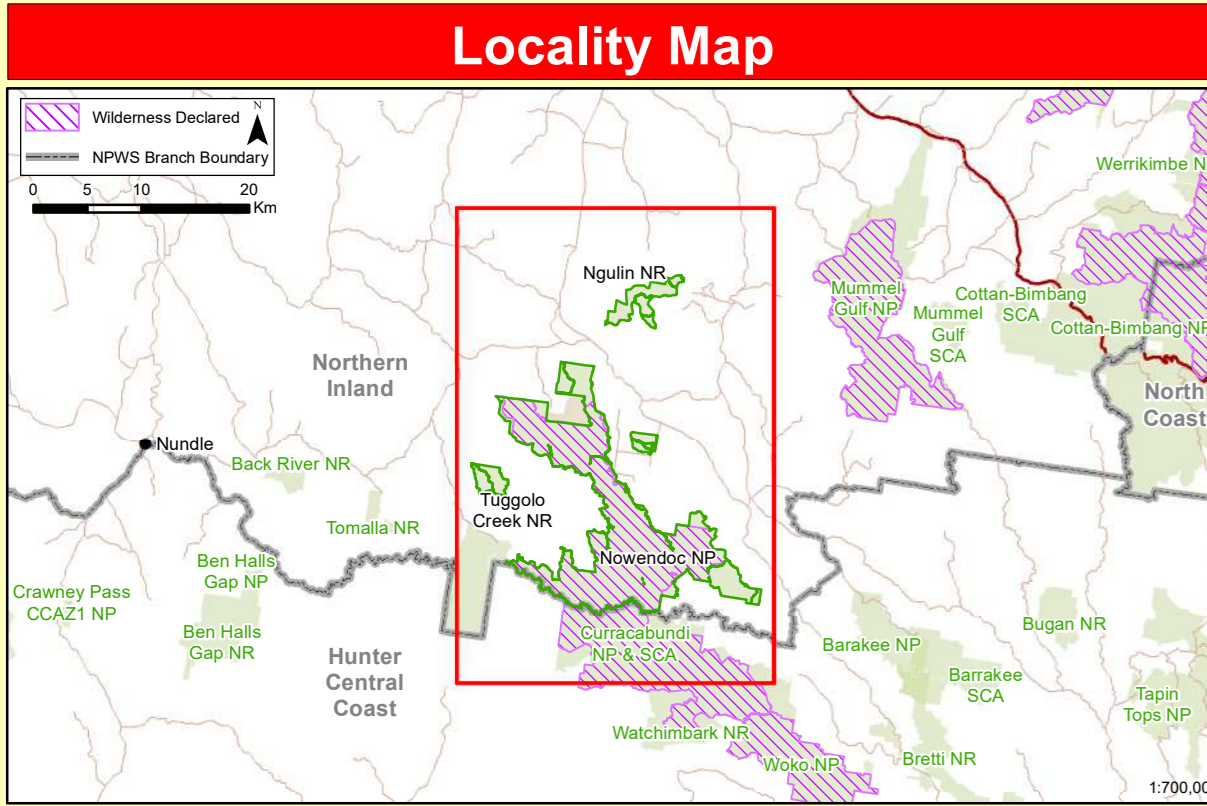


**Nowendoc NP, Ngulin NR and Tuggolo Creek NR**  
Fire Management Strategy (Type 2)  
2022 – 2027

This strategy should be used in conjunction with aerial photography and field reconnaissance. These data are not guaranteed to be free from error or omission. The NSW National Parks and Wildlife Service is not liable for any loss or damage to property or persons arising from the use of this strategy.

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



**Map details**

Source: GDA 1994 MGA Zone 56 Geographic Coordinate System: GCS\_GDA\_1994. Noted scale: True when printed on A4 paper.

**Local Government Area**  
Topographic Map 1:25,000, Sheet 813022, Barry 9134N, Berrig Plains 9230N, Manilla 9233E, Nowendoc 9234N

**Contact Information**

Agency	Position / Location	Phone
National Parks & Wildlife Service	Area Manager - Adam Simmon	0738 9114
	Duty Officer (24 hour)	0275 1742
	New England Area Office (bus. hours)	0738 9100
NSW Rural Fire Service - New England	NE Zone Manager - Paul Metcalf	0437 078 116
	NE Duty Officer	0739 6911
Forest Corporation of NSW	NE Zone Office	0771 2400
	Clay Mine - Manager - Solihood (Tarnworth)	0438 770 703 / 996 4375
Fire & Rescue NSW	State Duty Officer	000
Emergency Services	Police, Fire, Ambulance	000
SES	Nundle	132 500
Police	Walcha	0795 3343
	Warwick Vale	0777 2244
	Manilla	0774 2020
Council	Manilla	0777 1100
	Purfulba Trestle LALC	0852 4106
Local Aboriginal Land Council	Bungaree LALC	0746 2350
	Bungaree LALC	0746 2350

**Communications**

Service	Channel	Location and Comments
NPWS Repeaters	342	Porters Camp
	340	Wool Creek East
FC NSW	179 (NPTB)	Haystack (Walcha) Utterville to Boonoo
	196 (NPWS)	Woodruffgah (Nowendoc) Coffin to Cherrindah (Berrig Plains)
RFS	N009	Digital Veiling
	N009	Digital Veiling
UHF - CB	134.70	Small fire channel 10, large fires determined by MT
	134.70	NB: Frequency unless another frequency is allocated on an incident
Cellphone		Telstra Next G 350 coverage is generally unavailable for most of the reserve
		Storied at Walcha
Satellite Phone	0147 142 605 / 0147 168 887	

**Fire Season Information**

**Wildfires**  
The critical wildfire season occurs during October and December. This period may extend into the first half of January. Fires have started as early as late August. Particular care is required during periods of negative Southern Oscillation Index. The end of the critical fire season is often marked by wind storm activity.

**Prescribed Burning**  
The preferred period for prescribed burning is autumn to late winter when conditions favour self-extinguishing over night and there have been no rain. Prescribed burning should consider the low density of fire trails and the possibility of dry westerly winds causing ignition well after the burn is complete.

**Operational Guidelines**

**Hazard Reduction Burning**

- Landscape scale wildfires have occurred across this reserve. Hazard Reduction activities in Land Management Zones should be limited to hazard reduction burning which aims to normalise extensive areas of single fire age classes since the last extensive wildfire event.

**Aerial Operations**

- Aerial operations will be managed by trained and competent personnel. This includes directing aerial bombing and aerial ignition operations.
- The use of herbicide without the support of ground-based suppression crews should be limited to very specific circumstances.
- All aerial operations require the consent of a senior NPWS officer or the Section 44 Approvante.
- Threatened species are associated with rocky outcrops. Aerial ignition should be avoided within 50 metres of rocky outcrops and lighting patterns should be directed which minimise the impacts of fire and radiant heat on these outcrops (i.e. ignition on the uphill side of rocky outcrops to create a low intensity backburn where possible).

**Backburning**

- All personnel must be fully briefed before back burning operations begin.
- Backburning in areas of Low - Moderate OFH will require the use of wind, low humidity or low intensity to maintain effectiveness.
- Where possible clear around dead and fibrous barked trees adjacent to control lines prior to backburning.

**Command & Control**

- The first combatant agency on site may assume control of the fire, but then must ensure the relevant land management agency is notified promptly.
- The initial incident Controller will liaise with the RFS to ensure that the agency in command is determined and an Incident Controller is appointed.

**Containment Lines**

- New containment lines require the prior consent of a senior NPWS officer.
- Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact.
- All personnel involved in containment line construction should be briefed on, and must consider both natural and cultural heritage sites in the location.
- All containment lines not required for other purposes should be closed immediately at the cessation of the incident.

**Earthmoving Equipment**

- Plant may only be used with the prior consent of a senior NPWS officer.
- Plant must always be guided and supervised by a senior NPWS officer, and accompanied by a support vehicle (NPWS). When engaged in direct or parallel attack, this vehicle must be the lighting vehicle.
- Plant should be equipped down, where practicable, prior to entering NPWS estates and again on exiting NPWS estates.

**Fire Suppression Chemicals**

- The use of foam, wetting agents and retardants will NOT be permitted within 50 metres of dams and watercourse holding water.
- The aerial use of gels and retardants should be approved by a senior NPWS officer.
- The use of retardants requires the approval of a senior NPWS officer.

**Rehabilitation**

- Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.

**Water Points**

- Consider deployment of a bulk water carrier to support fire operations.

**Smoke Management**

- Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations.
- In extreme fire danger at the Branch Director's discretion, reserves or sections of the reserve may be closed or evacuated.
- Ensure the closure is advertised on the NPWS visitor website.

**Visitor Management**

- Protect the softwood plantation on the NE side of Nowendoc National Park.

**Softwood Plantation**

- The towns within Nowendoc National Park are subject to occasional regularly moving high intensity fires in rugged terrain with few access opportunities. There is a high risk of entrapment in these areas under severe or above the danger ratings.
- Nowendoc NP, Combobona NP & SCA, Monkeyrot NR and Meroon NR are geographically interlinked if landscape scale fires eventuate. In this circumstance, fire planning needs to carefully consider adjacent threats and fire advantages in these reserves.
- Fire runs should be anticipated with winds from any direction.

**Heritage Guidelines**

**Aboriginal Cultural Heritage**

- IS 1 - As far as possible protect site from fire. Do not cut down trees.
- IS 2 - As far as possible protect the site from fire. Avoid all ground disturbance and driving over sites. Avoid water bombing which may cause ground disturbance.
- IS 3 - Avoid all ground disturbance. Avoid water bombing. Site may be burnt by fire without damage.

**Historic Sites**

- Historic sites in the reserve relate to Aboriginal heritage and European settlement history and include a number of hut precincts.
- Protect the hut precincts from fire if possible.
- Foams and retardants are not permissible near the creek at Jacky Barkers and Wright's Hut Precinct.
- Foams and retardants are permissible at Ham's Hut Precinct, Christie's Hut Precinct, Watt's Homestead Site and Hut Ruins Precinct.

**Threatened Fauna & Flora**

- The protective actions for threatened flora and fauna have been incorporated into the Operational Guidelines.

**Soil Erosion Management**

- The soils within the reserve are generally stable. Steep terrain is susceptible to erosion after disturbance. Fire trails used in fire operations should be cleared as soon as possible after use.

**Suppression Strategies**

**Conditions**

**All vegetation types**

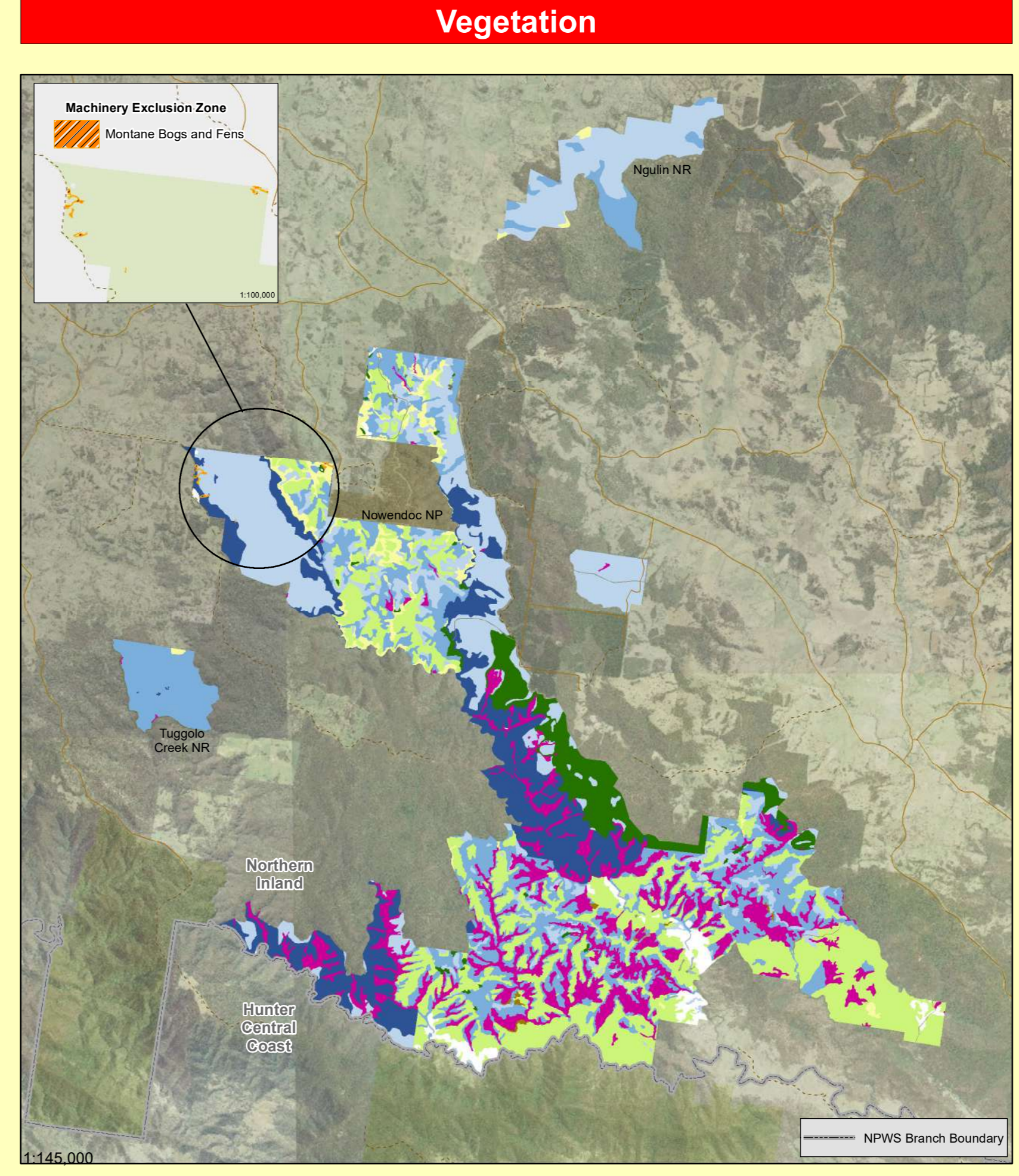
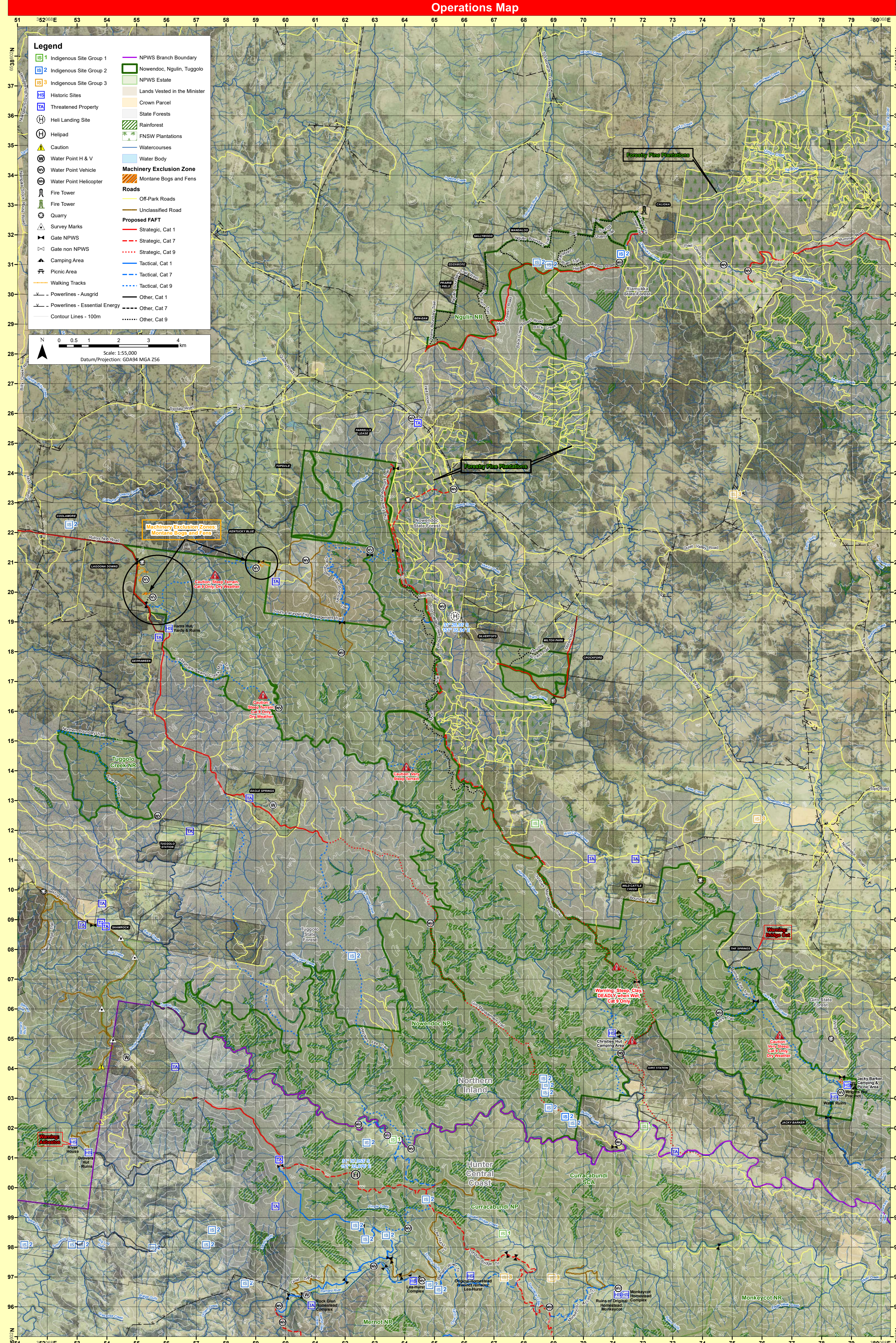
**Fire danger rating LOW - HIGH**

- Consider a broad containment strategy using existing roads, allowing long-term management requirements for biodiversity.
- Direct and parallel attack may be applied with earthmoving machinery and fire units.
- Close parallel or direct attack may be an option at night depending on weather conditions.
- Distance between the flank and machinery and fire units should be kept to a minimum.
- Secure and deepen containment lines on the next predicted downwind side of the fire.
- May require aerial support to manage spot covers and monitor fire spread.

**Fire danger rating VERY HIGH**

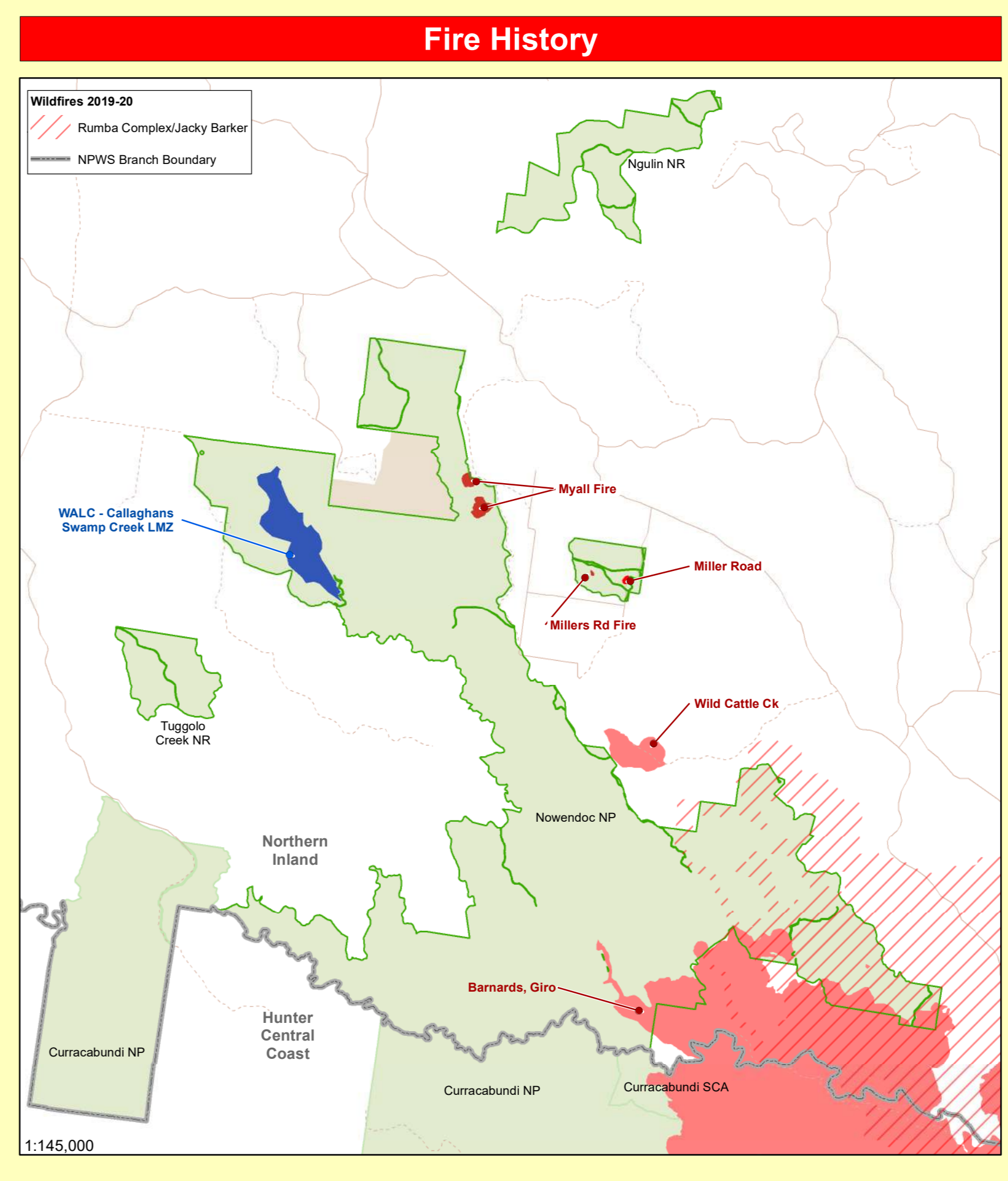
- Evaluate safety in the paramount consideration in deployment.
- Undertake broad containment strategies using main fire trails and cleared country.
- Tactics will include property protection where safe and necessary.
- Close parallel or direct attack and / or mop up of fire edge may be an option at night depending on weather conditions.
- Warning: Fire runs should be anticipated with winds from any direction. Entrapment risk is very high.

**Fire danger rating SEVERE - EXTREME**



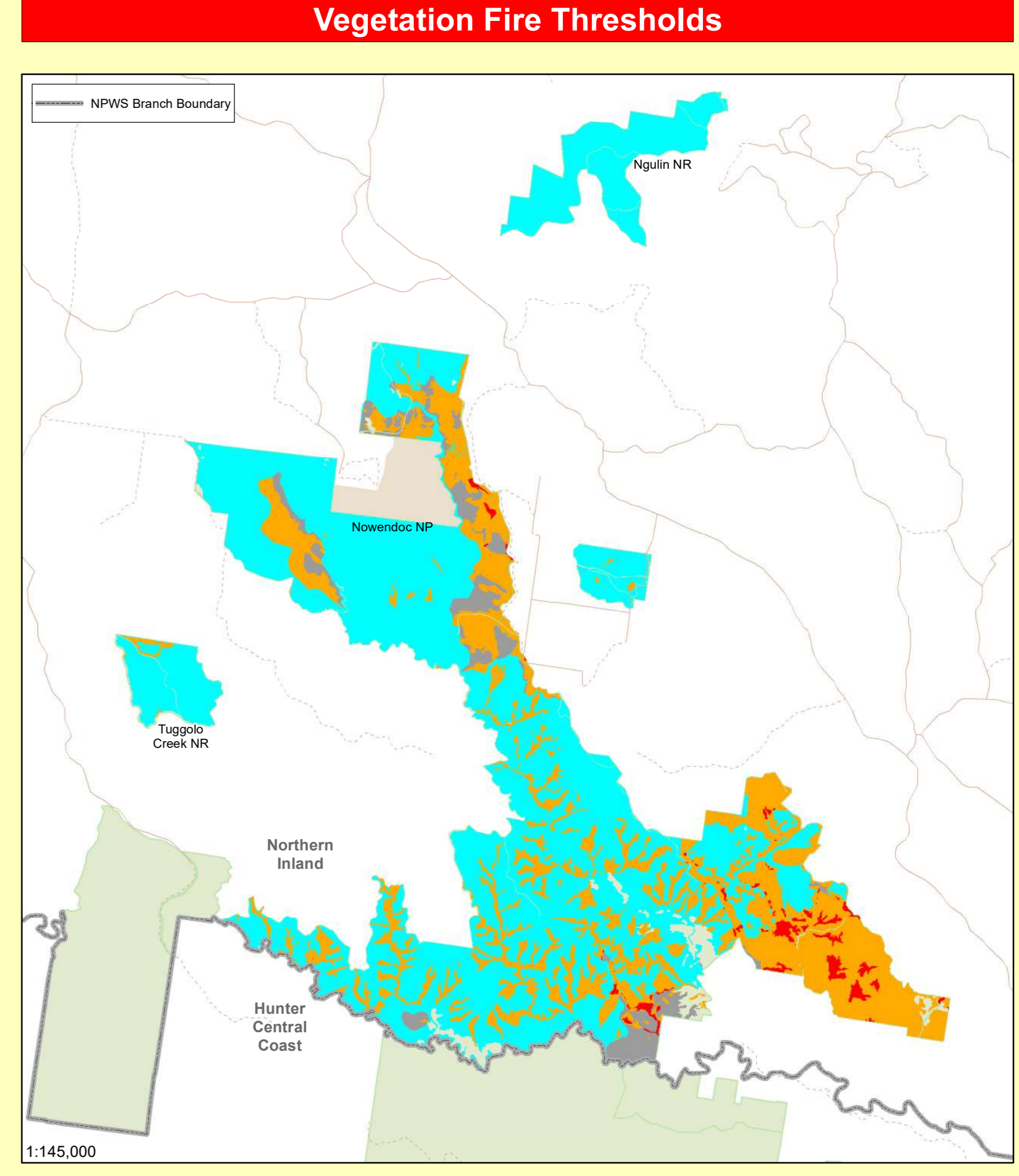
**Vegetation Management Guidelines**

Vegetation Formation (Keith)	Vegetation Management Guidelines	Fire Behaviour
<b>Cleared Land</b>	<ul style="list-style-type: none"> <li>Post clearing events have generated this variable class of vegetation that includes native grasses and shrubs, introduced weeds and regenerating native overstorey species.</li> <li>No fire intervals are prescribed for cleared areas and fire management should be based on the revegetation intent.</li> </ul>	<ul style="list-style-type: none"> <li>Potential rates of spread are variable from Low to High given the vegetation that exists within this disturbed class of vegetation. Fire behaviour should be assessed on its merits and the vegetation present.</li> </ul>
<b>Dry sclerophyll forests (shrubland sub-formation)</b>	<ul style="list-style-type: none"> <li>The minimum interval between high intensity fires is more than 7 years.</li> <li>The minimum interval between high intensity fires should be evaluated on forest condition.</li> <li>Many sites with this vegetation class have been exposed to frequent fires for extended periods.</li> </ul>	<ul style="list-style-type: none"> <li>This class of vegetation is often associated with thin and steep terrain which cause variable fire behaviour with due to terrain driven factors.</li> <li>The potential rates of spread during extended dry season can be very high due to terrain factors. The very steep terrain, exposed soils and droughty nature of these escarpment sites mean OFH is normally in the range of Moderate to Very High.</li> <li>Spotting associated with uphill fire runs can be severe.</li> </ul>
<b>Dry sclerophyll forests (scrubland sub-formation)</b>	<ul style="list-style-type: none"> <li>Avoid fire intervals of less than 7 years and greater than 30 years.</li> <li>The minimum interval between high intensity fires should be evaluated on forest condition.</li> <li>A diversity of the intervals across the local landscape should be maximised.</li> </ul>	<ul style="list-style-type: none"> <li>OFH is highly dependent on time since fire. The potential rates of spread can vary from Moderate to Very High due to depending on OFH.</li> <li>These the fuels in these communities can carry very short interval fires.</li> </ul>
<b>Forested wetlands</b>	<ul style="list-style-type: none"> <li>Avoid fire intervals of less than 7 years and more than 35 years.</li> <li>Avoid high intensity fires.</li> <li>A minimum fire interval of 7 years (12 years if Callitis is present).</li> <li>A minimum fire interval of 40 years.</li> </ul>	<ul style="list-style-type: none"> <li>Potential rates of spread are dependent on seasonal conditions.</li> <li>Low OFH and hence low rates of spread occur in dry years.</li> <li>A Low - Moderate OFH may develop after successive wet seasons producing continuous ground cover. In these conditions potential rate of spread may be Moderate.</li> </ul>
<b>Freshwater wetlands</b>	<ul style="list-style-type: none"> <li>Fires should be avoided unless required for strategic protection of the reserve. Frequent fires may kill Ligum and Carex grass thickets. Fire may promote exotic species growth.</li> <li>Strategic burning should avoid the intervals of less than 6 years and greater than 35 years.</li> </ul>	<ul style="list-style-type: none"> <li>Potential rate of spread is low due to Low-Med OFH in most years.</li> <li>Localized areas of high OFH may produce areas of higher fire intensity.</li> </ul>
<b>Grassy woodlands</b>	<ul style="list-style-type: none"> <li>The minimum fire interval in healthy stands of these grassy woodlands is five years. Where the health of the woodlands is compromised through deadback the minimum fire interval should be increased to 10 years.</li> <li>The maximum fire interval is 40 years.</li> </ul>	<ul style="list-style-type: none"> <li>Potential rates of spread are High due to the grassy nature of the flammable elements in generally Moderate OFH.</li> </ul>
<b>Heathlands</b>	<ul style="list-style-type: none"> <li>Avoid fire intervals of less than 7 years and greater than 30 years.</li> <li>A diversity of the intervals across the local landscape should be maximised.</li> </ul>	<ul style="list-style-type: none"> <li>OFH is highly dependent on time since fire. Wind and terrain effects are magnified in rolling heath fire. The potential rates of spread can vary from Moderate to Very High.</li> </ul>
<b>Rainforest</b>	<ul style="list-style-type: none"> <li>No prescribed burning should be conducted.</li> <li>Avoid high intensity fires close to rainforest boundaries.</li> </ul>	<ul style="list-style-type: none"> <li>Potential rates of spread are usually very low to zero rate of spread.</li> </ul>
<b>Wet sclerophyll forests (grassy sub-formation)</b>	<ul style="list-style-type: none"> <li>The minimum interval between low intensity fires is less than 10 years.</li> <li>The minimum interval between high intensity fires should be more than 10 years.</li> <li>A diversity of the intervals across the local landscape should be maximised.</li> </ul>	<ul style="list-style-type: none"> <li>The potential rates of spread during extended dry season can be high due to Moderate to Very High OFH.</li> <li>There is a high potential for spotting in this vegetation type.</li> <li>Fires are often of high intensity.</li> </ul>
<b>Wet sclerophyll forests (scrubland sub-formation)</b>	<ul style="list-style-type: none"> <li>The minimum interval between moderate intensity fires is 25 years.</li> <li>The minimum fire interval between high intensity fires should be more than 25 years.</li> <li>A diversity of the intervals across the local landscape should be maximised.</li> </ul>	<ul style="list-style-type: none"> <li>The potential rates of spread during extended dry season can be high due to High to Extreme OFH.</li> <li>There is a high potential for spotting in this vegetation type.</li> <li>Fires are often of high intensity.</li> </ul>



**Fire Type**

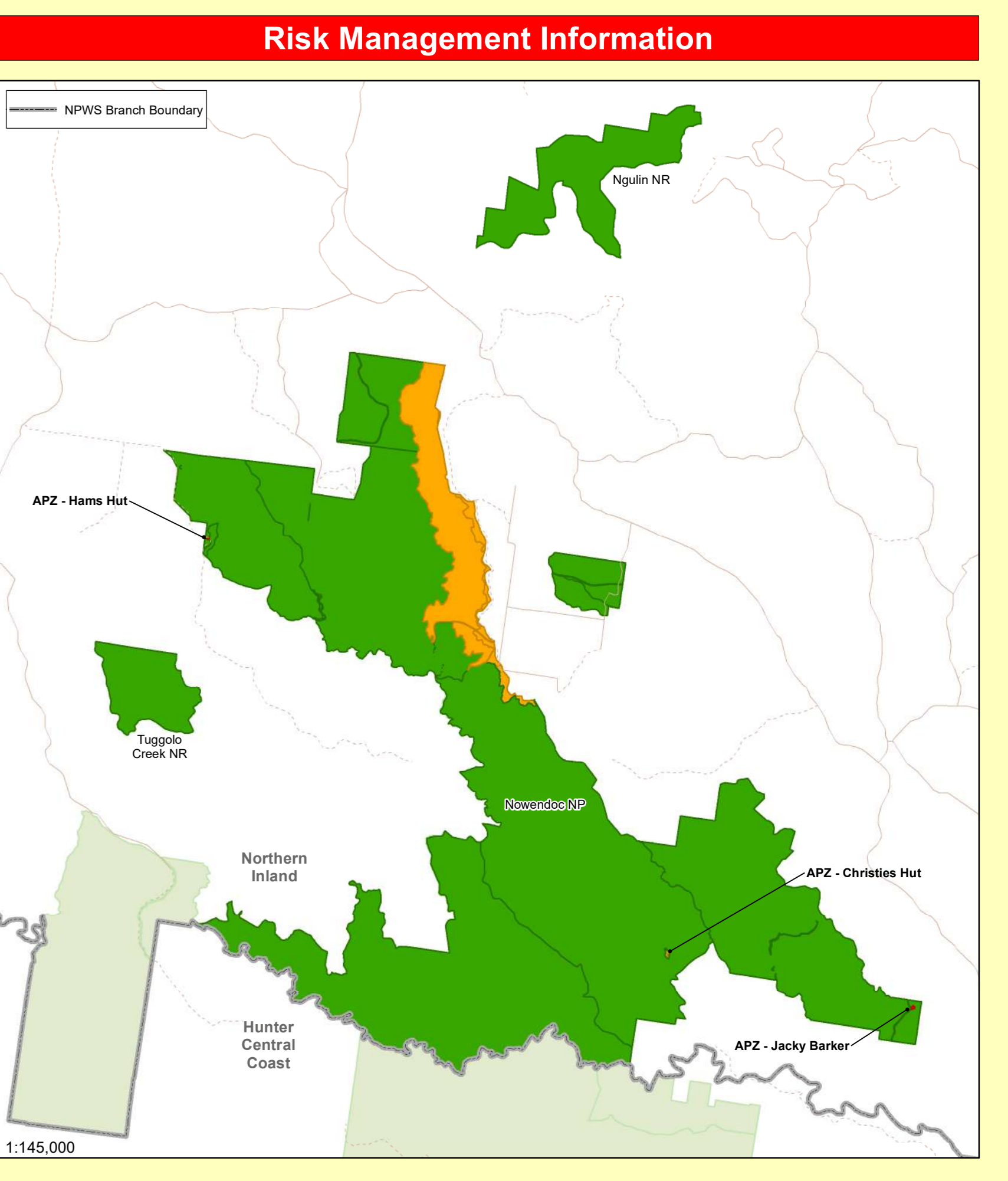
Fire Type	Fire Details
Prescribed Burn	2015-16: Callaghans Swamp Creek LMZ
Wildfires	2019-20: Rumba Complex 2018-19: Jacky Barker 2018-19: Millers Rd Fire 2017-18: Millers Road 2016-17: Wild Cattle Ck 2016-17: Barnards, Giro



**Vegetation Threshold**

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.

**NPWS Fire thresholds are defined for vegetation communities to conserve biodiversity**



**Fire Management Zone**

Fire Management Zone	Treatment
Asset Protection Zones	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.
Strategic Fire Advantage Zones	The objective of SFZAs 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 LMZs is to conserve biodiversity and protect cultural heritage. Manage fire consistent with fire thresholds.