

**This strategy should be used in conjunction with aerial photography and field reconnaissance.**

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The NSW National Parks and Wildlife Service is part of the Department of Planning, Industry and Environment.  
Published by the Office of Environment and Heritage (NSW).

ISBN: 978-1-922493-52-1	DPIE Number: EES2020/0502	Last Updated: 13/04/2021
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 This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of the Rural Fires Act 1997.

Datum: GDA_1994_MGA_Zone_56    Geographic Coordinate System: GCS_GDA_1994    Noted scales: True when printed on A0 size paper	
<b>Local Government Area:</b> Tenterfield	<b>Topographic Map:</b> 1:50,000, Emmaville 9239-3

Contact Information		
Agency	Position / Location	Phone
National Parks & Wildlife Service	Area Manager - Darren Pitt	0427 212 255
	Duty Officer (24 hour)	0275 742 742
	Northern Tablelands Area Office (8am - 6pm)	078 670 1000
	NT Zone Team - Chris Walbridge	0428 657 547
	NT Zone Office	078 670 1000
NSW Rural Fire Service	NT Zone Office	078 670 1000
Northern Tablelands	Tableted Office	078 670 1450
Forest Corporation of NSW	Corlis Hamilton	0662 311 111
	Graham	0666 222 222
	Tableted Office	0666 333 333
Fire & Rescue NSW	Newcastle Control Centre	0429 717 777
Emergency Services	Police, Fire, Ambulance	000
SES		132 000
Police	Tableted	078 670 1450
Fire	Control	078 670 1000
Local Aboriginal Land Council	Moomba/Lance LALC	0385 1249
		0385 1486

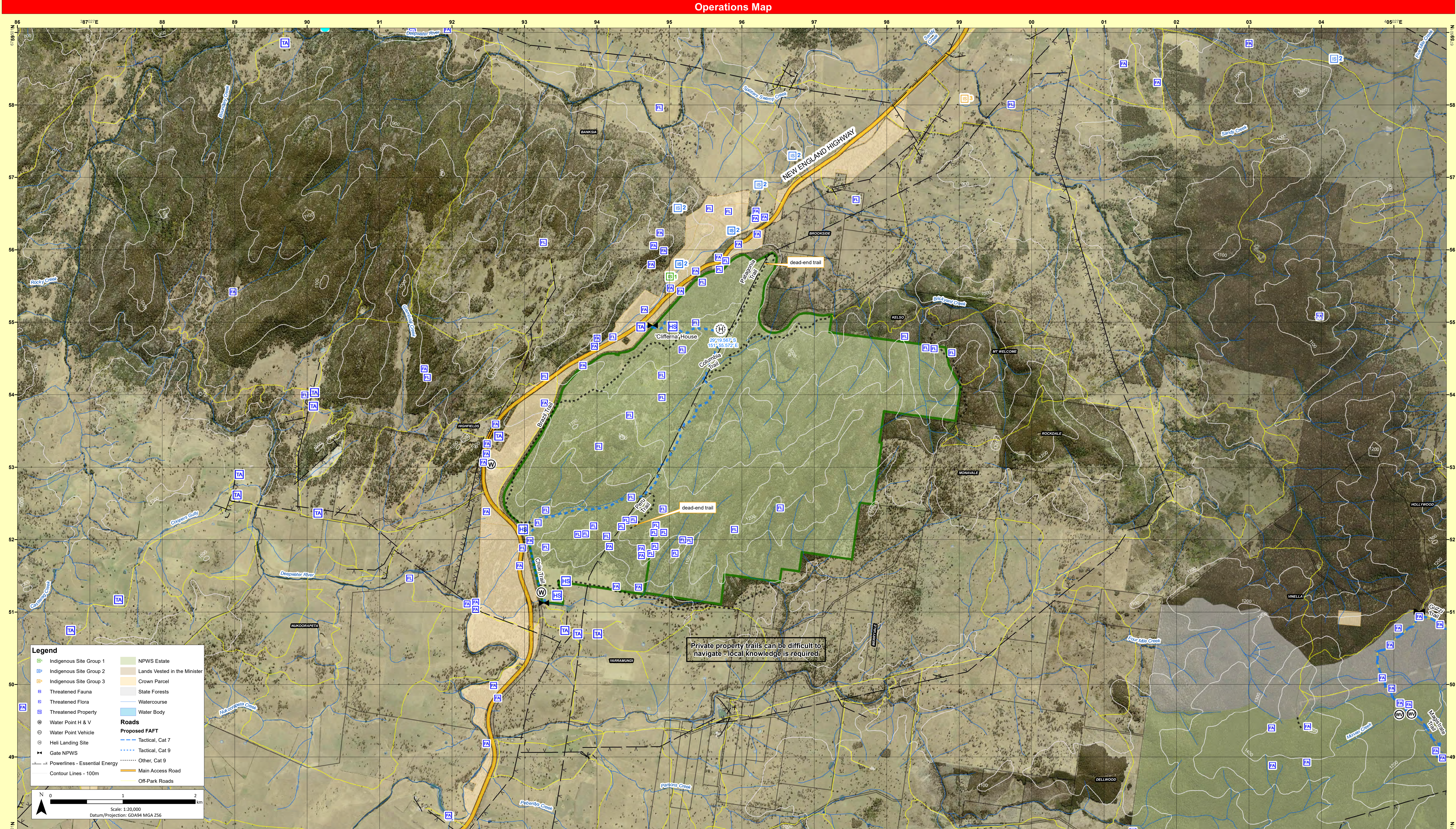
Service	Channel	Location and Comments
NEWS Repeaters	334 330 634	<ul style="list-style-type: none"> <li>Summit Mountain</li> <li>North Voth Group</li> <li>Fire ground</li> </ul>
RFS	N011	<ul style="list-style-type: none"> <li>Northern Tablelands Digital Voting</li> </ul>
UHF - CB		<ul style="list-style-type: none"> <li>Small fires channel 10, large fires determined by IMT</li> </ul>
Aviation - CTAF	134.70	NB frequency unless another frequency is allocated on an incident
Mobile		<ul style="list-style-type: none"> <li>Coverage is variable and best at higher points. You may have to move to a higher location for good signal.</li> </ul>
Satellite Phone	0147 165 975 0147 154 198	<ul style="list-style-type: none"> <li>Stored at Glen Innes</li> </ul>

<b>Wildfires</b>	The critical wildfire season occurs during September to November. This period may extend into January if the normally reliable summer rainfall does not eventuate. Particular care is required during periods of negative Southern Oscillation Indices. The end of the critical fire season is often marked by wet storm activity.
<b>Prescribed Burning</b>	Fuel accumulation rates are generally high, and fire can carry through forest burn only several years previously. Prescribed burning is most effective in late winter and early spring where the combination of low rainfall and cured fuels from frosts maximises available fuel loads. Autumn burns are possible, but rainfall events in this period can mean fuel moisture contents remain too high for effective hazard reduction burning.

<b>Alarm Operations</b>	<ul style="list-style-type: none"> <li>All personnel will be managed by trained and competent personnel. This includes directed entry briefing and initial alarm operations.</li> <li>The use of sound horns or other type of sound ground-based suppression covers are limited to very specific circumstances.</li> <li>All aerial alarm operations require the consent of a senior NPPWS officer or the Section 44 Approver.</li> </ul>
<b>Barricade Control</b>	<ul style="list-style-type: none"> <li>All personnel must be fully briefed before back running operations begin.</li> <li>Backdriving in areas of Low - Moderate OFSI will require the use of wind, or too humidity to maximize effectiveness.</li> <li>Where possible clear around dead and felled trees back adjacent to control lines prior to backdriving.</li> <li>Avoid ignition of backdrains at the bottom of slopes where down and intense upstroke burnback likely.</li> </ul>
<b>Command &amp; Control</b>	<ul style="list-style-type: none"> <li>The first containment agency on site may assume control of the fire, but they must ensure the relevant land management agency is notified promptly.</li> <li>The initial Incident Controller will liaise with the RFS to ensure that the agency in command is determined and an Incident Controller is appointed.</li> <li>New containment lines require the prior consent of a senior NPPWS officer.</li> <li>Construction of new containment lines should be avoided, where practicable, except where they can be conducted with minimal environmental impact.</li> <li>All personnel involved in containment line construction should be briefed on, and must consider both natural/cultural heritage sites in the location.</li> <li>All containment lines must not require for other purposes should be closed immediately at the cessation of the incident.</li> </ul>
<b>Containment Lines</b>	
<b>Earthmoving Equipment</b>	<ul style="list-style-type: none"> <li>Plant may only be used with the prior consent of a senior NPPWS officer.</li> <li>Plant must always be guided and supervised by an experienced operator and accompanied by a support vehicle (NPPWS). When engaged in direct or parallel attack, this vehicle must be a fire fighting vehicle.</li> <li>Plant must be washed down regularly, prior to entering NPPWS estate and again on exiting NPPWS estate.</li> </ul>
<b>Fire Suppression Chemicals</b>	<ul style="list-style-type: none"> <li>The use of foam, wetting agents and retardants will NOT be permitted within 50 metres of dams and watercourses holding water.</li> <li>The initial use of gels and retardants should be approved by a senior NPPWS officer.</li> <li>The use of retardants requires the approval of a senior NPPWS officer.</li> </ul>
<b>Rehabilitation</b>	<ul style="list-style-type: none"> <li>Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.</li> </ul>
<b>Water Points</b>	<ul style="list-style-type: none"> <li>Water points are limited and should always remain. Consider deployment of a bulk water carrier to support fire operations.</li> <li>Prior approval must be sought from adjoining landholders before using private property dams for firefighting.</li> </ul>
<b>Smoke Management</b>	<ul style="list-style-type: none"> <li>Potential smoke impacts and mitigation strategies will be assessed during the planning of the operations.</li> </ul>
<b>Visitor Management</b>	<ul style="list-style-type: none"> <li>In Extreme / Fire Danger at the Branch Districts locations, reserves or closed or reserves may be closed or excluded.</li> <li>Ensure the closure is advertised on the NPPWS visitor website.</li> </ul>
<b>WARNINGS</b>	<p>The New England Highway is on the western boundary of the reserve and is a road potentially generating lightning risk.</p> <ul style="list-style-type: none"> <li>Smoke across the highway may impinge the need for traffic control.</li> <li>Traffic on private property roads may be restricted if there is a significant amount of smoke on the ground and navigation can be confusing unless someone with local knowledge is present.</li> <li>Trails and Tree trails are dead end roads without constructed turn arounds due to terrain restrictions.</li> <li>Tree trails should be anticipated with winds from any direction. Turn may play a major part in the behaviour.</li> </ul>

[illegible]

Conditions	Guidelines
Fire danger rating LOW - HIGH	<p>Restrict or prohibit the use of dry sclerophyll forests in the south of Bivolia Hill NR are higher frequency of crown fires in these areas. Fire management should be to minimize the extent and severity of fires in these areas which are already vulnerable to frequent fire. Fires starting in grazing grasslands to the south can quickly develop into crown fires.</p> <p><b>All vegetation types – Given the size and location of the reserve fire response is likely to be multi agency</b></p>
Fire danger rating VERY HIGH	<p>Consider a broad containment strategy using existing roads and cleared land, allowing long-term fire management for the landscape.</p> <p><b>Direct and parallel attack may be applied with motorwinching machinery and fire units</b></p> <p>Close parallel or direct attack may be applied with fire units</p> <p>Distance between the flank and machinery and fire units should be kept to a minimum</p> <p>Secure and deepen containment lines on the next predicted downwind side of the fire.</p> <p>May need to be applied in conjunction with other strategies</p> <p>Firefighter safety is the paramount consideration in deployment.</p>
Fire danger rating SEVERE - EXTREME	<p>Undertake broad containment strategies using main fire trails and cleared country.</p> <p>Tactics will include priority protection of the public and the environment.</p> <p>Close parallel or direct attack and / or mop up of fire edge may be an option at night depending on weather conditions.</p> <p><b>Fire should be stopped or disrupted with winds from other direction. Entrapped risk is very high</b></p>



Vegetation Formation (Nath)	Vegetation Management Guidelines	Fire Behaviour
<b>Heathlands</b>	<ul style="list-style-type: none"> <li>• Avoid fire intervals of less than 1 years and greater than 30 years.</li> <li>• Generally, vegetation in the wettest and/or lowest areas should be managed more frequently than vegetation in the driest and/or highest areas.</li> <li>• Avoid fire intervals that are too short to allow the vegetation to recover, or too long to allow the vegetation to become too dense and/or too dry.</li> <li>• The management objectives of these low moor conservation vegetation formations will generally prevail over the heathlands.</li> </ul>	<ul style="list-style-type: none"> <li>• CFFs a high expectation to be severe. Wild and bracken often are magnified in high winds. The potential exists for the vegetation to be highly flammable in the surrounding CFFS. Fire will be spreading by the heathlands in the surrounding CFFS. Fire will be spreading by the heathlands in the surrounding CFFS.</li> </ul>
<b>Dry Sclerophyll Forests (Dryland sub-formation)</b>	<ul style="list-style-type: none"> <li>• Avoid fire intervals of less than 1 years and greater than 30 years.</li> <li>• The moorland interval between high winds and/or low winds should be managed on forest conditions.</li> <li>• A frequency of the intervals across the landscape should be maintained.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> </ul>	<ul style="list-style-type: none"> <li>• CFFs a high expectation to be severe. The potential exists for the vegetation to be highly flammable in the surrounding CFFS. Fire will be spreading by the heathlands in the surrounding CFFS.</li> </ul>
<b>Dry sclerophyll forests (subarid sub-formation)</b>	<ul style="list-style-type: none"> <li>• The moorland interval between high winds and/or low winds should be managed on forest conditions.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> </ul>	<ul style="list-style-type: none"> <li>• The potential exists for the vegetation to be highly flammable in the surrounding CFFS. Fire will be spreading by the heathlands in the surrounding CFFS.</li> </ul>
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<b>Grassy woodlands</b>	<ul style="list-style-type: none"> <li>• The moorland interval between high winds and/or low winds should be managed on forest conditions.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> <li>• The vegetation in the wettest and/or lowest areas should be managed more frequently than the vegetation in the driest and/or highest areas.</li> </ul>	<ul style="list-style-type: none"> <li>• The potential exists for the vegetation to be highly flammable in the surrounding CFFS. Fire will be spreading by the heathlands in the surrounding CFFS.</li> </ul>

Vegetation Threshold	Treatment
Too Frequently Burnt	Fire thresholds have been exceeded. Protect from fire as far as possible.
Vulnerable to Frequent Fire	The area will be Too Frequently Burnt if it burns this year. Protect from fire as far as 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.
Long Unburnt	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.
No Regime Assigned	Areas which do not have recommended fire intervals assigned to them eg. cleared land, rock.

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

A map of the Gulf Road Fire 2019. The fire perimeter is shown as a red hatched area in the upper left. A blue line represents the Brazil Trl SFAZ. A red line represents the New England Hwy. A red dot indicates the location of Rockdale Rd. Deepwater. A legend in the bottom left corner shows the red hatched pattern for the Gulf Road Fire 2019. The scale is 1:60,000.

Fire Type	Fire Details
Prescribed Burn	2018-19: Brazil Trail SFAZ – A patchy low intensity HR.
Wildfires	<p>2019-20: Bolivia Hill NR was one of the few reserves in this vicinity not burnt by the Glen Innes S44 wildfires. The wildfires ran to the New England Highway to the west of Bolivia Hill NR but did not cross into the reserve.</p> <p>2018-19: Rockdale Road, Deepwater: A lightning strike kept to a spot fire size</p>

APZ - Chile North

APZ - Chile South: Nth

APZ - Chile South: Sth

1:60,000

Fire Management Zone	Treatment
Asset Protection Zones	The objective of <b>APZs</b> 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 <b>SFAZs</b> is to reduce fire intensity in locations to assist containment of wildfires, by maintaining the Overall Fuel Hazard at HIGH or below.
Land Management Zones	The objective of <b>LMZs</b> is to conserve biodiversity and protect cultural heritage. Manage fire consistent with fire thresholds.