

Use of machinery

Background

After any significant bushfire there is inevitably community debate around the role of machinery in fighting bushfires, with some people calling for greater use of machinery and others adamant that it should not be used under any circumstances.

It is true that sometimes machinery can cause more damage than the fire. Bulldozers can destroy Aboriginal artefact scatters, knock over habitat trees that would have otherwise persisted after the fire, contribute to erosion, and, in high altitude areas, take many decades to rehabilitate.

On the other hand, thoughtful use of machinery can quickly contain a fire to a small size.

The guiding vision for management of the Tasmanian Wilderness World Heritage Area (TWWHA) is to:

“Identify, protect, conserve, present, and, if appropriate, to rehabilitate, the World Heritage, National Heritage and other natural and cultural values of the TWWHA and to transmit that heritage to future generations in as good or better condition than at present.” (Tasmanian Wilderness World Heritage Area Management Plan 2016).

Implicit in this statement is minimal impact on the natural environment, which would suggest that earth-moving machinery such as bulldozers and excavators cannot be used. However, the TWWHA Management Plan 2016 does not specifically prohibit the use of machinery to control bushfires.



Furthermore, the National Parks and Reserves Management Act 2002 provides power to the managing authority:

“to take any steps or undertake any activities that the managing authority considers necessary or expedient for the purposes of preventing, managing or controlling fire in reserved land, having regard to the management objectives for that reserved land.”

Machinery is often used to construct a track that is then cleared of vegetation. This provides a defensible boundary from which a backburn can be conducted and firefighting vehicles can access the fire ground. Fire trails and fire breaks serve the same purpose as a machine-constructed track for firefighting purposes, but are pre-existing. Due to the remoteness of the TWWHA there are very few existing fire trails and fire breaks. Fire trails, fire breaks and machine-constructed tracks are not intended to be a barrier that stops a fire, but rather a control line from which a backburn can be safely conducted using firefighters and tankers.

Challenges

The use of machinery to control bushfires in the TWWHA is considered and approved on a case by case basis. Specific approval is required by officers authorised by the Director of National Parks and Wildlife. In considering a request to use machinery, the officers are required to consider the impact on natural, historic, Aboriginal, recreational and other values. The chances of successfully controlling a fire using machinery also has to be considered. For example, is it likely that the success of machinery use will outweigh the impact? It is also important to remember that the use of a machine-constructed firebreak does not guarantee success in controlling the spread of a bushfire.

Many areas of the TWWHA are not conducive to the use of machinery, as the ground is too soft or inaccessible, or there are no roads for machinery to enter the fire ground. This limits the areas where machinery can be successfully utilised for firefighting in the TWWHA.

The unique organic soils found throughout the TWWHA are of international significance and are particularly vulnerable to damage. This makes machinery operations particularly difficult as the scars left by a firebreak, even if rehabilitated, can be seen many decades later. Dozers and excavators are easily bogged in these environments and extracting these machines can cause even more damage.

The operation of dozers and excavators has to be closely supervised to ensure that sensitive natural and cultural values near the planned fire break are not damaged.

Machinery has been used successfully in the right conditions, particularly in previously disturbed areas near roads, or on disused vehicle tracks that are now overgrown. It is also acknowledged that in some circumstances the protection of life and property in emergency situations requires the use of machinery and there is little time to assess the situation. In such circumstances, having an agreed set of guidelines for machinery use could be beneficial.

The way forward

It is suggested that the use of machinery should not be subject to a blanket restriction, but for use to be approved under certain circumstances. It may be beneficial to identify some environments in which use of machinery would generally not be approved (e.g. organic soils, highly erodible environments, or areas posing a biosecurity risk).

The proposed use of machinery that has the potential to result in environmental and cultural impact should be assessed and managed to minimise impact, so far as is reasonably practicable. The nature or type of assessment may vary depending on the urgency of the situation and the actions required. The impact of the use of machinery should be considered against the potential impact of any bushfire.

If machinery use is approved, the operators must be closely supervised and briefed on operational limits and areas nearby that are of significant natural and cultural heritage value. These areas should be clearly marked on maps and on the ground.

As part of the decision-making process, the Parks and Wildlife Service should continue to provide natural and cultural values information to assist incident management teams manage the impact of bushfire suppression methods, including the use of machinery, on TWWHA values.

OTHER ISSUES SHEETS THAT MAY BE OF INTEREST

- 06 Backburning
- 07 Use of aircraft
- 08 Fire suppressants and retardants

