

### 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
<b>Aboriginal Cultural Heritage Site Management</b> (NPWS FMM 4.11)	<ul style="list-style-type: none"> <li>No known sites in Reserve. If new sites are located consult with a senior NPWS officer</li> </ul>
<b>Historic Heritage Management</b> (NPWS FMM 4.10)	<ul style="list-style-type: none"> <li>One site exists and is classified as HH2 - Protect site from fire. Avoid all ground disturbance including the use of earthmoving machinery, handline construction and driving over sites. This site is the 'Goonengerry State Forest Nursery and Picnic Area'</li> </ul>
<b>Threatened Fauna Management</b> (NPWS FMM 4.12 & 5.2)	<ul style="list-style-type: none"> <li>Avoid impact on rainforest.</li> <li>Avoid impact on streams.</li> <li>Protect large and hollow-bearing trees.</li> </ul>
<b>Threatened Flora Management</b> (NPWS FMM 4.12)	<ul style="list-style-type: none"> <li>Avoid impact on rainforest</li> <li>Avoid impact on wet sclerophyll forest</li> </ul>
<b>Threatened Property</b>	<ul style="list-style-type: none"> <li>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.</li> </ul>
<b>General</b>	<b>Guidelines</b>
<b>Aerial Water Bombing</b> (NPWS FMM 4.4 / NSW Fire Agencies Aviation SOPs O2 / NPWS Guidelines for Effective Aircraft Management)	<ul style="list-style-type: none"> <li>Foam should be used to increase the effectiveness of water bombing.</li> </ul>
<b>Aerial Ignition</b> (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"> <li>Aerial ignition may be used during back-burning or fuel reduction operations.</li> <li>Utilise incendiaries to rapidly progress back-burns down slope where required.</li> </ul>
<b>Backburning</b> (NPWS FMM 4.8)	<ul style="list-style-type: none"> <li>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.</li> <li>Avoid ignition of backburns at the bottom of slopes where a long and intense up slope burn is likely.</li> </ul>
<b>Command &amp; Control</b> (NPWS FMM 4.2)	<ul style="list-style-type: none"> <li>The first combatant agency on site may assume control of the fire, but then must ensure the NPWS is notified promptly.</li> <li>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.</li> </ul>
<b>Containment Lines</b> (NPWS FMM 2.2 & 3.9)	<ul style="list-style-type: none"> <li>No new containment lines in rainforest.</li> <li>New containment lines require the prior consent of a senior NPWS officer.</li> <li>Containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.</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 a senior NPWS officer.</li> <li>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.</li> <li>Earthmoving equipment should be washed down prior to it entering NPWS estate.</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 & 4.9)	<ul style="list-style-type: none"> <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 50m of rainforest, watercourses, dams and swamps.</li> </ul>
<b>Rehabilitation</b> (NPWS FMM 5.1)	<ul style="list-style-type: none"> <li>Containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.</li> <li>All re-opened and new containment lines not required for other purposes should be closed at the cessation of the incident.</li> </ul>
<b>Smoke Management</b> (NPWS FMM 3.4)	<ul style="list-style-type: none"> <li>If smoke becomes a hazard on local roads or highways, the police and relevant media must be notified.</li> <li>Smoke management must be in accordance with relevant RTA traffic management guidelines.</li> </ul>
<b>Visitor Management</b> (NPWS FMM 3.6 & 4.13)	<ul style="list-style-type: none"> <li>The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.</li> </ul>

### Strategy Information

#### Fire Season Information

**Wildfires**

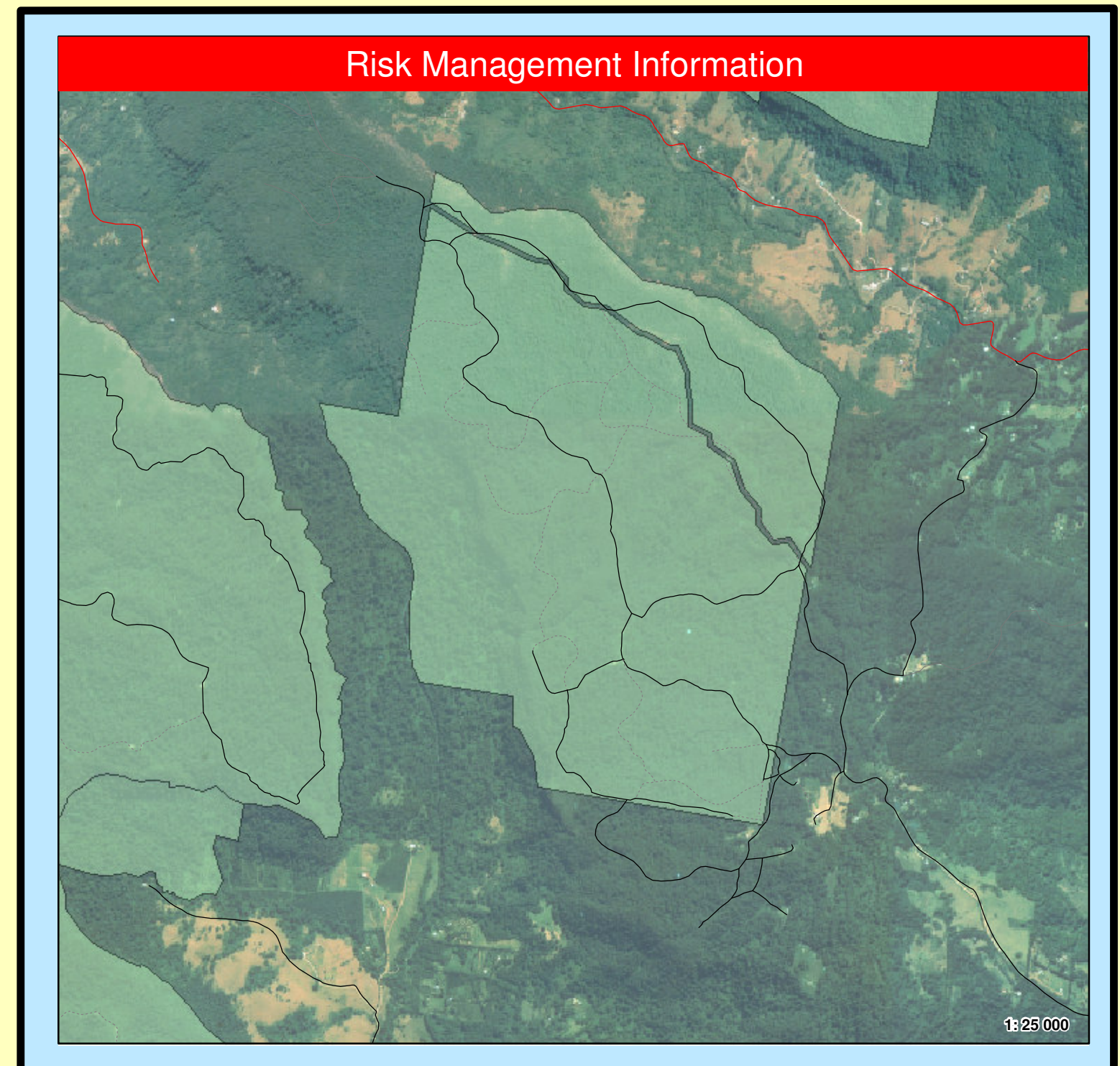
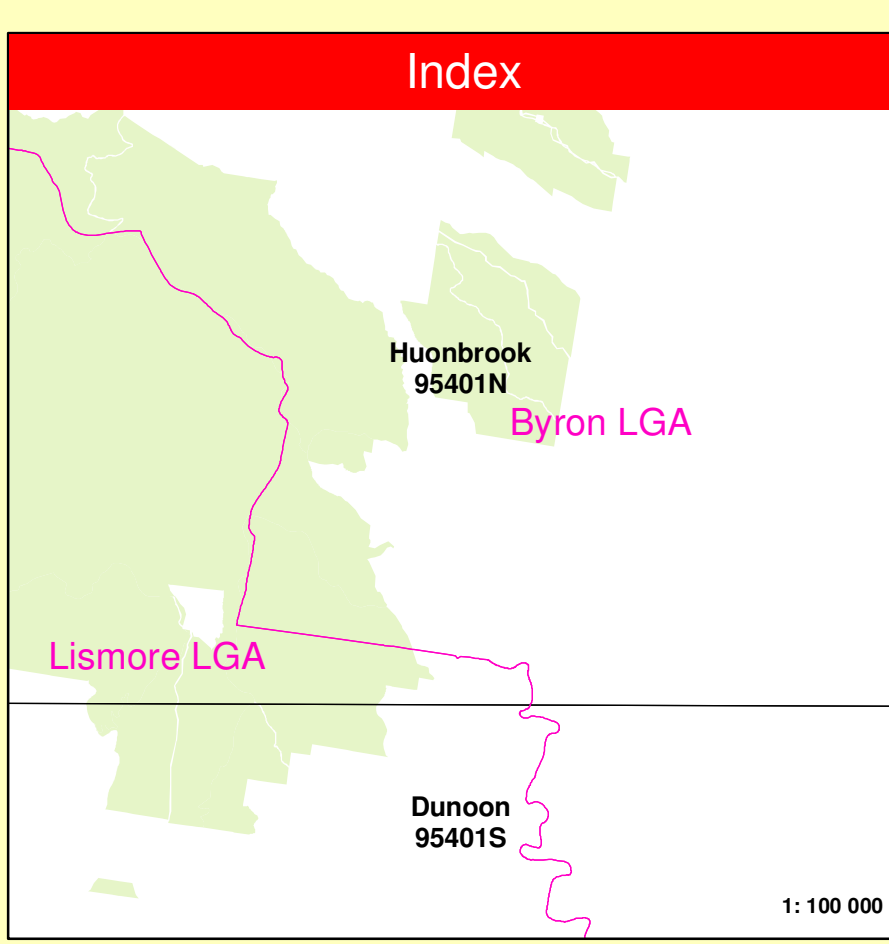
- Have been known to start as early as late August, but usually the potential for a large fire event is greatest between October and December. This period may extend into January in more severe years.
- Coastal wind changes, especially southerlies, require close attention

**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.

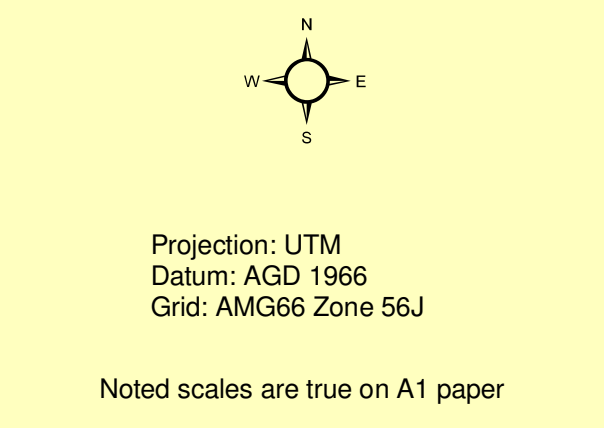
#### Suppression Strategies

Current FDR	Forecast FDR	Suppression Strategies
Low - Mod	Low - Mod	<ul style="list-style-type: none"> <li>Undertake direct, parallel or indirect attack along existing containment lines.</li> <li>Where practicable consider maximising the fire area in accordance with the requirements of any proposed prescribed burns.</li> </ul>
Low - Mod	= > High	<ul style="list-style-type: none"> <li>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.</li> <li>Pay particular attention to the flank on the next predicted down wind side.</li> </ul>
High	All	<ul style="list-style-type: none"> <li>Undertake indirect attack along existing or newly constructed containment lines.</li> <li>Secure and deepen containment lines along the next predicted downwind side of the fire.</li> <li>If applicable consider broader than normal containment strategies to avoid wasted effort and high risk of failure.</li> </ul>
All	All	<ul style="list-style-type: none"> <li>Ensure there is sufficient time to secure containment lines prior to the fire impacting upon them; otherwise fall back to the next potential line.</li> <li>Use existing containment lines. Do not construct new lines unless of vital importance for life and property protection.</li> <li>Retain trees with hollows. Take steps to clear around base and or wet down trees with hollows that occur on the edge of containment lines.</li> </ul>



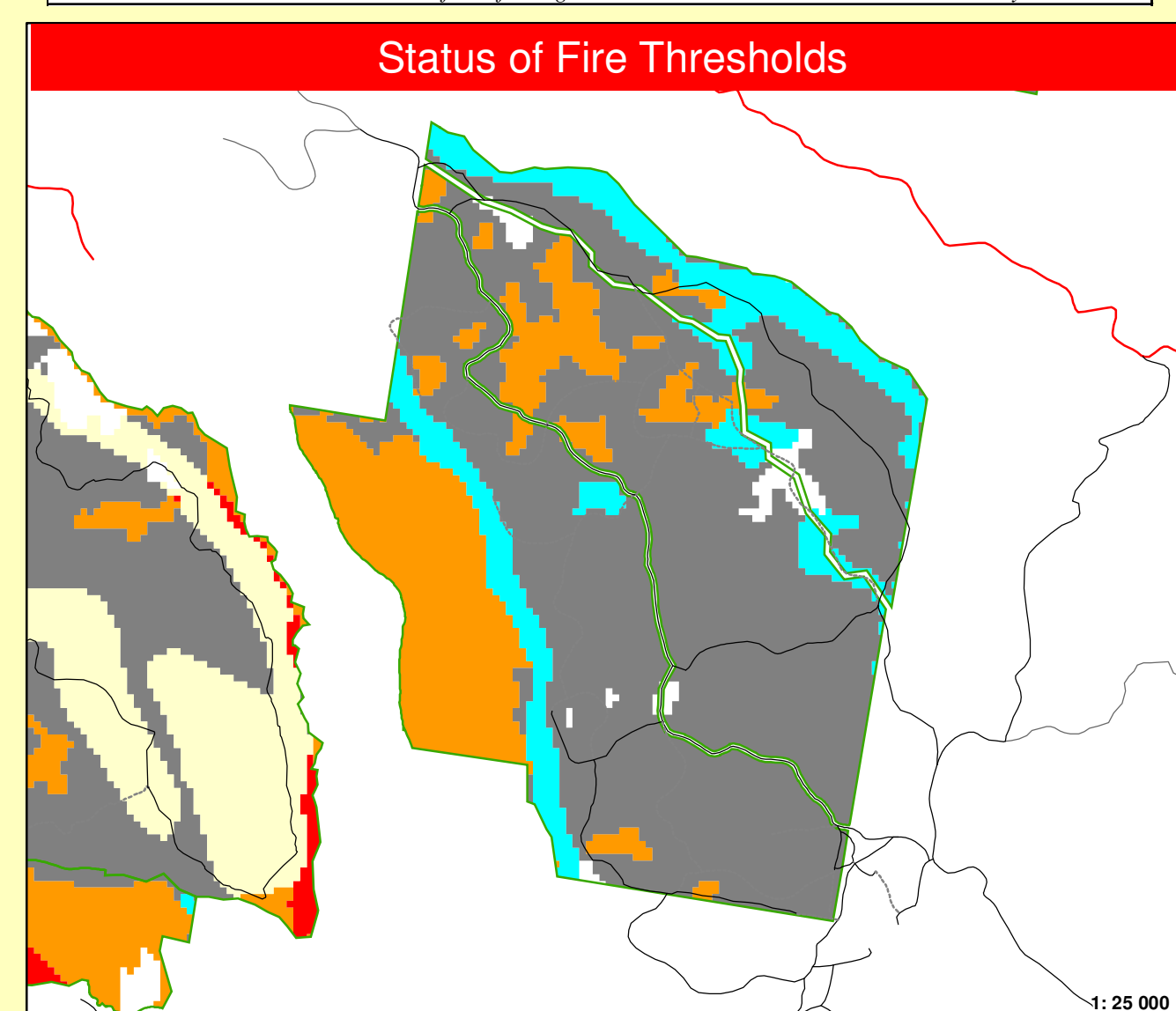
### Fire Management Zones

<b>Asset Protection Zones</b>	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.
<b>Strategic Fire Advantage Zones</b>	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.
<b>Heritage Management Zones</b>	The objective of HMZs is to conserve biodiversity and protect cultural heritage. Manage fire consistent with fire thresholds.



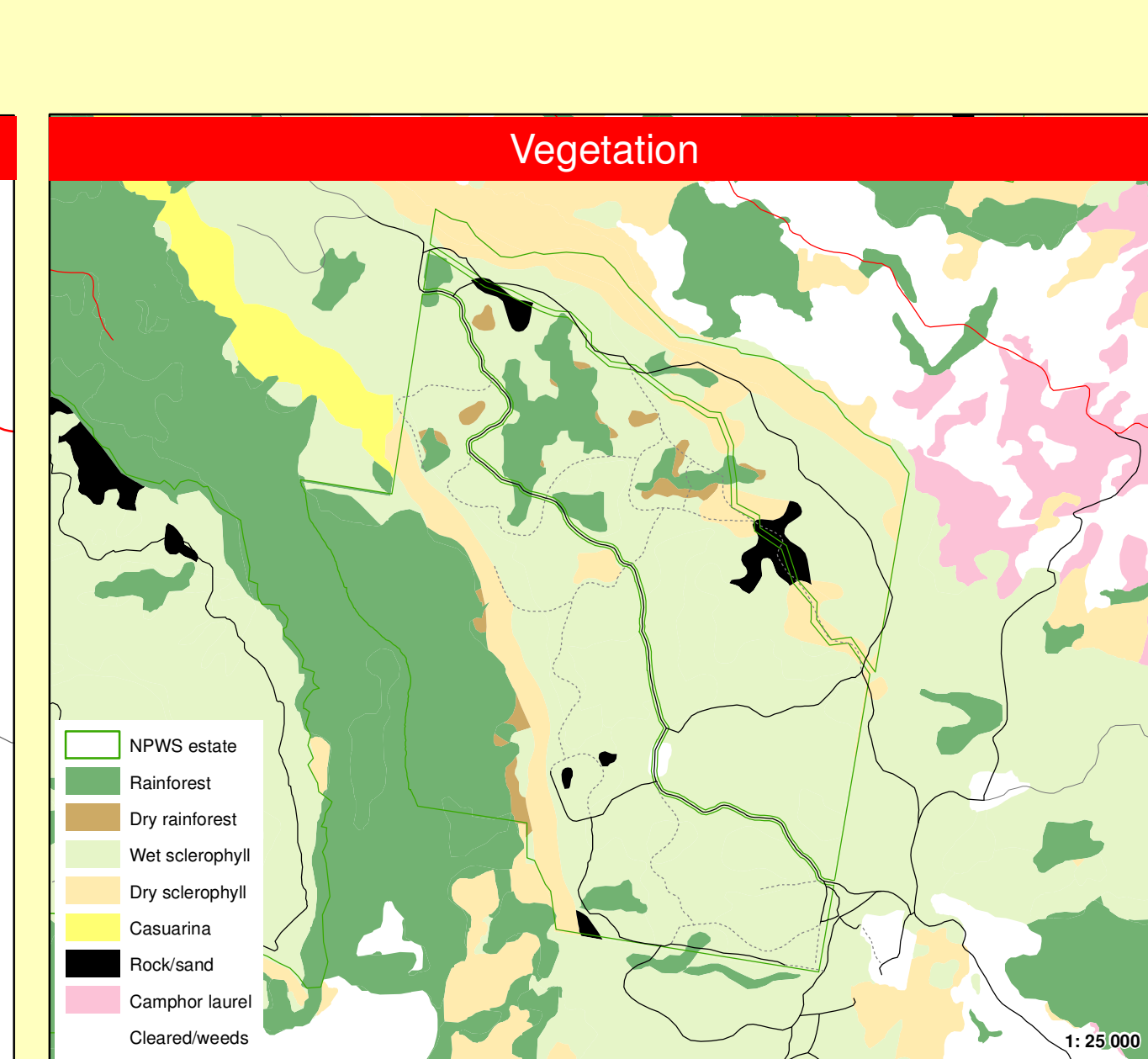
### Fire Thresholds

<b>Overburnt</b>	Fire thresholds have been exceeded. - Protect from fire as far as possible.
<b>Vulnerable</b>	The area will be Overburnt if it burns this year. - Protect from fire as far as possible.
<b>Recently Burnt</b>	Time since fire is less than the optimum interval, but before that it was within threshold. - Avoid fires if possible.
<b>Within Threshold</b>	Fire history is within the threshold for vegetation in this area. - A burn is neither required nor should one necessarily be avoided.
<b>Almost Underburnt</b>	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.
<b>Underburnt</b>	Fire frequency is below fire thresholds in the area. - A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.
<b>Unknown</b>	Insufficient data to determine fire threshold. NB. Fire thresholds are defined for vegetation communities to conserve biodiversity



### Contact Numbers

NSW National Parks & Wildlife Service	
NRR Regional Office - Alstonville 24 hrs	6627 0200
Richmond River Area Office	6627 0200
Richmond River Area Depot	6628 3786
Aboriginal Heritage Conservation Officer	6627 0200
<b>NSW Rural Fire Service Northern Rivers 24 hrs</b>	6632 3044
<b>NSW Fire Brigade - Zone Commander</b>	6624 5384
<b>Byron Shire Council</b>	6626 7000 (AH) 6622 7022
<b>Police - Mullumbimby</b>	6684 2144
<b>State Emergency Services (SES) - Mullumbimby</b>	6684 3444
<b>Emergencies</b>	0414 243 966
<b>Ambulance / Bookings</b>	000 / 13 1233



### Communications Information

Service	Channel	Location and Comments
NPWS - VHF	8	Mt 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 (Koreelah)	68 / 48	Koonyum Range and Cape Byron
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	Coverage varies. Best reception at elevated points.
Mobile Phone - GSM	No	No coverage