

Quanda 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. 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 or omission 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).

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

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Map Details		Related Documents
Date: Geocentric Datum of Australia (GDA) 1994 (AGD-1966)	1:100k Topographic Map: Hermidale 8234	OEH Fire Management Manual 2013 - 2014.
Projection: Map Grid of Australia (MGA) Zone 55	Scale: Noted scales are true when printed on A1 size paper	
Data: Spot Satellite Imagery, 2005.		

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 where required.
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, 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. 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.
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 personnel 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. 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 be washed down, where practicable, prior to 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"> 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	<ul style="list-style-type: none"> Beware of overhead powerlines
Water Points	<ul style="list-style-type: none"> Watering points WV and WHV are rainfall fed and are not guaranteed to have water. Possible watering points at dams on nearby properties, visible on incident map. Potentially bring water cart from village of Hermidale, 39km North.

Status of Biodiversity Thresholds

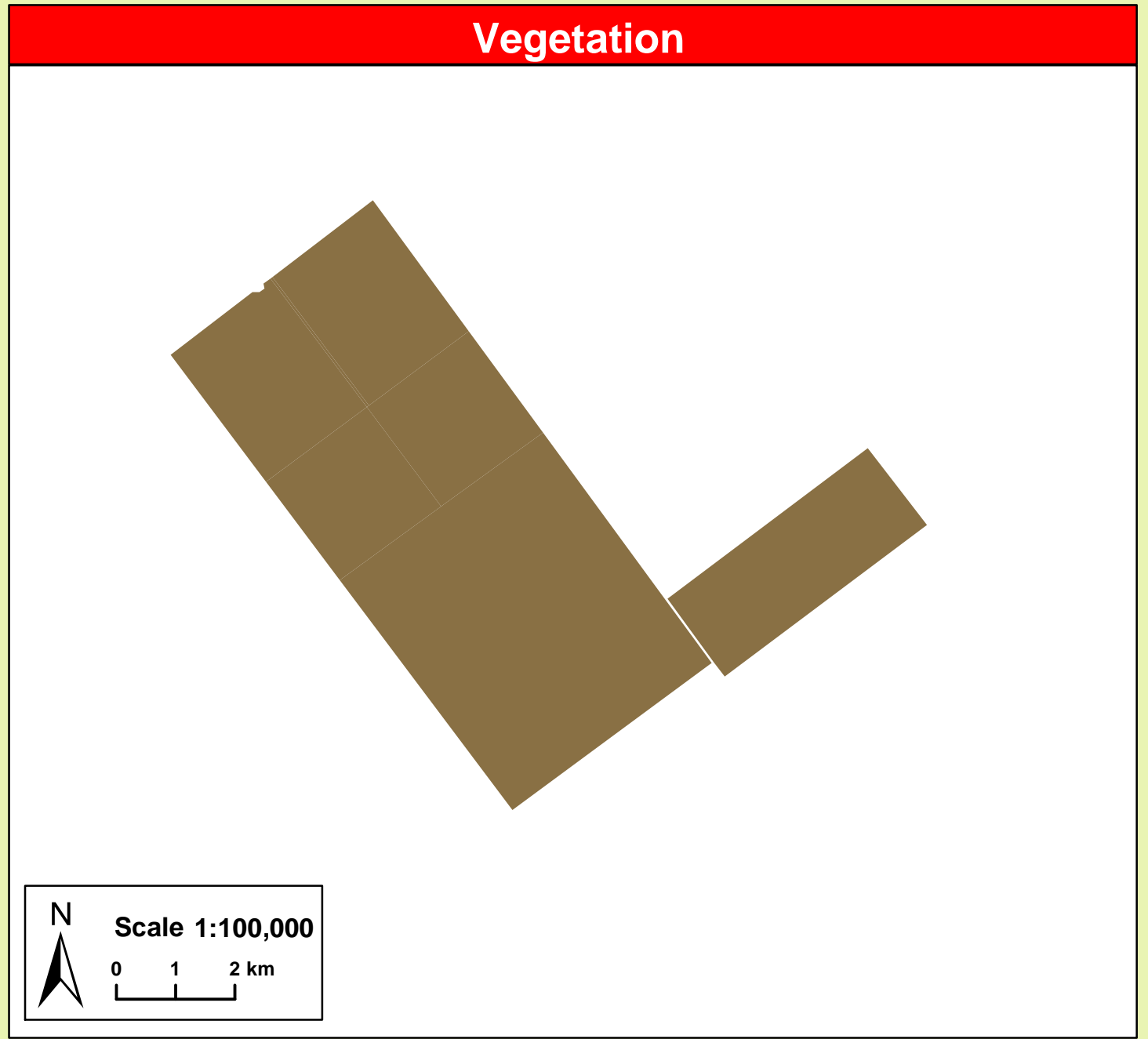
Evaluation of Biodiversity Thresholds

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

Vegetation Map Legend

Broad Vegetation Class	Vegetation Type	Biodiversity Thresholds	Fire Behaviour
Semi-arid Woodlands (Shrubby sub-formation)	Mallee & Red Bo x, Poplar Box, Mallee Shrubland with Spinifex.	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.	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.
Fire History	One Wildfire in March 2003, unknown cause, 8.6Ha burnt; One HR burn in March 2010, 53Ha burnt.		
Ephemeral Conditions	Ephemeral fuel conditions occur after consecutive years of effective rainfall. 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 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 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 reserves 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.		



Bushfire Risk Management Strategies

Scale 1:100,000

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

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</p> <p>Initial attacks should be to try to extinguish or to contain to the smallest possible area.</p> <p>Indirect</p> <p>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> <p>Direct</p> <p>Evaluate the biodiversity thresholds and use direct attack methods to extinguish if required.</p> <p>Indirect</p> <p>Develop a fire suppression plan to the maximum allowable perimeter based on Biodiversity thresholds.</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. 	

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 be undertaken before decreases in Autumn temperatures occur. Burning may also be undertaken during late Winter and early Spring and when ephemeral fuels pose a potential high fire threat. Care should be taken to ensure sufficient fuel is available to allow a low to moderate burn over most of the area identified.

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer Mid West Area & Regional Office - 200 Yambil St Griffith	02 6332 6350 02 6966 8100
NSW Rural Fire Service North West Team	Fire Control Centre (Nyngan) Diverted After Hours	02 6832 2400
Fire and Rescue NSW	Nyngan Fire Station	02 6832 1014
Emergency Services		000
SES		13 2500
Police Station (not open 24 hrs)	Nyngan	02 6831 1399
Police - Local Area Command	Darling River (Bourke)	02 6870 0899
Hospital	Nyngan	02 6835 1700
Council	Bogan Shire Council	02 6835 9000
Local Aboriginal Land Council	Nyngan	02 6832 2639

Threatened Sites Guidelines

Site	Guidelines
Aboriginal Cultural Heritage Site Management	A formal aboriginal sites survey is yet to be conducted for this reserve (as of January 2014). Aboriginal sites are present and consideration in engaging a Senior NPWS Officer, Aboriginal Sites Officer or LALC contact prior to hazard reduction and wildfire suppression activities is required. Please see note on the incident map.
Threatened Fauna Management	Although not shown on the incident map there are a number of Vulnerable species that have been seen on the reserve including, Major Mitchell's Cockatoo, Superb Parrot, Grey-crowned Babbler, Varied Sitella, Gilbert's Whistler, Yellow-bellied Sheath-tailed Bat, Little-pied Bat, Inland Forest Bat, Endangered species include Kullarr and the Bristle-faced Free-tailed Bat.

Incident Map

Communications Information		
Service	Channel	Location and Comments
NPWS	11 14	VHF Fire Ground 1 Cobar Area UHF
RFS UHF All Brigades	10	Initial Response
RFS Cobar	P033 P028	Nyngan Babinda Trig

Do not rely on mobile phones, scattered coverage over reserve area.

Scale 1:50,000

Note: There are unmapped scar trees along the boundary of this reserve. Considering contacting Nyngan LALC in case of fire.

