North Coast Region Koukandowie Nature Reserve Fire Management Strategy (Type 2) 2005 Sheet 1 of 1

This strategy should be used in conjunction with aerial photography and field reconnaissaduring 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.

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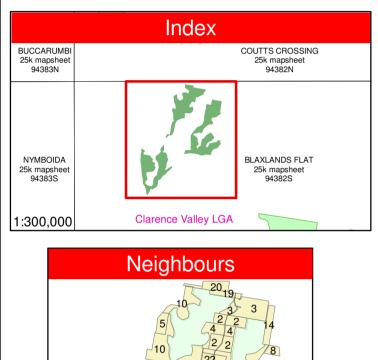
Last Updated: 29 August 2005 **DEC Number:** 2005/375 This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of Rural Fires Act 1997.

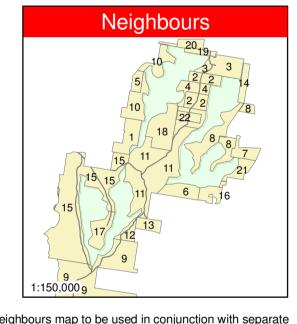
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Endorsed by: Director Northern, Parks & Wildlife Division

Communications Information		
Service	Channel	Location and Comments
NPWS - VHF	9, 10	Can delink Ch 9 if required Reverse channels 57 (Ch 9), 58 (ch 10)
NPWS - VHF (Fireground Comms)	41, 42	Chat channel 41 (Ch 9), 42 (Ch 10)
RFS – PMR - UHF	55	Coutts Crossing brigade closest
CB - UHF	1 - 99	Determine channel on fire ground with other agencies
Aircraft - VHF		Determine channel on fire ground
Mobile Phone -		Patchy coverage, determine channel on fire

Communications information				
Service	Channel	Location and Comments	Agency	Po
NPWS - VHF	9, 10	Can delink Ch 9 if required Reverse channels 57 (Ch 9), 58 (ch 10)	NPWS	No
NPWS - VHF (Fireground Comms)	41, 42	Chat channel 41 (Ch 9), 42 (Ch 10)	Rural Fire Service NSW Fire Brigade	Fir Cla
RFS – PMR - UHF	55	Coutts Crossing brigade closest	145 W Fire Drigade	So
CB - UHF	1 - 99	Determine channel on fire ground with other agencies	SES	En Gr
Aircraft - VHF		Determine channel on fire ground	Police	En Gr
Mobile Phone - CDMA		Patchy coverage, determine channel on fire ground	Ambulance	En Gr
			Hospital	Gr
	Indo	V	Local Covernment	Cl





Neighbours map to be used in conjunction with separate table of neighbours' contact details.
Location: g:\datanorth56\regionwork\fire\ RFMS\Koukandowie\text\neighbours_contacts.xls

Lo	ality
Chaelundi NP Hortons Creek NR Sheas Nob St Clouds Creek SF Byrne Daymhoi-Binderay NP	Grafton Candole SF Divines SF Divines SF Cilerudie SF Vurayerr Vurayerr NP ScA Flaggy Cheek NP Sherwood NR Sherwood NR

Contact Information			
Agency	Position / Location	Phone	
NPWS	North Coast Region Office	02 6641 1500	
		02 6643 5569 (fax	
Rural Fire Service	Fire Control Officer	0500 881 866	
	Clarence Valley Fire Control Centre	02 6644 5135	
NSW Fire Brigade	Emergency	000	
	South Grafton Station	02 6642 7655	
SES	Emergency	000	
	Grafton Unit	02 6643 3348	
Police	Emergency	000	
	Grafton Station	02 6642 0222	
Ambulance	Emergency	000	
	Grafton Station	131233	
Hospital	Grafton Base Hospital	02 6640 2232	
Local Government	Clarence Valley Shire Council	02 6643 3886	
Local Aboriginal	Grafton – Ngerrie LALC	02 6642 6020	
Land Council			

		ategy Information		
Wildfires		Have been known to start as early as late August, but usually the potential for a large fire event is greatest between October and December. This period may extend into January in more severe years.		
Prescribed Burning (NPWS Fire Management Manual 4.7)		 General season is Autumn to late Winter. Burning is possible in early Spring but not desirable on a regular basis from an ecological or tourism point of view. 		
Suppression Strategies				
Current FDR Low – Mod	Forecast FDR Low – Mod	Undertake direct, parallel or indirect attack along		
		existing containment lines.		
		 Where practicable consider maximising the fire area in accordance with the requirements of any propose prescribed burns. 		
Low – Mod	= > High	 In order to minimise the fire area and secure the flanks as soon as possible, undertake direct, parallel or indirect attack along the closest containment line 		
		Pay particular attention to the flank on the next predicted down wind side.		
High	All	Undertake indirect attack along existing or newly constructed containment lines.		
		 Secure and deepen containment lines along the next predicted downwind side of the fire. 		
		If applicable consider broader than normal containment strategies to avoid wasted effort and high risk of failure.		
All	All	• Ensure there is sufficient time to secure containment lines prior to the fire impacting upon them; otherwise fall back to the next potential line.		

Fire Thresholds

Fire history is within the threshold for vegetation in this area.

A burn is neither required nor should one necessarily be avoided.

Time since fire is less than the optimum interval, but before that it was within threshold.

The area is close to its threshold and may become underburnt with the absence of fire.

A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.

 $\cdot A\ prescribed\ burn\ may\ be\ advantageous.\ Consider\ allowing\ unplanned\ fires\ to\ burn.$

Fire thresholds have been exceeded.

Protect from fire as far as possible.

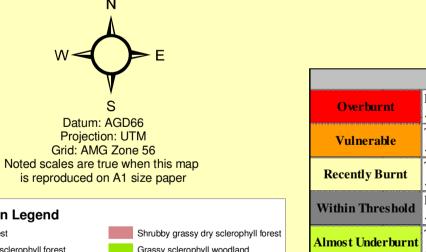
Protect from fire as far as possible.

Avoid fires if possible.

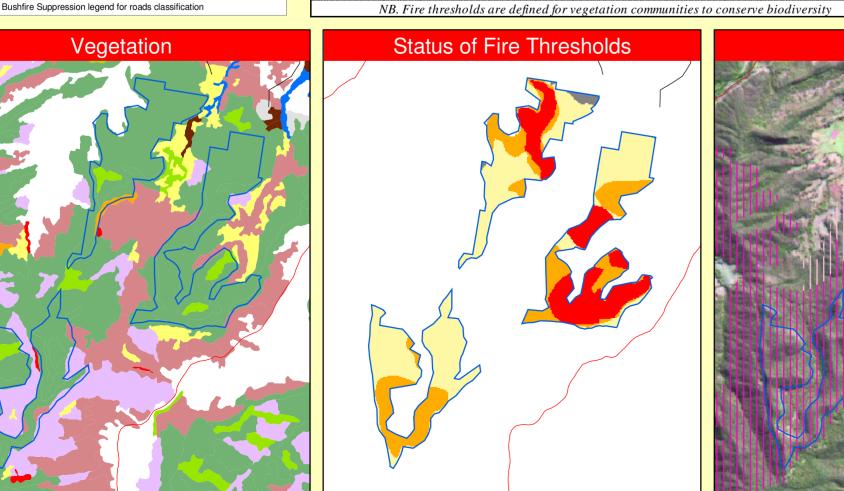
Unknown Insufficient data to determine fire threshold.

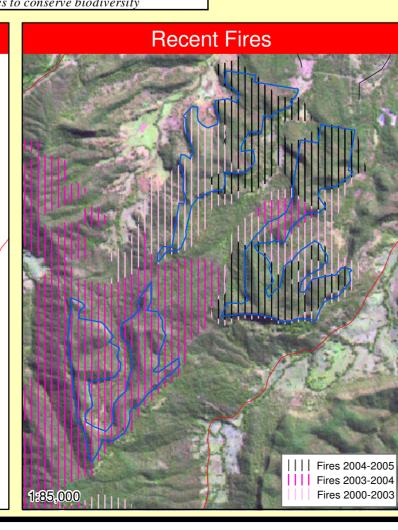
The area will be Overburnt if it burns this year.

Fire frequency is below fire thresholds in the area.

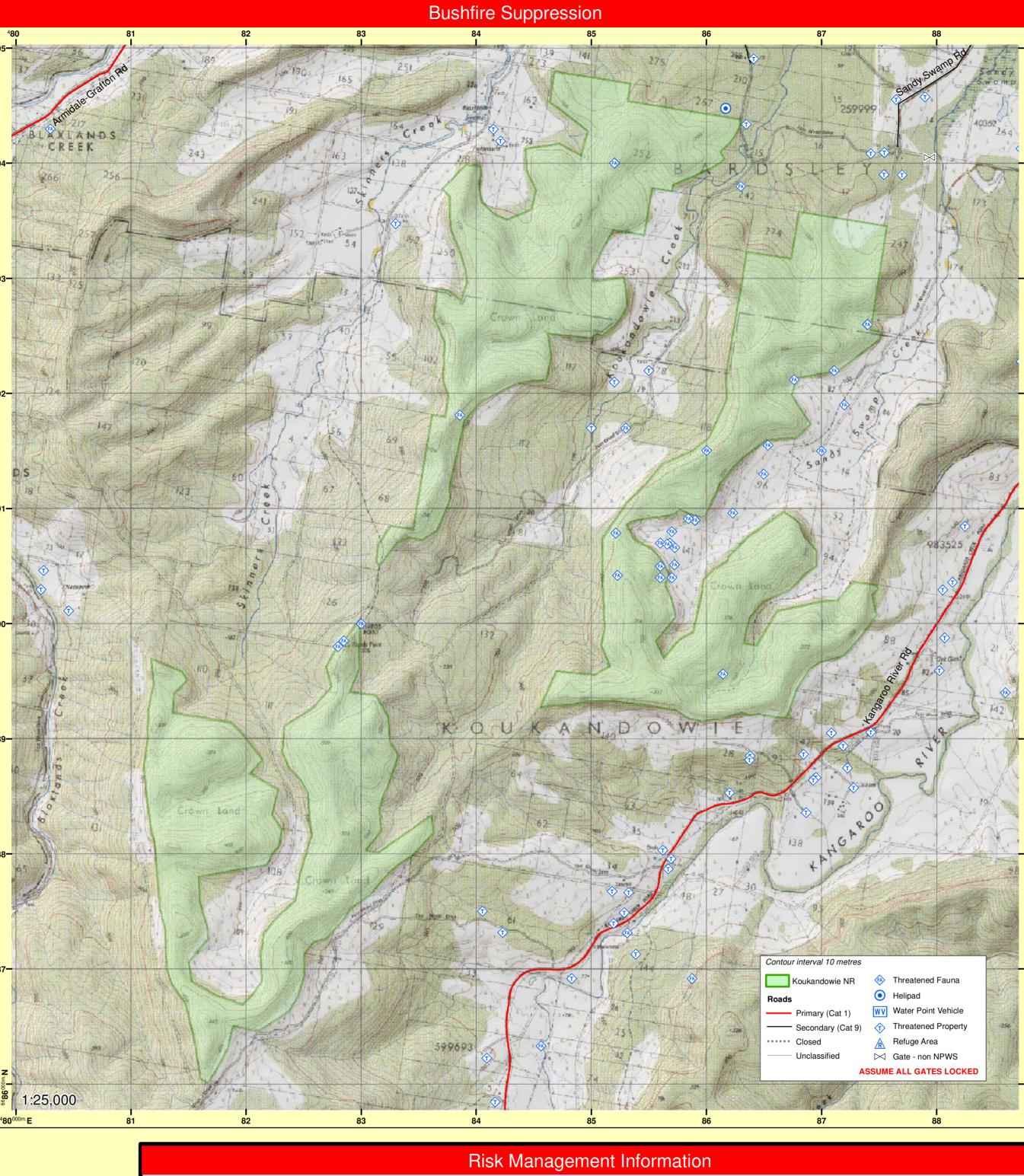


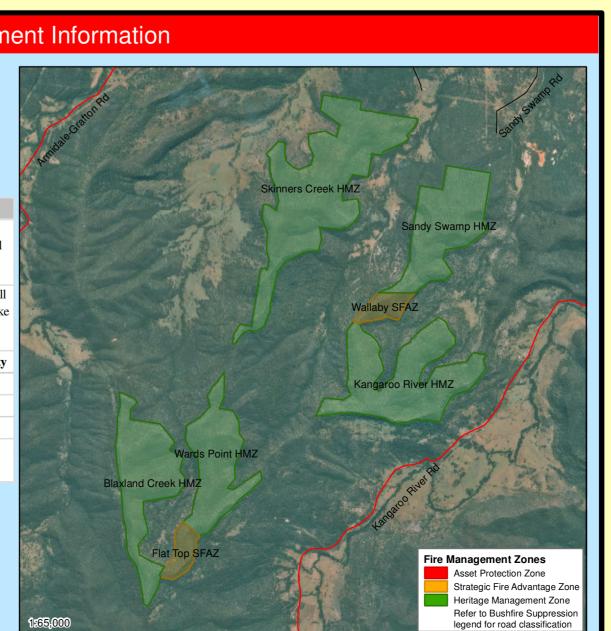






Fire Management Zones The objective of **APZ**s is the protection of human life and property. This will have precedence over guidelines for the management of biodiversity. Maintain Overall Fuel Hazard at Moderate or below. The objective of **SFAZ**s is to reduce fire intensity across larger areas. Maintain Overall Fuel Hazard at High or below, however adherence to guidelines for biodiversity will take precedence where practical. Responsibility Prescribed burn when overall fuel hazard Wallaby SFAZ exceeds High to the two identified zones in Flat Top SFAZ **NPWS** conjunction with RFS and neighbours. The objective of **HMZ**s is to conserve biodiversity and protect cultural heritage. Manage fire consistent with fire thresholds.





Refer to Strategy fo	Operational Guidelines or Fire Management 2003 and Fire Management Manual 2004.
Brief all person	nel involved in suppression operations on the following issues:
Resource Aboriginal Cultural Heritage	Guidelines Information on sites of Aboriginal cultural heritage significance is stored.
Management (NPWS FMM 4.11)	 Information on sites of Aboriginal cultural heritage significance is stored separately for confidentiality. Refer to the Aboriginal Heritage Information Management System database (AHIMS) and North Coast Region Cultural Heritage Conservation Officers.
Historic Heritage Management (NPWS FMM 4.10)	There are no recorded sites within the reserve, should new sites be located consult with a senior NPWS officer.
Threatened Fauna Management (NPWS FMM 4.12 & 5.2)	• FA1 Avoid frequent fire (<10yrs); use mosaic burn pattern; protect ground habitat (logs etc).
(NF W3 FIMIN 4.12 & 3.2)	 FA3 - As far as possible protect site from fire. Avoid the use of earth moving machinery in locations where these species are known to occur. Avoid the use of retardant in locations where these species are known to
	 occur. FA4 - Mosaic burn to diversify understorey; protect casuarina stands FA6 - Protect hollow-bearing trees; reduce fire frequency
	• FA7 - Protect hollow-bearing trees
	 FA8 - Avoid frequent fire (<10yrs); use mosaic burn pattern FA9 - Protect known habitat from disturbance; avoid use of earthmoving machinery and fire fighting chemicals.
Threatened Flora Management (NPWS FMM 4.12)	There are no recorded threatened flora species within the reserve, should a threatened species be located consult with a senior NPWS officer.
Threatened Property	Where possible property owners with assets at risk from a wildfire event should be kept informed regarding the progress of the fire and asked for an
General	assessment of their current level of asset protection preparedness. Guidelines
Aerial Water Bombing	The use of bombing aircraft should support containment operations by
(NPWS FMM 4.4 / NSW Fire Agencies Aviation SOPs O2 / NPWS Guidelines for	aggressively attacking hotspots and spot-overs.
Effective Aircraft Management)	 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.
Aerial Ignition	 Ground crews must be alerted to water bombing operations. Aerial ignition may be used during back-burning or fuel reduction
(NPWS FMM 4.2.20, 4.4 / NSW Fire Agencies Aviation SOPs O2-4 / NPWS Guidelines for Effective Aircraft	operations where practicable, but only with the prior consent of a senior NPWS officer.
Management)	 Utilise incendiaries to rapidly progress back-burns down slope where required.
Backburning (NPWS FMM 4.8)	 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, backburning should commence when the humidity begins
	to rise in the late afternoon or early evening. With a lower FDI backburning may be safely undertaken during the day.
	 Where practicable, clear a 1m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or wet down these trees as part of the backburn ignition.
	 Avoid ignition of backburns at the bottom of slopes where a long and intense up slope burn is likely.
Command & Control	• The first combatant agency on site may assume control of the fire, but then
(NPWS FMM 4.2)	 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 (NPWS FMM 2.2, 3.9)	 Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact. New containment lines require the prior consent of a senior NPWS officer.
	• Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
	All containment lines not required for other purposes should be closed at the cessation of the incident.
	All personnel involved in containment line construction should be briefed on both natural and cultural heritage sites in the location.
Earthmoving Equipment (NPWS FMM 4.2.20, 4.3)	• Earthmoving equipment may only be used with the prior consent of a senion NPWS officer, and then only if the probability of its success is high.
	 Earthmoving equipment must be always 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 firefighting 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 should be washed down, where practicable, prior
Fire Advantage Recording	to it entering NPWS estate. All fire advantages used during wildfire suppression operations must be
Fire Suppression Chemicals	 mapped and where relevant added to the database. Wetting and foaming agents (surfactants) are permitted for use in wildfire
(NPWS FMM 4.2.20, 4.9)	 suppression. The use of fire retardant is 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 rainforest,
	 watercourses, dams and swamps. Areas where fire suppression chemicals are used must be mapped and the
	used products name recorded.The Threatened Species Operational Guidelines are to be observed.
Rehabilitation (NPWS FMM 5.1)	Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Smoke Management (NPWS FMM 3.4)	 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
Visitor Management	 management guidelines. The reserve may be closed to the public during periods of extreme fire