

North Coast Region Baaliin Nature Reserve Fire Management Strategy (Type 2) 2005

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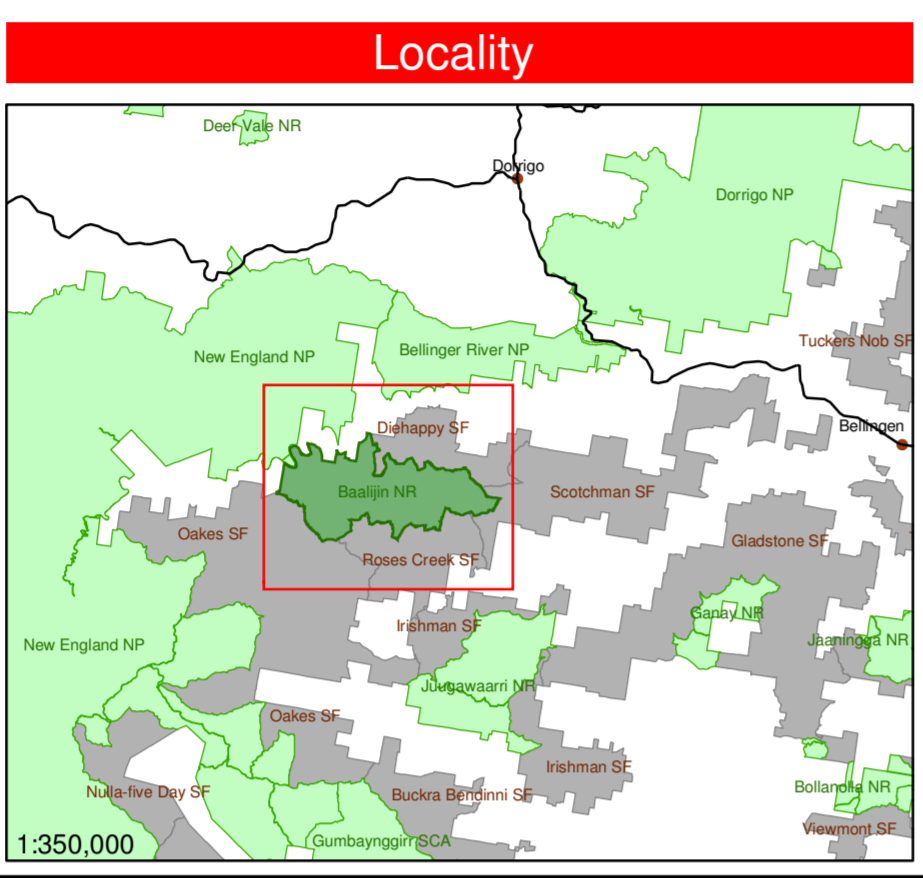
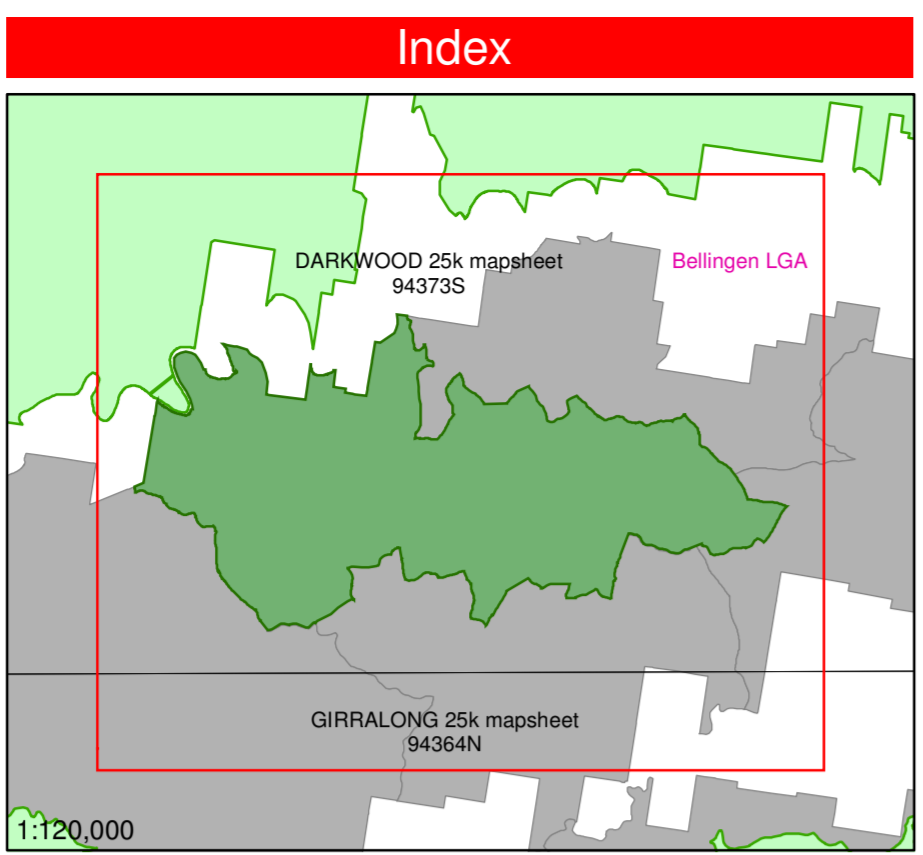
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This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of Rural Fires Act 1997.

Department of Environment and Conservation (NSW)

Endorsed by: _____ Date: / /
Director Northern, Parks & Wildlife Division



Contact Information

Agency	Position / Location	Phone
NPWS	Regional Duty Officer / After Hours	02 6641 1500
	Area Manager (Dorrigo Plateau)	02 6657 2309 0428 879 180
	Fire Management Officer	02 6641 1500 0427 250 122
	Regional Operations Coordinator Dorrigo Plateau Area Office	02 6641 1500 02 6657 2309 02 6657 2145 (fax)
	Regional Office	02 6641 1500 02 6643 5569 (fax)
RFS	Fire Control Officer	02 6651 6133
	Bellingen Fire Control Centre	02 6655 7001
NSW Fire Brigade	Emergency	000
	Bellingen Station	02 6655 1433
SES	Emergency	000
	Bellingen Unit	02 6655 1188
Police	Emergency	000
	Bellingen Station	02 6655 1444
Ambulance	Emergency	000
Hospital	Bellingen River District Hospital	02 6655 1266
DIPNR	Coffs Harbour	02 6653 0100
Forests NSW	24 hour fire calls	02 6655 6950
	NE Region - Coffs Harbour	02 6652 0111
Council	Bellingen Council	02 6655 7300
Local Aboriginal Land Council	Gumbaynggir Elders	02 6569 4294

Strategy Information

Fire Season Information

Wildfires

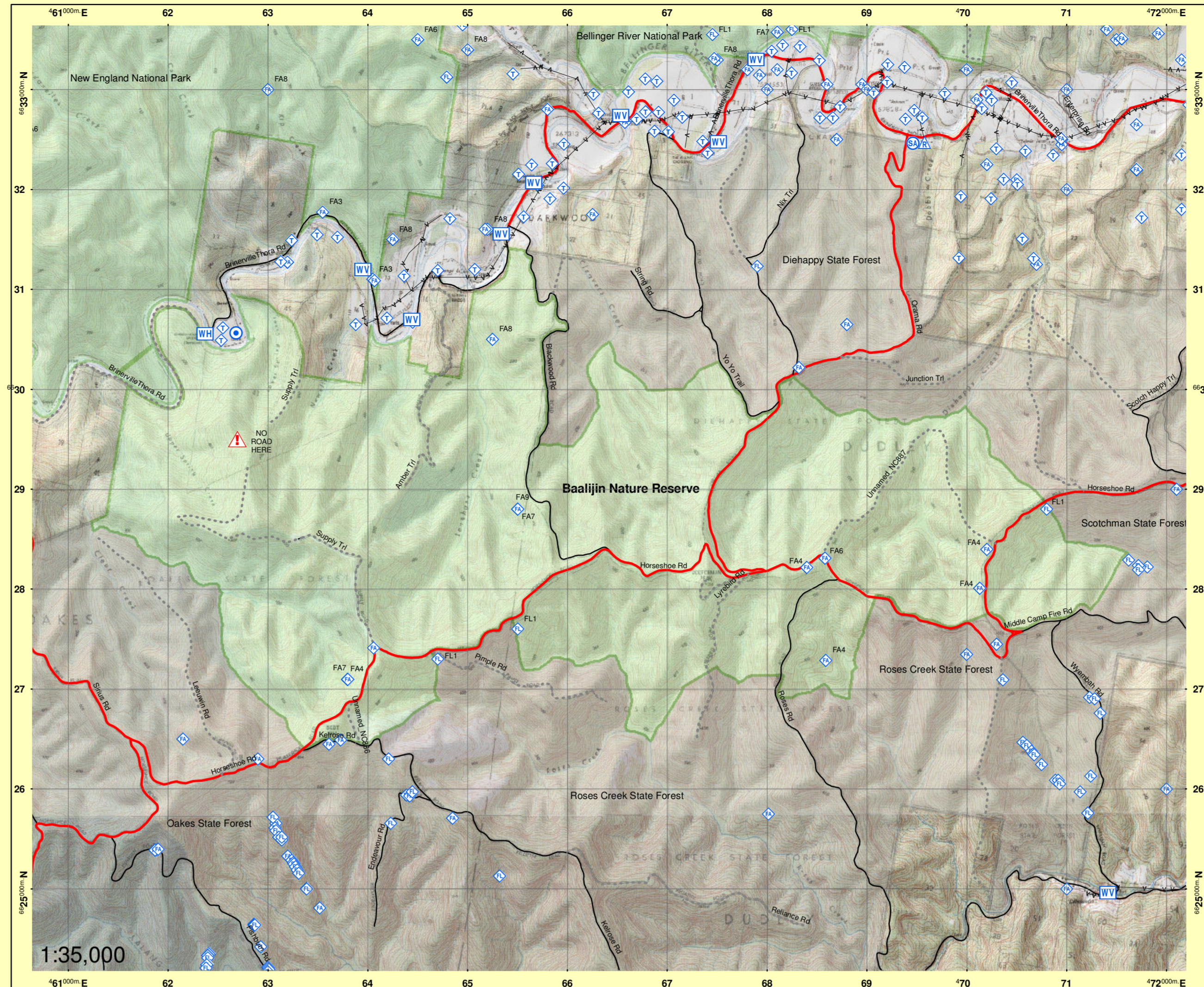
- Have been known to start as early as late August, but usually the potential for a large fire event is greatest between October and December. This period may extend into January in more severe years.

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	Strategy
Low - Mod	Low - Mod	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Ensure there is sufficient time to secure containment lines prior to the fire impacting upon them; otherwise fall back to the next potential line.

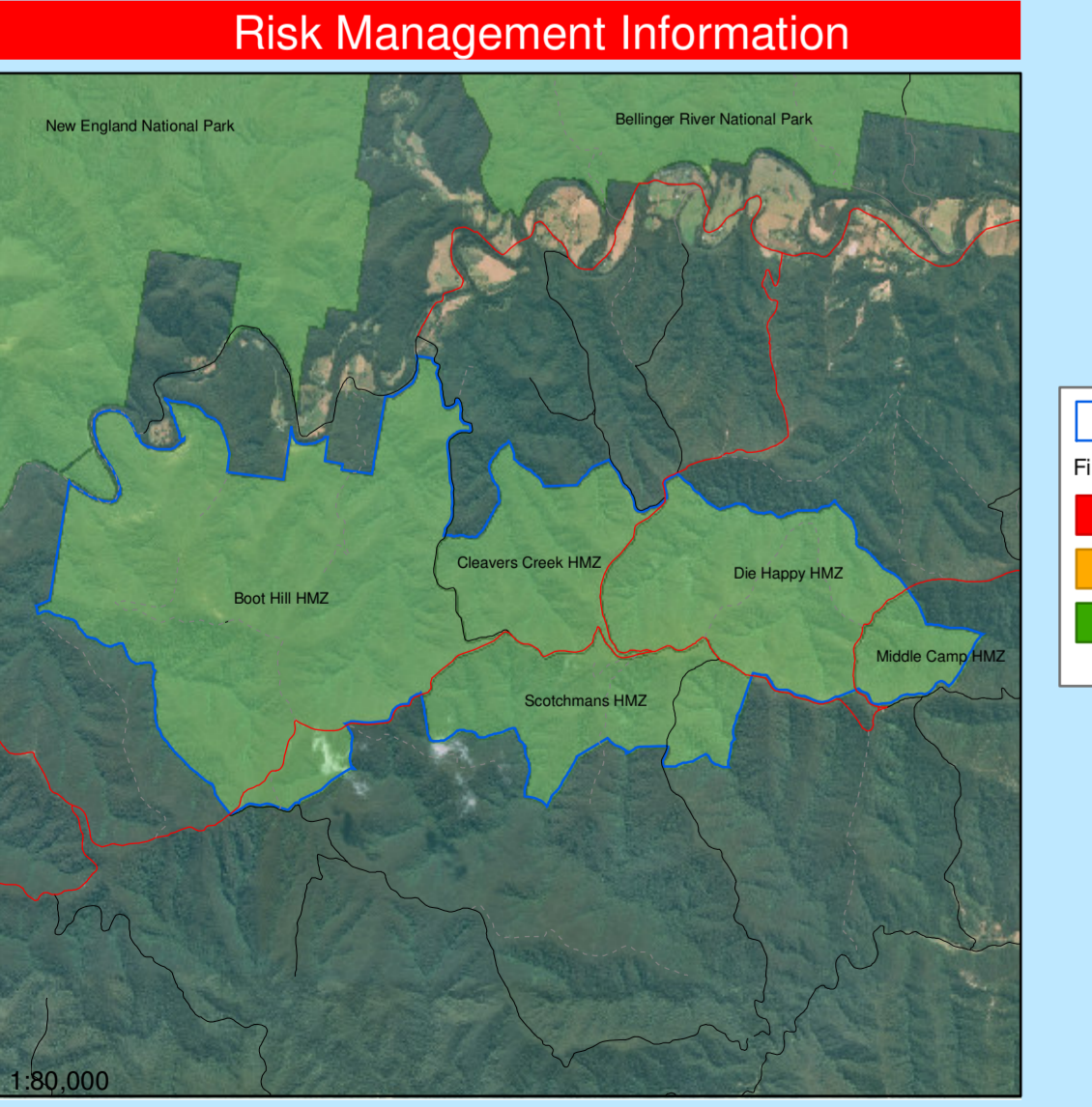


Bushfire Suppression Legend

..... Closed	Water Point Vehicle	Threatened Property
Unclassified	Water Point Helicopter	Threatened fauna
Primary (Cat 1)	Helipad	Threatened flora
Secondary (Cat 9)	Staging Area	Caution
NPWS Estate	Refuge Area	Assume all gates locked Contour interval 10m
SFNSW Estate		

Communications Information

Service	Channel	Location and Comments
NPWS - VHF	23, 28	Reverse channels 67, 72
NPWS - VHF (Fireground Comms)	35, 40	Simplex
NPWS - VHF (Portable Repeater)	14 (orange) 16 (brown)	<ul style="list-style-type: none"> Stored at Dorrigo / transportable. Can be located as required. Contact Regional Office, Grafton to deploy.
RFS - PMR - UHF	72	
RFS - GRN	-	
SF - VHF	34	
CB - UHF	1 - 99	<ul style="list-style-type: none"> Available in most RFS vehicles. Choose channel on fire-ground with RFS.
Aircraft - VHF		<ul style="list-style-type: none"> Choose channel on fire-ground with RFS.
Mobile Phone - CDMA		Patchy Coverage, Good on Ridges
Satellite Phone		<ul style="list-style-type: none"> Stored at Coffs Coast Area Office. Requires clear view of the sky.



Fire Management Zones

Asset Protection Zones

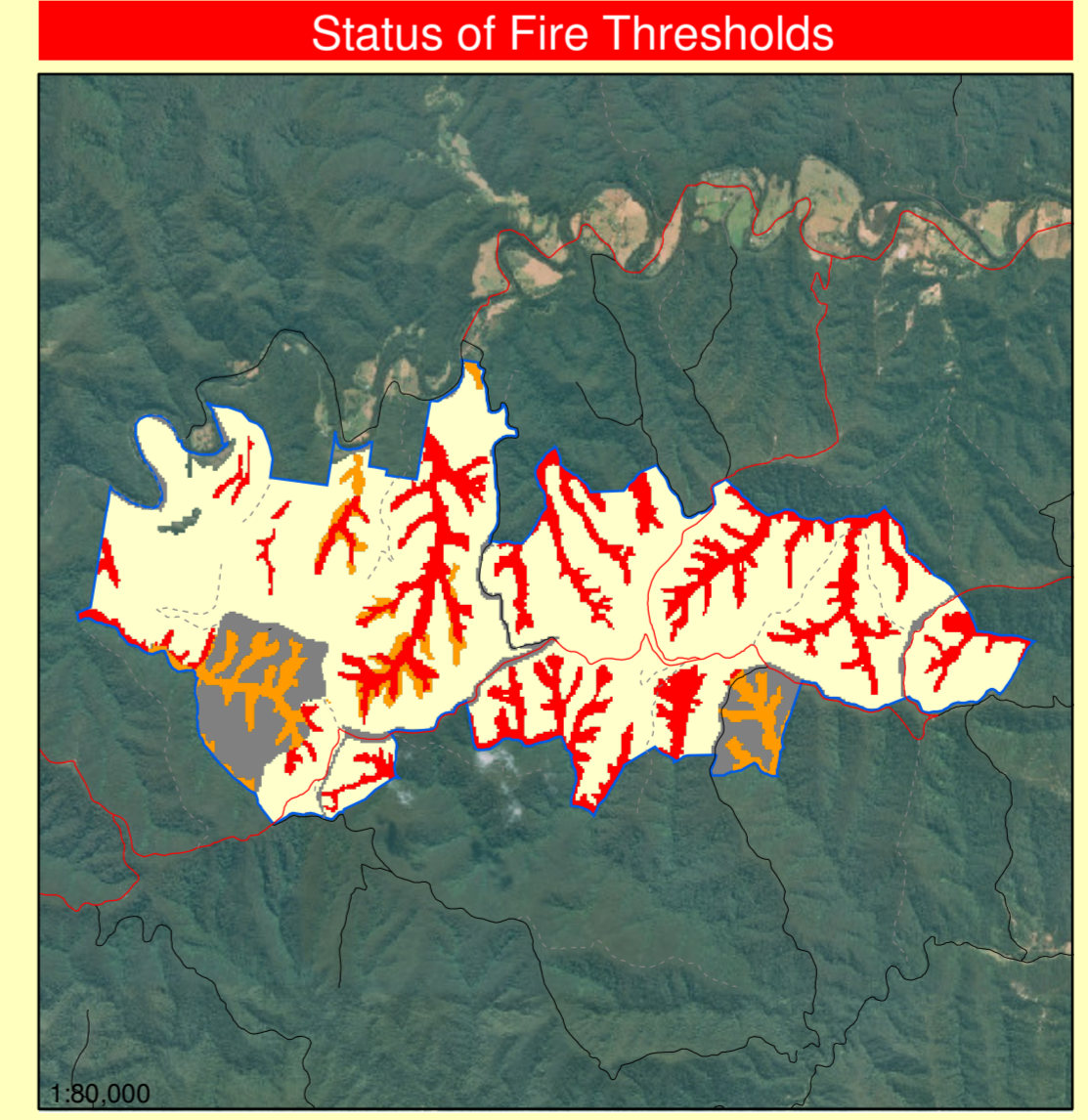
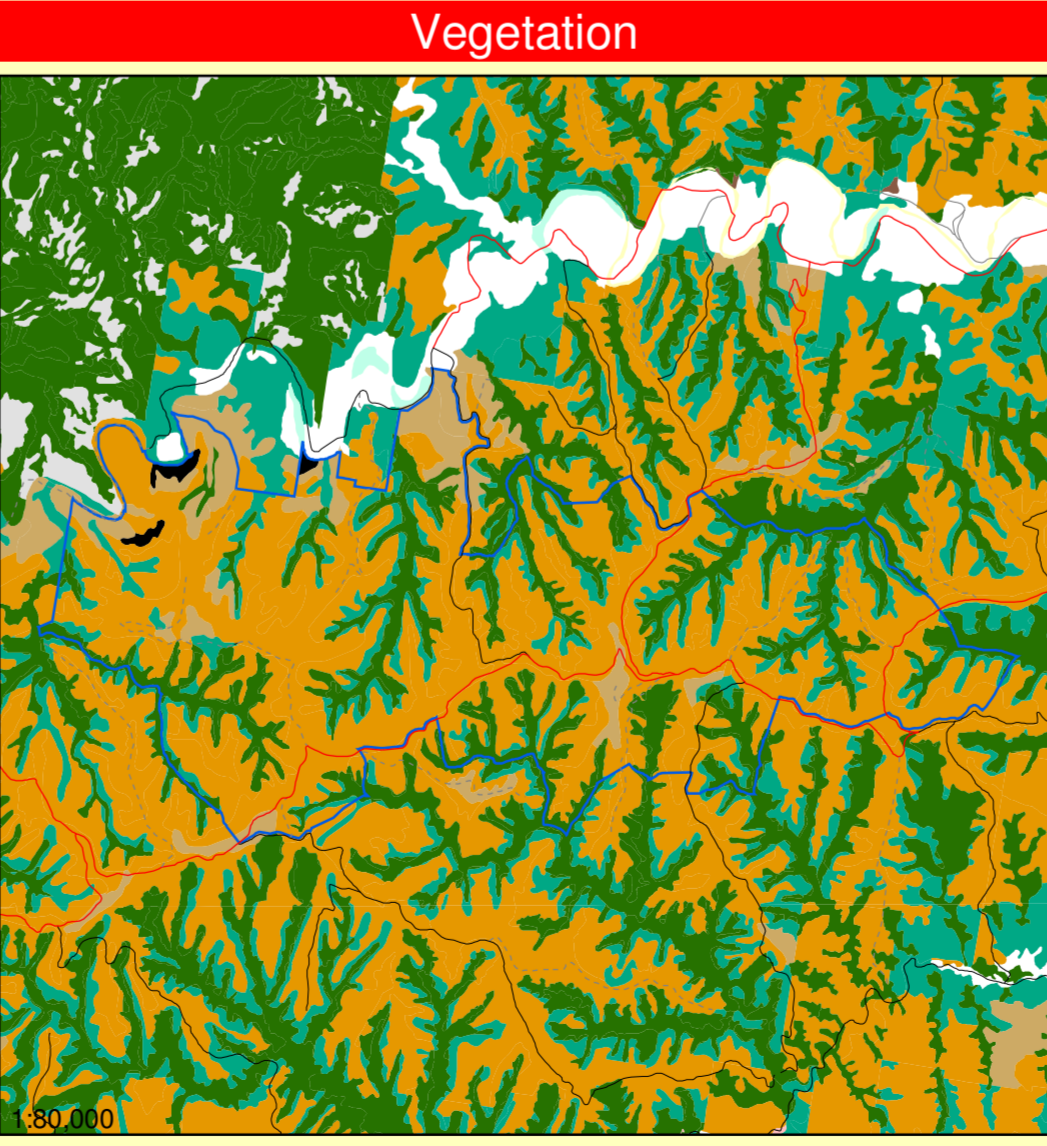
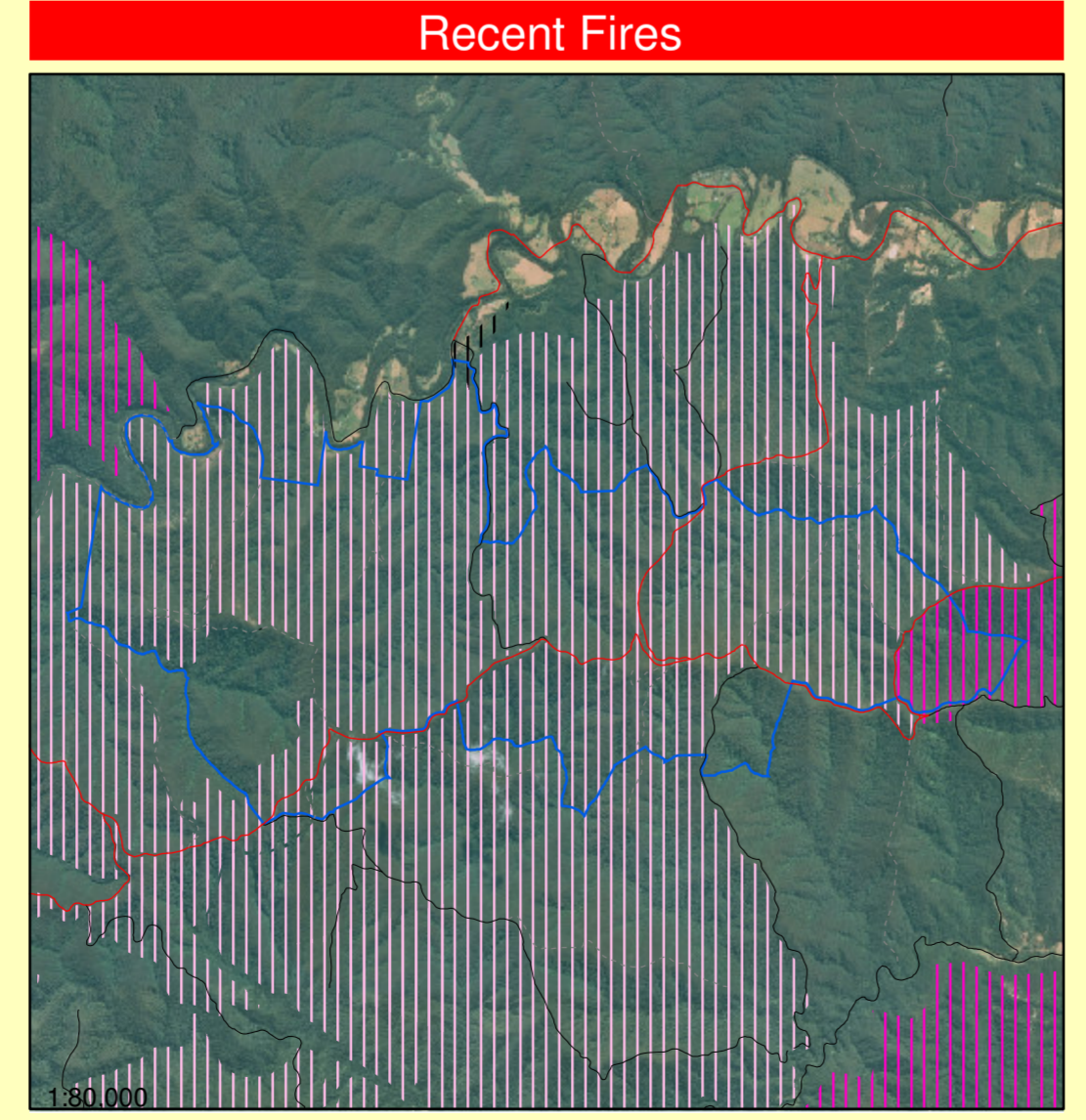
The objective of APZs is the protection of human life and property. This will have precedence over guidelines for the management of biodiversity. Maintain Overall Fuel Hazard at Moderate or below.

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.



Fire Thresholds

Overburnt	Fire thresholds have been exceeded. The area will be Overburnt if it burns this year.
Vulnerable	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

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)	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> Brief all personnel involved in containment line construction &/or vehicle based fire suppression operations, on site locations and the required management strategies appropriate to the site type.
Threatened Fauna Management (NPWS FMM 4.12 & 5.2)	<ul style="list-style-type: none"> Brief all personnel involved in containment line construction &/or vehicle based fire suppression operations, on site locations and the required management strategies appropriate to the site type. 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. <p>Fauna Prescriptions:</p> <p>Label Treatment</p> <p>FA3 Exclude fire from habitat (wetlands or rainforest). Avoid use of earthmoving machinery, chemicals.</p> <p>FA4 Mosaic burns to diversify understorey. Protect casuarina stands.</p> <p>FA6 Protect hollow-bearing trees. Reduce fire frequency.</p> <p>FA7 Protect hollow-bearing trees.</p> <p>FA8 Avoid frequent fire (<10 yrs).</p> <p>FA9 Protect known habitat from disturbance. Avoid use of earthmoving machinery, chemicals.</p>
Threatened Flora Management (NPWS FMM 4.12)	<ul style="list-style-type: none"> Brief all personnel involved in containment line construction &/or vehicle based fire suppression operations, on site locations and the required management strategies appropriate to the site type. Where practicable, protect populations or individuals from fire if the fire frequency threshold has been exceeded, or the species is an obligate seeder (fire response category), or if the fire frequency threshold &/or fire response category is unknown. Where possible, protect old growth habitat trees. <p>Flora Prescriptions:</p> <p>Label Treatment</p> <p>FL1 Avoid all fire where possible; Avoid using earthmoving machinery; Avoid firefighting chemicals.</p>
Threatened Property	<p>All property owners with assets at possible risk from a wildfire event will be:</p> <ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> The use of bombing aircraft should support containment operations by aggressively attacking hotspots and spotters. 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)	<ul style="list-style-type: none"> Aerial ignition may be used during fuel reduction and backburning operations where practicable, but only with the prior consent of the senior NPWS officer. May be ineffective in Heathlands with poorly developed surface fuel layers.
Backburning (NPWS FMM 4.8)	<ul style="list-style-type: none"> Temperature and humidity trends must be monitored carefully to determine the safest times to implement backburns. 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 1 m 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. Brief all involved personnel on the location of cultural sites and threatened species prior to backburning, and adhere to the above guidelines.
Containment Lines (NPWS FMM 2.2 & 3.9)	<ul style="list-style-type: none"> Construction of new containment lines should be avoided, except where they can be built by hand with minimal erosion potential. Only existing or previous trails or containment line routes will be used. Roads and trails to be used as containment lines but requiring works should be prioritised in consultation with relevant IMT and Fire Ground staff. All containment lines not required for other purposes should be closed immediately at the cessation of the incident. Where practicable, erosion control works should be incorporated into the containment line construction phase. 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)	<ul style="list-style-type: none"> Earthmoving equipment may only be used with the prior consent of the senior NPWS officer, and then only if the probability of its success is high. Earthmoving equipment must be washed down prior to it entering NPWS estate. As far as possible, restrict its use to previously used containment lines. Earthmoving equipment must be always guided and supervised by an experienced NPWS 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 be at least 50 m from depression lines in order to avoid erosion problems. Observe the Threatened Species and Cultural Heritage Operational Guidelines. Proposed containment lines to be constructed with earthmoving equipment should be surveyed to identify unknown cultural heritage sites. In areas determined to have cultural heritage significance, earthmoving equipment must not be used in any location other than established Primary and Secondary fire trails. Proposed containment lines to be constructed with earthmoving equipment should be surveyed to identify unknown cultural heritage sites.
Fire Advantage Recording	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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 50 m of rainforest, watercourses, dams and swamps. Areas where fire suppression chemicals are used must be mapped and the used product's name recorded. Observe the Threatened Species Operational Guidelines.
Rehabilitation (NPWS FMM 5.1)	<ul style="list-style-type: none"> Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Smoke Management (NPWS FMM 3.4)	<ul style="list-style-type: none"> 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.
Visitor Management (NPWS FMM 3.6 & 4.13)	<ul style="list-style-type: none"> The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.