

## Joadja Nature Reserve Fire Management Strategy 2009

This strategy should be used in conjunction with aerial photography and field reconnaissance during incidents and the development of incident action plans.

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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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Environment & Climate Change

### Fire Season Information

**Wildfires**

- The statutory wildfire season occurs between 1<sup>st</sup> October and 31<sup>st</sup> March. This may be extended if weather conditions lead to increased fire danger outside of this period.

**Prescribed Burning**

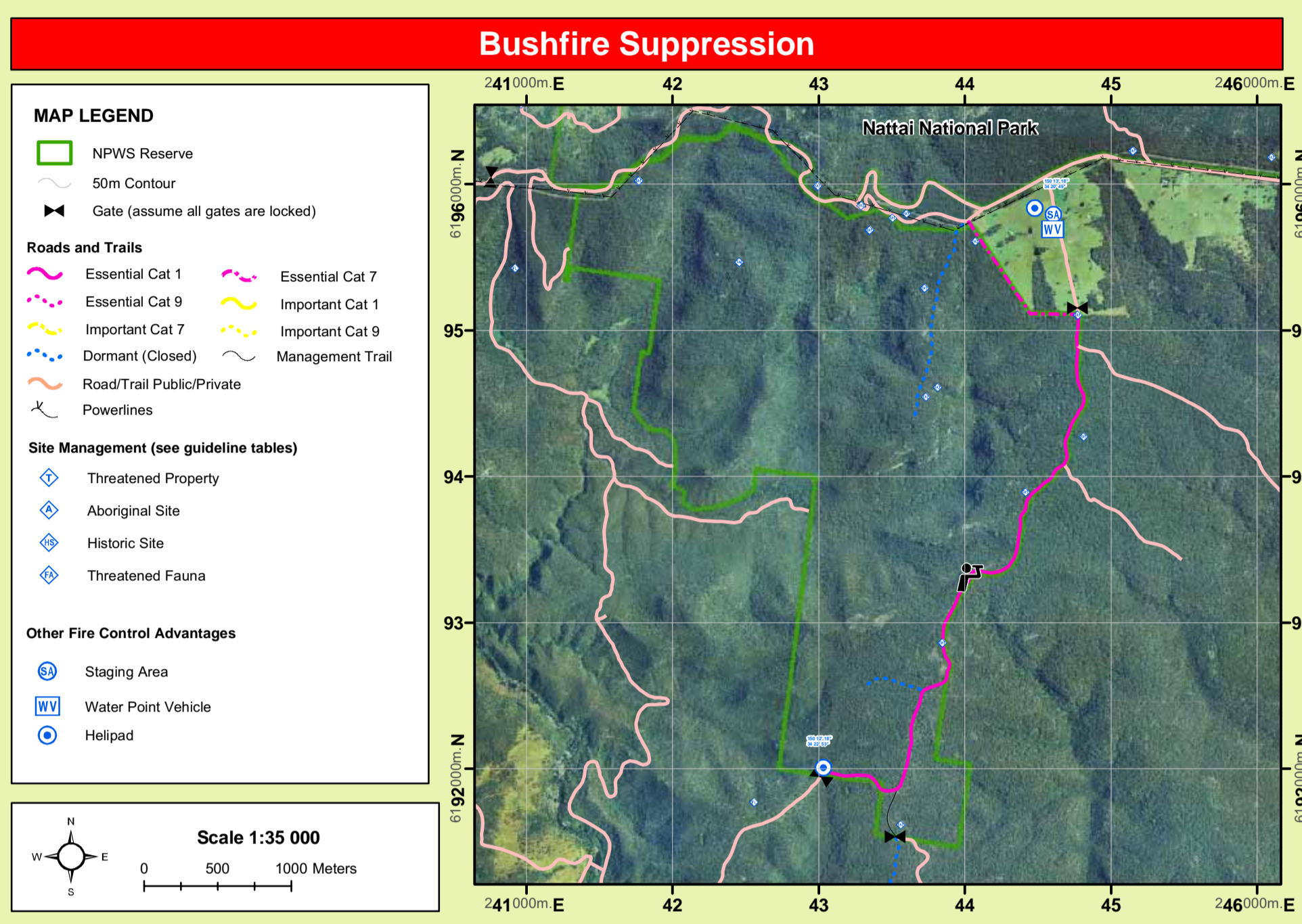
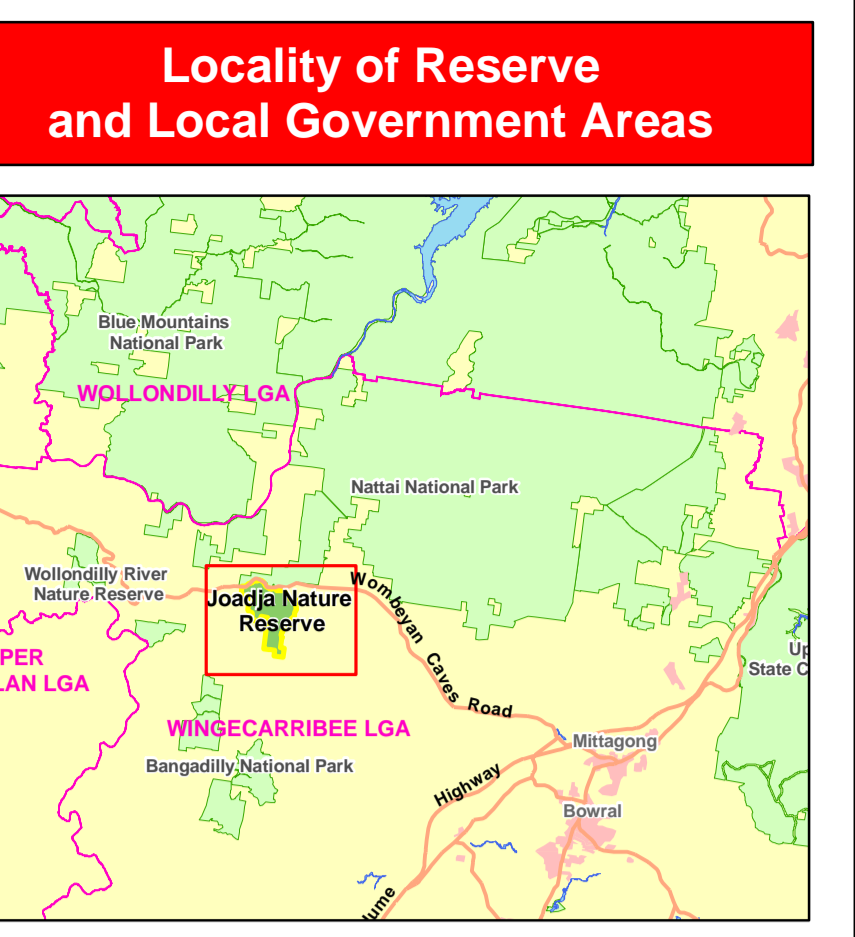
- Prescribed burning in this area is normally undertaken in Autumn through to Spring.

### Related Documents

- National Parks and Wildlife Service Fire Management Plan
- The Native Vegetation of the Wangarilla Special Area
- Part 4 - Bushfire Report and Part 5 Vegetation Community Profiles
- Wingcarribee District NSW Rural Fire Service
- Sydney South Region Incident Procedures and Control Plans
- Threatened Species Hazard Reduction Guidelines, Parts 1, 2 and 3, N.S.W. Rural Fire Service, As amended
- Joadja NP Flora Survey (MIS 2001)
- Joadja NP Flora Survey (MIS 2001)
- Joadja NP Draft Plan of Management (2005)

### Contact Information

Agency	Position / Location	Phone
National Parks & Wildlife Service	Managerial Officer (24 hour)	011 223 156
	Natural Area Manager	4877 0559
	Fire Management Officer	0419 498 861
	Regional Operations Coordinator	0419 482 195
Sydney Catchment Authority	Natural Area Office	0419 626 291
	Sydney South Regional Office	(02) 4672 0554
Wingcarribee District NSW Rural Fire Service	24 Hours	0755 1160
	Business Hours	4877 1625
SES	24 Hours	4871 3765
	Business Hours	4871 2986
Police	Emergency	000
	Shire	112
Ambulance	Emergency	000
	Shire	4862 2289
Hospital	Emergency	4871 1222
	Shire	112
Council	Camden District Board	4623 1000
	Wingcarribee Shire Council	4961 0200
Other	Wingcarribee Shire Council	4968 0888
	Joadja Ruins	4878 5129



### Communications Information

Service	Channel	Location and Comments
NPWS - VHF	2	High Range - Good coverage
Mobile Phone - GSM	95	Sydney Catchment Authority Network - Good coverage
Mobile Phone - GSM	-	Fair coverage on high points
Satellite Phone	-	Moderate coverage

### Operational Guidelines

Refer to Strategy for Fire Management 2003 and Fire Management Manual. Brief all personnel involved in suppression operations on the following issues:

**General**

- The use of bombing aircraft should support containment operations by aggressively attacking hotspots and spot fires.
- The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances. Where practicable, ground based suppression should be used to increase the effectiveness of aerial bombing.
- Ground crews must be alerted to water bombing operations.
- Aerial ignition may be used during back-burning or fuel reduction operations where practicable, but only with the prior consent of NPWS Regional Manager or Section 44 delegate.
- Utilities knowledges for regularly programmed back-burns down slope where required.
- Temperature and humidity trends must be monitored carefully to determine the safest times to implement back-burns. Generally, when the FDI is Very High or greater, backburning may be safely undertaken during the day.
- Where practicable, clear a 1m radius around dead and fibrous barked trees adjacent to containment lines prior to backburning, or wet down these trees as part of the backburn ignition.
- Avoid ignition of backburns at the bottom of slopes where a long and steep side slope burn is likely.
- The first constant agency on site may assume control of the fire, but they must ensure the relevant land management agency is notified promptly.
- On the arrival of other combatant agencies, the initial incident commander will consult with regard to the ongoing command, control and incident management team requirements as per the relevant BFM Plan of Operations.
- Construction of fire containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact. Near consent lines require the prior consent of a senior NPWS officer.
- Where practicable, containment lines should be established and rehabilitated as part of the wildfire suppression operation.
- All containment lines not required for other purposes should be closed at the cessation of the incident.
- All personnel involved in containment line construction should be briefed on both natural and cultural heritage sites in the location.
- Earthmoving equipment may only be used with the prior consent of a senior NPWS officer, and then only if the probability of its success is high.
- 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.
- Containment lines constructed by earthmoving equipment should consider the protection of drainage features, discrete Threatened Species and Cultural Heritage Operational Guidelines, and the environment, where possible, to identify unknown cultural heritage sites.
- Earthmoving equipment should be undertaken when practicable, prior to entering NPWS estate.
- Any aerial or aerial construction should be undertaken when practicable, and where necessary, should be undertaken in consultation with the Joadja Lookout Management Plan.
- All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
- Writing and burning agencies (if applicable) are permitted for use in wildfire suppression.
- 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 retardants and retardants within 50m of airports, watercourses, dams and swamps.
- Areas where fire suppression chemicals are used must be mapped and the used products name recorded.
- The Threatened Species Operational Guidelines are to be observed.
- Where practicable, containment lines should be established and rehabilitated as part of the wildfire suppression operation.
- The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression.
- 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.
- The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.

**Fire Advantage Recording**

- All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
- Writing and burning agencies (if applicable) are permitted for use in wildfire suppression.

**Fire Suppression Chemicals**

- Exclude the use of retardants and retardants within 50m of airports, watercourses, dams and swamps.
- Areas where fire suppression chemicals are used must be mapped and the used products name recorded.
- The Threatened Species Operational Guidelines are to be observed.

**Rehabilitation**

- Where practicable, containment lines should be established and rehabilitated as part of the wildfire suppression operation.
- The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression.
- 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.
- The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.

**Smoke Management**

- Exclude the use of retardants and retardants within 50m of airports, watercourses, dams and swamps.
- Areas where fire suppression chemicals are used must be mapped and the used products name recorded.
- The Threatened Species Operational Guidelines are to be observed.

**Visitor Management**

- The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.

### Resource Guidelines

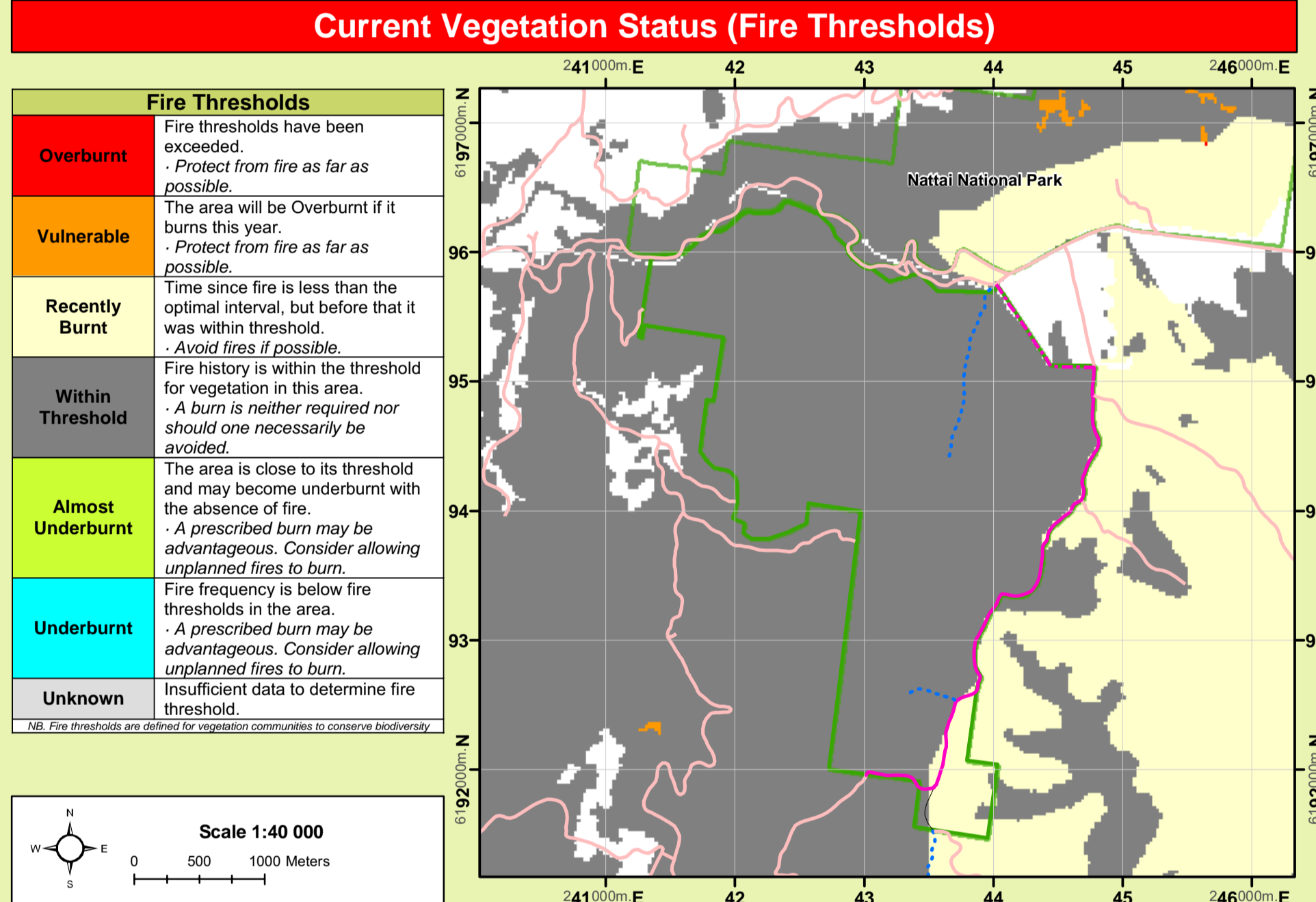
Resource	Guidelines
Aboriginal Cultural Heritage Site Management	A3: Avoid ground disturbance including handtools, dozers, etc. Avoid water bombing which may cause ground disturbance. Site may be burnt by wildfire, backburn, prescribed burn.
Threatened Fauna Management	FA1: Protect large and hollow bearing trees. Avoid fire around cave habitats. Avoid fire including wildfire, backburn, HR, as far as possible. Avoid the use of earthmoving machinery. Avoid the use of retardant. FA2: Avoid fire, including wildfire, backburning & HR, as far as possible in wetland habitats. Avoid use of earth moving machinery in wetland habitats. Avoid use of retardant and foam in wetland habitats. FA3: Avoid high intensity fires that consume tree canopies and fallen logs. FA4: Avoid burning of Allocasuarina thickets. FA5: Avoid fire, including wildfire, backburning & HR, as far as possible. FA6: Avoid use of earth moving machinery. FA7: Avoid fire, including wildfire, backburning & HR, as far as possible. FA8: Avoid use of earth moving machinery.
Threatened Property	Where possible 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.

### Vegetation Communities and Biodiversity Thresholds

Region	Vegetation Community	Biodiversity Threshold	Fire Behaviour	Year Burned	Area (Ha)
I	Shrubby Dry Sclerophyll Forest	• Avoid successive fires at intervals of < 7 years. • Avoid fire retention for a period of < 30 years.	Moderate	-	-
H	Grassy Dry Sclerophyll Forest	• Avoid successive fires at intervals of < 4 years. • Avoid fire retention for a period of < 30 years.	Moderate	-	-
E	Wet Sclerophyll Forest	• Avoid successive fires at intervals of < 10 years. • Avoid fire retention for a period of < 50 years.	High	-	-
G	Grassy Woodland	• Avoid successive fires at intervals of < 4 years. • Avoid fire retention for a period of < 30 years.	Low	-	-

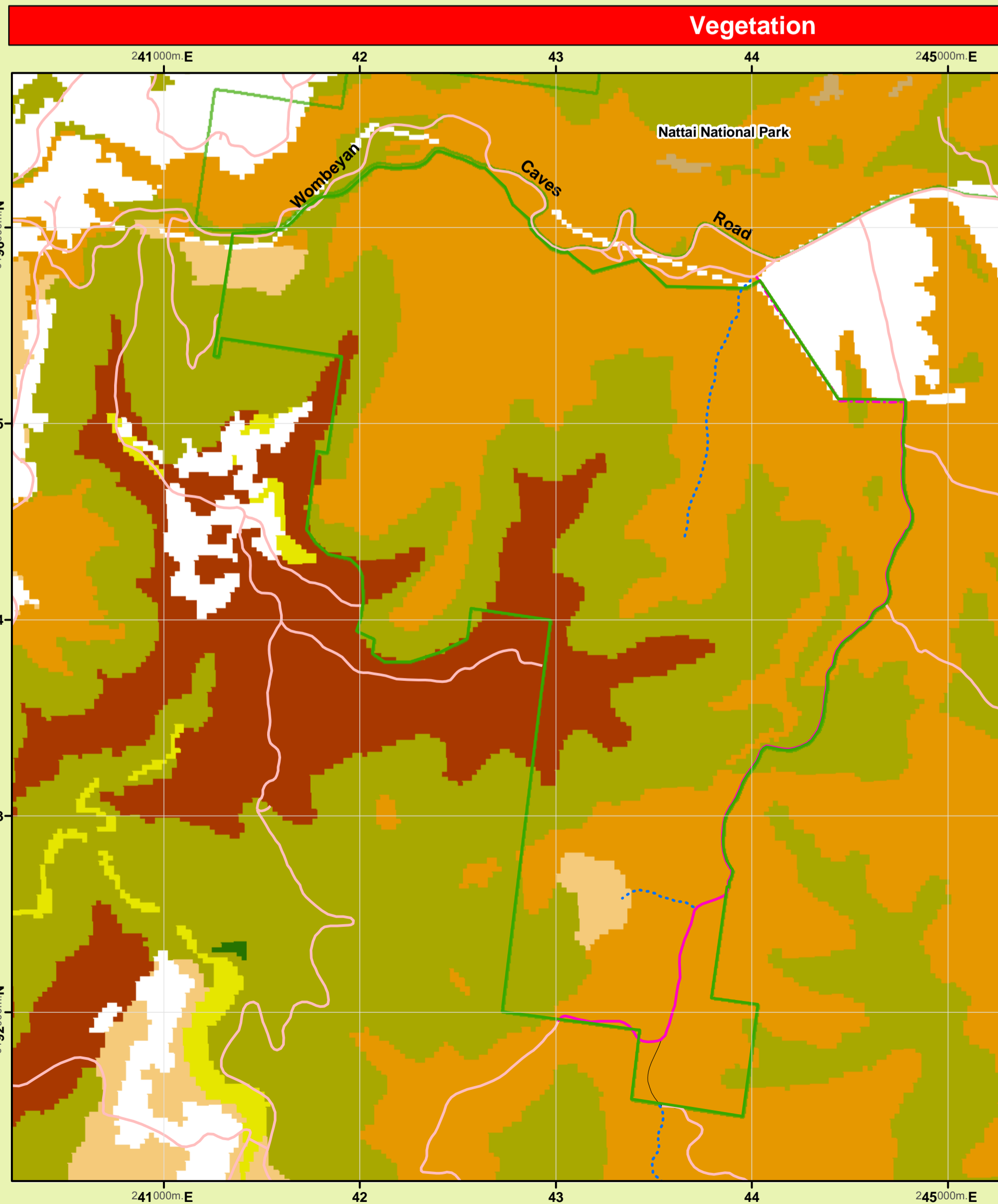
### Suppression Strategies

Current FDR	Forecast FDR	Strategy
Low - Mod	Low - Mod	As far as possible, undertake indirect, parallel or direct attack along existing control line. As far as possible, minimise area burnt without threatening assets, including biodiversity. Identify and locate backburn control lines. Undertake indirect, parallel or direct attack to minimise the area to contain the fire. Identify and survey backburn control lines. Construct new control lines if necessary to minimise the area to contain the fire. Undertake indirect attack along existing or newly constructed control lines. Secure and deepen control lines along the next predicted downwind side of the fire. Identify and survey backburn control lines. Ensure there is sufficient time to secure control lines before the fire gets to them. If there is insufficient time to secure control lines, fall back to the next potential control line. As far as possible, implement threatened species and cultural heritage management guidelines.
Low - Mod	>> High	Construct new control lines if necessary to minimise the area to contain the fire. Undertake indirect attack along existing or newly constructed control lines. Secure and deepen control lines along the next predicted downwind side of the fire. Identify and survey backburn control lines. Ensure there is sufficient time to secure control lines before the fire gets to them. If there is insufficient time to secure control lines, fall back to the next potential control line. As far as possible, implement threatened species and cultural heritage management guidelines.
High	All	Secure and deepen control lines along the next predicted downwind side of the fire. Identify and survey backburn control lines. Ensure there is sufficient time to secure control lines before the fire gets to them. If there is insufficient time to secure control lines, fall back to the next potential control line. As far as possible, implement threatened species and cultural heritage management guidelines.
All	All	Secure and deepen control lines along the next predicted downwind side of the fire. Identify and survey backburn control lines. Ensure there is sufficient time to secure control lines before the fire gets to them. If there is insufficient time to secure control lines, fall back to the next potential control line. As far as possible, implement threatened species and cultural heritage management guidelines.



### Threatened Fauna Fire Ecology

Label	Name	Fire Ecology
	Calceophaea ferulivora (Ganggang Coolibato) (Vulnerable)	• Avoid high frequency fires in known habitat.
	Calcyonichus lethrus (Large-eared Pad Bat) (Vulnerable)	• Avoid burning of Allocasuarina thickets. • No mechanical hazard reduction of Allocasuarina thickets.
	Chalchobius dyerian (Eastern Bentwing-bat) (Vulnerable)	• Avoid burning around known roost sites. • No slashing, tilting or tree removal around known roosting sites.
	Falsomachus tomentosus (Eastern Falls Frodoats) (Vulnerable)	• Protect hollows. • No removal of trees.
	Mirospora schweinfurthi (Eastern Bentwing-bat) (Vulnerable)	• No fire around known roost sites. • No slashing around maternity caves.
	Ninox strenua (Powerful Owl) (Vulnerable)	• No burning around known nesting sites at any time. • No slashing, tilting or tree removal around known nesting sites.
	Pellissura australis (Yellow-bellied Glider) (Vulnerable)	• Requires fire regime that maintains large, mature eucalypts in the overstorey. Therefore the complete absence of fire for very long periods in Sclerophyll Forest will result in unsuitable habitat as Sclerophyll Forest is replaced by grassland.
	Phascogalea ornata (Koala) (Vulnerable)	• Intense wildfire with canopy scorch will cause high mortality and injury. • Post fire areas may be recolonised within 6 - 18 months. With eucalypts providing many nutrients and less toxic leaves for improved food quality.



### Recent Fire History

Recent Fire History  
||| 2005/2006 Fires

