



2011 – 2016

Page 1 of 3

Mount Kaputar National Park Deriah Aboriginal Area

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

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	Maules Creek – Mike Nott	6794 4529
	Mulgate Creek - Ron Campey	6793 3129
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SES		13 2500
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Narrabri Airport	S 30 19.2 E 149 49.6	6792 6866

Related documents

- Bernson, J. (2010) NSW vegetation classification & assessment: Part 3 Plant communities of the NSW Brigalow Belt South. *Nandewarri Cunninghamia* 11 (4) 457-579.
- Department of Environment, Climate Change and Water (2010) *Fire Management Manual*.
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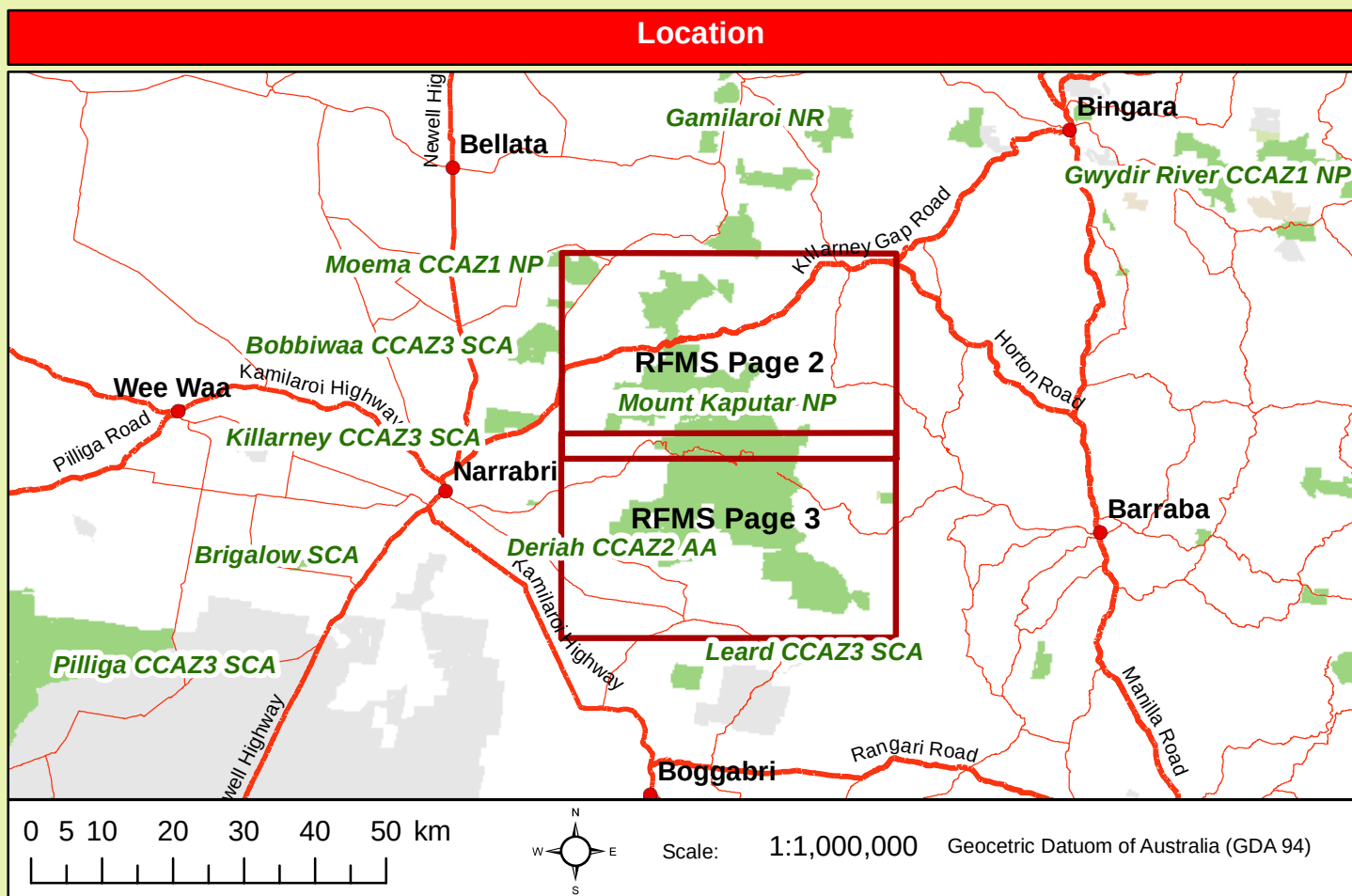
Fire Season Information

Wildfires	• The critical wildfire season generally occurs during November and December. • During periods of strong negative Southern Oscillation indices (El Niño events), this period may commence late September and extend into the first half of January. • The end of the critical fire season is often marked by wet storm activity.
Prescribed Burning	• Effective prescribed burning may not be conducted once the "critical fire season" and thunderstorm season is over. This is due to the LOW - MODERATE Overall Fuel Hazard for some vegetation types. Prescribed burning attempted after autumn rain is unlikely to be effective.

Communications Information

Service	Channel	Location and Comments
NPWS VHF	30	• The Governor
	29	• The Tops
RFS	P069	• The Governor
	P070	• Moree
UHF - CB		• Small fires - Channel 10
		• Large fires - determined by IMT
Aviation - CTAF	126.7	
Cellphone		• Telstra 3G variable coverage

The park has very steep terrain, which results in highly variable communications. Communications may be augmented by portable repeaters. Maps on fixed and potential temporary repeater sites are located in the Narrabri Area Operations Room.



Benchmarks for extreme fire behaviour

The **Kaputar Range** is characterised by periodic landscape scale fire events. These have exceeded 10,000 hectares, and are likely to occur during prolonged droughts or intense dry periods. The fire growth has been generally steady, and the duration exceeding a month.

The January 2013 fire in the Warrumbungles has demonstrated the potential extreme fire behaviour for the Kaputar Range. A pyro-convective event developed from fires commencing at lower altitudes and moving into steep slopes during severe fire weather. Fire fronts were recorded moving at 4 kms in 30 minutes, with intense spotting igniting the landscape 10 kms downwind. This was followed by a southerly change causing a broad fire front moving up to 14 kms northwards.

Where there is any risk of a fire moving towards steep slopes, the **ember drop zones** should be immediately identified, and **emergency responses** initiated in **anticipation**.

Operational Guidelines – Heritage	
Resource	Guidelines
Aboriginal Cultural Heritage Site Management	<i>Modified trees (AS1), including scarred trees</i> • Protect the site from fire, clear base of litter and shrubs, exclude site tree from fire where possible • Foam may be used to protect the tree, or to extinguish fire • Do not cut trees <i>Ground based sites (AS2), including:</i> • camp sites, artefacts, burials, grinding grooves, waterholes, shelters and quarries • Protect site from any ground disturbance, including the use of earth-moving equipment and vehicles <i>Plant resource sites (AS3), including bush medicines sites</i> • Protect site from physical disturbance <i>Deeriah Aboriginal Area</i> • Mechanical construction of control lines not permitted • Plant use permitted along existing roads and tracks to prepare lines, and assist with mop-up
Historic Heritage Site Management	<i>Historic structures, including:</i> • Scouts Hut, Caniynia Homestead, Beresford Park Homestead, Foggy Dell woolshed, the Chinese Fences, Survey trees, geodetic stations, troughs • Protect the site from fire, exclude area from fire where possible • Foam may be used to protect the structures, or to extinguish fire <i>Historic precincts, including:</i> • Bark Hut logging area, Bunduloer homestead, Fay Greens humpy, Koala Hut, Ningadood homestead • Protect site from any ground disturbance, including the use of earth-moving equipment <i>Brush-tailed Rock-wallaby and Australian Brush Turkey habitats</i> • Avoid upslope burning into Rock-wallaby and Brush Turkey habitats <i>Endangered ecological communities – Dry Vine Rainforests & Ooline community</i> • Avoid upslope high intensity burning into communities • Mechanical construction of control lines not permitted • Avoid the aerial application of fire suppression chemicals • Exclude prescribed burning
Threatened Flora and Fauna Management	<i>Endangered ecological communities – Grassy Box Woodlands & Carex Sedgelands Booroolong Frog habitats</i> • Mechanical construction of control lines not permitted

Map Details

Datum: Geocentric Datum of Australia 1994 (GDA94)	Spot Satellite Imagery: 2005.
Projection: Map Grid Australia (MGA) Zone 56	Topographic Mapsheets 1:50k: Grattai 89374N, Coryah 89374S, Kaputar 89373N, Billyena 89373S, Playgan 89372S Scale: Noted scales are true when printed on A1 size paper.

Operational Guidelines

General	Guidelines
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 Regional Manager or the Section 44 Appointee. • All personnel must be fully briefed before back burning operations begin.
Backburning	• Backburning in areas of Low – Moderate OFVI will require the use of wind, slope or low humidity to maximise effectiveness • Backburning should be avoided in steep terrain until fire fronts are within proximity of control lines. The aim is to minimise length of fire run and spotting potential. • Avoid upslope backburning into Dry Rainforests, Semi-evergreen Vine Thickets and Brush-tailed Rock-wallaby habitats
Command & Control	• The first combatant location 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 consult with regard to the ongoing command, control and incident management team requirements as per the relevant BFMC Plan of Operations.
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. • Existing or previous roads, tracks and control lines should be used wherever possible. • 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. • Plant may only be used with the prior consent of a senior NPWS Officer. • Plant must always be guided and supervised by an experienced officer, and accompanied by a support vehicle. When engaged in direct or parallel attack, the vehicle must be a fire-fighting vehicle. • Containment lines running along valley areas should be constructed at 20 – 50 metres from the gullyline to avoid severe erosion. • Plant must not work in areas with slopes greater than 20 degrees. • Plant must not work in areas with extensive rock shelves. • Deriah AA - Mechanical construction of control lines is not permitted. Plant use permitted along existing roads and tracks to prepare lines, and assist with mop-up • Wilderness areas – Plant will be restricted to existing roads and trails. • Plant must be washed down, where practicable, prior to it entering NPWS estate and again on exiting NPWS estate. • The use of foam, oil, gels and retardants requires the approval of the Regional Manager or delegate • The aerial application use foam, gels and retardants requires the approval of the Regional Manager or delegate
Earthmoving Equipment	
Fire Suppression Chemicals	
Rehabilitation	• Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Watering points	• Consider deployment of a bulk water carrier to support fire operations. • Consider deployment of 1,000 L pallet tanks, to be refilled by helicopters, to reduce fire unit turn around. • Water for use in the treatment of the lower treatment pond, if drop zone is 50 metres from watercourses
Smoke Management	• Potential smoke impacts and mitigation tactics will be assessed during the planning of fire operations. • Broadcast Australia must be contacted when smoke is assessed to impact broadcast facilities
Visitor Management	• Walking trails and public use facilities will be closed, where assessed necessary, during: • fire operations; • days of forecast Catastrophic Fire Danger • No guided activities will be permitted during periods of Severe+ Fire Danger, or during fire operations. • Implement the evacuation plan during Catastrophic Fire Danger, or fires threatening walking tracks and visitor facilities.
WARNINGS	• Remote area fire fighting operations should be postponed, or abandoned, if there is: • a forecast risk of a storm moving through the area; or • a forecast significant wind change. • Power lines with long spans located at: • east of Bullawa Creek • Bullawa Creek to The Governor, north of Mount Kaputar Road • The Governor to Mount Dove
AVIATION HAZARDS	• Winds from the NW to SW can produce severe turbulence within the Nandewar Ranges. The turbulence may extend some distance. • The risk of turbulence must be assessed on the lee-side of steep terrain. Operations should be suspended during periods of high turbulence.

Suppression Strategies	
Conditions & forecast	Guidelines
BKDI < 100, or BKDI > 100+ and outside critical fire season Stable conditions forecast	- A broad containment strategy using existing roads, tracks, rocky areas, low fuel areas and recently burnt areas. - Monitor during periods of lower KBDI. - Consider deployment of RAFT crews as a first response. - Consider a strategy that uses a combination of ground crews, machinery and fire units to contain the fire.
BKDI > 100 & within critical fire season	- Consider a strategy containing the fire to the smallest area practicable, using a combination of ground crews, fire units, machinery and aircraft. - Any proposed backburning must be assessed on the required resources, their capacity and the time required to move-up and secure proposed burn edges prior to the onset of Severe + conditions, and then hold.
Severe+ FDI forecast NOTE: Potential "ramp"	
NOTE: Backburning should be avoided in steep terrain until fire fronts are within proximity of control lines. The aim is to time backburning to minimise length of fire run and spotting potential.	
Fire behaviour calculations should consider both Surface and 1500 metres wind forecasts	

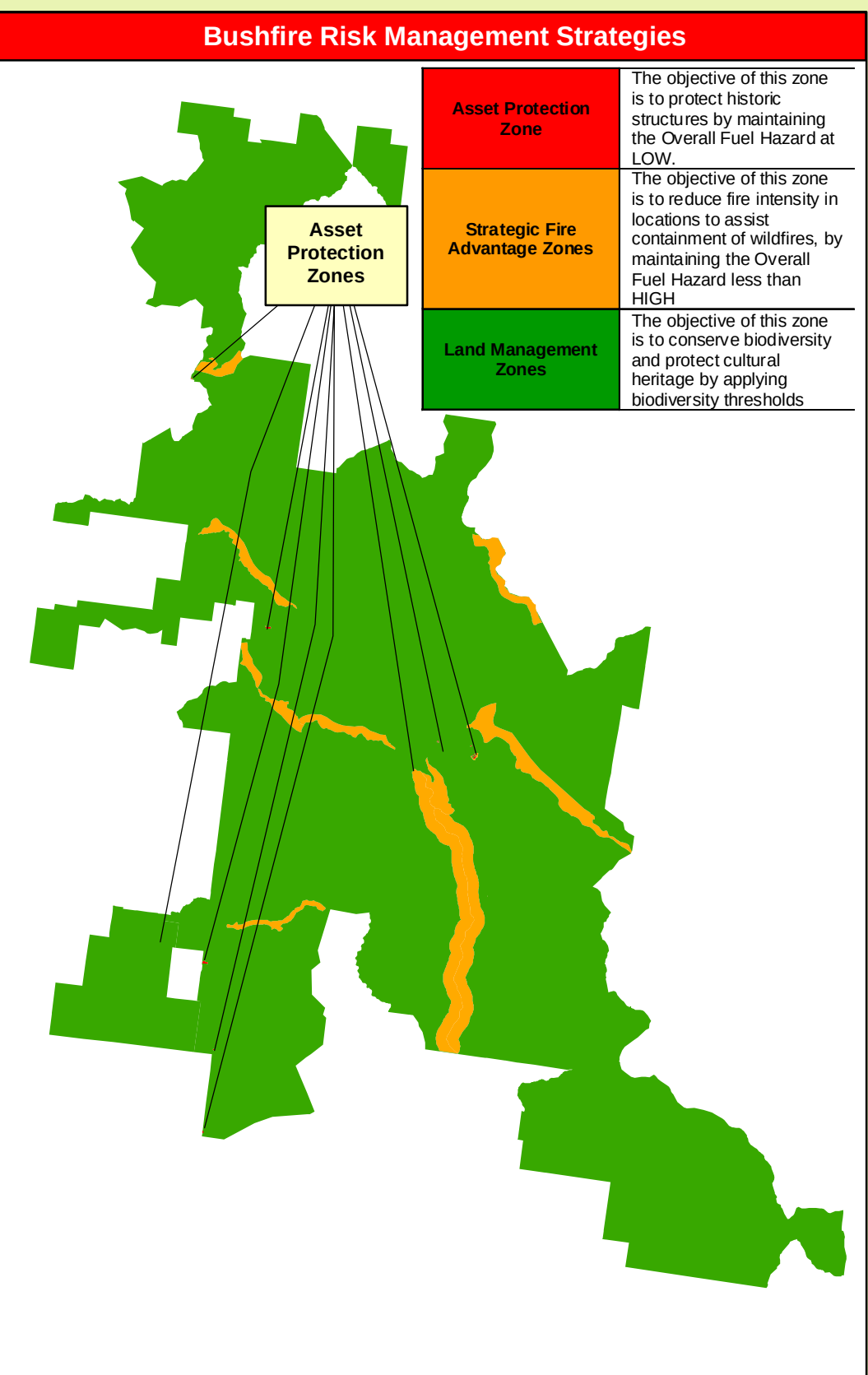
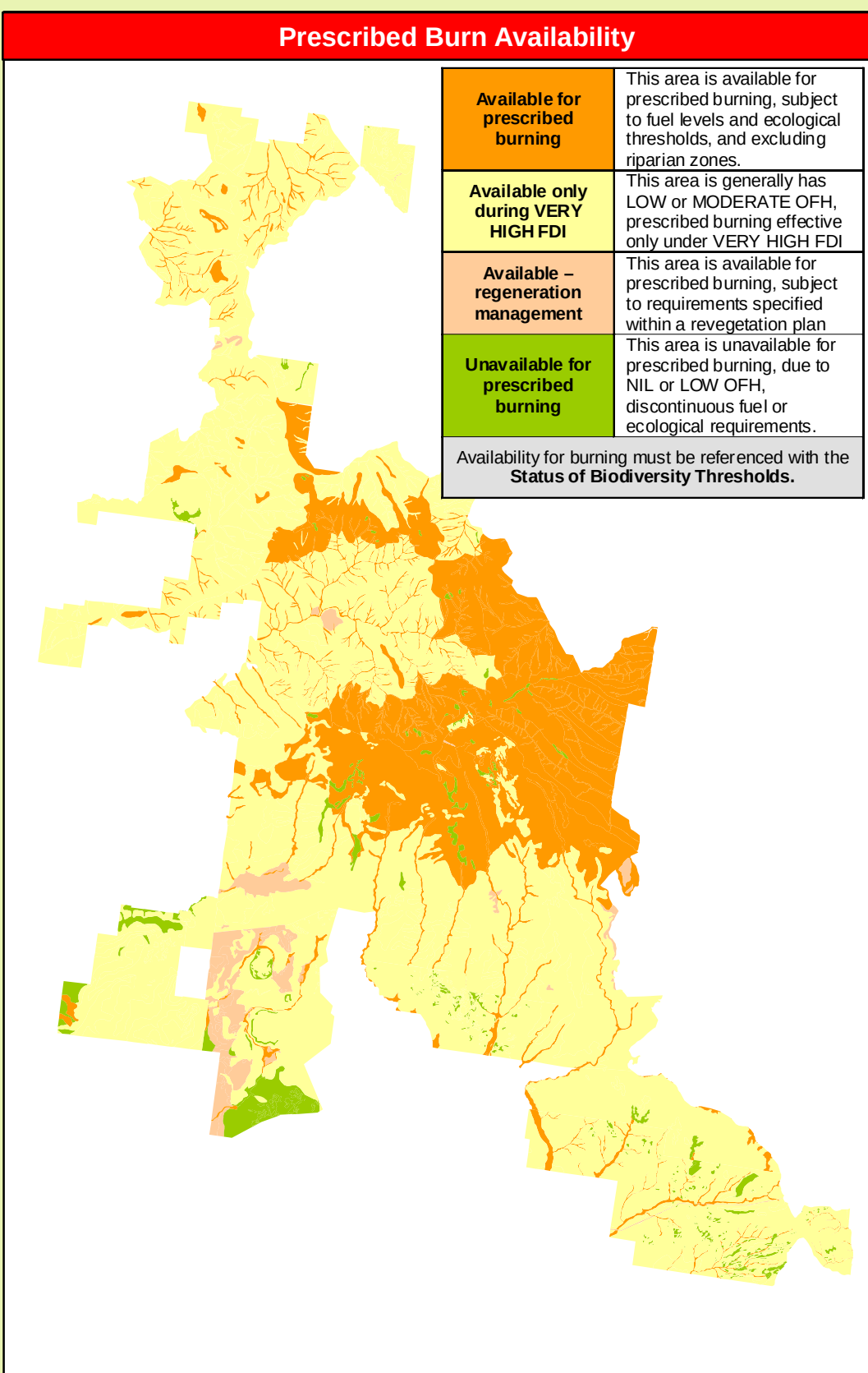
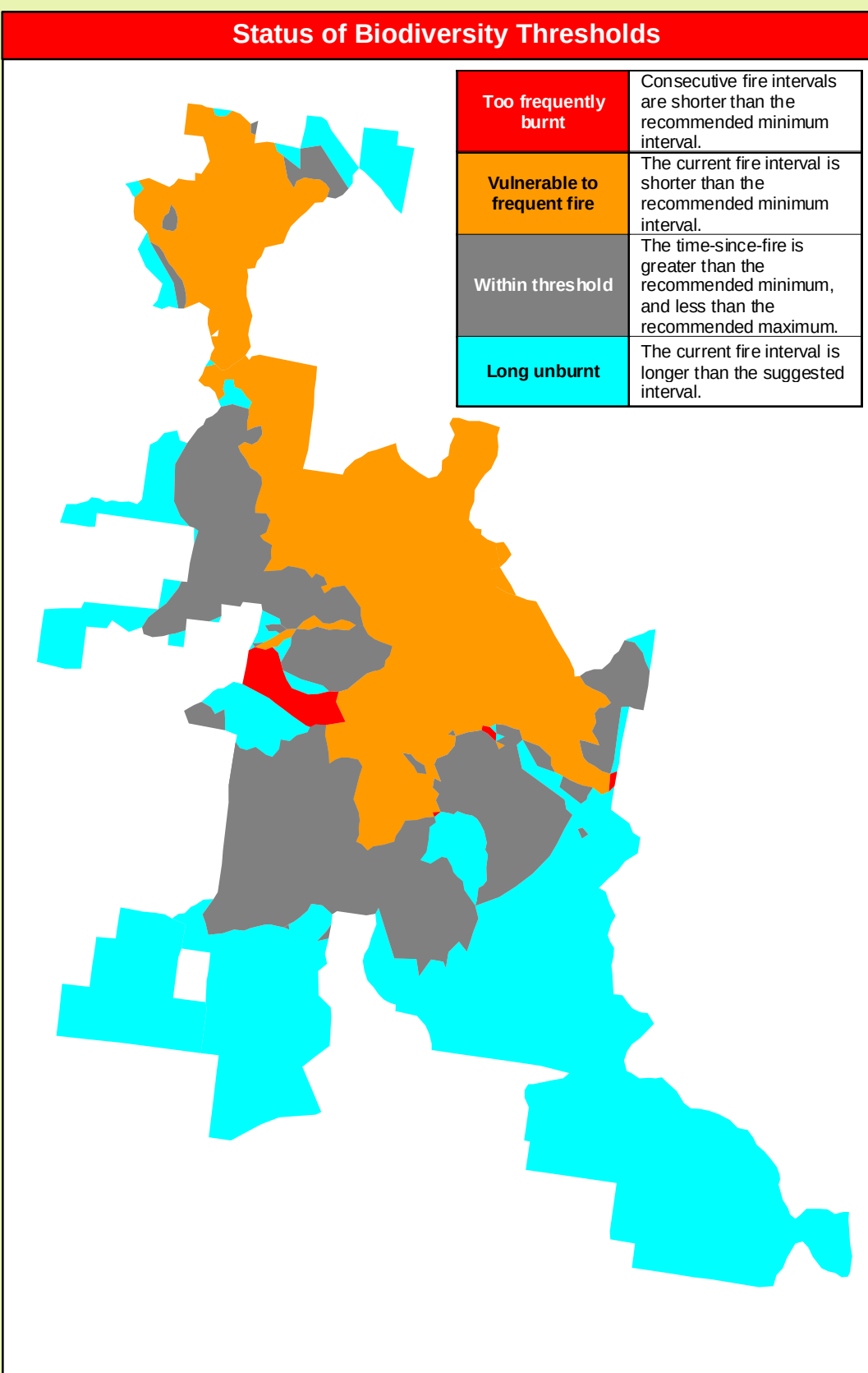
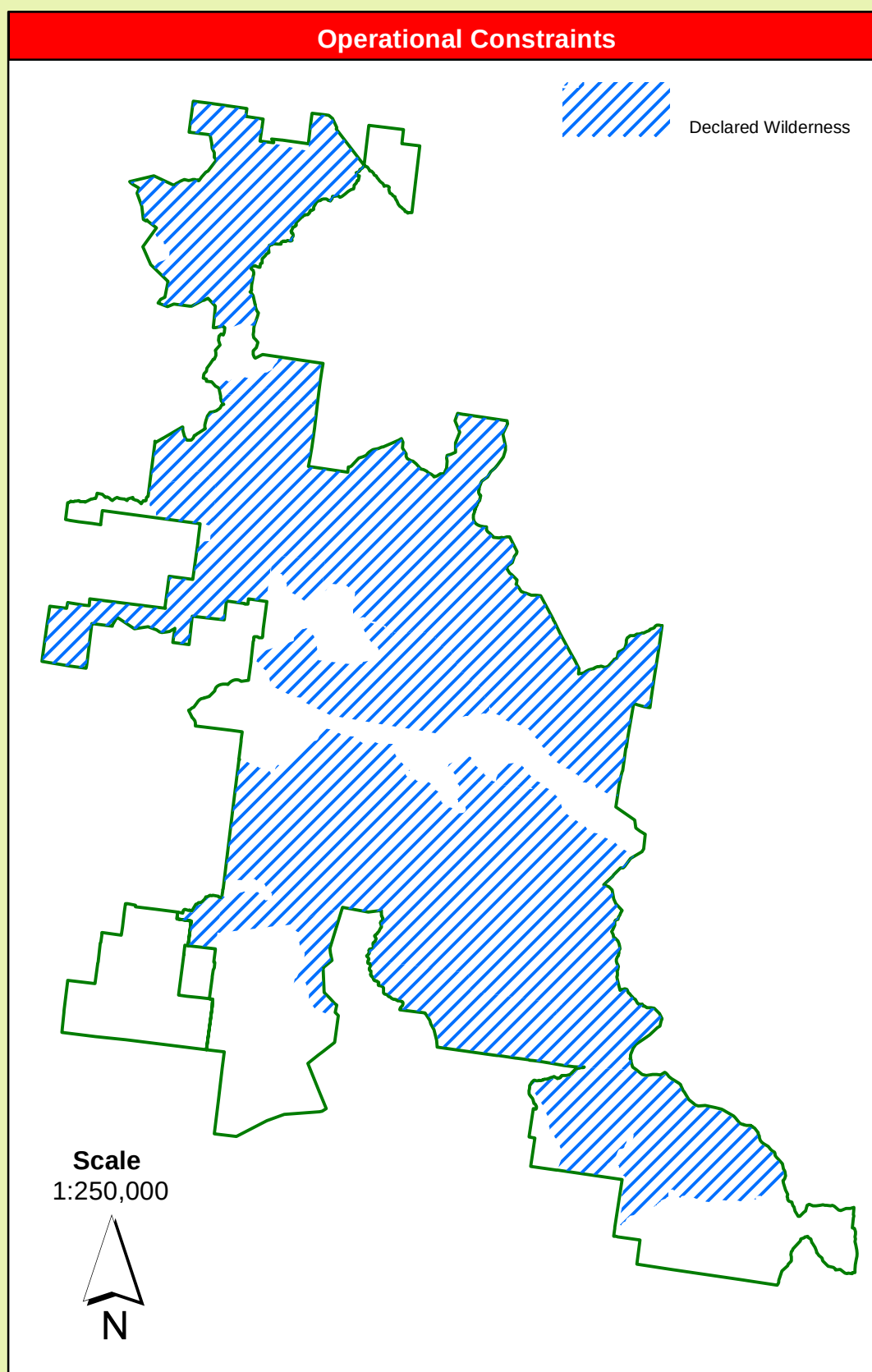
Vegetation communities and biodiversity thresholds		
Vegetation Community	Vegetation management guidelines	Fire Behaviour (under Severe / Extreme FDI)
Dry rainforests Dense closed forest Ruddy / White Ocker / Mock Olive / Sweet Pittosporum / Quinces / Freckled dry rainforest	- No prescribed burning should be conducted - Avoid implementing moderate – high intensity burning operations	Potential rates of spread is usually low due to NIL - LOW OFH
Wet sclerophyll forests Narrebor Box / Ribbon Gum / White Box/open forests	- Minimum interval between low intensity fire events – 20 years - Minimum interval between high intensity fire events – 50 years - Selected areas to be maintained with interval greater than 100 years	- Potential rates of spread during extended dry seasons is High due to MODERATE - VERY HIGH OFH - High potential for spotting
Montane forests and woodlands Snow Gum / Mountain Gum / Narrebor Box / Western New England Blackbutt open forests	- Minimum interval between low intensity fire events – 20 years - Minimum interval between high intensity fire events – 100 years	Potential rates of spread during extended dry seasons is High due to MODERATE - VERY HIGH OFH
Riparian forests, woodlands and shrublands River Oak / Rough-barked Apple / Baskley Red Gum / Black Box / Black Teatime / Riparian Tea-tree tall woodlands and shrublands	- Avoid implementing moderate – high intensity burning operations - Avoid burning areas with dry rainforest elements and riparian zone vegetation - Minimum interval between fire events less than 20 years and greater than 70 years should be avoided	Potential rates of spread would be low to moderate due to MODERATE OFH
Cypress Pine / Eucalypt woodlands and open forests White Box / White Pine / Black Pine / Narrebor/Heath Forest / Silver-leaved Ironbark / woodlands and open forests	- Minimum interval between fire events - 15 years - Minimum interval between high intensity fire events - 50 years - Motherbush stands require high intensity fire	- Potential rates of spread would be low to moderate due to LOW -MODERATE OFH - Localised areas of HIGH OFH may occur
Rocky Woodlands Hill Red Gum / Turbucklow Gum / Cypress / Motherbush shrubby low woodlands	- Motherbush stands require high intensity fire - Exclude low intensity prescribed burns and backburns - Minimum interval for fire events between 50 & 100 years, no maximum period applied	- Potential rates of spread is usually low due to NIL - LOW OFH - Some areas will not carry any fire due to rock cover - May be used as a suppression advantage
Shrublands Wet heaths Kunzea / Tea tree wet heaths and hanging swamps	Avoid prescribed burns during extended dry periods	Potential rates of spread is high due to VERY HIGH elevated fuel hazard
Shrublands Kunzea / Heath Myrtle heathlands on rocky outcrops	- Minimum interval between fire events - 8 years - Minimum interval between high intensity fire events - 25 years	- Potential rates of spread is low due to NIL - LOW OFH - Some areas will not carry any fire due to rock cover
Mallee woodland Green Mallee / Waka woodlands	- Minimum interval between fire events - 15 years - Minimum interval between high intensity fire events - 25 years	Potential rates of spread is high due to VERY HIGH elevated fuel hazard
Regenerating woodlands	Prescribed burning in regeneration areas should be scheduled according to a revegetation / rehabilitation plan	Potential rates of spread dependant on grass and shrub cover
Grasslands Grassland and swarded grasslands	- Minimum interval between fire events should be greater than 2 years - Prescribed burning in regeneration areas should be scheduled according to a revegetation / rehabilitation plan	- Potential rates of spread dependant on seasonal conditions - A LOW OFH occurs during dry seasons - A MODERATE - HIGH OFH may develop after successive wet seasons producing continuous cover
OFH – Overall fuel hazard – A rating system that includes tall litter, grasses, shrubs, bark type and bark condition. Consists of ratings for surface fuel, near-surface fuel, elevated fuel and bark.		

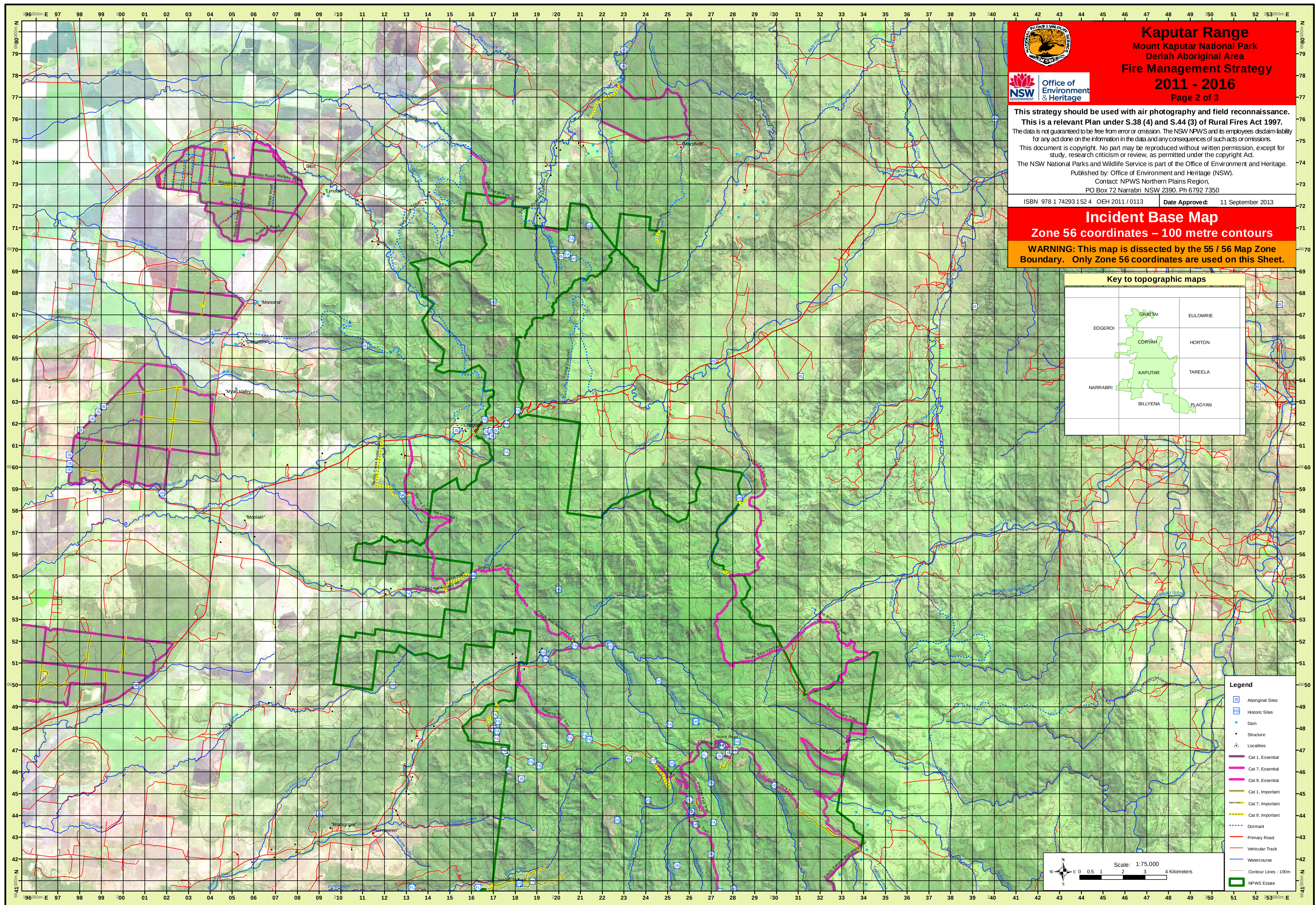
Vegetation

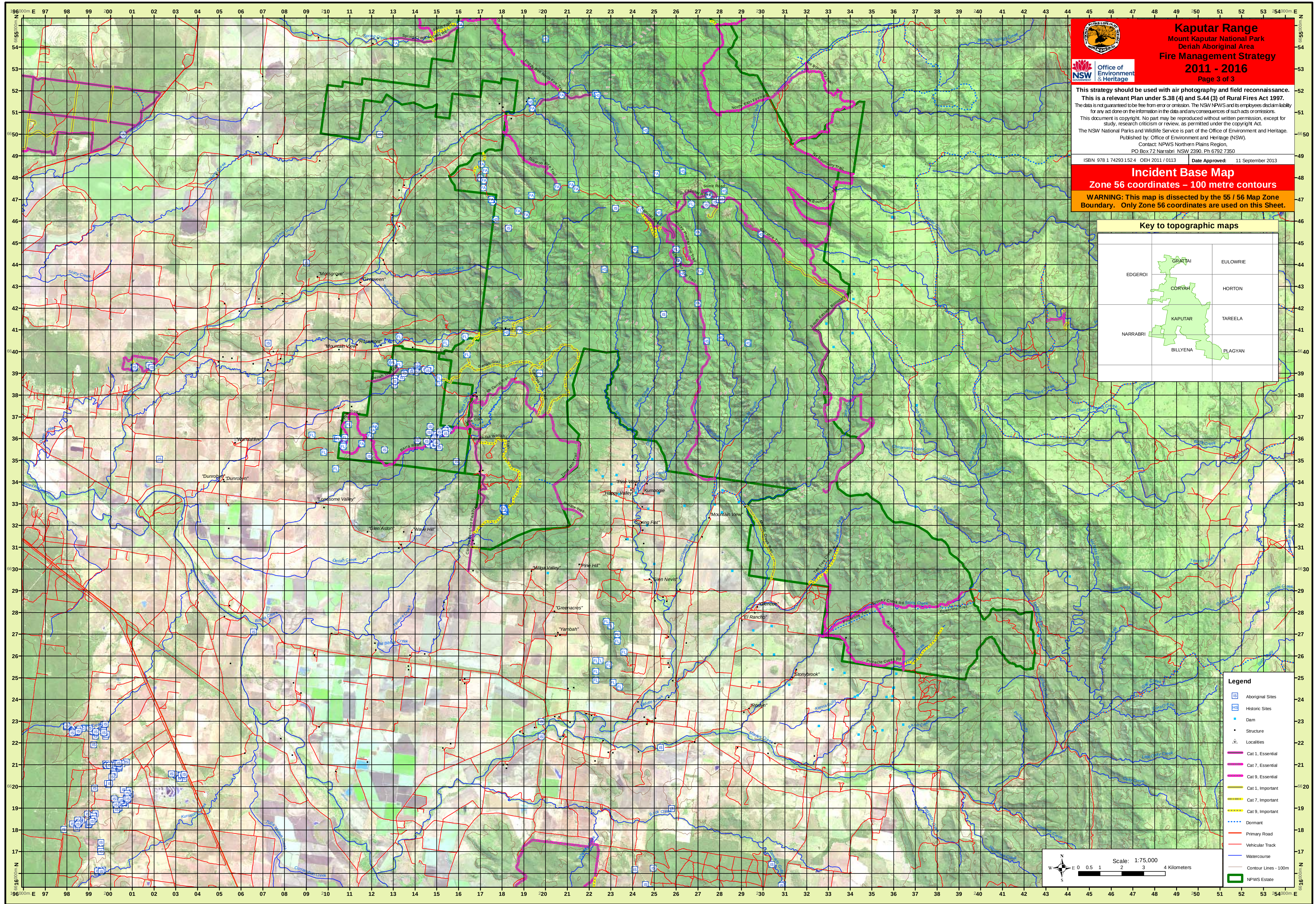
Broad Vegetation Communities

- Dry rainforests
- Wet sclerophyll forests
- Montane forests and woodlands
- Riparian forests and woodlands
- Cypress Pine - Eucalypt woodlands
- Rocky Eucalypt open woodlands
- Shrublands - wet heaths
- Shrublands
- Mallee Woodlands
- Regenerating woodlands
- Grasslands

Scale 1:175,000





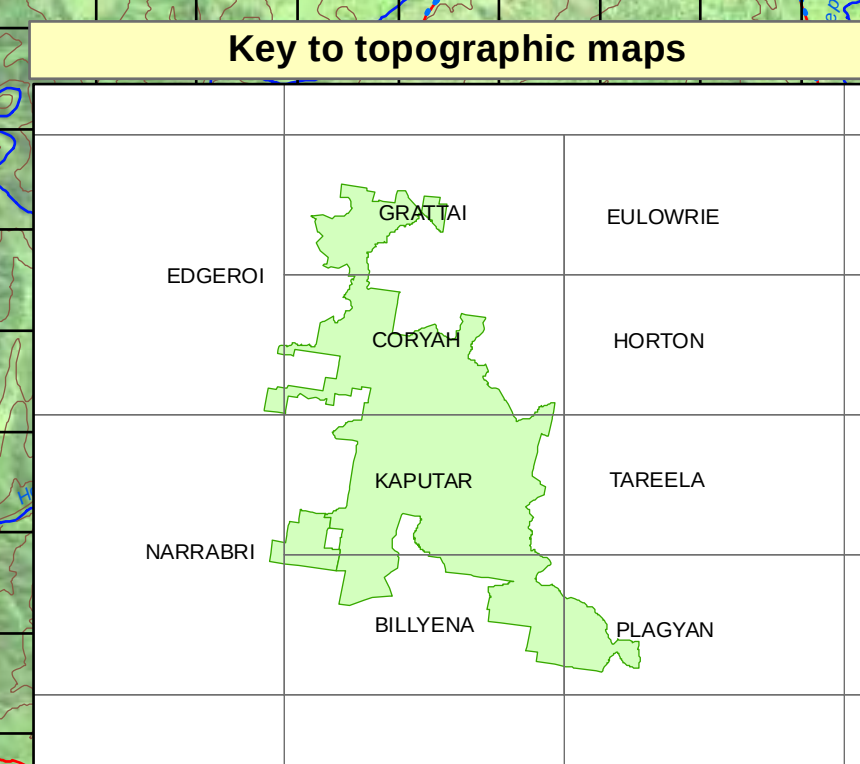


This strategy should be used with air photography and field reconnaissance.
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Incident Base Map
Zone 56 coordinates - 100 metre contours

WARNING: This map is dissected by the 55 / 56 Map Zone Boundary. Only Zone 56 coordinates are used on this Sheet.



- Legend**
- Aboriginal Sites
 - Historic Sites
 - Dam
 - Structure
 - Localities
 - Cat 1, Essential
 - Cat 7, Essential
 - Cat 9, Essential
 - Cat 1, Important
 - Cat 7, Important
 - Cat 9, Important
 - Dormant
 - Primary Road
 - Vehicular Track
 - Watercourse
 - Contour Lines - 100m
 - NPWS Estate

