Northern Rivers Region
Tyagarah Nature Reserve
Fire Management Strategy (Type 2)
2008
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.

Locality

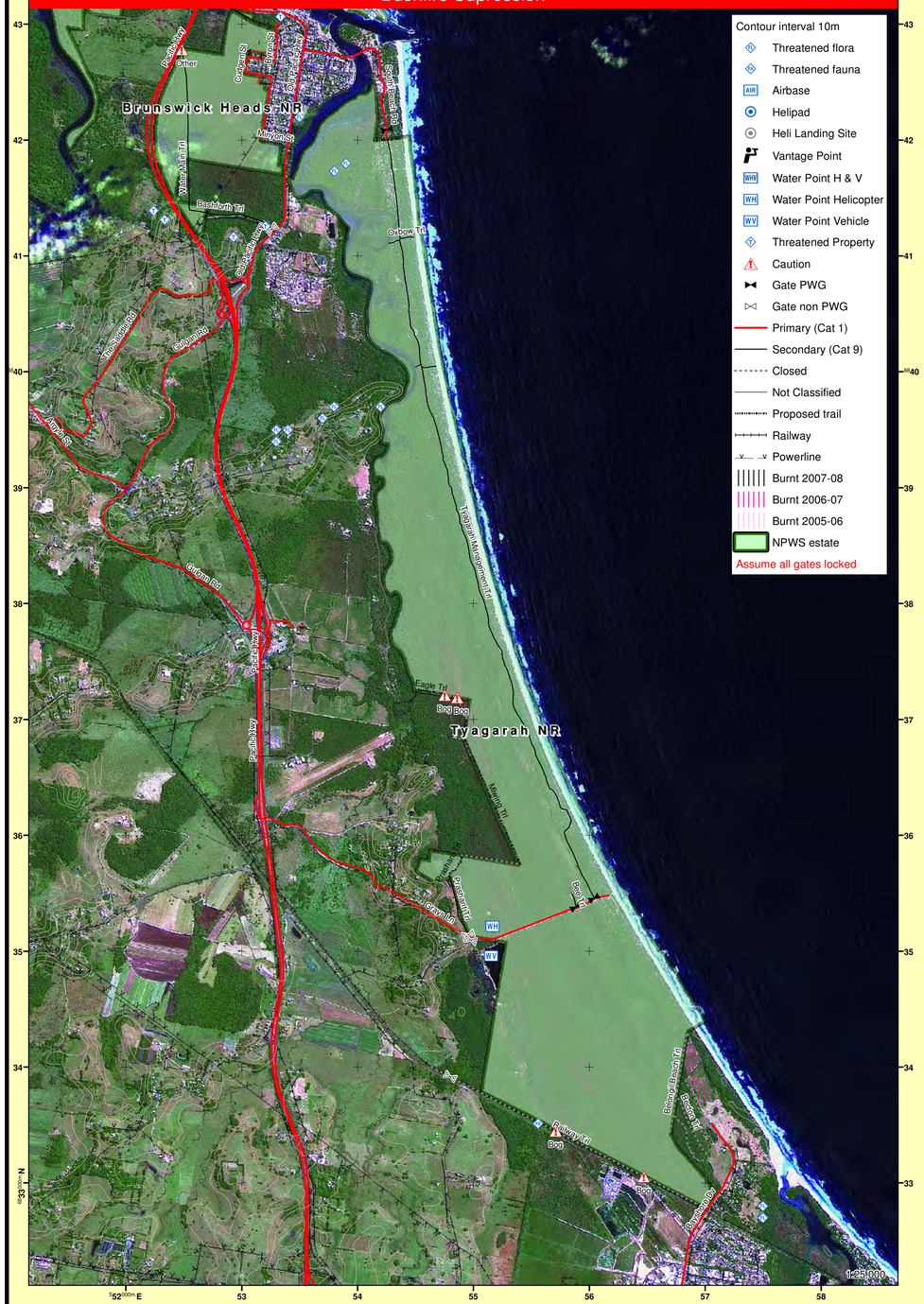
Communications Information		
Service	Channel	Location and Comments
NPWS - VHF	8	Mount Nardi
NPWS - VHF (Fireground Comms)	40	Fireground chat channel (single frequency) monitors channel 8
NPWS - VHF (Portable Repeater)	13	Blue Code. Stored at Kyogle Depot / transportable.
RFS – PMR – UHF	50	Mount Nardi
RFS - GRN	-	No service available.
CB – UHF	-	To be confirmed with RFS brigade captain on the day.
Aircraft - VHF	125.45 MHz	Or as directed by Incident Controller or Air Operations.
Mobile Phone - CDMA	Partial	Generally poor coverage.

N W E S

Projection: UTM
Datum: AGD66
Grid: AMG 66 Zone 56J

Noted scale values are true on A1 paper

Bushfire Supression

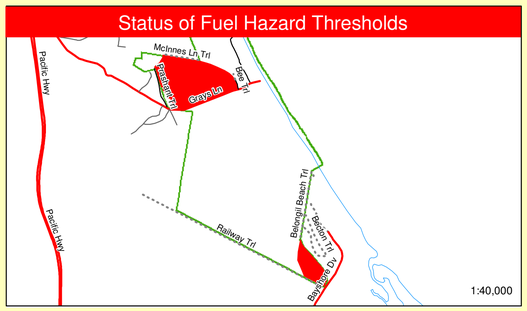


Operational Guidelines

Refer to Fire Management Manual 2006.
Brief all personnel involved in suppression operations on the following issues:

Resource	Guidelines
Aboriginal Cultural Heritage Site Management (NPWS FMM 4.11)	Aboriginal sites are not shown on this public version. Vulnerable sites will be shown on the operational version of this strategy following consultation with the Aboriginal Community.
Historic Heritage Management (NPWS FMM 4.10)	No known sites in Reserve. If new sites located consult with a senior NPWS officer.
Threatened Fauna Management (NPWS FMM 4.12 & 5.2)	Utilise identified existing and closed (dormant) trails and establish identified proposed trails in preference to establishing other containment lines. Avoid impact on wetlands, rainforest and streams. Protect large and hollow-bearing trees and logs and timber bridges FA – No use of foam. No use of retardant. No earthmoving machinery. No helipad construction
Threatened Flora Management (NPWS FMM 4.12)	Utilise identified existing and closed (dormant) trails and establish identified proposed trails in preference to establishing other containment lines. Avoid impact on wetlands, rainforest and streams. FL – As far as possible, exclude fire from locations where these species are known to occur. No use of earthmoving machinery in locations where these species are known to occur. No helipad construction.
Threatened Property	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)	Foam should be used to increase the effectiveness of water bombing. Exclude the use of surfactants and retardants within 50m of rainforest, watercourses, dams and swamps
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.
Backburning (NPWS FMM 4.8)	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	The first combatant agency on site may assume control of the fire, but then must ensure the NPWS 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	No new containment lines in wetlands, rainforest or streams. New containment lines require the prior consent of a senior NPWS officer. Containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Earthmoving Equipment (NPWS FMM 4.2.20 & 4.3)	Earthmoving equipment may only be used with the prior consent of a senior NPWS officer. 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. Earthmoving equipment should be washed down 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)	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.
Rehabilitation (NPWS FMM 5.1)	Containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation. All re opened and new containment lines not required for other purposes should be closed at the cessation of the incident.
Smoke Management (NPWS FMM 3.4)	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.

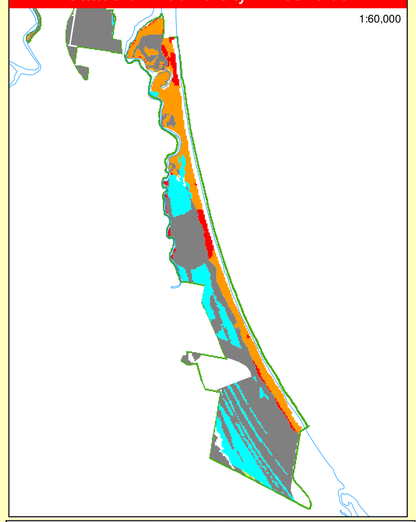
Status of Fuel Hazard Thresholds



Fuel Hazard Thresholds
(In Strategic Fire Advantage Zones - based on interval since last fire and accumulation rates)

Recently treated	Overall Fuel Hazard is very unlikely to have reached treatment trigger. OFH is building through surface and near surface fuels. 0-4 years since treatment.
	Monitor OFH development using desktop GIS tools.
Monitor OFH in the field	OFH may have reached treatment trigger. Surface and near surface fuels may reach trigger levels, elevated fuels building. 5-7 years since treatment.
	Undertake OFH assessment in the field.
Priority for assessment	OFH most likely reached treatment trigger. All fuel elements may contribute to Overall Fuel Hazard above trigger levels. >7 years since treatment.
	Priority for assessment and treatment if trigger reached.

Status of Biodiversity Thresholds



Biodiversity Thresholds
In Land Management Zones - based on intervals between recent fires and thresholds defined for major vegetation communities.

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.*
Within Threshold	Fire history is within the threshold for vegetation in this area. · *A burn is neither required nor should one necessarily be avoided.*
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.*
Underburnt	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.

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 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.

Contact Information

Agency	Position / Location	Phone
NPWS	NRR Regional Office – Alstonville	6627 0200
	Byron Coast Area Office and Depot	66209300
	Aboriginal Heritage Conservation Officer	6627 0205
Rural Fire Service	24 hrs	6684 2896
	Fire Control Centre (Murwillumbah)	66727888
	Fire Control Centre (Mullumbimby)	6684 3662
Emergency	All emergency services	000
NSW Fire Brigade	Byron Bay	66856266
Police	Police Assistance Line	131444
	Byron Bay	66859499
Ambulance	All other bookings	131 233
Hospital	Byron District Hospital	66856200
SES	Murwillumbah	6670 2460
	Emergencies	132 500
Council	Byron Shire Council	66267000
	After hours	66227022
Country Energy	Country Energy	132 080 / 132 356
Aboriginal contacts	Tweed Byron LALC	6674 3600

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. Refer to fuel hazard thresholds.		
	Zone	**Action**	**Responsibility**
	Bayshore SFAZ (S1) 11.3 ha	Prescribed burn when Overall Fuel Hazard reaches High.	NPWS
	Miwing SFAZ (S2) 51.5 ha	Prescribed burn when Overall Fuel Hazard reaches High.	NPWS
Land Management Zones	The objective of **LMZs** is to conserve biodiversity and protect cultural heritage. Refer to biodiversity thresholds.		
	Zone	**Action**	**Responsibility**
	Land Management Zone 808.5 ha	Suppress or apply fire consistent with biodiversity thresholds.	NPWS / Bushfire Incident Controllers

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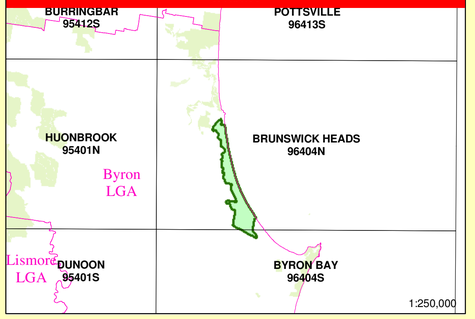
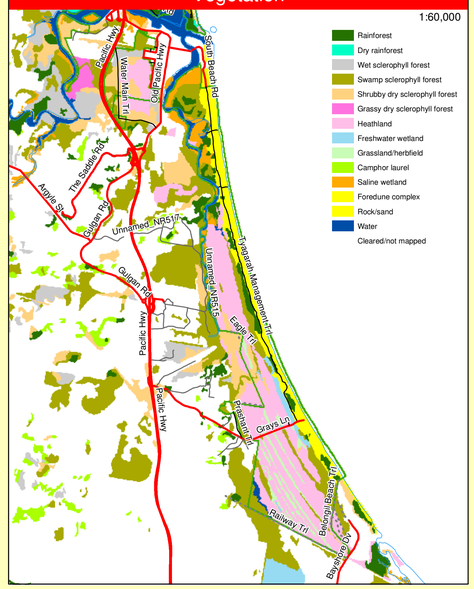


Vegetation



Risk Management Information