

**Northern Tablelands Region
Cataract NP & SCA
Fire Management Strategy
(Type 2)
2006
Sheet 1 of 1**

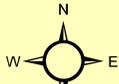
This strategy should be used in conjunction with aerial photography and field reconnaissance during incidents and the development of incident action plans.

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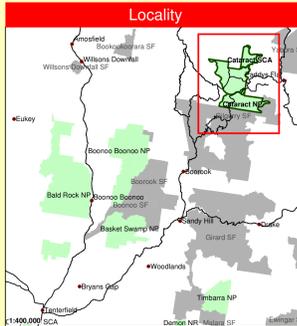
This strategy is a relevant Plan under Section 93 (4) and Section 44 (3) of Rural Fires Act 1997.

Approved Date: 23 Aug 2006



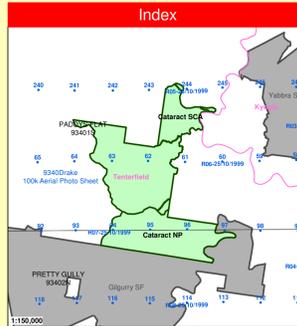
Datum: AD66
Projection: UTM
Grid: MGA Zone 56

Noted scales are true when this map is printed on A0 size paper.



Locality Legend

- Towns & Localities
- Cataract NP & SCA
- Other National Park
- State Forest



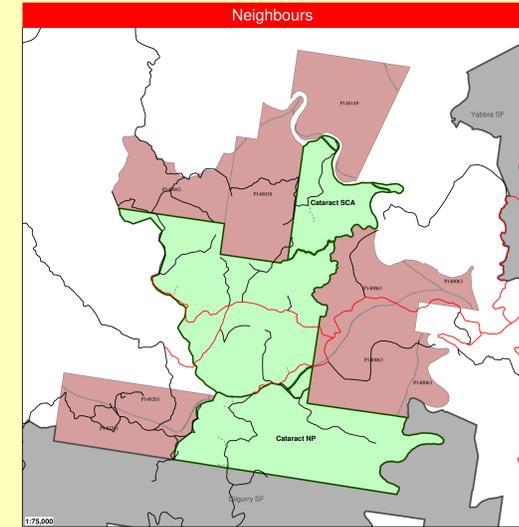
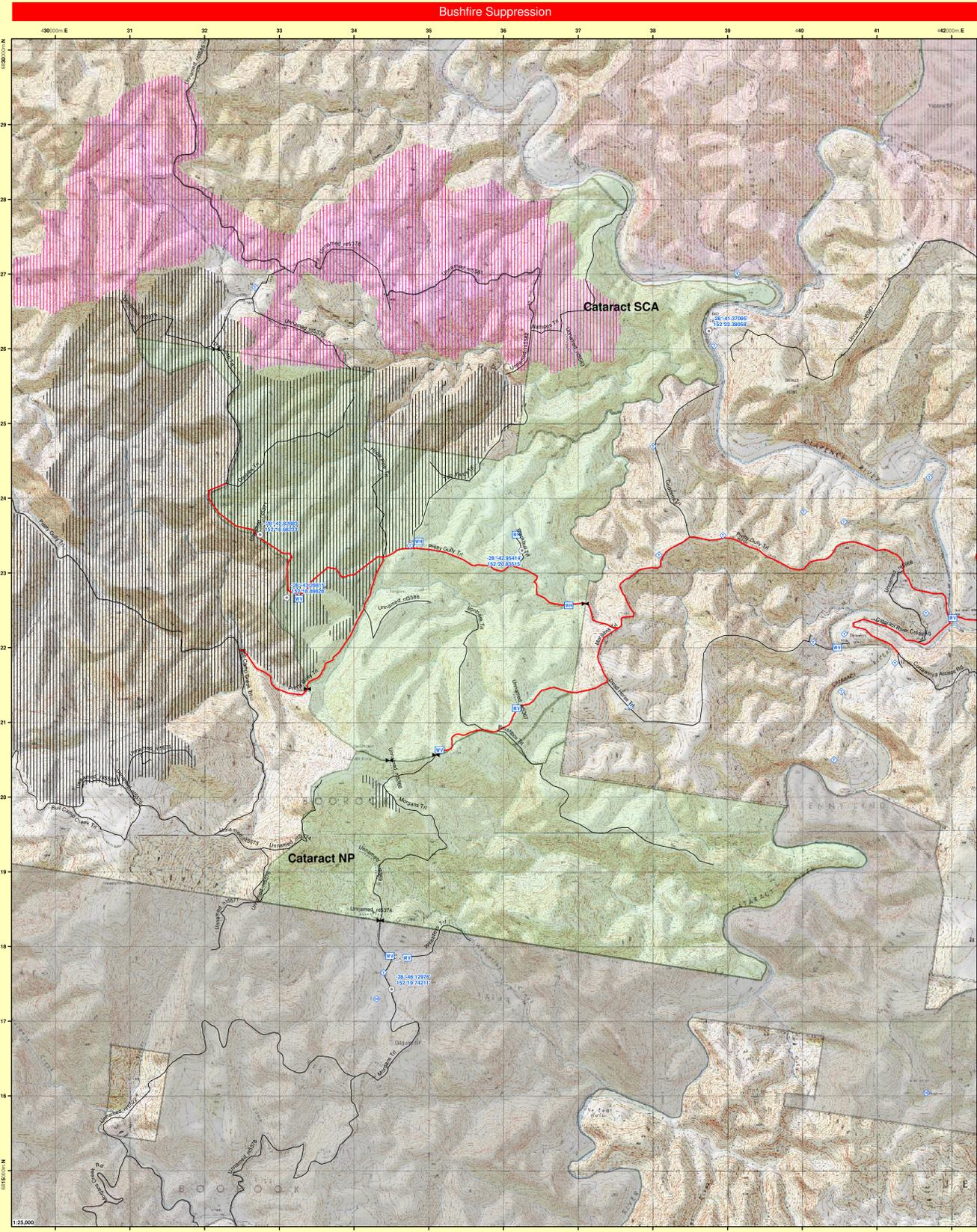
Index Legend

- Aerial Photo Index
- Aerial Photo Sheet
- SA Mapsheet Index
- Local Government Area
- Cataract NP & SCA
- Other National Park
- State Forest

Service	Channel	Location and Comments
NPWS - VHF	30	Mt Pringle Boonoo Boonoo NP, Reception limited to ridgelines.
NPWS - VHF (Fireground Comms)	42	Chat Channel
NPWS - VHF (Portable Repeater)	15	Stored @ Armidale / transportable
RFS - PMR - UHF	37	Acacia Plateau Haystack
RFS - GMN	74	No service in NTR.
FNSW - VHF	NPWS 21	SP 421
CB - UHF		As appropriate on the day
Aircraft - VHF	119.10	
Mobile Phone - CDMA		No coverage in reserve
Mobile Phone - GSM		No coverage in reserve
Satellite Phone	0147 166331	Stored @ Tenterfield

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 October and December. This period may extend into January 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.
Low - Mod	= > High	Where practicable consider maximising the fire area in accordance with the requirements of any proposed prescribed burns.
High	All	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.
All	All	Pay particular attention to the flank on the next predicted down wind side.
		Undertake indirect attack along existing or newly constructed containment lines.
		Secure and deepen containment lines along the next predicted downwind side of the fire.
		Strategic fire advantage zones should be used to increase the effectiveness of the water.
		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 a senior NPWS officer.
		Utilise incendiaries to rapidly progress 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 FDR is Very High or greater, backburning should commence when the humidity begins to rise in the late afternoon or early evening. With a lower FDR backburning may be safely undertaken during the day.
		Where practicable, clear a 1m radius around dead and firewood 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 intense up slope burn is likely.
		The first containment agency or site may assume control of the fire, but then must ensure the relevant land management agency is notified promptly.
		On the arrival of other containment agencies, the initial incident controller will consult with regard to the ongoing containment, control and incident management team requirements as per the relevant BEMC Plan of Operations.
		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 a senior NPWS officer.
		Where practicable, 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 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, and be surveyed, where possible, to identify unknown cultural heritage sites.
		Earthmoving equipment should be washed down, where practicable, prior to it entering NPWS estate.
		In areas of <i>Phytophthora cinnamomi</i> infestation, the use of earthmoving equipment is not permitted. After rain, the use of vehicles is to be restricted to times when soil will not be moved off site in the form of mud etc. In the event of vehicles moving during rain, they are to be effectively washed down prior to leaving known infested sites.
		All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
		Writing and foaming agents (surfactants) 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 surfactants and retardants within 50m of rainforests, 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 stabilised and rehabilitated as part of the wildfire suppression operation.
		The potential impact 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 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.

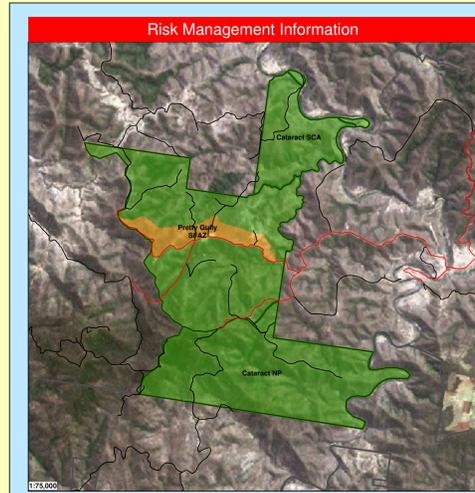
Agency	Position / Location	Phone
NPWS	Regional Duty Officer / After Hours Area Manager	0428 345 789 02 6736 4850 0409 224 605
	Fire Management Officer	02 6776 0014 0409 224 613 02 6771 1894 (fax)
	Regional Operations Coordinator	02 6776 0007 0428 977 519 02 6736 4298
Tenterfield Area Office	Tenterfield Area Office	02 6736 4301 (fax) 02 6776 0000
	Regional Office - Armidale	02 6771 1894 (fax) 02 6736 4150
RFS	Fire Control Officer	0427 555 155 02 6736 4150
	Tenterfield Fire Control Centre	02 6736 3756 (fax)
NSW Fire Brigade	Emergency	000
	No locally based units	
SBS	Emergency	000
	Tabulam Unit	02 6666 1319
Police	Emergency	000
	Tabulam Station	02 6666 1244
Ambulance	Emergency	000
	Tenterfield Station	13 1233
	Bonalbo Station	13 1233
Hospital	Tenterfield	02 6739 5200
	Bonalbo	02 6665 1203
DNR	Griffin Regional Office	02 6640 2000 02 6640 2185 (fax)
Forests NSW	Castro Office	02 6662 0900 02 6662 5826 (fax)
Council	Tenterfield Shire Council	02 6736 1744 02 6736 2669 (fax)
Local Aboriginal Land Council	Mt Mulli L.A.L.C.	02 6635 1487
Aboriginal Heritage Conservation Officer	Mt Mulli Co., Woodnabong Glen Innes	02 6635 1498 (fax) 02 6739 0721



Neighbours Legend

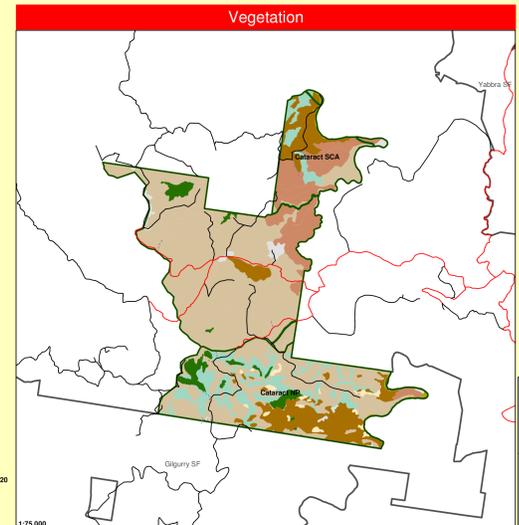
- Roads/Trails - Fire Access
- Primary (Cat 1)
- Secondary (Cat 9)
- Proposed
- Closed
- Not Classified
- Neighbours
- Cataract NP & SCA
- Other National Park
- State Forest

Map ID	Property Name	Surname	Firstname	Phone
PI40038	Bonnel Pty Ltd			
PI40042	Clarke Property			
PI40063	Currawinya			
PI40149	Jeffery Property			
PI40201	Morton Property			



Risk Management Information Legend

- Roads/Trails - Fire Access
- Primary (Cat 1)
- Secondary (Cat 9)
- Proposed
- Closed
- Not Classified
- Fire Management Zones
- Asset Protection Zone
- Land Management Zone
- Strategic Fire Advantage Zone
- Cataract NP & SCA
- Other National Park
- State Forest

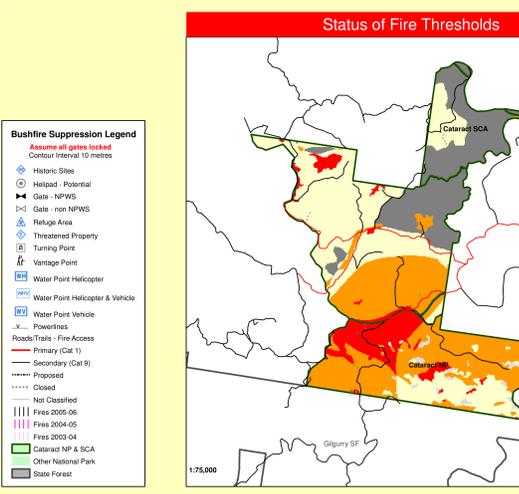


Vegetation Legend

- Roads/Trails - Fire Access
- Primary (Cat 1)
- Secondary (Cat 9)
- Proposed
- Closed
- Not Classified
- Cleared, agricultural or developed
- Freshwater wetland
- Grassland
- Grassy dry sclerophyll forest
- Semi-evergreen grass forest
- Shrubby dry sclerophyll forest
- Sparse shrubland / Rocky outcrops
- Lantaria
- Swamp sclerophyll forest
- Tree free wetland / Swamp
- Wet sclerophyll forest
- Riverine grassy woodland
- Rock / Scree
- Rocky heathland
- Sclerophyll grassy woodland
- Grassland
- Shrubby dry sclerophyll forest
- Lantaria
- Swamp sclerophyll forest
- Tree free wetland / Swamp
- Wet sclerophyll forest

Fire Management Zones

- 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 SFAZs 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 LMZs is to conserve biodiversity and protect cultural heritage. Manage fire consistent with fire thresholds.



Status of Fire Thresholds Legend

- Roads/Trails - Fire Access
- Primary (Cat 1)
- Secondary (Cat 9)
- Proposed
- Closed
- Not Classified
- Cataract NP & SCA
- Other National Park
- State Forest
- Overburn
- Vulnerable
- Recently Burnt
- Within Threshold
- Almost Underburnt
- Underburnt
- Unknown

Fire Thresholds

- Overburn:** Fire thresholds have been exceeded. *Protect from fire as far as possible.*
- Vulnerable:** The area is close to the threshold and may become underburnt with the absence of fire. *Protect from fire as far as possible.*
- Recently Burnt:** Time since fire is less than the optimum interval, but before that it was within threshold. *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.*
- Almost Underburnt:** The area is close to the 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 this area. *A prescribed burn may be advantageous. Consider allowing unplanned fires to burn.*
- Unknown:** Insufficient data to determine fire threshold.
- Unknown:** Fire thresholds are defined for vegetation communities to conserve biodiversity.

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 FM 4.1.1)	Aboriginal sites are not indicated on this strategy. Fire information on Aboriginal sites contact the Aboriginal Heritage Conservation Officer or Local Aboriginal Land Council.
Historic Heritage Management (NPWS FM 4.10)	Brief all personnel involved in containment line construction &/or vehicle based fire suppression operations, on the locations and the required management strategies appropriate to the site type. If new sites are located consult with a senior NPWS officer.
Threatened Fauna Management (NPWS FM 4.12 & 5.2)	Brief all personnel involved in containment line construction &/or vehicle based fire suppression operations, on the locations and the required management strategies appropriate to the site type. Where practicable, protect habitat areas and trees from the fire if the effects of the resulting fire frequency, season &/or intensity will have a significant or unknown impact.
Threatened Flora Management (NPWS FM 4.12)	Brief all personnel involved in containment line construction &/or vehicle based fire suppression operations, on the locations and the required management strategies appropriate to the site type. Where practicable, protect populations or individuals from fire if the fire frequency threshold has been exceeded, or the species is an obligate seeder (fire response category), or if the fire frequency threshold &/or fire response category is unknown. Where possible, protect old growth habitat trees.
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: 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 teams should be used to increase the effectiveness of the water. Ground crews must be alerted to water bombing operations.
Aerial Ignition (NPWS FM 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 senior NPWS officer. Utilise incendiaries to rapidly progress back-burns down slope where required.
Backburning (NPWS FM 4.8)	Temperature and humidity trends must be monitored carefully to determine the safest times to implement back-burns. Generally, when the FDR is Very High or greater, backburning should commence when the humidity begins to rise in the late afternoon or early evening. With a lower FDR backburning may be safely undertaken during the day. Where practicable, clear a 1m radius around dead and firewood 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 intense up slope burn is likely.
Command & Control (NPWS FM 4.2)	The first containment agency or site may assume control of the fire, but then must ensure the relevant land management agency is notified promptly. On the arrival of other containment agencies, the initial incident controller will consult with regard to the ongoing containment, control and incident management team requirements as per the relevant BEMC Plan of Operations.
Containment Lines (NPWS FM 2.2 & 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 a senior NPWS officer. Where practicable, 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 FM 4.2.20 & 4.3)	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, and be surveyed, where possible, to identify unknown cultural heritage sites. Earthmoving equipment should be washed down, where practicable, prior to it entering NPWS estate. In areas of <i>Phytophthora cinnamomi</i> infestation, the use of earthmoving equipment is not permitted. After rain, the use of vehicles is to be restricted to times when soil will not be moved off site in the form of mud etc. In the event of vehicles moving during rain, they are to be effectively washed down prior to leaving known infested sites.
Fire Advantage Recording	All fire advantages used during wildfire suppression operations must be mapped and where relevant added to the database.
Fire Suppression Chemicals (NPWS FM 4.2.20 & 4.9)	Writing and foaming agents (surfactants) 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 surfactants and retardants within 50m of rainforests, 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 (NPWS FM 5.1)	Where practicable, containment lines should be stabilised and rehabilitated as part of the wildfire suppression operation.
Smoke Management (NPWS FM 3.4)	The potential impact 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 or highways, the police and relevant media must be notified. Smoke management must be in accordance with relevant RTA traffic management guidelines.
Visitor Management (NPWS FM 3.6 & 4.13)	The reserve may be closed to the public during periods of extreme fire danger or during wildfire suppression operations.