Barton Nature Reserve Fire Management Strategy 2014 Mapsheet 1 of 1



This strategy should be used in conjunction with aerial photography and field reconnaissance during incidents and the development of incident action plans.

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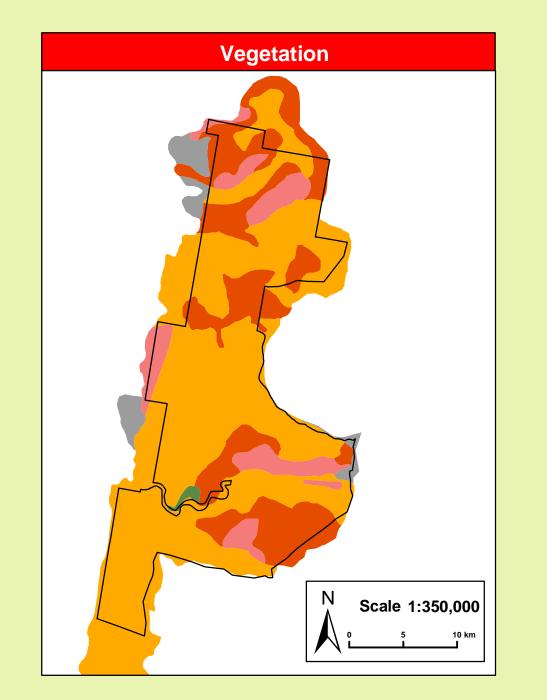
ISBN 978 1 74293 988 9 OEH 2013/0034	Date: June 2014	Version: 2
Map Details		Related Documents
Datum: Geocentric Datum of Australia (GDA) 1994 Projection: Map Grid of Australia (MGA) Zone 55 Data: Spot Satellite Imagery: 2005.	1:50k Topographic Map:Cudal 8631-S 1:100 Topographic Map: Molong 8631 Scale: Noted scales are true when printed on A1 size paper	OEH Fire Management Manual 2013 – 14.

	Operational Guidelines
В	rief 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 spotovers, 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 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 backburns. 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, 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.
Containment Lines	 Construction of new containment lines should be avoided, where practicable, except when they can be constructed with minimal environmental impact, New containment lines require the prior consent of a senior NPWS officer, When constructing containment lines, steep and rocky areas and locations adjacent to riparian (creeks or streams) or significant drainage lines should be avoided. All personnel involved in containment line construction should be briefed on the protection of the reserve's natural and cultural assets. Containment line construction using earthmoving equipment must be conducted in accordance with this RFMS, 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). Containment lines not required for other purposes should be closed immediately at the cessation of the incident. Major Creek lines through the reserve (Gap Creek, Spring Creek and Coffee Hill Creek) are generally wide with rocky bottoms and offer potential containment lines.
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, 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 Sites Guidelines contained in this RFMS. Earthmoving equipment must always be accompanied by a support vehicle and when engaged in direct or

	probability of its success is high.
	• Earthmoving equipment must always be guided and supervised by an appropriately experienced person, who ca 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.
Earthmoving Equipment	To assist with the protection of natural and cultural assets and drainage features earth moving operators need to be briefed and observe the Threatened Sites Guidelines contained in this RFMS.
	 Earthmoving 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.
	Earthmoving equipment must be washed down (where practicable) prior to it entering NPWS estate and again o 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.
	■ The use of foams and gels (surfactants) is permitted on the reserve.
Fire Suppression	■ 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.
Chemicals	Exclude the use of surfactants and retardants within 50m of watercourses, dams and swamps.
	The aerial application use foam, gels and retardants requires the approval of a NPWS Senior Officer.
	 Areas where fire suppression chemicals are used must be mapped and the used product's name recorded. The Threatened Sites Guidelines contained within this RFMS are to be observed.
Rehabilitation	 Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Smoke	 The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations,
Management	■ 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	 OEH personnel are not trained in structural fire fighting and must not enter a structure in order to undertake structural fire fighting,
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 wildfire suppression operations.
	Areas of the reserve may be closed for prescribed burning operations.
WARNINGS	■ Beware of overhead powerlines

Few reliable water points near reserve, except for Mt Esk to east of reserve. May need to bring water cart from Orange ~20km East of reserve, if one is available. **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.	
Long Unburnt	Underburnt, excessive time since last fire, species may become extinct. • A fire event may be ecologically advantageous. Consider allowing unplanned fires to bum	
No Fire Regime	Areas which do not have thresholds assigned to them, e.g. cleared land, rock, water bodies.	
NB. Fire threshold	ds are defined for vegetation communities to conserve biodiversity	
		N Scale 1:35,000 0 0.5 1 km



Cor	ntact Information	
Agency	Position / Location	Phone
	Duty Officer	02 6332 6350
National Parks & Wildlife Service	Bathurst Office – 203-209 Russell St Bathurst	02 6332 7640
	Regional Office – 200 Yambil St Griffith	02 6966 8100
NSW Rural Fire	Fire Control Centre	02 6363 6666
Service Canobolas Zone	Duty Officer	02 6361 8288
Fire and Rescue NSW	Orange Fire Station	02 6361 2205
Forestry Corporation	Bathurst Fireline	02 6332 4812
Emergency Services		000
SES		13 2500
Police - Local Area Command	Orange	02 6363 6399
Hospital	Orange	02 6369 3000
Council	Orange Council Emergency Orange City Council (office) Cabonne Shire Council	1300 650 511 02 6393 8000 02 6392 3200
Local Aboriginal Land Council	Orange	02 6361 4742

Communications Information		
Service	Channel	Location and Comments
NPWS VHF	292 290	■Mt Canobolas ■Vote Group
RFS Brigades UHF	11	All brigades on fireground
RFS PMR	P068	■Mt Canobolas

Vegetation Class	Vegetation Type	Biodiversity Thresholds	Fire Behaviour
Dry Sclerophyll Forest (Shrub Sub formation)	Red Stringybark Dry Woodland	An interval between fire events less than 10 years and above 30 years should be avoided.	Generally low-intensity fires, intensity increasing with amount of ephemeral fuels. In long unburnt areas, very high to extreme
Dry Sclerophyll Forest (Shrub/Grass Sub formation)	Red Box, Long Leaved Box Woodland	An interval between fire events less than 10 years and above 30 years should be avoided.	potential for spotting due to bark fuels. Isolated areas with heavy ground fuel may have the potential for very high fire behaviour. The fuels loads are generally very low (5 – 10 t/ha) on the northern and western facing slopes and ridge tops. Higher grass content on the
Grassy Woodlands	White/Apple Box Woodland, Small section of Black Cypress	An interval between fire events less than 8 years and greater than 40 years should be avoided.	southern facing slopes, which can cause high intensity fast moving fire once grasses have cured.
Forested Wetlands	River Oak Forest	An interval between fire events less than 10 years and greater than 35 years should be avoided.	Generally low intensity slow moving fires, intensity increasing with ephemeral fuel loads.
Other	Cleared Land and Disturbed Land	No fire regime.	
Fire History	The last know wildfire that occurred in the reserve was in 1917. One wildfire which was started by lightning on freehold land did occur in the 2001/2002 fire season and marginally crossed into the southern portion of the reserve. Two prescribed burns that have occurred in the reserve, 84 Ha in 2004/2005 in the northern portion and 33 Ha in 2008 in the southern portion. Approximately 22% of the reserve has seen fire from prescribed burns over the last 9 years. The region surrounding this reserve is prone to summer lightning events and a large proportion of fires are historically related to dry lightning events with no associated rainfall.		
Drought Conditions	During drought conditions and when vegetation communities are visibly stressed it will be very difficult to undertake prescribed burning across many communities as the surface fuels will be very low. Wildfires are likely to be difficult to control due to extreme conditions during the day and areas of low fuel that are difficult to back-burn in under night-conditions.		

Vegetation Map Legend

Bushfire Risk Management Strategies Fire Management Zones The objective of **LMZ**s is to conserve biodiversity and protect cultural and historic heritage. Manage fire consistent with fire thresholds.

	N Scale 1:35,000 0 0.5 1 km
	on Strategies
Typical Conditions	Indicative Suppression Strategies
 Current Fire Danger Rating (FDR) of Very High or Greater, Short and medium range forecasts 	Direct Initial attacks should be to try to extinguish or to contain to the smallest possible area.
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.	Indirect Develop a suppression plan using existing and/or potential containment lines. If possible take into account biodiversity requirements but not to the detriment of life and property.
■FDR of High or below , ■Short – medium term forecast indicate a continuing FDR of High or below	Direct Evaluate the biodiversity thresholds and use direct attack methods to extinguish if required.
No risk to life or property exists in the short-medium term,	Indirect Develop a fire suppression plan to the

Only small area risk to biodiversity

maximum allowable perimeter based on

Biodiversity thresholds.

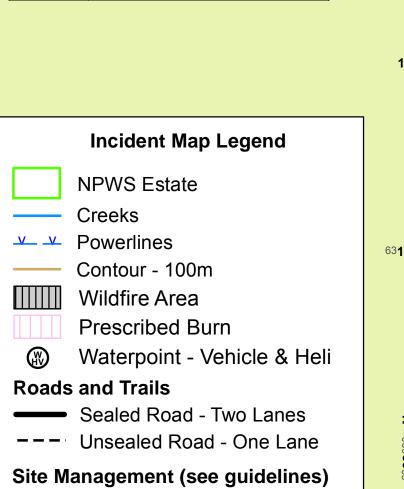
Threatened Sites Guidelines

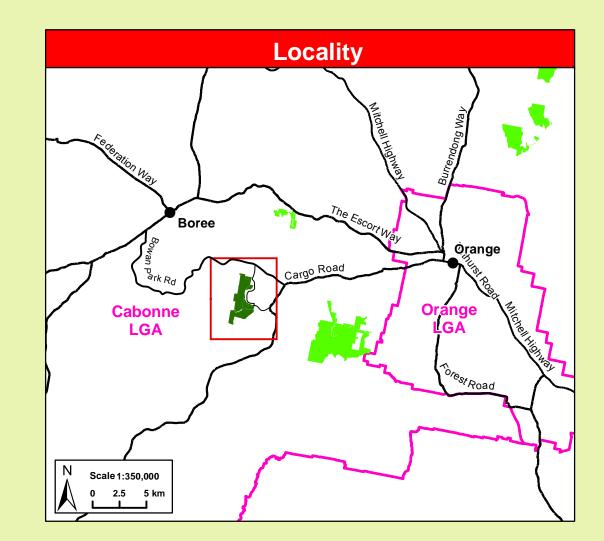
Site	Site Guidelines	
Aboriginal	Cultural Heritage Site Management	
IS2	 Avoid all ground disturbance including the use of earthmoving machinery, handline construction and driving over sites Sites may be burnt by bushfire, backbum or prescribed burn without damage. 	
Threatened Fauna Management		
FA1	 Utilise mosaic burning and avoid disturbance at known sightings, roostings or refuges and avoid frequent fire (<6 years). 	
FA4	 Utilise mosaic burning, protect hollow bearing trees and avoid frequent fire (< 6—10 years). 	
FA5	Utilise mosaic burning.	

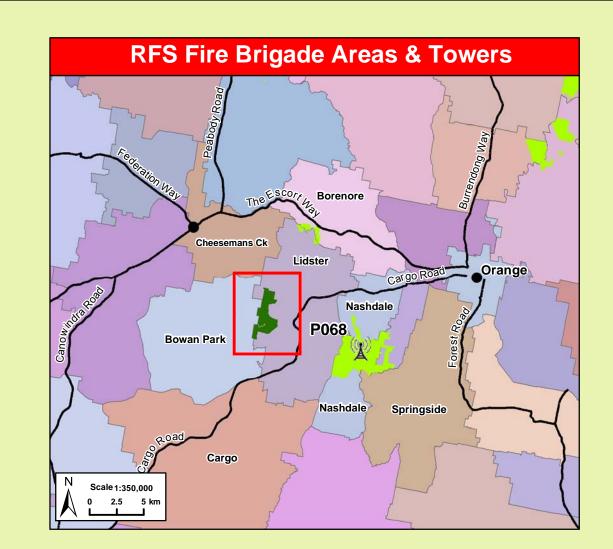
Threatened Fauna

Threatened Property

Indigenous Site - IS2







Fire Season Information

	• The critical whichire season generally occurs from October/November to March/April.
	Dry lightning storms frequently occur and typical fire weather conditions are winds from the
fires	west to the north, high day time temperatures and low humidity
	Particular care is required following periods of Winter rain and after periods of negative

Southern Oscillation Indices.

Prescribed
Burning

Care should be taken to ensure a low intensity burn over most of the area treated.

