

Tasmanian Wilderness World Heritage Area fire management objectives

Background

A fundamental question regarding any management decision is to ask: *what are we managing for?* For example, are we managing for landscape diversity, and if so, how do we determine the appropriate mix of eucalypt forest, buttongrass moorland, or rainforest? Answering the question '*what are we managing for?*' is hard, as there are no overall objectives, or statements, which define the goal for fire management in the Tasmanian Wilderness World Heritage Area (TWWHA) with regards to either natural values management or cultural management.

The 2016 TWWHA Management Plan identifies the broad vision and objectives for management of the area's natural and cultural values, and recognises that fire can have both positive and negative impacts. Planned burning and bushfire prevention and suppression are key management interventions in order to achieve this vision. The Management Plan suggests there are two factors to consider:

1. the impacts of bushfire on fire-sensitive natural values; and
2. the effectiveness of using appropriate fire regimes for maintaining biodiversity in fire-adapted ecosystems.



However, the Management Plan does not identify overall objectives or goals for fire management of natural values.

From a cultural values perspective, the Management Plan lists three management objectives covering: recognition and understanding that the TWWHA is a cultural landscape; joint land management; and the protection, conservation and restoration of cultural values. The reintroduction of cultural burning can help achieve most of these management objectives, including the opportunities for Aboriginal people to connect with Country.

The Management Plan provides a set of fire management actions and the Parks and Wildlife Service has a set of fire-management operational policies and objectives. These assist in measuring success of fire management in terms of **inputs** (e.g. resources), **processes**, (e.g. planned burning, bushfire suppression) and **outputs** (e.g. fuel reduction, ecosystem maintenance) but there are no overall objectives in terms of what are we seeking to 'manage for' (**outcomes**) relevant to fire management in the long term.

Following the 2015/16 bushfire season, when bushfires caused substantial damage to some of the irreplaceable natural values of the TWWHA, the Tasmanian Government commissioned a review into how Tasmanian fire agencies should respond to future bushfires in the TWWHA. One of the key recommendations of the final report states that:

“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 outstanding universal value of the TWWHA over built assets within its boundaries.”

The review and subsequent report recommendations highlight the importance of fire in maintaining natural and cultural values, whilst also protecting those values that are fire-sensitive. Consequently, the Parks and Wildlife Service will continue to proactively use fire as a management tool in the TWWHA.

Challenges

Determining fire management objectives for the TWWHA is made more difficult by the different evolutionary responses of vegetation communities to fire. The application of fire, whether planned or unplanned, will promote the fire-adapted and more flammable species at the expense of the less fire-tolerant and less flammable species. This then leads to an environment that is more flammable, and therefore more likely to carry a bushfire risk. One way to reduce that risk is to apply frequent fuel-reduction burns, but this in turn promotes flammable species.

So, perhaps the management objective should be to eliminate the amount of flammable vegetation through no fuel-reduction burning, combined with fire-suppression efforts? However, in the context of the TWWHA, this becomes impractical due to the size and remoteness of the area being managed and, before the desired objective of a



low-flammability environment can be realised, there will be a long period of heightened fire risk as fuel loads build up. This situation creates extreme risk to fire-intolerant species such as the pencil pines, King Billy pines and fagus. Climate change will only exacerbate this risk. This scenario would also reduce the landscape diversity and cultural landscapes of the TWWHA. Furthermore, not all vegetation patterns are determined by fire, with soil, drainage and exposure to wind and sunlight also being important factors. Therefore, there will always be areas that contain highly flammable vegetation.

So, 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.

The 2016 TWWHA Management Plan, which also recognises the need to develop a fire management plan, recommends including objectives that would guide the use of fire in the protection and conservation of TWWHA values. So how would we know if we are managing fire within the TWWHA in a way that achieves protection and conservation of both natural and cultural TWWHA values – **the outcome?**

The overall outcome of fire management needs to be expressed in a way that can be used by managers and others to determine whether the result of Parks and Wildlife Service fire management activities are accomplishing what they set out to achieve. However, in doing so it is important to be mindful that although outcomes can be aspirational, bushfires are often a force that is beyond the ability of humans to control and climate change is only making this more so.

The way forward

It is suggested that the following fire management outcomes for natural values be adopted:

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.

OTHER ISSUES SHEETS THAT MAY BE OF INTEREST

- 02 Fuel-reduction burning
- 03 Planned burning: landscape fuel-reduction burns for asset and ecosystem protection
- 04 Planned burning: use of fuel-reduction burns for ecosystem maintenance
- 05 Aboriginal burning

