

RESOURCE INFORMATON

Black Andrew Nature Reserve (1559 ha) was gazetted on 1st January 2001. Black Andrew Nature Reserve is situated south of the Burrinjuck Dam wall, approximately 12 kms north west of Wee Jasper. For the purpose of this Fire Management Strategy, Black Andrew Nature Reserve will be referred to as the "reserve", unless otherwise stated. The terrain is steep and in some areas, sheer cliff faces lacking vegetation, form the prominent landscape feature. The reserve structure and diversity protects at least 8 vulnerable species listed under the Threatened Species Act 1995 and has a range of habitats suitable for a wide range of common species of fauna, including bats, avifauna, macropods and amphibians. The reserve was severely burnt during the 2002-2003 fire season. The fire intensity has had a significant impact on the structure and health of the vegetation communities and fauna population dynamics. The recovery of the reserve communities is dependent on

Access to this reserve is through private property, off Wee Jasper Road. Department of Parks and Wildlife Division, National - Hume Federal Electorate. Parks and Wildlife Service. - Burrinjuck State Electorate. - South West Slopes Region, - Yass Valley Local Government Area Conservation Murrumbidgee Area - Brungle Tumut Aboriginal Land Council Rural Fire Yass Zone (Bush Fire Management

Service Murrumbidgee Catchment Management Committee) IMPORTANT: The following planning information is based on the best possible data for each table category. When used in conjunction with other information in the plan, concessions may be needed where asset management and biodiversity requirements

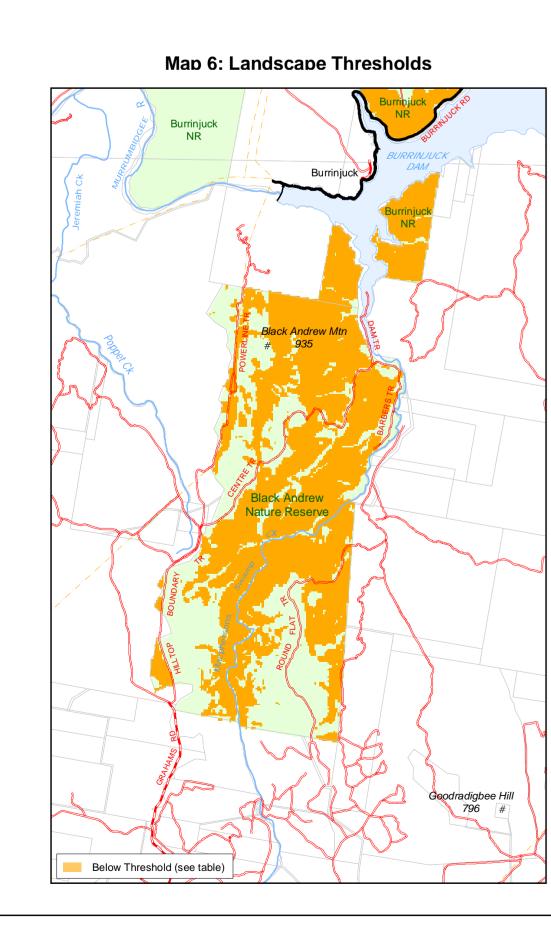
	1\	MAP 6: LANDSCAPE THRESHOLDS
Slope Class Degrees	Fine Fuel Range in T/Ha	Threshold & Impacts
0-10	3-5	Less potential on lower slopes. Fine fuels averaging 4 t/ha are favourable.
10-15	4-7	Expected increase in gullies and wash-outs Fine fuels averaging 6 t/ha are favourable.
15-20	10-12	Increase expected through mid slopes and drainage lines. Fine fuels averaging 11 t/ha are favourable.
20-25	12-14	Increase across disturbed slopes and trails Fine fuels averaging 13 t/ha are favourable.
25-30	16-18	Large scale soil loss expected in disturbed areas. Impacts may be severe in areas feeding in to watercourses. Fine fuels between 16-18 t/ha expected to prevent slope instability.
>30	>20	High fuels on slopes >30° are rare in this reserve. Erosion potential is extreme after high intensity fire,

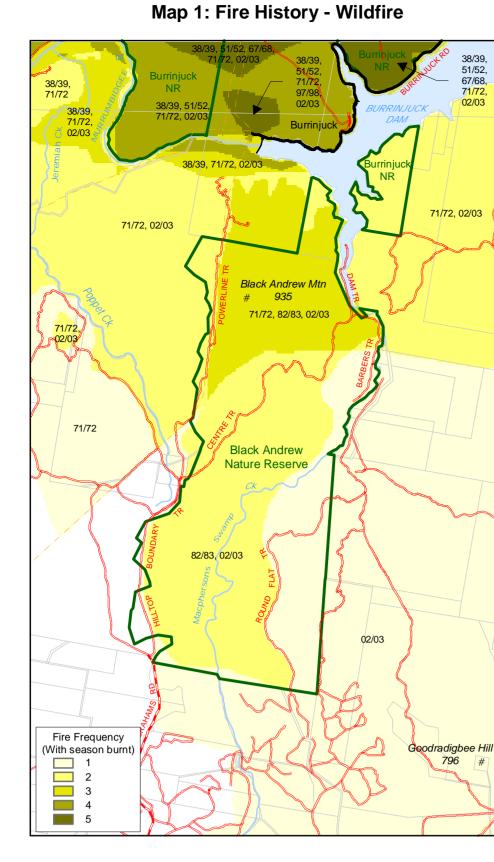
as evident after the 2003 fires
Threshold & Impacts Currently, 61% of the park has potentially unstable soils/slopes (943 ha). Water quality may be compromised by soil disturbance and silt run off after fire and may have significant impacts on water catchment systems. Organisms dependent on drainage lines and specific water quality are also at risk through soil disturbance. Maintaining the fine fuel minimum range may reduce potential moisture loss in soils during summer periods.
Fuel decomposition after fire may decrease (depending on fire intensity, fire interval, cover and patchiness of the fire) due to a

reduction in soil micro-organism activity. The presence of foams and retardants within the soil may also effect soil and micro-- Areas with lower than average fine fuels for the corresponding slope class are expected to have increased slope instability and, poorer water quality. - Minimise the potential for frequent and or high intensity fire in areas where fine fuel ranges do not meet the slope class thresholds. Avoid trail construction on slopes >15 degrees (conforming to Bush Fire Coordinating Committee Guidelines for the Classification of

Fire Trails - Policy No. 1/03). If prescribed burning, ensure burn areas are strategically implemented across the landscape so that large areas and slopes are not left exposed. In addition, burning programs should be implemented during conditions where fuels can be reduced to the minimum t/ha of the fine fuel range for the corresponding Avoid planned fire during years of extreme drought and the year proceeding a severe drought. · Control lines or fuel breaks constructed during an incident should provide adequate drainage to prevent trail erosion.

Rehabilitation of control lines or fuel breaks constructed during fire events will be addressed during the incident in the Incident





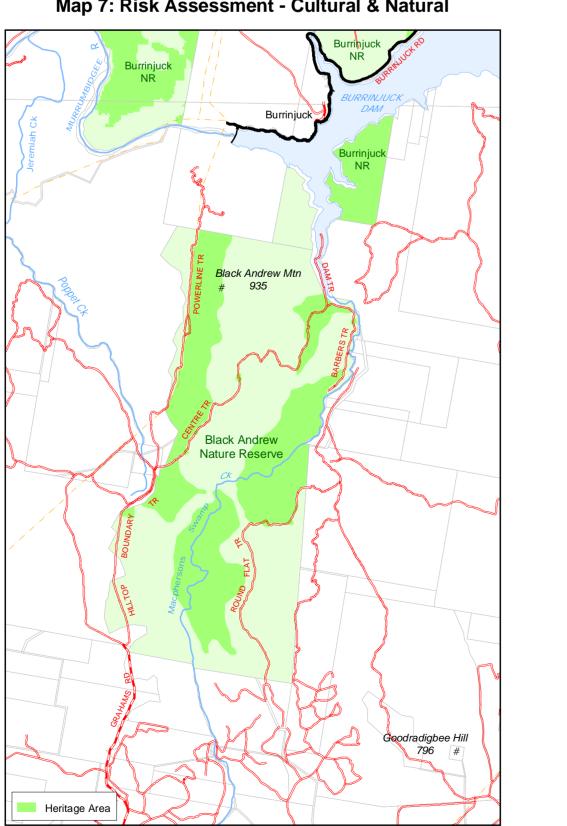
	MAPS 1 & 2: FIRE HISTORY
Ignitions	No recorded ignitions were available for the reserve.
Prescribed burns	The area north of Centre Trail was burnt in 1991, and much of the area south of Centre Trail was burnt in 1989.
Wildfire	Almost the entire reserve (1540 ha) was burnt in January 2003, during extreme fire weather conditions. The fire started, off park, to the north west of the reserve and burnt out approximately 28,000 ha of the Burrinjuck area landscape. A large part of the reserve (1100 ha) was burnt in 1983, where fire started to the north west and burnt into the reserve before being contained at Round Flat Trail and Macphersons Swamp Creek. In January 1972, the northern end the reserve was burnt (421 ha) by a large landscape fire to the west.
Fire	There is a high probability that fire has affected some areas of the reserve or the entire reserve prior to records being taken. The reserve has experienced at least 5 fire events in the last 32 years. The average interval between fires has only been 8 years, which is considerably lower than threshold guidelines suggest will maintain biodiversity, where >15 to 30 year intervals are considered appropriate.
Frequency	The frequency and interval between fire has important implications relevant to biodiversity and fire management. The current frequency and interval between fires has pushed the vegetation communities into inappropriate thresholds that may have significant impacts on the landscape within the next 50 years.

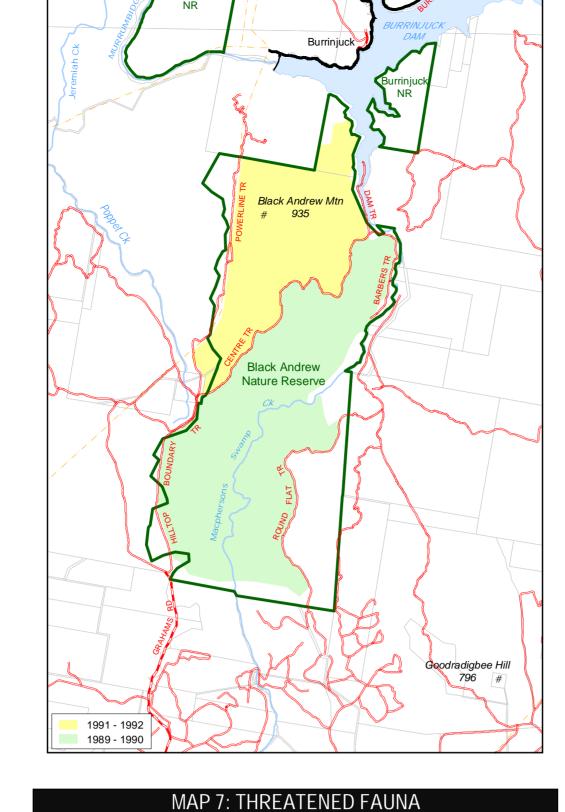
Group	Common Name		Scientific Name	Schedule
Α	* Wee Jasper Grevillea		Grevillea iaspicula	٧
Group	Vegetation Group	Threatene	ed Flora Management Guidelines & Considerations	
А	• 49 • 52	This species is generally found adjacent to Burrinjuck Nature Reserve, the small portion to the north east of Black Andrew. The species has such a small range and population size it is vulnerable to disturbance (e.g. fire, drought). The potential loss of a few plants could be of major significance. Where possible; Minimise ground disturbance within the vegetation groups where potential populations may exist. Slashing may be used as an alternative to prescribed burning, but not recommended during spring. Impact from retardants and foams is unknown. Avoid application where species are recorded. Follow vegetation group management quidelines.		

	MAP 7: CULTURAL HERITAGE
Key Guidelines	
Factors for fuel red AHIMS is sensitive appropriately. For fuel reduction b program outlines. Where possible, tra	t be protected. HIMS and HHIMS, must be accessed during incidents and or for preparation of Review of Environmental uction burning or other works programs to ensure new records are included. Aboriginal site information from and subject to a Memorandum of Understanding. Site data must respect this agreement and must be used urning programs, protection measures will be outlined in the Review of Environmental Factors and burning ined officers will provide advice on site protection methods. servation management plans (where they exist).
Aboriginal Heritage	Recorded sites include, modified trees and scattered artefacts. Potential sites may include burials, ceremonial sites, over hangs and rock arrangements.

Aboriginal Heritage	Recorded sites include, modified trees and scattered artefacts. Potential sites may include burials, ceremonial sites, over hangs and rock arrangements. - Sites must be clearly identified and protected during fire suppression and fuel reduction burning progitions to cultural heritage and HMZ1 operational guidelines during any fire events.
Historic Heritage	Cultural heritage surveys have identified historic mine sites (shafts) within the reserve. Other sites may exist, however not recorded. These may include, mining relics, ruins, fence lines etc.which may be hazardous to crews and machinery during suppression and prescribed activities. Sites must be clearly identified and protected during fire suppression and fuel reduction burning progression to cultural heritage and HMZ1 operational guidelines during any fire events.

Map 7: Risk Assessment - Cultural & Natural





Map 2: Fire History - Prescribed Burns

	Brown Tree	creeper	Cilmacteris picumnus	٧	iviay-Dec
Α	Hooded Rol	oin	Melanodryas cucullata	V	Jul-Nov
	Olive Whistler		Pachycephala olivacea	V	Sept-Feb
	Barking Owl		Ninox connivens	V	Jan - Oct
D	*Squirrel Glider		Petaurus norfolcensis	V	Jun - Dec
В	Yellow-bellie	ed Glider	Petaurus australis	V	Nov - Mar
	Eastern ben	it-wing bat	Miniopterus schreibersii oceanensis	V	Dec-May
С	Booroolong	Frog	Litoria booroolongensis	E	Sept-Feb
Fire Group	Veg Groups		Threatened Fauna Guidelines & Consider	rations	
Α	· 24 · 49 · 52	Felling hollow bearing availability for most sp changes in vegetation depend on. These spe simplification of forest Where possible; Exclude fires for at years in vegetation Wildfires should be term mosaic patter. Ensure patches of (dead or living), pai	kept to the smallest possible size, managed to redu	potentially decreduces available water quality reduction fire ess. vegetation groupe intensity are continued in the continued intensity are continued in the contin	reases nest hollow e habitat through many species because of the oup 49 and >15 and create long
В	16 24 49 52	Felling hollow bearing availability for most sp changes in vegetation depend on. These spe simplification of forest Where possible; Exclude fires for at years in vegetation Wildfires should be term mosaic patter. Ensure patches of (dead or living), pai	kept to the smallest possible size, managed to redu	potentially decreduces available water quality reduction fire ess. vegetation groupe intensity are continued in the continued intensity are continued in the continued intensity are continued in the continued	reases nest hollow the habitat through many species because of the sup 49 and >15 and create long
С	Streams, swamps & Riparian Areas	All areas of vegetation Fire and destabilisatio waterways, sedimenta remove riparian veget effect water quality an severe impacts on the Where possible; Exclude all fires for	by swamps, streams and riparian areas. Species on of soil resulting from frequent fire can lead to increation and eutrophication, potentially impacting on speation, reducing the filtering benefits of vegetation. Ld may lead to algal blooms. Frequent prescribed by se habitats.	eased run-off ir ecies. High int .oss of nutrient urning is expec	nto streams and tensity fire can from the site can sted to have

	 Minimise the use of fire suppression riparian environments especially in F 	chemicals and earthmoving within 100m of streams, swamps 8 HMZ (1).		
*Species recorded off the	reserve. Due to the available habitat, the p	probability the species will occur within the reserve is high.		
MAP	8: RISK ASSESSME	NT - LIFE & PROPERTY		
Asset	Vulnerability & Impacts	Fire Management Guidelines & Considerations		
On park Assets (Transgrid Powerlines)	Powerlines may cause danger to ground personnel through smoke conduction of electricity through the air. There is a low risk of fire damage due to clearing under the lines.	Provide guidelines for new assets constructed within the reserve. Contact the relevant authority to turn the power off prior to back burning or prescribed burn operations under lines. Maintain access trails and firebreaks within the park that wi assist in fire fighting efforts. Participate in fire management proposals through RES Zon		
Other assets (including private property or other lands adjacent to the park)	Property assets, including plantations, may be damaged by fire escaping the park.	 Participate in fire management proposals through RFS 2 Bush Fire Management Committee meetings. During the fire season rapidly respond to all unplanned to minimise potential spread to private lands. Inform neighbours of intended fire operations and strate programs. 		

Map 8: Risk Assessment - Property

& riparian areas.

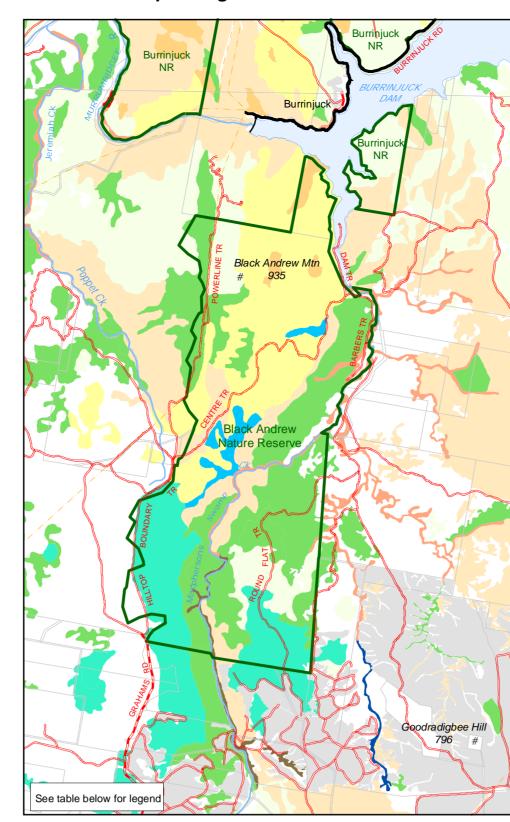
Avoid frequent and potential for high intensity fires and keep fire at least 100m from swamps, streams

Black Andrew Mtn Black Andrew Nature Reserve

Asset Homestead Asset Area Pine Plantation

ick	30 - 70
	Note: The on this res
	Managem Zone
	Asset (APZ)
	Fuel (FMA)
	Strategi (SFMZ
Goodradigbee Hill	Heritage (HMZ1
796 #	Heritage (HMZ2

Map 3: Vegetation Communities



Veg Group	Vegetation Description		Reserve Ha's	% of Reserv
16 Blue Gum & Broad Leave		ed Peppermint - Dry Grass/Shrub Forest	416.7	27%
18	Riparian Plateau Ribbon	Gum Grassy Forest	219.6	14%
19	Swamp Grass Forest		8.4	1%
21	Riparian Forest		41.3	3%
24	Apple Box & Nortons Box	x - Moist Grass Forest	488.0	31%
49	Brittle Gum & Broad Lea	ved Peppermint - Poa Grass Forest	127.2	8%
51	Long Leaved Box & Blac	k Cypress Pine - Heath/Shrub Forest	23.8	2%
52	Nortons Box - Poa Grass	forest	146.1	9%
189 Degraded Forest			0.0	0%
191 River Oak Forest			28.7	2%
193 Blackberry Invade		ams	59.0	3%
198	Pine Plantation Natural Vegetation - Partially Cleared		0.0	0%
199			0.0	0%
N/A	No Data	0.37		0%
Fire Interval (Years)	Vegetation Group	Vegetation Management Guidelines	& Considerat	ions
15 - 35	Blue Gum & Broad Leaved Peppermint - Dry Grass/Shrub Forest & Riparian Plateau Ribbon Gum Grassy Forest 16 & 18	Frequent fires predicted to cause extinctions in this common fires occur <15 years apart. Some species within the compredicted to decline if infrequent fire occurs >35 years apstorey may be locally extinct if fires occur >200 years. Where possible; Minimise the potential for frequent fire, where success. Prescribed burns should only be initiated where succeand where no more than 10% of the vegetation group. Other methods of fuel manipulation should be consider.	mmunity undersoart although of sive fires occur essive occur >3 is targeted for	storey sampled hers in the uppe <15 years apar 5 years apart

Frequent fires predicted to cause extinctions in this community over-storey if successive

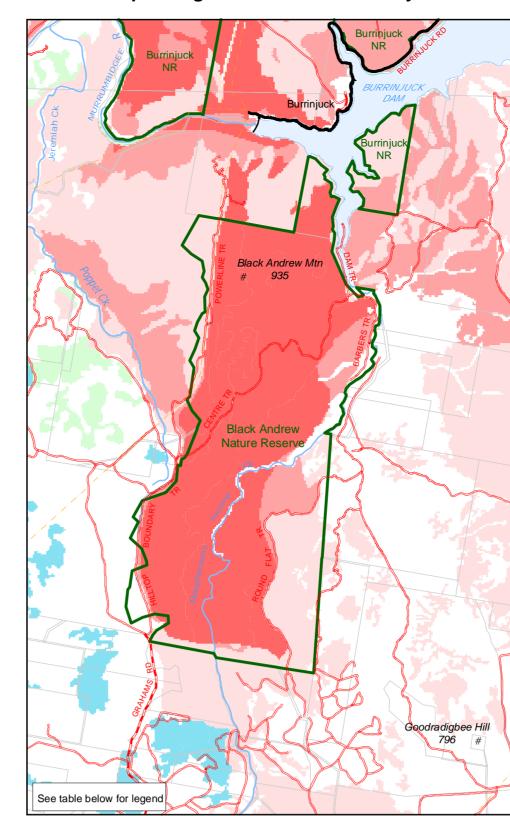
15 - 60	Apple Box & Nortons Box - Moist Grass Forest 24	fires occur <15 years. The majority of species within the community understorey sampled predicted to decline if fire is infrequent (ie. Fire occur >60 years apart. This community covers a small percentage of the reserve and is a key community supporting threatened fauna. Where possible: Minimise the potential for frequent fire, where successive fires occur <15 years apart. Prescribed fires should only be initiated where successive occur >20 years apart and where no more than 10% of the vegetation group is targeted for burning. Minimise the use of earth moving equipment within the vegetation community to prevent fragmentation Avoid felling mature, hollow bearing trees.
15 - 120	Riparian Forest 21	Frequent fires predicted to cause extinctions if successive fires occur <15 years apart. Local extinctions predicted within the community if fire occurs >120 years apart. Top soils prone to erosion with frequent and high intensity fire. This community covers a small percentage of the reserve and is a key community supporting the survival of threatened fauna. Where possible; Minimise the potential for frequent fire, where successive fires occur <15 years apart. Prescribed fires should only be initiated where successive occur >15 years apart and where <5% of the vegetation group is targeted for burning. Minimise the use of earth moving equipment within the vegetation community to prevent fragmentation and degradation of riparian areas.
25 - 50	Swamp Grass Forest 19	Frequent fires predicted to cause declines in this community if successive fires occur <25 years apart. Some species within the community understorey sampled predicted to decline if infrequent fire occurs >50 years apart although others in the tall storey may be locally extinct if fires occur >100-200 years. Where possible; Minimise the potential for frequent fire, where successive fires occur <25 years apart. Prescribed fires should be avoided in this small representative community, unless there is a demonstrated loss of biodiversity. Other methods of fuel manipulation should be considered.
25 - 110	Brittle Gum & Broad Leaved Peppermint - Poa Grass Forest & Long Leaved Box & Black Cypress Pine - Heath/Shrub Forest	Declines predicted if successive fires occur <25 years apart. Shrubs within the sampled community are sensitive to infrequent fire. That is, where fire is excluded for long periods (>100 years). Most overstorey species will persist where consecutive fires occur >100 years apart, but <400 years apart. Daviesia, Cassinia and Platylobium species, which persistent after fire, are predicted to increase in cover, abundance and density. This has the potential to increase the bushfire behaviour within the community 5-8years after disturbance. Veg Group 51 provides threatened species habitat. Where possible; Minimise size and potential spread of fire where successive fires occur <25 years apart. Prescribed fire may be implemented in areas where APZ's and SFMZ's have been identified, but should not be implemented where successive occur <25 years apart and where <10% of the vegetation group is targeted for burning. Other methods of fuel manipulation should be considered to reduce the potential increase of fire persistent species.
		Some species within this community may be affected by frequent and infrequent fire events. Some ground cover species are predicted to decline where successive fires occur <30 years apart and may become locally extinct, where fire is excluded for >70

without fire. This community covers a small percentage of the reserve and should be Nortons Box - Poa Grass | protected from further disturbance. Minimise the size and intensity of any fire, especially where successive fires occur Minimise the use of earth moving equipment and avoid clear felling mature and hollow bearing trees within the vegetation community.
 Prescribed fires should only be initiated where successive occur >30 years apart and where <5% of the vegetation group is targeted for burning. Other methods of fuel

years. Most species sampled within the group are capable of persisting >100 years

	manipulation should b	e considered.
	nmunities may require a significant recovery period and others within the Burrinjuck Dam area. Top soils	after the 2003 fires, due to the severity of the season and impact s are prone to erosion with frequent fire.
	MAP 9: BUSHFIRE MA	NAGEMENT ZONES
Management Zone	Definition	Management Guidelines
Asset (APZ)	Life, property and commercial assets in high Bushfire Behaviour Potential risk areas on DEC estate.	Assets should be evaluated annually to measure potential hazards and or increased threats. Works program to follow Risk Assessment (Life and Property) Guidelines.
Fuel (FMA)	Fuel Monitoring Areas are localities for monitoring fine surface fuel, grasses, shrubs, dead and down material and ecological health.	Monitor regularly to quantify changes in the fuel landscape, which may indicate an increase in risk. Monitor to improve knowledge ecological responses and health and identify undesirable changes in vegetation communities. Use areas to establish SFMZ's where appropriate.
Strategic (SFMZ)	Strategic Fuel Management Zones are areas used to target 'potential' risks of high fuels, high fire intensity, increased rate of spread, spotting or to consolidate reserve APZ's. The zone is not a commitment to execute prescribed burns in the target area, within the life of the plan.	The implementation of fuel management programs should comply with BFCC guidelines and should be conducted in areas identified in this strategy as a SFMZ. Implementing prescribed burns or other vegetation manipulation program should only occur where more than 80% of the zone exceeds 15 t/ha (BFCC). Any program must include monitoring before and after prescribed burns to determine effectiveness of the program on fuels and the ecological impacts.
Heritage 1 (HMZ1)	Areas of high priority natural and cultural conservation value. It identifies areas of 'recorded' cultural and natural assets. This zone is important for the protection of cultural heritage and the conservation of some species habitat to prevent declining numbers or extinctions.	Heritage areas should be assessed annually to determine potential hazard, threats to cultural heritage, and thresholds for TSC and vegetation communities. Prescribed fire may be applied in these areas if appropriate for ecological purposes or protection of cultural heritage. Implement recovery plan guidelines (where they exist). Manage during incidents according to HMZ1 guidelines.
Heritage 2 (HMZ2)	This zone identifies areas of significance for natural and cultural features across the broader landscape. This generally means 'parts of the reserve that have not been surveyed and or have no records of significant features or threatened species'.	These heritage zones should be monitored to determine threats to biodiversity and managed in accordance with conservation policy and principles. Prescribed fire may be applied in these areas if appropriate for ecological purposes or protection of cultural heritage. Manage during incidents according to HMZ2 guidelines.

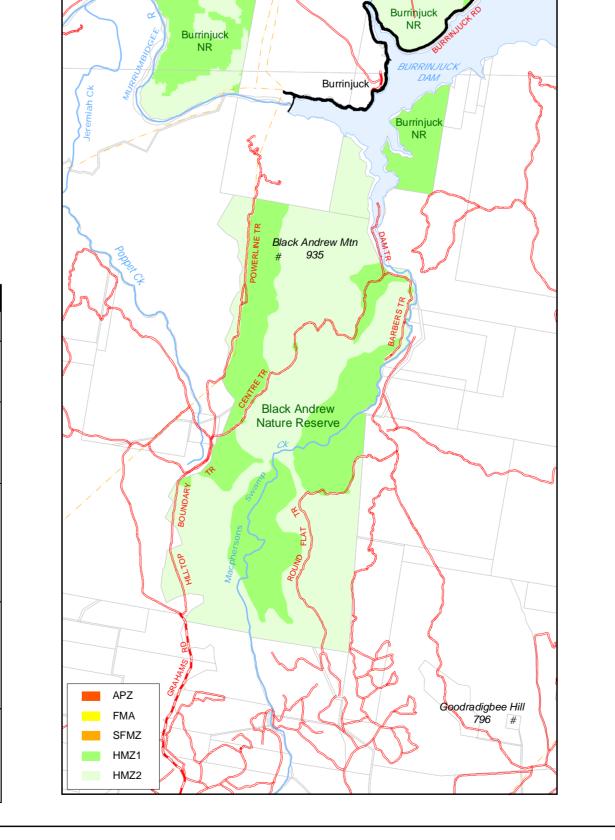
Map 4: Vegetation Threshold Analysis



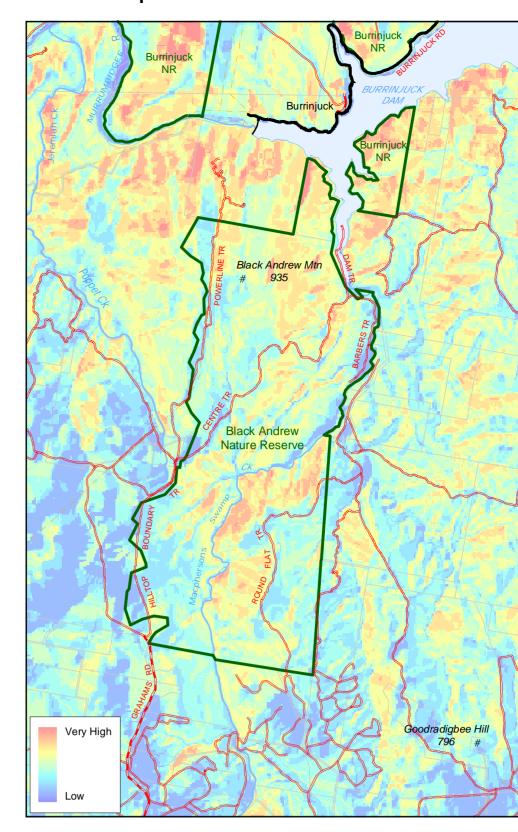
Threshold	Vegetation Group	% of Reserve	Interpretation & Management Guidelines
Overburnt	16, 19, 21, 24, 49, 51, 52	60	According to the vegetation regime thresholds, two consecutive fires have been recorded too close together and the area is overburnt. Additional fire in these areas before 2018 to 2033 (depending on the vegetation group) will lead to adverse fire regimes and threaten community biodiversity.
Vulnerable	16, 24, 52	7	 Will be overburnt if the area burns before the end of 2018 and 2033. Fire should be avoided until 2018 and 2033 (depending on the vegetation group thresholds).
Recently burnt	16, 18, 24, 49, 51, 52	28	Time since fire is less than the threshold intervals, but will be considered OK the community reaches the desirable threshold. Fire this year will push this vegetation into the vulnerable class. Fire should be avoided until 2018 and 2033 (depending on the vegetation group thresholds).
Underburnt	18	<1	May require fire after 2006 for Asset protection, strategic or biodiversity reasons. Planned fire may be introduced for fuel reduction burning for asset and strategic protection programs, ecological purposes and unplanned fire events may be allowed to burn if The vegetation community demonstrates a loss of biodiversity conditions are suitable the intensity meets vegetation, flora and fauna community requirements >50% of any vegetation community group in any threshold across the reserve is classed as Ok, almost underburnt and underburnt.
Almost Underburnt	N/A	0	This area will fall into the underburnt category if it remains unaffected by fire, but would fall into Recently Burnt if burnt in 2006. Planned fire may be introduced for fuel reduction burning for asset and strategic protection programs, ecological purposes and unplanned fire events may be allowed to burn if The vegetation community demonstrates a loss of biodiversity conditions are suitable the intensity meets vegetation, flora and fauna community requirements >50% of any vegetation community group in any threshold across the reserve is classed as Ok, almost underburnt and underburnt.
OK	18	<1	Areas which thresholds have been assigned to, which don't fall into one of the above categories. Fire is neither required or to be avoided. Fire should only be applied in areas if a loss of biodiversity is demonstrated. Where possible, maintain >50% of any vegetation community group across the reserve as Ok, Almost Underburnt and Underburnt.
Unknown/ No Regime Assigned	199	5	The fire history is too short to determine whether it is underburnt or over burnt. Areas that do not have a threshold assigned to them or there is missing data, limiting the modelling capabilities in DEC GIS.
intervals). All v	egetation com	munities shoul	wegetation community thresholds and recorded fire history (including fire frequency and d be monitored and planned fire should only be applied if a loss of biodiversity is serve, the analysis would have to be performed again to establish new threshold values.

	BIODIVERSITY SUMMARY
	Fire should excluded from the reserve, until at least 2018 to 2033 (depending on the vegetation group), to provide communities and species appropriate time to recover from the 2003 wildfires.
	Fire should be excluded from the areas burnt repeatedly or recently.
. '	Wildfires should be kept as small as possible to reduce impacts on threatened species habitat and areas severely burnt during the 2003 fires.
1	All fires should be managed to reduce fire intensity, where the vegetation structure is left in tact, providing insurance for threatened and vulnerable species.
	Mature, hollow bearing trees, including downed logs, should be protected.
	Research plots should be initiated in areas identified as FMA to monitor changes in the reserve ecology as well as measure fuels and risk.
	Monitoring floristics and vegetation structure in areas burnt in 2003, 1983 and 1972. Monitoring should include examining species responses (short and long term), structural (population) diversity and habitat quality occurring with time since fire.
	Fire should only be applied in response to a demonstrated loss of biodiversity.

Map 9: Bushfire Management Zones



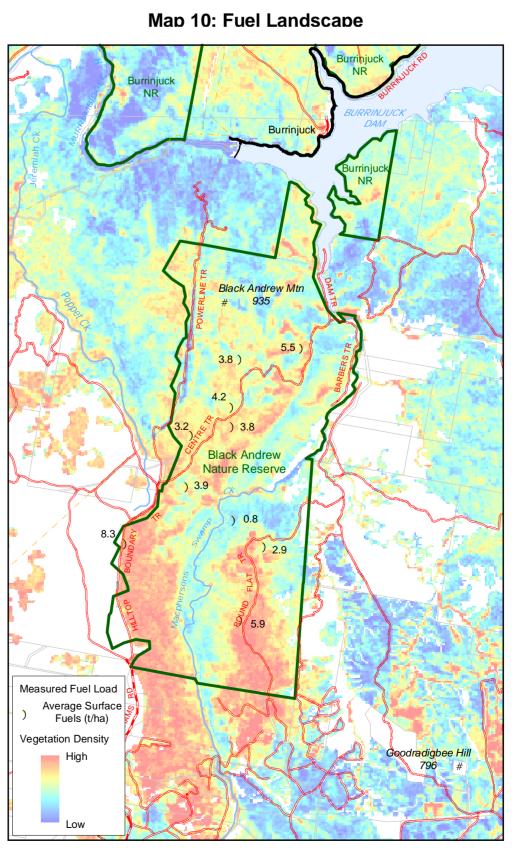
Map 5: Bushfire Behaviour Potential



egetation Ft	uel Hazard Rati	ing (under moderate condition	ns)			
Rating Vegetation Description						% of Reserve <1
Low	No Data				<1	
Swamp Grass Forest Riparian Forest Nortons Box - Poa Grass forest Degraded Forest River Oak Forest Natural Vegetation - Partially Cleared Pine Plantation (<5 years of age) Riparian Plateau Ribbon Gum Grassy Forest Apple Box & Nortons Box - Moist Grass Forest Brittle Gum & Broad Leaved Peppermint - Poa Grass F Blackberry Invaded Streams Pine Plantation (5-10 years) Long Leaved Box & Black Cypress Pine - Heath/Shrut Blue Gum & Broad Leaved Peppermint - Dry Grass/Sh Pine Plantation (>10 years of age)		rest :- Poa Grass forest orest orest etation - Partially Cleared			224.5	15
		est		893.8	56	
		Broad Leaved Peppermint - Dry			440.5	29
Extreme	Extreme Pine Plantation (>15years				0	0
Aspect Bush	fire Behaviour		Slope Bushfire Behav	iour		
Rating		Aspect in degrees	Rating	Slope	Slope in degrees	
Lo)W	40 -200	Low	0 - 10	0 - 10 degrees	
Med	lium	200 - 230 & 10 - 40	Medium	10 - 2	10 - 20 degrees	
Hiç	gh	230 - 290 & 350 -10	High	20 -30 degrees		
Verv	High	290 - 350	Very High	Very High >30 degrees		

MAP 10: FUEL LANDSCAPE						
Site Sampling (Surface Fuels - April 2004)	Fine Fuels T/ha (Visual)	Notes				
Minimum Fuels 0.8 (1.0)		*Veg Groups 52 - in modelled low fuels (<5 t/ha) & high Bushfire Behaviour potential. Grass cover was <3% and aerial fuels were recorded as <1%.				
Highest Fuels	8.3 (5)	*Veg Group 18- in moderate to high modelled fuels & low Bushfire Behaviour potential. Grass cover was approximately 14% and aerial fuels low to moderate with coverage around 30%.				
Average Fuels	4.2 (4.3)	*Most sites recorded low grass cover and a sparse shrub layer, where average fuel and grass cover was <20% and shrub cover was <21%.				
Modelled Fuels (Surface & Aerial Fuels - April 2004)	Fuels in t/ha	Notes				
Minimum Fuels	2.4	Minimal fuels were modelled across the landscape, where 78% of the reserve fuels modelled under 10 t/ha and approximately 21% modelled				
Maximum Total Fuels	17.5	between 10 and 15 t/ha. Higher modelled fuels occur in riparian areas (vegetation group 18), accounting for <1% of reserve fuels. The data indicates, across the landscape, fuel loads generally conform with levels				
Mean Fuels	8.1	prescribed for strategic fuel management zones (8-15t/ha for 60-80% of zone).				

Note: All sites are within the area impacted by the 2003 wildfire. Modelled Data is based on 10 fuel sites and sampling (750) taken within the reserve during 2004, which included visual assessments. Visual assessments include bark in the overall hazard guide (. This data is used to determine the relationship of fuel sites with NDVI (Vegetation Index) from LANDSAT Imagery to calculate vegetation density across the reserve. Variations in measured and visual fuel recordings occur due to individual interpretation and the extended landscape included in sampling.

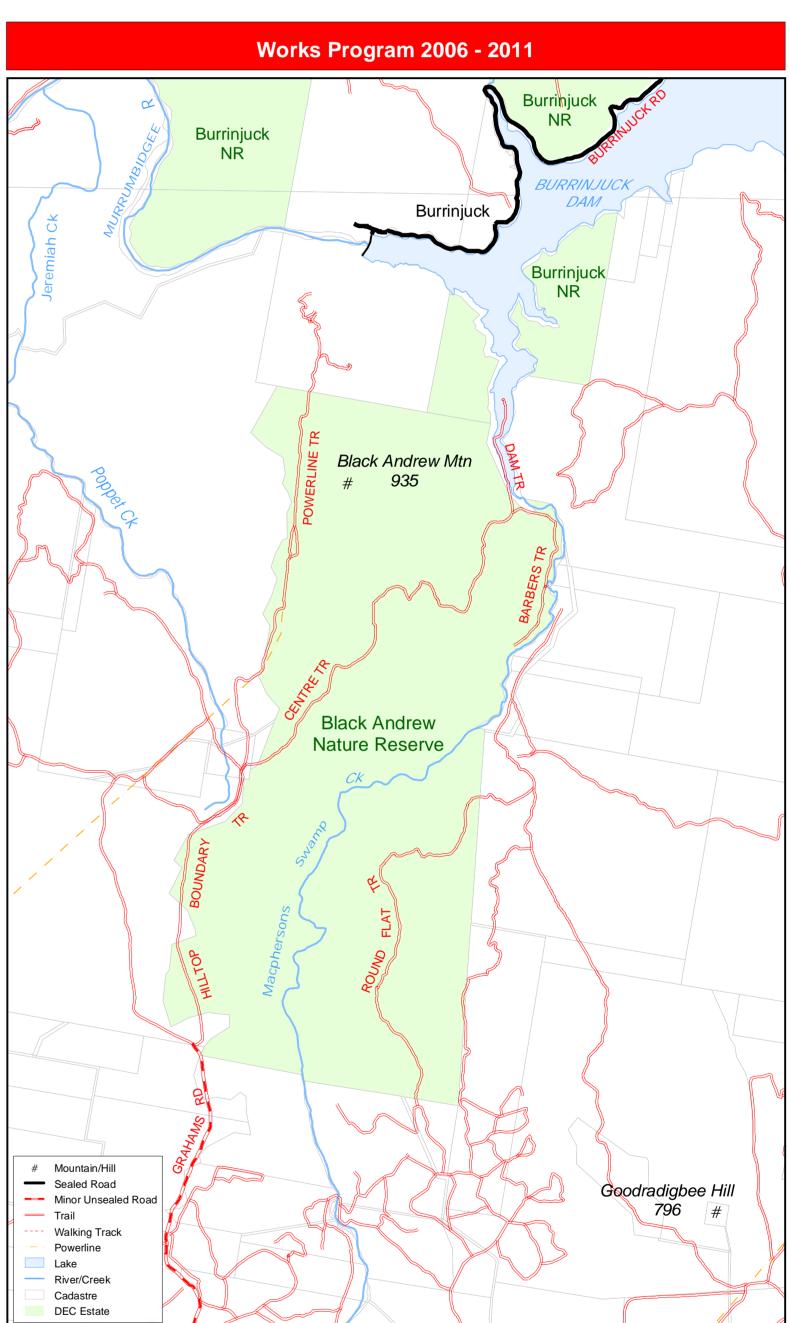


South West Slopes Region Black Andrew Nature Reserve Fire Management Strategy



Scale: Works Program map 1:35,000, Location map 1:850,000, other maps 1:55,000 Version: August 2006, ISBN: 1 74137 272 0, DEC: 2005/98 This Map should be used in conjunction with air photos and ground reconnaissance during incidents and the development of incident action plans. Copyright Department of Environment and Conservation. These data are not guaranteed to be free from error or omission. The Department of Environment and Conservation and its employees disclaim liability for any act done on the information in the data and any consequences of such acts or omissions. This map is based on Land and Property Information Standard 1:25000 Topographic Map Series. Reproduced with permission of Land and Property Information.





WORKS PROGRAM							
Asset	Priority	Name, Area or Detail	Management Strategy	Proposed Works			
Trails	High	Management Trails (Cat 9)	Maintain access for safe 4WD access for fire vehicles Categories 9. All trails clearly signposted strategically at intersections and trailheads.	Assess annually. Initiate maintenance programs and works as required, or as specified in Regional Operations Program.			
	Low	Dormant	Ensure trails remain current on Fire Operations Map.	Assess every 5 years.			
	These trails do not comply with the Bush Fire Coordinating Committee Guidelines for the Classification of Fire Trails - Policy No. 1/03.						
Asset PZ	Medium	Powerlines	Easement to be maintained in accordance with Powerline MOU (Transgrid).	Any works carried out in conjunction with Transgrid and Yass Valley BFMC.			
Heritage MZ1	High	Specific landscape, cultural, natural (threatened species and their habitats and vegetation communities) conservation values and recreational values.	Manage and protect natural & cultural values with appropriate fire management regimes.	Monitor thresholds every 5 years, and after fire events.			
Heritage MZ2	Medium	General landscape, natural and cultural conservation values.	Manage and protect natural & cultural values with appropriate fire management regimes.	Monitor thresholds every 5 years, and after fire events.			
Information & Research	Low	Fuel and vegetation monitoring.	Continue measuring/monitoring fuels at all established sites, including photographic records.	Monitor every 5 years, and after fire events.			