



## **Bandahngan Aboriginal Area Type-1 Reserve Fire Management Strategy**

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### **1. Fire Management Principles**

The Office of Environment and Heritage (OEH) manages about seven per cent of the land area of NSW. These areas have been reserved to conserve their natural and cultural values. These values include biodiversity, landscapes, Aboriginal sites, historic structures and recreational settings.

Under the *Rural Fires Act 1997*, the NPWS is a fire authority and is responsible for the management of fire on all lands under its control. This includes the detection and suppression of fires and the implementation of risk prevention programs to protect life and property from fires. The NPWS also assists with the suppression of fires on adjacent lands, as may be required under plans prepared under the *Rural Fires Act 1997*.

Cooperative arrangements are derived from the Bush Fire Coordinating Committee and implemented through local Bush Fire Management Committees. The other three agencies that participate in cooperative fire management across NSW are the Department of Primary Industries, the NSW Rural Fire Service and NSW Fire Brigades.

NPWS is an active member of the Northern Rivers Zone Bush Fire Management Committee.

The management of fire is a critical component of land management across the NSW landscape. As both a fire authority and conservation agency, OEH plays an important role in protecting life and property and conserving natural and cultural heritage.

### **2. Fire Management Objectives**

The primary objectives of fire management by the NPWS are to:

- protect life, property and community assets from the adverse impacts of fire;
- develop and implement cooperative and coordinated fire management arrangements with other fire authorities, reserve neighbours and the community;
- manage fire regimes within reserves to maintain and enhance biodiversity; protect Aboriginal sites known to exist within NSW and historic places and culturally significant features known to exist within reserves from damage by fire; and
- assist other fire agencies, land management authorities and landholders in developing fire management practices to conserve biodiversity and cultural heritage across the landscape.

The maintenance of biodiversity to avoid the extinction of natural species, populations and communities within the landscape underpins fire management activities within the NPWS.

The NSW National Parks and Wildlife Service *Fire Management Manual* details the policies and procedures for all fire management planning and fire operations on lands reserved under the *National Parks and Wildlife Act 1974* and any land managed by OEH on behalf of the Minister for the Environment.

This strategy is a Relevant Plan under Section 38(4) and Section 44(3) of the Rural Fires Act 1997.

### **3. The Fire Environment**

#### **3.1 Fire history**

There is no mapped fire history for the Aboriginal Area (AA). Wildfire in the reserve is not considered a major problem. The establishment of formalised fireplaces has reduced the possibility of fire escaping from cooking fires and threatening grasslands to the north. Regular slashing/ mowing of grassed areas and connecting paths is regularly undertaken. This reduces fire risk by fragmenting the remnant vegetation and reducing fuels in the drier, more fire supportive woodland section of the reserve.

#### **3.2 Topography**

Tooloom Creek forms the southern and eastern boundary of the 3.7ha Aboriginal Area. This is one of the major tributaries of the Clarence River.

The north-eastern part of the reserve is relatively level and persistent wet weather results in water accumulating in low lying areas for long periods.

The level country drops away dramatically to the south-west. The Falls drop for 6m, extending in an arc for 40m. The south western half of the Reserve is rocky and regularly flooded with water.

#### **3.3 Vegetation**

Fire is a natural feature of many environments and is essential for the survival of some plant communities. However, inappropriate fire regimes, related to fire frequency, season, and intensity, can lead to loss of particular plant and animal species and communities. The ecological consequences of high frequency fire have been listed as a key threatening process under the TSC Act.

The Aboriginal Area contains a predominantly two vegetation formations including sclerophyll grassy woodlands on the upper slopes above the Falls and rainforest adjacent to the waterfall.

The sclerophyll grassy woodlands are dominated by Red Gum *Eucalyptus tereticornis*, Swamp turpentine *Tristania suaveolens*, Paperbark *Melaleuca*

*bracteata*. Further from the creek Forest Oak *Casuarina littoralis*, Scribbly Gum *Eucalyptus Signata* and Dogwood *Jacksonia scoparium* are present.

Typical species of the rainforest vegetation formation include Lilly Pilly *Acmena smithii*, Large Mock-Olive *Notelaea longifolia*, Native Frangipani *Hymenosporum flavum* and Hairy Pittosporum *Pittosporum revolutum*.

The following guidelines will be used to guide management of fire regimes in vegetation formations within the Reserve.

**Table 1. Fire Interval Guidelines for Vegetation Formations.**

<b>Vegetation Formation</b>	<b>Minimum Interval</b>	<b>Maximum Interval</b>	<b>Notes</b>
Sclerophyll grassy woodlands	5	40	
Rainforest	n/a	n/a	Fire should be avoided

Source: Kenny B *et al* (2004) Guidelines for Ecologically Sustainable Fire Management

**3.4 Climate and weather**

Bushfires in the region mostly occur in the hot and dry months of spring and early summer, with a peak in October. Strong north-westerly winds may combine with low humidity to result in very high and above fire danger ratings several times each season. Southerly changes also have the potential to strongly influence fire behaviour. Summer rains in January/February normally mark the end of the fire season, and conditions generally favour prescribed burning in autumn and early winter. Prescribed burning may be undertaken in late winter and spring, however conditions supportive of wildfire can occur as early as July and so prescribed burning during this period requires careful monitoring of forecast weather conditions.

**3.5 Built assets vulnerable to fire**

BBQs and picnic area facilities will be protected by a mown asset protection zone.

**3.6 Natural assets vulnerable to fire**

Due to its small size, the entirety of the Area could be affected by single fire events and this should be avoided.

All natural assets in the reserve are vulnerable to too frequent fire.

**3.7 Cultural Heritage values vulnerable to fire**

Cultural heritage values of the Reserve are associated with the natural feature of the Falls themselves and as such are not vulnerable to fire.

### **3.9 Bushfire zoning**

The 'NPWS Strategy for Fire Management' (2003) uses a system of bushfire management zones for bushfire management in NPWS reserves. These zones are compatible with the system adopted by the Bushfire Coordinating Committee for use in District Bushfire Management Committee (DBFMC) bushfire risk management plans.

The approach divides reserves into fire management zones. These zones are management areas where specified fire management operational objectives, strategies and performance indicators have been developed to mitigate the threat of a wildfire.

NPWS has assessed the reserve for fire management planning purposes and has identified an Asset Protection Zone to be maintained around visitor facilities by mowing. Individual sections of the APZ are connected by mown paths which will also contribute to asset protection and control of any ignitions. The balance of the reserve is zoned as a Land Management Zone (LMZ). The primary fire management objectives for this zone are to prevent the extinction of all species that are known to occur naturally within the reserve, and to protect culturally significant sites. The majority of the reserve has been designated as a LMZ because fuels on the reserve do not pose a high level of threat to immediately adjacent built assets, does not have a history of frequent bushfire ignitions and there is no history of fires leaving the reserve.

The LMZ does not require intensive management and focuses on those actions appropriate to conserve biodiversity and cultural heritage including managing for appropriate fire regimes.

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<b>Current Situation</b>	<b>Desired Outcomes</b>	<b>Priority and Strategies</b>
<p>There is a low bushfire potential due to low fuel levels on the Aboriginal Area and adjoining lands.</p> <p>The reserve is vegetated with two main vegetation formations: fire sensitive rainforest and fire adapted woodland .</p> <p>Slashing / mowing of APZ and track and pathways through AA maintain low, fragmented fuels in the woodland.</p>	<p>Life, property and natural and cultural values within and adjacent to the Aboriginal Area are protected from fire.</p> <p>Manage for a fire regime that is appropriate for the conservation of plant and animal communities</p>	<p><b>HIGH</b> -Grassed area around BBQs and picnic area and pathways maintained as an Asset Protection Zone (APZ) by regular slashing and mowing.</p> <p><b>HIGH</b> – Suppress wild fire</p> <p><b>HIGH</b> – Manage the majority of the Reserve as a Land Management Zone</p> <p><b>HIGH</b> - Maintain cooperative detection and response coordination plans with BFMC and other bush fire response agencies.</p>

**Legend for priorities**

**High** priority activities are those imperatives to achievement of the objectives and desired outcomes. They must be undertaken in the near future to avoid significant deterioration in natural, cultural or management resources.

**Medium** priority activities are those that are necessary to achieve the objectives and desired outcomes but are not urgent.

**Low** priority activities are desirable to achieve management objectives and desired outcomes but can wait until resources become available.

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