Binnaway Nature Reserve
Fire Management Strategy
2013 - 18

Office of Environment & Heritage

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

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

The NSW National Parks and Wildlife Service is part of the Office of Environment and Heritage.
Published by: Office of Environment and Heritage (NSW).
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ISBN 978 1 74359 200 7 OEH 2013 / 0499 | **Date Approved:** 3 April 2013

Related and reference documents

- NSW National Parks and Wildlife Service (2003) *Binnaway and Weetalibah Nature Reserves Plan of Management*
- NSW National Parks and Wildlife Service (2011) *Fire Management Manual*
- Porteners, M. F. (1998) *Vegetation survey of Binnaway Nature Reserve*. Report to NSW NPWS

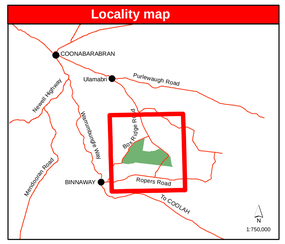
Communications Information

Service	Channel	Location and Comments
NPWS VHF	31	• Needle Mountain
RFS	P132	• Needle Mountain
UHF - CB		• Small fires - Channel 10 • Large fires - determined by IMT
Aviation	126.7	• CTAF
Cellphone		• Telstra 3G coverage variable

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	Mowrock – John MacDonald Binnaway Town – Scott Collins Brooks Road – Lindsay Wilkin	6844 1423 6844 1516 6842 8277
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

Locality map



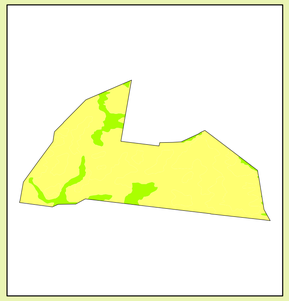
Map details

Datum: GDA 1994 **Projection:** MGA 1994 **Map Zone:** 55
Map Base: Spot 5 2005.
Topographic Map: 1:50,000. Coonabarabran 8735 – S, Tambar Spring 8835 – S, Binnaway 8734 – N, Weetalibah 8834 - N
Noted scales: True when printed on A3 size paper.

Local Government Area : Warrumbungle

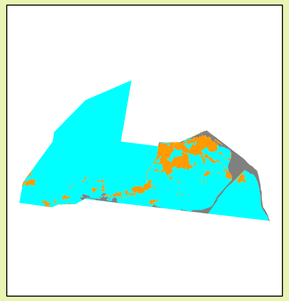
Vegetation

Broad vegetation types
- Valley Woodlands
- Shrubby sandstone woodlands



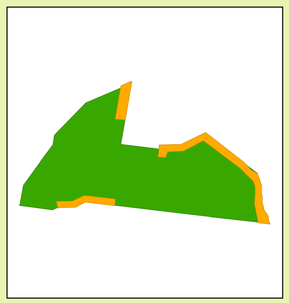
Status of Biodiversity Thresholds

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

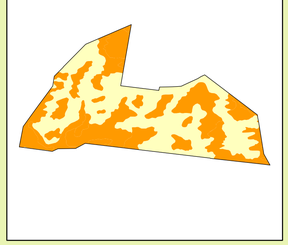
Strategic Fire Advantage Zones	The objective of this zone is to reduce fire intensity in locations to assist containment of wildfires, by maintaining the Overall Fuel Hazard less than HIGH
Land Management Zones	The objective of this zone is to conserve biodiversity and protect cultural heritage by applying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



Prescribed burn availability

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

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



Fire Season Information

Wildfires	• The critical wildfire season generally occurs during November and December. • During periods of strong negative Southern Oscillation Indices (El Nino 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.
Prescribed Burning	• 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.

Operational Guidelines

Resource	Guidelines
Aerial operations	• Aerial operations will be managed by trained and competent personnel. • The use of bombing aircraft should be supported 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.
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 Regional Manager 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, slope 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 consult with regard to the ongoing command, control and incident management team requirements as per the relevant BFMC Plan of Operations.
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. • Machinery exclusion areas apply and marked on the Incident Map. • All containment lines not required for other purposes should be closed 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. 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	• 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	• Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Watering points	• Consider deployment of a bulk water carrier to support fire operations.
Smoke Management	• Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations.
Visitor Management	• This reserve will be closed to visitors during fire danger periods rated Severe or higher
WARNINGS	• **Bogging Hazards** – Fire 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, Bulloak and Teatree.

Operational Guidelines – Heritage

Resource	Guidelines
Aboriginal Cultural Heritage Site Management	*Modified trees (AS1), including scarred trees* • Protect the site from fire, clear base of litter and shrubs, exclude site tree 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* • Protect site from any ground disturbance, including the use of earth-moving equipment and vehicles
Historical Cultural Heritage Site Management	*Illegal horticultural sites* • Exclude the use of earth-moving equipment. *Old phone lines* • Protect wooden structures from fire. Foam may be used to extinguish fire

Vegetation management

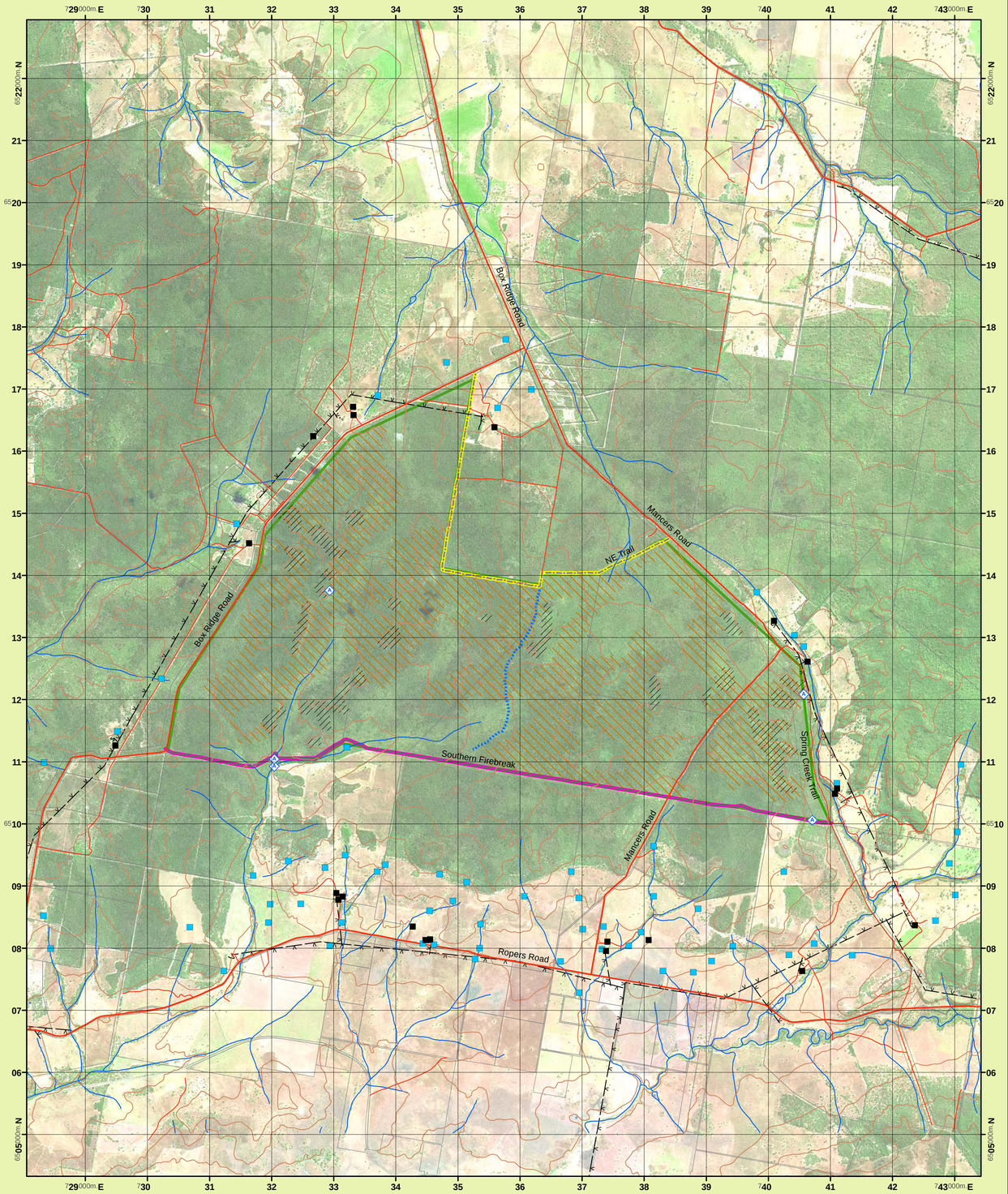
Community	Vegetation management guidelines	Fire Behaviour
Sandstone shrubby woodlands Narrow -leaved Ironbark / Black Cypress Pine / Stringybark	• An interval between fire events less than 15 years should be avoided • A high intensity fire may be permitted after a fire free period 25 years	• Potential 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 Blakelys Red Gum / Rough-barked Apple	• An interval between fire events less than 10 years should be avoided • A high intensity fire may be permitted after a fire free period 30 – 50 years	• Potential rates of spread varies according to elevated fuel. • **Low / Moderate** elevated fuel hazard will have moderate spread. • **High / Very High** elevated fuel hazard will have high rate of spread. • Potential for intense short distance spotting for areas of long unburnt Apple.

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
Years with saturated soils and sub-soils	• Consider a broad containment strategy using existing trails and roads, recently burnt areas or vegetation with LOW OFH. NOTES: This is necessary due to the high risk of vehicles and machines bogging. Access on trails may be restricted to quads.
Fire danger rating LOW - HIGH	• Consider a broad containment strategy using existing trails, allowing long-term management requirements for biodiversity • Direct and parallel attack may be applied with earthmoving machinery and fire units.
Fire danger rating VERY HIGH +	• Fallback to existing trails and roads and recently burnt areas when fire runs exceed control line construction rates • Consider falling-back to cleared country • Secure and deepen control lines on the next predicted downwind side of the fire • Target backburning operations when the humidity rises in late afternoon and early evening. Backburning effectiveness will drop significantly with rising humidity. Areas with grassy understorey may carry fire 1+ years after fire. Fire runs under extreme conditions may travel at 4 – 6 kms/hr. Burn areas with LOW OFH may hold fire head, if deep enough Burn areas with MODERATE OFH will reduce intensity. Containment may require inclusion of uncleared private land.

Incident Map



Scale 1:40,000 0 0.5 1 Kilometers N

Legend

- Structures
- Aboriginal sites
- Dams
- Contours - 10 metres
- Watercourses
- Powerlines
- Machinery exclusion area
- High density - Black Pine
- Cadastral boundaries
- Binnaway NR
- Roads
- Vehicle trails
- Essential - Cat 1
- Important - Cat 7
- Dormant