

Garrawilla National Park Fire Management Strategy 2013 -2018

This strategy should be used with air photography and field reconnaissance.
This is a relevant Plan under S.38 (4) and S.44 (3) of Rural Fires Act 1997.

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Related and reference documents

- Office of Environment and Heritage (2012) *Fire Management Manual*
- Hunter, J.T. (2008) *Vegetation and Forests of Garrawilla National Park*. Report to NSW NPWS

Locality map

Map details

Datum: GDA 1994 Projection: MGA 1994 Map Zone: 55 Map Base: Spot 5 2005
Topographic Map: 1:50k (sheet name & no.)
Inset scale: True when printed on A3 size paper

Local Government Area: Warrumbungle

Communications Information

Service	Channel	Location and Comments
NPWS VHF	31	Needle Mountain, limited to high areas
RFS	P138 P160	Siding Spring Tambor Spring
UHF - CB		Small fires - Channel 10 Large fires - determined by IMT
Aviation	126.7	CTAF
Cellphone		Telstra 3G coverage variable

Portable repeater location - High area near GR 550 562 will enable transmission into the valleys.

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer (24 hour) Coonabarabran Area Office (bus. hours)	6842 3041 6842 1311
NSW RFS Castlereagh Zone	Zone Manager Duty Officer	0429 305 713 6842 2645
RFS Rural Fire Brigades	Borah Creek - David Toynton Garrawilla - Rob Anderson	6842 9115 6743 7985
NSW Fire Brigade	Newcastle	4929 7177
Emergency Services	Police, Fire, Ambulance	000
SES		13 2500
Police	Coonabarabran	6842 7299
Council	Warrumbungle Shire	6849 2000 1300 795 099

Fire Season Information

- The critical wildfire season generally occurs during November and December.
- During periods of strong negative Southern Oscillation Indices (El Niño events), this period may commence late September and extend into the first half of January.
- The end of the critical fire season is often marked by wet storm activity.
- Effective prescribed burning may need to be conducted once the "critical fire season" and thunderstorm season is over. This is due to the LOW - MODERATE Overall Fuel Hazard for most vegetation types. Prescribed burning attempted after autumn rain is unlikely to be effective.

Vegetation

Broad vegetation types

- Sandstone shrubby woodlands
- Rocky eucalypt woodlands
- Valley woodlands
- Grassy Box woodlands

Status of Biodiversity Thresholds

Threshold	Description
Too frequently burnt	Consecutive fire intervals are shorter than the recommended minimum interval.
Vulnerable to frequent fire	The current fire interval is shorter than the recommended minimum interval.
Within threshold	The time-since-fire is greater than the recommended minimum, and less than the recommended maximum.
Long unburnt	The current fire interval is longer than the suggested interval.

Bushfire Risk Management Strategies

Zone	Objective
Strategic Fire Advantage Zones	The objective of this zone is to reduce fire intensity in locations to assist containment of wildfires, by maintaining the Overall Fuel Hazard less than HIGH.
Land Management Zones	The objective of this zone is to conserve biodiversity and protect cultural heritage by applying biodiversity thresholds.

Prescribed burn availability

Availability	Description
Available for prescribed burning	This area is available for prescribed burning, subject to fuel levels and ecological thresholds.
Available only during VERY HIGH FDI	This area is generally has LOW or MODERATE OFH, prescribed burning effective only under VERY HIGH FDI.
Available only ephemeral conditions	This area is generally has NIL or LOW OFH, except during seasons producing continuous ground cover.

Availability for burning must be referenced with the Status of Biodiversity Thresholds.

Operational Guidelines

General	Guidelines
Aerial operations	<ul style="list-style-type: none"> 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 Regional Manager or the Section 44 Appointee.
Backburning	<ul style="list-style-type: none"> All personnel must be fully briefed before back burning operations begin. Backburning in areas of Low - Moderate OFH will require the use of wind, slope or low humidity to maximise effectiveness.
Command & Control	<ul style="list-style-type: none"> 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 consult with regard to the ongoing command, control and incident management team requirements as per the relevant BPMC Plan of Operations. 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.
Containment Lines	<ul style="list-style-type: none"> All personnel involved in containment line construction should be briefed on, and must consider both natural and cultural heritage sites in the location. Machinery exclusion areas apply and marked on the Incident Map. Use of dormant trails and existing trails is preferred to the construction of new containment lines. All containment lines not required for other purposes should be closed immediately at the cessation of the incident.
Earthmoving Equipment	<ul style="list-style-type: none"> Plant may only be used with the prior consent of a senior NPWS Officer. Lighter machinery is preferred, with a maximum dozer capacity equivalent to a D6. Plant must always be guided and supervised by an experienced officer, and accompanied by a support vehicle. When engaged in direct or parallel attack, this vehicle must be a fire fighting vehicle. Containment lines running along valley areas should be constructed at 20 - 50 metres from the gullyline to avoid severe erosion. Plant must be washed down, where practicable, prior to it entering NPWS estate and again on exiting NPWS estate.
Fire Suppression Chemicals	<ul style="list-style-type: none"> The use of foam, gels and retardants will NOT be permitted within 50 metres of dams and watercourses holding water. The aerial application use foam, gels and retardants requires the approval of the Regional Manager or delegate.
Rehabilitation	<ul style="list-style-type: none"> Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Watering points	<ul style="list-style-type: none"> Consider deployment of a bulk water carrier to support fire operations.
Smoke Management	<ul style="list-style-type: none"> Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations.
Visitor Management	<ul style="list-style-type: none"> This reserve has no facilities for visitors. The reserve will be closed to visitors during fire danger periods rated Severe or higher.
WARNINGS	<ul style="list-style-type: none"> Bogging Hazards - Trails have sections susceptible to sub-soil saturation, leading to vehicles breaking through the surface into quick sand. Markers for these areas are: Red Gum and Totara.

Operational Guidelines - Heritage

Resource	Guidelines
Aboriginal Cultural Heritage Site Management	<ul style="list-style-type: none"> Modified trees (AS1), including scarred trees <ul style="list-style-type: none"> Protect the site from fire, clear base of litter and shrubs, exclude site trees from fire where possible. Foam may be used to protect the tree, or to extinguish fire. Do not cut trees. Ground based sites (AS2), including artefacts <ul style="list-style-type: none"> Protect site from any ground disturbance, including the use of earth-moving equipment and vehicles.
Threatened Fauna and Flora Management	<ul style="list-style-type: none"> Threatened fauna <ul style="list-style-type: none"> The protective actions for threatened fauna have been incorporated into the Operational and Vegetation Management Guidelines. Ecological endangered community - Depauperate dry rainforest area <ul style="list-style-type: none"> Exclude areas with Rusty Fig - Red Ash dry rainforest from prescribed burning. (This community is located on private property on the Eastern Trail, and marked as a flora site on the Incident Map)

Vegetation management guidelines

Vegetation Community	Vegetation management guidelines	Fire Behaviour
Rocky Eucalypt woodlands Mothumbah / White Bloodwood	<ul style="list-style-type: none"> An interval between fire events less than 15 years should be avoided. Low intensity fires should be avoided due to the lack of Acacia regeneration. 	<ul style="list-style-type: none"> Areas of denser Mothumbah have LOW OFH with LOW ROS. Potential ROS during Severe+ conditions is High.
Shrubby sandstone woodlands Black Pine / White Bloodwood	<ul style="list-style-type: none"> An interval between fire events less than 15 years should be avoided. A high intensity fire may be permitted after a fire free period 25 years. 	<ul style="list-style-type: none"> Potential rates of spread highly variable. Areas of denser Black Pine have LOW OFH with LOW ROS. Areas of low density Black Pine may have OFH to HIGH, particularly in areas with Stringybark and Bloodwood. Potential ROS during Severe+ conditions is High.
Valley Woodlands Rough-barked Apple / Blue-leaved Ironbark / Black Pine	<ul style="list-style-type: none"> An interval between fire events less than 15 years should be avoided. A high intensity fire may be permitted after a fire free period 30 - 50 years. 	<ul style="list-style-type: none"> Potential rates of spread highly variable. Areas of denser White Pine have LOW OFH with LOW ROS. Areas of low density White Pine may have OFH to HIGH. Potential for intense short distance spotting for areas with long unburnt Apple.
Grassy Box woodlands White box	<ul style="list-style-type: none"> An interval between fire events less than 15 years should be avoided. A high intensity fire may be permitted after a fire free period 25 years. A more frequent low intensity fire regime may be suitable for managing the understorey. 	<ul style="list-style-type: none"> Low potential rate of spread due to the LOW-MODERATE OFH.

OFH - Overall fuel hazard - A rating system that includes leaf litter, grasses, shrubs, bark type and bark condition. Consists of ratings for surface fuel, near-surface fuel, elevated fuel and bark.
ROS - Rate of spread.

Suppression Strategies

Conditions & forecast	Guidelines
All vegetation types	<ul style="list-style-type: none"> Consider a broad containment strategy using existing trails and roads, recently burnt areas or vegetation with LOW OFH. Direct and parallel attack may be applied with earthmoving machinery and fire units, except in areas excluding machinery.
Years with saturated soils and sub-soils	<ul style="list-style-type: none"> Consider a broad containment strategy using existing trails, allowing long-term management requirements. Direct and parallel attack may be applied with earthmoving machinery and fire units, except in areas excluding machinery.
Fire danger rating LOW - HIGH	<ul style="list-style-type: none"> Consider a broad containment strategy using existing trails, allowing long-term management requirements. Direct and parallel attack may be applied with earthmoving machinery and fire units, except in areas excluding machinery. Fallback to existing trails/roads and recently burnt areas when fire runs exceed control line construction rates. Secure and deepen control lines on the next predicted downwind side of the fire. Target backburning operations when the humidity commences to rise in late afternoon and early evening. Backburning effectiveness will drop significantly with higher humidity during the evening. Fire runs under extreme conditions may travel at 4 - 6 kms/hr. Containment may require inclusion of uncleared private land.
Fire danger rating VERY HIGH +	<ul style="list-style-type: none"> Consider a broad containment strategy using existing trails and roads, recently burnt areas or vegetation with LOW OFH. Direct and parallel attack may be applied with earthmoving machinery and fire units, except in areas excluding machinery. Fallback to existing trails/roads and recently burnt areas when fire runs exceed control line construction rates. Secure and deepen control lines on the next predicted downwind side of the fire. Target backburning operations when the humidity commences to rise in late afternoon and early evening. Backburning effectiveness will drop significantly with higher humidity during the evening. Fire runs under extreme conditions may travel at 4 - 6 kms/hr. Containment may require inclusion of uncleared private land.

Incident Map

Legend

- Aboriginal sites
- Dams
- Structures
- Flora site
- Roads
- Contours - 10 metres
- Watercourses
- Fire trails
 - Important - Cat 7
 - Dormant
- Machinery exclusion areas
- Garrawilla NP
- Cadastral boundaries

Scale
1:25,000
0 0.5 1 Kilometers