

Yarrigan National Park Fire Management Strategy 2015 - 2020

Office of Environment & Heritage

This strategy should be used with aerial photography and field reconnaissance. This is a relevant Plan under Section 38 (4) and Section 44 (3) of Rural Fires Act 1997. 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, no part may be reproduced by any process without written permission. The NSW National Parks and Wildlife Service is part of the Office of Environment and Heritage. Published by: Office of Environment and Heritage (NSW). Contact: NPWS Northern Plains Region, PO Box 848 Narrabri, NSW 2390, Ph 6792 7350

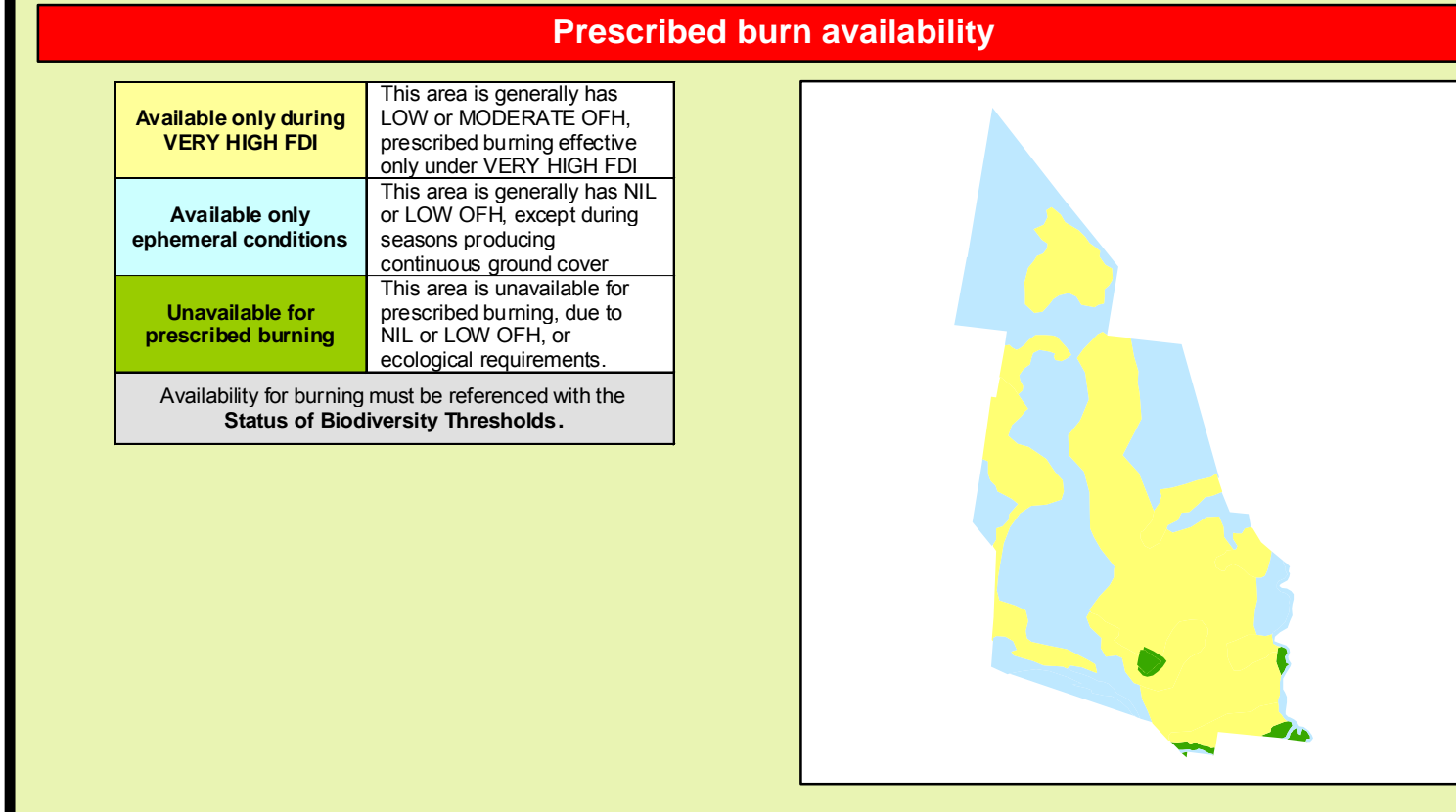
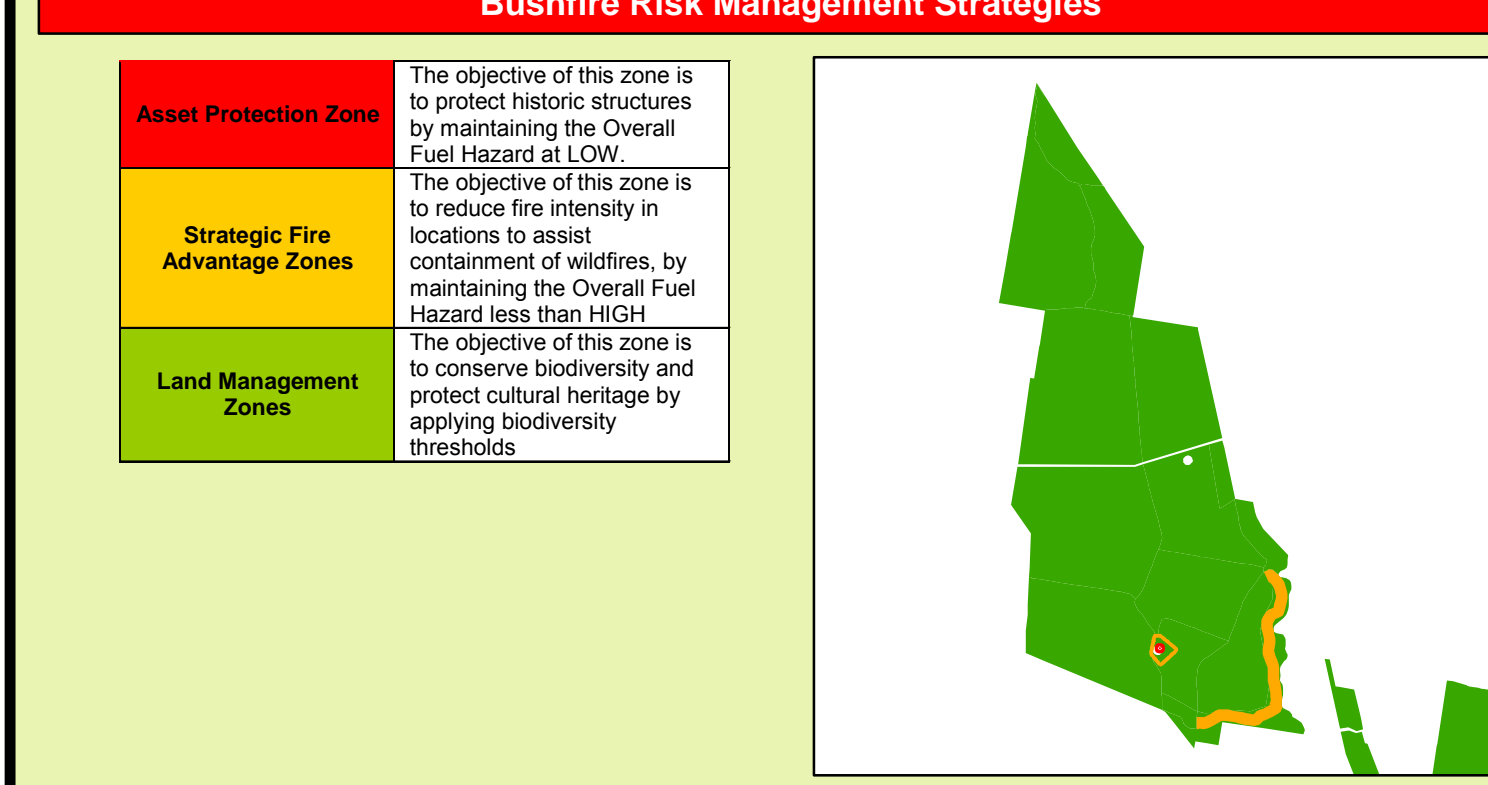
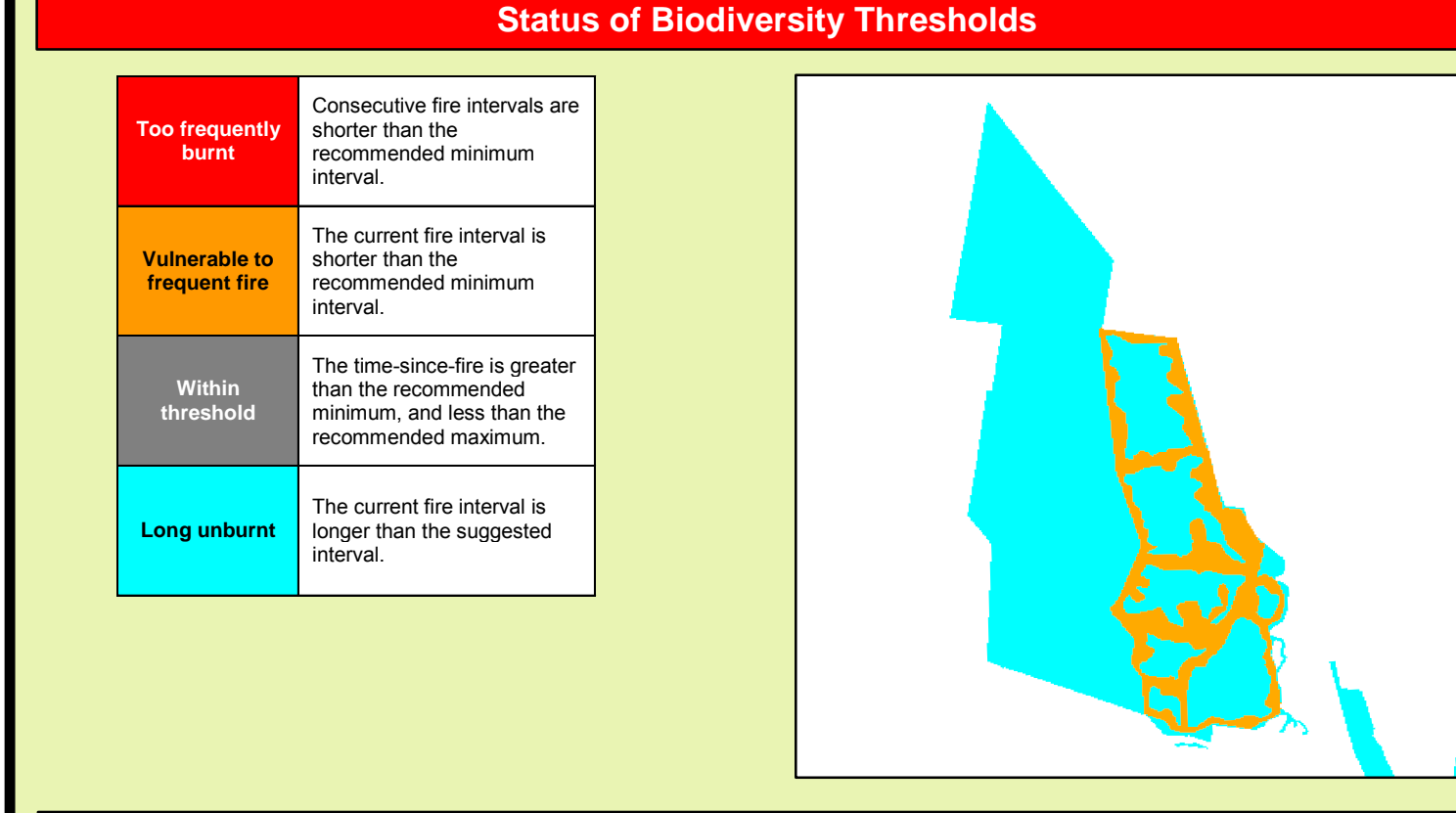
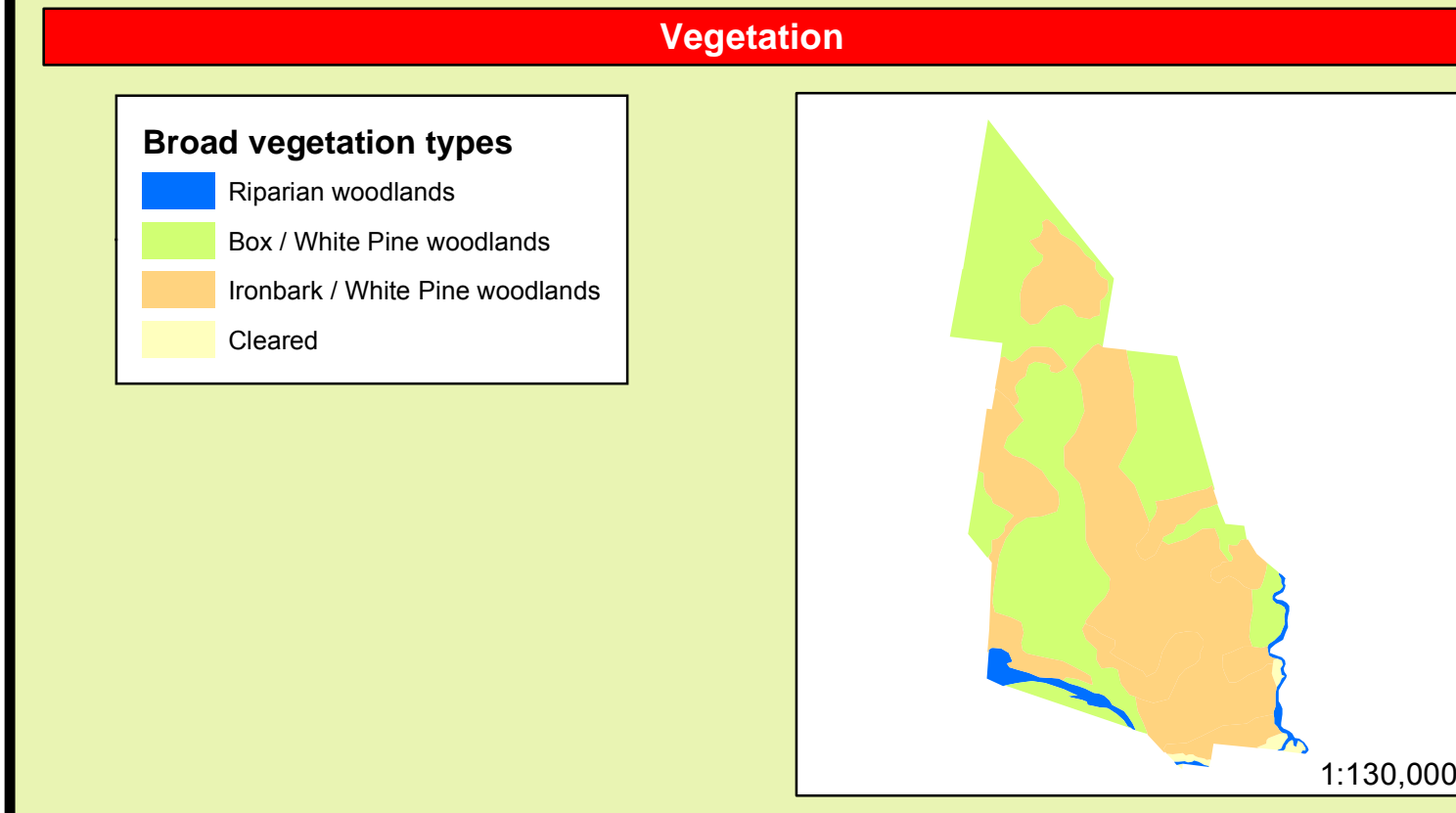
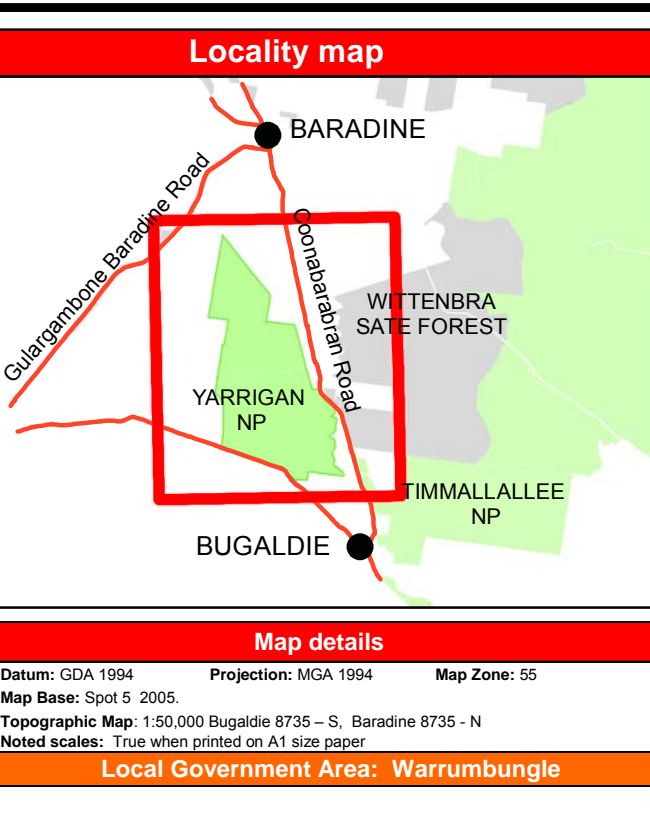
ISBN 978-1-76039-092-1 OEH 2012 / 568 Date Approved: 26/08/2015

Related and reference documents

- NSW National Park & Wildlife Service (2012) Fire Management Manual
- Hunter, J.T. (2010) Vegetation and floristics of Timmalallie National Park, Yarrigan National Park and Dandry Gorge Aboriginal Area. A report to DECCW

Communications Information		
Service	Channel	Location and Comments
NPWS VHF	31	• Needle Mountain
RFS	P138	• Siding Spring
UHF - CB		• Small fires - Channel 10
Parks Radio	11-17	• Large fires - determined by IMT
Aviation	126.7	• NPWS Fireground channels
Mobile phone		• CTAF
		• Telstra 3G coverage - particularly higher areas

Contact Information		
Agency	Position / Location	Phone
National Parks & Wildlife Service	Duty Officer (24 hour)	6843 1370
	Baradine Area Office (bus. hours)	6843 4000
NSW RFS Castlereagh Zone	Zone Manager	0417 415 032
	Duty Officer	0417 419 367
RFS Rural Fire Brigades	Bugaldie - Barry Buck	6843 4433
	Baradine Support - Stephen Walton	6843 1945
NSW Fire Brigade	Newcastle	4929 7177
Emergency Services	Police, Fire, Ambulance	000
SES		13 2500
Police	Coonabarabran	6842 7299
Council	Warrumbungle	6849 2000



Fire Season Information

Wildfires	<ul style="list-style-type: none"> The critical wildfire season generally occurs during November and December. During periods of strong negative Southern Oscillation Indices (El Niño events), this period may commence late September and extend into the first half of January. The end of the critical fire season is often marked by wet storm activity.
Prescribed Burning	<ul style="list-style-type: none"> Burning in woodland areas should be undertaken before late autumn rainfall to maximise effectiveness.

Operational Guidelines

General	Guidelines
Aerial operations	<ul style="list-style-type: none"> 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. All aerial ignition operations require the consent of the NPWS Regional Manager or the Section 44 Appointee.
Backburning	<ul style="list-style-type: none"> All personnel must be fully briefed before back burning operations begin. Backburning in areas of Low - Moderate OFH will require the use of wind, or low humidity to maximise effectiveness. Where practicable to mop-up efforts, clear a 1m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or wet down these trees during the ignition.
Command & Control	<ul style="list-style-type: none"> 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.
Containment Lines	<ul style="list-style-type: none"> New containment lines require the prior consent of a senior NPWS officer. Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact. Containment lines running along valley areas should be constructed at 20 - 50 metres from the gullyline to avoid severe erosion. Use of dormant trails and existing trails is preferred to the construction of new containment lines. All personnel involved in containment line construction should be briefed on, and must consider both natural and cultural heritage sites in the location.
Earthmoving Equipment	<ul style="list-style-type: none"> Earthmoving equipment may only be used with the prior consent of a senior NPWS Officer. 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 practicable, prior to it entering NPWS estate and again on exiting NPWS estate.
Fire Suppression Chemicals	<ul style="list-style-type: none"> 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. The use of retardants requires the approval of the Regional Manager or delegate. Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Rehabilitation	<ul style="list-style-type: none"> Dams in the reserve are maintained "Watering Points", and marked on the Incident Map.
Watering points	<ul style="list-style-type: none"> Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations.
Smoke Management	<ul style="list-style-type: none"> The reserve will be closed during periods of extreme fire danger, and during fire operations.
Visitor Management	<ul style="list-style-type: none"> Sub-soils in low lying areas can turn to spew and quicksand when saturated. Vehicles and machinery can readily bog to the axles, or worse. Gully areas marked by red gums and Bullock are also susceptible water-logging.

Operational Guidelines - Heritage

Resource	Guidelines
Aboriginal Cultural Heritage Site Management	<ul style="list-style-type: none"> Modified trees (IS1) <ul style="list-style-type: none"> Protect the site from fire, clear base of litter and shrubs, exclude site tree from fire where possible Foam may be used to protect the tree, or to extinguish fire Do not cut trees Ground based sites (IS2), including: artefact scatters and grinding grooves <ul style="list-style-type: none"> Protect sites from any ground disturbance, including the use of earth-moving equipment and vehicles
Historic Heritage Site Management	<ul style="list-style-type: none"> Yarrigan picnic area <ul style="list-style-type: none"> Exclude machinery from the area Yarrigan Bore, Yarrigan fire tower <ul style="list-style-type: none"> Protect the site from fire, exclude area from fire where possible Foam may be used to protect the structures, or to extinguish fire
Threatened Fauna and Flora Management	<ul style="list-style-type: none"> Threatened fauna <ul style="list-style-type: none"> The protective actions for threatened fauna have been incorporated into the Operational and Vegetation Management Guidelines

Vegetation management guidelines

Community	Management guidelines	Fire Behaviour
Ironbark / White Pine woodlands	<ul style="list-style-type: none"> An interval between fire events less than 15 years should be avoided. A high intensity fire may be permitted after a fire free period 30 - 50 years 	<ul style="list-style-type: none"> Potential rates of spread is moderate due to Low / Moderate OFH Localised areas of HIGH OFH may increase intensity over limited areas
Narrow-leaved Ironbark / White Cypress / Bloodwood	<ul style="list-style-type: none"> An interval between fire events less than 15 years should be avoided. A high intensity fire may be permitted after a fire free period 30 - 50 years Prescribed burning should be targeted during periods of continuous ground cover (after successive wet years) 	<ul style="list-style-type: none"> Potential rates of spread is low due to Low OFH Prescribed burning will not be effective during periods of lower fire danger in most areas. Potential for intense short distance spotting for areas of long unburnt Apple. Successive wet years may result in a continuous ground cover which would increase the potential rate of spread
Box / White Pine woodlands	<ul style="list-style-type: none"> An interval between fire events less than 15 years should be avoided. A high intensity fire may be permitted after a fire free period 30 - 50 years Prescribed burning should be targeted during periods of continuous ground cover (after successive wet years) 	<ul style="list-style-type: none"> Potential rates of spread will be dependant on the density and height of grass cover.
Cleared	<ul style="list-style-type: none"> No management guidelines 	

OFH - Overall fuel hazard - A rating system that includes surface (leaf litter), near surface (low shrubs & grasses), elevated (shrubs), and bark fuels.

Ephemeral fuels - ephemeral fuels 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 provide a continuous fuel load across all of the above vegetation communities.

Long unburnt - It is desirable in woodland plant communities to retain some parts of the landscape in a long unburnt state to promote the presence of species that are sensitive to fire and to maintain old-growth trees capable of forming hollows.

Suppression Strategies

Conditions & forecast	Guidelines
All vegetation types	<ul style="list-style-type: none"> Consider a broad containment strategy using existing trails and roads, recently burnt areas, creek lines or sub-soils (This is necessary due to the high risk of vehicles and machines bogging)
Years with saturated soils and sub-soils	<ul style="list-style-type: none"> Consider a broad containment strategy using existing trails, allowing long-term management requirements for biodiversity Direct and parallel attack may be applied with earthmoving machinery and fire units.
Fire danger rating LOW - HIGH	<ul style="list-style-type: none"> Fallback to existing trails and roads and recently burnt areas when fire runs exceed control line construction rates Secure and deepen control lines on the next predicted downwind side of the fire Target backburning operations when the humidity rises in late afternoon and early evening. Backburning effectiveness will drop significantly with rising humidity.
Fire danger rating VERY HIGH - EXTREME	<ul style="list-style-type: none"> Areas with grassy understorey may carry fire 1+ years after fire. Fire runs under extreme conditions may travel at 4 - 6 kms/hr. Burn areas with LOW OFH may hold fire head, if deep enough Burn areas with MODERATE OFH will reduce intensity.
Catastrophic	<ul style="list-style-type: none"> Revert to property protection.

