North Coast Region
Cascade National Park, Cascade State Conservation Area & Junuy Juluum National Park
Fire Management Strategy (Type 2) 2006
Sheet 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.

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Department of Environment and Conservation (NSW)

This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of Rural Fires Act 1997.

Endorsed by: _____ **Date:** / /

Director Northern, Parks & Wildlife Division

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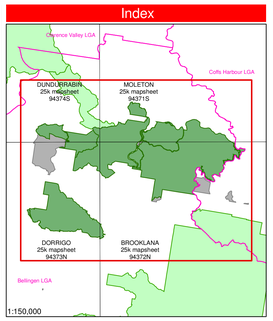
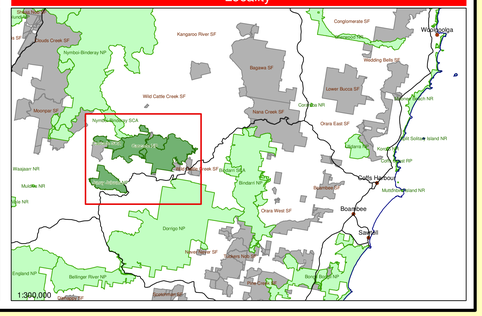


Locality



Contact Information

Agency	Position / Location	Phone
NPWS	Regional Duty Officer (24 hrs)	02 6641 1500
	Area Manager (Dorrigo Plateau)	02 6657 2309
		0427 109 030
	Ranger Cascade NP, SCA & Junuy Juluum NP	02 6657 2309
	Fire Management Officer	02 6641 1500
		0427 250 122
	Regional Operations Coordinator	02 6641 1500
		0427 165 785
	Dorrigo Plateau Area Office	02 6657 2309
		02 6657 2145 (fax)
	Works depot - Dorrigo	02 6657 2961
	Regional Office	02 6641 1500
		02 6643 5569 (fax)
Rural Fire Service	Fire Control Officer	0500 881 866
	Bellingen Fire Control Centre	02 6655 7001
	Megan Brigade	02 6658 8791
NSW Fire Brigade	Emergency	000
	Dorrigo Station	02 6657 2484
SES	Emergency	000
	Dorrigo	02 6657 2605
Police	Police Assistance Line	131444
	Dorrigo	02 6657 2044
Ambulance	Emergency	000
	All other bookings	131233
Hospital	Dorrigo District Hospital	02 6657 2066
DNR	Coffs Harbour	02 6653 0100
DPI - Forests	24 hour fire calls	02 6655 6950
	NE Region - Coffs Hbr	02 6652 0111
Council	Bellingen	02 6655 7300
Local Aboriginal Land Council	Dorrigo	02 6657 2606
	Coffs Harbour	02 6652 8740

Communications Information

Service	Channel	Location and Comments
NPWS - VHF	23, 28	• Some dead spots; can delink Ch.23 if required • Reverse channels 67, 72
NPWS - VHF (Fireground Comms)		• Determine channel on fire-ground.
NPWS - UHF	15	•
NPWS - VHF (Portable Repeater)	14 (orange) 16 (brown)	• Stored at Dorrigo / transportable. • Contact Regional Office to deploy
SF - VHF	34	Dorrigo (NE)
RFS – PMR - UHF	39 - 44	My Hyland – Mt Wondurrigah
RFS - GRN	-	
CB - UHF	1 - 99	• Available in most RFS vehicles. • Choose channel on fire-ground with RFS.
Aircraft - VHF		Choose channel on fire-ground with RFS.
Mobile Phone - CDMA		Patchy in gullies, determine number on fire-ground.
Satellite Phone	0420102351	• Stored at Dorrigo Plateau Area Office. • Requires clear view of the sky.

Strategy Information

Fire Season Information

Wildfires	• Have been known to start as early as late August, but usually the potential for a large fire event is greatest between October and December. This period may extend into January in more severe years.
Prescribed Burning (NPWS Fire Management Manual 4.7)	• General season is Autumn to late Winter. Burning is possible in early Spring but not desirable on a regular basis from an ecological or tourism point of view.

Suppression Strategies

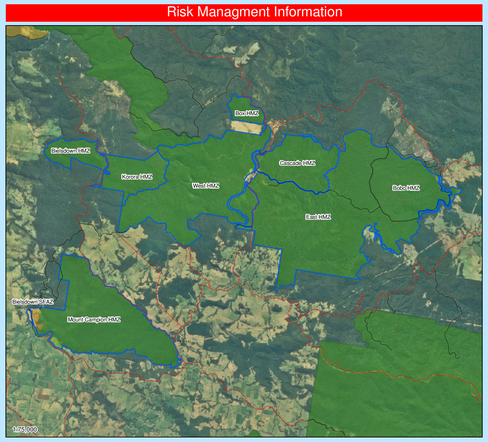
Current FDR	Forecast FDR	
Low – Mod	Low – Mod	• Undertake direct, parallel or indirect attack along existing containment lines. • Where practicable consider maximising the fire area in accordance with the requirements of any proposed prescribed burns.
Low – Mod	= > High	• In order to minimise the fire area and secure the flanks as soon as possible, undertake direct, parallel or indirect attack along the closest containment lines. • Pay particular attention to the flank on the next predicted down wind side.
High	All	• Undertake indirect attack along existing or newly constructed containment lines. • Secure and deepen containment lines along the next containment lines require the prior consent of a senior NPWS officer. • If applicable consider broader than normal containment strategies to avoid wasted effort and high risk of failure.
All	All	• Ensure there is sufficient time to secure containment lines prior to the fire impacting upon them; otherwise fall back to the next potential line.

Operational Guidelines

Refer to Strategy for Fire Management 2003 and Fire Management Manual 2004.
Brief all personnel involved in suppression operations on the following issues:

Resource	Guidelines
Aboriginal Cultural Heritage Management (NPWS FMM 4.11)	• Information on sites of Aboriginal cultural heritage significance is stored separately for confidentiality. • Refer to Aboriginal Heritage Information Management System (AHIMS) database and regional Cultural Heritage Conservation Officers.
Historic Heritage Management (NPWS FMM 4.10)	• Sites within the reserve are natural features, which would not be detrimentally affected by fire. If new sites are located consult with a senior NPWS officer.
Threatened Fauna Management (NPWS FMM 4.12 & 5.2)	• Threatened fauna within reserve are located in areas with a low fire risk. • Where practicable, protect habitat areas and trees from the fire if the effects of the resulting fire frequency, season &/or intensity will have a significant or unknown impact. • Where practicable, protect large and hollow-bearing trees.
Threatened Flora Management (NPWS FMM 4.12)	• FL1 - Avoid the use of earth moving machinery in locations where these species are known to occur. Avoid the use of retardant in locations where these species are known to occur. • FL2 - As far as possible, exclude all fire from locations where these species are known to occur. Avoid the use of earth moving machinery in locations where these species are known to occur. Avoid the use of retardant in locations where these species are known to occur..
Threatened Property	• Where possible property owners with assets at risk from a wildfire event should be kept informed regarding the progress of the fire and asked for an assessment of their current level of asset protection preparedness.
General	**Guidelines**
Aerial Water Bombing (NPWS FMM 4.4 / NSW Fire Agencies Aviation SOPs 02 / NPWS Guidelines for Effective Aircraft Management)	• 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 (NPWS FMM 4.2.20, 4.4 / NSW Fire Agencies Aviation SOPs 02.4 / NPWS Guidelines for Effective Aircraft Management)	• Aerial ignition may be used during back-burning or fuel reduction operations where practicable, but only with the prior consent of a senior NPWS officer. • Utilise incendiaries to rapidly progress back-burns down slope where required.
Backburning (NPWS FMM 4.8)	• 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, backburning should commence when the humidity begins to rise in the late afternoon or early evening. With a lower FDI backburning may be safely undertaken during the day. • Where practicable, clear a 1m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or wet down these trees as part of the backburn ignition. • Avoid ignition of backburns at the bottom of slopes where a long and intense up slope burn is likely.
Command & Control (NPWS FMM 4.2)	• 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 (NPWS FMM 2.2, 3.9)	• Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact. New containment lines require the prior consent of a senior NPWS officer. • Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation. • 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.
Earthmoving Equipment (NPWS FMM 4.2.20, 4.3)	• 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 be always 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 firefighting 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 should be washed down, where practicable, prior to it entering NPWS estate.
Fire Advantage Recording	• All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
Fire Suppression Chemicals (NPWS FMM 4.2.20, 4.9)	• Wetting and foaming agents (surfactants) are permitted for use in wildfire suppression. • The use of fire retardant is 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 rainforest, watercourses, dams and swamps. • Areas where fire suppression chemicals are used must be mapped and the used products name recorded. • The Threatened Species Operational Guidelines are to be observed.
Rehabilitation (NPWS FMM 5.1)	• Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Smoke Management (NPWS FMM 3.4)	• 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.
Visitor Management (NPWS FMM 3.6, 4.13)	• The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.

Risk Managment Information

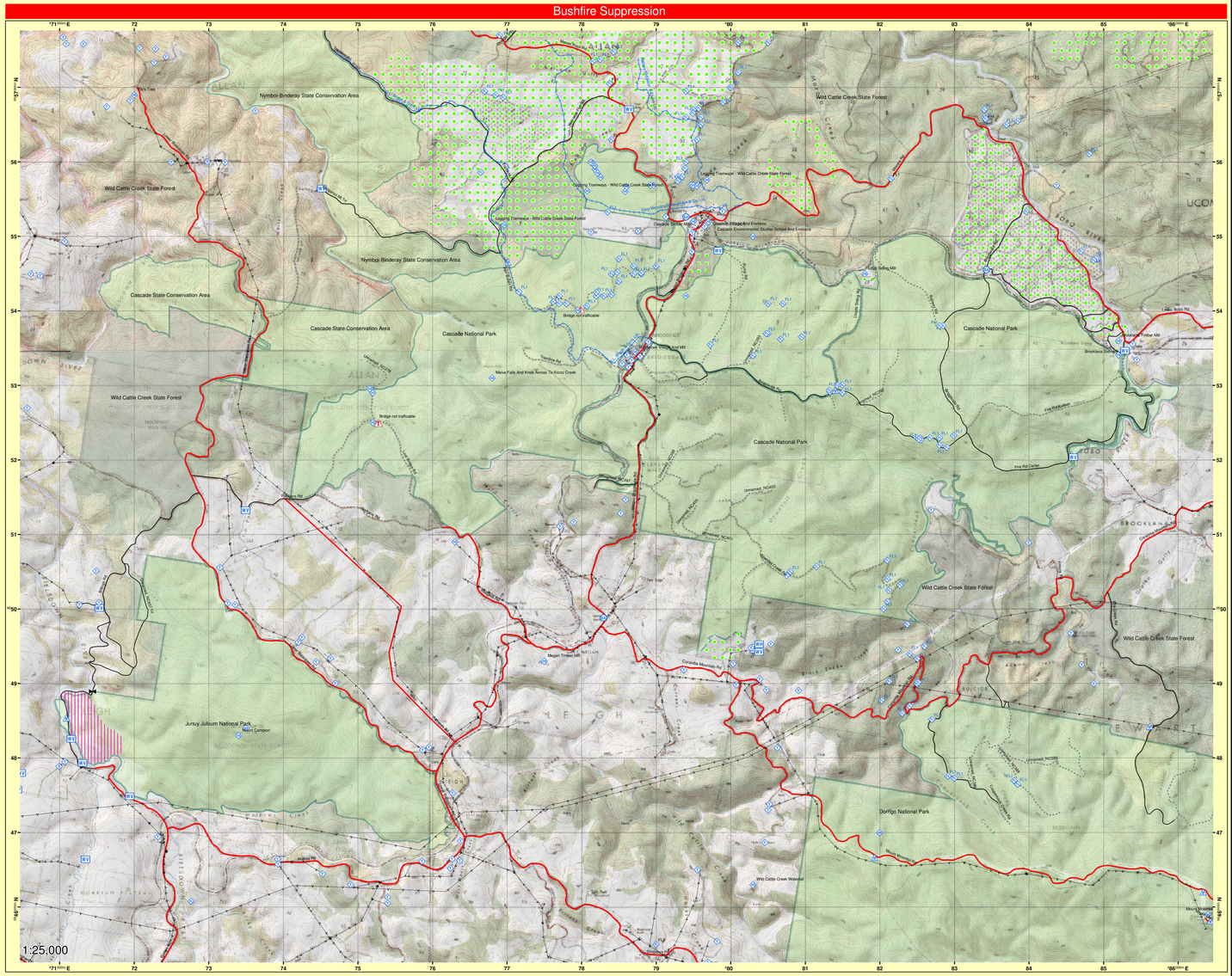


NPWS Estate
Asset Protection Zone
Strategic Fire Advantage Zone
Heritage Management Zone
Primary (Cat 1)
Secondary (Cat 9)
Dormant
Unclassified

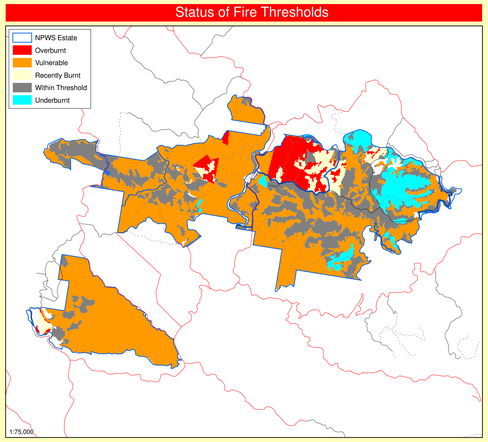
Fire Management Zones

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.
Heritage Management Zones	The objective of **HMZs** is to conserve biodiversity and protect cultural heritage. Manage fire consistent with fire thresholds.

Bushfire Suppression



Status of Fire Thresholds

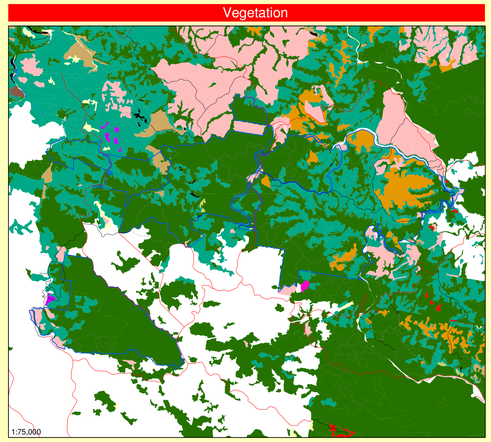


Fire Thresholds

Overburnt	Fire thresholds have been exceeded. *- Protect from fire as far as possible*
Vulnerable	The area will be Overburnt if it burns this year. *- Protect from fire as far as possible*
Recently Burnt	Time since fire is less than the optimum interval, but before that it was within threshold. *- Avoid fires if possible*
Underburnt	Fire frequency is below fire thresholds in the area. *- A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.*
Almost Underburnt	The area is close to its threshold and may become underburnt with the absence of fire. *- A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.*
Within Threshold	Fire History is within the threshold for vegetation in this area. *- A burn is neither required nor should one necessarily be avoided.*
Unknown	Insufficient data to determine fire threshold.

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

Vegetation



Bushfire Suppression Legend

Contour Intervals10 metres

- Primary (Cat 1)
- Secondary (Cat 9)
- Dormant
- Unclassified
- Powerlines-NC
- Logging Tramways
- NPWS Estate
- SF NSW Estate
- Plantation
- 2005-06 Fire Season
- 2004-05 Fire Season
- 2003-04 Fire Season
- European Cultural Sites
- Gate - NPWS
- Gate - non NPWS
- Helipad
- Refuge Area
- Caution
- Staging Area
- Threatened Property
- Water Point Helicopter
- Water Point Vehicle
- Threatened Flora

Vegetation Legend

- NPWS Estate
- Rainforest
- Wet sclerophyll forest
- Heathland
- Semi-mesic grassy forest
- Shrubby dry sclerophyll forest
- Shrubby grassy dry sclerophyll forest
- Grassy sclerophyll woodland
- Native regrowth
- Native regrowth/Weeds
- Agriculture/timber plantation
- Cleared/weeds
- Rock/sand
- Unknown
- Water

N W E S

Datum: AGD66
Projection: UTM
Grid: AMG Zone 56
Noted scales are true when this map is printed on A0 size paper