Maryland National Park

Fire Management Strategy (Type 2)

2022 - 2027

This strategy should be used in conjunction with aerial photography and field reconnaissance.

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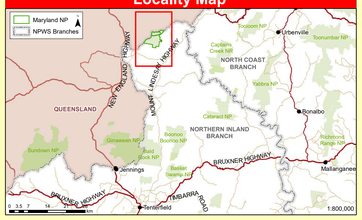
This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of the Rural Fires Act 1997.

Locality Map



Map details

Datum: GDA_1994_MGA_Zone_56 **Geographic Coordinate System:** GCS_GDA_1994 **Noted scales:** True when printed on A0 size paper

Local Government Area: Tenterfield **Topographic Map:** 1:25,000 Elbow Valley 9341SE, Wylie Creek 9340N

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Area Manager – Darren Pitt	0427 212 255
	Duty Officer (24 hour)	(02) 8275 1742
	Northern Tablelands Area Office (bus. hours)	(02) 6739 0700
NSW Rural Fire Service New England	NT Zone Manager	0428 657 647
	NT Duty Officer	(02) 6732 7046
	NT Zone Office	(02) 6732 7046
Fire & Rescue NSW	Newcastle Comms. Centre	(02) 4929 7177
Emergency Services	Police, Fire, Ambulance	000
SES		132 500
Police	Tenterfield	(02) 6736 1144
Council	Tenterfield	(02) 6736 6000
Local Aboriginal Land Council	Mull Mull LALC (Woodenbong)	(02) 6635 1487

Communications

Service	Channel	Location and Comments
NPWS Repeaters	333 334 633	• Boonoo Boonoo • Mt Mackenzie • Fire ground
RFS	N011	• Northern Tablelands Digital Voting
UHF - CB		• Small fires channel 15, large fires determined by IMT
Aviation - CTAF	134.70	• NIB frequency unless another frequency is allocated on an incident
Mobile Phone		• No coverage
Satellite Phone	0147 166 331	• Stored at Tenterfield

Fire Season Information

Wildfires	The critical wildfire season occurs during October to December where large and numerous fires caused by multiple lightning strikes can occur. This period may extend into January if the normally reliable summer rainfall does not eventuate. Wildfires have been known to start as early as August. Particular care is required during periods of negative Southern Oscillation Indices. The end of the critical fire season is often marked by wet storm activity.
Prescribed Burning	The preferred prescribed burning period is autumn to late winter when there is a higher probability of fires self-extinguishing overnight and less impact on critical life stages of biodiversity. Hazard reduction burning is possible with great care in early spring, however the potential for fires to continue burning overnight increases in this period, and soft containment options such as creek lines may be unreliable. Consideration should be given to mult iphase operations with vulnerable sections burnt under very mild winter conditions when a proposed burn has containment lines that have weaknesses such as zones of high fuel loads or rely on natural containment lines.

Operational Guidelines

Hazard Reduction Burning	• Hazard Reduction activities in Land Management Zones should be limited to hazard reduction burning which aims to break up the landscape, creating a mosaic of different age classed vegetation since the last fire.
Aerial Operations	• Aerial operations will be managed by trained and competent personnel. This includes directing aerial bombing and aerial ignition operations. • The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances. • All aerial ignition operations require the consent of the NPWS Branch Director or the Section 44 appointee.
Backburning	• All personnel must be fully briefed before back burning operations begin. • Backburning in areas of Low – Moderate OFH will require the use of wind, or low humidity to maximise effectiveness.
Command & Control	• The first combatant agency on site may assume control of the fire, but then must ensure the relevant land management agency is notified promptly. • On the arrival of other combatant agencies, the initial Incident Controller will liaise with the RFS to ensure that the agency in command is determined and an Incident Controller is appointed.
Containment Lines	• New containment lines require the prior consent of a senior NPWS officer. • Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact. • All personal involved in containment line construction should be briefed on and must consider both natural and cultural heritage sites in the location. • All containment lines not required for other purposes should be closed, stabilised and rehabilitated immediately at the cessation of the incident.
Earthmoving Equipment	• Plant may only be used with the prior consent of a senior NPWS officer. • Plant must always be guided and supervised by an experienced officer, and accompanied by a support vehicle (NPWS). When engaged in direct or parallel attack, this vehicle must be a fire fighting vehicle. • Plant must be washed down, where practicable, prior to it entering NPWS estate and again on exiting NPWS estate.
Fire Suppression Chemicals	• The aerial use of foam, gels and retardants should be approved by the Branch Director or delegate. • The use of retardants requires the approval of the Branch Director or delegate.
Rehabilitation	• Containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Smoke Management	• Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations.
Visitor Management	• In Extreme + Fire Danger at the Branch Directors discretion, reserves or sections of the reserve may be closed or evacuated. • Ensure the closure is advertised on the NPWS visitor website.

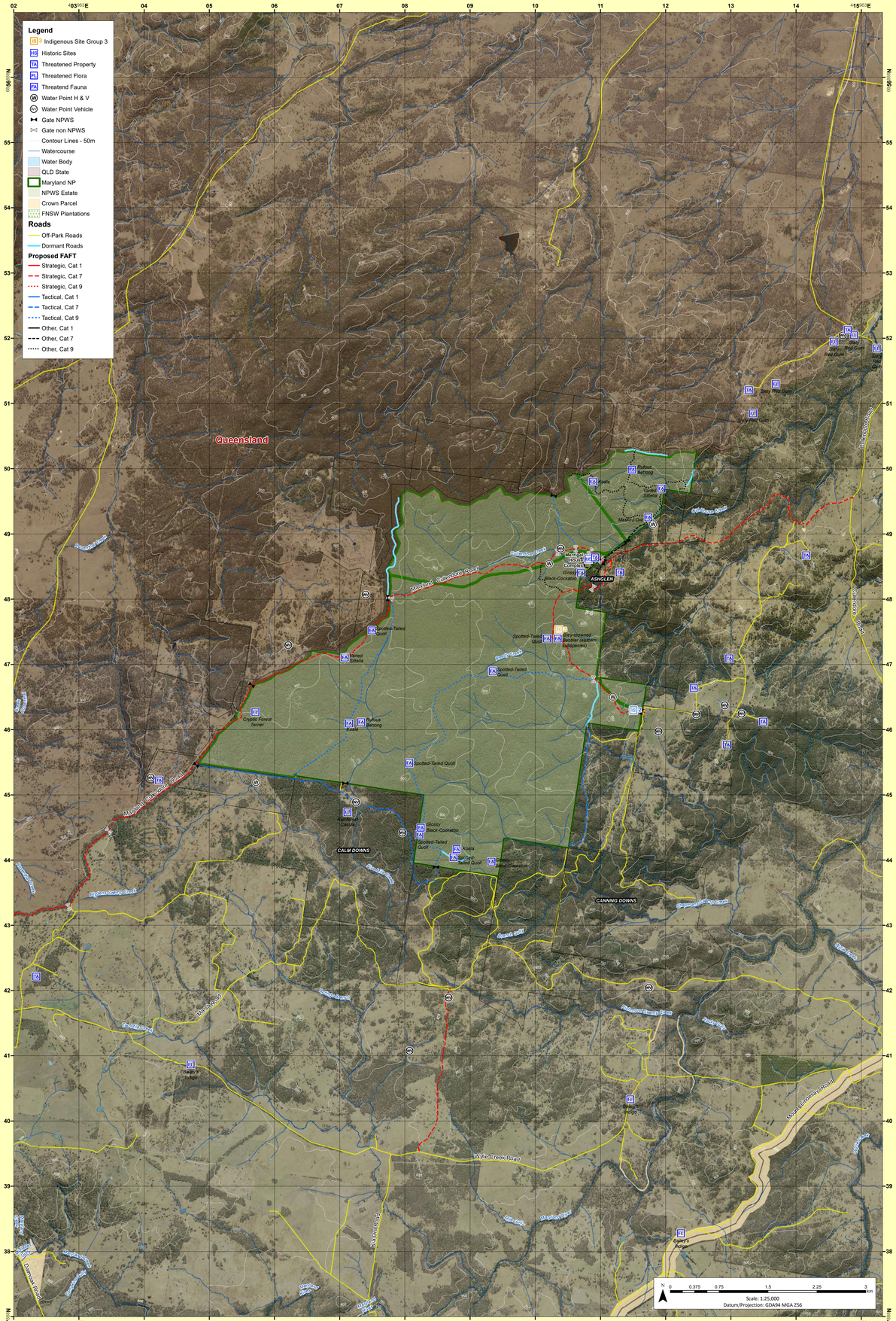
Heritage Guidelines

Aboriginal Cultural Heritage	**IS 1 –** As far as possible protect site from fire. Do not cut down trees. **IS 2 –** As far as practicable protect the site from fire. Avoid all ground disturbance and driving over sites. Avoid water bombing which may cause ground disturbance. **IS 3 –** Avoid all ground disturbance. Avoid water bombing. Site may be burnt by fire without damage.
Historic Sites	**Merrigal House Complex** • Flammable elements exist at these sites. Protect from fire if possible. • Use of foams & retardant is acceptable.
Threatened Fauna & Flora	• The protective actions for threatened fauna and flora have been incorporated into the Operational Guidelines.
Soil Erosion Management	The soils within the reserve are generally stable. Steep terrain is susceptible to erosion after disturbance. Rehabilitation of fire trails used in fire operations should occur as soon as possible after use .

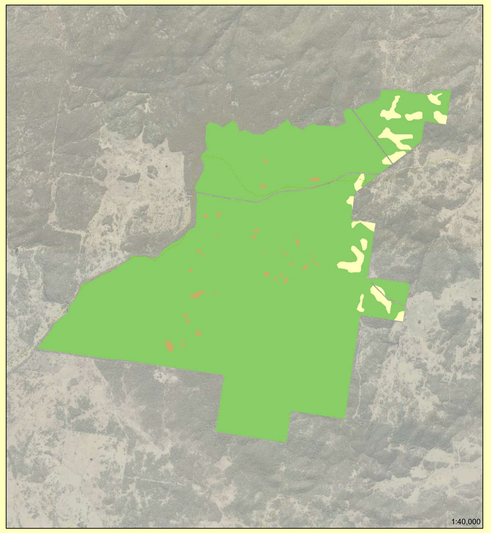
Suppression Strategies

Conditions	Guidelines
All vegetation types	
Fire Danger Rating Moderate	• Community – Plan and prepare. • Direct and parallel attack may be applied with earthmoving machinery and fire units to minimise fire size. • Consider a broad containment strategy using existing roads, allowing long-term management requirements for biodiversity.
Fire Danger Rating High	• Community - Be ready to act. • Close parallel or direct attack may be an option at night depending on weather conditions. • Distance between the flank and machinery and fire units should be kept to a minimum • Secure and deepen containment lines on the next predicted downwind side of the fire. • May require aerial support to manage spot overs and monitor fire spread.
Fire Danger Rating Extreme	• Community – Take action now to protect life and property. • Firefighter safety is the paramount consideration in deployment. • Undertake broad containment strategies using the park boundary and neighbouring cleared country. • Tactics will include property protection where safe and necessary. • Close parallel or direct attack and/or mop up of fire edge may be an option at night depending on weather conditions.
Fire Danger Rating Catastrophic	• Community – For your survival leave bushfire risk areas. • Warning: Fire runs should be anticipated with winds from any direction. Entrapment risk is very high.

Operations Map

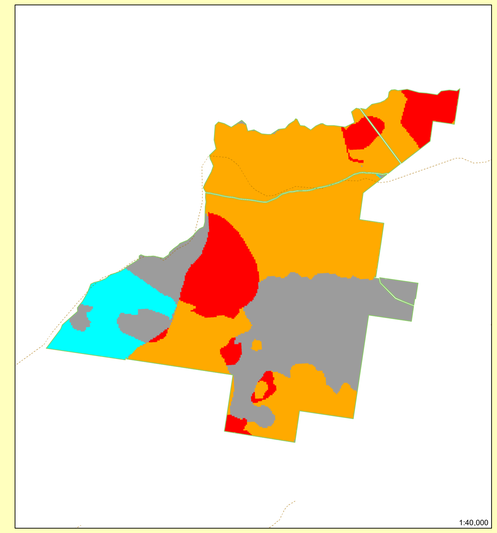


Vegetation



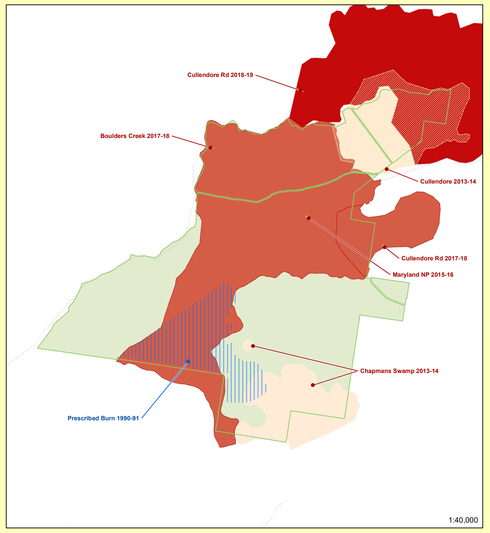
Vegetation Formation (Keith)	Vegetation Management Guidelines	Fire Behaviour
Dry sclerophyll forests (shrub/grass sub-formation)	• The minimum interval between low intensity fires is more than 5 years. • The maximum interval between fire should be less than 50 years. • The minimum interval between high intensity fires should be evaluated on forest condition. • Many sites with this vegetation class have been exposed to frequent fires for extended periods.	• This class of vegetation is often associated with hilly and steep terrain which cause variable fire behaviour due to terrain driven factors. • The potential rates of spread during extended dry season can be very high due to terrain factors. The very steep terrain, skeletal soils and droughty nature of these escarpment sites mean **OFH is normally in the range of Moderate to Very High.** • Spotting associated with uphill fire runs can be severe.
Grassy woodlands	• The minimum fire interval in healthy stands of these grassy woodlands is five years. Where the health of the woodlands is compromised through dieback the minimum fire interval should be increased to 10 years. • The maximum fire interval is 40 years.	• Potential rates of spread are **High** due to the grassy nature of the flammable elements in generally **Moderate OFH.**
Heathlands	• Avoid fire intervals of less than 7 years and greater than 30 years. • A diversity of fire intervals across the local landscape should be maximised.	• OFH is highly dependent on time since fire. Wind and terrain effects are magnified in running heath fires. • The potential rate of spread can vary from Moderate to High.

Vegetation Fire Thresholds



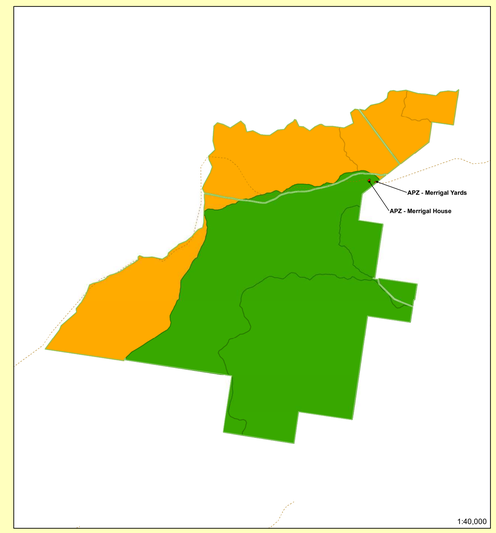
Vegetation Threshold	Treatment
Too Frequently Burnt	Fire thresholds have been exceeded. Protect from fire as far as possible.
Vulnerable to Frequent Fire	The area will be Too Frequently Burnt if it burns this year. Protect from fire as far as possible.
Within Threshold	Fire history is within the threshold for vegetation in this area. A burn is neither required nor should one necessarily be avoided.
Long Unburnt	Fire frequency is below fire thresholds in the area. A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.
Unknown	Insufficient data to determine fire threshold.
No Regime Assigned	Areas which do not have recommended fire intervals assigned to them eg. cleared land, rock.
NB. Fire thresholds are defined for vegetation communities to conserve biodiversity	

Fire History



Fire Type	Fire Details
Prescribed Burn	1990-91: Prescribed Burn
Wildfires	2018-19 Cullendore Rd - a wildfire started by arson resulting in 1143 ha being burnt. 2017-18: Cullendore Rd - a 161 ha wildfire. 2017-18: Boulders Creek - a 1213 ha wildfire started by arson. The elevated fuels of this high intensity fire resulted in canopy scorch. 2015-16: Maryland NP – a spot fire that was contained within two days. 2013-14: Chapmans Swamp - a 227 ha wildfire ignited by lightning. 2013-14: Cullendore - ignited by lightning and burnt 323ha.

Risk Management Information



Fire Management Zone	Treatment
Asset Protection Zones	The objective of **APZ**s is the protection of human life and property. This will have precedence over guidelines for the management of biodiversity. Maintain Overall Fuel Hazard at Moderate or below.
Strategic Fire Advantage Zones	The objective of **SFAZ**s is to reduce fire intensity in locations to assist containment of wildfires, by maintaining the Overall Fuel Hazard at High or below.
Land Management Zones	The objective of **LMZ**s is to conserve biodiversity and protect cultural heritage. Manage fire consistent with fire thresholds.