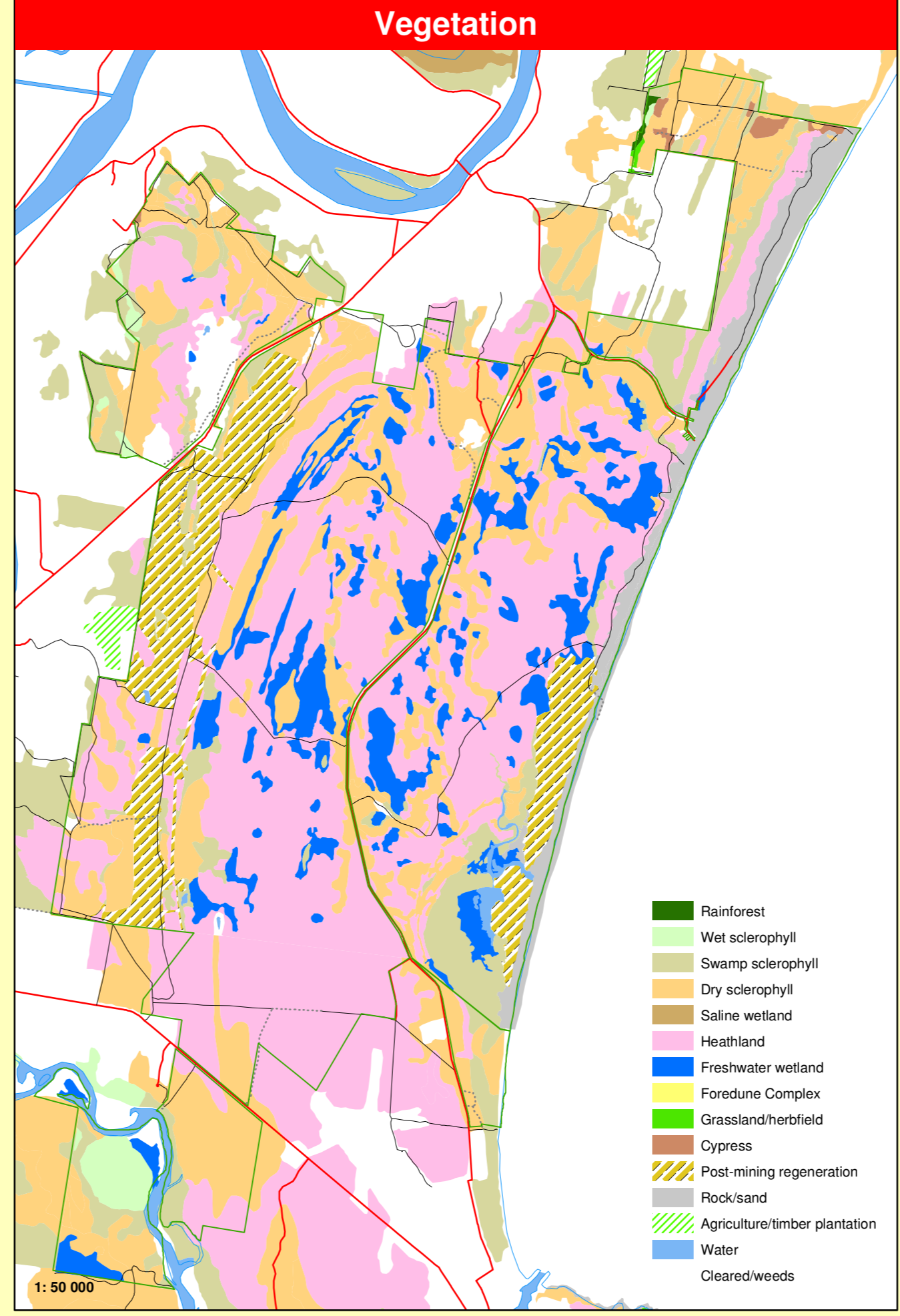


Fire Thresholds	
Overburnt	Fire thresholds have been exceeded. <i>Protect from fire as far as possible.</i>
Vulnerable	The area will be Overburnt if it burns this year. <i>Protect from fire as far as possible.</i>
Recently Burnt	Time since fire is less than the optimum interval, but before that it was within threshold. <i>Avoid fires if possible.</i>
Within Threshold	Fire history is within the threshold for vegetation in this area.
Almost Underburnt	A burn is neither required nor should one necessarily be avoided. 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. <i>NR Fire thresholds are defined for vegetation communities to conserve biodiversity.</i>

Contact Information		
Agency	Position / Location	Phone
NPWS	NRR Regional Office - Alstonville	6627 0200 / 6628 3937 (fax)
	Richmond River Area Depot	6628 3786
	Aboriginal Cultural Heritage Officer	6620 7205
Emergency		000
Rural Fire Service	Northern Rivers Duty Officer	6632 3044
	Richmond Valley Fire Control Centre	6663 7211
NSW Fire Brigade	Lismore	6622 6088
	Evans Head	6682 4400
	Goondiabrah	6625 2070
	Woodburn	6682 8369
SES	Police Assistance Line	131444
	Evans Head	6682 4202
Police	Woodburn	6682 2444
	Contacts apart from emergency	131233
AMBulance	NSW Fisheries - Ballina	6686 2018
Council	Richmond Valley Council	6660 0300
	General enquiries	132356
Country Energy	Bundjalung Native Title Claimant - Laura Wilson	6683 1816
	Jali LALC	6683 4413
Aboriginal contacts		

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 Site Management (NPWS FMM 4.1.1)	Aboriginal sites are not shown on this version. Vulnerable sites will be shown on the operational version of this strategy following consultation with the Aboriginal community.
Historic Heritage Management (NPWS FMM 4.1.0)	<ul style="list-style-type: none"> HH2 - As far as possible protect site from fire. Avoid all ground disturbance including the use of earthmoving machinery, handline construction and driving over sites.
Threatened Fauna Management (NPWS FMM 4.1.2 & 5.2)	<ul style="list-style-type: none"> Over riding imperatives in relation to threatened fauna Protect large and hollow-bearing trees Avoid impact on wetlands, littoral rainforest and streams Protect large and hollow-bearing trees <p>Ouleyan Pygmy Perch (OPP) occurs in the Park. Known habitat is shown on the Bushfire Suppression map. In known OPP habitat:</p> <ul style="list-style-type: none"> Avoid prescribed burning during core breeding season (September - March) Adopt a mosaic burning pattern, only burn 1/3 of the wetlands in any one year. Avoid pumping water from OPP habitat Avoid the use of fire fighting foam and retardants within 50m of habitat. <p>Note: The Department of Primary Industries (Fisheries) should be notified ASAP following suppression of any fires in OPP habitat.</p>
Threatened Flora Management (NPWS FMM 4.1.2)	<ul style="list-style-type: none"> Avoid impact on wetlands and littoral rainforest. Avoid breaching fire interval guidelines for vegetation communities.
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	
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"> Foam should be used to increase the effectiveness of water bombing, except within 50m of wetlands and OPP habitat.
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 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 fibrous backed trees adjacent to containment lines prior to backburning, or wet down these trees as part of the backburn ignition.
Command & Control (NPWS FMM 4.2)	<ul style="list-style-type: none"> 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 (NPWS FMM 2.2 & 3.9)	<ul style="list-style-type: none"> No new containment lines in wetlands. 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)	<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.
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"> 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)	<ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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)	<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.
Hazards	<ul style="list-style-type: none"> There is an area of buried asbestos adjoining either side of the northern end of Old Mining Trail for approximately 1km. This area is signposted on the ground and shown as a hazard symbol on the Bushfire Suppression map. Avoid all ground disturbance including the use of earth moving machinery, handline construction and driving over site, avoid water bombing which may cause ground disturbance. Some management trails can become inundated during wet years and may not be trafficable to back vehicles.



Strategy 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. Pay particular attention to forecast southerly changes.		
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.

Communications Information		
Service	Channel	Location and Comments
NPWS - VHF	8	Mt Nardi
NPWS - VHF (Fireground Comm)	40	Fireground chat channel (single frequency monitors)
NPWS - VHF (Portable Repeater)	13	Portable repeater. Blue Code. Stored at Kyeleg NPWS Depot / transportable.
RES - PMR - UHF	82 / 64	Moomba and Naughtons Cup
RES - GRN	-	No service available.
CB - UHF	-	To be confirmed with RES brigade captain on the day.
Aircraft - VHF	123.45 MHz	Or as directed by Incident Controller or Air Operations
Mobile Phone - CDMA	Good	Best reception at elevated points.
Mobile Phone - GSM	No	

- Contour interval 10m
- Burnt 2002-03
 - Burnt 2004-05
 - Burnt 2003-04
 - Broadwater NP
 - Bundjalung NP
- Features**
- Helibase
 - Caution
 - Historic Site
 - Helipad
 - Threatened Property
 - Water Point Helicopter
 - Water Point Vehicle
 - Vantage Point
 - Gate - NPWS
 - Gate - non NPWS
- Access**
- Primary (Cat 1)
 - Secondary (Cat 9)
 - Closed
 - Gate - Proposed
 - Bee site (owner's name)
 - Powerline
 - Proposed trail
 - Walking track
 - Asset Protection Zone
 - Assume all gates locked



Fire Management Zones			
Asset Protection Zones	Zone	Action	Responsibility
	Broadwater Beach Dayuse Area (A1) 90m x 40m	Mechanical treatment when overall fuel hazard reaches moderate.	NPWS
	Broadwater Lookout (A2) 40m x 40m	Mechanical treatment when overall fuel hazard reaches moderate.	NPWS
	Headland Homes (A3) 50m x 20m west of allotments and between allotments. 80m x 3m south of allotments. 50m x 3m east of allotments.	Mechanical treatment when overall fuel hazard reaches moderate.	NPWS
Strategic Fire Advantage Zones	Zone	Action	Responsibility
	Reagan (A4) 30m x 10m	Mechanical treatment when overall fuel hazard reaches moderate.	NPWS
	Rileys Hill (S1)	Prescribed burn when overall fuel hazard reaches high.	NPWS
	Headland (S2) Central (S3) Crash (S4)		

Heritage Management Zones

The objective of HMZs is to conserve biodiversity and protect cultural heritage. Refer to fire thresholds map and table as part of decision making process regarding suppressing or applying fire.