

Map 2: Fire History - Prescribed Burns National Park Mt Jackson 1641 Kosciuszko National Park 2000 - 2001 1990 - 1991 1987 - 1988 1980 - 1981 1979 - 1980 1978 - 1979 1976 - 1977 1975 - 1976 1972 - 1973 1970 - 1971 1969 - 1970 1961 - 1962

		MAPS 1 & 2: FIRE HISTORY
		The pre-European fire history of the Reserve is not well known. Traditional fire practices of Aboriginal people in NSW have not been well researched and are therefore poorly understood.
		Banks (1989) noted a significant increase in fire frequency for the Brindabella area from 1860. In the 100 years between 1860 to 1960, the most common cause of fires was burning undertaken by graziers or stockmen.
	Ignitions	In more recent years the major cause of fire has been lightning, with occasional fires caused by arsonists. Historically unplanned fires originating within the Reserve have been infrequent. The majority of fires that have impacted the Reserve have originated outside its boundaries.
		The Mt Ginini/Mt Franklin section of the Brindabella Range has been identified as an area of high lightning activity, with more than 50 lightning strikes per annum. Few lightning strikes in the past have led to ignitions, as they tend to occur where, historically, fuel moisture levels are relatively high (Environment ACT, 2001).
		Drought, and extreme fire weather conditions will reduce the fuel moisture levels.
	Prescribed burns	Two prescribed burns have been recorded in the north of the Reserve since 1920. A 2320ha burn was conducted in 1976, and a 2370ha burn was conducted in 1977, which were located to the north of Mt Ginini.
	Wildfire	A significant EI Nino event in 2003 coupled with a severe and widespread lightning event on the 8th January 2003 resulted in 164 ignitions across south eastern Australia. Extended periods of high to extreme fire danger resulting from low humidity, high temperatures and strong winds resulted in approximately 1.87 million hectares being burnt across SE Australia with subsequent loss of life and major assets. The entire Reserve was burnt in that fire event, at varying intensities. Fires originating within Namadgi National Park burnt to the west into the Reserve under the influence of easterly winds. The Reserve was also impacted by fire originating in the north of Kosciuszko National Park, located to the west of the Reserve.
		Another significant fire event occurred within the 1938/39 fire season, which affected approximately 70% of the Reserve. Severe fire seasons in 1926 and 1939 eventually led to the 1944 lease of an area of the Brindabella Range, including the Reserve, to the ACT Bushfire Council.
		Historically unplanned fires originating within the Reserve have been infrequent.
	Fire Frequency	The 2003 fire event which burnt the Reserve at varying intensities, has led to an even aged stand of individuals across a large area of the Reserve. A high proportion of plant species in the Reserve regenerate primarily through resprouting (from buds in the stem, trunk or roots), often combined with some seedling germination. Some plant species are obligate seeders, which die after complete leaf scorch but regenerate from seed. If these individuals are exposed to another fire before they reach maturity and set seed, there is the potential they will become locally extinct.
ı		

1	generally flora that was present prior to the 2003 fires was also present after the fires (Doherty and Wright, 2004). Even though the vegetation composition generally did not change, the vegetation structure may change for a period of time following the fire, making habitat less suitable for local fauna species.								
	MAP 3: FIRE SEVERITY								
Category		Severity							
Very Low or Uni	burnt	Canopy intact, understorey unburnt or very low intensity burn							
Low		Canopy intact, understorey burnt only							
Moderate		Partial canopy scorch, upper canopy remains green							
High		Total canopy scorch, leaves brown but remaining attached							
Very High		Complete canopy defoliation, no leaves remaining							
Considerations									
		e impacts, extent and intensity across the landscape by interpreting multitemporal Landsat ETM imagery for the ACT & directly after the 2003 fires.							
Much of the most severely burnt areas were burnt during significant fire runs on 18th January 2003. On this day, 74% of the area burnt within the reserve recorded fire at high to very high severity. The most severely burnt areas were identified on Westerly (260-280°) to North Easterly aspects (20-40°). The fire severity was not necessarily influenced by the vegetation type. On days with less severe fire weather conditions, similar vegetation communities to those burnt at high severity on the 18th of January, 2003, varied greatly in burn severity, but generally remained in the low to moderate classes.									

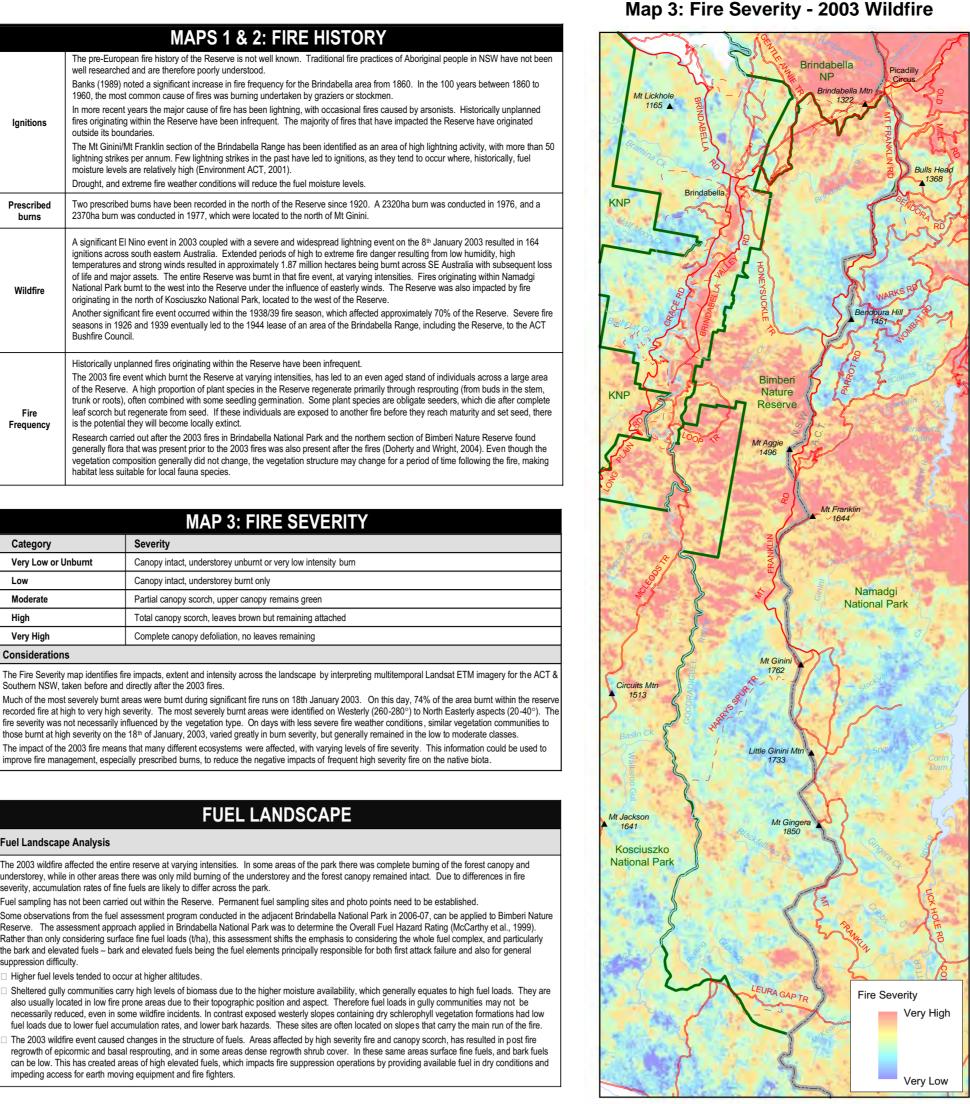
Research carried out after the 2003 fires in Brindabella National Park and the northern section of Bimberi Nature Reserve found

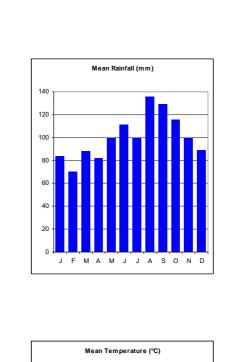
FUEL LANDSCAPE					
Fuel Landscape Analysis					
The 2003 wildfire affected the entire reserve at varying intensities. In some areas of the park there was complete burning of the forest canopy and understorey, while in other areas there was only mild burning of the understorey and the forest canopy remained intact. Due to differences in fire severity, accumulation rates of fine fuels are likely to differ across the park.					
Fuel sampling has not been carried out within the Reserve. Permanent fuel sampling sites and photo points need to be established.					
Some observations from the fuel assessment program conducted in the adjacent Brindabella National Park in 2006-07, can be applied to Bimberi Nature Reserve. The assessment approach applied in Brindabella National Park was to determine the Overall Fuel Hazard Rating (McCarthy et al., 1999). Rather than only considering surface fine fuel loads (t/ha), this assessment shifts the emphasis to considering the whole fuel complex, and particularly					

improve fire management, especially prescribed burns, to reduce the negative impacts of frequent high severity fire on the native biota.

☐ Higher fuel levels tended to occur at higher altitudes. Sheltered gully communities carry high levels of biomass due to the higher moisture availability, which generally equates to high fuel loads. They are also usually located in low fire prone areas due to their topographic position and aspect. Therefore fuel loads in gully communities may not be necessarily reduced, even in some wildfire incidents. In contrast exposed westerly slopes containing dry schlerophyll vegetation formations had low fuel loads due to lower fuel accumulation rates, and lower bark hazards. These sites are often located on slopes that carry the main run of the fire. The 2003 wildfire event caused changes in the structure of fuels. Areas affected by high severity fire and canopy scorch, has resulted in post fire regrowth of epicormic and basal resprouting, and in some areas dense regrowth shrub cover. In these same areas surface fine fuels, and bark fuels can be low. This has created areas of high elevated fuels, which impacts fire suppression operations by providing available fuel in dry conditions and impeding access for earth moving equipment and fire fighters.

the bark and elevated fuels - bark and elevated fuels being the fuel elements principally responsible for both first attack failure and also for general





Australian Capital Territory Emergency Services Authority.

Department of

Environment and

Rural Fire Service

Elevation (asl) 1401-1800 m

1101- 1400m

801 – 1100m

Medium

Very High 0 – 800m

RESOURCE INFORMATON

Bimberi Nature Reserve (10886 ha) was initially gazetted on 19th April 1985, with additions on 1st January 2001. The Bimberi Nature Reserve is located on the western fall of the Brindabella and Bimberi Range, on the Australian Capital Territory and New South Wales border. It rises from a low point of approximately 750m above sea level on the Goodradigbee River to 1857m at Mount Gingera. It is situated between Kosciuszko National Park, Namadgi National Park (ACT) and Brindabella National Park, and forms part of the Australian Alps National Parks. The Australian Alps was listed in the National Heritage List in November, 2008. The Bimberi Wilderness, covers most of Bimberi Nature Reserve and adjacent parts of Kosciusko and Namadgi National Park. For the purpose of this Fire Management Strategy, Bimberi Nature Reserve will be referred to as the "Reserve", unless otherwise stated. This strategy has been prepared in accordance with the policies and procedures detailed in the NPWS Fire Management Manual (NPWS, 2006a), NPWS State Incident Plan (NPWS 2006b), Bimberi Nature Reserve Plan of Management (NPWS, 1997) and relevant legislation. A memorandum of understanding exists between relevant governments on the co-operative management of the Australian Alps National Parks (current 6th November

1998). A memorandum of understanding also exists for fire management and suppression between the NSW National Parks and Wildlife Service and

Distribution of vegetation types follow patterns of elevation, slope and aspect. Most species are associated with montane and sub-alpine vegetation communities. Woodlands of snow gum Eucalyptus pauciflora occur above 1500 metres. These grade downslope into open forests of snow gum and, at approximately 1300 metres, into snow gum-mountain gum E.dalrympleana tall open forest communities. These are interspersed with alpine ash E. delegatensis and manna gum (E.viminalis) in more sheltered aspects. At lower elevations along the Goodradigbee River broad leaved peppermint E. dives and narrow leaved peppermint E. robertsonii, brittlegum E.mannifera, and red stringybark E.macrorrhyncha, forests occur. The understorey varies

Most of the Reserve is composed of extensively deformed volcanic rocks and altered sediments with some very prominent granite outcrops on the crest

of the range. The soils of the Reserve demonstrate high porosity and stability with few erosion problems. Elevated granite areas exhibit a very humic or peaty soil. Caves and other karst features have been reported on the east bank of the Goodradigbee River. These features are part of the Silurian

Limestone deposits which extend through the adjacent Cooleman Plains area of Kosciusko National Park. 60% of the Reserve consists of slopes >180. The Reserve forms part of the catchment of the Goodradigbee River, which flows into the Burrinjuck dam, providing irrigation water to the Murrumbidgee Irrigation Area. Although the Reserve is not located within the catchment for the Corin and Bendora storages, which provide domestic water supply for the ACT, fire travelling through the Reserve could have potential impacts on the water quality and yield to these catchments. Access to the Reserve is via Mount Franklin Road, off Brindabella Road in the north. Fire management vehicles can also access the Reserve via

This strategy was put on public exhibition during February and March 2008. Comments by interested parties were collated, evaluated and included

Map 6: Bushfire Behaviour Potential

Eden-Monaro Federal Electorate.

Tumut Local Government Area.

Brungle Tumut Aboriginal Land Council.

Murrumbidgee Catchment Management

Wagonga Aboriginal Land Council.

Burrinjuck State Electorate.

from shrubs to grasses. Swamps and bogs occur at the headwaters of some of the creeklines within the Reserve.

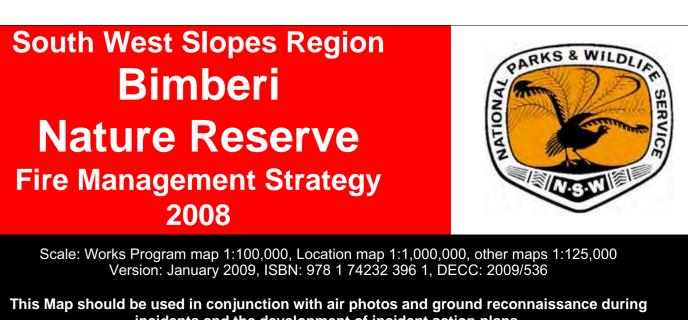
Honeysuckle Trail from the west, Yaouk Trail in the southeast and Leura Gap Trail in the southwest.

National Parks and Wildlife Service,

Riverina Highlands Zone (Bush Fire

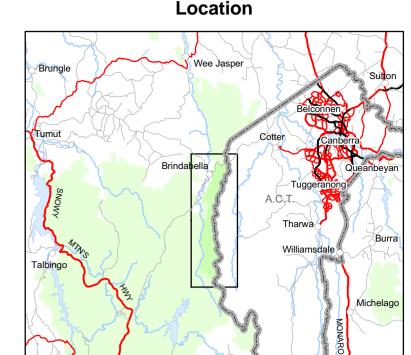
Area, South West Slopes Region.

Parks and Wildlife Group. Queanbeyan



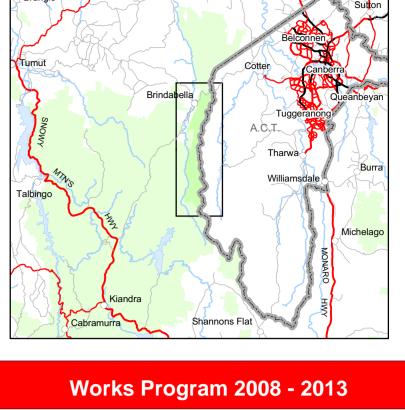
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This map is based on Land and Property Information Standard 1:25000 Topographic Map Series. Reproduced with permission of Land and Property Information.



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See table right for legend		

Map 7: Risk Assessment - Cultural & Natural

egetation Formation (Keith, 2004)	Vegetation Community Description	Vegetation Group (Gellie, 2005)	Reserve (GIS) Ha's	% Reserve Cover
	Wet Heath (includes bogs)	123	11.7	0.1
Alpine Complex	Dry Heath	36	31.1	0.3
	Alpine Vegetation	132	9.4	0.1
	Dry box woodland	38	32.7	0.3
Dry Sclerophyll Forests (shrubby subformation)	Peppermint-mountain gum forest	103, 107	2876.8	26.7
,	Peppermint forest	110	1113.3	10.4
Sclerophyll Grassy	Snowgum-mountain gum forest	97, 98	1361.4	12.7
Woodlands	Snowgum woodland	99, 128	1955.4	18.2
	Manna gum forest	82, 89	1508.0	14
Wet Sclerophyll forests	Narrowleaf peppermint-mountain gum forest	83	48.7	0.5
(grassy subformation)	Alpine ash forest	86	1338.0	12.4
	Snowgum-mountain gum forest	101, 102	468.6	4.4
Wet Sclerophyll forests (shrubby subformation)	Brown barrel forest	58	0.4	<0.1

Vegetation	MAP 4 & Vegetation	Minimum	Maximum	N COMI	MUNITY THRESHOLDS Guidelines
Formation	Community Description	Fire Interval	Fire Interval	History Evaluation	
					Planning should provide for a range of age classes (time since fire) within all formations.
Alpine Complex	Wet Heath, Dry Heath Alpine Vegetation	No burning permitted	No burning permitted	100% Overburnt	Recovery in Alpine areas can be very slow due to lower productivity at higher elevations. Fire occurs rarely, except under extreme conditions. Protect from fire during back burning operations. Fire should be actively excluded from these areas where possible
Dry Sclerophyll Forests - shrubby subformation	Dry box woodland, Peppermint- Mountain gum forest, Peppermint forest	7	30	100% Recently burnt	Some intervals in the higher end of the range, ie. 25 years, may be desirable (NPWS, 2004). A decline in biodiversity is predicted if 3 or more consecutive fires occur with inter – fire intervals of < 7yrs. Too frequent fires may promote fire tolerant shrubs
Sclerophyll Grassy Woodlands	Snowgum- Mountain gum forest (97,98), Snowgum woodland	10	40	100% Recently burnt	Occasional intervals >15 yrs may be desirable (NPWS, 2004). High intensity fire should be avoided, where possible. A decline in biodiversity is predicted if 3 or more consecutive fires occur with inter – fire intervals of < 10yrs.
Wet Sclerophyll forests - grassy subformation	Manna gum forest, Alpine ash forest, Narrowleaf peppermint- Mountain gum forest, Snowgum- Mountain gum forest (101,102)	10	50	1.4% within threshold 99.6% Recently burnt	Occasional intervals greater than 15 years may be desirable. Crown fires should be avoided in the lower end of the interval range (NPWS, 2004). Some minimum intervals >25 yrs for low intensity fires are required in Alpine ash forest, after a canopy consuming fire, especially at higher elevations. A decline in biodiversity is predicted if. 3 or more consecutive fires occur with inter – fires intervals of <10yrs, no understorey fire within 50 years, 2 or more canopy consuming fires in Alpine Ash occur within 25 yrs, no high intensity fire in Alpine Ash occurs within 400 yrs. Some drier parts of these communities may tolerate occasional lower fire intervals of low intensity fires.
Wet Sclerophyll forests - shrubby subformation	Brown barrel forest	25	60	100% Recently burnt	 □ Crown fires should be avoided in the lower end of the interval range (NPWS, 2004). □ A decline in biodiversity is predicted if: □ 3 or more consecutive fires occur with inter – fires intervals of <25yrs, □ no understorey fire within 60 years, □ 2 or more canopy consuming fires occur within 100 yrs, □ no high intensity fire occurs within 400 yrs. □ Some drier parts of these communities may tolerate occasional lower fire intervals of low intensity fires.

and planning associated with prescribed burn proposals and utilising the results of local monitoring programs (NPWS, 2004). It is noted that there is very little data available on the response of fauna species to fire regimes and therefore more attention should be paid to fauna species at the local level when

MAP 4 and 7: THREATENED FAUNA

Scientific Name

Petaurus australis

Litoria verreauxii alpina

Northern Corroboree Frog | Pseudophryne penaillevi

*East False Pipistrelle (B) Falsistrellus tasmaniensis

*Broad-toothed rat (C.D) Mastacomys fuscus

Alpine Tree Frog (D)

*Yellow-bellied Glider

Vulnerable Period

J F M A M J J A S O N D

| | | | | | |

Group Vegetation Group

A Eucalyptus

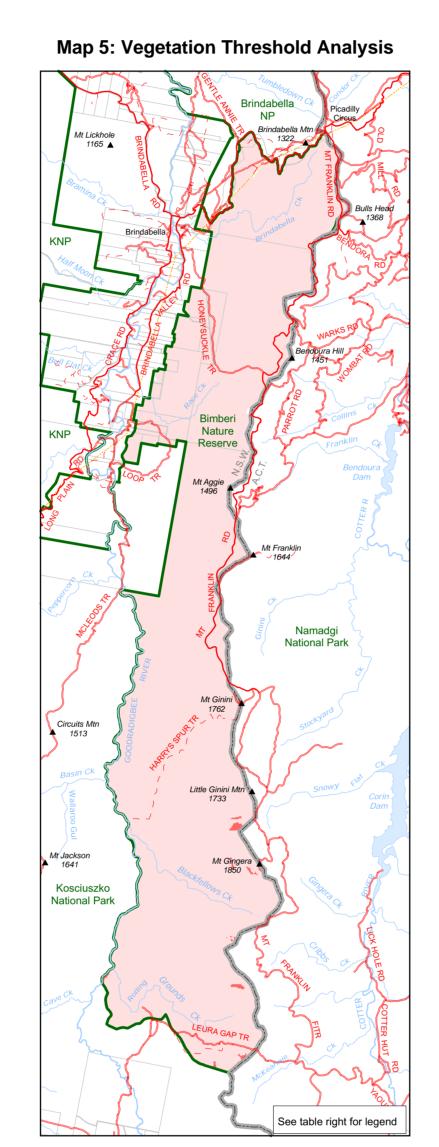
Eucalyptus

Wet Heath (Bogs),

Riparian and Woodland Interface

Leafy Anchor

Toadflax



MAP 7: SIGNIFICANT COMMUNITIES

species is regenerating, during the life of this plan.

intensity and likely impacts on the community.

Minimise the size and intensity of all fires.

Avoid vehicle access within bog communities.

Fire should be actively excluded from these areas where possible. Additional guidelines for Wet Heath are detailed in Group C Threatened Flora Species

activities.

Acacia pravissima, Eucalyptus niphophila, Gingidia harveyana, Hakea lissosperma, Leucopogon gelidus, Orites lancifolia, Oxylobium alpestre, Ozothamnus stirlingii, Persoonia subvelutina, Pimelea pauciflora, Pimelea ligustrina subsp. ciliate, Pultenaea juniperina var. mucronata, Wahlenbergia

Regionally Significant Plant Species

MAP 7: CULTURAL HERITAGE

This formation is sensitive to fire.

which can alter habitat values.

regime thresholds.

affect water quality.

accordance with the biodiversity fire thresholds for the vegetation community in which they occur.

When introducing fire, attempt to keep at low intensity. Minimise the use of earth moving machinery

Significant Flora Management Guidelines & Considerations

communities, Eucalyptus delegatensis. The species lacks lignotubers, so will not resprout after fire. This species remains vulnerable to the effects of fire, until they reach reproductive maturity, and establish a canopy stored

requent high intensity fire, resulting in canopy scorch, will potentially cause local extinction in Alpine Ash

seedbank. To maintain the continuation of the species, consecutive fires should not occur in areas where the

Low burning frequency is recommended. Prescribed burn proposals must consider past fire frequency,

After the 2003 fires, the Snowgum woodland communities in NSW, VIC and the ACT were extensively impacted on. High intensity fire kills some mature individuals, and causes basal sprouting in others, leading to coppiced and

The frequency of wild fire in these areas is related to drought conditions and is generally in the order of 1-2 fires per century with many areas remaining long unburnt (McCarthy et al, 2003). Snowgum woodlands do not have a

requirement for the introduction of fire for ecological reasons and there is very little to justify the introduction of prescribed fire for the purpose of hazard reduction specifically to conserve species (McCarthy et al, 2003). This

does not however preclude the use of prescribed fire in these communities for the reduction of fuel hazard for the

protection of assets. It simply indicates that such use of fire should take account of the overall need for variability of frequency to maintain habitat values. Snowgum mortality increases when burning and drought or grazing are

Except for asset protection or strategic purposes, fire will be introduced in accordance with the biodiversity fire

☐ Map Snowgum woodland according to level of disturbance and prioritise sites for protection from wildfire.

A fire within the sphagnum bogs is a significant threat to the integrity and maintenance of the bogs. The function of bogs for water retention, filtration and provision of habitat can be affected by damage from fire.

Fire and destabilisation of soil resulting from frequent fire can lead to increased run-off into streams and waterways, with erosion, sedimentation and eutrophication, potentially impacting on species. High intensity fire

areas. If practicable, attempt to exclude fire without use of earthmoving equipment.

Avoid the use of fire suppression chemicals within 100m of bogs and drainage lines.

can remove riparian vegetation, reducing the filtering benefits of vegetation. Loss of nutrient from the site can

Avoid the use of earth moving equipment within 100m of bogs. Minimise disturbance in riparian areas.

Low burning frequency is recommended. Prescribed burn proposals must consider past fire frequency and likely impacts on community. Do not introduce fire directly into bogs. Attempt to keep fire 100m from these

The Dry Heath, Wet Heath and Alpine Vegetation alliances have been classified in the Alpine Complex formation.

No known records of these species have been located within the reserve. There is the

potential to locate these species, if further survey was conducted, as suitable habitat Potential habitat for these species will be protected as per significant community

If identified, implement protection strategies during fire suppression and management

multi-stemmed trees. Although this species can resprout after a fire event, it does lead to a structural change,

Map the different age classes of Alpine ash and prioritise sites for protection from wildfire.

The inter fire intervals have been too short. Additional fire in this area will lead to adverse fire regimes and may threaten community biodiversity. Protect from fire as far as possible.		MAP 5: VE	GETATI	ON THR	ESHOL	D ANALYS	SIS	
Additional fire in this area will lead to adverse fire regimes and may threaten community bediwdresity.	Threshold	Vegetation Comm	Community % of Reserve Interpretation & Manageme			on & Management	Guidelines	
The community has experienced at least one interval less that the appropriate minimum fire interval and peless than the minimum interval, the community is considered vulnerable to a fire.	Overburnt Wet heath, Dry heath, Alpine vegetation			0.5	☐ Additional may threat	fire in this area will lea en community biodive	d to adverse fire regimes and rsity.	
Dry box woodland, Peppermint-Mountain gum forest, Peppermint forest, Manna gum forest, Alpine ash forest, Narroweaf peppermint-Mountain gum forest, Snowgum Mountain gum forest, Alpine ash forest, Alpine ash forest Narawa Gundand Drive the Standard of the substitution of	Vulnerable	Vulnerable N/A N/A N/A the appropriate minimum fire interval and is currently at an less than the minimum interval, the community is consider vulnerable to a fire. □ Will be overburnt if it burns within life of this plan.						
Interval and less than the maximum interval are considered to be within threshold. If a fire occurs, the vegetation will become recently burnt. Fire is neither required or to be avoided. If a fire occurs, the vegetation will become recently burnt. Fire is neither required or to be avoided. If a fire occurs, the vegetation will become recently burnt. Fire is neither required or to be avoided. If a fire occurs, the vegetation will become recently burnt. Fire is neither required or to be avoided. If a fire occurs, the vegetation will be acceptable in this area, for biodiversity reasons. Planned fire might be introduced to the area if; If the vegetation community demonstrates a loss of biodiversity, conditions are suitable and fire intensity meets vegetation, for and faunc anomunity requirements. Softwork of any vegetation community group falls within the threshold and, underburnt category. If the vegetation community group falls within the threshold and underburnt category. If the vegetation is a recruitment, senescence and role as fauncially significant, and there may be relatively few areas represented. I Issues such as recruitment, senescence and role as fauncially significant, and there may be relatively few areas represented. I Issues such as recruitment, senescence and role as fauncially significant, and there may be relatively few areas represented. I Issues such as recruitment, senescence and role as fauncially significant, and there may be relatively few areas represented. Issues such as recruitment, senescence and role as fauncially significant, and there may be relatively few areas represented. Issues such as recruitment, senescence and role as fauncially significant, and there may be relatively few areas represented. Issues such as recruitment, senescence and role as fauncially significant, and there may be relatively few areas represented. Issues such as recruitment, senescence and role as fauncially significant, and there may be relatively few areas represented. Issues such	Recently burnt	forest, Peppermint forest, Manna gum forest, Alpine ash i Narrowleaf peppermint-Mounta Snowgum- Mountain gum fores	forest, in gum forest,	99.5	☐ The time s before the ☐ Fire should	ince fire is currently les 2003 fire event, it was I be avoided until vege	ss than the target interval, but within the desired threshold.	
May require fire for biodiversity reasons. Planned fire would be acceptable in this area, for biodiversity reasons. Planned fire might be introduced to the area if, the vegetation community demonstrates a loss of biodiversity, conditions are suitable and fire intensity meets vegetation, flora and fauna community requirements >50% of any vegetation community group falls within the threshold and, underburnt category. long unburnt areas are ecologically significant, and there may be relatively few areas represented. Issues such as recruitment, senescence and role as fauna habitat will be considered in environmental impact assessment for proposed prescribed burns. MAP 6: BUSHFIRE BEHAVIOUR POTENTIAL	Vithin threshold	N/A		0	interval an within thre	d less than the maximishold. curs, the vegetation wil	um interval are considered to be Il become recently burnt.	
MAP 6: BUSHFIRE BEHAVIOUR POTENTIAL segetation Fuel Hazard Rating (under moderate conditions in mature vegetation communities) see ratings and modelling are specific to the reserve. The information is not for comparison of the broader landscape managed by the NPWS South set Slopes Region. Rating Vegetation Description % of Reserve Low Alpine complex 0.5% Snowgum-mountain gum forest Snowgum woodland Manna gum forest Brown barrel forest Alpine ash forest Peppermint-mountain gum forest Narrowleaf peppermint-mountain gum forest Peppermint forest Dry box woodland Narrowleaf peppermint-mountain gum forest Peppermint forest Dry box woodland	Underburnt	N/A		□ May require fire for biodiversity reasons. □ Planned or unplanned fire would be acceptable in this area, biodiversity reasons. Planned fire might be introduced to the area if; □ the vegetation community demonstrates a loss of biodiversity, □ conditions are suitable and fire intensity meets vegetati flora and fauna community requirements □ >50% of any vegetation community group falls within the threshold and, underburnt category. □ Long unburnt areas are ecologically significant, and there melatively few areas represented. Issues such as recruitmer senescence and role as fauna habitat will be considered in				
Low Alpine complex 0.5% Snowgum-mountain gum forest Snowgum woodland Manna gum forest Brown barrel forest Alpine ash forest Peppermint-mountain gum forest Narrowleaf peppermint-mountain gum forest Peppermint forest Dry box woodland 37.9%	performed again Vegetation Fue The ratings and re	MAP 6: B el Hazard Rating (under m nodelling are specific to the rese	USHFIR oderate cond	E BEHA	VIOUR vegetation	POTENTIA communities)	L	
Moderate Snowgum-mountain gum forest Snowgum woodland Manna gum forest 61.6% High Peppermint-mountain gum forest Alpine ash forest Peppermint-mountain gum forest Narrowleaf peppermint-mountain gum forest Peppermint forest Dry box woodland 37.9%	Rating	Vegetation Description					% of Reserve	
Snowgum woodland Moderate Moderate Manna gum forest Brown barrel forest Alpine ash forest Peppermint-mountain gum forest Narrowleaf peppermint-mountain gum forest Peppermint forest Dry box woodland Snowgum woodland 61.6% 61.6% 37.9%	Low	Alpine complex					0.5%	
High Narrowleaf peppermint-mountain gum forest 97.9% Peppermint forest 17.9% Dry box woodland	Moderate	Snowgum woodland Manna gum forest Brown barrel forest	st				61.6%	
	High	Peppermint-mountain gum for Narrowleaf peppermint-mount Peppermint forest					37.9%	
	Aspect Bushfi	re Behaviour	Slope Bushf	re Behaviour		Elevation Bushfir	re Behaviour	

ANALYSIS OF BUSHFIRE BEHAVIOUR POTENTIAL Bushfire behaviour at any position on the landscape reflects □ site attributes such as vegetation type, slope, aspect and elevation (can affect fuel levels, structure and moisture content). ☐ Fire weather attributes such as temperature, relative humidity, wind direction and wind speed. While these characteristics are difficult to predict, analysis of local weather data shows that bad fire weather days are generally associated with winds from the north-west to west. The modelled information is based on mature vegetation communities. The on ground situation may vary significantly, particularly in areas burnt in The Reserve occupies the western fall of the range, to the Goodradigbee River. 60% of the Reserve contains slopes greater then 18°. The western slopes within the reserve have the highest fire behaviour potential, due to their steepness and exposure to both afternoon sun and drying north Lower fire behaviour is found on the more sheltered easterly aspects, or with more gently undulating slopes, for example, the Rolling Grounds area. The fuel moisture levels are generally higher, thus mitigating fire behaviour under moderate conditions. However, during extended drought periods of severe fire weather conditions these forests have the potential to support extreme fire behaviour, species. All vegetation communities have the potential to produce extreme fire behaviour if fire

Map 8: Risk Assessment - Property

Very Low

High

Low 10 - 20°

Medium 20 -40° & >70°

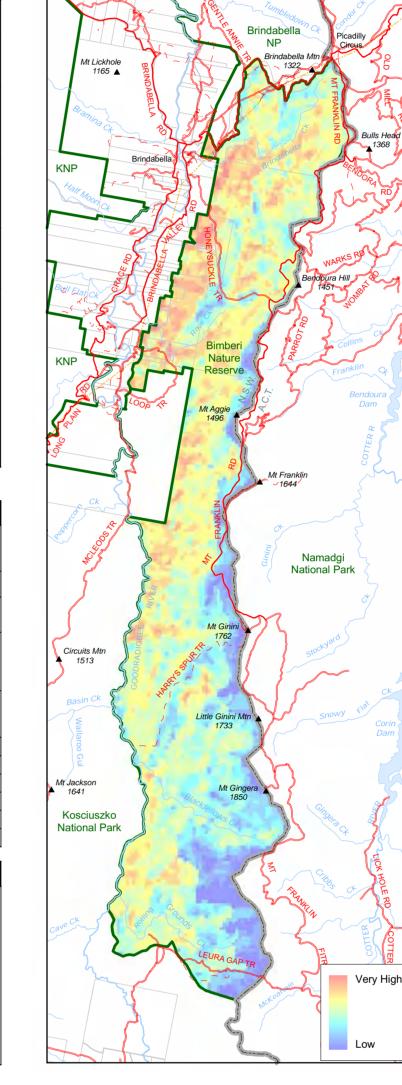
Slope in degrees

Aspect in degrees

180-225°

Very Low

mapping for 2003).



ions. However, during extended drou exacerbated by the ribbon bark of some eather conditions are extreme (see fire	e of the tree		Low	Cadastre DECC Estate
			WORKS PROGRAM	
Asset	Priority	Name, Area or Detail	Management Strategy	Proposed Works
Trails	High	Management Trails Mt Franklin Road (Cat 1) Honeysuckle Trail (Cat 7) Leura Gap Trail (Cat 9) Loop Trail (Cat 9)	 □ Maintain Mt Franklin Road for safe 4WD access for vehicle category identified. □ All trails to be clearly signposted at intersections and trailheads, excluding Loop Trail as it is located on private property. 	□ Assess trails and signage annually and maintain as required or as specified Regional Operations Program. □ Liaise with ACT Authorities regarding the maintenance and potential upgrad Mt Franklin Road, and maintenance of Leura Gap Trail. □ Chemical fuel reduction of management trails.
	Medium	Dormant Trails ☐ Harrys Spur	 □ Could be used during emergencies for Cat 9 vehicles. □ May be re-opened as a control line option. 	☐ Assess trail and document condition and suitability for fire suppression activ
Asset Protection Zones	High	Mt Aggie Signage and trackhead. Mt Franklin Toilet Mt Ginini Radio tower Pryors Hut Complex	□ Reduce bushfire behaviour potential in area immediately adjacent to asset.	 □ Assess annually, maintain as required. □ Negotiated at Bushfire Management Committee meetings. □ Erect signs at major visitor areas advising park visitors of the actions they shake in the event of a fire.
Land Management Zones High Determine prescribed burn boundary within LMZ 2 during impact assessment and operational planning process.			 □ Establish fuel monitoring program, including photo reference points, and conduct biennially. □ Assess fuel load as per fuel monitoring schedule. □ Once vegetation communities have reached minimum threshold then consider fuel management requirements in consultation with BFMC. □ Implement ridge top ignitions relative to the biodiversity threshold and overall fuel hazard guidelines. □ Any proposed prescribed burn must be in line with DECC policy and managed in accordance with the RFS Bushfire Management Committee. □ Liaise with ACT authorities in the development of sub regional fire plans within this area. 	☐ Implement prescribed burn in accordance with guidelines.
Prevention	High	Operational assets, eg. helipads, staging areas.	☐ Maintain assets. Liaise with ACT authorities.	☐ Assess annually, and extend as required.
	High	☐ Fuel and vegetation monitoring.	□ Continue monitoring vegetation at all established sites. □ Establish fuel monitoring program, including photo reference points. □ Additional temporary fuel monitoring sites will be located within area of prescribed burn proposals.	 □ Vegetation monitoring conducted annually until 2008. Then every five years at least 10 years post fire. □ Conduct fuel hazard assessment biennially.
		☐ Threatened species habitat surveys.	□ Conduct threatened species survey.	☐ Identify potential key habitat of targeted threatened species. Devise fire attack/control strategy for protection of significant habitat during wildfires.
Information & Research	Low	☐ Mapping sensitive vegetation communities.	 Monitoring and mapping of Alpine ash (all age classes) and disturbance class of Snowgum woodland (identified as mapping area on map). 	☐ Map the age classes of the Alpine Ash alliance and the disturbance class of Snowgum woodland alliance and prioritise sites for protection from wildfire.
		☐ Investigate karst values.	□ Assess karst values and implement appropriate fire protection strategies.	□ Include karst within FEZ, if required.
		□ Research.	□ Liaise with academic and research institutions to encourage research in the Reserve relevant to fire management.	□ Ongoing.
Cooperative Fire Management	High	☐ Liaise with NSW and ACT Fire authorities.	 □ Attend meetings with the NSW RFS Bushfire Management Committee, RFS volunteer brigade, ACT Emergency Services Authority, and ACT land management agencies. □ Continue cross border fire management programs with ACT land management agencies. □ Implement MOU with surrounding authorities in relation to fire detection, response, and suppression operations. □ Review the crossborder agreement with the ACT authorities on an ongoing basis and continue to implement. □ Undertake joint training exercises. □ All fires reported or known to occur in the Reserve will be reported to the Riverina Highlands Zone NSW RFS and the ACT authorities. □ NPWS will support the NSW and ACT RFS to establish Community Fire Guard groups or Fire Protection Plans in neighbouring areas. 	□ Ongoing.

*Powerful Owl (A)	Ninox strenua	V							′ ⊿	7 <i>1</i>				
*Barking Owl (A)	Ninox connivens	V			\top				1	7 /	1	1	\exists	_
Gang Gang Cockatoo	Callocephalon fimbriatum	V	7 /	7	7		Г	Г	T	T	1	1		
Brown Treecreeper	Climacteris picumnus	V			\Box				Τ	1	1	1	1	1
*Squirrel Glider	Petaurus norfolcensis	V			T			Г	Τ	1	1	1	1	Τ
*Masked owl (A)	Tyto novaehollandiae	V		1	7	7	1	1	/ 1	7 /	1	1	\neg	_
Olive Whistler (C)	Pachycephala olivacea	V	7		T			Г	Т		1	1	1	1
*Spot-tailed Quoll (C)	Dasyurus maculatus	V	\top		T		1	7	/ 1	7 /	T		\neg	Τ
*Koala	Phascolarctos cinereus	V	7 /	7	7		Г	Г	Т	Т	Т		\neg	_
*Speckled warbler	Pyrrholaemus sagittatus	V	7	7	7			Г	Т	1	1	1	1	7
*Pink Robin (A,B)	Petroiaca rodinogaster	V	7	\neg	T			Г	T	Т	Т	1	1	7
*Diamond Fire-tail	Stagonopleura guttata	V	7	\neg	T			Г	1	7 /	1	1	1	1
*Smoky Mouse	Pseudomys fumeus	E1	7 /	7	7	7	Г	Г	T	T	1	1	1	1
*Eastern Bentwing Bat (B)	B) Miniopterus schreibersii	V	T	1	7	/	Г	Г	T	T	\top	П	\exists	1
Vegetation Group	I nreatened Falina Gilidelines													
						protection of key habitat have been included as key habitat sites may be identified during the life of this plan. Habitat surveys are proposed for some species, during the life of this plan. If habitat is identified, a determination will made to whether it is key habitat and therefore requires specific protection strategies during wildfire events. Some management recommendations may need to be waived or modified occasionally in favour of more aggressive fire suppression techniques to protect life, assets, property and other natural and cultural heritage values. Such actions and reasons justifying them will be recorded. Maximise effort to protect threatened species habitat from planned and unplanned fires. Except for asset protection or strategic purposes, fire will be introduced in accordance with the biodiversity fire regime thresholds. Wildfires should be kept to smallest possible size, to enable patches of habitat within the species range to							i	
	*Squirrel Glider *Masked owl (A) Olive Whistler (C) *Spot-tailed Quoll (C) *Koala *Speckled warbler *Pink Robin (A,B) *Diamond Fire-tail *Smoky Mouse *Eastern Bentwing Bat (E) Vegetation Group	*Squirrel Glider	*Squirrel Glider	*Squirrel Glider	*Squirrel Glider	*Squirrel Glider	*Squirrel Glider	*Squirrel Glider	*Squirrel Glider	*Squirrel Glider				

considering applying the thresholds.

General	All	 ☐ Maximise effort to protect threatened species habitat from planned and unplanned fires. ☐ Except for asset protection or strategic purposes, fire will be introduced in accordance with the biodiversity fire regime thresholds. ☐ Wildfires should be kept to smallest possible size, to enable patches of habitat within the species range to remain intact. ☐ Fire patchiness is likely to be an important factor in providing a mosaic of structurally diverse vegetation. ☐ If prescribed burns are necessary, assess implications and minimise impacts during Spring. When planning prescribed burns, refer to the periods of vulnerability of species likely to be located within the burn area, and develop appropriate mitigation measures for their protection. ☐ Assess implications and minimise impacts of prescribed fire during times of prolonged drought.
Α	Streams, Wet heath (bogs) & Riparian and Woodland interface Areas	 □ Do not use earthmoving equipment within 100m of bogs and known northern corroboree frog habitat sites. If an existing trail is being maintained as part of fire management activities, do not widen or move debris int known habitat, within 50m of the site. □ If prescribed burns are deemed necessary, minimise disturbance by not introducing fire directly into wet heath (bogs), streams & river flats. Attempt to keep fire at least 100m from these areas. □ There are no natural waterpoints available within the Reserve. Construction of new water points in habitat not permitted. Set up buoywalls, or watertankers at suitable locations avoiding key habitat areas. Driving through bogs is to be avoided. Minimise disturbance in riparian areas. □ Conduct Broad Tooth Rat habitat surveys (during the life of the plan not during fire suppression activities) to identify key habitat sites for protection during fire suppression and fire management activities.
В	Forests, including habitat for hollow dependant species	 □ Avoid damaging/felling hollow-bearing and known nest/feed trees when establishing control lines, mopping up and during prescribed burning. During mop up activities try to extinguish fire rather then falling tree. □ If hollow bearing or nest/feed trees are located on control lines remove fuel from base prior to ignition, if tim permits. □ Avoid placing infrastructure (eg. temporary utilities, rerouting trails) in known population areas, or within 200m of known owl habitat sites. □ If prescribed burns are deemed necessary, protect known habitat trees within the burn area from bark ignition, heat and smoke exposure. □ If known squirrel glider habitat, protect understorey, especially Acacia sp.
С	Woodland	☐ Minimise disturbance by not introducing fire directly into areas with large rock outcrops where possible, to protect Quoll habitat. If practicable exclude rocky outcrops from burn.
D	Heath	 □ Conduct Smoky Mouse habitat surveys to identify key sites for protection during fire suppression and management activities. □ Do not introduce prescribed burning or backburning where known populations or key habitat of Smoky Mouse occur. If practicable exclude rocky outcrops from burn. □ Protect habitat areas with diverse heath understorey / grass trees on ridgetops, from fire interval of <15 years. □ Avoid placing infrastructure (eg temporary utilities, rerouting trails) in known habitat areas. Trail, control line construction and use of earth moving machinery should be avoided in areas of known habitat. If an existing trail is being maintained as part of fire management activities, do not widen or move debris into known habitat. □ Avoid falling large trees into diverse heath or key habitat.
		Conduct Eastern Bentwing Bat habitat surveys to identify key habitat sites for protection during fire

Bringabella RD	В	dependant species	 □ Avoid placing infrastructure (eg. temporary utilities, rerouting trails) in known population areas, or within 200m of known owl habitat sites. □ If prescribed burns are deemed necessary, protect known habitat trees within the burn area from bark ignition, heat and smoke exposure. □ If known squirrel glider habitat, protect understorey, especially Acacia sp.
	С	Woodland	☐ Minimise disturbance by not introducing fire directly into areas with large rock outcrops where possible, to protect Quoll habitat. If practicable exclude rocky outcrops from burn.
Bimberi Nature Reserve	D	Heath	 □ Conduct Smoky Mouse habitat surveys to identify key sites for protection during fire suppression and management activities. □ Do not introduce prescribed burning or backburning where known populations or key habitat of Smoky Mouse occur. If practicable exclude rocky outcrops from burn. □ Protect habitat areas with diverse heath understorey / grass trees on ridgetops, from fire interval of <15 years. □ Avoid placing infrastructure (eg temporary utilities, rerouting trails) in known habitat areas. Trail, control line construction and use of earth moving machinery should be avoided in areas of known habitat. If an existing trail is being maintained as part of fire management activities, do not widen or move debris into known habitat. □ Avoid falling large trees into diverse heath or key habitat.
Bendoura Dam Mt Aggie 1496	E	Karst	Conduct Eastern Bentwing Bat habitat surveys to identify key habitat sites for protection during fire suppression and management activities. If key habitat sites are identified: Do not use fire suppression chemicals, earth moving equipment or construct control lines within 100m of known roosting and breeding sites. If known roosting or breeding site, minimise flame and smoke entry. Avoid falling trees during mop up operations in entrances to known roosting and breeding caves.
Mt Franklin 1644	be located withi □ Species is as		y habitat group, additional suitable habitat groups are identified in brackets.
Namadgi National Park			LANDSCAPE THRESHOLDS
National Laik		ent Guidelines - Kar	
	☐Minimise the siz☐Restrict the use	ze and intensity of all of fire suppression of	nemicals within the catchment of the Cooleman Plains Karst Area.
Mt Ginini 1762			nent within the Karst Area. eserve and determine whether the area should be included in a fire exclusion zone.
cuits Mtn 1513		ent Guidelines - Wild	
	□All human caus	ed fires will be exting	
Little Ginini Min			y will be responded to. //ilderness values, eg. construction of fire breaks with earthmoving equipment, are permissible where required to
Corin Dam	□Works associate	ed with fire managem	tural and cultural heritage values. ent will be implemented with minimal environmental impact. I lines will be rehabilitated unless identified as having future strategic value for fire suppression operations.
	□Prescribed burn	ning will be permitted	where required for necessary management purposes.
ackson 641 Mt Gingera 1850			
osciuszko ional Park			
THE REPORT OF TH			ARY GUIDELINES FOR THE PROTECTION OF NATURAL HERITAGE
	☐ Minimise size a	and intensity of wildfir	es, and manage fire to produce mosaic (patch) burn patterns (where weather conditions permit).

Fire should be actively excluded from the Alpine Complex vegetation community, where possible.

control lines remove fuel from base of tree, prior to prescribed burning or backburning if time permits.

protection from fire. If identified, follow threatened fauna guidelines for specific species or habitat types.

implemented to protect Alpine Ash during prescribed burning activities, where possible.

complex vegetation, rocky outcrops, and karst areas.

is to be avoided. Minimise disturbance in riparian areas.

Avoid the use of earth moving equipment within the Karst Area.

Karst Catchme

Heritage Area

Wilderness Area

Except for asset protection or strategic purposes, fire will be introduced in accordance with the biodiversity fire regime thresholds.

maintained as part of fire management activities, do not widen or move debris into known habitat, within 50m of the site.

Ensure potential risks to Alpine Ash located within LMZ 2 are identified during impact assessment and operational planning and strategies are

If prescribed burns are necessary, assess implications and minimise impacts during Spring and prolonged drought. When planning prescribed burns, refer to the periods of vulnerability of species likely to be located within the burn area, and develop appropriate mitigation measures for their protection. Do not introduce fire directly into wet heath (bogs) and waterways. Attempt to keep fire at least 100m from these areas. Do not introduce fire into alpine

Protect known habitat trees within the burn area. During mop up activities try to extinguish fire rather then falling tree. If habitat trees are located on

Avoid the use of fire suppression chemicals within 100m of streams, wet heath (bogs) & riparian environments, and within the catchment of the Karst There are no natural waterpoints available within the Reserve. Set up buoywalls, or watertankers at suitable locations. Driving through wet heath (bogs)

Gey habitat for threatened species has not been identified within the Reserve. Future threatened species habitat surveys may identify key habitat for

☐ Map the age classes of the Alpine Ash and the disturbance class of Snowgum woodland communities and prioritise sites for protection from wildfire.

Do not use earthmoving equipment within 100m of wet heath (bogs) & known northern corroboree frog habitat sites. If an existing trail is being

□ Identified sites will be	e protected.
□ DECC Cultural Heri records are consider	riage Databases must be accessed during incidents and in planning for hazard reduction burning or other works to ensure new ered. Aboriginal site information from AHIMS is sensitive and subject to a Memorandum of Understanding. Site data must be use
appropriately.	a will be addressed in impact assessments and assestional plans for prescribed by
	s will be addressed in impact assessments and operational plans for prescribed burns.
	ined officers will provide advice on site protection methods. For Hut Conservation Management Plan, and the Conservation Plan for the Mt Franklin Chalet Precinct.
Comply with the Fry	A thorough survey of Aboriginal cultural heritage has not been conducted within the reserve. It is therefore not known with any
Aboriginal Heritage	certainty whether there are sites that can be damaged by fire. Known sites consist of open artefact scatters, but in areas adjacent to the reserve, stone arrangements, rock shelters and art sites have been found. Most of the identified sites occur along spurs and ridgelines. Other unidentified sites may occur across the landscape, especially in riparian areas, swamps and rock outcrops. Open campsites and artefact scatters should be dearly identified and protected from damage from earth moving equipment during fire operations. Avoid ground disturbance within 30m of the site. During wildfire operations, efforts will be made to survey for Aboriginal sites ahead of earthmoving equipment. Encourage survey of Aboriginal sites after fires when site visibility is increased. Inspect affected sites after wildfire and apply erosion works where necessary.
	Historic sites within the reserve include Huts, Aboretums, Ski Runs, survey markers/stone arrangements, present along the ACT/NSW border, and relics associated with gold mining period. Other sites may exist that have not been recorded on NPWS databases. Any new sites should be identified, entered into NPWS Historic Heritage database and protected during fire suppression and prescribed burning programs. All personnel involved in control line construction and vehicle based fire suppression operations are to be briefed on site locations and the required management strategies for site protection. Specific site protection strategies are to be included in
	Incident Action Plans. Prescribed burning or back burning activities should minimise the potential for site disturbance. Pryors Hut
	☐ Establish asset protection zone in consultation with stakeholders.
	☐ Identify control line around the hut and arboretum that can be re-established if fire is approaching.
	□ Protect during backburning operations.
	☐ Fire suppression chemicals may be used, if contained on site. ☐ Consider temporarily wrapping huts in protective foil to protect from ember attack.
Historic Heritage	Mt Franklin Precinct
Thistorie Heritage	☐ ACT land management authorities have primary management responsibility. Liaise with ACT authorities to coordinate establishment of asset protection zone.
	☐ Establish asset protection zone around the toilet. Leura Hut Ruins
	□ Exclude earthmoving equipment within 30m of the site.
	Brumby Yards
	☐ Exclude earthmoving equipment within 30m of the site.
	Snowgum arboretum The About was the 2000 and the transport of the control of the
	□ The Aboretum was burnt in 2003 and the trees removed to minimise safety risks to visitors. The Arboretum site is surrounded by existing trails. Avoid use of earthmoving equipment within the Arboretum site. Border survey markers
	□ Exclude earthmoving equipment within 30m of known border survey markers.
	Evidence of past mining activities (Race Creek)
	☐ Exclude earthmoving equipment within 30m of site.
Note: Cultural heritac	e sites are based on data recorded on AHIMS and HHIMS databases and field data recorded as at August 2007.

NPWS. 2006b. State Incident Plan. Department of Environment and Conservation, NSW.

	ors Hut Conservation Management Plan, and the Conservation Plan for the Mt Franklin Chalet Precinct.				12 7
Aboriginal Heritage	A thorough survey of Aboriginal cultural heritage has not been conducted within the reserve. It is therefore not known with any certainty whether there are sites that can be damaged by fire. Known sites consist of open artefact scatters, but inareas adjacent to the reserve, stone arrangements, rock shelters and art sites have been found. Most of the identified sites occur along spurs and ridgelines. Other unidentified sites may occur across the landscape, especially in riparian areas, swamps and rock outcrops. Open campsites and artefact scatters should be dearly identified and protected from damage from earth moving equipment during fire operations. Avoid ground disturbance within 30m of the site. During wildfire operations, efforts will be made to survey for Aboriginal sites ahead of earthmovingequipment. Encourage survey of Aboriginal sites after fires when site visibility is increased. Inspect affected sites after wildfire and apply erosion works where necessary.	K	INP LOOP LOOP	Bimberi Nature Reserve Mt Aggie 1496 Mt Aggie Walking Trail	Collins Franklin Bend Da
Historic Heritage Note: Cultural heritage	Historic sites within the reserve include Huts, Aboretums, Ski Runs, survey markers/stone arrangements, present along the ACT/NSW border, and relics associated with gold mining period. Other sites may exist that have not been recorded on NPWS databases. Any new sites should be identified, entered into NPWS Historic Heritage database and protected during fire suppression and prescribed burning programs. All personnel involved in control line construction and vehicle based fire suppression operations are to be briefed on site locations and the required management strategies for site protection. Specific site protection strategies are to be included in Incident Action Plans. Prescribed burning or back burning activities should minimise the potential for site disturbance. Pross Hut	<u> </u>	Circuits Mtn 1513 Basin Ck Walleroo Gu Kosciuszko National Park	Mt Ginini Air Nav Mt Ginini Air Nav 1762 Little Ginini Mtn 1733 Mt Gingera 1850	Namadgi National Park
References			\$		TOO CH
ACT Environment. 2	001. Ginini Flats Wetland Ramsar Site. Australian Capital Territory Government.		a line	S'rou.	Tru Tru
	Trees – the Silent Fire Historians. Bogong vol 18 No 3.	ca	ve Ch Roll	795	S CH
Doherty & Wright. 20	004. Post Fire Recovery after the 2003 Canberra Fires - Bouncing Back in Bimberi, Brindabella and Burrinjuck; fire 2004 conference; 25-28 May 2004; Adelaide.			LEURA GAP TR	FIIR
Gellie, N. 2005. Veg Australian National U	etation of the Southern Forests Manuscript, Maps and Appendices (Version 1.2). Jniversity, ACT.		☐ T1 Asset		
McCarthy, G.J., Tolh Melbourne, Victoria.	nurst, K.G., and Chatto, K. 1999. Overall Fuel Hazard Guide. Department of Natural Resources and Environment.		T2 Asset This is a second of the second of	and the second second	
McCarthy et al. 2003 Sustainability and Er	 Determination of suitable fire regimes in the Victorian Alps using plant vital attributes. Department of nvironment, Victoria. 	=	Float Trail		
RFS. 2006. Planning	for Bushfire Protection. NSW Rural Fire Service.		·		
NPWS. 1997. <u>Bimb</u>	eri Nature Reserve Plan of Management. National Parks and Wildlife Service, NSW.				
NPWS. 2004. Guide	lines for Ecologically Sustainable Fire Management. National Parks and Wildlife Service, NSW.				
	/S Fire Management Manual. Department of Environment and Conservation, NSW.				
<u>-3000.</u> <u>111 1</u> 1					

Asset	Vulne	erability		Risk Mitigation		
T1 – Private proper farm buildings within close proximity (10 of Reserve boundary)	rties/ in One a and the influence of the control of	sset is located within 100m of the Reserve, us is within the immediate area of ce of fire leaving the Reserve.	impl prot Main requ	Participate in the development and where appropriate implementation of fire management proposals regarding asset protection, through the RFS Bushfire Management Committee. Asintain asset protection zones surrounding public assets as equired. ACT land management authorities have the primary responsibility or Bulls Head and Mt Franklin shelter. Maintenance of the APZ		
T2 – Private proper within 3km of Rese boundary.		/ulnerable to impacts from fire within the Reserve. Mt Ginini radio base. Mount Aggie sign and walking trail. Powerlines. Mt Franklin toilet. Bulls Head public facilities (managed by ACT).		upgrade of fire fighting infrastructure will be coordinated by ACT land management authorities, in liaison with NPWS. Implement prescribed burn within LMZ 2 in accordance with guidelines. Maintain all access trails within the Reserve for use in fire		
Public assets within Reserve.	Reser			suppression. Liaise with ACT land management authorities regarding the proposed upgrade of Mt Franklin Rd to float standard. Contain all unplanned fire events as soon as possible by rapidly responding to reported ignitions. Implement annual fire management work schedule. All fires reported or known to occur within the Reserve will be reported to the ACT RFS. Develop triggers and required actions under different conditions and scenarios with the ACT RFS for fires west of the ACT.		
Public assets adjact to the Reserve.	cent travelli	able to impacts from fire originating in or ng through the Reserve. Ginini air navigation beacon. Franklin shelter.		vide media briefing/releases to communicate strategies and ates of fire activity to those potentially affected.		
Visitors to the Rese		able to impact from fire within the //e.	und lf a f dire	above ct signs at major visitor areas advising of actions they should ertake in the event of a fire. fire breaks out, check for visitors (preferably by air) and give ctions if required. erve closure may be implemented during periods of extreme fire ger, when the Reserve is threatened by fire, or when a fire is lally burning in the Reserve.		
M.A	AP 9: B	JSH FIRE MANAGEN	MENT	ZONES - DEFINITIONS		
Asset Protect (APZ	tion Zone		s, which ar	re adjacent to bushfire hazards. The primary fire management		
Land Manager (LMZ		Defines management strategies for the processing biodiversity.	rotection o	of areas with important natural or cultural values. Focus on		
Fire Exclusion	on Zone			arly where impacts of fires in combination with other threatening		
(FEZ)	()	processes (e.g. climate change) have the	potential	to result in species extinctions.		
Cooperative Ma	anagement	Fuel management within this area will be	determine produce a	ed in negotiation with ACT Authorities in developing the ACT fuel management mosaic required for protection of the assets		
Cooperative Ma	anagement MA)	Fuel management within this area will be Strategic Bushfire Management Plan, to p within the ACT, and the ecological require	determine produce a ements of	ed in negotiation with ACT Authorities in developing the ACT fuel management mosaic required for protection of the assets sensitive natural assets.		
Cooperative Ma	anagement MA)	Fuel management within this area will be Strategic Bushfire Management Plan, to p within the ACT, and the ecological require SERVE BUSH FIRE N	determine produce a ements of	ed in negotiation with ACT Authorities in developing the ACT fuel management mosaic required for protection of the assets sensitive natural assets.		
Cooperative Ma Area (CI	anagement MA) RES Guidelin As far for Bu	Fuel management within this area will be Strategic Bushfire Management Plan, to p within the ACT, and the ecological require SERVE BUSH FIRE Ness as possible, the standards as specified in Fishfire Protection (RFS, 2006) are applied to	determine produce a ements of MANA Planning o APZ's.	ed in negotiation with ACT Authorities in developing the ACT fuel management mosaic required for protection of the assets sensitive natural assets. **AGEMENT ZONES**		
Cooperative Ma Area (CI Zone	anagement MA) RES Guidelin As far for Bu Minim produ permi Attem use of Minim Avoid of dra catchi	Fuel management within this area will be Strategic Bushfire Management Plan, to p within the ACT, and the ecological require SERVE BUSH FIRE Ness as possible, the standards as specified in Fishfire Protection (RFS, 2006) are applied to ise size and intensity of wildfires, and manage mosaic burn patterns (where weather continuous patterns).	determine produce a perments of MANA Planning of APZ's. ge to anditions s by 100m arst	d in negotiation with ACT Authorities in developing the ACT fuel management mosaic required for protection of the assets sensitive natural assets. **GEMENT ZONES** **Actions** Assess maintenance requirements of APZ's annually. Fuel reduction activities include prescribed burning, mechanical removal of fuel, herbicide application. Survey potential threatened species habitat to identify key habitat sites for protection during fire management activities. Map the age classes of the Alpine Ash and the disturbance classes of the Snowgum woodland communities and prioritise sites for protection from wildfire. Prescribed fire will be used where deemed necessary for ecological purposes.		
Cooperative Ma Area (CI Zone	anagement MA) RES Guidelin As far for Bu Minim produ permir Attem use of Minim produ permir Attem use of Protect hollow Earth within Fire si	Fuel management within this area will be Strategic Bushfire Management Plan, to I within the ACT, and the ecological require SERVE BUSH FIRE IN SERVE BUSH BUSH BUSH BUSH BUSH BUSH BUSH BUSH	determine produce a arements of IANA Planning of APZ's. ge to nditions s by 1100m arst and 1100m arst and 110m ar	ed in negotiation with ACT Authorities in developing the ACT fuel management mosaic required for protection of the assets sensitive natural assets. **GEMENT ZONES** **Actions** Assess maintenance requirements of APZ's annually. Fuel reduction activities include prescribed burning, mechanical removal of fuel, herbicide application. Survey potential threatened species habitat to identify key habitat sites for protection during fire management activities. Map the age classes of the Alpine Ash and the disturbance classes of the Snowgum woodland communities and prioritise sites for protection from wildfire. Prescribed fire will be used where deemed necessary for		
Cooperative Ma Area (CI Zone APZ LMZ 1a	anagement MA) RES Guidelin As far for Bu Minim produ permir Attem use of Minim produ permir Barth within price si impler prescrip	Fuel management within this area will be Strategic Bushfire Management Plan, to p within the ACT, and the ecological require SERVE BUSH FIRE Notes as possible, the standards as specified in Fishfire Protection (RFS, 2006) are applied to sise size and intensity of wildfires, and manage mosaic burn patterns (where weather condition). The pits will be made to increase burn patchines incendiaries, retardant, water bombing etc. its the use of fire suppression chemicals within the use of fire suppression chemicals will be made to increase burn patchines incendiaries, retardant, water bombing etc. It mature trees and minimise felling large and bearing trees during mop up activities. In the proposition of the proposition	determine produce a perments of DANA Planning of APZ's. ge to nditions s by n 100m arst and ge to nditions s by and differences ge with a pact lies are ning fire ress	d in negotiation with ACT Authorities in developing the ACT fuel management mosaic required for protection of the assets sensitive natural assets. GEMENT ZONES Actions Assess maintenance requirements of APZ's annually. Fuel reduction activities include prescribed burning, mechanical removal of fuel, herbicide application. Survey potential threatened species habitat to identify key habitat sites for protection during fire management activities. Map the age classes of the Alpine Ash and the disturbance classes of the Snowgum woodland communities and prioritise sites for protection from wildfire. Prescribed fire will be used where deemed necessary for ecological purposes.		

Liaise with ACT authorities in the development of sub

regional fire plans within this area.

Liaise with ACT Authorities regarding classification of

zones and the requirement for prescribed burn activities.

MAP 8: RISK ASSESSMENT - LIFE & PROPERTY

