North Coast Region
Boonanghi Nature Reserve & Boonanghi State Conservation Area
Fire Management Strategy (Type 2)
2014
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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This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of Rural Fires Act 1997.

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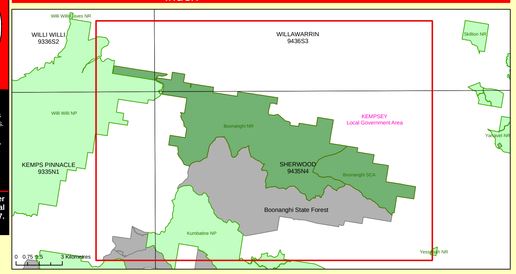
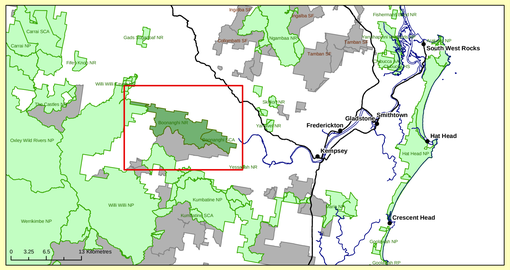
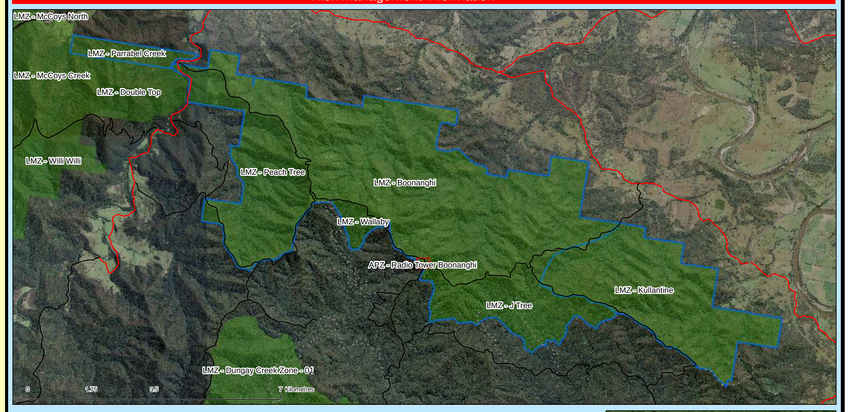


Locality



Contact Information		
Agency	**Position / Location**	**Phone**
NPWS	Regional Duty Officer / After Hours	02 6642 3620
	Area Manager (Macleay)	0429 393 437
	Ranger / Area Office	02 6562 2376
	Works depot - Kempsey	02 6562 2376
	Regional Office	02 6641 1500
RFS	Zone Manager Kempsey: 24hrs Number	6568 2536
	Operations Officer Macleay: 24hrs Number	6651 9490
	Area Manager Hastings: 24hr Number	0427 260 383
	Operations Officer Hastings: 24hrs Number	6585 1999
	Macleay Fire Control Centre	6562 1964
	Hastings Fire Control Centre	6586 4565
SES	Emergency	000
	Kempsey Unit	6562 2228
Police	Emergency	000
	Kempsey Station	6562 6444
	Port Macquarie Station	6583 0199
Ambulance	Emergency	000
	All Stations	13 1233
Hospital	Kempsey Base Hospital	6562 6155
	Port Macquarie Base Hospital	6581 2000
Forests NSW	Mid North Coast Region	6585 3744
Council	Kempsey	6566 3200
	Emergency AH Number	1300 663 211
	Hastings	6581 8111
	Emergency AH Number	6583 2225
Local Aboriginal Land Council	Regional Aboriginal Land Council	6563 1862
	Kempsey Aboriginal Land Council	6562 8688
	Birpai Aboriginal Land Council	6584 9066

Risk Management Information



Legend
- Boonanghi NR
- Boonanghi SCA
- Cat 1
- Cat 9
- Dormant
- Unknown
- Land Management Zn
- Strategic FireAdv Zn
- Asset Protection Zn

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.

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)	• AH1 - As far as possible protect site from fire. Do not cut down trees. • AH2 - As far as possible protect site from fire. Avoid all ground disturbance including the use of earthmoving machinery, handline construction and driving over sites. Avoid water bombing which may cause ground disturbance. • AH3 – Avoid all ground disturbance. Avoid water bombing. Site may be burnt by bushfire, back-burn or prescribed burn without damage.
Historic Heritage Management (NPWS FMM 4.10)	• Sites within the reserve are natural features, which would not be detrimentally affected by fire. • Other sites within reserve are in areas with a low fire risk. • If new sites are located consult with a senior NPWS officer.
Threatened Fauna Management (NPWS FMM 4.12 & 5.2)	• 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 inter-fire intervals of <10 years in 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. • 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 O2 / 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 O2-4 / 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.

Communications Information – Goolawah NP & Goolawah RP Macleay Area

NPWS radio coverage is generally good but there are 'black spots' in deep gullies. Options to use Simplex & Reverse Ch's, portable repeaters or adjacent towers are available as required.

Service	NPWS Channel	Location and Comments
NPWS – Vote group	Vote Ch 180	NCR South, Chs: 181, 182
NPWS – hi-band VHF –Tower Channels	181 182	Spokes Mtn (Simplx 481, Isolate 781) Yarrahapinni Mtn (Simplx 482, Isolate 782)
NPWS Fireground Ch	11 – 17	Represent NPWS FireGround Ch's 1 – 7
NPWS – hi-band VHF - Portable Repeaters	21 – 26 Duplex	Chs 21 & 31 correspond to FG1, etc. Contact Regional Office to deploy
RFS – Fireground Ch	41 - 60	Equivalent to RFS Fireground 1 - 20
RFS PMR	n/a	P163 Francis LookOut, Mid North Coast P135, Mt Wondarrigah, Mid North Coast
Telephone Interconnect to NPWS Radio		TBA
UHF – public	Use as backup & alt. comm's to Forestry, IAP will set Ch.	
Mobile Phone – 3G	Good reception on ridges & escarpment only.	
An Incident Action Plan will cover specific communications during HR and Wildfire events.		

Strategy Information

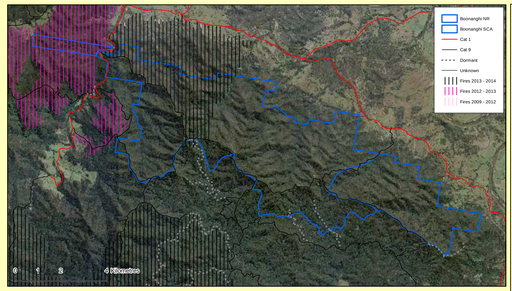
Fire Season Information

Wildfires	• Have been known to start as early as early 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	• 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.

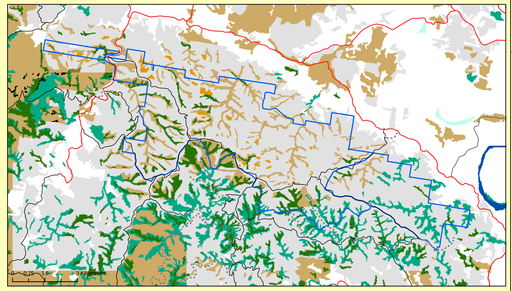
Suppression Strategies

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 predicted downwind side of the fire. • 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.

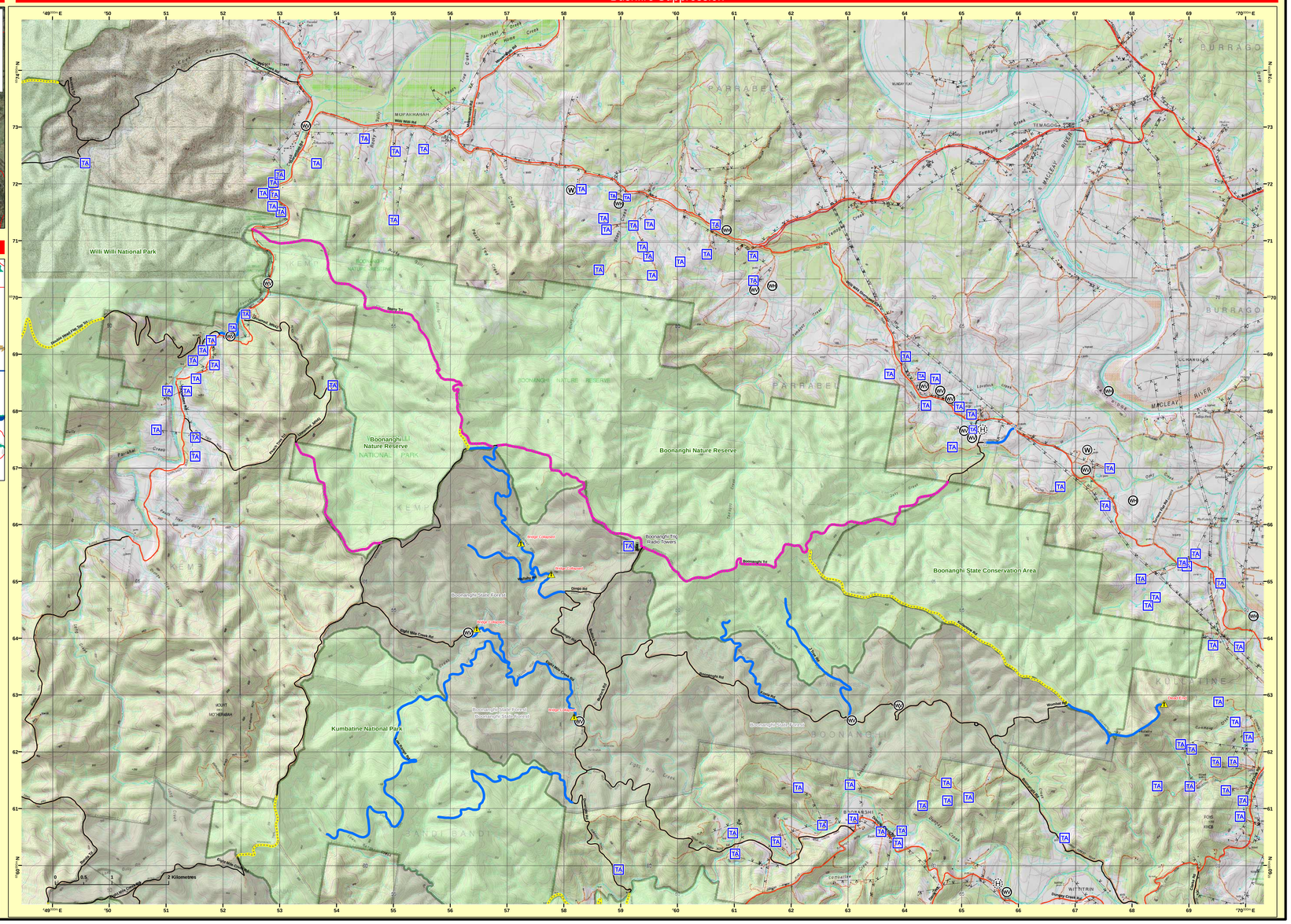
Recent Fires



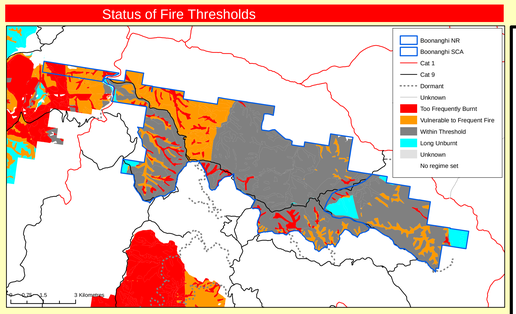
Vegetation



Bushfire Suppression



Status of Fire Thresholds



Biodiversity thresholds for Land Management Zones	
Too frequently burnt	Fire thresholds have been exceeded. *- Protect from fire as far as possible.*
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	Fire history is within the threshold for vegetation in this area. *- A burn is neither required nor should one necessarily be avoided.*
Long unburnt	Fire frequency is below fire thresholds in the area. *- A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.*
Unknown	Insufficient data to determine fire threshold.
NB. Fire thresholds are defined for vegetation communities to conserve biodiversity	

Vegetation Legend
- Boonanghi NR
- Boonanghi SCA
- Cat 1
- Cat 9
- Dormant
- Unknown
- Arid & semi-arid shrubland
- Freshwater wetland
- Grassy dry sclerophyll forest
- Grassy sclerophyll woodland
- Heathland
- Native regrowth/weeds
- Rainforest
- Rock/sand
- Saline wetlands
- Sclerophyll grassy woodland
- Semi-mesic grassy forest
- Shrubby dry sclerophyll forest
- Swamp sclerophyll forest
- Water
- Wet sclerophyl forest
- Not applicable

GDA

N W E S

Datum: GDA94
Projection: UTM
Grid: MGA Zone 56
Noted scales are true when this map is printed on A0 size paper

Bushfire Suppression Legend
- NPWS Estate
- State Forest Estate c.DPI
- plantation
- Gate PWG
- Gate non PWG
- Vantage Point
- Communication Tower
- Heli Landing Site
- Helipad
- Cat 1, Essential
- Cat 1, Important
- Cat 1, Unknown
- Cat 7, Essential
- Cat 7, Important
- Cat 9, Essential
- Cat 9, Important
- Dormant
- Cat 9 & Cat 7 Unknown
- Unknown or Not Applicable
- TrackSection
- Powerlines - Essential Energy
- Refuge Area
- Staging Area
- Water Point Vehicle
- Water Point Helicopter
- Water Point H & V
- Caution
- Threatened Property

ASSUME ALL GATES LOCKED

Contour Interval 10 metres