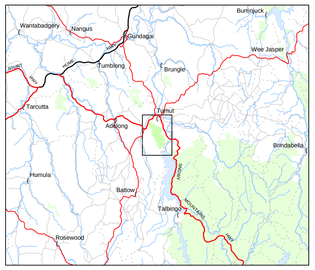
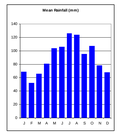
South West Slopes Region
Wereboldera State Conservation Area
Fire Management Strategy 2007

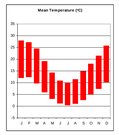
Scale: Works Program map 1:50,000, Location map 1:700,000, other maps 1:70,000
Version: June 2007 ISBN: 1 74137 292 5 DEC: 2005/118

This Map should be used in conjunction with air photos and ground reconnaissance during incidents and the development of incident action plans.

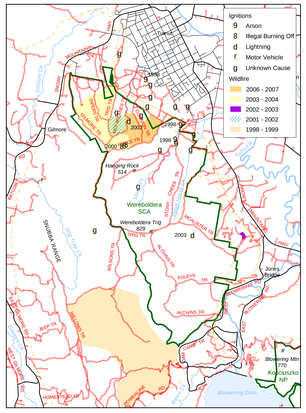
Location



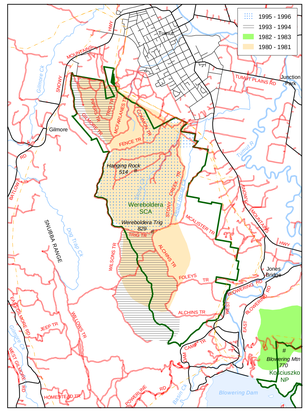




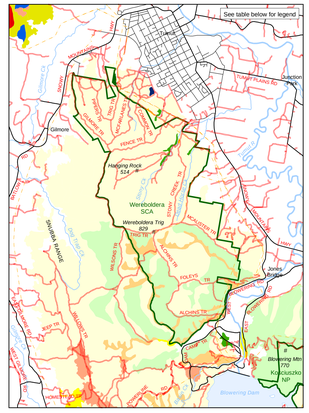
1: Fire History - Wildfire



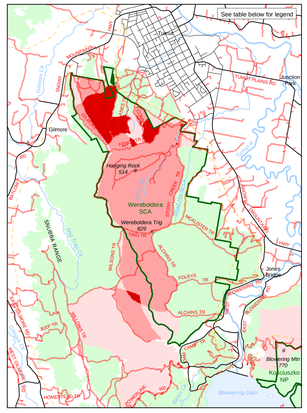
2: Fire History - Prescribed Burns



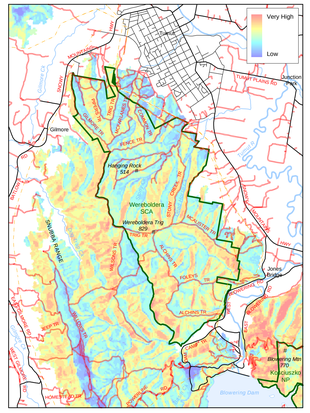
3: Vegetation Communities



4: Vegetation Threshold Analysis



5: Bushfire Behaviour Potential



RESOURCE INFORMATON

On 1 January 2001, the now Wereboldera State Conservation Area (SCA) was dedicated as a Crown Reserve under the Crown Lands Act, 1989. NPWS was appointed as a trustee for the land but had no legal jurisdiction over its management. In 2003, the SCA was gazetted as Wereboldera State Conservation Area, under the provisions of the National Parks and Wildlife Act, 1974. For the purposes of this fire management strategy the Wereboldera State Conservation Area will be referred to as the SCA.

The SCA is located 2kms south west of Tumut on the South - West Slopes of NSW. It protects 2353 hectares of mixed open forest at the northern end of the Skubba Range. The SCA shares a south - western boundary with Tumut State Forest and is located 5kms south of Minjary National Park.

The SCA covers an area of steep terrain 5M of Tumut between the Tumut Valley and Gilmore Valley. State Forest land lies adjacent to the boundary of the reserve to the west, NW and NE. Most of the private land lies to the east and south east of the reserve boundary. Crown land adjoins the reserve in the NW and NE, including the Tumut Bush Common.

The Wereboldera Trig site dominates the range at 829 metres above sea level. Vegetation is largely made up of dry sclerophyll forest types, but also contains woodland and some montane communities. There is no running water within the reserve, however drainage lines feed local dams and the Tumut River lies south of Tumut when significant rain falls.

Department of Environment and Climate Change	- Parks and Wildlife Division, National Parks and Wildlife Service - South West Slopes Region, Riverina Highlands Area
Rural Fire Service	- Riverina Zone (Bushfire Management Committee)
Government Areas	- Eden Monaro Federal Electorate - Riverina State Electorate - Tumut Local Government Area
Other Organisations, Agencies & Commercial Neighbours	- Department of Primary Industry - Tumut Brungle Local Aboriginal Land Council - Murrumbidgee Catchment Management Authority - Gundagai Rural Lands Protection Board - State Water (Tumut River) - Department of Lands (Tumut Bush Common) - Tumut Ecological Reserve Trust - Tumut Rifle Range - Tumut Golf Club and Course

MAPS 1 & 2: FIRE HISTORY

Ignitions	There have been 15 recorded ignitions within the SCA since 1980, where the main causes are lightning and arson. Most ignitions occur in the northern end of the reserve. There is limited data prior to 1999. Several ignitions have also been recorded adjacent to the SCA, where causes include lightning, arson and accidental fire.
Wildfire	Approximately 7 wildfires have occurred within the SCA since 1999. Most fires have been kept to small areas of less than 2 hectares. In 2001 and 2004, two fires burnt out 251 hectares. These fires escalated rapidly in the steep terrain, under hot west to north-westerly weather conditions and during periods of prolonged drought. All fires were contained and did not develop or spread beyond the SCA boundary. During February 2007 a wildfire, started by an arsonist or arsonists, developed in the Tumut Bush Common. This fire spread rapidly from the north-east into the SCA to be contained north of Common Trail. Approximately 12ha of the Bush Common burnt and 72ha of the SCA burnt. Since 1999, approximately 745 hectares have burnt on land adjacent to the reserve. This includes the area burnt during the 2007 fire season and a larger fire in Tumut State Forest, adjacent to the south- west boundary of the SCA in the 1998-99 fire season.
Prescribed Fire	Four prescribed burns were implemented by NSW State Forests between 1980 and 1995. Most of the prescribed burns were conducted in the northern and western part of the SCA, accounting for approximately 1520 hectares or 68% of the reserve. No prescribed burns have been implemented within the park by NPWS since gazettal. However, trail maintenance and clearing programs have been applied and will continue as part of the reserves annual maintenance program.
Fire Frequency	Some areas of the SCA have had 3 successive fires in 25 years. Areas in the northern section of the reserves are at risk of simplification of vegetation, erosion, weed infestation and potential loss of biodiversity through increased fire regimes. There is a high probability that fire has affected the entire SCA prior to 1980. There are indications that most of the SCA has experienced at least one fire event in the last 20-50 years. This is observed in the southern end of the park, where fire scars are present, but no mapped fire history is available. The frequency and interval between fire has important implications relevant to future fire management and biodiversity.

THREATENED FAUNA

Fire Group	Common Name	Scientific Name	TSC Schedule	Most vulnerable Period
A	*Striped-legless Lizard	*Delmar impar*	V	Oct - Mar
B	Diamond Firetail	*Stagonopleura guttata*	V	Aug - Jan
	Brown treecreeper	*Climacteris picumnus*	V	May-Dec
	Pink Robin	*Petroica rodinogaster*	V	Oct - Jan
	Speckled Warbler	*Pyrrholaemus sagittatus*	V	Aug-Dec
C	*Spotted-tailed Quoll	*Dasyurus maculatus*	V	Jun - Oct
	Eastern pygmy-possum	*Cercartetus nanus*	V	Apr-Dec

Fire Group	Veg Groups	Threatened Fauna Management Guidelines
A	- 49 - 50	This species relies on ground debris, logs and loose rocks in a variety of forest, woodland and grassy habitats. Frequent and high intensity fires are undesirable, as this removes critical habitat. Least likely period of vulnerability to fire is the end of April. Where possible; - Fire should be contained to small areas, avoiding earthmoving equipment where the species is known to occur. - Protect areas of known habitat from fire. - Prescribed burns should ensure the species is adequately protected and that planned burns are small and of low intensity, producing mosaic burn patterns where applied.
B	- 24 - 49 - 50	Fire often leads to a decline in insect abundance and diversity, which some species are dependent on. Species in this group can feed and, in the case of speckled warbler, nest at ground level. Felling hollow bearing trees during 'mopping up' activities decreases nest hollow availability. Frequent burning potentially reduces available habitat through changes in vegetation floristic composition and structure. These species are likely to be disadvantaged by frequent fire because of the simplification of forest structure. Least likely period of vulnerability to fire is between February and April. Where possible; - Maintain (maximum) vegetation management guidelines. - Fire should be kept to smallest possible size or managed to create a long term mosaics. - Prescribed burns should be of minimal intensity. - Prescribed burns should aim to leave patches of shrubs, standing and fallen timbers and protect hollow bearing trees.
C	- 17 - 49 - 50	These species are mostly nocturnal. Frequent and high intensity fires remove critical habitat and effects prey abundance and increases competition with other predators. Infrequent high intensity wildfire may encourage the growth of a dense understorey, favouring these species (Catling 1991). This species is likely to be disadvantaged by frequent fuel reduction fire because of the simplification of forest structure and site disturbance. Breaking open smouldering hollowed logs on the ground or felling standing trees during mopping up activities could reduce den and nest site availability. Least likely period of vulnerability to fire is between January and February. Where possible; - Fire should be contained to small areas. - Protect areas of habitat from frequent fire, which consumes ground debris and hollowed standing trees to maintain a diversity of forest and woodland age structure - Avoid tree felling and opening hollowed logs within the burnt area during mop up activities. - Prescribed burns should be small and of low intensity. Long-term mosaic burns are more suitable for protecting species habitat.

Note: Fauna species requirements may differ to vegetation (floristic) requirements.
* Species recorded off the SCA, however the proximity of available habitat within the SCA may be crucial for species.

SIGNIFICANT FLORA

Vegetation Group	Management Guidelines
Nortons box and Red Box Alliance Woodlands and Forests 35 & 50	Where possible; - Contain fires within existing control lines to prevent fragmentation. - Avoid felling mature, large and hollow bearing trees. - Manage within the vegetation group guidelines.

CULTURAL HERITAGE

Key Management Guidelines

- Identified sites must be protected.
- DECC Databases, AHIMS and HHIMS, must be accessed during incidents and/ or for preparation of Review of Environmental Factors for fuel reduction burning or other works programs to ensure new records are included. Aboriginal site information from AHIMS is sensitive and subject to a Memorandum of Understanding. Site data must respect this agreement and must be used appropriately.
- For fuel reduction burning programs, protection measures will be outlined in the Review of Environmental Factors and burning program outlines.
- Where possible, trained officers will provide advice on site protection methods.
- Comply with all conservation management plans (where they exist).

Aboriginal Heritage

Sites include surface artefact scatters and landscape features, which may be damaged by earthmoving equipment or control line construction and maintenance programs.
- Record new sites when identified and include in regional records (maps etc) and AHIMS database.
- All sites must be clearly identified and protected during fire suppression and fuel reduction burning programs.
- During incidents, follow operational guidelines (particularly if new sites have been recorded).

Historic Heritage

There are currently no recorded Historic sites identified within the SCA.
- Record new sites as identified and include in regional records (maps etc) and HHIMS database.
- During incidents, follow operational guidelines (particularly if new sites have been recorded).

MAP 3: VEGETATION COMMUNITIES & THRESHOLDS

VegGroup	Vegetation Description	Ha's	% Cover
17	Narrow Leaved Peppermint & Blue Gum - Moist Grass/Forb Forest	118.5	5
24	Apple Box & Nortons Box - Moist Grass Forest	11.0	<1
33	Blakely's Red Gum/Apple Box & Yellow Box - Grass/Forb Forest	0	0
34	Blakely's Red Gum & Callitris Pine - Flax Lily Open Forest	0	0
35	Norton's Box & Red Box - Flax Lily/Tussock/Grass Open Forest	0	0
49	Brittle Gum & Broad Leaved Peppermint - Poa Grass Forest	427.4	19
50	Nortons Box & Red Box Open Forest	1691.6	75
192	Wattle Shrubland - Secondary	0	0
193	Blackberry Invaded Streams	1.8	<1
199	Natural Vegetation - Partially Cleared	5.6	<1

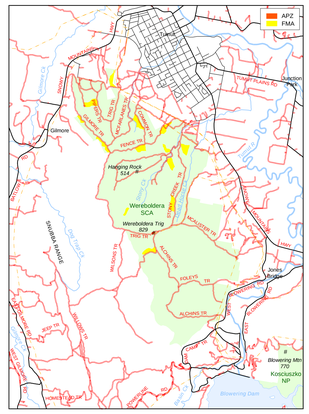
Note: Groups 33, 34, 35, and 192 occur off the park, but are included in the bushfire behaviour potential to evaluate the broader landscape.

MAP 3: VEGETATION COMMUNITIES THRESHOLDS

Fire Interval	Vegetation Group	Vegetation Management Guidelines
>15 - <60	Apple Box & Nortons Box - Moist Grass Forest 24	Species decline and community simplification predicted if successive fires occur <15 years apart. Some species may decline if fires occur >60 years apart. Weed invasion predicted with frequent fire. Where possible; - Contain fires to small areas as there is limited representation of this vegetation community within or adjacent to the reserve. - Planned fire is not recommended in this community for the life of this Fire Management Strategy.
>25 - <100	Brittle Gum & Broad Leaved Peppermint - Poa Grass Forest 49	Species decline predicted if successive fires occur <25 years apart. Local extinctions predicted for some species if fires occur >100 years apart. This vegetation community is susceptible to simplification with frequent fire. *Daviesia* and *Platylobium* species may proliferate with frequent fire and increase bushfire behaviour potential in post fire years. This vegetation group provides key habitat for many fauna species and exists in the least disturbed areas of the reserve. Where possible; - All fires should be contained to small areas. - Prescribed fires south of Wereboldera Trig should be small in size and applied to produce long term mosaic patterns within no greater than 10% of the vegetation community affected by prescribed fire in 25 years.
>25 - <110	Nortons Box & Red Box Open Forest 50	Some species decline predicted if successive fires occur <25 years apart. However, other Local extinctions are predicted if consecutive fires occur <10 or >110 years apart. Weed invasion predicted with frequent fire. This vegetation group is widely represented across the SCA and extended landscape. It provides essential habitat for threatened fauna species. Where possible; - Contain wildfires to small areas or within the existing trail network and implement suppression techniques that will reduce the intensity (where seasonal conditions permit). - Prescribed fires should be limited to the northern end of the reserve, small in size and low intensity, where mosaic burn patterns can be produced.
>25 - <120	Narrow Leaved Peppermint & Blue Gum - Moist Grass/Forb Forest 17	Species decline predicted if successive fires occur <25 years apart. Local extinctions predicted if successive fires occur <25 and >120 years apart. Soils prone to erosion from high intensity and frequent fire. Weed invasion predicted with frequent fire. This vegetation group provides essential habitat for many fauna species and exists in the least disturbed areas of the reserve. Where possible; - All fires should be contained to small areas. - Prescribed fire should only be implemented where required for ecological purposes. Prescribed fire should aim to produce low intensity long term mosaic burn patterns.

Vegetation thresholds are based on available data for individual species within the 'vegetation group'. It represents the response of many species recorded at vegetation survey sites, not just the responses for the 'vegetation group' name species.

8: Bushfire Management Zones



MAP 4: VEGETATION THRESHOLD ANALYSIS

Threshold	Vegetation Group	% of SCA	Interpretation & Management Guidelines
Overburnt	50	8	According to the vegetation regime thresholds, consecutive fires have been recorded too close together and the area is Overburnt. Additional fire in this area will lead to adverse fire regimes and may threaten community biodiversity. Local extinctions predicted if burnt again within the life of this plan.
Vulnerable	17, 24, 49, 50	44	These vegetation communities are vulnerable to a loss of biodiversity if burnt again within the life of this plan.
Recently burnt	17, 24, 49, 50	6	Time between fires is less than the threshold intervals. It will be vulnerable if it burns within the life of this plan.
Underburnt	N/A	0	Fire may be introduced for Asset protection, strategic or ecological reasons if area does not burn after 2008. No area within the SCA is currently identified in this category.
Almost Underburnt	N/A	0	Fire may be introduced in 2008, either for Asset protection, strategic or ecological reasons. Otherwise the area will fall into the Underburnt Category after 2008. No area within the SCA is currently identified in this category.
OK	17, 24, 49, 50	42	Areas where thresholds have been assigned to, that do not fall into one of the above categories. Fire is neither required or to be avoided.
Unknown/ No Regime Assigned	193, 199	<1	Areas that do not have a threshold assigned them or data is missing, limiting the modelling capabilities in DECC GIS.

Note: The threshold analysis is derived from vegetation community thresholds and recorded fire history (including fire frequency and intervals). All vegetation communities should be monitored and planned fire should only be applied for asset protection, strategic fuel management and ecological reasons.

In the event of fire in this reserve, the vegetation threshold analysis would have to be performed again to determine new threshold values.

MAP 4: BUSHFIRE BEHAVIOUR POTENTIAL

Vegetation Fuel Hazard Rating (under moderate conditions in mature vegetation communities)

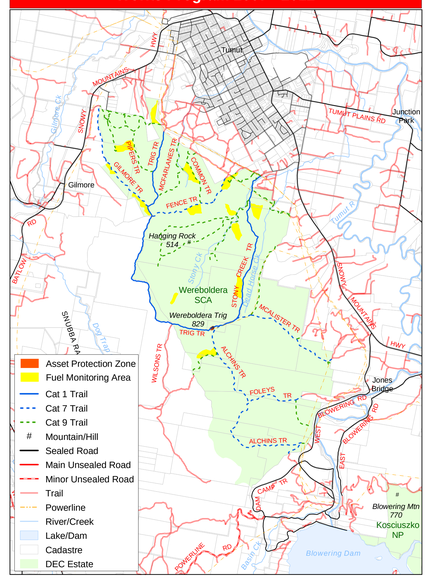
Rating	Vegetation Type	Hectares	% of SCA
Low	Natural Vegetation - Partially Cleared	5.6	<1%
Medium	Narrow Leaved Peppermint & Blue Gum - Moist Grass/Forb Forest Apple Box & Nortons Box - Moist Grass Forest Nortons Box & Red Box Open Forest Brittle Gum & Broad Leaved Peppermint - Poa Grass Forest *Blakely's Red Gum & Callitris Pine - Flax Lilly Open Forest *Blakely's Red Gum/Apple Box & Yellow Box - Grass/Forb Forest *Nortons Box & Red Box - Flax Lilly/Tussock/Grass Open Forest *Wattle Shrubland - Secondary	1830.4	80%
High	Brittle Gum & Broad Leaved Peppermint - Poa Grass Forest	427	19%
Very High	Nil recorded		

*Vegetation communities recorded off park included in the bushfire behaviour modelling, to identify landscape fire behaviour potential.

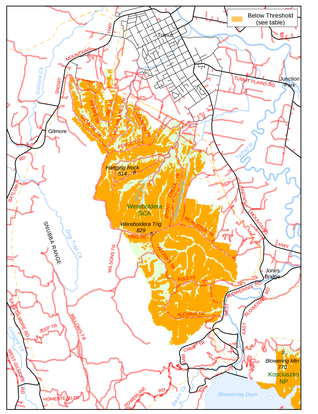
Aspect Bushfire Behaviour		Slope Bushfire Behaviour	
Rating	Aspect in degrees	Rating	Slope in degrees
Low	40 - 180	Low	0 - 10 degrees
Medium	10 - 40 & 180 - 210	Medium	11 - 20 degrees
High	190 - 240 & 340 - 10	High	20 -30 degrees
Very High	240 - 340	Very High	>30 degrees

MAP 5: BUSHFIRE BEHAVIOUR POTENTIAL

Works Program 2007 - 2012



6: Landscape Thresholds



MAP 6: LANDSCAPE THRESHOLDS

*Slope Class	*Min. Fine Fuel Range in T/Ha	Erosion Potential
0-10°	3-5	- Based on the modelled fuel loads and slope classes, 77% (1754 ha) of the SCA has fuel cover less than that required to maintain soil and slope stability. Fine fuel ranges below the recommended levels for each slope class are expected to decrease slope stability, increase erosion potential, reduce water quality and potentially reduce vegetation recovery.
10-15°	4-7	
15-20°	10-12	
20-25°	12-14	
25-30°	16-18	
>30°	>20	

Threshold & Impacts

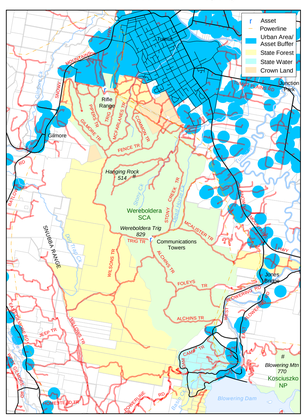
- Water quality may be compromised by soil disturbance and silt run off after fire and this may have impacts on amphibians or other organisms in drainage lines.
- Fine fuels potentially reduce moisture loss in soils during drier summer periods.
- Fuel decomposition after disturbance may decrease after fire (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 effect soil and micro-organism activity.
- Fine fuel ranges below the recommended tonnes per hectare for the corresponding slope class are expected to increase slope instability, affect water quality and may affect some vegetation propagation.

Fire Management Guidelines

Where possible:
- Avoid fire in areas where the fine fuel range does not meet the corresponding slope class thresholds.
- Avoid trail construction on slopes >25 degrees.
- If hazard reduction burning, ensure burn areas are strategically implemented across the landscape so that large areas and slopes are not left exposed.
- 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 Action Plan.

*Recommended fuel range based on Good, R.B (1994) Fuel Dynamics, Preplan and future research needs. Chapter 23 pp 253 - 266. In: *Fire and Biodiversity. The Effects and Effectiveness of Fire Management.* Biodiversity Series No 8. Dept of Environment, Sport and Territories, Canberra.

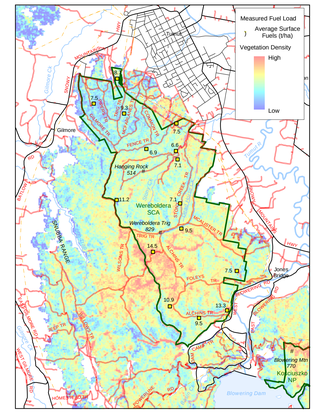
7: Risk Assessment - Property



MAP 7: RISK ASSESSMENT - LIFE & PROPERTY

Asset	Vulnerability & Impacts	Fire Management Guidelines & Considerations
Wereboldera Trig Site Communications Towers	- Towers and building structures are located on the southern side of Trig Trail on the top of steep slopes (>18°) on an east-west facing ridgeline. - Modelled fuels to the south are high (low to moderate to the north) and bushfire behaviour potential moderate to high to the north (low to moderate in the south). - The asset is vulnerable from fire either side of Trig Trail, although the most severe conditions would be from fire approaching the asset from the west to north west under the influence of high NW'ly winds.	- Maintain APZ around the asset extending 30m from the outer perimeter fence of assets. Keep fuels between 6 to 8 t/ha. Keep shrubs below 50cm in height within 30m of asset and remove overhanging trees, limbs or debris. - Maintain access along Stony Creek Trail to a standard for Category 1 vehicles. - Maintain all other SCA trails to the standard identified on the operations map or as prescribed under the Plan of Management. - During the fire season rapidly respond to all unplanned fires to minimise potential spread to private lands.
Other Assets (including State Forest, private property and other lands adjacent to the reserve)	- Modelled fuels and bushfire behaviour potential vary across the landscape. Generally, bushfire behaviour and fuels are moderate to high in the south and low to moderate in the north. - Fire management issues off the SCA are managed through the Bushfire Management Committee. All potential risks to these assets are addressed through the Bushfire Management Committee. - Coordinated programs on all lands may reduce adverse risks to assets.	- Maintain access trails and firebreaks within the SCA that will assist in fire fighting efforts. - Participate in fire management through RFS Zone Bush Fire Management Committee meetings. - During the fire season rapidly respond to all unplanned fires to minimise potential spread to private lands. - Consult with neighbours of intended fire operations and strategic programs.

9: Fuel Landscape



MAP 9: FUEL LANDSCAPE

Recorded Fine Surface Fuels (2004)	T/ha	Notes
Minimum Fuels (April 2004)	6.6	Vegetation Group 24.
Maximum Fuels (April 2004)	14.5	Vegetation Group 17.
Average Fuels (April 2004)	9.1	73% of sites measured under 10 t/ha.
Modelled Total Fuels	**T/ha**	**Notes**
Minimum Fuels	3.1	Data based on 15 fuel sites within Wereboldera SCA (75 destructive samples). Recorded data is used to determine the relationship of fuel sites with NDVI (Vegetation Index) from LANDSAT imagery (2004) to calculate vegetation density across the landscape.
Maximum Fuels	17.6	
Average Fuels	8.2	
Fuel Landscape Analysis		

Of the 15 sites that were a part of the destructive fuel sampling process (n = 75), 100% recorded average dry fine fuels between 8-15 t/ha. At the same time the destructive sampling was conducted, the Overall Fuel Hazard Guide (NRE 1998) was used to compare destructive sampling data and analyse the measuring system for rapid fuel and hazard assessment. The visual assessment indicates 87% of the 15 sites sampled were between 8-15 t/ha.

The landscape fuel analysis identifies 50% of the SCA with fuels averaging between 8-15 t/ha. Using the data extrapolated from the fuel landscape model, approximately 49% of the SCA fuels are below 8 t/ha. Fuel loads conform to levels prescribed for strategic fuel management zones (8-15t/ha for 60-80% of zone), a comparatively moderate level of threat to adjoining land (RFS, July 1998). With this in mind, these fuel loadings are still sufficient to carry a wildfire across the landscape, depending on weather patterns and conditions.

Vegetation group 17 had modelled average fuels of 10.1 t/ha (maximum of 17.5 t/ha), where 87% of fuels were between 8-15 t/ha. Destructive fuel sampling sites recorded an average of 11 t/ha, where the maximum record was 14.5 t/ha. These fuels are associated with moist vegetation communities on south east to south westerly aspects or gully lines in the southern part of the SCA. Ladder fuels (grass and aerial fuels) contribute approximately 60% of the overall fuels recorded in this community.

Vegetation group 49 had modelled average fuels of 8.8 t/ha (maximum of 16.3 t/ha), 27% of fuels modelled were under 8 t/ha (72% between 8 - 15 t/ha). Destructive sampling recorded averages of 10.8 t/ha (maximum of 13.3 t/ha). This community has a patchy grass understorey and sparse shrub cover. Steep slopes and northerly facing aspects will drive more intense fires under high to severe fire weather conditions even where fuels are considered low.

Vegetation group 50 had modelled average fuels of 7.9 t/ha (maximum of 17.6 t/ha), 42% of fuels were between 8-15 t/ha (57% were <8 t/ha). Destructive sampling recorded averages of 9.1 t/ha (maximum of 14.5 t/ha). This community has a grassy understorey with a sparse cover of shrubs, which contribute minimally to potential ladder (structural) fuels. Under low to moderate weather conditions, fire should be controllable in these vegetation communities. The steep slopes and northerly facing aspects will drive more intense fires where weather conditions are high to severe.

The benefits of visual fuel monitoring and applying the relationship with NDVI (infra red and near infra red) is a cost effective means to measure landscape fuels, proving invaluable in assessing the vegetation fuel and structure across the SCA, rather than data restricted to isolated sites. Where destructive fuel sampling and visual assessments were collected, the SCA recorded a moderate to high fuel hazard. When the destructive and visual data is used in conjunction with NDVI and overlaid with Bushfire Behaviour potential, it provides managers with potential areas for management programs to reduce risk. It also indicates areas of potential erosion or degradation if inappropriate management is implemented.

Fuel monitoring sites with photographic references have been established in the Park to monitor landscape fuel and vegetation conditions. Environmental conditions and vegetation structure will change and these established fuel sites will, if monitored regularly, provide long term data to develop managements understanding of the complexity of the fuel landscape. It will also provide data to revise fuel maps and fire management zones.

MAP 8: BUSHFIRE MANAGEMENT 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. These areas monitor the affects of fuel management programs, and vegetation responses to fire regimes (particularly imposed regimes) and provide information required to determine increases in available fuels.	- Monitor as per fuel monitoring program to identify changes in the fuel landscape, which may indicate an increase or decrease in risk. - Monitor to improve management knowledge of ecological responses and health and identify undesirable changes in vegetation communities. - Where fuels exceed 15t/ha, quantify fuel landscape and consider fuel management program initiation.

WORKS PROGRAM

Asset	Priority	Name, Area or Detail	Management Strategy	Proposed Works
Reserve Trails	High	- Stony Creek Trail - Trig Trail	- Maintain management trails for safe 4WD access for Cat 3 vehicles. - All trails to be clearly signposted at intersections and trailheads.	- Assess annually. - Initiate maintenance programs and works as required, or as specified in Regional Operations Plan. - Ensure all trails are clearly signposted at intersections and trailheads.
	Medium	- Gilmore Trail - Fence Trail - McAlister Trail - Alchins Trail - Foley's Trail (to reserve exit)	- Maintain management trails for safe 4WD access for Cat 7 vehicles. - All trails to be clearly signposted at intersections and trailheads.	
	Low	- Other reserve trails	- Maintain management trails for safe 4WD access for Cat 9 Vehicles. - All management trails to be clearly signposted at intersections and trailheads.	
Asset Protection Zone	High	Communications tower.	- Management of APZ in accordance with RFS and Planning NSW document 'Planning for Bushfire Protection' and NSW NPWS 'Strategy for Fire Management'.	- Maintain access to asset. - Maintain Zones as out lined in Planning NSW document 'Planning for Bushfire Protection'.
Prescribed Fire	Medium	Isolated creeklines throughout the SCA.	- Application of fire for noxious weed management program. - Other fuel management (prescribed burning) programs will be considered when fuels exceed 15t/ha as identified in Fuel Monitoring Area Guidelines.	- Use in conjunction with blackberry gully line control programs throughout SCA using fire to remove dead wood. - Follow fuel monitoring (information research) program & monitor FMA's in accordance with management guidelines.
Information & Research	Medium	Fuel (Vegetation) monitoring.	- Maintain established fuel and photographic monitoring sites, especially in areas targeted for applied fire (ie. Prescribed burning, weed control etc).	- Every 2 years & after fire (recovery monitoring). - Install monitoring sites (including photographic records) where prescribed fire is implemented & monitor vegetation responses and impacts.