

Hunter Region The Glen Nature Reserve Fire Management Strategy (Type 2) 2005 Sheet 1 of 1



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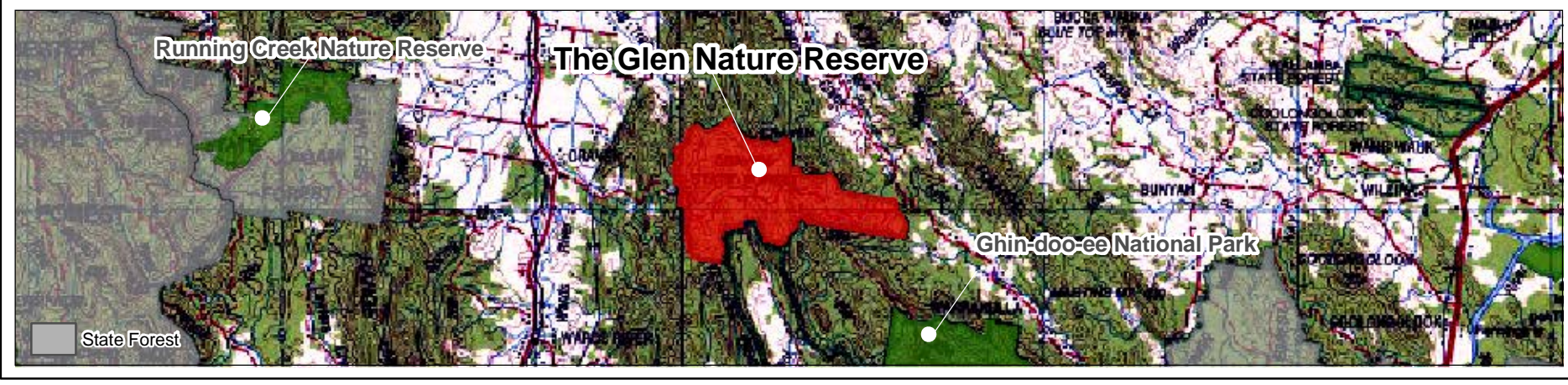
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This strategy is a relevant Plan under Section 38 (4) and Section 44 (3) of Rural Fires Act 1997.

Endorsed by: _____ Date: / /
Director Northern, Parks & Wildlife Division

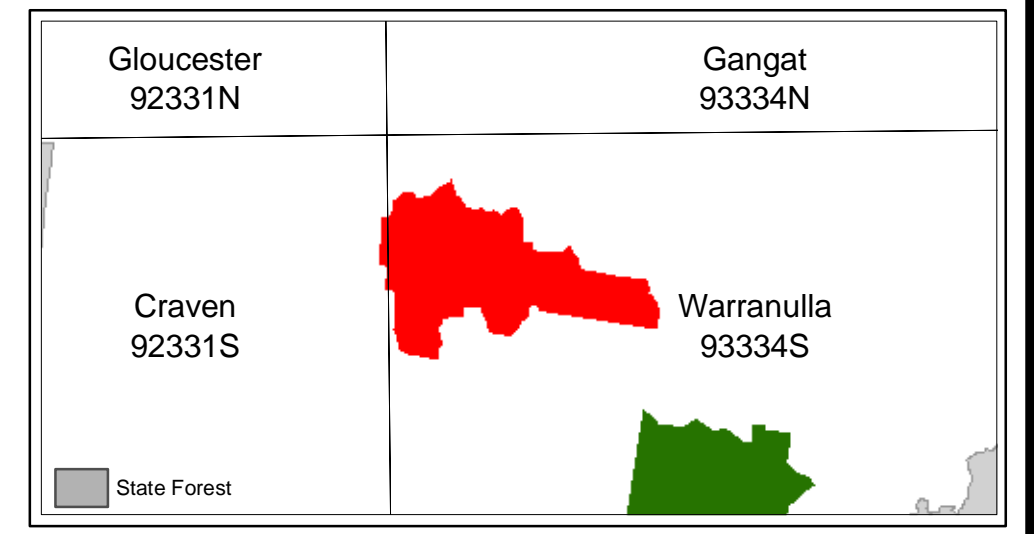
1:250 000 Location Map



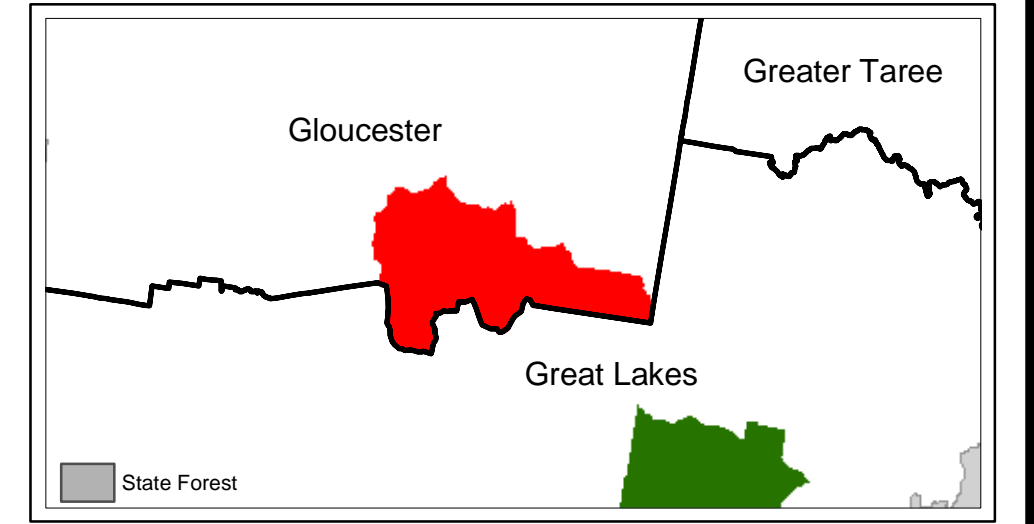
Contacts and Communications

Agency	Position	Number
NPWS	Hunter Region Duty Officer (24 hr)	016 301161 / 0429 144880
	Barrington Tops Area Manager	6538 5301 / 0429 144873
	Fire Management Officer	4984 8206 / 0429 144870
	Operations Co-ordinator	4984 8212 / 0429 144872
Hunter Regional Office	Barrington Tops Area Office	6538 5300 / (fax) 6558 2476
	Hunter Regional Office	4984 8200 / (fax) 4981 5913
RFS Manning Team	Gloucester District Fire Control Centre	6558 9222 / (fax) 6558 1723
	24hr Duty Officer	0500 589222
Taree District	Fire Control Centre	6592 6990 / (fax) 6592 6970
	24hr Duty Officer	6592 6866
State Operations	State Operations	8741 5400 / (fax) 8741 5300
	State Operations	8741 5400 / (fax) 8741 5300
NSW Fire Brigade	Newcastle Communications (24 hr)	49297 177 / (fax) 4927 2580
SES	Gloucester	6558 1788 / (fax) 6558 1636
Police	Gloucester Station	6558 1204
	Emergency	000
Ambulance	Bookings	131233
	Emergency	000
Hospital	Gloucester	6558 1307
DIPNR	Newcastle	4929 4346
Council	Gloucester Shire	6538 5250 / (fax) 6558 2343

1:25 000 Map Index



Local Government Areas

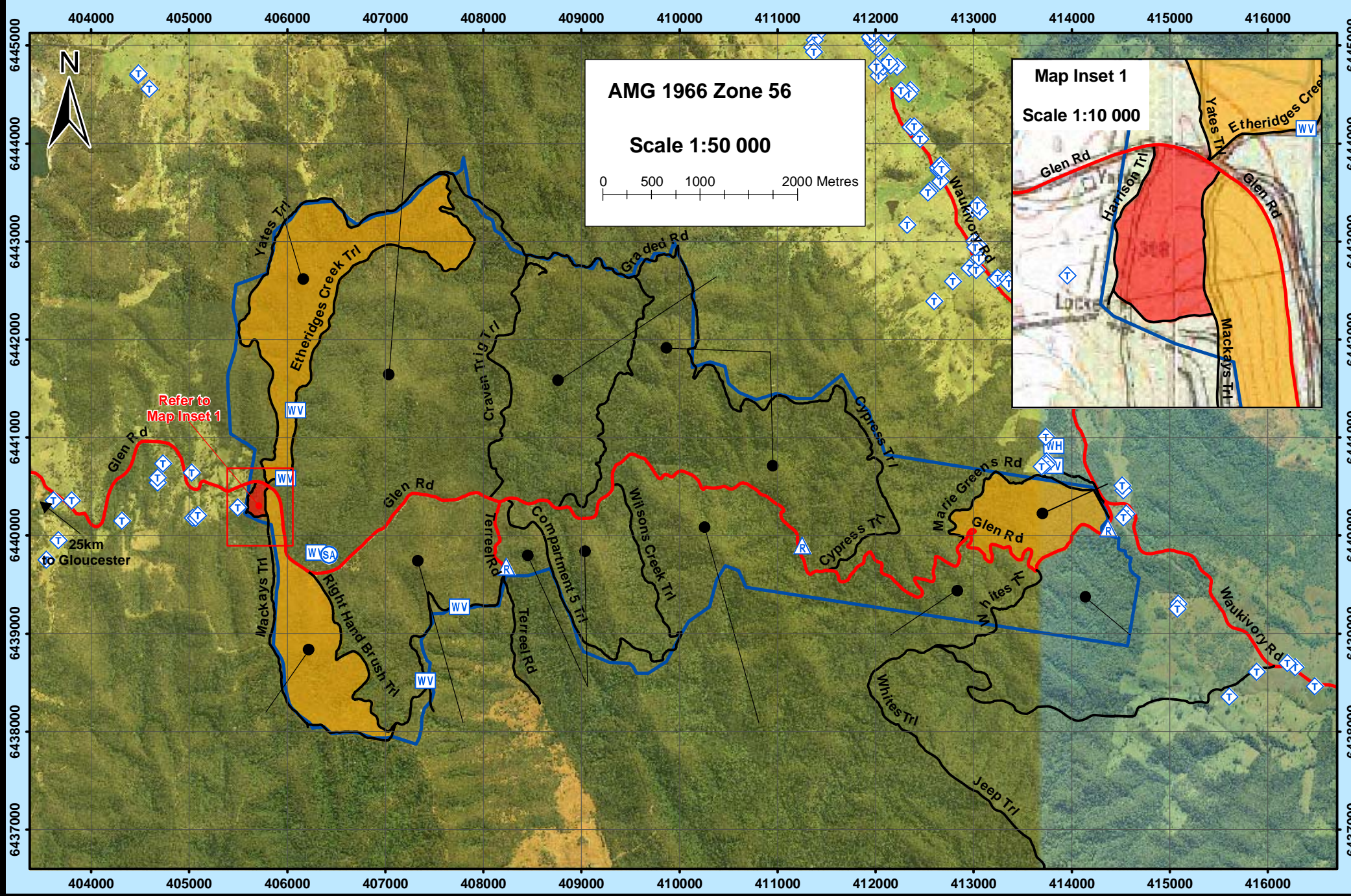


COMMUNICATION RESOURCES

Service	Channel	Location/Comments
NPWS - VHF	263132	Select channel with best reception
	81 RFS/PMR	Mount Berrico - Country Energy Site
	82 RFS/PMR	Mount Myra - NPWS Site
	34 RFS/PMR	Mount Gangghat - Radio 2RE Site
RFS - PMR	58 RFS/PMR	Mount Marie - Prime TV Site
	Awaiting allocation	Mount Talawhal - Optus Site
	19 RFS/PMR	Middle Brother - Fattells Site
	128	Mount Berrico - Strategic Network to State Operations
RFS - GRN	-	No service available
UHF - CB	1-99	Available in most RFS vehicles
NPWS-VHF Portable Repeater	15	Choose channel on fire-ground with RFS
	-	Can be located anywhere
	-	Kept at Regional Office
Mobile Phone	-	Poor coverage

Bushfire Risk Management Strategies

This map illustrates the strategies NPWS plans to implement between 2004 - 2009 in the reserve.



MAP LEGEND

	The Glen Nature Reserve		Fire Management Zones		Roads and Trails		Other Fire Control Advantages
	Threatened Property		Asset Protection Zone		Primary (Cat 1)		Existing Staging Area
	Threatened Flora		Strategic Fire Advantage Zone		Secondary (Cat 9)		Existing Water Vehicle Point
	Threatened Fauna		Heritage Management Zone				Existing Water Helicopter Point
	Aboriginal Site						Existing HeliPad
	Heritage Site						Existing Refuge Area

LEGEND DESCRIPTION

Fire Management Zones

- Note that some fire management zones extend beyond the boundaries of the reserve onto adjacent land. While the strategies proposed for adjacent land are not binding on the neighbouring property owner/occupier, NPWS will pursue these strategies with neighbours because if they are not implemented it may result in assets remaining at high risk. Where possible, NPWS will assist neighbours to undertake the proposed strategies.
- Asset Protection Zones:** The objective of asset protection zones is the protection of human life and property. This will be achieved by implementing the proposed burning frequency indicated on the above map.
- Strategic Fire Management Zones:** The objective of strategic fire management zones is to help reduce fire behaviour. The proposed burning frequency for strategic fire management zones is indicated on the above map.
- Heritage Management Zones:** The objective of heritage management zones is to conserve biodiversity and protect cultural heritage. The proposed burning frequency for heritage management zones is that which is required to conserve biodiversity in the vegetation communities occurring within the zone (see Bushfire Risk Management Strategies Map Legend above).

Roads & Trails

- The above map illustrates the trails that are considered important for fire management and are proposed to be maintained. It is proposed that NPWS maintain trails within the reserve and the owner/occupier maintain trails on their properties.
- Primary Category 1 Trails** are existing trails that will be maintained to a standard sufficient to allow the passage of Category 1 fire tankers (4wd Heavy Tanker 3001 to 4000 litre capacity).
- Secondary Category 9 Trails** are existing trails that will be maintained to a standard sufficient to allow the passage of Category 9 fire tankers (4wd ute up to 400 litre capacity).

Other Fire Control Advantages

- Other fire control advantages are features that may be used to support bushfire suppression operations and include water points (both helicopter and vehicle accessible), helipads, landing grounds, staging areas and refuge areas. Other fire control advantages that will be maintained or constructed in and around the reserves are illustrated in the above map.

GENERAL OPERATIONAL GUIDELINES

Issue/Area	Operational Guidelines
Aerial Ignition	<ul style="list-style-type: none"> May be used where considered appropriate As far as possible, backburning should take account of threatened species and cultural heritage guidelines. On days when the fire danger > High, as far as possible delay backburning until early evening. Backburning may be safely undertaken during the day when the fire danger < High. Take particular care backburning when there are fibrous/paper bark trees close to control lines.
Backburning	<ul style="list-style-type: none"> As far as possible, backburning should take account of threatened species and cultural heritage guidelines. On days when the fire danger > High, as far as possible delay backburning until early evening. Backburning may be safely undertaken during the day when the fire danger < High. Take particular care backburning when there are fibrous/paper bark trees close to control lines.
Command and Control	<ul style="list-style-type: none"> Can be used to slow the spread of a fire but will not extinguish a fire without support from ground crews. Ground crews must be warned of water bombing operations. As far as possible, foam should be used to increase the effectiveness of the water. Foam/water should not be used for building control lines because it is ineffective.
Water Bombing	<ul style="list-style-type: none"> Subject to operational constraints, minimise the length of break constructed. As far as possible, take account of threatened species and cultural heritage management guidelines. The route to be taken by earth moving machinery must be scouted to identify possible cultural heritage sites.
Visitor Safety	<ul style="list-style-type: none"> Close roads if smoke or fire fighting operations are likely to cause a traffic hazard.
Restoration	<ul style="list-style-type: none"> All new fire breaks will be restored as part of the fire suppression operation. Can only be used with consent of NPWS and only if the probability of success is considered high. As far as possible restrict use to dormant trails and other previously disturbed areas.
Earth Moving Machinery	<ul style="list-style-type: none"> Subject to operational constraints, minimise the length of break constructed. As far as possible, take account of threatened species and cultural heritage management guidelines. The route to be taken by earth moving machinery must be scouted to identify possible cultural heritage sites.
Foams & Wetting Agents	<ul style="list-style-type: none"> Use permitted where considered appropriate. As far as possible, minimise use in rainforest communities.
Fire Advantage Recording	<ul style="list-style-type: none"> All fire advantages used during wildfire suppression operations are to be mapped so they can be added to the database. Retardant is ineffective and should not be used in communities with a dense canopy cover. Retardant is ineffective and should not be used against high intensity fires producing large numbers of spot fires. Retardant is most applicable to building short lengths of control line to link existing control lines. Areas where retardant has been used shall be mapped.
Retardant	<ul style="list-style-type: none"> Retardant is ineffective and should not be used against high intensity fires producing large numbers of spot fires. Retardant is most applicable to building short lengths of control line to link existing control lines. Areas where retardant has been used shall be mapped.

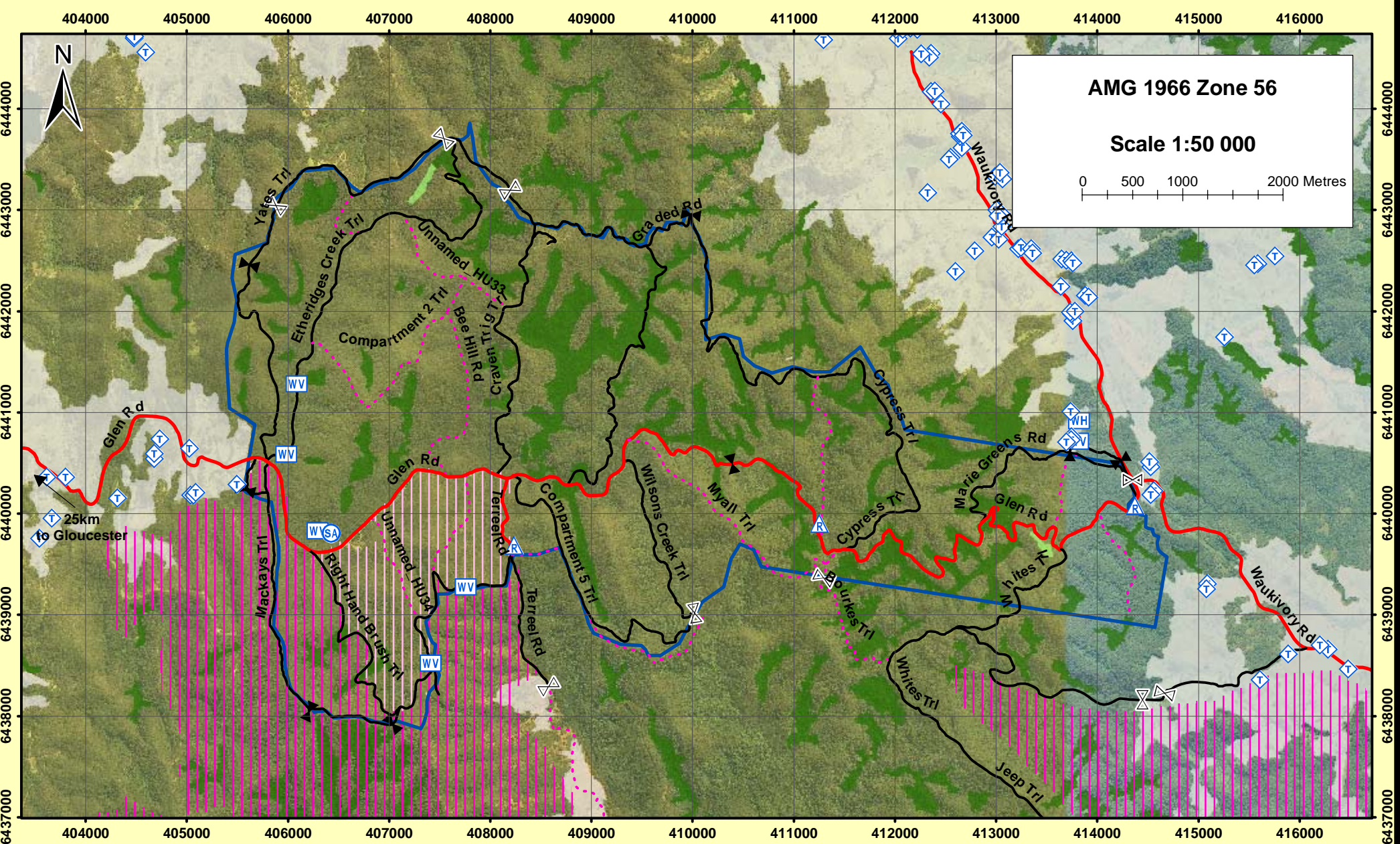
Bushfire Suppression Information 2005/06

The information in this section will be updated annually based on fire history and completed fire management works.

MAP LEGEND	Fuel Types	Roads and Trails	Other Fire Control Advantages
The Glen Nature Reserve	Dry Sclerophyll Forest	Primary (Cat 1)	Existing HeliPad
	Wet Sclerophyll Forest	Secondary (Cat 9)	Existing Refuge Area
Natural Fire Control Advantages	Rainforest	Closed	Existing Staging Area
	Palm Forest	Threatened Property	Existing Vehicle Water Point
	Cleared	Threatened Flora	Existing Helicopter Water Point
	2002/2003 Fires	Threatened Fauna	Presume All Gates Are Locked
	2000/2001 Fires	Aboriginal Site	Gate - NPWS
	Biodiversity Threatened (see table)	Heritage Site	Gate - non NPWS
	Overburnt/Vulnerable		

Fire Control Advantages

This map illustrates fire control advantages that may be used during bushfire suppression operations.



FUEL TYPE	FIRE BEHAVIOUR CHARACTERISTICS
Dry Sclerophyll Forest	<ul style="list-style-type: none"> Flammable under a wide range of conditions. High fire intensity and flame heights under hot, dry, windy conditions. ROS lower than heathland/shrubland & swamp sclerophyll forest. Heavy short distance spotting (<500m), occasional long distance spotting (>500m). Use McArthur Mark 5 Forest Fire Behaviour Model to estimate ROS.
Wet Sclerophyll Forest	<ul style="list-style-type: none"> Generally only flammable when BKDI > 80. May function as control line when BKDI < 50. Ground (peat) fires common when BKDI > 125. When flammable, often results in long distance spotting (>500m). When flammable, often results in long distance spotting (>500m).
Rainforest and Palm Forest	<ul style="list-style-type: none"> Generally only flammable when BKDI > 100. May function as control line when BKDI < 60. Ground (peat) fires common when BKDI > 125. When flammable, fires are usually slow and of low intensity although vines may allow flames to climb trees. Due to palms dropping large numbers of dead fronds, palms may be flammable when other rainforest species are not. Only flammable when grass >50-70% cured. May function as control line when grass <50% cured. When grass >70% cured, burns with the highest ROS of any fuel type but comparatively low flame height and intensity. When grass >70% cured, flame height and intensity, but not ROS, strongly influenced by grass height and continuity. Spotting >100m uncommon. Use CSIRO Grassland Fire Behaviour Model to estimate ROS.
Cleared	<ul style="list-style-type: none"> Only flammable when grass >50-70% cured. May function as control line when grass <50% cured. When grass >70% cured, burns with the highest ROS of any fuel type but comparatively low flame height and intensity. When grass >70% cured, flame height and intensity, but not ROS, strongly influenced by grass height and continuity. Spotting >100m uncommon. Use CSIRO Grassland Fire Behaviour Model to estimate ROS.

ABORIGINAL SITE MANAGEMENT STRATEGIES	Treatment
A1	<ul style="list-style-type: none"> As far as possible protect site from fire. Do not cut down trees. Use of foams, wetting agents & retardant is acceptable.
A2	<ul style="list-style-type: none"> As far as possible protect site from fire. Avoid ground disturbance including handtools, dozers. Avoid water bombing which may cause ground disturbance. Avoid ground disturbance including handtools, dozers. Avoid water bombing which may cause ground disturbance. Site may be burnt by wildfire, backburn, prescribed burn.
A3	<ul style="list-style-type: none"> As far as possible protect site from fire. Do not cut down trees. Use of foams, wetting agents & retardant is acceptable.

INTERPRETATION OF BIODIVERSITY THREATENED CATEGORIES	Interpretation
Overburnt	<ul style="list-style-type: none"> Protect from fire as far as possible. Past fire frequency has already exceeded biodiversity thresholds.
Vulnerable	<ul style="list-style-type: none"> Protect from fire as far as possible. The occurrence of fire this year will result in biodiversity thresholds being exceeded.
Underburnt	<ul style="list-style-type: none"> If possible, allow area to burn. Fire frequency has already been too low to conserve biodiversity.
Almost Underburnt	<ul style="list-style-type: none"> If possible, allow area to burn. The absence of fire this year will result in a fire frequency outside biodiversity thresholds.

HISTORIC HERITAGE SITE MANAGEMENT STRATEGIES	Treatments
HS1	<ul style="list-style-type: none"> High RCHMS* priority. Avoid fire, including wildfire, backburning & HR. Avoid all water bombing activities.
HS2	<ul style="list-style-type: none"> High RCHMS* priority. Avoid fire, including wildfire, backburning & HR. High or low RCHMS* priority. Heritage site unlikely to be effected by fire. Danger to any fire crew activity. Avoid site at all costs.
HS3	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Low RCHMS* priority. Avoid fire, including wildfire, backburning & HR. Avoid all water bombing activities.
HS5	<ul style="list-style-type: none"> Low RCHMS* priority. Avoid fire, including wildfire, backburning & HR. High or low RCHMS* priority. Heritage site unlikely to be effected by fire. Avoid use of earth moving machinery.
HS6	<ul style="list-style-type: none"> High or low RCHMS* priority. Heritage site unlikely to be effected by fire. Avoid use of earth moving machinery.
HS7	<ul style="list-style-type: none"> 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 STRATEGIES	Treatments
FA1	<ul style="list-style-type: none"> Protect large and hollow bearing trees. Avoid fire, including wildfire, backburn, HR, as far as possible. Avoid use of earth moving machinery.
FA2	<ul style="list-style-type: none"> Protect large and hollow bearing trees. Avoid fire, including wildfire, backburn, HR, as far as possible. Avoid use of earth moving machinery.
FA3	<ul style="list-style-type: none"> Avoid fire, including wildfire, backburn, HR, as far as possible. Avoid use of earth moving machinery. Avoid high intensity fires that consume tree canopies and fallen logs. Avoid fire, including wildfire, backburning & HR, as far as possible.
FA4	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Habitat unlikely to be effected by fire. Avoid use of earth moving machinery in dune habitats. Avoid fire, including wildfire, backburning & HR, as far as possible in wetland habitat. Avoid use of earth moving machinery in wetland habitats.
FA6	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Avoid fire, including wildfire, backburning & HR, as far as possible. Avoid use of earth moving machinery.
FA8	<ul style="list-style-type: none"> Avoid fire, including wildfire, backburning & HR, as far as possible. Avoid use of earth moving machinery.

THREATENED FLORA MANAGEMENT STRATEGIES	Treatments
FL1	<ul style="list-style-type: none"> Avoid fire, including wildfire, backburn, HR, as far as possible. Avoid use of earth moving machinery. Avoid use of retardant.
FL2	<ul style="list-style-type: none"> Avoid fire, including wildfire, backburn, HR, as far as possible. Avoid use of earth moving machinery. Avoid use of retardant.
FL3	<ul style="list-style-type: none"> Avoid fire, including wildfire, backburn, HR, as far as possible. Avoid use of earth moving machinery. Avoid high intensity fire. Avoid fire, including wildfire, backburning & HR, as far as possible. Avoid use of earth moving machinery.
FL4	<ul style="list-style-type: none"> Avoid fire, including wildfire, backburn, HR, as far as possible. Avoid use of earth moving machinery. Avoid high intensity fire. Avoid earth moving machinery. Avoid low intensity fire.
FL5	<ul style="list-style-type: none"> Avoid fire, including wildfire, backburn, HR, as far as possible. Avoid use of earth moving machinery. Avoid high intensity fire. Avoid earth moving machinery. Avoid low intensity fire.

Assets & Fire Fuels

This map illustrates fire fuels and the location of assets for use in bushfire suppression operations.

