Mount Grenfell Historic Site & National Park

Fire Management Strategy 2012
Mapsheet 1 of 1

Office of Environment & Heritage
NSW National Parks & Wildlife Service

This strategy should be used in conjunction with aerial photography and field reconnaissance during incidents and the development of incident action plans. These data are not guaranteed to be free from error or omission. The NSW National Parks and Wildlife and its employees disclaim liability for any act done on the information in the data and any consequences of such acts or omissions. This document is copyright. Apart from any fair dealing for the purpose of study, research criticism or review, as permitted under the copyright Act, no part may be reproduced by any process without written permission. **This strategy 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 the Office of Environment and Heritage (NSW), March 2011.

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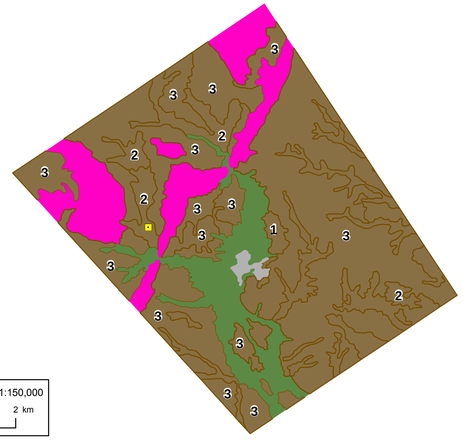
ISBN 978 1 74293 739 7 **OEH** 2012/0605 **Date:** August 2012 **Version:** 1

Map Details		Related Documents
Datum: Geocentric Datum of Australia (GDA) 1994 **Projection:** Map Grid of Australia (MGA) Zone 55 **Data:** Spot Satellite Imagery: 2005.	**1:100k Topographic Map:** Booroondarra 7935 (AGD-1966) **Scale:** Noted scales are true when printed on A1 size paper	OEH Fire Management Manual 2011 - 2012.

Vegetation

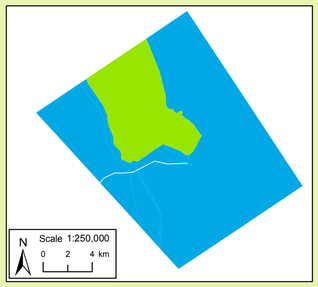


Vegetation Map Legend

Broad Vegetation Class	Vegetation Type	Biodiversity Thresholds	Fire Behaviour
Forested Wetlands	River Red Gum - Poplar Box Riparian Veg	▪ Fire not required – exclude fire from all associations. ▪ Protect all riparian and old growth woodlands from fire.	These vegetation communities will generally not carry fire unless there are high ephemeral fuel loads, which generally occur after effective rainfall events. In years of high ephemeral fuels, landscape fires are possible as fire potential will be very high to extreme, characterised by spotting River Red Gum communities and fast moving fires in other communities. Mallee woodlands fire intensity ranges from moderate to high and is largely influenced by ephemeral growth. Backburning may be difficult in years with low ephemeral fuels. Crown fires are likely in high to very high and above fire danger periods in the Mallee areas.
Semi-arid Woodlands (Shrubby sub-formation)	Belah – Rosewood Open Woodland (1)	▪ Fire not required, maintain all associations as unburnt. ▪ Protect Belah for intense fire. ▪ No more than one wildfire every 20 years.	
	Poplar Box – Wilga – Budda Open Woodland (2)	▪ Maintain long unburnt and old growth areas for up to 50 years. ▪ Maintain 30 – 50 year fire cycle and monitor Poplar regeneration. ▪ No more than one wildfire every 20 years.	
	Western Red Box - White Cypress Pine Open Woodland (3)	▪ Maintain long unburnt and old growth areas for up to 50 years. ▪ Maintain 15 – 40 year fire cycle and monitor Western red Box regeneration. ▪ No more than one wildfire every 20 years.	
	Mallee Low Open Woodland (< 1 ha)	▪ Maintain Ia 10 – 50 year fire frequency ▪ Maintain small isolated Mallee areas as unburnt ▪ No more than one wildfire every 20 years.	
Arid Shrublands (Acacia sub formation)	Mulga - Grey Mallee Shrubland	▪ Maintain long unburnt areas for up to 50 years. ▪ No more than one fire every 20 years. ▪ Maintain a 20 – 50 year fire frequency.	
Non-native vegetation	Cleared Land	No fire regime.	High intensity fast moving fire once grasses have cured. Fire behaviour is dominated by winds, both speed and direction. Even in very low fuel, grass fires can erratic and fast moving. In ephemeral years intensity will be higher and in drought years minimal growth will result in moderate fire behaviour but potentially still fast moving depending on weather conditions at the time.
Fire History	**No fires** have been recorded over the entire reserve area. In 1975 a 130 Ha fire occurred of the western boundary of the reserve.		
Ephemeral Conditions	Ephemeral fuel conditions occur after consecutive years of effective rainfall and significant flooding events. This in turn leads to the growth and build up of fine surface fuels such as grasses and herbs, which can create a continuous fuel load across **all** of the above vegetation communities. As a result expect higher fire intensity.		
Drought Conditions	During drought conditions and when vegetation communities are visibly stressed or experiencing dieback no prescribed burning will be permitted and wildfire areas will be minimised.		

Prescribed Burn Availability

Available in Ephemeral Conditions	This area generally has NIL or LOW OFH, except during seasons producing continuous ground cover.
Unavailable	This area is unavailable for prescribed burning due to Cultural Heritage requirements.



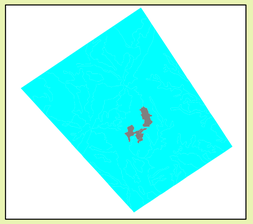
Operational Guidelines

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

General	Guidelines
Aerial Water Bombing	▪ The use of bombing aircraft should support containment operations by aggressively attacking hotspots and spot-overs, ▪ The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances, ▪ 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 Regional Manager, OEH Section 44 delegate or as prescribed in an operational burn plan, ▪ Aerial ignition will only be undertaken by accredited navigators & bombardiers, ▪ The pattern for aerial ignition will be specified in the IAP during fire suppression, ▪ Utilise incendiaries to rapidly burn out large areas 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 commence when the humidity begins to rise in the late afternoon or early evening, with a lower FDI back-burning may be safely undertaken during the day, ▪ Where practicable, clear a 1m radius around dead and hollow bearing trees adjacent to containment lines prior to back-burning, or wet down these trees as part of the back-burn ignition, ▪ Use parallel containment lines when applicable, ▪ All personnel must be fully briefed before back-burning operations begin.
Command & Control	▪ Standard Incident Management Systems are to be applied, ▪ 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, ▪ Where OEH is not the first responding fire authority to arrive at a fire on OEH-managed lands, a competent officer of the first arriving fire authority will direct fire management activities until a competent OEH officer assumes control (unless prior agreements have been made).
Containment Lines	▪ Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact, ▪ For new containment lines IMT to liaise with and receive consent from a Senior NPWS officer prior to construction, ▪ Use parallel containment lines when applicable, ▪ All containment lines not required for other purposes should be closed at the cessation of the incident, ▪ **All personal involved in containment line construction should be briefed on both natural and cultural heritage sites in the location,** ▪ Containment line construction using earthmoving equipment must be in accordance with the earthmoving guidelines contained within the RFMS.
Earthmoving Equipment	▪ Earthmoving equipment may only be used with the prior consent of a senior NPWS officer, and then only if the probability of its success is high, ▪ Earthmoving equipment must always be guided and supervised by an appropriately experienced person, and accompanied by a support vehicle. When engaged in direct or parallel attack this vehicle must be a fire fighting vehicle, ▪ **Containment lines constructed by earthmoving equipment should consider the protection of drainage features, observe the Threatened Species and Cultural Heritage Operational Guidelines, and be surveyed, where possible, to identify unknown cultural heritage sites,** ▪ **Earthmoving equipment must not leave tracks or create new tracks in Machinery Exclusion areas as marked on the Incident Map of the RFMS,** ▪ 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 establishment 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 is not permitted on the reserve,** ▪ 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 and Cultural Heritage 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 and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations, ▪ If smoke becomes a hazard on local roads or highways, the police and relevant media must be notified, ▪ Smoke management must be in accordance with relevant RTA traffic management guidelines.
Structural Fire Fighting	▪ OEH personnel are not trained in structural fire fighting and must not enter a structure in order to undertake structural fire fighting, ▪ Fire suppression activities may be undertaken from outside a structure in accordance with the policies in the NPWS FMM, in order to protect a built asset.
Visitor Management	▪ The reserve may be closed to the public during periods of extreme fire danger or during prescribed burning or wildfire suppression operations.
WARNINGS	▪ Beware of overhead powerlines, ▪ Beware of any gas bottles on the reserve and any dangerous goods storage areas.

Status of Biodiversity Thresholds

Evaluation of Biodiversity Thresholds	
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.*
Long Unburnt	Underburnt, excessive time since last fire, species may become extinct. ▪ *A fire event may be ecologically advantageous. Consider allowing unplanned fires to burn*
NB. Fire thresholds are defined for vegetation communities to conserve biodiversity	
Threshold Analysis map needs to be considered with Prescribed burning Activity map and Vegetation map when determining wildfire and prescribed burning outcomes.	



Bushfire Risk Management Strategies

Fire Management Zones	
Asset Protection Zones	The objective of **APZs** 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 **SFAZs** is to reduce fire intensity across larger areas. Maintain Overall Fuel Hazard at High or below, however adherence to guidelines for biodiversity will take precedence where practical.
Land Management Zones	The objective of **LMZs** is to conserve biodiversity and protect cultural and historic heritage. Manage fire consistent with fire thresholds.
Fire & Machinery Exclusion Zone	Fire, Machinery and Chemicals (those used for fire suppression such as retardants) are not permitted in this area due to High Artefact Density. Fire should be avoided wherever possible from these areas as they will cause detrimental damage to cultural heritage. Keep to formed roads, no ground disturbance. Chemicals can have a detrimental affect on cultural heritage sites.

Suppression Strategies

Season	Typical Conditions	Indicative Suppression Strategies
Just prior to or during the critical fire season	▪ Current Fire Danger Rating (FDR) of **Very High or Greater,** ▪ Short and medium range forecasts suggest conditions typical to a FDR of **Very High** or **Greater,** ▪ A risk to life and/or property exists in the short – medium term, ▪ A broad area risk to biodiversity exists.	**Direct** Initial attacks should be to try to extinguish or to contain to the smallest possible area. **Indirect** Develop a suppression plan using existing and/or potential containment lines. If possible take into account biodiversity requirements but never to the detriment of life and property.
Outside of the critical fire season	▪ FDR of **High or below,** ▪ Short – medium term forecast indicate a continuing FDR of **High or below** ▪ No risk to life or property exists in the short-medium term, ▪ Only small area risk to biodiversity exists.	**Direct** Evaluate the biodiversity thresholds and use direct attack methods to extinguish if required. **Indirect** Develop a fire suppression plan to the maximum allowable perimeter based on Biodiversity thresholds.

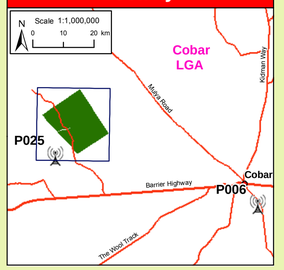
Threatened Sites Guidelines

Site	Guidelines
Aboriginal Cultural Heritage Site Management	
AH1	▪ Do not cut down trees ▪ As far as possible protect the site from fire , clear base of litter and shrubs, exclude fire from tree if possible ▪ Use of foams, wetting agents & retardant is acceptable.
AH2	▪ Avoid all ground disturbance including the use of earthmoving machinery, handline construction, driving over sites and water bombing ▪ Apply a machinery exclusion area where there is a high concentration of known sites ▪ Sites may be burnt by bushfire, backburn or prescribed burn without damage.
AH3	▪ Avoid all ground disturbance including the use of earthmoving machinery, handline construction and driving over sites, ▪ Avoid water bombing which may cause ground disturbance, ▪ Permission required from Aboriginal Heritage Environment Officer and Aboriginal community.
Historic Heritage Site Management	
H1	▪ As far as possible protect the site from fire ▪ Exclude site from fire where possible, include the construction of a control line around the perimeter ▪ Avoid water bombing which may cause ground disturbance ▪ Use of foams, wetting agents & retardant is acceptable.
Threatened Fauna Management	
FA1	▪ Utilise mosaic burning and avoid disturbance at known sightings, roostings or refuges and avoid frequent fire (<6 years).
FA3	▪ Utilise mosaic burning and protect hollow bearing trees.
FA4	▪ Utilise mosaic burning, protect hollow bearing trees and avoid frequent fire (< 6—10 years).

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer (8am-10pm)	**02** 6332 6350
	Cobar Area Office 16-18 Barton St Cobar	**02** 6836 2692
	Regional Office – 200 Yambil St Griffith	**02** 6966 8100
NSW Rural Fire Service Far West Team	Fire Control Centre (Cobar) Diverted After Hours	**02** 6836 1226
NSW Fire Brigades	Cobar Fire Station	**02** 6836 2722
State Forests	Forbes – Duty Mobile	0428 696 678
Emergency Services		000
SES		13 2500
Police Station (not open 24 hrs)	Cobar	**02** 6836 2004
Police - Local Area Command	Darling River (Bourke)	**02** 6870 0899
Hospital	Cobar	**02** 6836 2406
Council	Cobar Shire Council	**02** 6836 5888

Locality



Incident Map