

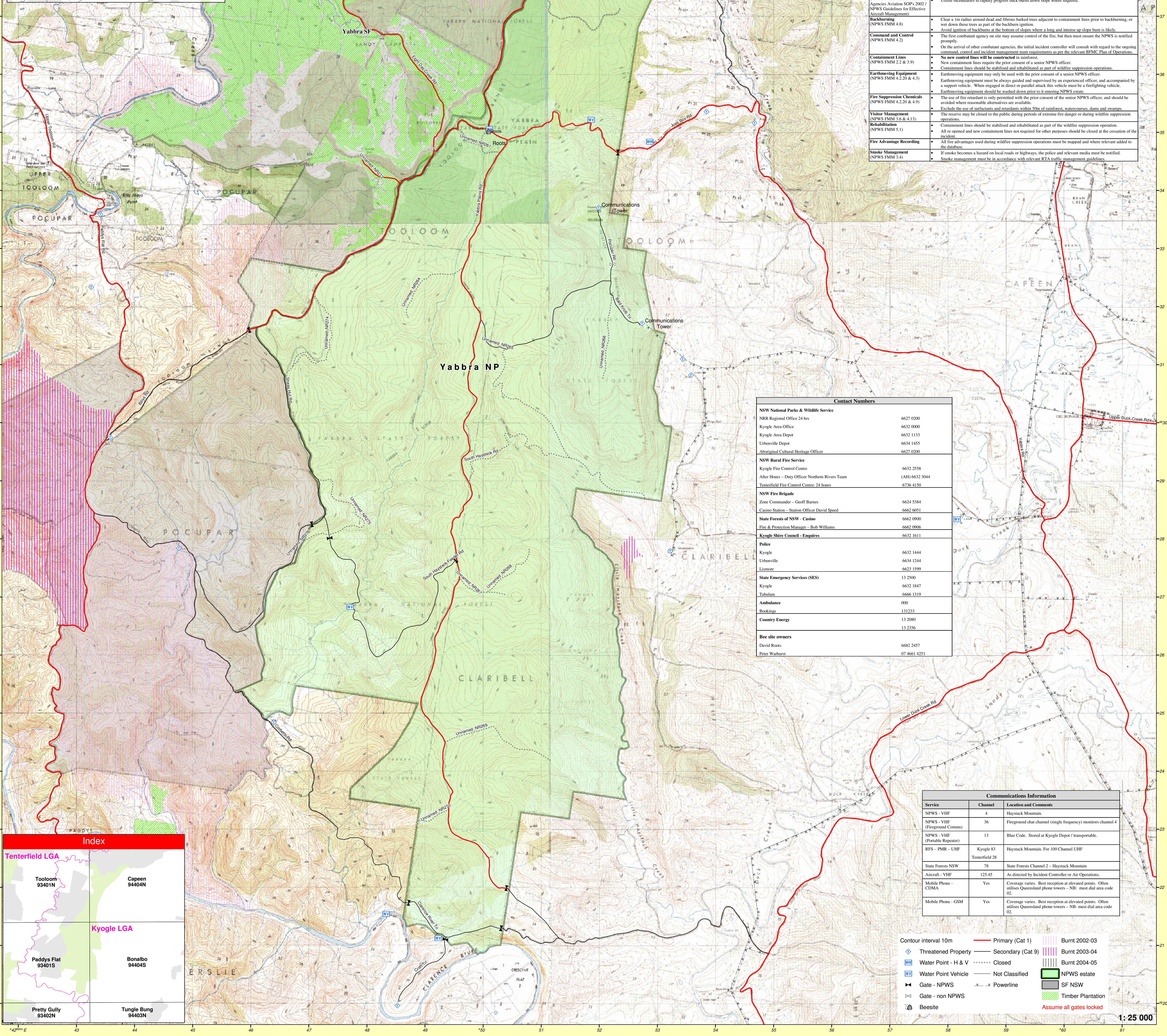
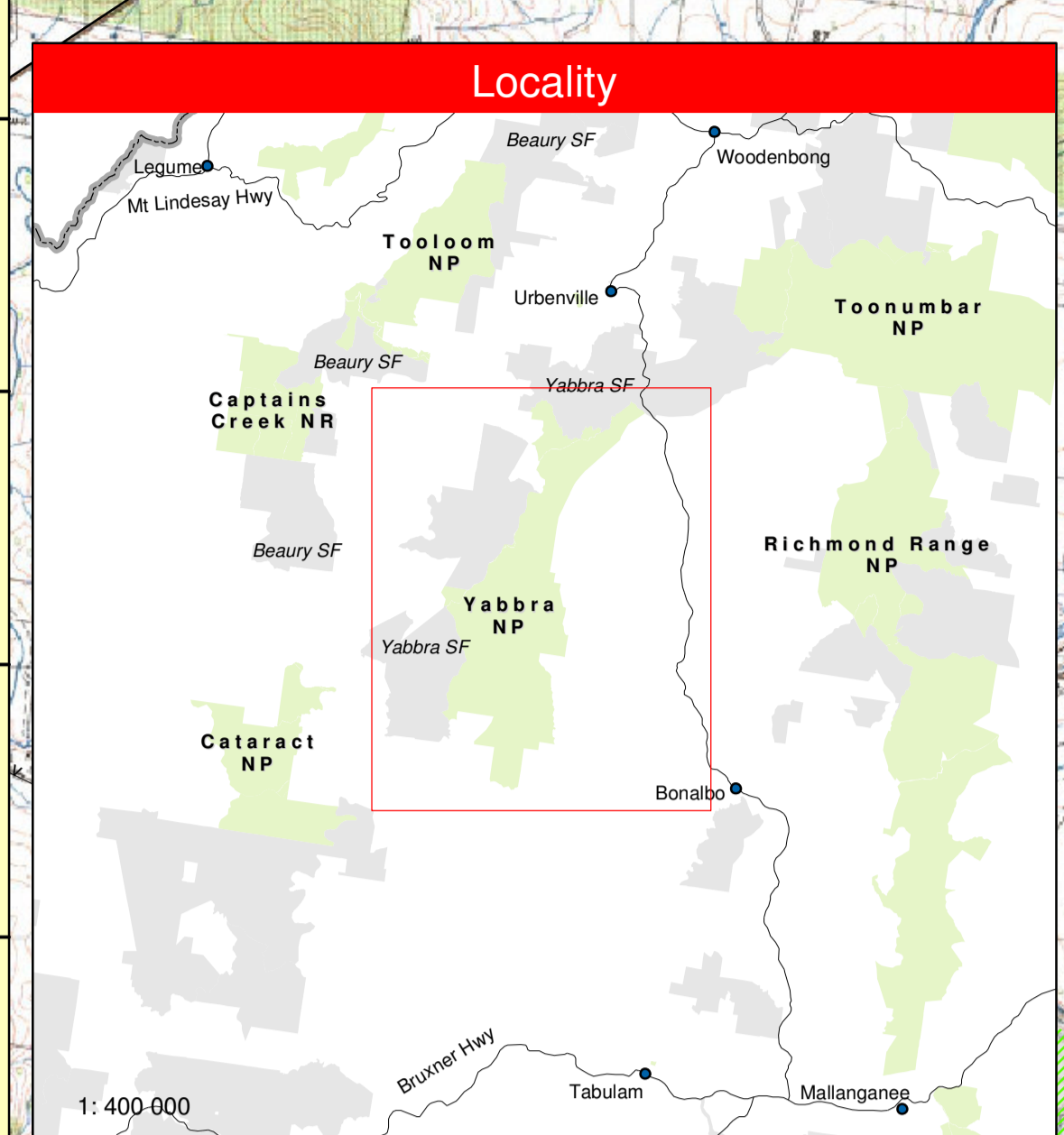
This strategy should be used in conjunction with aerial photography and field reconnaissance during incidents and the development of incident action plans.

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



Operational Guidelines
 Refer to Strategy for Fire Management 2003 and Fire Management Manual 2004

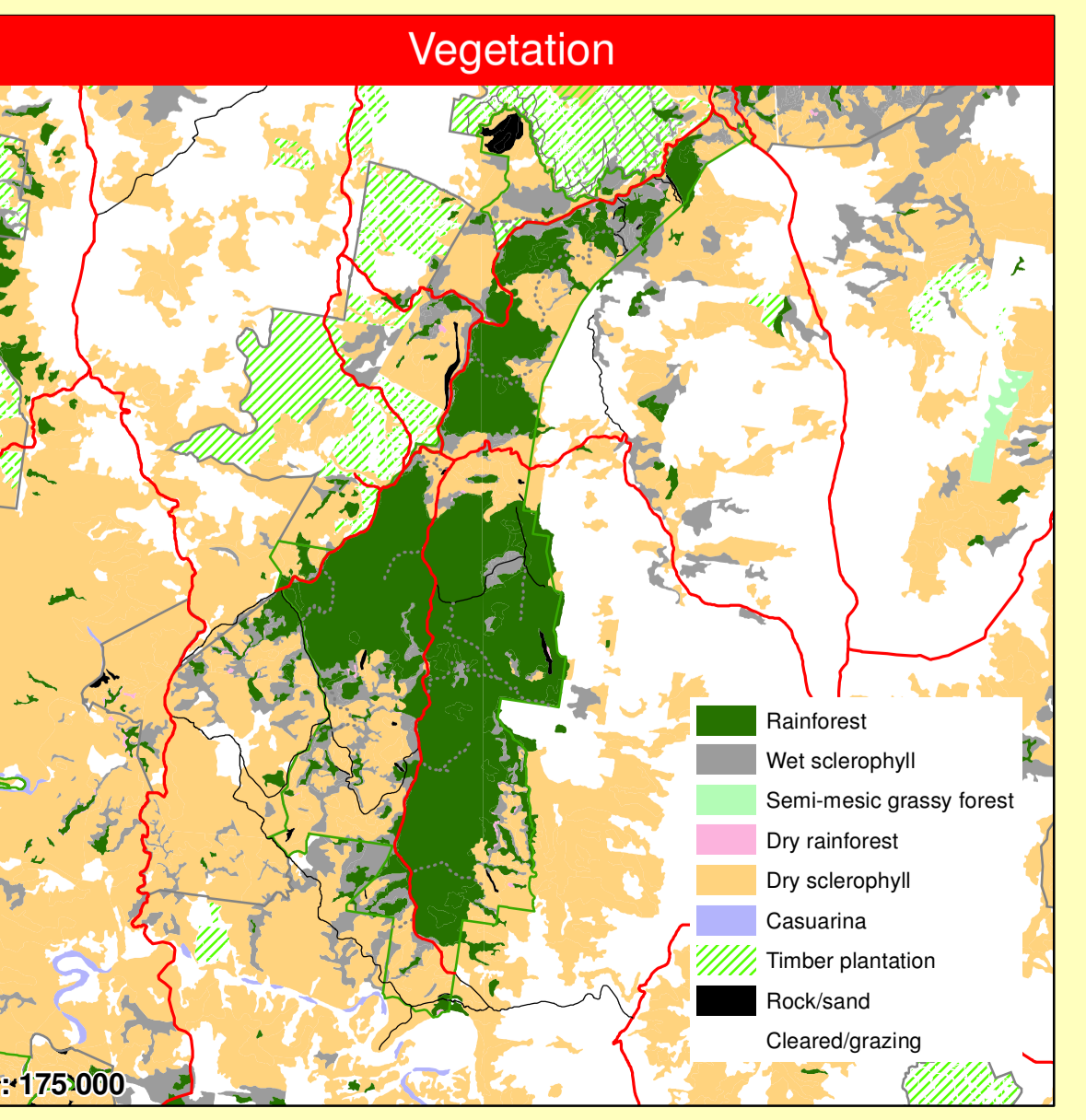
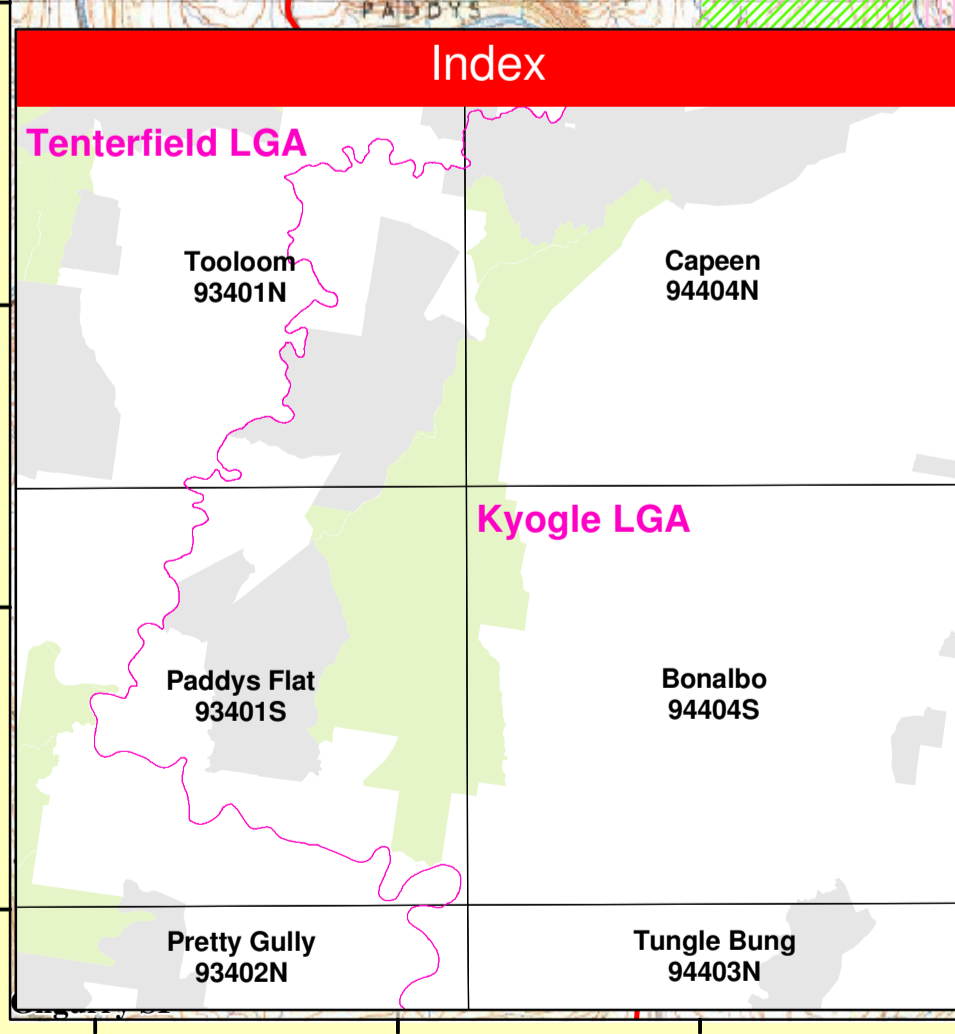
Resource	Guidelines
Aboriginal Heritage (NPWS FMM 4.11)	<ul style="list-style-type: none"> Aboriginal sites are not shown on this version. Valuable sites will be shown on the operational version of this strategy following consultation with the Aboriginal Community. The "Sensitive Area Management System" identifies locations of sites on Park roads. Green guide posts indicate areas of sensitivity where no disturbance by earthworks is to occur. No known sites in Reserve. If new sites located consult with a senior NPWS officer.
Historic Heritage (NPWS FMM 4.10)	<ul style="list-style-type: none"> Avoid impact on reinforced. Avoid impact on structures. Protect large and hollow trees. The "Sensitive Area Management System" identifies locations of sites on Park roads. Green guide posts indicate areas of sensitivity where no disturbance by earthworks is to occur.
Threatened Fauna Management (NPWS FMM 4.12 & 5.2)	<ul style="list-style-type: none"> Avoid impact on reinforced. Avoid impact on structures. Protect large and hollow trees. The "Sensitive Area Management System" identifies locations of sites on Park roads. Green guide posts indicate areas of sensitivity where no disturbance by earthworks is to occur.
Threatened Flora Management (NPWS FMM 4.12)	<ul style="list-style-type: none"> Avoid impact on reinforced. Avoid impact on structures. Protect large and hollow trees. The "Sensitive Area Management System" identifies locations of sites on Park roads. Green guide posts indicate areas of sensitivity where no disturbance by earthworks is to occur.
Assets	<ul style="list-style-type: none"> There are 2 threatened flora species within the planning area. <i>Marsdenia longiloba</i> and <i>Conoclinium elegantula</i>. The "Sensitive Area Management System" identifies locations of flora sensitive to fire on Park roads. Green guide posts indicate areas of sensitivity where no disturbance by earthworks is to occur. Adjacent to the planning area is a residential area. A bushing by tractor is undertaken to reduce fuel load. Bushing Communications Facility by an APZ surrounding a bushing by tractor is undertaken to reduce fuel load. Old Bonbo RFS also maintains a reserved area directly around the tower and radio has (concrete tank) Haystack Mobile Telephone Tower has been designed to withstand a reduced fuel APZ. A gravelled and fenced compound, approximately 5 x 5 metres, surrounds the tower and communications equipment lot. Assess this compound for structural damage and structural repair. All property owners (adjacent & downwind) with assets at possible risk from a wildfire event will be kept informed regarding the progress of the fire and the status of their assets. Assess for an assessment of their current level of asset protection preparedness.
Threatened Property	<ul style="list-style-type: none"> All property owners (adjacent & downwind) with assets at possible risk from a wildfire event will be kept informed regarding the progress of the fire and the status of their assets. Assess for an assessment of their current level of asset protection preparedness.
General	<ul style="list-style-type: none"> Foam should be used to increase the effectiveness of water bombing.
Aerial Water Bombing (NPWS FMM 4.4 / NSW Fire Services Aviation SOPP 2002 / NPWS Guidelines for Effective Aircraft Management)	<ul style="list-style-type: none"> Foam should be used to increase the effectiveness of water bombing. Aerial ignition may be used during back-burning or fuel reduction operations. Utilise incendiaries to rapidly progress back-burns down slope where required.
Backburning (NPWS FMM 4.8)	<ul style="list-style-type: none"> Clear a 1m radius around dead and firewood 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. The first containment agency on site may assume control of the fire, but must ensure the NPWS is notified promptly. On the arrival of other containment agencies, the initial incident controller will consult with regard to the ongoing command, control and incident management team requirements for the relevant WPMC Plan of Operations. No new control lines will be constructed in reinforced. New containment lines require the prior consent of a senior NPWS officer.
Command and Control (NPWS FMM 4.2)	<ul style="list-style-type: none"> The first containment agency on site may assume control of the fire, but must ensure the NPWS is notified promptly. On the arrival of other containment agencies, the initial incident controller will consult with regard to the ongoing command, control and incident management team requirements for the relevant WPMC Plan of Operations. No new control lines will be constructed in reinforced. New containment lines require the prior consent of a senior NPWS officer.
Containment Lines (NPWS FMM 2.2 & 3.9)	<ul style="list-style-type: none"> Containment lines should be established and reinforced as part of wildfire suppression operations. 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 entering NPWS estate. 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. Include the use of surfactants and retardants within the limits of reinforced, watercourse, dam and swamp. The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations. Containment lines should be established and reinforced as part of the wildfire suppression operation. All in-situ and new containment lines not required for other purposes should be closed at the cessation of the operation.
Earthmoving Equipment (NPWS FMM 4.2.20 & 4.1)	<ul style="list-style-type: none"> 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 entering NPWS estate. 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. Include the use of surfactants and retardants within the limits of reinforced, watercourse, dam and swamp. The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations. Containment lines should be established and reinforced as part of the wildfire suppression operation. All in-situ and new containment lines not required for other purposes should be closed at the cessation of the operation.
Fire Suppression Chemicals (NPWS FMM 4.2.20 & 4.9)	<ul style="list-style-type: none"> 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 entering NPWS estate. 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. Include the use of surfactants and retardants within the limits of reinforced, watercourse, dam and swamp. The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations. Containment lines should be established and reinforced as part of the wildfire suppression operation. All in-situ and new containment lines not required for other purposes should be closed at the cessation of the operation.
Visitor Management (NPWS FMM 3.6 & 4.1)	<ul style="list-style-type: none"> Containment lines should be established and reinforced as part of the wildfire suppression operation. All in-situ and new containment lines not required for other purposes should be closed at the cessation of the operation.
Rehabilitation (NPWS FMM 5.1)	<ul style="list-style-type: none"> Containment lines should be established and reinforced as part of the wildfire suppression operation. All in-situ and new containment lines not required for other purposes should be closed at the cessation of the operation.
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. 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.
Smoke Management (NPWS FMM 3.4)	<ul style="list-style-type: none"> All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database. 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.

Contact Numbers

NSW National Parks & Wildlife Service	
NRR Regional Office 24 hrs	6627 0200
Kyogle Area Office	6632 0000
Kyogle Area Depot	6632 1133
Urbenville Depot	6634 1455
Aboriginal Cultural Heritage Officer	6637 0206
NSW Rural Fire Service	
Kyogle Fire Control Centre	6632 2558
After Hours - Duty Officer Northern Rivers Team	(AHL) 6632 3044
Terrificfield Fire Control Centre 24 hours	6736 4150
NSW Fire Brigade	
Zone Commander - Geoff Barnes	6634 5384
Casino Station - Station Officer David Speed	6662 6051
State Forests of NSW - Casino	6662 0000
Fire & Protection Manager - Bob Williams	6662 0006
Kyogle Shire Council - Enquiries	6632 2611
Police	
Kyogle	6632 1444
Urbenville	6634 1244
Lismore	6621 1599
State Emergency Services (SES)	
Kyogle	13 2500
Tabulam	6632 1847
Tabulam	6666 1319
Ambulance	000
Bookings	131233
Country Energy	13 2880
	13 2366
Res-site owners	
David Ross	6682 2457
Paul Warrhurst	07 4661 4251

Communications Information

Service	Channel	Location and Comments
NPWS - VHF	4	Haystack Mountain
NPWS - VHF (Fireground Comm)	36	Fireground (that channel (single frequency) monitors channel 4)
NPWS - VHF (Portable Repeater)	13	Blue Code. Stored at Kyogle Depot / transportable.
RFS - PWR - UHF	Kyogle 83	Haystack Mountain. Fire 100 Channel UHF
Terrificfield 28		
State Forests NSW	78	State Forests Channel 2 - Haystack Mountain
Aircraft - VHF	125.45	As directed by Incident Controller or Air Operations
Mobile Phone - CDMA	Yes	Coverage varies. Best reception at elevated points. Often utilizes Queensland phone towers - NR: must dial area code 02.
Mobile Phone - GSM	Yes	Coverage varies. Best reception at elevated points. Often utilizes Queensland phone towers - NR: must dial area code 02.



Fire Thresholds

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

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

Strategy Information

The wildfire season is known to start as early as the beginning of August, usually beginning in September, running through to December with the arrival of typical summer weather patterns. The summer weather pattern is often characterised by north to north westerly winds, high temperatures and low humidity. During drought years the fire season may start as early as June and finish as late as March.

Hazard reduction is best carried out in late autumn and winter. HR is achievable in early spring but not desirable ecologically.

FDR - Low to Moderate

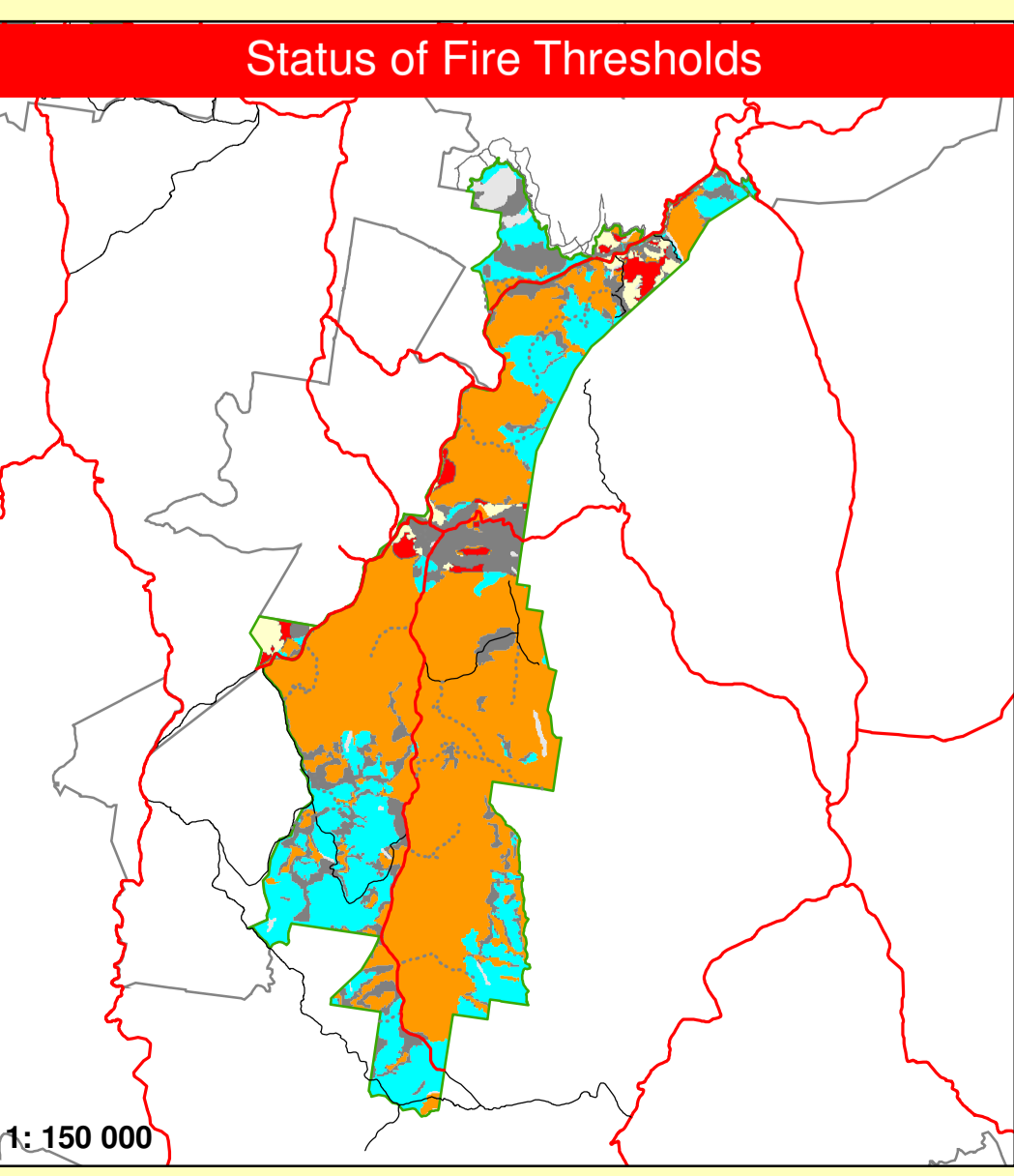
- Consider natural control advantages such as sub-tropical rainforest, wet gullies, rocky areas and escarpments as containment opportunities.
- Direct or parallel attack.
- Consider natural control advantages such as sub-tropical rainforest, wet gullies, rocky areas and escarpments as containment opportunities.

FDR - Moderate to High

- Use natural control advantages such as sub-tropical rainforest, wet gullies, rocky areas and escarpments as containment opportunities.
- Direct attack where possible.
- Direct attack where possible.

FDR - High to Extreme

- Fall back to safe areas - primary roads and trails, recently burnt areas and refuges.
- Underlie property protection as required.
- Use water bombing and surfactants to slow the fire rate of spread and protect rainforest margins.
- Consider protecting rainforest margins by use of aerial ignition on upper slopes.



Fire Management Zones

Asset Protection Zones	Zone	Action	Responsibility
Haystack Radio Tower (A1) 45m x 35m	Moderate	Mechanical treatment when overall fuel hazard reaches moderate.	NPWS / Haystack Development Committee
	High	Mechanical treatment when overall fuel hazard reaches moderate.	Tektra
Tektra Mobile Phone Tower (A2) 40m x 40m	Moderate	Mechanical treatment when overall fuel hazard reaches moderate.	Tektra
	High	Mechanical treatment when overall fuel hazard reaches moderate.	Tektra
Strategic Fire Advantage Zones	Yabba Quarry SFAZ (S1)	Prescribed burn when overall fuel hazard reaches high.	NPWS
	Clarence River SFAZ (S2)	Prescribed burn when overall fuel hazard reaches high.	NPWS with Wotton and Jungtung
Heritage Management Zones	Yabba HMZ	Refer to fire thresholds map and table as part of decision making process regarding suppressing or applying fire.	NPWS

