Mummel Gulf National Park & State Conservation Area

Fire Management Strategy (Type 2)

2022 - 2027

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

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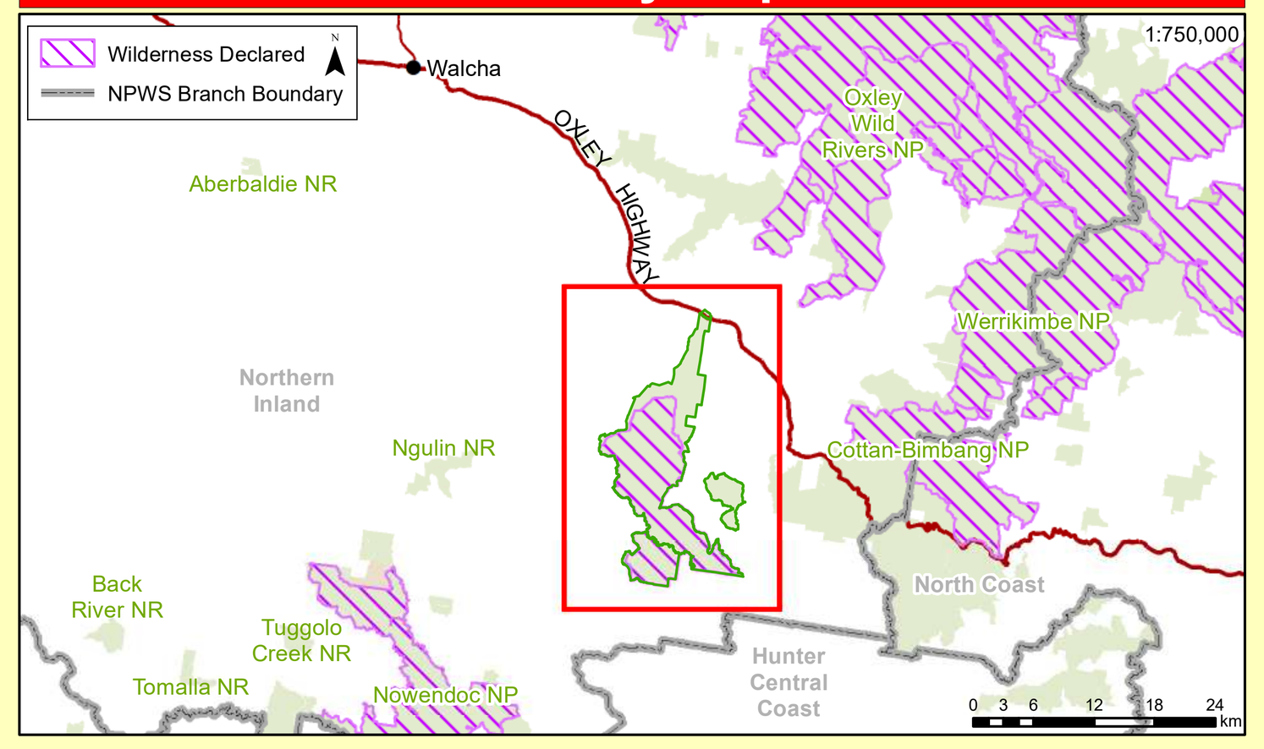
This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of the Rural Fires Act 1997.

Locality Map



Map details

Datum: GDA_1994_MGA_Zone_56 **Geographic Coordinate System:** GCS_GDA_1994 **Noted scales:** True when printed on A0 size paper

Local Government Area: Walcha **Topographic Map:** 1:25,000: Tia 92351S, Yarrowitch 92352N, Mount Carrington 92352S

Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Area Manager – Aaron Simmon	6738 9116
	Duty Officer (24 hour)	8275 1742
	New England Area Office (bus. hours)	6738 9100 Armidale 6777 4722 Walcha
NSW Rural Fire Service New England	NE Zone Manager – Paul Metcalf	0437 678 116
	NE Duty Officer	6732 4473
	NE Zone Office	6732 7046
Fire & Rescue NSW	Newcastle Comms. Centre	4929 7177
Emergency Services	Police, Fire, Ambulance	000
SES	Walcha or Statewide	6777 2285 or 132 500
Police	Walcha (6W Apsley St)	6777 2244
Council	Walcha	6774 2500 or 0427 774 544 ah
Local Aboriginal Land Council	Amaroo LALC (Walcha)	6777 1100
Porters Trig Tower Operators	Air Services Australia (Director) Telstra (Power and Facilities Maintenance) Essential Energy (supply interruptions)	07 3866 3479 or 0409 472 037 1300 363 869 13 23 91 or 13 20 80

Communications

Service	Channel	Location and Comments
NPWS Repeaters	342 340	• Porters Camp • Vote Group East • Signal strength good over all of the reserve
Forest Corporation of NSW	155 (NP 86) 80mhz radios)	• Handheld 80mhz radios stored at New England Area
RFS	N009	• Digital Voting
UHF - CB		• Small fires channel 10, large fires determined by IMT
Aviation - CTAF	134.70	• NIB frequency unless another frequency is allocated on an incident
Cellphone		• Reasonable coverage with car kit to the north of Dicks Hut Fire Trail, high points only to the south of this trail
Satellite Phone	0147 142 605 0147 166 687	• Stored at Walcha Office

Fire Season Information

Wildfires	The critical wildfire season occurs during October to December where large and numerous fires caused by multiple lightning strikes can occur. This period may extend into January if the normally reliable summer rainfall does not eventuate. Wildfires have been known to start as early as August. 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.
Prescribed Burning	The preferred prescribed burning period is autumn to late winter when there is a higher probability of fires self-extinguishing overnight and less impact on critical life stages of biodiversity. Hazard reduction burning is possible with great care in early spring, however the potential for fires to continue burning overnight increases in this period, and soft containment options such as creek lines may be unreliable. Consideration should be given to multiphase operations with vulnerable sections burnt under very mild winter conditions when a proposed burn has containment lines that have weaknesses such as zones of high fuel loads or rely on natural containment lines.

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 bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances. • All aerial ignition operations require the consent of the NPWS Branch Director or the Section 44 appointee.
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, or low humidity to maximise effectiveness.
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. • On the arrival of other combatant agencies, 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, except where practicable, except where they can be constructed with minimal environmental impact. If new containment lines are required, then these should be located on old logging trails by preference. • All personal 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. • Plant must always be guided and supervised by an experienced officer, and accompanied by a support vehicle (NPWS). When engaged in direct or parallel attack, this vehicle must be a fire fighting vehicle. • Phytophthora cinnamomi has been recorded in the northern section of the park. The use of earth moving equipment in this area should be minimised if possible, and washdown procedures put in place if equipment is deployed. • Earth moving equipment is excluded from zones marked on the Operations Map. • Plant must be washed down, where practicable, prior to it entering NPWS estate and again on exiting NPWS estate.
Fire Suppression Chemicals	• The use of foam, wetting agents and retardants will NOT be permitted within 50 metres of rainforest, dams, water courses and swamps. • The aerial use of foam, gels and retardants should be approved by the Branch Director or delegate. • The use of retardants requires the approval of the Branch Director or delegate
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	• The Oxley Highway runs through the northern section of the Park and the effects of smoke on traffic may be severe. Consult with Roads and Maritime Services in these circumstances. • Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations.
Visitor Management	• New Country Swamp is the only camping and picnic area in the Park. All other park use is dispersed and generally at low visitor frequencies. • In Extreme + Fire Danger at the Branch Directors discretion, reserves or sections of the reserve may be closed or evacuated. • Ensure the closure is advertised on the NPWS visitor website
WARNINGS	• The forests within Mummel Gulf NP & SCA are capable of sustaining rapidly moving high intensity fires. There is a high risk of entrapment in these areas under severe or above fire danger ratings. • Fire runs should be anticipated with winds from any direction.

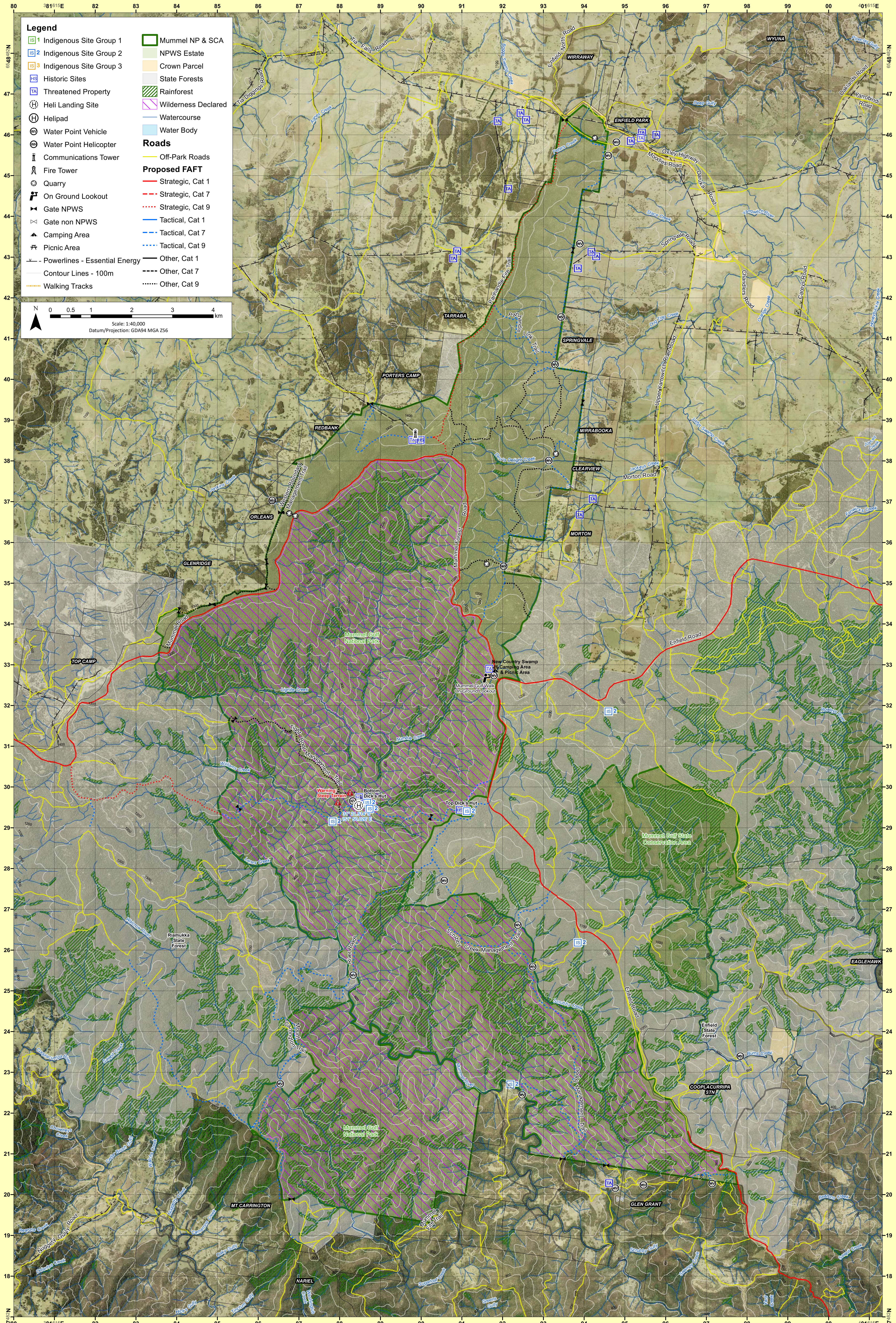
Heritage Guidelines

Aboriginal Cultural Heritage	**IS 1 –** As far as possible protect site from fire. Do not cut down trees. **IS 2 –** As far as practicable 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	**Dicks Hut (Top and Bottom)** • Flammable elements exist at these sites. Protect from fire if possible. • Use of foams & retardant is acceptable. **Porters Trig** • Is well protected by an APZ associated with tower facilities.
Threatened Fauna & Flora	• The protective actions for threatened fauna have been incorporated into the Operational Guidelines • The reserve contains a high number of hollow dependant threatened species. Maintaining the diversity and quantity of these habitat trees is a high priority.
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 drained as soon as possible after use.

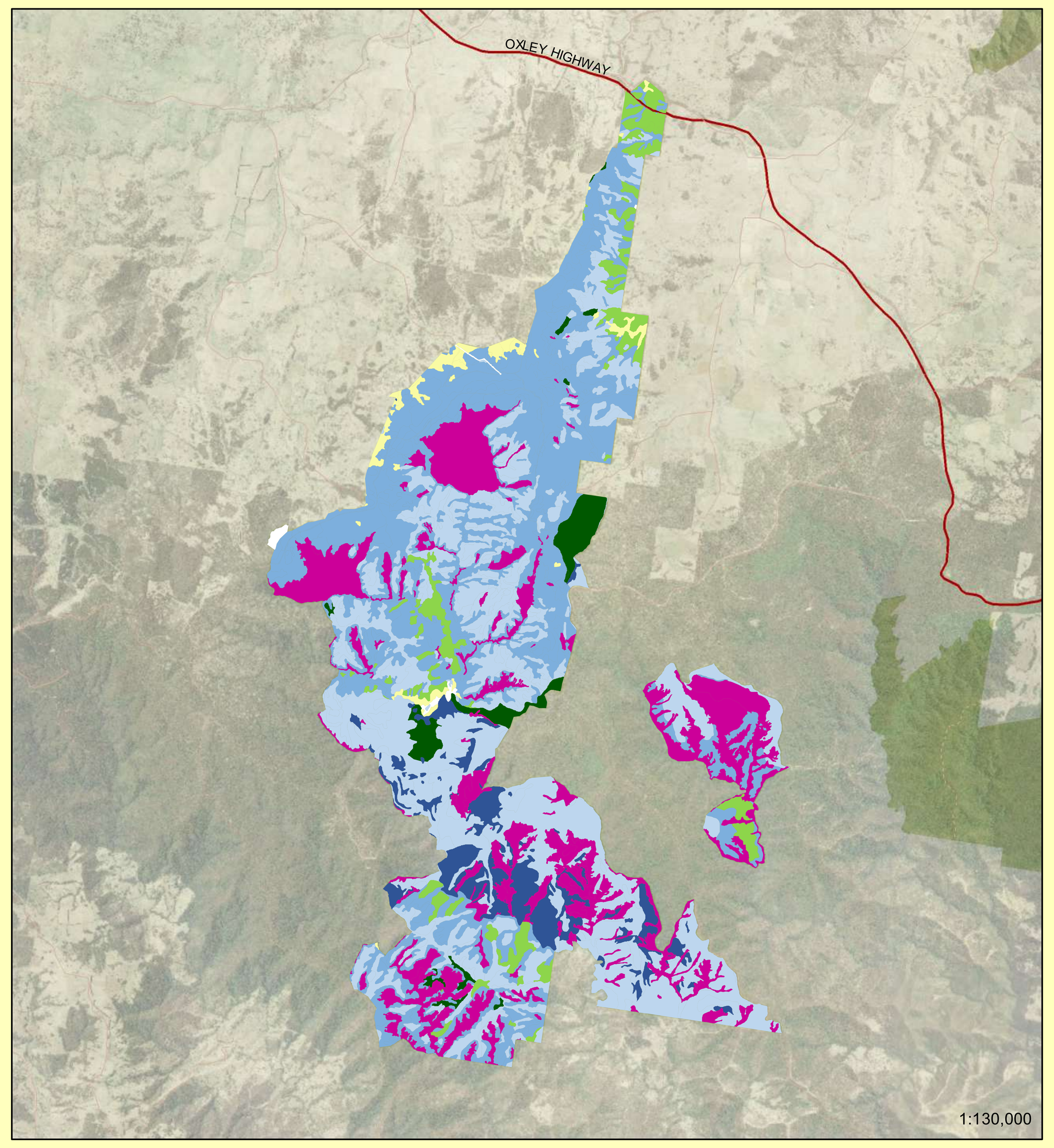
Suppression Strategies

Conditions	Guidelines
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.
Fire danger rating VERY HIGH	• 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 overs and monitor fire spread.
Fire danger rating SEVERE - EXTREME +	• Firefighter safety is 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.

Operations Map

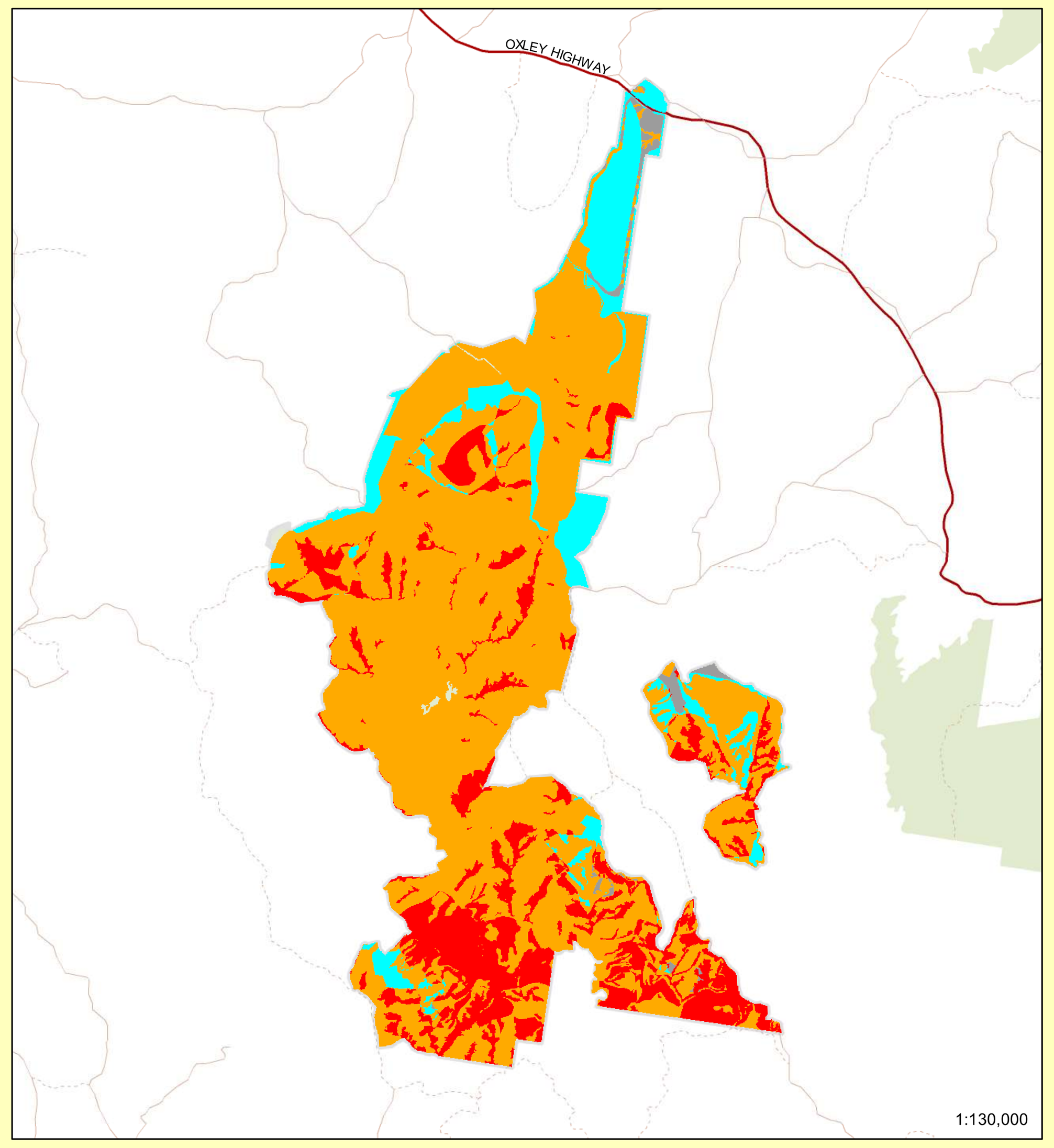


Vegetation



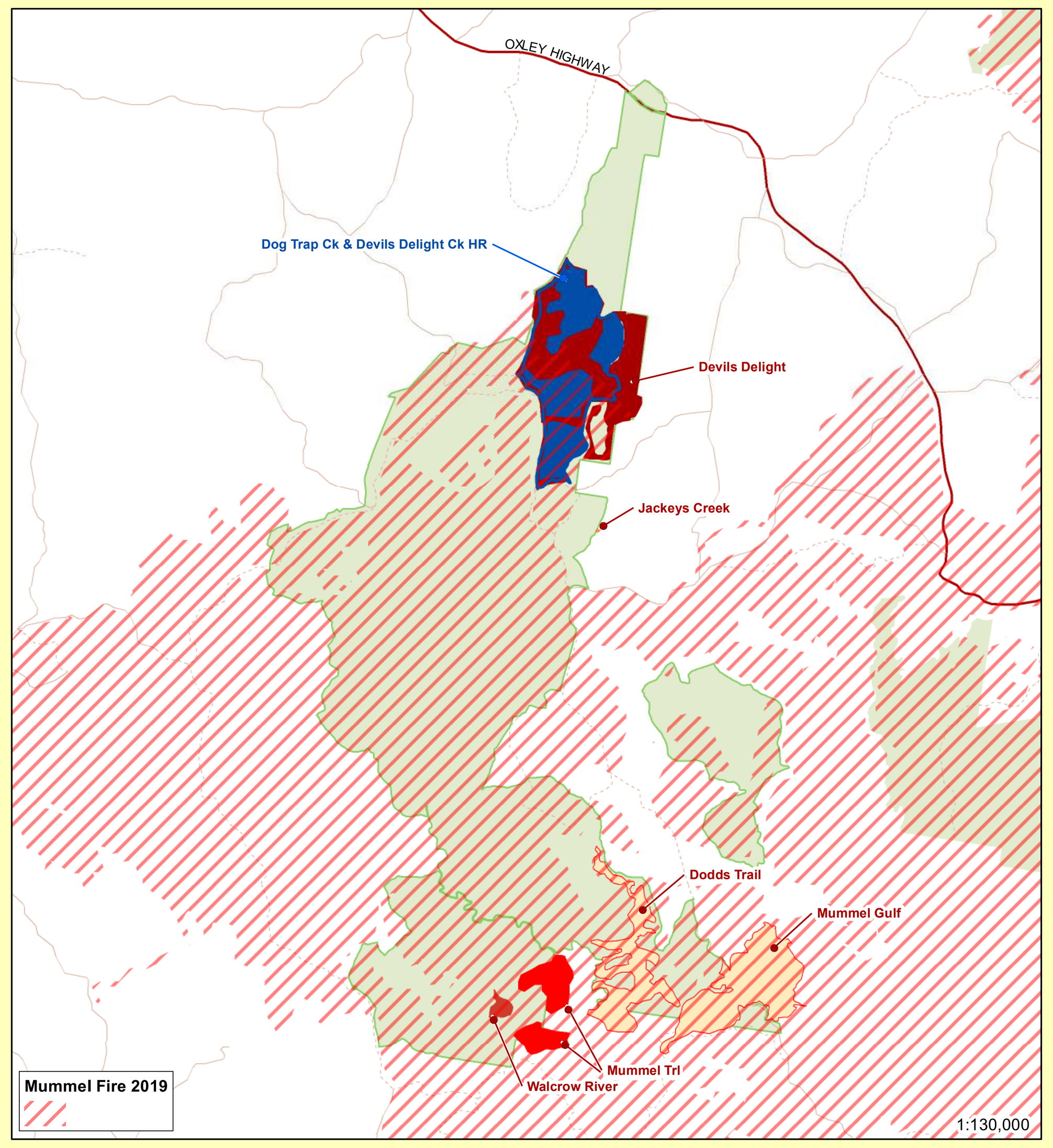
Vegetation Formation (Keith)	Vegetation Management Guidelines	Fire Behaviour
Cleared Land	• Past clearing events have generated this variable class of vegetation that can include native grasses and shrubs, introduced weeds and regenerating native overstory species. • No fire intervals are prescribed for cleared areas and fire management should be based on the revegetation intent.	• Potential rates of spread are variable from Low to High given the variation that exists within this disturbed class of vegetation. Fire behaviour should be assessed on its merits and the vegetation present.
Dry sclerophyll forests (shrub/grass sub-formation)	• The minimum interval between low intensity fires is more than 5 years. • The maximum interval between fire should be less than 50 years. • The minimum interval between high intensity fires should be evaluated on forest condition. • Many sites with this vegetation class have been exposed to frequent fires for extended periods.	• This class of vegetation is often associated with hilly and steep terrain which cause variable fire behaviour with due to terrain driven factors. • The potential rates of spread during extended dry season can be very high due to terrain factors. The very steep terrain, skeletal soils and droughty nature of these escarpment sites mean **OFH is normally in the range of Moderate to Very High.** • Spotting associated with uphill fire runs can be severe.
Dry sclerophyll forests (shrubby sub-formation)	• Avoid Fire intervals of less than 7 years and greater than 30 years. • The minimum interval between high intensity fires should be evaluated on forest condition. • A diversity of fire intervals across the local landscape should be maximised.	• OFH is highly dependent on time since fire. The potential rates of spread van vary from Moderate to Very High due depending on **OFH**. • These the fuels in these communities can carry very short interval fires.
Freshwater wetlands	• Fires should be avoided unless required for strategic protection of the reserve. Frequent fire may kill Lignum and Cane grass shrublands. Fire may promote exotic species growth. • Strategic burning should avoid fire intervals of less than 6 years and greater than 35 years.	• Potential rate of spread is low due to **Low-Mod** OFH in most years. • Localised areas of High OFH may produce areas of higher fire intensity.
Grassy woodlands	• The minimum fire interval in healthy stands of these grassy woodlands is five years. Where the health of the woodlands in compromised through dieback the minimum fire interval should be increased to 10 years. The maximum fire interval is 40 years.	• Potential rates of spread are **High** due to the grassy nature of the flammable elements in generally **Moderate OFH.**
Rainforest	• No prescribed burning should be conducted. • Avoid high intensity fires close to rainforest boundaries.	• Potential rates of spread are usually very low to zero rate of spread.
Wet sclerophyll forests (grassy sub-formation)	• The minimum interval between low intensity fires is less than 10 years. • The minimum interval between high intensity fires should be more than 10 years. • A diversity of fire intervals across the local landscape should be maximised.	• The potential rates of spread during extended dry season can be High due to **Moderate to Very High OFH**. • There is a high potential for spotting in this vegetation type. • Fires are often of high intensity.
Wet sclerophyll forests (shrubby sub-formation)	• The minimum interval between moderate intensity fires is 25 years. • The minimum fire interval between high intensity fires should be more than 25 years. • A diversity of fire intervals across the local landscape should be maximised.	• The potential rates of spread during extended dry season can be High due to **High to Extreme OFH**. • There is a high potential for spotting in this vegetation type. • Fires are often of high intensity.

Vegetation Fire Thresholds



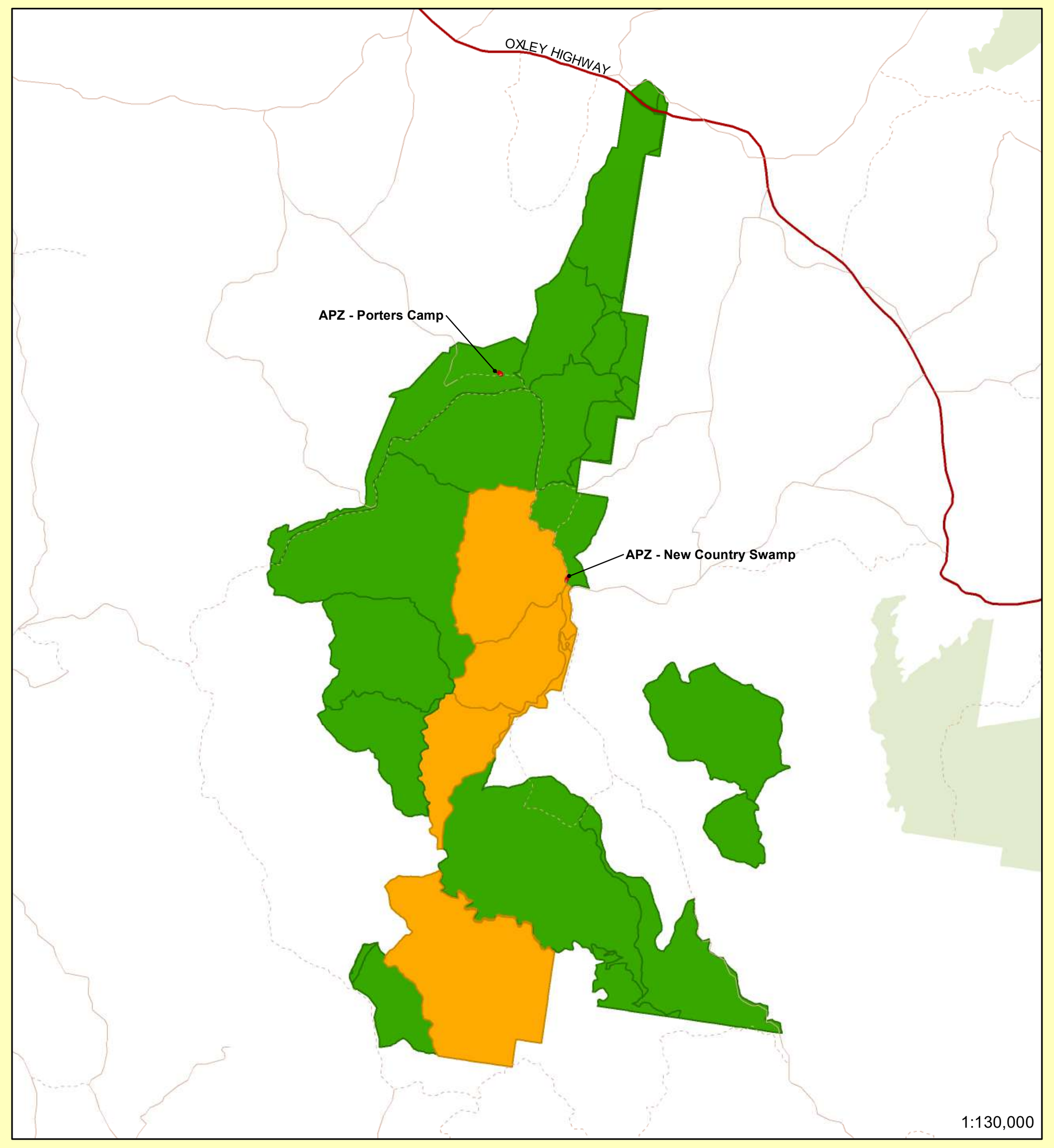
Vegetation Threshold	Treatment
Too Frequently Burnt	Fire thresholds have been exceeded. Protect from fire as far as possible.
Vulnerable to Frequent Fire	The area will be Too Frequently Burnt if it burns this year. Protect from fire as far as possible.
Within Threshold	Fire history is within the threshold 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	

Fire History



Fire Type	Fire Details
Prescribed Burn	2018-19: Dog Trap Ck & Devils Delight Ck
Wildfires	2019-20: Mummel Fire 2018-19 Devils Delight 2017-18: Walcrow River 2016-17: Mummel Trl 2014-15: Jackeys Creek 2013-14: Dodds Trail 2013-14: Mummel Gulf

Risk Management Information



Fire Management Zone	Treatment
Asset Protection Zones	The objective of **APZ**s 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 **SFAZ**s 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 **LMZ**s is to conserve biodiversity and protect cultural heritage. Manage fire consistent with fire thresholds.