into a Fire Management Plan for the TWWHA. These objectives should identify how fire management (fire suppression, ‘let go’ and management fires) will be used to protect and conserve the natural and cultural heritage values in the TWWHA.”*

And that:

*“The Fire Management Plan for the TWWHA should clearly set out the circumstances in which priority will be given to protecting.”*

The 2016 Press report makes a detailed recommendation regarding resourcing and integrating the PWS Bushfire Risk Assessment Model (BRAM) with other models and tools to aid prioritisation, and the 2016 TWWHA Management Plan (p.170) contains an outline of the BRAM, but none of the recent issues papers outline progress on this.

The PWS discussion paper propose the following fire management outcomes for natural values be adopted. We strongly support 1 but argue that 2 needs detailed clarification regarding what is considered ‘appropriate’ (e.g. which ‘fire dependent natural values’ are chosen to be maintained and, given progressive change to the landscape since Aboriginal fire regimes were utilised, to what state are we trying return or manage the landscape; see later).

1. *No loss of fire-sensitive vegetation or other high conservation values in the TWWHA as a result of fire.*
2. *Fire-dependent natural values are maintained through appropriate fire regimes.*

## **2. Fuel Reduction Burning**

While the PWS discussion paper notes ‘a key question for fire management is whether or not to conduct planned burns or to leave nature to itself’, the *2016 TWWHA Management Plan* makes it pretty clear an overall decision on this has been made.

The discussion paper notes various reasons for undertaking planned burns – asset protection, fuel reduction, ecological and cultural. It is the selection criteria for any of these that are crucial but this is not spelled out. These need to be specified in the Fire Management Plan. Regarding ecological burns, undertaken for ‘maintaining a fire-dependent community or habitat’, who and how are decisions regarding what community warrants this made vs potential impact on other values/communities?

The discussion paper states that ‘planned burns have proven effective at slowing and stopping the spread of bushfires’ (p.2), and this assumption that the existence of recently burned areas (whatever the reason for the burning) is effective in controlling fire underpins key arguments throughout the discussion papers. It needs to be acknowledged that there are examples where areas of buttongrass have carried a fire only a year or two after a

previous burn. This has major implications; e.g. if an area needs to be burned annually to maintain it as an effective fire break, even if practical this will exterminate any species within the area that cannot survive such a fire regime.

There are some controversial proposals in the 'way forward', especially the potential 'let go' policy:

*In relation to bushfires, it would mean under some circumstances adopting a 'let-go' policy for bushfires when an assessment indicates outcomes similar to that of a fuel reduction or ecological burn, resulting in positive ecological outcomes and protection of life or property.*

If such a 'let go' policy is to be adopted, it is crucial the criteria and decision process for its use is clear to land managers, transparent to all, and able to be applied quickly in a fire situation.

### **3. Planned burning: use of fuel-reduction burns for ecosystem maintenance**

As part of its KDO 5.4 (p.114), the *TWWHA Management Plan* states 'if the research suggests that planned burning continues to be a viable strategy, then substantially expand planned burning of moorlands and grasslands of the TWWHA to establish an appropriate age structure.' But the PWS discussion paper does not provide much update on what research is planned or being undertaken or, in particular, what constitutes an 'appropriate age structure'.

The discussion paper states that 'many of the ecosystems of the TWWHA are fire-dependent' (noting 'this means they require fire at certain intervals in order to stay healthy and maintain their biodiversity'), but does not define 'healthy'.

The discussion paper also acknowledges that there have been significant changes 'since the cessation of regular (presumably mostly Aboriginal) burning in these environments'. But there is no clarity regarding what state or era we are trying to get back to.

In all these cases it is very important that the Fire Management Plan provide clarity and detailed undertakings and guidance.

The discussion paper notes various challenges as follows:

- *Through longer bushfire seasons, climate change is decreasing the windows of opportunity in which planned burning can occur.*
- *Different species have competing requirements around burning frequency and season. Burning to favour one species may disadvantage others.*
- *Doing nothing (i.e. no burning) is also a management decision, and usually also results in ecosystem change. However, doing nothing in vegetation communities dependent on fire will build up high levels of fuel that will support destructive bushfires.*

But the 'way forward' says little more than PWS will keep thinking about all this.

#### 4. **Planned burning: landscape fuel-reduction burns for asset and ecosystem protection**

The 'background (p.1) of this PWS discussion paper indicates that, for PWS, 'landscape fuel-reduction burns', which are generally undertaken in remote areas, are a given with no down side. This needs detailed justification in the Fire Management Plan. The 'challenges' noted are all about the increasing difficulty of undertaking such burns due to climate change (and hence risk of disaster from the planned burn), not broader issues regarding their appropriateness.

Some 'way forward' points require far more detail to facilitate careful consideration by stakeholders. For example, what might 'identify strategic landscape fuel-reduction zones and maintain a planned burning program to achieve asset protection and the conservation of fire-dependent ecosystems' mean in practice. Could this involve major and frequent 'ring-fence' style burning to protect perceived more evaluable assets (natural, cultural or infrastructure)? The Fire Management Plan must provide detailed clarification.

#### 5. **Aboriginal burning**

Past Aboriginal burning in the TWWHA was clearly undertaken for primarily utilitarian reasons, and has not been undertaken in this traditional way for approaching two centuries. Former NSW fire chief, Greg Mullins, was reported recently (*Good Weekend*, 19 September 2020) as follows; a statement we consider is highly relevant to the Tasmanian situation:

*"Indigenous fire practices come from a deep connection to country and some of the techniques are not transferable. What works in savannah in northern Queensland won't necessarily work in subtropical rainforests in northern NSW or eucalypt forests in Victoria; in other areas closer to the cities the knowledge has died out. It's highly nuanced and can't be done at scale across the landscape. But it does provide hope for healing the country, more research needs to be done, and there are lessons."*

We strongly agree with the following statement in the PWS discussion paper:

*There is an assumption that a reintroduction of Aboriginal burning will provide the solution to the bushfire risk we face. While this type of burning can potentially contribute to a reduction in fuels, it is not the panacea to the bushfire risks associated with climate change.*

The PWS discussion paper summarises a range of claimed advantages, particularly for Aboriginal people themselves, but also for achieving management objectives, but once again, the discussion paper refers to the 'ecological health' of the TWWHA without clearly specifying what this means. Neither does it acknowledge that Aboriginal burning practices from pre-colonial times (even if it can be established exactly what these were) may no longer be relevant in the altered climatic conditions resulting from climate change and may not be transferrable to ecosystems that have been changed by totally different fire regimes in the intervening two centuries.

The discussion paper states:

*The Parks and Wildlife Service acknowledges that Aboriginal people are the knowledge holders and practitioners of cultural burning and a shared understanding of cultural burning, its principles and objectives are necessary in order to achieve the reintroduction of cultural burning within the TWWHA.*

But later statements suggest this cultural knowledge may be inadequate; ‘it may, however, take time and resources to further build Aboriginal community capacity in cultural burning through continued exposure to Aboriginal burning knowledge and activities.’

And then there is this statement, also from the PWS discussion paper:

*The option to simply provide opportunities for Aboriginal Tasmanians to be part of the current Parks and Wildlife Service planned burning program is unlikely to achieve outcomes required by the 2016 TWWHA Management Plan or the aspirations of Aboriginal communities. Cultural burning needs to be led by Aboriginal people.*

All this leaves it rather unclear how Aboriginal burning will be undertaken and integrated into TWWA fire management, and its extent and relationship to other management objectives, let alone its practical application. It is essential to provide more detail on this in the Fire Management Plan.

## **6. Backburning**

This is a controversial topic, largely because of the risk of and historical examples of it going wrong (there were some spectacular ones in NSW last summer, for example). It is ultimately a tool, though, and the fundamental point is to establish the need for (or not) ecological and cultural burning. Re undertaking backburning, it is very important to have clear conditions that are easy to interpret and follow regarding when and where the technique can be used. These need to be, not only clear to land managers, but transparent to all, and able to be applied quickly in a fire situation. They should be detailed in the Fire Management Plan

## **7. Use of aircraft**

While various challenges regarding the resourcing and use of aircraft in the TWWHA setting are presented, their usefulness in many situations is still acknowledged. There is a clear need to have more appropriate aircraft available and probably based in Tasmania in some cases.

We strongly support the belated moves to develop and train locally-based remote-area fire fighting teams, as well as the review of protocols for overnighting on the fire ground, both of which we believe could substantially improve remote fire fighting effectiveness (vs 2019, for example). All these moves should be expedited.

We acknowledge the biosecurity risks noted re the use of aircraft and support the development of protocols regarding this.

## **8. Use of fire retardants and suppressants**

We understand fire retardants/suppressants were used in a limited way during the 2018-19 fire season, as something of a last resort. The PWS background paper acknowledges little is known about their effectiveness or potential environmental impacts in the TWWHA environment. Given this, and the likelihood of near-future 2018-19-like fire seasons, the foreshadowed assessment and research on these chemicals with respect to the TWWHA should be expedited.

## **9. Use of machinery**

We agree 'that the use of machinery should not be subject to a blanket restriction, but for use to be approved under certain circumstances.' The latter might include former forestry areas now within the TWWHA, but not remote and roadless country. But the criteria and decision process for its use proposed in general terms in the 'way forward' needs to be more detailed and clear to land managers, transparent to all, minimise the potential impact on environmental values, and able to be applied quickly in a fire situation.

Has there been any historic assessment of the efficacy of fire breaks and containment lines? Such records should show how effective fire breaks are, as there is certainly evidence that fire often jumps containment lines and hence it may indicate that bulldozing a road to act as a fire break may be pointless in extreme conditions.

## **10. Use of military personnel and volunteers**

We acknowledge the limitations and challenges of potentially utilising military personnel and volunteers in fire fighting roles in the TWWHA, as outlined in the PWS discussion paper.

The 'way forward' proposes 'the PWS should continue to only use people who have training, skills and experience recognised at a national level to fight fires in remote areas.' This is fair enough in the circumstances, but the corollary of this should be that the PWS capability regarding remote area fire fighting skills and access to such trained people needs to be rapidly and substantially increased, including winch-trained crews and crews capable of overnighing on the fire ground in particular (see previously).

There appears to be scope for greater utilisation of military personnel and equipment (particularly military helicopters) in a logistics role in support of fire fighting efforts.

## **11. Organic (peat soil) fires**

The PWS discussion paper contains a good summary of the challenges presented by fires in organic soils, also noting 'dropping water from aircraft will not put out fires in organic soils and a good example of why the use of water-bombing aircraft alone is ineffective.' This

statement is rather absolute; not all fires in organic soils are so entrenched that aerial water bombing may not be a useful tool for control. Regardless, the statement does still acknowledge a place for water bombing aircraft in such fire fighting.

While acknowledging that 'organic soils are recognised as a unique feature of the TWWHA and are acknowledged as contributing to its Outstanding Universal Value', no mention is made of the potential conflict between managing the soil values vs vegetation communities in any planned burning, particularly given the post-Aboriginal and modern climate-related changes in the overall environment.

The 'way forward' merely foreshadows ongoing research and states that, come crunch time, organic soils are secondary to 'sensitive vegetation' (which is not defined). One statement regarding the aims and priority of such research is desirable in the Fire Management Plan.

## **12. Fuel Stove Only Areas**

The 'vast majority of the TWWHA is a fuel stove only area' (FSOA), but this has not been effectively promoted or policed for at least 15 years. There is plenty of evidence of issues and problems (e.g. the existence of illegal or inappropriate campfires and fire sites, minor fire escapes from such, user ignorance of the rules and their rationale) at places like the Walls of Jerusalem and the South Coast Track, acknowledged by other PWS documents, and mixed messaging in places like the South Coast Track with isolated designated fire sites has made the problems worse.

We note the 2016 TWWHA Management Plan contains a KDO (p.173) that 'risk of bushfire ignition from visitors is reduced and illegal campfire occurrence is reduced or eliminated', a prescribed action being to review designated fireplaces (e.g. those long considered inappropriate on the South Coast Track).

While we strongly support all the 'way forward' proposals (quoted below), they all could and should have been implemented years ago, and there are past recommendations to this effect. We strongly urge that these actions be resourced and implemented immediately; none require a fire management plan to progress or implement. It is about time that education and enforcement of the FSOA was stepped up.

- *Only allow campfires in purpose-built fireplaces at visitor service sites within the TWWHA where the environmental risks and bushfire risks are low.*
- *Due to the environmental impact and increased bushfire risks associated with campfires, make the entire South Coast Track a fuel stove only area.*
- *On new signage, utilise symbols that clearly show where campfires are not permitted and fuel stoves are permitted.*
- *The Parks and Wildlife Service should reinvigorate the Leave No Trace campaign and employ seasonal rangers to encourage compliance.*