Wambool Nature Reserve
Fire Management Strategy 2014
Mapsheet 1 of 1

Office of Environment & Heritage
NSW National Parks & Wildlife Service

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Map Details		Related Documents
Datum: Geocentric Datum of Australia (GDA) 1994 **Projection:** Map Grid of Australia (MGA) Zone 55 **Data:** Spot Satellite Imagery: 2005.	**1:25k Topographic Map:** Meadow Flat 8831-2-S Tarana 8830-1-N **Scale:** Note scales are true when printed on A1 size paper	OEH Fire Management Manual 2014 - 2015.

Fire Season Information

Wildfires	The critical wildfire season generally occurs between December and February. Dry lightning storms (characterised by numerous lightning strikes associated with little or no rainfall) frequently occur during this period. The potential for severe fire weather conditions occur when strong winds from the NW are aligned with high day time temperatures and low relative humidity. Particular care is required during periods of negative Southern Oscillation Indices when drier than normal conditions can be experienced as early as October/November and as late as March/April.
Prescribed Burning	Prescribed burning should generally be undertaken during Autumn. Prescribe burns may also take place during Winter and/or early Spring if suitable weather conditions prevail. A low to moderate intensity burn is generally prescribed over most of the reserve.

Operational Guidelines

Brief all personnel involved in suppression operations on the following issues using the SMEACCS format:

General	Guidelines
Aerial Water Bombing	• The use of bombing aircraft is designed to support suppression and containment operations and where necessary slow the progress of an advancing fire until ground crews arrive. • Aircraft assist in aggressively attacking hotspots and spot-overs and their use without the support of ground based suppression crews generally has limited effectiveness. • Where practicable foam should be used to increase the effectiveness of the water. • Ground crews must be alerted to water bombing operations.
Aerial Ignition	• Aerial ignition may be used during back-burning or fuel reduction operations where practicable, but only with the prior consent of NPWS Senior Officer, Section 44 delegate or as prescribed in an operational burn plan, • The use of aerial ignition as a fire suppression tool should be specified in the IAP or within the prescribed burn plan. • Aerial ignition will only be undertaken by qualified and competent navigators and bombardiers, • Utilise aerial ignition to rapidly burn out large areas and or reduce spotting potential by preventing longer uphill fire runs. • Aerial ignition can be utilised to rapidly progress back-burns down-slope where required.
Back-burning	• Temperature and humidity trends must be monitored carefully to determine the safest times to implement back-burns. • Generally, when the FDI is Very High or greater, back-burning should only commence when the humidity begins to rise in the late afternoon or early evening, • Back-burning may be safely undertaken during the day only when FDI is low • Where practicable, and prior to light up, clear (or wet down) around dead and hollow bearing trees adjacent to containment lines to reduce effort needed for mop up activities, • Use parallel containment lines when applicable, • All personnel must be fully briefed before back-burning operations begin. • Approval of the IC is required prior to commencement of back-burning operations.
Command & Control	• Standard Incident Management Systems are to be applied, • 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 Incident Controller will consult with regard to the ongoing command, control and incident management team requirements as per the relevant BFMC Plan of Operations, and be consistent with BFCC Policy 2-2006.
Containment Lines	• Where possible, the construction of new containment lines should be avoided. • For new containment lines the IMT should liaise with and receive consent from a senior NPWS officer prior to their construction. • All containment lines constructed as part of the fire suppression effort must be constructed with as minimal environmental impact as is possible and those containment lines not required for other purposes should be closed prior to the cessation of the incident. • All personal involved in containment line construction should be briefed on the protection of the reserves natural and cultural assets. • When constructing containment lines, steep and rocky areas and locations adjacent to riparian (creeks or streams) or significant drainage lines should be avoided. • Containment line construction using earthmoving equipment must be conducted in accordance with this RFMS and the OEH FMM and sedimentation and erosion control measures must be implemented in accordance with both OEH and DLWC fire trail constructions guidelines and standards and the PWG Roads Policy (Manual) .
Earthmoving Equipment	• Earthmoving equipment may only be used with the prior consent of a senior NPWS officer. • Earthmoving equipment must always be guided and supervised by an appropriately experienced person, who can assist with survey (route selection) and the identification and protection of threatened species and/or or historic and Aboriginal sites (known nor unknown) along the proposed containment line. • To assist with the protection of natural and cultural assets and drainage features earth moving operators need to be briefed and observe the Threatened Species and Cultural Heritage Operational Guidelines contained in this RFMS • Earth moving equipment must always be accompanied by a support vehicle and when engaged in direct or parallel attack this vehicle must be a fire fighting vehicle. (NB - The use of D4 sized dozers are preferred for containment line construction). • Earthmoving equipment must be washed down (where practicable) prior to it entering NPWS estate and again on exiting NPWS estate. • Where multiple items of earthmoving equipment are being used, the IMT should consider the appointment of a Plant Operations Manager.
Fire Advantage Recording	• All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
Fire Suppression Chemicals	• Use of wetting and foaming agents (surfactants) is permitted on the reserve. • The use of fire retardants are only permitted with the prior consent of the senior NPWS officer and should be avoided where reasonable alternatives are available. • Exclude the use of surfactants and retardants within 50m of watercourses, dams and swamps, • Areas where fire suppression chemicals are used must be mapped and the used product's name recorded, • The Threatened Species Operational Guidelines are to be observed.
Rehabilitation	• Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Smoke Management	• The potential impacts of smoke must be considered when planning for wildfire suppression and prescribed burning operations. • Where possible the use of prevailing weather conditions along with specific light up strategies and ignition patterns will be used to manage and disperse smoke. • If smoke becomes a hazard on local roads or highways, the police and relevant media must be notified, • Smoke management will be in accordance with relevant OEH guidelines.
Visitors	• The reserve may be closed to the public during periods of extreme fire danger or during prescribed burning or wildfire suppression operations.
WARNINGS	• Wambool Trail is a **No Through** Trail. • Assume all trails are gated and locked. • Communication "blackspots" occur throughout the reserve, and are often confined to the lower points in the landscape (ie gullies and creek lines). • Mine sites additional to those marked on the Incident Map may be present throughout the reserve.
Water Points	• No reliable water points in reserve, however water may be accessed from dams on surrounding properties. • Deploy bulk water carriers to support all fire operations. • There is a Vehicle Water Point located at a disused railway siding at the junction of Tarana Rd and Timber Ridge Rd (not shown on Incident Map).

Threatened Species and Cultural Heritage Operational Guidelines

Site	Guidelines
Aboriginal Cultural Heritage Site Management	
An Aboriginal sites survey is yet to be conducted for this reserve (as of January 2015). Therefore Aboriginal sites may be present and consideration in engaging a Senior NPWS Officer or Aboriginal Sites Officer prior to hazard reduction and wildfire suppression activities is required.	
Historic Heritage Site Management	
H1	• As far as possible protect the site from fire • Avoid all ground disturbance including the use of earthmoving machinery, handline construction and driving over sites • Avoid water bombing which may cause ground disturbance • Use of foams, wetting agents & retardant is acceptable.
Threatened Fauna Management	
FA4	• Utilise mosaic burning, protect hollow bearing trees and avoid frequent fire (< 6—10 years).
FA5	• Utilise mosaic burning.

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer	02 6332 6350
	Central West Area Office - Bathurst	02 6332 7640
	Western Rivers Regional Office – Griffith	02 6966 8100
NSW Rural Fire Service - Chifley Zone	Duty Officer	0428 650 470
	Bathurst FCC – 7 Lee Street KELSO	02 6333 1333
	Orange FCC – 1385 Forest Road ORANGE	02 6363 6666
Forestry Corporation	Duty Officer – Fire Reporting	02 6332 4812
	Northern Softwoods Region - Bathurst Management Area	02 6331 2044
Emergency Services	Police, Ambulance, Fire	000
SES	Statewide	13 2500
	Duty Officer - Central West – Bathurst	02 6334 8555
NSW Police Service	Bathurst	02 6332 8699
Hospital	Bathurst Base	02 6330 5311
Council	Bathurst Regional Council	02 6333 6111
Local Aboriginal Land Council	Bathurst	02 6332 6835

Communications Information

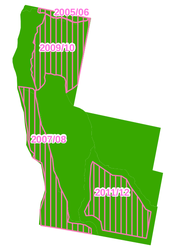
Service	Channel	Location and Comments
NPWS VHF Repeater (160MHz)	290 294 594 111 112 113 11 - 17	WRR Vote Group - searches for towers Sunny Corner (duplex) - reception variable Sunny Corner (simplex) - car to car Mount Tomah Narrowneck Shooters Hill NPWS Fireground channels
NPWS VHF Portable Repeater	21 - 26	Available from Central West Area office - Bathurst
RFS PMR - Chifley	P008 P018	Sunny Corner Mount Homer
Forestry Corporation - VHF		Local arrangements to be made - they are still running VHF 80Mhz systems
UHF - CB	10 or 16	Local brigade channel
Mobile Phone	Next G	Reception: Ridges – Good to Fair Reception: Gullies - Fair to Poor

Bushfire Risk Management Strategies & Fire History

Fire Management Zones

Land Management Zones — The objective of **LMZs** is to conserve biodiversity and protect cultural and historic heritage. Manage fire consistent with fire thresholds.

Prescribed Burn Area



Fire History
Between May 2006 and July 2014 five prescribed burns have been conducted on the reserve ranging in treatment size from <1ha to 30ha.

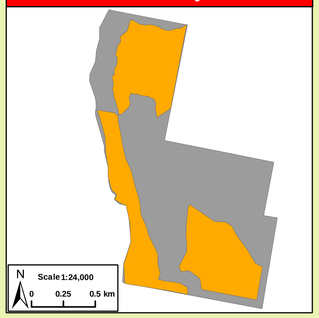
Approximately 55% of the reserve has now been treated under the prescribed burning program.

The reserve does not have any documented wildfire history although anecdotal evidence and field observations suggest that the reserve may have been subject to fire before the reserve was gazetted in 1987.

Suppression Strategies

Strategy	Guidelines
Direct Attack (This strategy should be the first consideration in order to minimise the area burnt)	For this strategy to be successful the following parameters need to be considered: FDI <100 and a FDR of High or below Flame Height <1.5m OFH – Low to Mod Sufficient resources need to be available The use of suitable heavy plant is permissible provided that close containment of the fire can be achieved. Fire behaviour can be erratic due to concentration and continuity of grass fuels.
Indirect Attack (If direct attack is not possible then this strategy is the preferred option).	This option is generally implemented as part of a much broader containment strategy that utilises a combination of ground crews, water bombing aircraft, heavy plant, control lines (existing fire trails) and other fire control advantages such as low or discontinuous fuel areas. This strategy is generally considered when the following parameters apply: FDI >100+ and FDR is Very High or above Flame Height > 1.5m OFH – High to Extreme

Status of Biodiversity Thresholds

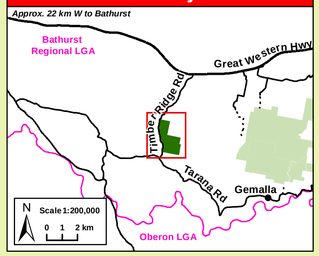


Evaluation of Biodiversity Thresholds

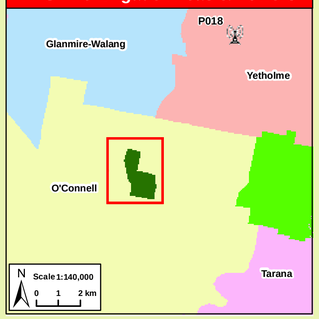
Vulnerable to Frequent Fire	The area will be too frequently burnt if it burns this year • *Protect from fire as far as possible.*
Within Threshold	Within the threshold for vegetation in this area. Species have had sufficient time to mature and reproduce, and for habitats to develop. • *A fire event is neither required nor should one necessarily be avoided.*

NB. Fire thresholds are defined for vegetation communities to conserve biodiversity

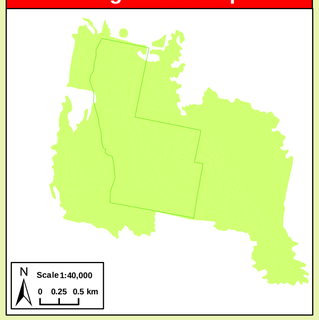
Locality



RFS Fire Brigade Areas & Towers



Vegetation Map



Vegetation Map Legend

Broad Vegetation Class	Vegetation Type	Biodiversity Thresholds	Fire Behaviour
Dry Sclerophyll Forest (Shrub/grass formation)	Southern Tablelands Dry Sclerophyll Forests	Bundy – Scribbly Gum – Brittle Gum Forest An interval between fire events less than 10 years and greater than 35 years should be avoided.	The presence of a high concentration of continuous ground cover species (ie native grasses) will often create erratic fire behaviour which can impact on the success of suppression activities and potentially lead to spotting and the rapid spread of fire under suitable weather conditions. On the more exposed ridges and aspects fuel loads are often lower and surface and ground fuels tend to be discontinuous.

Incident Map

This map shows a 500m Grid