Mallee Cliffs National Park Fire Management Strategy 2013

Office of Environment & Heritage

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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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 NSW Office of Environment and Heritage.

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Related documents

- Office of Environment and Heritage *Fire Management Manual 2012 - 2013*
- Fire Management Plan - Mallee Cliffs National Park (2006). Department of Environment and Conservation (NSW), Lower Darling Area.

Additional notes

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Communications Information

Service	Channel	Location and Comments
NPWS HF Radio	1 - 8	
RFS PMR Radio	55	Mallee Cliffs
Mobile phone – Next G		Patchy reception throughout park with external aerial/car kit (OK in higher areas and in western half of the park - none in low lying areas or eastern third of the park)
Mobile phone – GSM / 3G		No service available
Satellite Phone		Yes - Globalstar network has intermittent service due to reduced number of satellites.
UHF - CB	3	IMT may change channel if required.

Contact Information

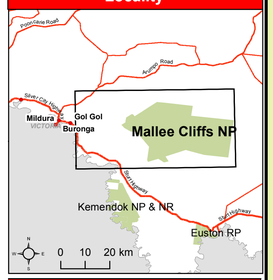
Agency	Position / Location	Phone
National Parks & Wildlife Service	Far West Regional Duty Officer (24 hour)	08 8080 3222
	Area Office (bus. hours)	03 5021 8900
Lower Western Zone	Lower Western Zone RFS Office	03 5027 4422
NSW Rural Fire Service	Operations Officer: Steve Walker	0428 598 376
Emergency Services		**000**
Ambulance	Mildura (VIC) and Wentworth (NSW) enquiries only	03 5023 0011
SES	Emergencies	13 2500
	Wentworth	03 5027 5100
Police	Dareton Station	03 5027 7599
	Buronga Station	03 5023 2262
	Euston Station	03 5026 3101
Council	Wentworth Shire Council (bus. hours)	03 5027 5027
	After Hours and Emergency	03 5027 5091

Fire Season Information

Wildfires	The critical wildfire season occurs during November and February. This period may extend into the first half of March. Particular care is required during periods of negative Southern Oscillation Indices. The end of the critical fire season is often marked by a decline in temperature and rising humidity.
Prescribed Burning	Prescribed burning should be undertaken before autumn rain occurs to maximise effectiveness. Burning may also be considered during late winter and early spring dependent on seasonal factors. Prescribed burning undertaken near the commencement of the statutory bushfire season should be fully contained.

In case of emergency call duty officer 08 8080 3222 (24 hours 1st Oct - 31st March)

Locality



Map Details

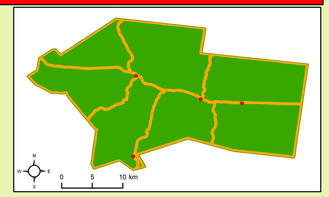
Datum: Geocentric Datum of Australia (GDA) 1994
Projection: Map Grid of Australia (MGA) Zone 54

Data: Spot Satellite Imagery: 2005
Topographic Maps: 1:100,000 Wild Dog 7429, 1:50,000 Mildura 7329-N

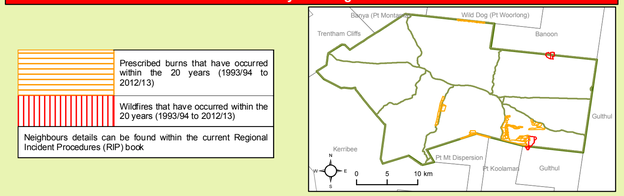
Bushfire Risk Management Strategies

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.

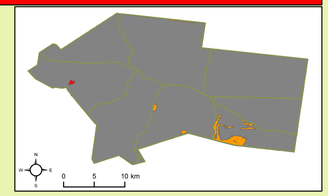


Fire History and Neighbours



Status of Biodiversity Thresholds

Too frequently burnt	Consecutive fire intervals are shorter than the recommended minimum interval.
Vulnerable to frequent fire	The current fire interval is shorter than the recommended minimum interval.
Within threshold	The time-since-fire is greater than the recommended minimum, and less than the recommended maximum.
Long unburnt	The current fire interval is longer than the suggested interval.



Operational Guidelines - Heritage

Resource	Guidelines
Aboriginal Cultural Heritage Site Management	*Ground based sites (AS2), including artefacts and grinding grooves* • Protect site from any ground disturbance, including the use of earth-moving equipment, vehicles and water bombing • Apply a machinery exclusion area where there is a high concentration of known sites • Area may be burnt *Burial sites (AS3)* • Protect sites from any disturbance by excluding operations by at least 25 metres • Area may be burnt
Historic Heritage Site Management	*Heritage Sites* • Protect the sites from fire by slashing in high ephemeral growth years. • Exclude site from fire where possible, including the construction of a control line around the perimeter • Foam may be used to protect the site, or to extinguish fire
Threatened Species Management	*Threatened species – Malleefowl (Leipoa ocellata)* • Avoid burning large areas of prime malleefowl habitat during breeding season (September – March). • Exclude heavy machinery from known malleefowl nest sites. • Aim to protect at least 50% old growth mallee (40 – 100 years +) throughout the park.

Operational Guidelines

General	Guidelines
Aerial operations	• Aerial operations will be managed by trained and competent personnel. This includes directing aerial bombing and aerial ignition operations. • The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances. • The use of bombing aircraft should support containment operations by aggressively attacking hotspots and spot-overs. • Where practical foam should be used to increase the effectiveness of the water. • Ground crews must be alerted to water bombing operations. • Aerial ignition operations require the consent of NPWS Regional Manager, OEH Section 44 delegate or as prescribed in an operational burn plan. • Utilise incendiaries to rapidly burn out large areas where required.
Backburning	• All personnel must be fully briefed before back-burning operations begin. • Backburning is a valid and useful fire fighting tool in mallee environments, but should only be undertaken when temperature and humidity allow (generally late afternoon and evening), by experienced personnel and after careful consideration by the Incident Management Team. • Prior to backburning, where practical, clear a 1m radius around dead or hollow bearing trees and active malleefowl nest adjacent to containment lines, or wet down these trees during the ignition.
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 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. • Where OEH is not the first responding fire authority to arrive at the 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).
Containment Lines	• Construction of new containment lines should be avoided, except where they can be constructed with minimal environmental impact. • The biodiversity objectives and locations of significant species will be considered when locating control lines. Link up with SFAZ's, recently burnt areas and areas with low fuel loads as much as possible when planning and constructing control lines. • New containment lines require the prior consent of a senior NPWS Officer. • Where practical all attempts will be made to exclude the construction of control lines within 100 metres of cultural sites and dune crests. • All personnel involved in containment line construction should be briefed and must consider both natural and cultural heritage sites in the location. • Containment line construction using earthmoving equipment must be in accordance with the earthmoving guidelines outlined below. • All containment lines not required for other purposes will be closed at the cessation of the incident.
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 experienced officer, and accompanied by a support vehicle. When engaged in direct or parallel attack this vehicle must be a fire fighting vehicle. • Earthmoving equipment must be washed down, where practical, prior to it entering NPWS estate and again on exiting NPWS estate. • Experienced NPWS personnel will operate heavy plant in preference to contractors. • Construction of control lines with heavy plant along sand dune crests will be avoided where practical. • Dozers will operate with rakes in preference to blades to reduce soil disturbance. • Graders will be preferred in speargrass fuel conditions in open vegetation communities.
Fire Suppression Chemicals	• The use of foam, gels and retardants will be permitted on the reserve • Fire suppression chemicals are not to be applied within 50m of water courses and dams.
Rehabilitation	• Containment lines will be stabilised and rehabilitated as part of the wildfire suppression operation.
Watering points	• Consider deployment of a bulk water carrier to support fire operations. • Water points (fibreglass tanks) at Pine Tank and the Salt Interception Scheme (SIS) are filled prior to the fire season.
Smoke Management	• Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations. • If smoke becomes a hazard on local roads or highways, the police and relevant media must be notified.
Visitor Management	• Visitation without prior approval is not permitted in the park.
WARNINGS	• **ROADS MAY BECOME BOGGY AND UNTRAFFICABLE AFTER RAIN.** • **FIRE BEHAVIOUR IN MALLEE COMMUNITIES CAN BE EXTREME AND UNPREDICTABLE**

Suppression Strategies

Conditions	Guidelines
Mallee-spinifex	
Fire danger rating LOW - HIGH	• Where possible and without excessively increasing fire size allow wildfires to be contained by previously burnt areas and natural low fuel areas. Consider broad containment strategies using existing roads and areas with low OFH, adhering to long-term management requirements for biodiversity. • Direct and parallel attack may be applied with earthmoving machinery and fire units, only on dead edges or in vegetation with low OFH.
Fire danger rating VERY HIGH - EXTREME	• Fallback to existing trails and roads, recently burnt areas or vegetation with low OFH. • Do not attempt back-burning in the predicted path of running fire in this vegetation. • Back-burning effectiveness will drop significantly when humidity starts to rise and wind drops in the early evening. • Parallel attack may be applied with earthmoving machinery and fire units, only on dead edges or in vegetation with low OFH.
Mallee shrublands	
Fire danger rating LOW - HIGH	• Where possible and without excessively increasing fire size allow wildfires to be contained by previously burnt areas and natural low fuel areas. Consider broad containment strategies using existing roads and areas with low OFH, adhering to long-term management requirements for biodiversity. • Direct and parallel attack may be applied with earthmoving machinery and fire units, only on dead edges or in vegetation with low OFH.
Fire danger rating VERY HIGH - EXTREME	• Fallback to existing trails and roads, recently burnt areas or vegetation with LOW OFH. • Do not attempt back-burning in the predicted path of running fire in this vegetation. • Back-burning effectiveness will drop significantly when humidity starts to rise and wind drops in the early evening. • Parallel attack may be applied with earthmoving machinery and fire units, only on dead edges or in vegetation with low OFH.
Belah woodland, Mixed open shrubland/woodland & Open herbland/grasslands	
Fire danger rating LOW - HIGH	• Consider a broad containment strategy using existing roads, allowing long-term management requirements for biodiversity. • Direct and parallel attack may be applied with earthmoving machinery and fire units only on dead edges, or in vegetation with LOW OFH.
Fire danger rating VERY HIGH - EXTREME	• Fallback to existing trails and roads, recently burnt areas or vegetation with LOW OFH. • Back-burning effectiveness will drop significantly in the after humidity starts to rise, and wind drops, in the early evening. • Parallel attack may be applied with earthmoving machinery and fire units only on dead edges, or in vegetation with LOW OFH.

Vegetation

Vegetation management

Vegetation Formation	Vegetation Community	Vegetation management guidelines	Fire Behaviour
Grasslands	Open grassland-herbland	An interval between fire events less than 3 years should be avoided. Fire will only carry in this community when there are high ephemeral fuel loads, which occurs rarely.	This vegetation community will not carry fire unless there are high ephemeral fuel loads. Moderate to high intensity fires may occur when fuel loads are high.
Semi-arid woodlands (shrubby subformation)	Mallee – Spinifex	Recent research suggests that a minimum of 15 years is required before fuel loads are sufficient for fire to carry and that there is no maximum age threshold. Under ephemeral fuel conditions fires may burn more frequently due to increased fuel loads. SFAZ's may be burnt after 10 years if fuel loads are high.	Fire intensity in mallee communities ranges from moderate to extreme and is largely influenced by presence of spinifex, ephemeral growth and/or weather conditions.
Semi-arid woodlands (shrubby subformation)	Mallee-shrubland	Recent research suggests that a minimum of 15 years is required before fuel loads are sufficient for fire to carry and that there is no maximum age threshold. Under ephemeral fuel conditions fires may burn more frequently due to increased fuel loads.	Fire intensity in mallee communities ranges from moderate to extreme and is largely influenced by presence of spinifex, Ephemeral growth and/or weather conditions.
Semi-arid woodlands (shrubby subformation)	Belah-rosewood	Fire should be avoided. The understorey is dominated by chenopod species.	This vegetation community will not carry fire unless there are high ephemeral fuel loads. Moderate to high intensity fires may occur when fuel loads are high.
Semi-arid woodlands (shrubby subformation)	Mixed open shrubland/ woodland	An interval between fire events less than 15 years should be avoided. Fire will only carry in this community when there are high ephemeral fuel loads.	This vegetation community will not carry fire unless there are high ephemeral fuel loads. Moderate to high intensity fires may occur when fuel loads are high.

OFH – Overall fuel hazard - A rating system that includes leaf litter, grasses, shrubs, bark type and bark condition

Ephemeral conditions – Occur after consecutive years of high rainfall which leads to a build up of fine fuels such as grasses and herbs. This has the potential to create a continuous fuel loading across all of the vegetation communities listed above.