

**Paddington Nature Reserve  
Fire Management Strategy 2012**



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 Service disclaims 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 43 (3) of the 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.

ISBN 978 1 74293 740 3	OEH 2012/0606	Date: August 2012	Version: 1
<b>Map Details</b>		<b>Related Documents</b>	
Datum: Geocentric Datum of Australia (GDA) 1994 Projection: Map Grid of Australia (MGA) Zone 55 Data: Spot Satellite Imagery: 2005.		1:100k Topographic Map: The Meadows 7934 (AGD-1966) Scale: Noted scales are true when printed on A1 size paper. OEH Fire Management Manual 2011 - 2012.	

**Operational Guidelines**

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

General	Guidelines
<b>Aerial Water Bombing</b>	<ul style="list-style-type: none"> <li>The use of bombing aircraft should support containment operations by aggressively attacking hotspots and spot-overs.</li> <li>The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances.</li> <li>Where practicable foam should be used to increase the effectiveness of the water.</li> <li>Ground crews must be alerted to water bombing operations.</li> </ul>
<b>Aerial Ignition</b>	<ul style="list-style-type: none"> <li>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.</li> <li>Aerial ignition will only be undertaken by accredited navigators &amp; bombardiers.</li> <li>The pattern for aerial ignition will be specified in the IAP during fire suppression.</li> <li>Utilise incendiaries to rapidly burn out large areas where required.</li> </ul>
<b>Back-burning</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>Use parallel containment lines when applicable.</li> <li>All personnel must be fully briefed before back-burning operations begin.</li> </ul>
<b>Command &amp; Control</b>	<ul style="list-style-type: none"> <li>Standard Incident Management Systems are to be applied.</li> <li>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 BEMC Plan of Operations.</li> <li>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).</li> </ul>
<b>Containment Lines</b>	<ul style="list-style-type: none"> <li>Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact.</li> <li>For new containment lines IMT to liaise with and receive consent from a Senior NPWS officer prior to construction.</li> <li>Use parallel containment lines when applicable.</li> <li>All containment lines not required for other purposes should be closed at the cessation of the incident.</li> <li>All personnel involved in containment line construction should be briefed on both natural and cultural heritage sites in the location.</li> <li>Containment line construction using earthmoving equipment must be in accordance with the earthmoving guidelines contained within the RFMS.</li> </ul>
<b>Earthmoving Equipment</b>	<ul style="list-style-type: none"> <li>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.</li> <li>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.</li> <li>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.</li> <li>Earthmoving equipment must not leave tracks or create new tracks in Machinery Exclusion areas as marked on the Incident Map or RFMS.</li> <li>Earthmoving equipment must be washed down, where practicable, prior to entering NPWS estate and again on exiting NPWS estate.</li> <li>Where multiple items of earthmoving equipment are being used, the IMT should consider the establishment of a Plant Operations Manager.</li> </ul>
<b>Fire Advantage Recording</b>	<ul style="list-style-type: none"> <li>All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.</li> </ul>
<b>Fire Suppression Chemicals</b>	<ul style="list-style-type: none"> <li>Use of wetting and foaming agents (surfactants) is permitted on the reserve.</li> <li>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.</li> <li>Exclude the use of surfactants and retardants within 50m of watercourses, dams and swamps.</li> <li>Areas where fire suppression chemicals are used must be mapped and the used product's name recorded.</li> <li>The Threatened Species Operational Guidelines are to be observed.</li> </ul>
<b>Rehabilitation</b>	<ul style="list-style-type: none"> <li>Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.</li> </ul>
<b>Smoke Management</b>	<ul style="list-style-type: none"> <li>The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations.</li> <li>If smoke becomes a hazard on local roads or highways, the police and relevant media must be notified.</li> <li>Smoke management must be in accordance with relevant RTA traffic management guidelines.</li> </ul>
<b>Structural Fire Fighting</b>	<ul style="list-style-type: none"> <li>OEH personnel are not trained in structural fire fighting and must not enter a structure in order to undertake structural fire fighting.</li> <li>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.</li> </ul>
<b>Visitor Management</b>	<ul style="list-style-type: none"> <li>The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.</li> <li>Areas of the reserve may be closed for prescribed burning operations.</li> </ul>
<b>WARNINGS</b>	<ul style="list-style-type: none"> <li>Beware of overhead powerlines</li> </ul>

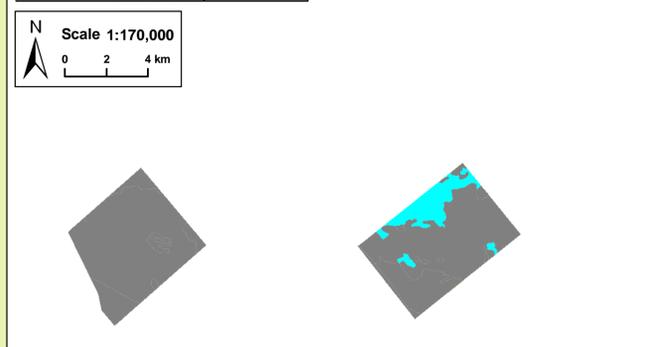
**Threatened Sites Guidelines**

Aboriginal Cultural Heritage Site Management	
Note	An aboriginal sites survey is yet to be conducted for this reserve (as of August 2012). Therefore aboriginal sites may be present and consideration in engaging a Senior NPWS Officer or Aboriginal Sites Officer prior to hazard reduction and wildfire suppression activities is required.
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.

**Status of Biodiversity Thresholds**

Evaluation of Biodiversity Thresholds	
<b>Within Threshold</b>	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"> <li>A fire event is neither required nor should one necessarily be avoided.</li> </ul>
<b>Long Unburnt</b>	Underburnt, excessive time since last fire, species may become extinct. <ul style="list-style-type: none"> <li>A fire event may be ecologically advantageous. Consider allowing unplanned fires to burn.</li> </ul>

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



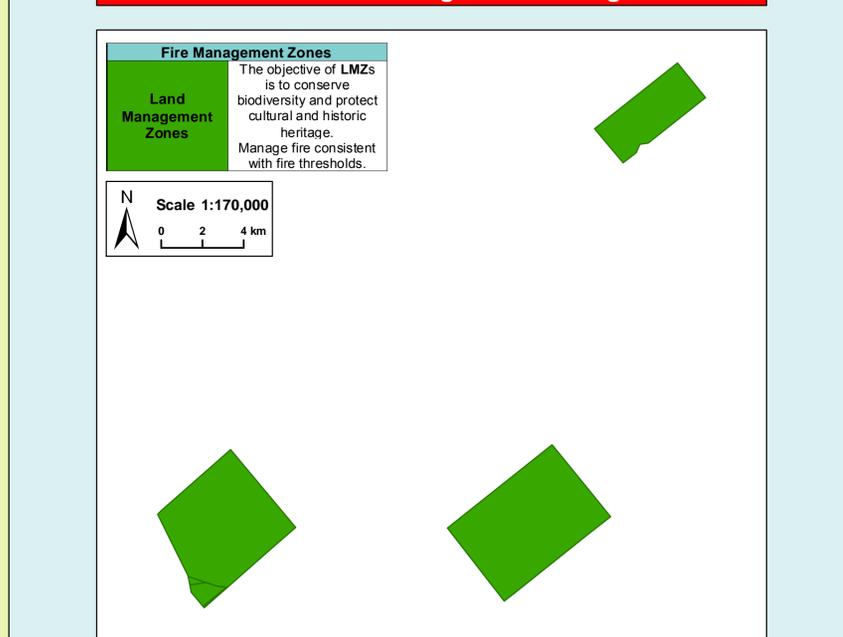
Vegetation Map Legend			
Broad Vegetation Class	Vegetation Type	Biodiversity Thresholds	Fire Behaviour
Semi-arid Woodlands (Shrubby sub-formation)	Western Red Box – White Cypress Pine	An interval between fire events <b>less than 15 years</b> should be avoided. There is <b>no maximum</b> interval between fire events specified for this vegetation type as there was insufficient data to give definite intervals.	Fire intensity ranges from moderate to high and is largely influenced by ephemeral growth. Back-burning may be difficult in years with low ephemeral fuels.
	Dwyers Red Gum – Currawang – Black Cypress Pine		
	Western Red Box – Mulga		
Semi-arid Woodlands (Grassy sub-formation)	River Red Gum – sparse along creek lines	An interval between fire events <b>less than 9 years</b> should be avoided. There is <b>no maximum</b> interval between fire events specified for this vegetation type as there was insufficient data to give definite intervals.	In more grassy areas fire behaviour as for grasslands described below.
	Western Red Box – Bimble Box		
	Black Box Woodland (sparse)		
Grasslands	Western Red Box – Mulga - Belah	An interval between fire events <b>less than 3 years and greater than 10 years</b> 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 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. Potential spotting from trees.
	Native Grassland with sparse Bimble Box, White Cypress Pine and Western Red Box		
<b>Highly modified woodland areas</b>			
<b>Fire History</b>	Two landscape fires burnt through the <b>entire reserve</b> in the 1974/75 and 1984/85 fire seasons. No prescribed burning has been undertaken in this reserve.		
<b>Ephemeral Conditions</b>	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 <b>all</b> of the above vegetation communities. As a result expect higher fire intensity.		
<b>Drought Conditions</b>	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. Wildfire areas will be minimised.		

Communications Information		
Service	Channel	Location and Comments
NPWS - UHF	14	• Cobar Area
RFS UHF All Brigades	20	• Initial Response
RFS Cobar	P059	• CE Site, Gilgunnia
RFS Bogan	P028	• Babinda Trig
RFS Lachlan	P024	• Boona Mt
Mobile		Do not rely on mobile phones, scattered coverage over reserve area.

Contact Information		
Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer (8am-10pm)	02 6332 6350
	Cobar Area Office	02 6836 2692
	16-18 Barton St Cobar	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 SES		000
Police Station (not open 24 hrs)	Cobar	13 2500
Police - Local Area Command	Darling River (Bourke)	02 6870 0899
Hospital	Cobar	02 6836 2406
Council	Cobar Shire Council	02 6836 5888

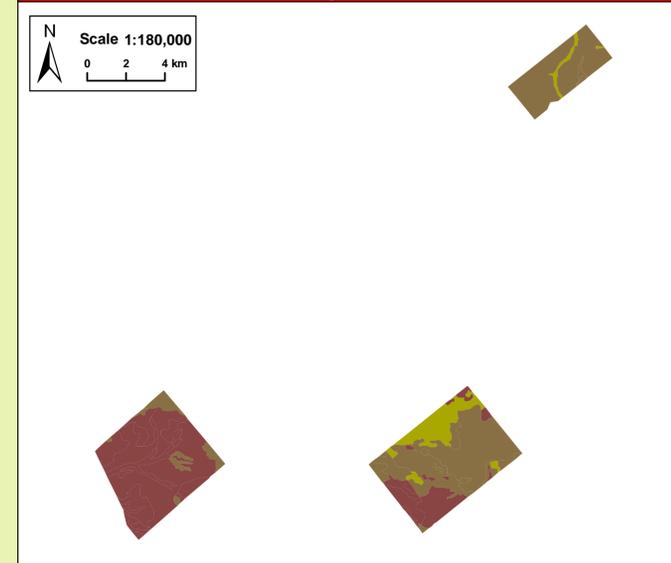
Fire Season Information		
<b>Wildfires</b>	<ul style="list-style-type: none"> <li>The critical wildfire season generally occurs from October/November to March/April.</li> <li>Dry lightning storms frequently occur and typical fire weather conditions are winds from the west to the north, high day time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

**Bushfire Risk Management Strategies**

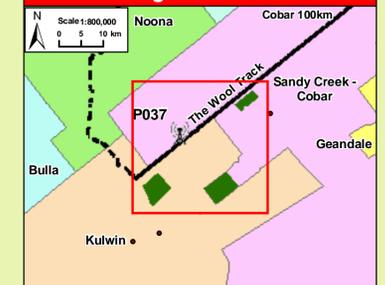


Suppression Strategies		
Season	Typical Conditions	Indicative Suppression Strategies
Just prior to or during the critical fire season	<ul style="list-style-type: none"> <li>Current Fire Danger Rating (FDR) of <b>Very High or Greater</b>.</li> <li>Short and medium range forecasts suggest conditions typical to a FDR of <b>Very High or Greater</b>.</li> <li>A risk to life and/or property exists in the short – medium term.</li> <li>A broad area risk to biodiversity exists.</li> </ul>	<p><b>Direct</b></p> <p>Initial attacks should be to try to extinguish or to contain to the smallest possible area.</p> <p><b>Indirect</b></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>
Outside of the critical fire season	<ul style="list-style-type: none"> <li>FDR of <b>High or below</b>.</li> <li>Short – medium term forecast indicate a continuing FDR of <b>High or below</b>.</li> <li>No risk to life or property exists in the short-medium term.</li> <li>Only small area risk to biodiversity exists.</li> </ul>	<p><b>Direct</b></p> <p>Evaluate the biodiversity thresholds and use direct attack methods to extinguish if required.</p> <p><b>Indirect</b></p> <p>Develop a fire suppression plan to the maximum allowable perimeter based on Biodiversity thresholds.</p>

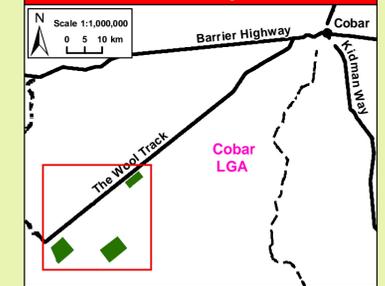
**Vegetation**



**RFS Fire Brigade Areas & Towers**



**Locality**



**Incident Map**

