

Cocoparra National Park & Cocoparra Nature Reserve
Fire Management Strategy 2014
Mapsheets 1 of 2



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 1, 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).

ISBN: 978 1 74359 090 4	OE: 2013/0330	Date: July 2014	Version No: 2
Datum: Geocentric Datum of Australia (GDA) 1994		Map Details	
Projection: Map Grid of Australia (MGA) Zone 55		1:50k Topographic Map: Lake Wyangan 8129-N (AGD-1966)	
Data: Spot Satellite Imagery: 2005.		Rankins Springs 8130-S (AGD-1966)	
		Related Documents	
		OE: Fire Management Manual 2013 - 2014.	

Fire Season Information

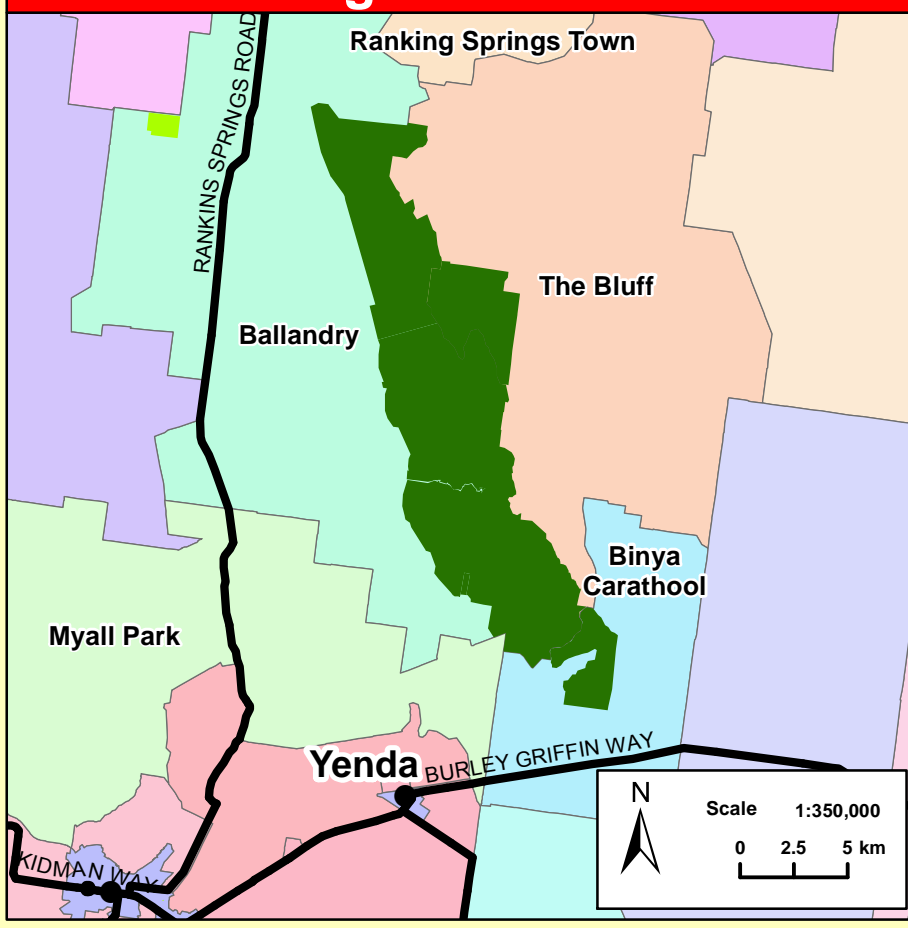
Wildfires	<ul style="list-style-type: none"> The critical wildfire season generally occurs from October/November to March/April. Dry lightning storms frequently occur and typical fire weather conditions are winds from the west to the north, high day time temperatures and low humidity Particular care is required following periods of Winter rain and after periods of negative Southern Oscillation Indices.
Prescribed Burning	<ul style="list-style-type: none"> Prescribed burning should generally be undertaken during winter or early Spring Care should be taken to ensure a low intensity burn over most of the area treated.

Communications Information

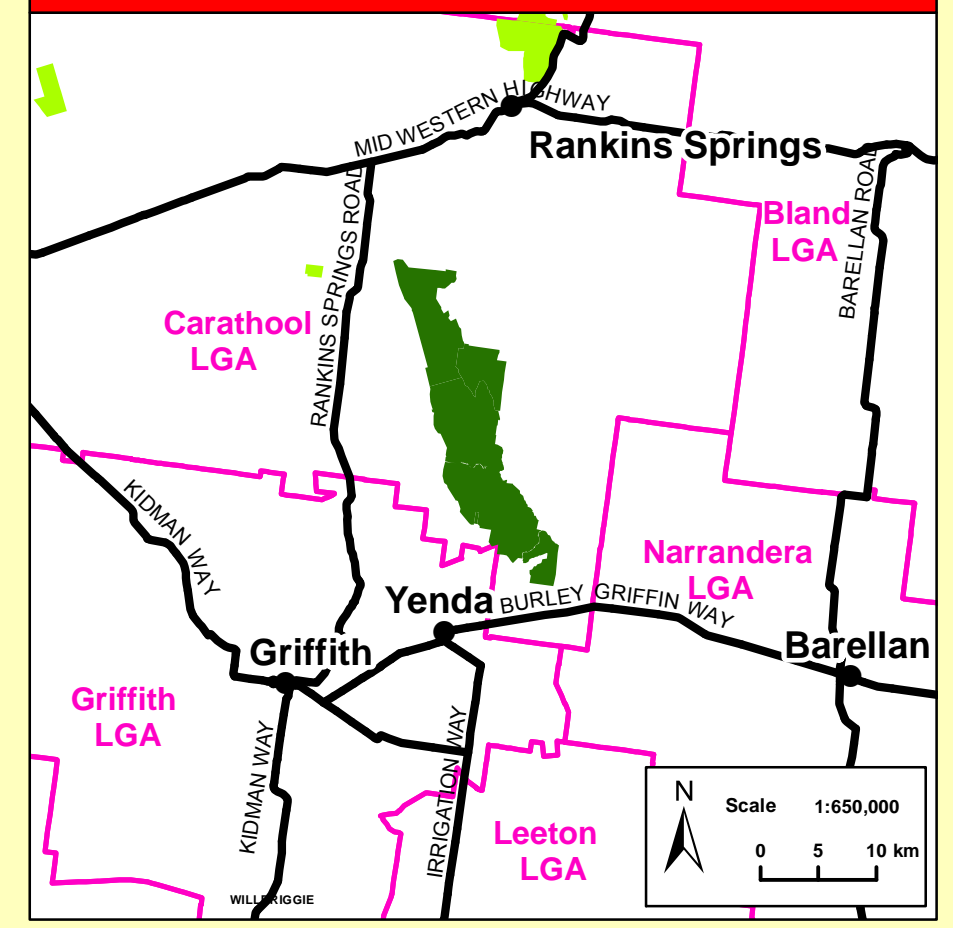
Service	Channel	Location and Comments
NPWS	11 10	•VHF Fireground 1 •UHF
RFS MIA Zone	S005 S060	•Vote Group •Scenic Hill Griffith
RFS All Brigades	20	•UHF

Mobile phone coverage unlikely to be reliable throughout whole reserve area.

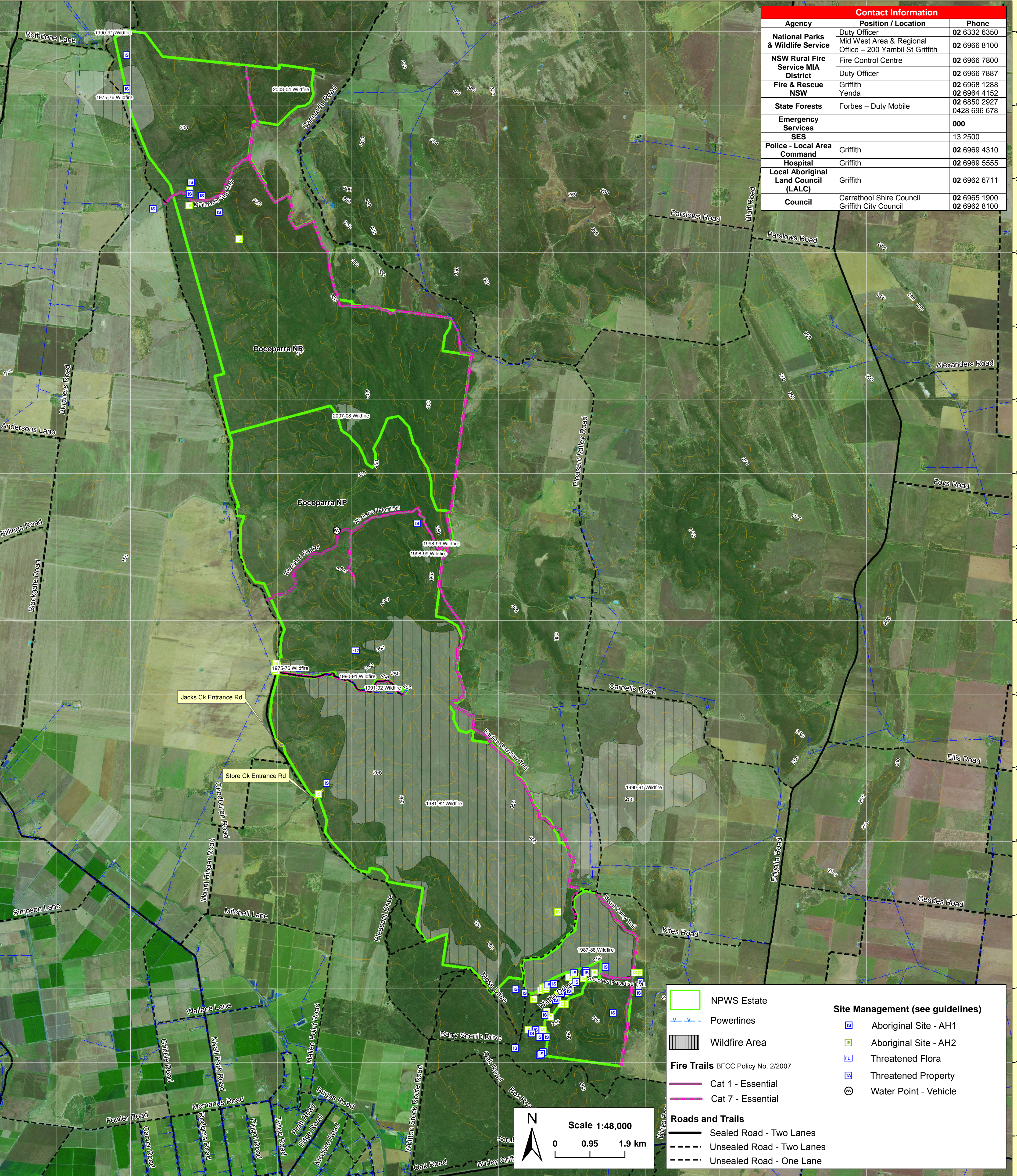
RFS Fire Brigade Areas & Towers



Locality



Incident Map



Contact Information		
Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer	02 6332 6350
	Mid West Area & Regional Office – 200 Yambil St Griffith	02 6966 8100
NSW Rural Fire Service MIA District	Fire Control Centre	02 6966 7800
	Duty Officer	02 6966 7887
Fire & Rescue NSW	Griffith	02 6968 1288
	Yenda	02 6964 4152
State Forests	Forbes – Duty Mobile	02 6850 2927 0428 696 678
Emergency Services		000
SES		13 2500
Police - Local Area Command	Griffith	02 6969 4310
Hospital	Griffith	02 6969 5555
Local Aboriginal Land Council (LALC)	Griffith	02 6962 6711
Council	Carrathool Shire Council	02 6965 1900
	Griffith City Council	02 6962 8100

Site Management (see guidelines)

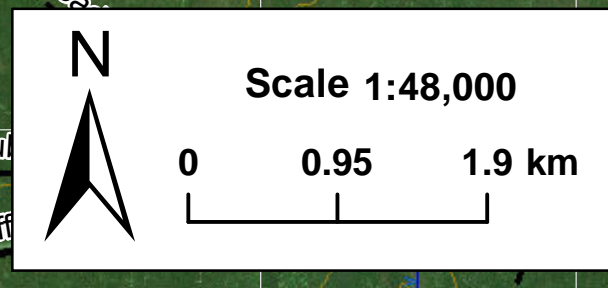
- AB Aboriginal Site - AH1
- AS Aboriginal Site - AH2
- FL Threatened Flora
- TP Threatened Property
- WP Water Point - Vehicle

Fire Trails BFCC Policy No. 2/2007

- Cat 1 - Essential
- Cat 7 - Essential

Roads and Trails

- Sealed Road - Two Lanes
- Unsealed Road - Two Lanes
- Unsealed Road - One Lane



Cocoparra National Park & Cocoparra Nature Reserve

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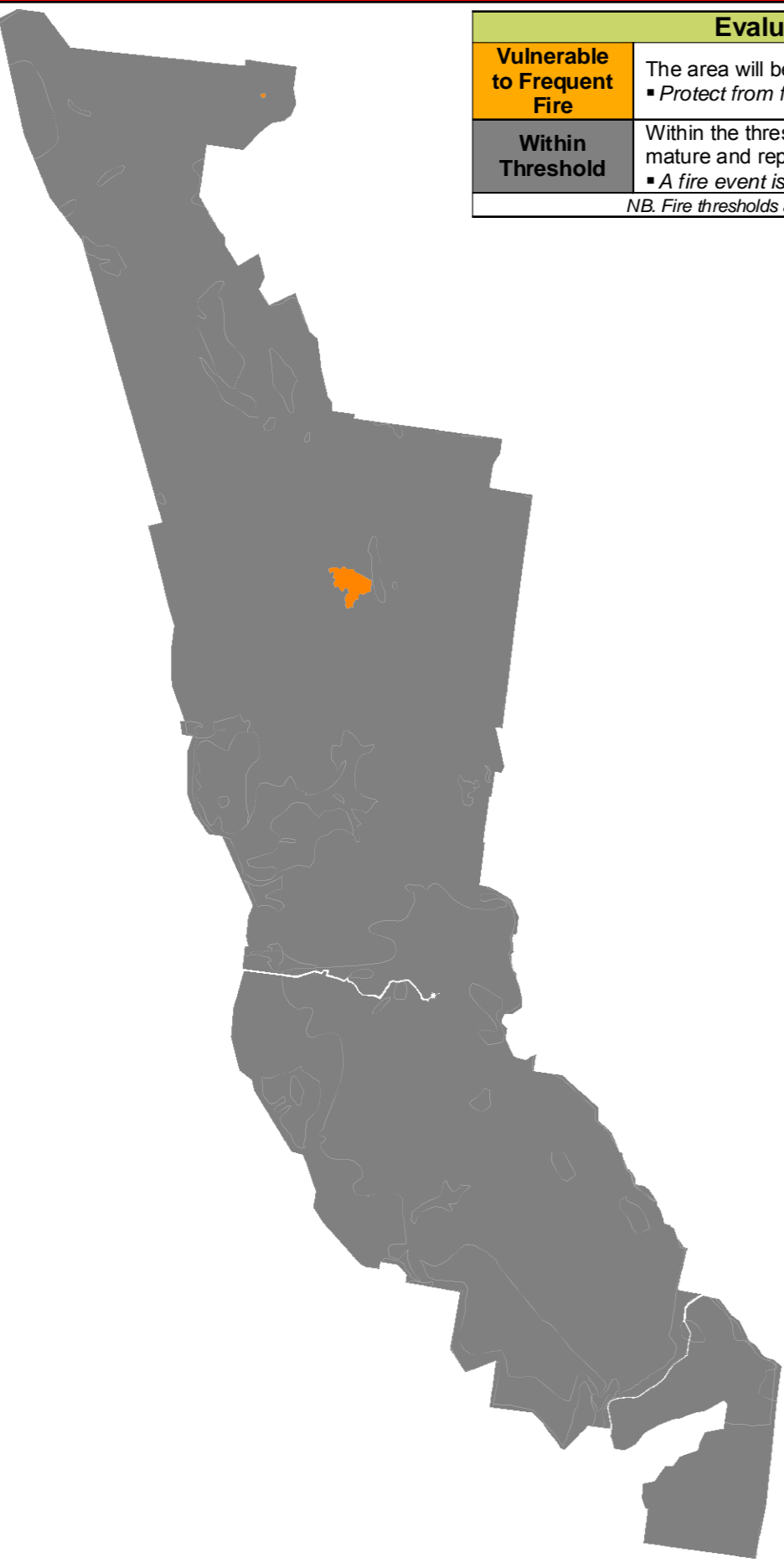
Mapsheet 2 of 2



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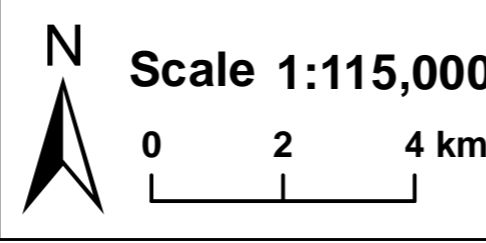
Contact: OEH FWG Regional Office: 200 Yambill St, Griffith NSW 2680 P.O. Box 1049 Griffith NSW 2680 ph. 02 6966 8100

Status of Biodiversity Thresholds



Evaluation of Biodiversity Thresholds	
Vulnerable to Frequent Fire	The area will be too frequently burnt if it burns this year <ul style="list-style-type: none"> 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. <ul style="list-style-type: none"> A fire event is neither required nor should one necessarily be avoided.

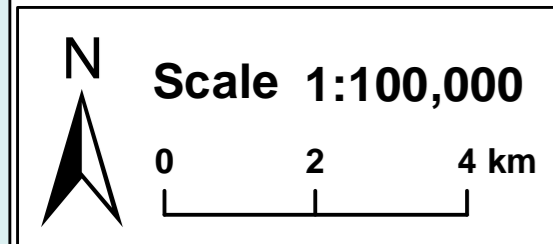
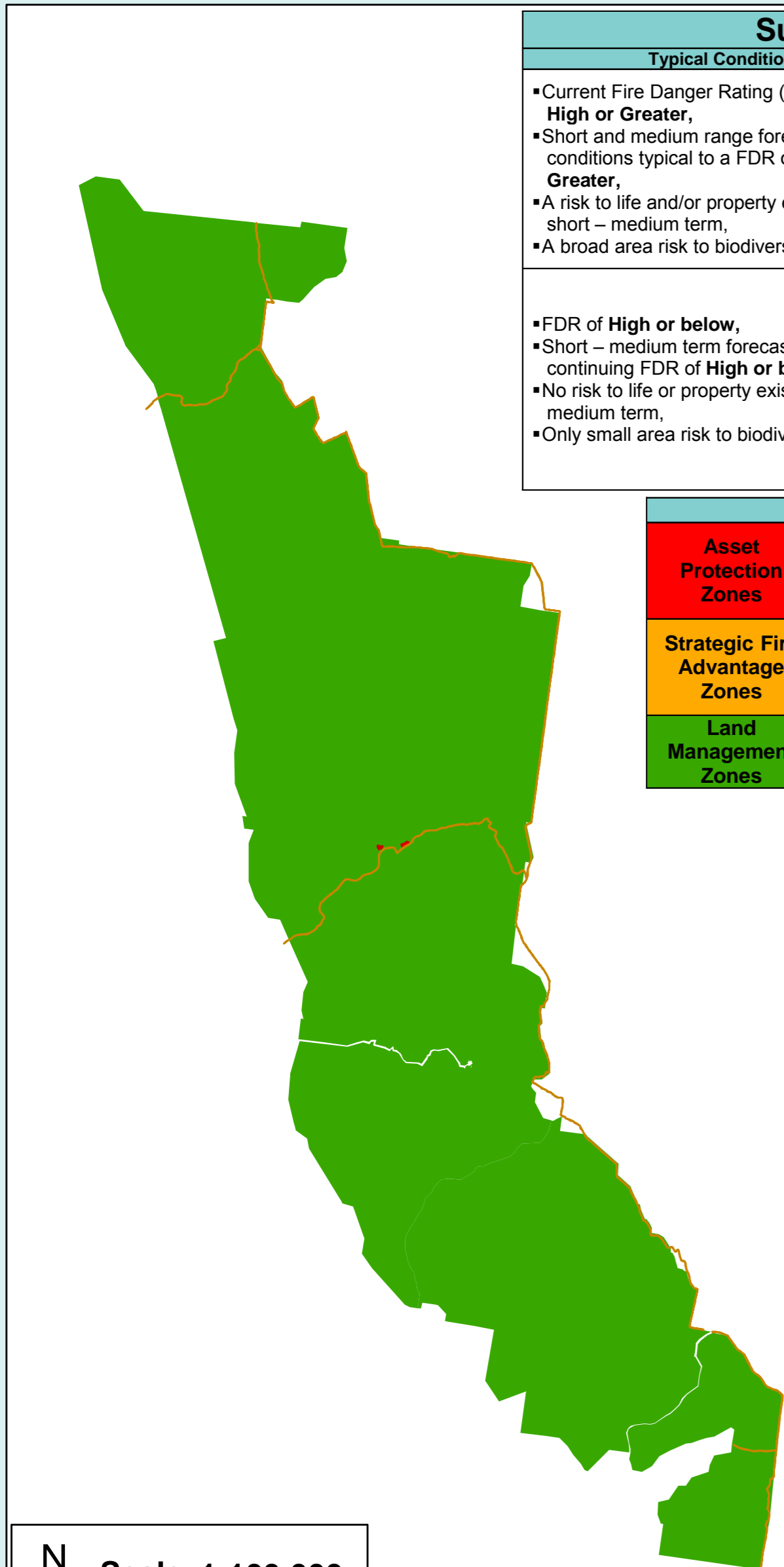
NB. Fire thresholds are defined for vegetation communities to conserve biodiversity



Threatened Sites Guidelines

Site	Guidelines
Aboriginal Cultural Heritage Site Management	
IS1	<ul style="list-style-type: none"> Do not cut down trees As far as possible protect the site from fire Use of foams, wetting agents & retardant is acceptable.
IS2	<ul style="list-style-type: none"> Avoid all ground disturbance including the use of earthmoving machinery, handline construction and driving over sites Sites may be burnt by bushfire, backburn or prescribed burn without damage.
Historic Heritage Site Management	
H1	<ul style="list-style-type: none"> 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	
<p>Although not shown on this map there are a range of threatened species that have been sighted on the reserve.</p> <p>Vulnerable species - Black-chinned Honeyeater, Chestnut Quail-thrush, Gilbert's Whistler, Greater Long-eared Bat, Shy Heathwren, Little Eagle, Major Mitchell's Cockatoo, Painted Honeyeater, Superb Parrot, Barking Owl, Brown Treecreeper, Grey-crowned Babbler, Varied Sittella, Flame Robin, Diamond firetail, Sloane's Froglet, Speckled Warbler, Spotted Harrier, Turquoise Parrot, White-fronted Chat.</p> <p>Endangered species - Swift Parrot, Glossy Black-Cockatoo, Grey Falcon, Red-lored Whistler, Southern Bell Frog, Tawny Creeper-dragon and the White-browed Treecreeper.</p> <p>Consideration of these when planning prescribed burn activities is essential, for more detailed information contact NPWS.</p>	
Threatened Flora Management	
FL2	<ul style="list-style-type: none"> Utilise mosaic burning (Boland Yellow Gum and Slaty Leek Orchid)

Bushfire Risk Management Strategies



Suppression Strategies

Typical Conditions	Indicative Suppression Strategies
<ul style="list-style-type: none"> 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. 	<p>Direct Initial attacks should be to try to extinguish or to contain to the smallest possible area.</p> <p>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.</p>
<ul style="list-style-type: none"> 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. 	<p>Direct Evaluate the biodiversity thresholds and use direct attack methods to extinguish if required.</p> <p>Indirect Develop a fire suppression plan to the maximum allowable perimeter based on Biodiversity thresholds.</p>

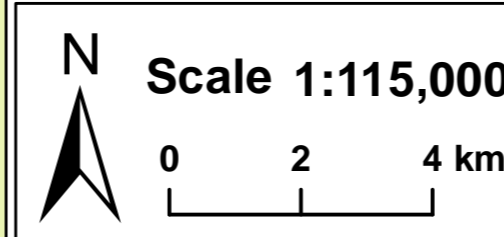
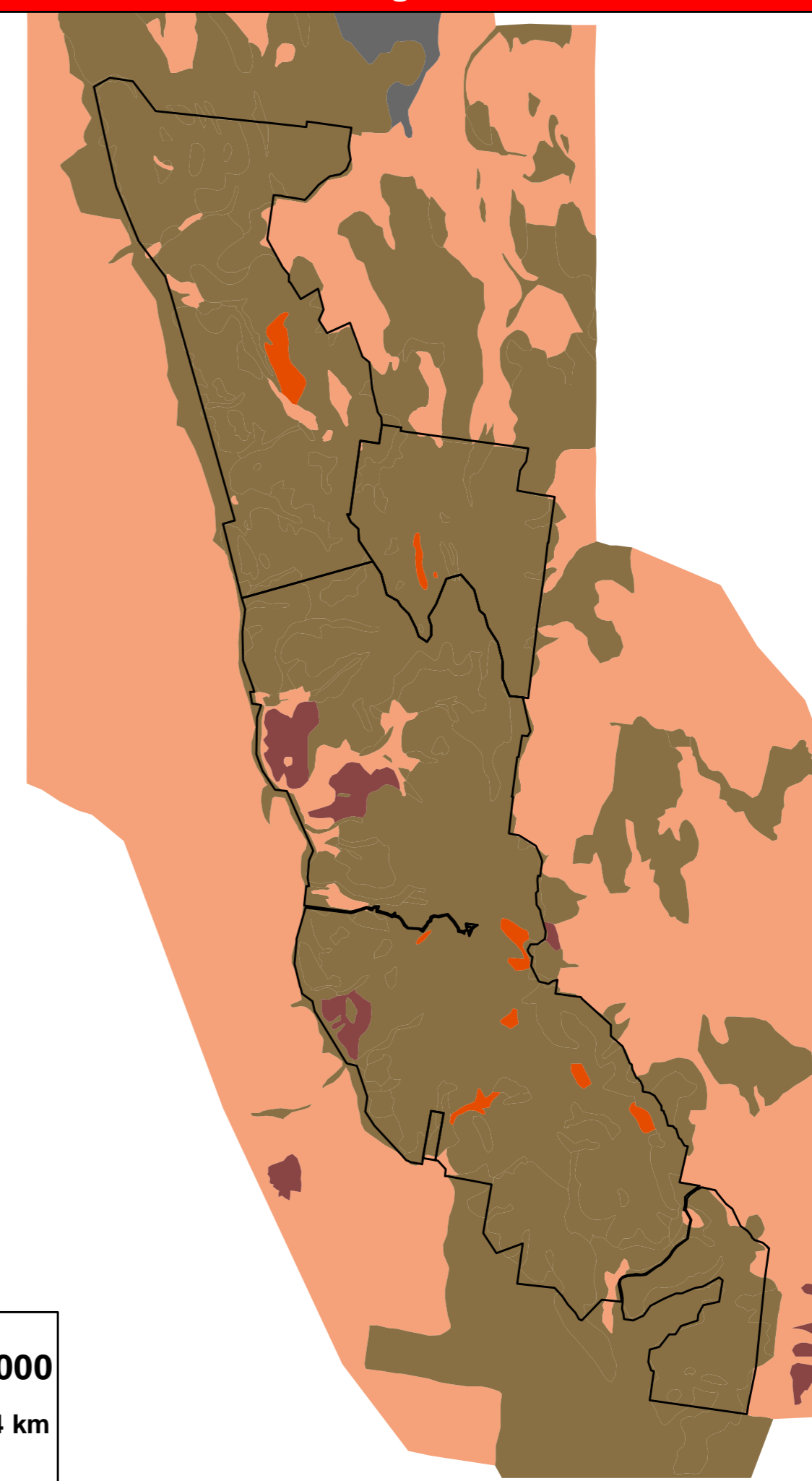
Fire Management Zones

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.

Operational Guidelines

Brief all personnel involved in suppression operations on the following issues using the SMEACS format:	
General	Guidelines
Aerial Water Bombing	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. 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 aerial ignition to rapidly burn out large areas and/or reduce spotting potential by preventing longer uphill fire runs.
Back-burning	<ul style="list-style-type: none"> 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. Avoid back burning upslope and creating intense fires. All personnel must be fully briefed before back-burning operations begin.
Command & Control	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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. The hilly terrain in certain areas of the park is too rocky for construction of control lines with earthmoving equipment. 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. If machinery is used in woodland areas, blade it to be kept just above ground level and used to remove vegetation only, to minimise soil disturbance. Earthmoving equipment must not leave tracks or create new tracks in Machinery Exclusion areas as marked on the Incident Map of a 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	<ul style="list-style-type: none"> All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
Fire Suppression Chemicals	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Smoke Management	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Camping and picnic areas, walking and access trails will be closed if there are fire operations in the vicinity. The reserve may be closed to the public during periods of extreme fire danger or during prescribed burning or wildfire suppression operations.
Warnings	<ul style="list-style-type: none"> Beware of overhead powerlines. Beware of gas bottles stored in picnic area and camping area BBQs. Beware of steep and rocky terrain.

Vegetation



Vegetation Map Legend

Broad Vegetation Class	Vegetation Type	Biodiversity Thresholds	Fire Behaviour
Semi-arid Woodlands (Shrubby sub-formation)	White Cypress Pine/Bimble Box/Dwyers Gum and some mixed Eucalypts of the lower gullies	An interval between fire events less than 15 years should be avoided. There is no maximum interval between fire events specified for this vegetation type as there was insufficient data to give definite intervals. Fire may be considered as a useful tool to stimulate regeneration as much of this community consists of mature trees.	Moderate fire intensity which increases with the amount of ephemeral fuels. The shrub layer that is present in this vegetation does increase the fire intensity.
Semi-arid Woodlands (Grassy sub-formation)	Dwyers Gum and White Cypress Pine	An interval between fire events less than 9 years should be avoided. There is no maximum interval between fire events specified for this vegetation type as there was insufficient data to give definite intervals.	Moderate fire intensity which increases with the amount of ephemeral fuels which can result in high intensity fast moving fire once grasses have cured.
Dry Sclerophyll Forest (Shrub/grass formation)	Grey Box & Black Cypress with small sections of stringybark in sheltered gorges	An interval between fire events less than 8 years and above 50 years should be avoided.	Generally low-intensity fires, intensity increasing with amount of ephemeral fuels.
Grassy Woodlands	Box with White Cypress Pine, some grassy areas under regeneration	An interval between fire events less than 8 years and greater than 40 years should be avoided.	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 be erratic and fast moving. In ephemeral years fire 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. Potential spotting from trees.
Fire History	There have been 12 fires recorded in the Cocoparra NP & NR since 1975 ranging from as little as 2Ha up to 3300 Ha. The most notable fires are based all in the National Park with 3,328Ha being burnt in 1981-1982, 422Ha in 1987-1988 and 1,074 Ha in 1990-1991.		
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 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.		
Mosaic Burning	This reserve may not have experienced fire over an extended period of time, therefore a mosaic approach to fire management with post fire recovery and response assessments should be undertaken. Apply fire in a pattern across the reserve that allows gaps in both time and space, small verses large areas, scattered and variable times between fires in any location. If possible leave some areas of each vegetation community unburnt, as an end stage and reference site.		