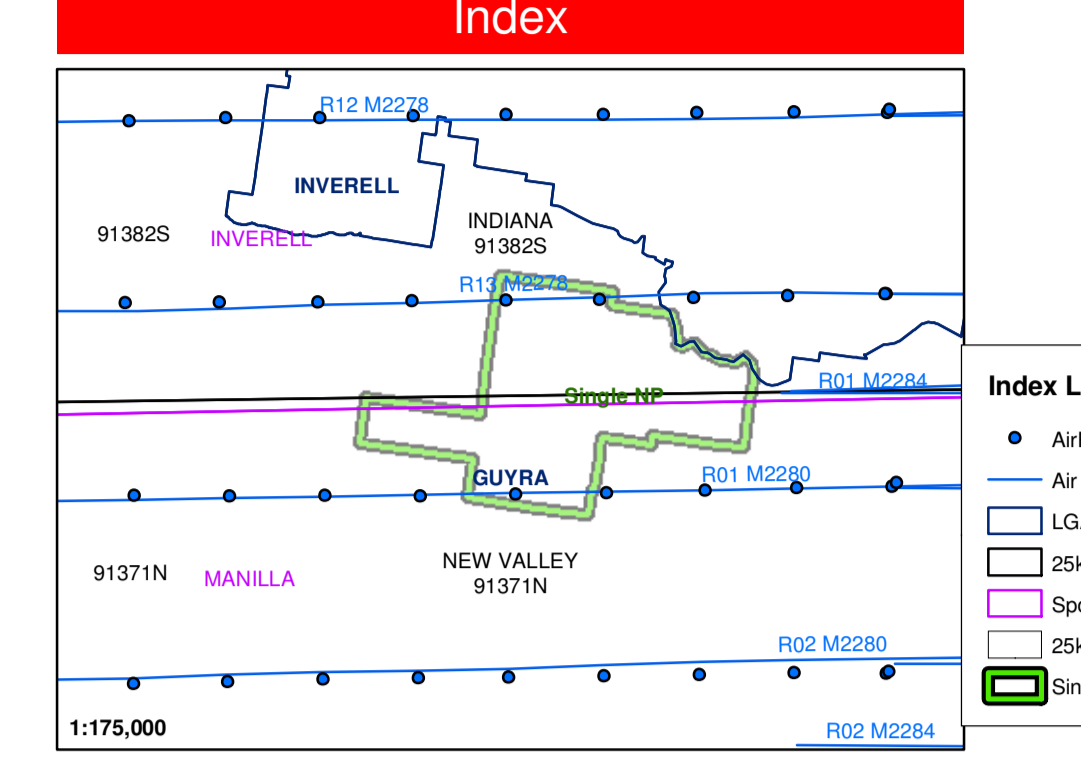


Resource	Operational Guidelines
<b>Aboriginal Cultural Heritage Site Management</b> (NPWS FMM 4.11)	<ul style="list-style-type: none"> <li>Brief all personnel involved in containment line construction &amp;/or vehicle based fire suppression operations, on site locations and the required management strategies appropriate to the site type.</li> <li>Ensure close liaison with the relevant Sites Officer in order to check for &amp;/or identify new sites.</li> </ul>
<b>Historic Heritage Management</b> (NPWS FMM 4.10)	<ul style="list-style-type: none"> <li>Brief all personnel involved in containment line construction &amp;/or vehicle based fire suppression operations, on site locations and the required management strategies appropriate to the site type.</li> </ul>
<b>Threatened Fauna Management</b> (NPWS FMM 4.12 & 5.2)	<ul style="list-style-type: none"> <li>Brief all personnel involved in containment line construction &amp;/or vehicle based fire suppression operations, on site locations and the required management strategies appropriate to the site type.</li> <li>Where practicable, protect habitat areas and trees from the fire if the effects of the resulting fire frequency, season &amp;/or intensity will have a significant or unknown impact.</li> </ul>
<b>Threatened Flora Management</b> (NPWS FMM 4.12)	<ul style="list-style-type: none"> <li>Brief all personnel involved in containment line construction &amp;/or vehicle based fire suppression operations, on site locations and the required management strategies appropriate to the site type.</li> <li>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 &amp;/or fire response category is unknown.</li> <li>Where possible, protect old growth habitat trees.</li> </ul>
<b>Threatened Property</b>	<ul style="list-style-type: none"> <li>All property owners with assets at possible risk from a wildfire event will be: <ul style="list-style-type: none"> <li>Kept informed regarding the progress of the fire; and</li> <li>Asked for an assessment of their current level of asset protection preparedness.</li> </ul> </li> </ul>
<b>General</b>	<b>Guidelines</b>
<b>Aerial Water Bombing</b> (NPWS FMM 4.4 / NSW Fire Agencies Aviation SOPs 02 / NPWS Guidelines for Effective Aerial Management)	<ul style="list-style-type: none"> <li>The use of bombing aircraft should support containment operations by aggressively attacking hotspots and spotfires.</li> <li>The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances.</li> <li>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 &amp;/or fire response category is unknown.</li> <li>Ground crews must be alerted to water bombing operations.</li> </ul>
<b>Aerial Ignition</b> (NPWS FMM 4.2.30 & 4.4 / NSW Fire Agencies Aviation SOPs 02 / NPWS Guidelines for Effective Aerial Management)	<ul style="list-style-type: none"> <li>Aerial ignition may be used during fire reduction and backburning operations where practicable, but only by the prior consent of the senior NPWS officer.</li> </ul>
<b>Backburning</b> (NPWS FMM 4.8)	<ul style="list-style-type: none"> <li>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. Wind &amp;/or intensity will have a significant or unknown impact.</li> <li>Where practicable, clear a 1 m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or set down these trees as part of the backburn ignition.</li> <li>Brief all involved personnel on the location of cultural sites and threatened species prior to backburning, and adhere to the above guidelines.</li> <li>The fire command agency on site may assume control of the fire, but then must ensure the relevant land management agency is notified promptly.</li> <li>On the arrival of other command agencies, the initial incident controller will consult with regard to the ongoing command, control and incident management team requirements as per the relevant BPMC Plan of Operations.</li> </ul>
<b>Command &amp; Control</b> (NPWS FMM 4.2)	<ul style="list-style-type: none"> <li>Construction of new containment lines should be avoided, except where they can be built by hand with minimal erosion potential.</li> <li>Only existing or previous trails or other containment line routes will be used.</li> <li>Roads and trails to be used as containment lines but requiring works should be prioritised in consultation with relevant IMT and Fire Group staff.</li> <li>All containment lines not required for other purposes should be closed immediately at the cessation of the incident.</li> <li>Where practicable, erosion control works should be incorporated into the containment line construction phase.</li> <li>All personnel involved in containment line construction should be briefed on both natural and cultural heritage sites in the location.</li> </ul>
<b>Earthmoving Equipment</b> (NPWS FMM 4.2.20 & 4.3)	<ul style="list-style-type: none"> <li>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.</li> <li>Earthmoving equipment must be washed down prior to entering NPWS estate.</li> <li>As far as possible, restrict its use to previously used containment lines.</li> <li>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 fire fighting vehicle.</li> <li>Containment lines constructed by earthmoving equipment should be at least 50 m from depression lines in order to avoid erosion problems.</li> <li>Observe the Threatened Species and Cultural Heritage Operational Guidelines.</li> <li>Proposed containment lines to be constructed with earthmoving equipment should be surveyed to identify unknown cultural heritage sites.</li> </ul>
<b>Fire Advantage Recording</b>	<ul style="list-style-type: none"> <li>All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.</li> </ul>
<b>Fire Suppression Chemicals</b> (NPWS FMM 4.2.20 & 4.3)	<ul style="list-style-type: none"> <li>Wetting and foaming agents (surfactants) are permitted for use in wildfire suppression.</li> <li>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.</li> <li>Exclude the use of surfactants and retardants within 50 m of rainforest, watercourses, dams and swamps.</li> <li>Areas where fire suppression chemicals are used must be mapped and the used product's name recorded.</li> <li>Observe the Threatened Species Operational Guidelines.</li> </ul>
<b>High Voltage Overhead Power Lines</b>	<ul style="list-style-type: none"> <li>Before conducting wildfire suppression or hazard reduction burning operations, in or near high voltage overhead power line (138 kilovolt (KV) or greater) easements, all personnel must be briefed as per NPWS Fire Management Circular 2001/8 dated 14 November 2001.</li> <li>Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.</li> <li>Observe the Threatened Species Operational Guidelines.</li> </ul>
<b>Rehabilitation</b> (NPWS FMM 5.1)	<ul style="list-style-type: none"> <li>The potential impact of smoke and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations.</li> <li>If smoke becomes a hazard on local roads or highways, the police and relevant media must be notified.</li> <li>The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.</li> </ul>
<b>Visitor Management</b> (NPWS FMM 3.6 & 4.13)	

**First Response Communications Plan - Single NP**

Service	Channel	Incident	Location and Comments
NPWS - VHF	6	IMT to Div Com	Little Duval (Alternative Mt Ross Ch 21) Reverse channels (54/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/00)
NPWS - VHF	38	Fireground	Car to Car channel (all classes) Alternative FC Ch 18 (Simplex only, line of sight)
NPWS - VHF (Portable Repeater)	15	Fireground	Shoofat Glen Lines (Transmittable). Source and display as required.
RFS - FMR - UHF	P054	IMT to Div Com	Little Duval (Class 2 & 3 Fires)
Forests NSW - VHF	NPWS 26	Fireground	SF 426 (Joint agency operations)
CS - UHF	12	Fireground	Channel as appropriate. (Div Com, CL to Contractors)
Aircraft - VHF	119.10	IMT - Aircraft	
Mobile Phone - 3 G	Variable	IMT - Div Com	Platby in reserve, try high points.
Satellite Phone	01471 54553	IMT - Div Com	Stored at Armidale Area Office



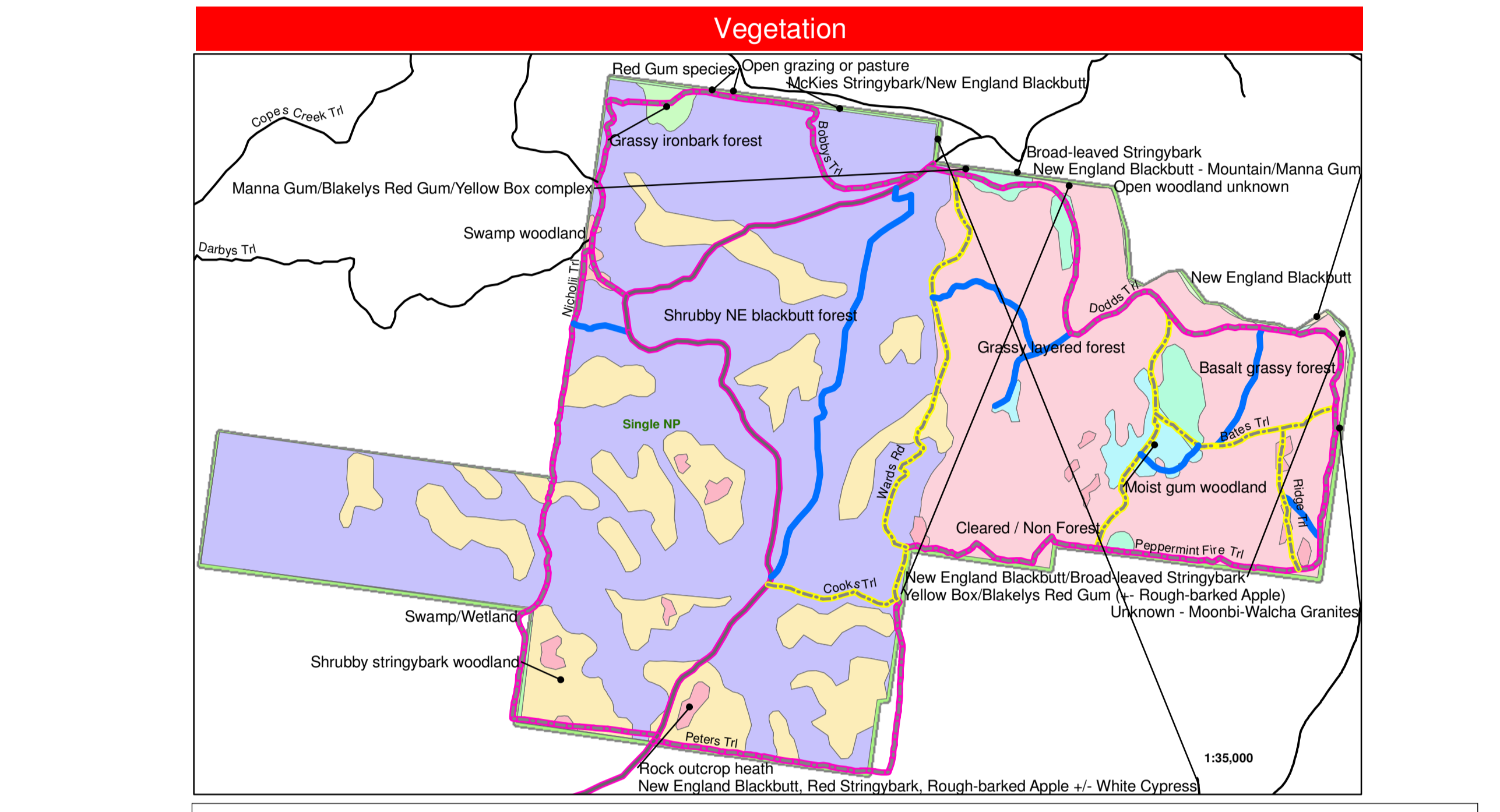
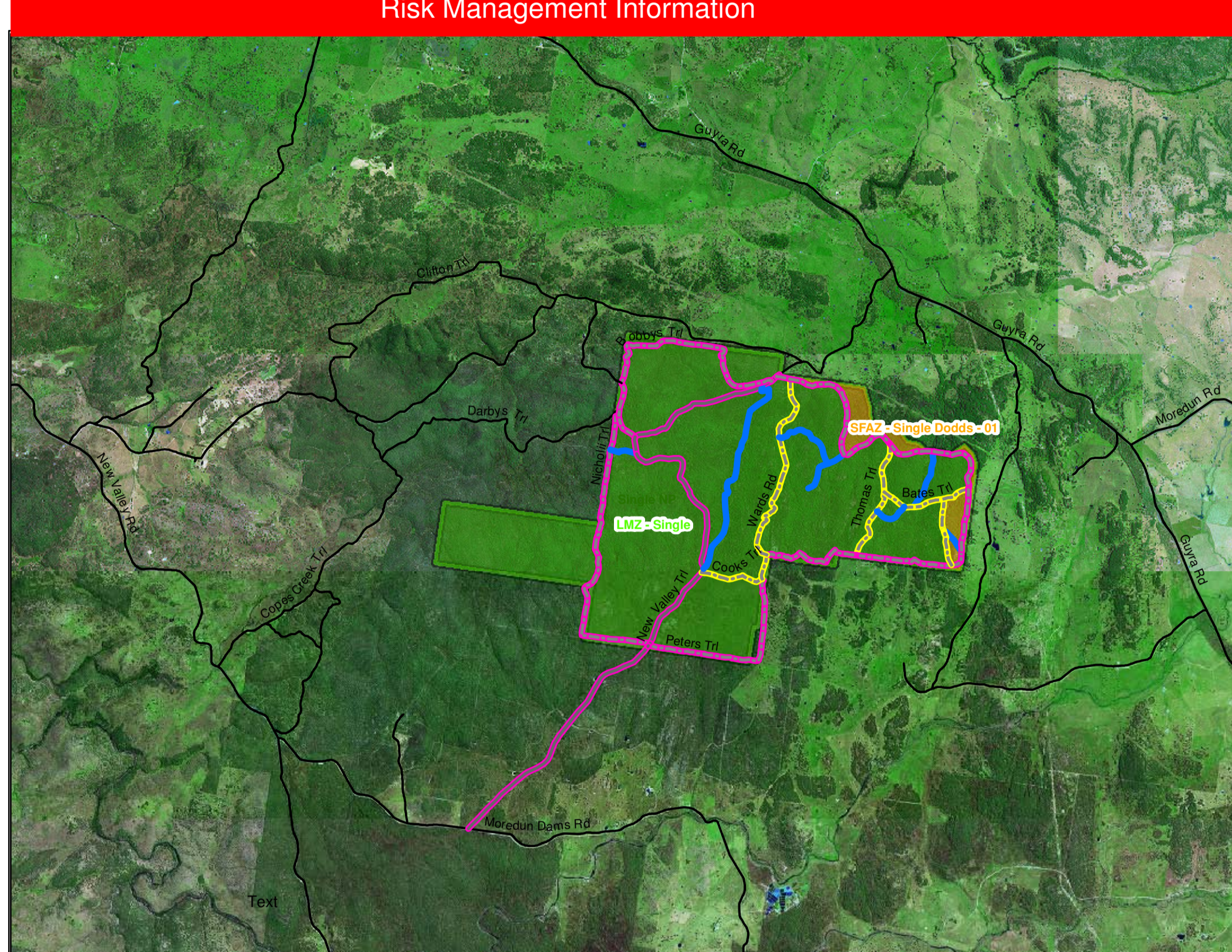
**Category Name**

**Guidelines for interpreting fire regime threshold status**

- Too Frequently Burnt**  
These areas have experienced sustained (two or more) consecutive intervals between fires shorter than the recommended minimum interval for this vegetation type. Any Raintree / Mangrove / fire exclusion vegetation that has been burnt will be in this category.  
Areas of vegetation that are repeatedly burnt at intervals shorter than recommended for the vegetation type may experience a decline in the abundance of plant species sensitive to fire. If fire intervals shorter than the recommended minimum continue, these sensitive species are at risk of local extinction. Attempts should be made to minimize fire occurrence in these areas.
- Vulnerable to Frequent Fire**  
These areas have already experienced one or two fire intervals less than the minimum interval recommended for this vegetation type and/or the current time-since-fire is less than the minimum recommended interval. All unburnt Raintree / Mangrove / fire exclusion vegetation is in this category.  
The time-since-fire age of the vegetation is greater than the minimum recommended interval but less than the maximum recommended interval. If a fire occurs before the number of years specified in the minimum interval has been reached it will move into the 'Vulnerable to Frequent Fire' category. If three or more fires occur in close succession the area will move into the 'Too Frequently Burnt' category.
- Within Threshold**  
The post-fire age of the vegetation is greater than the recommended maximum interval for this vegetation type.  
If fire continues to be absent from the vegetation for a prolonged time, it is anticipated that plant species that require fire to stimulate flowering or seed production (and their seed banks) may begin to senesce. Long unburnt areas in some vegetation types are very rare and therefore significant. Long unburnt vegetation may also have other ecological values that make it important habitat for certain species in a given area. Careful consideration should be given before burning these areas, and wherever possible the decision should be based on a scientific assessment and/or recommendation prior to burning.
- Long Unburnt**  
One or more fire intervals longer than longest suggested interval.
- Unknown**  
There has been no fire mapped for this area and the maximum recommended fire interval for the vegetation type is longer than the length of time for which records are available in the study area. It is not possible to determine if the vegetation is in the 'Within Threshold' or 'Long Unburnt' category.
- No Fire Regime**  
Areas which do not have recommended fire intervals assigned to them, e.g. cleared land, rock etc.

**Contact Information**

Agency	Position/Location	Phone	Emergency Services	Position/Location	Phone
National Parks & Wildlife Service	Area Manager	0428 613 073	Police, Fire, Ambulance	000	
	Armidale Area Office (bus hours)	6738 9100	SES		13 2500
DECW - CCHD	NTR Duty Officer	0428 345 179	Police		6738 4239
	Manager: Steve McPham	6776 0038	Forest NSW	Duty Officer	0428 643115
New England	Duty Officer	6762 7641	Council	Guyra Shire	6776 1577
NSW Rural Fire Service	Armidale Fire Control	6771 2400	LALC	Guyra	6779 1803
Local Brigade Capt			Hospital	Guyra	6779 1166
Energy Australia / Origin	Public Emergency Numbers	131 888 / 132 080			



**Fire Management Zones**

Zone	Purpose	Suppression objectives	Zone characteristics	Key Performance Indicators
<b>Strategic Fire Advantage Zones (SFAZ)</b>	To provide strategic areas of fire protection advantage which will reduce the speed and intensity of bushfires, and reduce the potential for spot fire development. To aid containment of bushfires to existing management boundaries.	<ul style="list-style-type: none"> <li>To improve the likelihood and safe use of parallel attack suppression strategies within the zone, or indirect attack (back-burning) in high to very high fire weather conditions within the zone.</li> <li>To reduce the likelihood of crown fire development within the zone, or spot fire ignition potential from the zone.</li> </ul>	<ul style="list-style-type: none"> <li>Zone width relates to suppression objectives and depends upon: <ul style="list-style-type: none"> <li>topography</li> <li>aspect</li> <li>spotting propensity</li> <li>location of adjacent firebreaks</li> <li>mosaic pattern of treatment.</li> </ul> </li> <li>Management practices should aim to achieve mosaic fuel reduction patterns so that the majority of the SFAZ has an OFI of high or below.</li> </ul>	<ul style="list-style-type: none"> <li>&gt; 70% of SFAZs treated to comply with minimum SFAZ threshold and not exceeding maximum LMC threshold for the vegetation formation (as per the BFMAC)</li> </ul>
<b>SFAZ - Single Dudes</b>	To assist in the protection of private assets to the east and south-east of the reserve.		This zone extends from the NE corner of the reserve along the eastern boundary and SE corner. The SFAZ may be burnt over a number of sequential operations rather than one single block.	Fire Interval 5-10 years. Burning of this zone could be staged from 2008-2013
<b>Land Management Zones (LMZ)</b>	To meet relevant land management objectives in areas where APZs or SFAZs are not appropriate.	<ul style="list-style-type: none"> <li>As per the land management and fire protection objectives of the responsible land management agency.</li> <li>To undertake mosaic burning to reduce the likelihood of spread of fire.</li> </ul>	<ul style="list-style-type: none"> <li>As possible to achieve land management objectives (e.g. protecting heritage or broad scale mosaic burning objectives)</li> </ul>	> 50% of LMZs maintained within vegetation biodiversity thresholds, < 20% below, < 35% above.

**Vegetation Legend**

Fire Vegetation	Description
Red Gum species	Mokles Stringybark/New England Blackbutt
Moist gum woodland	Moist gum woodland
New England Blackbutt	New England Blackbutt
Broad-leaved Stringybark	New England Blackbutt - Mountain/Manna Gum
New England Blackbutt	New England Blackbutt, Red Stringybark, Rough-barked Apple +/- White Cypress
Grassy ironbark forest	New England Blackbutt/Broad-leaved Stringybark
Grassy layered forest	Open grazing or pasture
Swamp/Wetland	Swamp/Wetland
Swamp/Wetland	Swamp/Wetland
Open woodland unknown	Open woodland unknown
Unknown - Moorbi-Walcha Granites	Unknown - Moorbi-Walcha Granites
Yellow Box/Blakelys Red Gum +/- Yellow Box complex	Yellow Box/Blakelys Red Gum +/- Yellow Box complex
Open woodland unknown	Open woodland unknown

