Hunter Region
Copeland Tops State Conservation Area
Fire Management Strategy (Type 2)
2005
Sheet 1 of 1

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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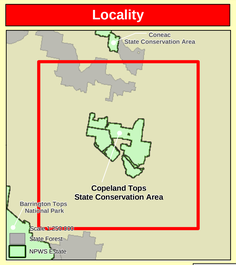
Department of Environment and Conservation (NSW)

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

Approved Date: 30th June 2006

Locality



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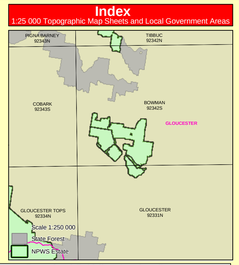
1:25 000 Topographic Map Sheets and Local Government Areas



Contact Information

Agency	Position / Location	Phone
NPWS	Regional Duty Officer	016 301 161 / 0429 144 880
	Barrington Area Manager	6538 5301 / 0429 744 873
	Fire Management Officer	4984 8212 / 0429 144 870
	Regional Operations Coordinator	4984 8212 / 0429 144 872
	Barrington Area Office	6538 5300 / (fax) 6558 2476
	Regional Office	4984 8200 / (fax) 4981 5913
RFS - Manning Team	Fire Control Centre Gloucester District	6558 9222 / (fax) 6558 1723
	24 Hour Duty Officer	0500 589 222
	Fire Control Centre Taree District	6592 6990 / (fax) 6592 6970
	24 Hour Duty Officer	6592 6666
	State Operations	8742 5400 / (fax) 8741 5300
NSW Fire Brigade	Emergency	000
	Newcastle Communications (24hr)	4929 7177 / (fax) 4927 2580
SES	Emergency	000
	24hr	132 500
	Gloucester Unit	6558 1788 / (fax) 6558 1636
Police	Emergency	000
	Gloucester Station	6558 1204
Ambulance	Emergency	000
	Bookings	131 233
Hospital	Gloucester	6558 1307
DOP	Newcastle	4929 4346 / (fax) 4929 6364
DPI - Forests	Hunter Region Office	4931 6666 / (fax) 4933 0772
Council	Gloucester Shire	6538 5250 / (fax) 6558 2343
Local Aboriginal Land Council / Sites Officer	Forster Local Aboriginal Land Council/Bob Yettica	6555 5411 / (fax) 6555 5532

Strategy Information

Fire Season Information

Wildfires
- Have been known to start as early as late August, but usually the potential for a large fire event is greatest between September and December. This period may extend into February in more severe years.

Prescribed Burning (NPWS Fire Management Manual 4.7)
- General season is Autumn to late Winter. Burning is possible in early Spring but not desirable on a regular basis from an ecological or tourism point of view.

Suppression Strategies

Current FDR	Forecast FDR	
Low - Mod	Low - Mod	• Undertake direct, parallel or indirect attack along existing containment lines and take advantages of natural fire control advantages (NFAC). • Where practicable consider maximising the fire area in accordance with the requirements of any proposed prescribed burns.
Low - Mod	= > High	• In order to minimise the fire area and secure the flanks as soon as possible, undertake direct, parallel or indirect attack along the closest containment lines. • Pay particular attention to the flank on the next predicted down wind side. • Construct new control lines if necessary to minimise the time to contain the fire.
High	All	• Undertake indirect attack along existing or newly constructed containment lines. • Secure and deepen containment lines along the next predicted downwind side of the fire. • If applicable consider broader than normal containment strategies to avoid wasted effort and high risk of failure.
All	All	• Ensure there is sufficient time to secure containment lines prior to the fire impacting upon them; otherwise fall back to the next potential line. • As far as possible, implement threatened species and cultural heritage management guidelines. • Test NFCA before relying on them.

Operational Guidelines

Refer to Strategy for Fire Management 2003 and Fire Management Manual 2004.
Brief all personnel involved in suppression operations on the following issues:

Resource	Guidelines
Aboriginal Cultural Heritage Site Management (NPWS FMM 4.11) **A1**	• As far as possible protect site from fire. • Do not cut down trees. • Use of foams, wetting agents & retardant is acceptable. • Rake hoe around any scar trees.

Operational Guidelines (continued)

Refer to Strategy for Fire Management 2003 and Fire Management Manual 2004.
Brief all personnel involved in suppression operations on the following issues:

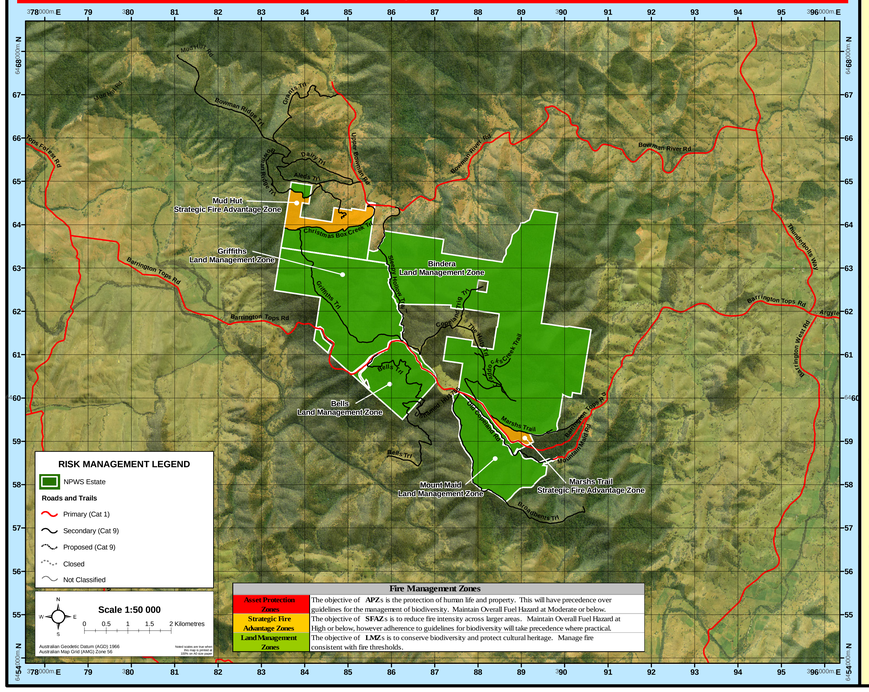
Resource	Guidelines
A2	• As far as possible protect site from fire. • Avoid ground disturbance including handtools, dozers. • Avoid water bombing which may cause ground disturbance.
A3	• Avoid ground disturbance including handtools, dozers. • Avoid water bombing which may cause ground disturbance. • Site may be burnt by wildfire, backburn, prescribed burn.
Historic Heritage Management (NPWS FMM 4.10)	
HS1	• High RCHMS* priority. • Avoid fire, including wildfire, backburning & HR. • Avoid all water bombing activities.
HS2	• High RCHMS* priority. • Avoid fire, including wildfire, backburning & HR.
HS3	• High or low RCHMS* priority. • Heritage site unlikely to be effected by fire. • Danger to any fire crew activity. Avoid site at all costs.
HS4	• Low RCHMS* priority. • Avoid fire, including wildfire, backburning & HR. • Avoid all water bombing activities.
HS5	• Low RCHMS* priority. • Avoid fire, including wildfire, backburning & HR.
HS6	• High or low RCHMS* priority. • Heritage site unlikely to be effected by fire. • Avoid use of earth moving machinery.
HS7	• High or low RCHMS* priority. • Heritage site unlikely to be effected by fire. • Avoid use of earth moving machinery. • Avoid all water bombing activities.
Threatened Fauna Management (NPWS FMM 4.12 & 5.2)	
FA1	• Protect large and hollow bearing trees.
FA2	• Protect large and hollow bearing trees. • Avoid interfire intervals of < 10 yrs. • Avoid high intensity fires that consume tree canopies and fallen logs.
FA3	• Avoid interfire intervals of < 10 yrs.
FA4	• Habitat unlikely to be effected by fire. • Avoid use of earth moving machinery in wetland habitats. • Avoid use of retardant and foam in wetland habitats.
FA5	• Habitat unlikely to be effected by fire. • Avoid use of earth moving machinery in dune habitats.
FA6	• Avoid fire, including wildfire, backburning & HR, as far as possible in wetland habitat. • Avoid use of earth moving machinery in wetland habitats. • Avoid use of retardant and foam in wetland habitats.
FA7	• Avoid high intensity fires that consume tree canopies and fallen logs.
FA8	• Avoid fire, including wildfire, backburning & HR, as far as possible. • Avoid use of earth moving machinery.
Threatened Flora Management (NPWS FMM 4.12)	
FL1	• Avoid interfire intervals of < 10 yrs. • Avoid the use of earthmoving machinery. • Avoid the use of retardant.
FL2	• Avoid fire, including wildfire, backburn, HR, as far as possible. • Avoid the use of earthmoving machinery. • Avoid the use of retardant.
FL3	• Avoid high intensity fire. • Avoid interfire intervals <10 years, effect unknown. • Avoid the use of earth moving machinery.
FL4	• Avoid summer fire. • Avid high intensity fire. • Avoid earth moving machinery.
FL5	• Avoid low intensity fire. • Avoid interfire intervals of < 5 yrs. • Avoid earth moving machinery. • Avoid the use of retardant.
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.
General	**Guidelines**
Command & Control (NPWS FMM 4.2)	• The first combatant agency on site may assume control of the fire, but then must ensure the relevant land management agency is notified immediately. • 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 Gloucester BFMC Plan of Operations. • The ICS system will be implemented for all fire suppression activities.
Rehabilitation (NPWS FMM 5.1)	• All new containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.

Operational Guidelines (continued)

Refer to Strategy for Fire Management 2003 and Fire Management Manual 2004.
Brief all personnel involved in suppression operations on the following issues:

General	Guidelines
Backburning (NPWS FMM 4.8)	• As far as possible, backburning should take into account of threatened species and cultural heritage guidelines. • 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 should commence when the humidity begins to rise in the late afternoon or early evening. With a lower FDI 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. • Where possible avoid ignition of backburns at the bottom of slopes where a long and intense up slope burn is likely.
Containment Lines (NPWS FMM 2.2.8 3.9)	• Construction of new containment lines should be avoided, where practicable, except where they can be constructed with minimal environmental impact. New containment lines require the prior consent of the Incident Controller. • Containment lines should be stabilised 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 (NPWS FMM 4.2.20 & 4.3)	• Earthmoving equipment may only be used with the prior consent of the Incident Controller, and then only if the probability of its success is high. • Subject to operational constraints , minimise the length of the break to be constructed. • 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, observe the Threatened Species and Cultural Heritage Operational Guidelines, and be surveyed to identify unknown cultural heritage sites. • Earthmoving equipment should be washed down, where practicable, prior to it entering NPWS estate.
Fire Advantage Recording	• All fire advantages used during wildfire suppression operations must be mapped and added to the database as soon as possible after the event.
Fire Suppression Chemicals (NPWS FMM 4.2.20 & 4.9)	• Wetting and foaming agents (surfactants) are permitted for use in wildfire suppression. • Exclude the use of surfactants and retardants within 50m of rainforest, watercourses, dams and swamps. • The Threatened Species Operational Guidelines are to be observed.
Aerial Ignition (NPWS FMM 4.2.20 & 4.4 / NSW Fire Agencies Aviation SOPs O2.4 / NPWS Guidelines for Effective Aircraft Management)	• Aerial ignition may be used during back-burning or fuel reduction operations where practicable, but only with the prior consent of a Incident Controller.
Aerial Water Bombing (NPWS FMM 4.4 / NSW Fire Agencies Aviation SOPs O2 / NPWS Guidelines for Effective Aircraft Management)	• The use of bombing aircraft should support containment operations by aggressively attacking hotspots and spot-overs. • The use of bombing aircraft without the support of ground based suppression crews should be limited to very specific circumstances. • Where practicable foam should be used to increase the effectiveness of the water. • Ground crews must be warned of water bombing operations. • No water bombing is to be undertaken in the Mountain Maid mine precinct. A buffer zone of 350 m should be implemented from grid reference 894 585, (151° 49 45 , 32° 01 15) . • No water bombing is to be undertaken in the vicinity of the hut. A buffer zone of . 150m should be implemented from grid reference 854 644, (151° 47 25 , 31° 57 00).
Visitor Management (NPWS FMM 3.6 & 4.13)	• The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations. • Notify all licences/consentees prior to all HR operations and wildfire suppression activities. • Ensure that signage is adequate to warn people of wildfire suppression and prescribed burning operations. • The potential impacts of smoke and possible mitigation tactics must be considered when planning for wildfire suppression and prescribed burning operations. • If smoke becomes a hazard on local roads, the Police, Gloucester Shire Council, Gloucester Visitor Information Centre and relevant media must be notified. • Smoke management must be in accordance with relevant RTA traffic management guidelines. • All officers undertaking the role of lolly pop officers must be trained.
Smoke Management (NPWS FMM 3.4)	

Risk Management Information



RISK MANAGEMENT LEGEND

- NPWS Estate
- **Roads and Trails**
- Primary (Cat 1)
- Secondary (Cat 9)
- Proposed (Cat 9)
- Closed
- Not Classified

Fire Management Zones

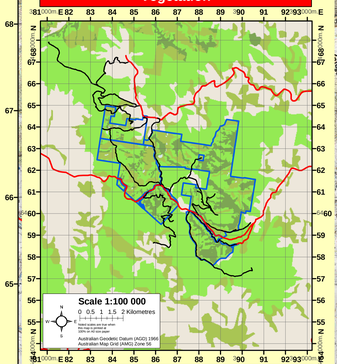
Asset Protection Zones	The objective of **APZ**s is the protection of human life and property. This will have precedence over guidelines for the management of biodiversity. Maintain Overall Fuel Hazard at Moderate or below.
Strategic Fire Advantage Zones	The objective of **SFAZ**s is to reduce fire intensity across larger areas. Maintain Overall Fuel Hazard at High or below, however adherence to guidelines for biodiversity will take precedence where practical.
Land Management Zones	The objective of **LMZ**s is to conserve biodiversity and protect cultural heritage. Manage fire consistent with fire thresholds.

Bushfire Suppression

Communications Information

Service	Channel	Location and Comments
NPWS - VHF	26, 31	• Select channel with best reception
NPWS - VHF (Fireground Comms)	17/18/19	• Select channel on fire-ground
NPWS - VHF (Portable Repeater)	15	• Can be located anywhere • Kept at Regional Office
RFS - PMR	80	• Manning Communications site Mount Berrico near Gloucester
	82	• NPWS site Mt Myra NSW
	128	• Manning Communications site Mount Berrico near Gloucester
RFS - CRN	-	• No Service available
CB - UHF	1-99	• Available to most RFS vehicles • Choose channel on fire-ground
Aircraft - VHF	26, 31	•
Mobile Phone - CDMA	• Poor coverage	
Satellite Phone	• Medium coverage unknown exact locations	

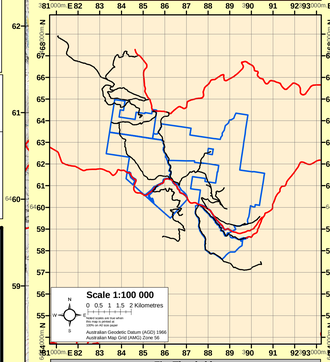
Vegetation



VEGETATION LEGEND

- NPWS Estate
- Primary (Cat 1)
- Secondary (Cat 9)
- **Broad Vegetation Communities**
- Dry Sclerophyll Forest
- Rainforest
- Wet Sclerophyll Forest

Status of Fire Thresholds



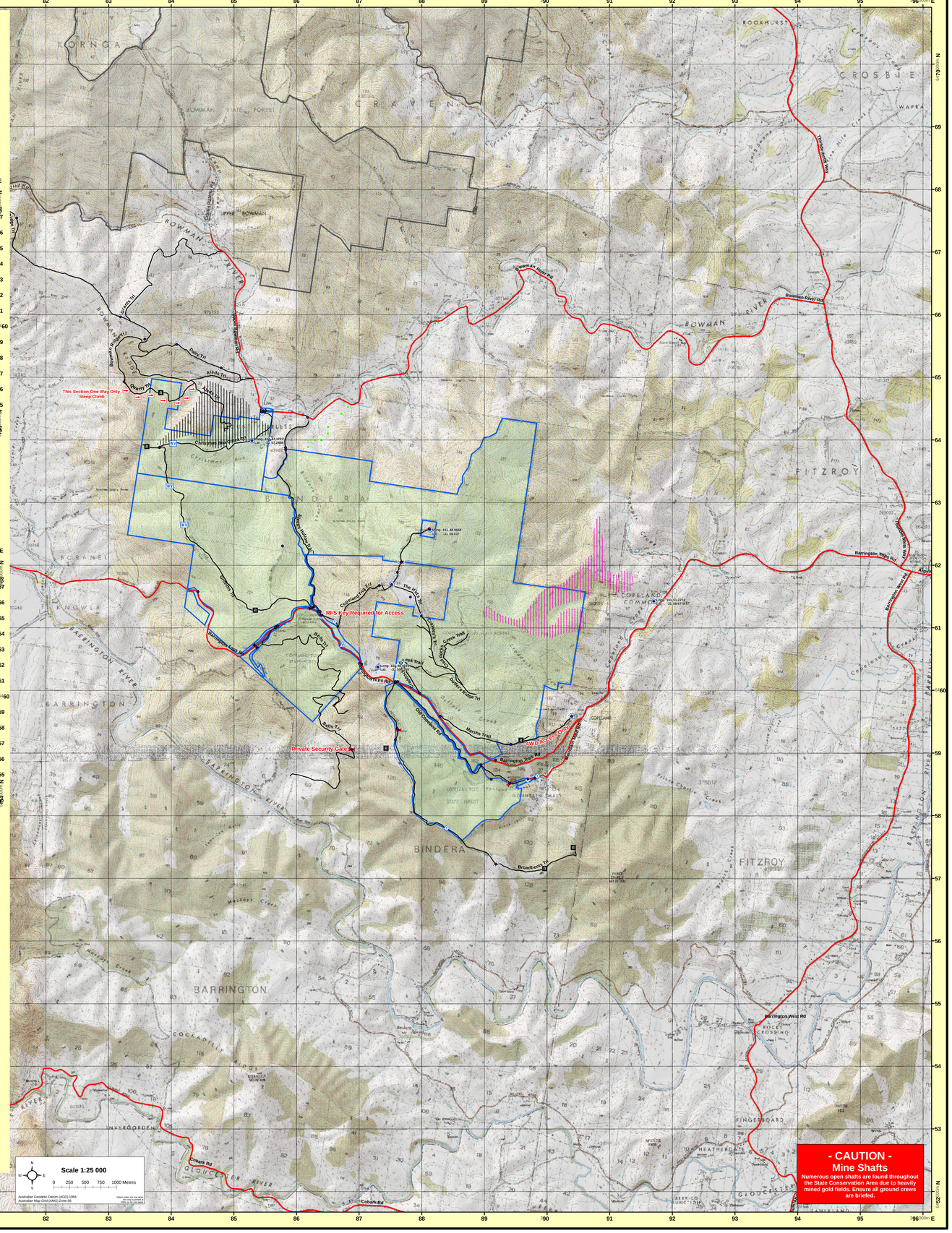
Fire Thresholds

Overburnt	Fire thresholds have been exceeded. • *Protect from fire as far as possible.*
Vulnerable	The area will be Overburnt if it burns this year. • *Protect from fire as far as possible.*
Recently Burnt	Time since fire is less than the optimal interval, but before that it was within threshold. • *Avoid fires if 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.*
Almost Underburnt	The area is close to its threshold and may become underburnt with the absence of fire. • *A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.*
Underburnt	Fire frequency is below fire thresholds in the area. • *A prescribed burns may be advantageous. Consider allowing unplanned fires to burn.*
Unknown	Insufficient data to determine fire threshold.

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

BUSHFIRE SUPPRESSION LEGEND

- NPWS Estate
- State Forest
- 10 metre contour
- **Recent Fire History**
- 2005/2006 Fires
- 2004/2005 Fires
- **Roads and Trails**
- Primary (Cat 1)
- Secondary (Cat 9)
- Closed
- Not Classified
- Proposed Trail
- **Assume all gates are locked**
- Gate - Security (need key)
- Gate - NPWS
- Gate - non NPWS
- **Other Fire Control Advantages**
- Water Point Vehicle
- Water Point Helicopter
- Refuge Area
- Helipad
- Turning Point
- **Site Management (see Operational Guidelines)**
- Aboriginal Site
- Historic Heritage Site
- Threatened Fauna
- Threatened Flora
- Threatened Property
- Eucalypt Plantation



- CAUTION -
Mine Shafts
Numerous open shafts are found throughout the State Conservation Area due to heavily mined gold fields. Ensure all ground crews are briefed.