

TABLE 1 - Conservation value of the native vegetation communities in the Meehan Range region

TASVEG COMMUNITY Version 1.0	TASVEG Code V 0.1	STATE ¹	SOUTH EAST BIOREGION ¹
WGL - <i>Eucalyptus globulus</i> wet forest	- mapped in R	Not formally assessed but likely to be significant (vulnerable?) ²	Not formally assessed but likely to be significant (vulnerable?) ²
DAM - <i>Eucalyptus amygdalina</i> forest and woodland on mudstone	- subsumed in AI	Not threatened	Not threatened
DAS - <i>Eucalyptus amygdalina</i> forest and woodland on sandstone	AS	Vulnerable	Vulnerable
DGL – <i>Eucalyptus globulus</i> dry forest and woodland	GG	Vulnerable	Vulnerable
DOB - <i>Eucalyptus obliqua</i> dry forest and woodland	O	Not threatened	Not threatened
DOV – <i>Eucalyptus ovata</i> forest	OV	Endangered	Endangered
DPU – <i>Eucalyptus pulchella</i> forest and woodland	P	Not threatened	Not threatened
DRI – <i>Eucalyptus risdonii</i> forest and woodland	RI	Rare	Rare
DTO – <i>Eucalyptus tenuiramis</i> forest and woodland on sediments	TI	Vulnerable	Vulnerable
DVG – <i>Eucalyptus viminalis</i> grassy forest and woodland	V	Not threatened	Vulnerable
NAV - <i>Allocasuarina verticillata</i> forest	AV	Not threatened	Not threatened
NBA– Scrubby Bursaria - Acacia woodland and scrub	Tz	Not threatened	Not threatened
GCL – Lowland Grassland Complex	Gn	Not threatened	Not threatened
GPL – Lowland <i>Poa labillardierei</i> grassland	Gl	Endangered	Not threatened
GRP – Rock plate grassland	- subsumed in Gn	Not formally assessed but likely to be significant (vulnerable?) ²	Not formally assessed but likely to be significant (vulnerable?) ²

1 – CARSAG 2003 using equivalent old TASVEG mapping units, CARSAG 2004, DPIWE 2005

2 – These have been included in the TASVEG Manual (Harris & Kitchener 2005) but have not been translated into the TASVEG map v1.0 so have not been assessed.

TABLE 3 - Plant species of conservation value in the Meehan Range region

SPECIES	CONSERVATION STATUS ¹	OCCURRENCE ²	RESPONSE TO FIRE AND MANAGEMENT
<i>Arthropodium strictum</i> chocolate lily	rare	Localised occurrences on lower slopes in southern part of Meehan Range.	Noticeable flush of regeneration from seed following fire. Plants also regenerate from tuberous rootstock.
<i>Austrodanthonia induta</i> tall wallaby grass	rare	Widespread throughout open woodland vegetation on all aspects, typically associated with mudstone but occasionally other substrates including dolerite.	Likely to regenerate from rootstock and establish from seed.
<i>Austrostipa bigeniculata</i> rough spear grass	rare	Single records from south of study area. A species of native grassland and grassy woodland.	Likely to regenerate from rootstock and establish from seed.
<i>Austrostipa blackii</i> spear grass	rare	Single record from native grassland near Rocky Tom. A rarely recorded species of native grassland.	Likely to regenerate from rootstock and establish from seed.
<i>Austrostipa nodosa</i> spear grass	rare	Occasional in north of study area. A species of native grassland.	Likely to regenerate from rootstock and establish from seed.
<i>Carex tasmanica</i> curly sedge	VULNERABLE	Scattered records from low lying grassy sites and drainage lines.	Likely to regenerate from rootstock and establish from seed.
<i>Eryngium ovinum</i> blue devil	endangered	Localised to moderately drained grassy sites in Flagstaff Gully and an un-named drainage line close to the eastern boundary.	Regenerates after medium intensity fire from rootstock.
<i>Eucalyptus risdonii</i> risdon peppermint	rare	Widespread across the Meehan Range on dry north west facing ridges and slopes on Permian mudstone. This species intergrades with silver peppermint – <i>E. tenuiramis</i> in some stands. The Meehan Range captures a significant proportion of the population of this species.	Regenerates from lignotubers. Repeated fires may weaken trees. Fire promotes seed release and subsequent germination.
<i>Haloragis heterophylla</i> variable raspwort	rare	Occasional records from low lying grassy sites.	Likely to regenerate from rootstock and establish from seed.
<i>Hyalosperma demissum</i> moss sunray	endangered	Historic records only from area. This is a species of grassy crests and rockplates.	Annual; likely to regenerate from seed.

SPECIES	CONSERVATION STATUS ¹	OCCURRENCE ²	RESPONSE TO FIRE AND MANAGEMENT
<i>Juncus amabilis</i> gentle rush	rare	Widespread in low lying flats and drainage lines, often within open paddocks. Limited habitat potential within Meehan Range of any forested areas within study area.	Regenerates from rootstock.
<i>Lepidium pseudotasmanicum</i> shade peppergrass	rare	Widespread across the Meehan Range in a variety of habitats.	Regenerates, sometimes prolifically, from seed after fire.
<i>Lobelia rhombifolia</i> branched lobelia	rare	Single record from <i>E. viminalis</i> / <i>E. amygdalina</i> grassy woodland.	Regenerates from rootstock.
<i>Olearia hookeri</i> hookers daisy bush	rare	Localised to the Redgate section of the Meehan Range.	Adult plants likely to be killed by fire. Likely to regenerate from wind blown seed from nearby unburnt plants. Therefore important to plan burns so as to not affect entire population.
<i>Ranunculus sessiliflorus</i> annual buttercup	rare	Widespread in forest and woodland.	Annual; likely to regenerate from seed.
<i>Scleranthus fasciculatus</i> spreading knawel	vulnerable	Occasional records from vicinity of Mt Rumney and Breakneck Hill. A species of open grassy woodland and native grassland.	Likely to regenerate from seed.
<i>Teucrium corymbosum</i> forest germander	rare	Localised records from the crest of Craigow Hill. Potential habitat on other rocky dolerite slopes and crests.	Known to proliferate after fire from seed.
<i>Velleia paradoxa</i> spur velleia	vulnerable	Localised record from boundary of study area at Flagstaff Gully.	Sets seed in second year from seedlings/rootstocks and disperses seed in summer. Plan burns in autumn to allow plants to seed and provide completion free seedbed and possible moisture to support seedling into winter.
<i>Vittadinia muelleri</i> narrow leaf new holland daisy	rare	Occasional records from rockplates close to study area with a substantial population near Clarendon Vale.	Regenerates from seed.

SPECIES	CONSERVATION STATUS ¹	OCCURRENCE ²	RESPONSE TO FIRE AND MANAGEMENT
<i>Xanthorrhoea australis</i> Grasstree	-	Localised records from Craigow Hill and Basin Hills north of study area.	Fire stimulates the production of the massive flowering spike. However very hot fires or overfrequent burning damages mature plants. Highly susceptible to Phytophthora and so fire trails and runoff should be diverted around populations.

1 - lower case - Tasmanian *Threatened Species Protection Act 1995*, UPPER CASE - Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

2 - GT Spot - DPIWE biological records database <http://www.gisparks.tas.gov.au/>.

TABLE 4 - Fauna species of conservation value in the Meehan Range region

SPECIES	CONSERVATION STATUS	HABITAT AND PREFERRED FIRE MANAGEMENT
Mammals		
Eastern Barred Bandicoot <i>Perameles gunnii</i>	VULNERABLE	Favoured habitat is grasslands (both native and introduced) and grassy woodlands. Habitats supporting open grassy areas with plenty of dense patches of low vegetation for cover – eg low shrubs, tussocks etc. Dense cover of regrowth is likely to be unsuitable habitat. Mosaic burning will ensure open habitats are maintained and help mitigate devastating wildfires.
Tasmanian Bettong <i>Bettongia gaimardi</i>	Not listed but 'requires monitoring' ²	Widespread and well represented in dry sclerophyll forest. Research suggests that activity at a site usually increases immediately following a fire but subsequently declines as the dense regrowth provides less favourable habitat (Driessen et al 1991). The relationship between Bettong abundance and fire is not clear-cut and it has been suggested that frequent firing of habitat will cause a long-term decline in the species richness and abundance of soil fungi (Johnson, 1997). These fungal species are associated with the litter layer and organic matter near the soil surface and are thus sensitive to fire. Fire is thought to synchronise fruiting cycles within populations of fungi so that they trigger a pulse sporocarp production and this is followed by years of low sporocarp production (Johnson, 1997). Management should aim to maintain a diversity of fire age classes in dry forests ensuring both a spatial and temporal mosaic. Initiate measures to reduce the impact of large wildfires.
Birds		
Wedge-tailed Eagle <i>Aquila audax fleayi</i>	endangered ENDANGERED	This species requires large mature eucalypts in which to construct nests which are typically located in a forest matrix on wind protected sites, typically leeward slopes or often close to heads of gullies (Mooney & Holsdworth 1991), Brown & Mooney 1997). Nest sites are known from locations south of Eagle Hill, south of Guy Fawkes Hill and north of Stanfields Hill. Management should aim to reduce the threat of devastating wildfires to nest trees. It should also aim to avoid management burns in their vicinity. Any prescribed burning within 50 m of a nest tree should only take place outside the nesting season (July to January).

SPECIES	CONSERVATION STATUS	HABITAT AND PREFERRED FIRE MANAGEMENT
Masked Owl <i>Tyto novaehollandiae</i>	Endangered	<p>This species requires large hollows for nesting.</p> <p>There is a record of a nest in the Mount Rumney area, and there are likely to be other nest sites on the Meehan Range.</p> <p>Overfrequent fires lead to loss of large trees with hollows suitable for nests, although occasional fires can help in the creation of hollows.</p>
Swift Parrot <i>Lathamus discolor</i>	Endangered ENDANGERED	<p>Nests in hollows in old growth eucalypts (Brereton, 1997). Known to nest on the Meehan Range east of Pilchers Hill, on Craigow Hill, Guy Fawkes Hill and likely to nest elsewhere.</p> <p>Known to forage in several areas on the Meehan Range when suitable eucalypts are in flower. Blue Gums provide a preferred foraging habitat although Black Gums are recognised as being particularly important as an alternative nectar source.</p> <p>Management should aim to avoid crown damage to larger trees.</p>

1 -- lower case - Tasmanian *Threatened Species Protection Act 1995*, UPPER CASE - Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*

2 - Vertebrate Advisory Committee, 1994.

TABLE 5 - Fire management requirements of native plant communities in the Meehan Range region

TASVEG MAPPING UNITS ¹	PLANT COMMUNITIES INCLUDED ²	FIRE IMPACTS AND FIRE MANAGEMENT AIMS
Wet sclerophyll forests		
WGL - <i>Eucalyptus globulus</i> wet forest	27. <i>E. globulus</i> wet sclerophyll forest 28. <i>E. viminalis</i> – <i>E. globulus</i> riparian forest	<p>Wet forest is localised on the Meehan Range and confined to narrow remnants in gullies and south-facing fire protected sites. Some of the typical wet forest component species now locally rare.</p> <p>Generally wet forest eucalypt species only regenerate following fire. Frequent extensive fires may eliminate fire sensitive species, and also species which only regenerate from seed following fire, if regenerating stands are burnt before there is adequate seed production.</p> <p>Extended fire intervals can result a single age class of eucalypts.</p> <p>Absence of fire for a period exceeding the life expectancy of particular eucalypt species can result in the local disappearance of those species. This is unlikely on the Meehan Range as the wet forest patches are small and narrow so that a local seed source is always present.</p> <p>Wet eucalypt forests are typically maintained by fires every 100-400 years.</p> <p>High fire sensitivity and moderate flammability – appropriate fire interval of 30-300 years. Suppress all fire giving highest priority to stands burnt in past 80 yrs (Pyrke & Marsden-Smedley 2005).</p> <p>Exclude fire for the duration of this strategy.</p> <p>Where possible reduce the intensity of wildfires in the vicinity of wet forest remnants.</p>
Shrubby dry sclerophyll forests		
DOB - <i>Eucalyptus obliqua</i> dry forest and woodland DGL – <i>Eucalyptus globulus</i> dry forest DOV – <i>Eucalyptus ovata</i> forest	26. Shrubby <i>E. obliqua</i> forest 25. Shrubby <i>E. globulus</i> forest 24. Shrubby <i>E. ovata</i> forest	<p>Shrubby forests are occasional on the Meehan Range and typically occupy south and east facing slopes.</p> <p>Fire controls the establishment of a dense shrubby understorey which would reduce light penetration to the ground layer. This can help maintain a diversity of heathy shrubs and herbs.</p> <p>Frequent fires, especially on siliceous soils, can encourage a dense bracken layer that suppresses other ground layer species.</p> <p>Low fire sensitivity and high flammability – appropriate fire interval 3-50 years. Suppression not usually an ecological priority except in specific situations (Pyrke & Marsden-Smedley 2005)</p> <p>Optimal fire interval for maintaining these communities is 15-25 years.</p> <p>Exclude fire from representative areas to provide controls for monitoring the effects of fire.</p>

TASVEG MAPPING UNITS ¹	PLANT COMMUNITIES INCLUDED ²	FIRE IMPACTS AND FIRE MANAGEMENT AIMS
Grassy dry sclerophyll forests/woodland		
DVG – <i>Eucalyptus viminalis</i> grassy forest and woodland DPU – <i>Eucalyptus pulchella</i> forest and woodland DGL – <i>Eucalyptus globulus</i> dry woodland DAM - <i>Eucalyptus amygdalina</i> forest and woodland on mudstone DAS - <i>Eucalyptus amygdalina</i> forest and woodland on sandstone DOV – <i>Eucalyptus ovata</i> woodland DTO – <i>Eucalyptus tenuiramis</i> forest and woodland on sediments. DRI – <i>Eucalyptus risdonii</i> forest and woodland	9. Grassy <i>E. viminalis</i> woodland/ forest 10. Grassy <i>E. pulchella</i> woodland/ forest 11. Grassy <i>E. globulus</i> forest 12a. Grassy <i>E. viminalis</i> - <i>E. amygdalina</i> forest/ woodland 13. Grassy <i>E. amygdalina</i> forest / woodland 14. Grassy <i>E. ovata</i> forest/ woodland 23. Sedgy <i>E. ovata</i> forest/ woodland 21. Grassy /shrubby <i>E. tenuiramis</i> forest 22. Grassy /shrubby <i>E. risdonii</i> forest/ woodland	<p>Widespread across the Meehan Range on a variety of substrates derived from dolerite, mudstone and occasionally sandstone. Fire frequency has influenced structural diversity so that some areas are represented by woodland and others by open forest.</p> <p>Infrequently burnt sites develop a dense shrubby understorey. Kangaroo Grass (<i>Themeda triandra</i>) can die out after an extended absence of fire, or other method of biomass reduction (Lunt & Morgan, 1998).</p> <p>Frequent fires (< 5 years) can inhibit tree regeneration and eliminate the shrubby component.</p> <p>Sites overlying dolerite and other more fertile soils have markedly more rapid rates of regeneration than low fertility soils derived from mudstone and sandstone.</p> <p>Overfrequent burning regimes within much of the forest overlying mudstones has contributed to loss of topsoil and erosion.</p> <p>Extended absence from fire can result in a build up of fuel causing hot and damaging burns.</p> <p>A temporal and spatial mosaic burning pattern would assist with tempering the effects of a devastating wildfire.</p> <p>Low fire sensitivity and high flammability – appropriate fire interval 3-50 years. Suppression not usually an ecological priority except in specific situations (Pyrke & Marsden-Smedley 2005).</p> <p>Optimal fire frequency is 5-20 years.</p> <p>Exclude fire from representative areas to provide controls for monitoring the effects of fire. Exclude fire from much of DAM, DTO and DRI.</p>
Dry scrub		
SHU-Inland heathland	-	<p>This is a heavily burnt slope on dolerite near Flagstaff Gully Quarry dominated by <i>Ozothamnus scutellifolius</i> which could as easily be attributed a scrub mapping unit. Likely to be originally derived from eucalypt woodland but the shallow soils inhibit its regeneration.</p> <p>Low fire sensitivity and very high flammability – appropriate fire interval 3-50 years. Suppression not usually an ecological priority except in specific situations (Pyrke & Marsden-Smedley 2005)</p> <p>Optimal fire frequency is 5-20 years.</p> <p>Exclude fire from representative areas to provide controls for monitoring the effects of fire.</p>

TASVEG MAPPING UNITS ¹	PLANT COMMUNITIES INCLUDED ²	FIRE IMPACTS AND FIRE MANAGEMENT AIMS
Heathy dry sclerophyll forests		
DAS - <i>Eucalyptus amygdalina</i> forest and woodland on sandstone	19. Heathy <i>E. amygdalina-Allocasuarina littoralis</i> forest	<p>Heathy forest is confined to some siliceous substrates typically associated with Triassic sandstone within the Meehan Range.</p> <p>Fire controls the establishment of a dense shrubby understorey which would reduce light penetration to the ground layer. This can help maintain a diversity of heathy shrubs and herbs.</p> <p>Frequent fires encourage a dense bracken layer that can suppress other ground layer species.</p> <p>Fire provides an opportunity for fire dependent species to germinate.</p> <p>Low fire sensitivity and high flammability – appropriate fire interval 3-50 years. Suppression not usually an ecological priority except in specific situations (Pyrke & Marsden-Smedley 2005).</p> <p>Optimal fire interval for maintaining these communities is 15-25 years.</p> <p>Exclude fire from representative areas to provide controls for monitoring the effects of fire.</p>
Non eucalypt woodland		
NBA– <i>Bursaria - Acacia</i> woodland and scrub	8. Grassy <i>Acacia mearnsii</i> woodland	<p>This community is typically derived from eucalypt woodland. It is a degradation phase often associated with extended periods of moderate to high intensity grazing. Some areas occupy sites that have been previously cleared for pasture but reduced or absenteeism from grazing has allowed shrubs to recolonise.</p> <p>Fire regimes will influence the nature of regeneration. Important to allow for a period of absence from fire where eucalypts can re-establish if desired.</p> <p>Low fire sensitivity and high flammability – appropriate fire interval 3-50 years. Suppression not usually an ecological priority except in specific situations (Pyrke & Marsden-Smedley 2005)</p> <p>Optimal fire frequency is 5-20 years.</p> <p>Exclude fire from representative areas to provide controls for monitoring the effects of fire.</p>

TASVEG MAPPING UNITS ¹	PLANT COMMUNITIES INCLUDED ²	FIRE IMPACTS AND FIRE MANAGEMENT AIMS
She oak forest		
NAV - <i>Allocasuarina verticillata</i> forest	7. She-oak forest / woodland	<p>Localised in the Meehan Range on dry steep rocky slopes on dolerite.</p> <p>Fire will kill saplings under 5 years of age but mature plants are able to coppice from lignotubers. Low intensity burning will not eliminate mature established she oaks.</p> <p>Frequent fires (< 5 year intervals) will suppress she oak colonisation (Kirkpatrick & McDonald, 1996).</p> <p>Infrequent fires (> 20 year intervals) allow a dense canopy to form that may exclude the grassy component (Kirkpatrick & McDonald, 1996) plus many of the constituent herb species.</p> <p>Grassy sites require fire at least every 10 years to maintain an open canopy. Rocky sites are difficult to burn and do not require fire (Kirkpatrick & McDonald, 1996).</p> <p>Low fire sensitivity and moderate flammability – appropriate fire interval 3-50 years. Suppression not usually an ecological priority except in specific situations (Pyrke & Marsden-Smedley 2005)</p> <p>Optimal fire frequency is 15-25 years.</p> <p>Exclude fire from representative areas to provide controls for monitoring the effects of fire.</p>
Native Grassland		
GRP – Rock plate grassland GCL – Lowland Grassland Complex GPL – Lowland <i>Poa labillardierei</i> grassland	6. Native grassland	<p>Confined to hilltops and crests and other localised sites where underlying bedrock breaks the surface inhibiting colonisation by trees and shrubs.</p> <p>Low biomass is maintained through summer droughting.</p> <p>Fire intervals > 5 years may lead to a loss of biodiversity in grassy sites (Lunt & Morgan, 1988) and facilitate colonisation by shrubs and trees.</p> <p>Frequent fires (< 5 year intervals) may lead to a loss in diversity of invertebrates.</p> <p>Low fire sensitivity and high flammability – appropriate fire interval 3-50 years. Suppression not usually an ecological priority except in specific situations (Pyrke & Marsden-Smedley 2005).</p> <p>Optimal fire frequency is 5-10 years.</p>

TASVEG MAPPING UNITS ¹	PLANT COMMUNITIES INCLUDED ²	FIRE IMPACTS AND FIRE MANAGEMENT AIMS
Other		
FAG – Improved pasture FRG – Regenerating cleared land FPE – Permanent easements FUM – Extra urban miscellaneous FUR – Urban areas OAQ – Open Water	-	In areas once used for stock grazing fires can maintain pasture at the expense of native colonisers such as Sagg (<i>Lomandra longifolia</i>) and native shrubs. Mowing and slashing are likely to be preferable methods of fuel reduction in and around infrastructure. Fire and smoke can cause damage to electricity transmission lines. Exclude fire for the duration of the plan.

1 – TASVEG 2004

2 – (As mapped on the CCC Vegetation Map) Clarence City Council, 1997

TABLE 6 - Fire protection of public infrastructure assets in the Meehan Range region

ASSETS AT RISK	GRID REFERENCE	RESPONSIBLE AUTHORITY/ COMPANY	FINE FUEL LOAD IN ADJACENT VEGETATION	FIRE APPROACH	COMMENTS AND RECOMMENDED FIRE PROTECTION MEASURES
Communications infrastructure on Mount Rumney	531090 5254570	Tasmania Fire Service, Air services Australia & others	medium	upslope	<ul style="list-style-type: none"> • Good protection afforded by access road and car park. • Power line poles will probably burn during a wildfire. • Maintain a minimum 10 m wide cleared area around building. • Screen vents to prevent entry of burning embers if flammable material in buildings.
Communications infrastructure on Guy Fawkes Hill	537390 5253910	Hydro Tasmania, various private	medium	upslope	<ul style="list-style-type: none"> • Buildings are brick or steel clad. • Power line poles will probably burn during a wildfire. • Maintain minimum 10 m wide cleared area around buildings. • Screen vents to prevent entry of burning embers if flammable material in buildings.
Mobile phone tower on Breakneck Hill	5257990 535340	Telstra	low	upslope	<ul style="list-style-type: none"> • Buildings are steel clad. • Power line poles will probably burn during a wildfire. • Maintain minimum 5 m wide cleared area around buildings. • Screen vents to prevent entry of burning embers if flammable material in buildings.
Mobile phone tower near Belbins Road	534120 5256540	Crown Castle	medium	upslope	<ul style="list-style-type: none"> • Buildings are steel clad. • Power line poles will probably burn during a wildfire. • Maintain minimum 5 m wide cleared area around buildings. • Screen vents to prevent entry of burning embers if flammable material in buildings.
Mobile phone tower on Stanfields Hill	538190 5250720	Crown Castle	low	upslope	<ul style="list-style-type: none"> • Building is steel clad. • Power line poles will probably burn during a wildfire. • Maintain minimum 5 m wide cleared area around building. • Screen vents to prevent entry of burning embers if flammable material in building.
Risdon Vale substation	528560 5258570	Transend	low	upslope	<ul style="list-style-type: none"> • Surrounded by grassland. • Area around buildings and transformers well managed. • Maintain minimal vegetation within 20 m of buildings and equipment.

ASSETS AT RISK	GRID REFERENCE	RESPONSIBLE AUTHORITY/ COMPANY	FINE FUEL LOAD IN ADJACENT VEGETATION	FIRE APPROACH	COMMENTS AND RECOMMENDED FIRE PROTECTION MEASURES
Pistol Range	531610 5256720	Sporting Shooters Association	low	downslope	<ul style="list-style-type: none"> Facilities include a shooting shed and a toilet block. Range is regularly mown Maintain 10 m wide mown area around buildings.
Archery Range	534450 5258350	Taroona Archery Club	medium	downslope	<ul style="list-style-type: none"> Targets scattered over a large area No buildings or other infrastructure More cost effective to budget for replacement of targets after fire than to protect.
High voltage power lines (steel stanchions)	NA	Transend	variable	variable	<ul style="list-style-type: none"> May be damaged by high intensity fires. Power lines are a potential source of ignition. Maintain power line easements and power lines in good condition.
Low voltage power lines (wooden poles)	NA	Aurora	variable	variable	<ul style="list-style-type: none"> Poles are likely to be damaged or lost during a major bushfire. Power lines are a potential source of ignition. Maintain power line easements and power lines in good condition.

TABLE 7 - Condition and maintenance of emergency vehicle access routes on the Meehan Range**Classification code:**

- trail width; 1w - single lane, 2w - double lane
- trail access; alt - alternative access, dead - dead end
- fire service tanker type; L - light tanker only, H - light and heavy tanker.

Maintenance priority:

- High priority - major through routes and fire control lines
- Medium priority - important link routes and fire control lines
- Dormant access routes do not require maintenance between uses for fire management purposes unless major erosion occurs, therefore they have not been included in this table. Dormant access routes should be assumed non-trafficable, unless maintained for other purposes.

The classification code describes the suitability of the emergency vehicle access route if properly maintained, not necessarily its condition at the time of inspection.

TRAIL Ref. No.	CODE	MAINTENANCE PRIORITY	LOCATION AND CONDITION AT SEPTEMBER 2005	ACTION REQUIRED
MR1	1w/alt/H	High	Runs through the defendable space on the northern and eastern side of Risdon Vale. Trail is trafficable but has a rough surface of the eastern side of Risdon Vale.	Improve trail surface by removing loose rocks and stone and smoothing rough sections. Improve drainage to prevent water running down the trail.
MR2	1w/alt/H	High	Runs from Downhams Road to the junction of route MR3 and MR29. Trail is in reasonable condition but becoming overgrown. Currently partly blocked by a fallen tree.	Remove fallen trees and clear encroaching vegetation off the trail.
MR3	1w/dead/L	High	Runs along the top of Basin Hills from the junction of MR2 and MR29. Southern end of the trail is in reasonable condition northern end is rough and eroded. Route is currently a dead end but should be connected through to Grasstree Hill Road.	Repair eroded section and improve drainage to prevent water running down the trail when it can be connected through to Grasstree Hill road.
MR4	1w/alt/H	High	Runs from Downhams Road to the quarry at the end of Flagstaff Gully Road. Trail is trafficable, northern section is in good condition, southern section is rough with loose surface and poor drainage.	Improve trail surface by removing loose rocks and stone and smoothing rough sections. Repair eroded section and improve drainage to prevent water running down the trail.

TRAIL Ref. No.	CODE	MAINTENANCE PRIORITY	LOCATION AND CONDITION AT SEPTEMBER 2005	ACTION REQUIRED
MR5	1w/alt/H	High	<p>Runs from Downhams Road to the Flagstaff Gully Link via Flagstaff Hill.</p> <p>Trail is trafficable but condition is variable. Northern section to junction with MR27 is in reasonable condition, section from the junction with MR27 to Rocky Tom is rough and stony, southern section down to Flagstaff Gully Link has a reasonably good surface but is overgrown.</p>	<p>Improve trail surface by removing loose rocks and stone and smoothing rough sections.</p> <p>Clear encroaching vegetation off overgrown southern section.</p> <p>Repair eroded section and improve drainage to prevent water running down the trail.</p>
MR6	1w/alt/H	High	<p>Links MR5 and MR7 via Eagle Hill.</p> <p>Western section of the trail in reasonable condition but with some rough sections, eastern section in good condition.</p> <p>Currently not usable as a through road as there is no gate in the Meehan Range SRA fence.</p>	<p>Repair eroded section and improve drainage to prevent water running down the trail.</p> <p>Install a new gate in Meehan Range SRA boundary on Eagle Hill.</p>
MR7	1w/alt/H	High	<p>Runs from the end of Kings Road, over Craigow Hill to the end of Hobdens Road.</p> <p>Northern section of the trail is a property access road and is in good condition. The section of the trail over Craigow Hill is hard to find in places and blocked by fallen trees, though the surface is good and the trail is stable. The southern portion of the trail along Cross Rivulet is overgrown.</p>	<p>Clear overgrown sections of the route, and remove fallen trees and branches blocking the trail.</p> <p>Provide markers to indicate the route of the trail on Craigow Hill.</p>
MR8	1w/alt/H	High	<p>Runs from MR5 to Hobdens Road via Simmons Hill and Golden Hill.</p> <p>Eastern end of trail accessible though the yard of a house on Hobdens Road, alternatively an access and gate onto Hobdens Road will be required.</p> <p>Trail generally in good condition though western end is becoming overgrown and the eastern end down Golden Hill is rough and eroded.</p>	<p>Improve trail surface by removing loose rocks and stone and smoothing rough sections.</p> <p>Clear encroaching vegetation off overgrown southern section.</p> <p>Repair eroded section and improve drainage to prevent water running down the trail.</p> <p>Negotiate with landowner regarding access to the eastern end of the trail.</p>
MR9	1w/alt/H	High	<p>Runs from MR8 to Belbins Road via Tunnel Hill.</p> <p>Trail is in reasonable condition with some rough stony sections.</p>	<p>Remove loose stones and smooth rough sections of the trail.</p> <p>Negotiate with the landowner to ensure suitable gates and emergency access to Belbins Road.</p>

TRAIL Ref. No.	CODE	MAINTENANCE PRIORITY	LOCATION AND CONDITION AT SEPTEMBER 2005	ACTION REQUIRED
MR10	1w/alt/L	Medium	Runs from Mount Rumney Road to Grahams Road. Northern and southern sections of the trail are also access driveways. Road is steep with sharp bends and is only suitable for light tankers.	Negotiate with landowners to keep trail open. Provide a gate if desired by landowners.
MR11	1w/alt/H	High	Runs from the end of Mount Rumney Road to Acton Court. Trail is in good condition though there is a rough section near the bottom of the hill. This trail provides the only easily accessible emergency access route to the southern end of Mount Rumney Road and the only emergency evacuation route for residents.	Inspection and maintenance as required (MP 2).
MR12	1w/alt/H	High	Runs from Mount Rumney Road to the end of Houston Drive. Provides an evacuation route for residents on the northern end of Mount Rumney Road. Trail is trafficable though condition is variable.	Bring trail up to standard in MP 1 including drainage and resurfacing. Install a suitable gate at the northern end of the trail.
MR13	1w/alt/H	High	Runs from MR11 to MR14 along the top of the Meehan Range. Trail is currently blocked by fallen trees. Trail surface is in reasonable condition except for the southern end where the original route of the trail has been cut off by excavation for a building and blocked by a fence.	Clear fallen trees and regrowth off the trail. Construct a link to MR14 at the southern end of the trail, and install a gate. Provide a new gate at the northern end of the trail.
MR14	1w/alt/H	High	Runs from Acton Drive to Clarendon Vale. The eastern portion of this route runs along an existing driveway and is in excellent condition. The section running downhill to Clarendon Vale is trafficable but the condition is variable. Council needs to ensure that a link to this trail is provided through a proposed subdivision at the western end of the trail. This is likely to change the route of the trail so no work is considered necessary at the moment.	Inspection and maintenance as required (MP 2).

TRAIL Ref. No.	CODE	MAINTENANCE PRIORITY	LOCATION AND CONDITION AT SEPTEMBER 2005	ACTION REQUIRED
MR15	1w/alt/H	High	Runs from MR1 to Mount Rumney Road through the western foothills of the Meehan Range. The southern and northern sections of this trail are in very good condition. The middle section has some rough sections but is trafficable.	Inspection and maintenance as required (MP 2).
MR16	1w/alt/H	High	Runs from MR15 to Clarendon Vale. Trail is trafficable but condition is variable and includes some unformed sections. Council needs to ensure that a link to this trail is provided through a proposed subdivision at the southern end of the trail.	Bring trail up to standard in MP 1 including drainage and resurfacing. Replace gate near the junction with MR18.
MR17	1w/alt/H	Medium	Runs from MR14 to Tara Drive. Northern end of route is only roughly formed but trafficable. Southern portion is a private driveway.	Inspection and maintenance as required (MP 2).
MR18	1w/alt/H	Medium	Runs from MR 13 to MR 16. Eastern portion of the trail is well formed but has some eroded sections. The western section of the trail is unformed and runs through a paddock.	Repair existing erosion and provide drainage to reduce erosion risk.
MR19	1w/dead/H	Medium	Sealed driveway running north off Grahams Road providing access to a cluster of dwellings on the top of the ridge.	Inspection and maintenance as required (MP 2).
MR20	1w/alt/H	Medium	Runs from Mount Rumney Road to MR12. Trail is overgrown with some eroded sections and is currently only trafficable by light tankers.	Re-open trail when needed for fire management activities.
MR21	1w/alt/H	Medium	Runs from MR9 to Belbins Road along Stringy Bark Gully. The main purpose of this trail is to provide an escape route from the Flagstaff Hill area that does not run along ridgetops. Western end of the trail is very steep and badly eroded, currently downhill only. Remainder of the trail is in good condition though the eastern section is becoming overgrown.	Repair eroded steep section at the western end of the trail. Clear encroaching vegetation off the trail.

TRAIL Ref. No.	CODE	MAINTENANCE PRIORITY	LOCATION AND CONDITION AT SEPTEMBER 2005	ACTION REQUIRED
MR22	1w/alt/H	Medium	Runs from MR9 to Flagstaff Gully Link. The main purpose of this trail is to provide an escape route from MR9 and a control line for containing fires starting along Flagstaff Gully Link. Trail has a rough surface with loose rocks and stone. It is currently impassable due to a short badly eroded section.	Improve trail surface by removing loose rocks and stone and smoothing rough sections. Repair eroded section and improve drainage to prevent water running down the trail.
MR23	1w/alt/H	Medium	Runs from MR9 to Flagstaff Gully Link. The main purpose of this trail is to provide an escape route from MR9 and a control line for containing fires starting along Flagstaff Gully Link. Trail is trafficable and in reasonable condition, although some sections have a rough loose surface and poor drainage.	Improve trail surface by removing loose rocks and stone and smoothing rough sections. Repair eroded section and improve drainage to prevent water running down the trail.
MR24	1w/alt/H	Medium	Runs from MR8 to Belbins Road. Trail is in reasonable condition but has some rough sections.	Repair eroded section and improve drainage to prevent water running down the trail.
MR25	1w/alt/H	Medium	Runs from MR8 to MR7. Trail is trafficable but very rough and eroded.	Improve trail surface by removing loose rocks and stone and smoothing rough sections. Repair eroded section and improve drainage to prevent water running down the trail.
MR26	1w/alt/H	Medium	Runs from Kadina Road to Hobdens Road across Breakneck Hill. Trail is trafficable and in good condition.	Inspection and maintenance as required (MP 2).
MR27	1w/alt/H	Medium	Runs from MR4 to MR5. Trail is part of an east-west link across the Meehan Range. Trail is narrow and overgrown with a steep section of approximately 50 m which is very badly eroded and impassable.	Clear and widen trail to allow use by Category 3 tankers. Resurface badly eroded section and provide suitable drainage.
MR28	1w/alt/H	Medium	Runs from Hyden Road to MR4. Part of the trail runs across an open paddock. Gate required to give access to MR4, and trail PH8 in Pilchers Hill reserve.	Install gates to allow through access for emergency services to trails MR4 and PH8.

TRAIL Ref. No.	CODE	MAINTENANCE PRIORITY	LOCATION AND CONDITION AT SEPTEMBER 2005	ACTION REQUIRED
MR29	1w/alt/L	Medium	Runs from MR1 to the junction of MR2 and MR3. Trail is trafficable but has some badly eroded sections. Sharp bends restrict access to light (Cat 5) tankers.	Resurface badly eroded section and provide suitable drainage.
MR30	1w/alt/H	Medium	Links MR7 to Richmond Road Trail provides an access/egress route from MR7 as well as access to nearby dams. It is in good condition. Sharp right hand turn from MR30 onto MR7 cannot be negotiated by Category 3 tankers, however a turning area is located on MR7 about 50 m south of the intersection with MR30.	Inspection and maintenance as required (MP 2).
MR31	1w/dead/L	Medium	Runs along the water pipeline easement to the east of dwellings north in Geilston Bay, north of Faggs Gully Creek. Trail is in good condition and is within a slashed easement about 8 m wide. Trail has access points from the end of Clovelly Street and Florelyn Street, however the northern and southern ends of the trail are dead ends with limited space for turning. Trail is cut by one fenceline.	Inspection and maintenance as required (MP 2).
MR32	1w/dead/H	Medium	Runs from the end of Grahams Road to a farm which is suitable as an emergency refuge area, and has a large dam suitable for supplying heavy tankers. This is a driveway and is in good condition.	Inspection and maintenance as required (MP 2).

TABLE 8 - Fire Fighting Water Points in the Meehan Range region

CAPACITY: approximate number of heavy tanker loads (3000 litres) that can be extracted.

HELICOPTER CAPABILITY: Ability of helicopters to draw water directly from source with relative safety.

RELIABILITY:

A - capacity will not be substantially diminished in drought conditions (large capacity or permanent running water)

B - likely to retain water when SDI exceeds 100, but capacity may be diminished

C - likely to dry out when SDI exceeds 100.

REF. NO.	DESCRIPTION	GRID REF. E/N (AMG)	APPROXIMATE CAPACITY	RELIABILITY	HELICOPTER CAPABLE	COMMENTS
1	Dam	531200 5263320	30+	A	Yes	Large farm dam on side of track.
2	Dam	531480 5260600	15 – 20	A	No	Farm dam – access across paddock.
3	Dam	531540 5260450	10 – 15	A	No	Farm dam close to trail.
4	Dam	531850 5260570	10 – 15	B	No	Farm dam approximately 50 m off the track.
5	Dam	530800 5259190	20 – 30	A	No	On side of access route MR4.
6	Dam	533960 5259240	10 – 15	B	No	Approximately 50 m off trail, spur trail gives access to base of dam.
7	Dam	534140 5259280	20 – 30	A	No	On side of trail, easy access.
8	Dam	534420 5259240	5 – 10	A	No	At trail junction – easy turning.
9	Dam	534300 5258040	50+	A	Yes	Large dam just above access route MR7.
10	Dam	534380 5257233	5 – 10	A	No	On side of track
11	Dam	532890 5256840	2 – 3	B	No	Approximately 20 m off trail in old quarry. Needs a turning area nearby.
12	Tank	535260 5256090	30+	A	No	Two 90,000 litre header tanks servicing a private water supply system for Mount Canopus. Recently constructed road gives access to the tanks.
13	Dam	536560 5255810	50 +	A	Yes	Large dam easily accessible from farm driveway.
14	Waterhole	535020 5254890	10 - 20	B	No	Two waterholes beside MR12.
15	Dam	537540 5254490	15 - 20	A	No	Dam in gully beside MR11. No direct vehicle access, portable pump required.

REF. NO.	DESCRIPTION	GRID REF. E/N (AMG)	APPROXIMATE CAPACITY	RELIABILITY	HELICOPTER CAPABLE	COMMENTS
16	Dam	537280 5254330	15 - 20	B	No	Strategically placed dam in a saddle at the junction of 3 fire trails.
17	Dam	536630 5254130	30 +	B	No	Large dam in a vineyard. Dam is used for irrigation which may reduce quantity of water in the dam during dry periods.
18	Dam	536690 5253980	30 +	B	Yes	Large dam in a vineyard. Dam is used for irrigation which may reduce quantity of water in the dam during dry periods.
19	Dam	535650 5255700	30+	A	No	Dam on creek approximately 60 m off route MR19. Need to cut fence to gain access or use a portable pump. No turning near dam.
20	Dam	533620 5262870	15 – 20	A	No	Below the junction of Boyes Street and George Street at Dulcot. Portable pump required to access the water supply - no vehicle access.
21	Dam	522760 5262580	20 – 25	B	Yes	In paddock to the north of Ibbotson Street, Dulcot. Will have to cut fence for vehicle access or use a portable pump.
22	L type	534569 5260896	Unlimited	A	No	Outlet on the Coal Valley irrigation scheme pipeline.
23	L type	534262 5263961	Unlimited	A	No	Outlet on the Coal Valley irrigation scheme pipeline.
24	Dam	537150 5252420	20 – 30	A	Yes	On side trail approximately 150 m off MR16. Need a portable pump to access the water.
25	Dam	529470 5258880	5 - 10	B	No	Approximately 30 metres off MR 28.
26	Dam	530010 5263430	10 - 20	A	Yes	Two dams beside road.

TABLE 9 - Response to fire of introduced species known, or considered likely to occur on the Meehan RangePriority Weeds are identified in **bold**.

WEED SPECIES	WHOLE PLANT KILLED	RE-SPROUTS FROM ROOTSTOCK ³	RE-SPROUTS FROM EPICORMIC BUDS	SEED GERMINATION LIKELY AFTER FIRE	COMMENTS
<i>Arctotheca calendula</i> . (African daisy)		X		X	
<i>Briza maxima</i> (Quaking Grass)	X			X	
<i>Briza minor</i> (Shivery Grass)	X			X	Seeds may remain viable for up to 40 years.
<i>Bromus spp</i> (Brome Grasses)		X		X	
<i>Chrysanthemoides monilifera ssp. monilifera</i> (Boneseed)		X		X	Resprouts if fire is not hot enough to kill plant. Hard fire tolerant seed accumulates in large quantities in soil germinating in large quantities after fire. Any prescribed burning should include active pre and post fire management. Widespread but with major mapped infestations on roadsides, and track margins.
<i>Carduus spp. / Cirsium sp.</i> (Thistles)	X			X	
<i>Coprosma repens</i> (Mirror Bush)			X		
<i>Cortaderia selloana</i> (Pampas Grass)²		X			Occasional records, including creeklines on western side of Meehan Range, Grasstree Hill Rivulet and Risdon Vale Creek. No immediate association with fire.
<i>Cotoneaster spp.</i> (Cotoneaster)		X			
<i>Crataegus monogyna</i> (Hawthorn)		X		X	
<i>Crocsmia X crocosmiiflora</i> (Montbretia)		X			
<i>Cytisus palmensis</i> (Tree lucerne)					
<i>Dactylis glomerata</i> (Cocks foot)		X		X	
<i>Echium vulgare</i> (Vipers bugloss)	X			X	

WEED SPECIES	WHOLE PLANT KILLED	RE-SPROUTS FROM ROOTSTOCK ³	RE-SPROUTS FROM EPICORMIC BUDS	SEED GERMINATION LIKELY AFTER FIRE	COMMENTS
<i>Erica lusitanica</i> (Spanish Heath) ²	X	X		X	Resprouts if fire is not hot enough to kill plant. Likely to germinate into ash bed generated by fire. This has spread from roadside infestations to form extensive patches on grassy slopes off Flagstaff Gully and near Clarendon Vale.
<i>Foeniculum vulgare</i> (Fennel) ²		X			
<i>Genista monspessulana</i> (Canary Broom) ²		X		X	Widespread and abundant along some creeklines and roadsides. The seed is long lived and fire tolerant. Any prescribed burning should include active pre and post fire management.
<i>Holcus lanatus</i> (Yorkshire fog grass)		X		X	
<i>Hypochoeris radicata</i> (Rough Catsear)		X		X	
<i>Leontodon taraxacoides</i> (Hairy Hawkbit)		X		X	
<i>Leycesteria formosa</i> (Elisha's Tears)		X			
<i>Lupinus arboreus</i> (Tree Lupin)			X	X	
<i>Lycium ferocissimum</i> (African Boxthorn)		X		X	Occasional records only
<i>Nassella trichotoma</i> (Serrated Tussock)		X		X	Extensive infestation in south of study area. But also recorded from Breakneck Hill and other sites each side of Tasman Highway.
<i>Pinus radiata</i> (Monterey Pine)	X			X	Occasional records in some gullies. Fire adapted and potential to proliferate after a wildfire.
<i>Pittosporum undulatum</i> (Sweet Pittosporum)		X			
<i>Prunus</i> sp. (Flowering plum)					
<i>Rosa rubiginosa</i> (Briar Rose)		X			Widespread on roadsides and agricultural areas.
<i>Rubus fruticosus</i> (Blackberry) ^{1 2}		X			Widespread on creek lines, gullies and roadsides.

WEED SPECIES	WHOLE PLANT KILLED	RE-SPROUTS FROM ROOTSTOCK ³	RE-SPROUTS FROM EPICORMIC BUDS	SEED GERMINATION LIKELY AFTER FIRE	COMMENTS
<i>Salix alba X fragilis</i> (Crack Willow) ^{1 2}		X			Occasional on some major creeklines.
<i>Ulex europaeus</i> (Gorse) ^{1 2}		X	X	X	Seeds may remain viable for up to 40 years Not widespread but locally abundant On Grasstree Hill Rd, Sugarloaf Road and Flagstaff Gully quarry. Any prescribed burning should include active pre and post fire management.
<i>Vinca major</i> (Periwinkle)		X			

1 WONS = Weed of National Significance – National Weed Strategy 1999

2 Declared Weed – Tasmanian *Weed Management Act 1999*

3 Some plants may resprout after low intensity fires but will be killed by high intensity fires.

MANAGEMENT ACTION SUMMARY

FIRE MANAGEMENT OBJECTIVE	RECOMMENDED ACTION	PRIORITY	PERFORMANCE INDICATORS
<p>1. Monitor the impact of fire management activities on the Meehan Range. Adjust practices to achieve relevant objectives, and periodically review the fire management strategy.</p>	<p>a) Monitor the impacts of fires carried out as outlined in Section 6.10.</p> <p>b) Review this fire management strategy at regular intervals using the procedures in Section 6.10.4. and Table 11.</p> <p>c) Regularly revise burning prescriptions to ensure they incorporate the most recent information on the fire ecology of flora, fauna and plant communities of conservation value on the Meehan Range.</p> <p>d) Carry out further research on the impacts of fire on the flora and fauna on Meehan Range.</p>	<p>a) REC - A/S</p> <p>b) ROU - 5</p> <p>c) REC - A/S</p> <p>d) REC</p>	<ul style="list-style-type: none"> • Monitoring and review carried out as scheduled in the strategy. • New information on the fire management requirements of threatened flora and fauna incorporated into the fire management strategy.
<p>2. Minimise the risk of wildfires starting and spreading within the Meehan Range region.</p>	<p>a) Carry out the management burns shown on Figure 12 and scheduled in Table 10.</p> <p>b) Improve compliance with conditions for permit fires to reduce the incidence of escapes.</p> <p>c) Maintain all power line easements on the Meehan Range.</p> <p>d) Implement the community education program in Section 6.2 to request residents on Meehan Range to report any smoke, or persons acting suspiciously, on days of total fire bans.</p> <p>e) Reduce unauthorised vehicle access by improving controls (gates, rocks etc.) and periodic policing, particularly in areas with a high frequency of car dumping.</p>	<p>a) E</p> <p>b) E</p> <p>c) E</p> <p>d) REC</p> <p>e) REC</p>	<ul style="list-style-type: none"> • Hazard reduction burns carried out according to prescriptions • No wildfires started by accident in the Meehan Range region. • Incidence of car dumping and other malicious fires reduced.

FIRE MANAGEMENT OBJECTIVE	RECOMMENDED ACTION	PRIORITY	PERFORMANCE INDICATORS
3. Minimise the risk of fire to residents within the Meehan Range region.	a) Distribute Individual Property Fire Management and Awareness Kits to all residents, and organise field days to explain their use. b) Ensure residents on the Meehan Range are aware of emergency relocation procedures in the event of a bushfire. c) Ensure that resources are available to assist with emergency relocation, including a register of any residents who require special assistance. d) Implement planning controls on new developments in the Meehan Range region to ensure they incorporate adequate fire protection measures.	a) E b) E c) E d) E	<ul style="list-style-type: none"> • Field days held following distribution of the Individual Property Fire Management and Awareness Kits. • No residents injured by wildfires or the effects of wildfires. • Information on emergency relocation provided to residents. • Register of residents requiring special assistance maintained. • All new developments on the Meehan Range incorporate fire protection measures to Tasmania Fire Service standards.
4. Minimise the risk of wildfire damaging built and cultural heritage assets on the Meehan Range.	a) Implement the fire protection measures listed in Table 6 for protection of public infrastructure. b) Implement the risk reduction measures for the settlements in and adjoining the Meehan Range in Section 6.1.1. c) Establish and maintain a fire break on the western side of Dulcot as shown in Figure 12. d) Encourage residents on the Meehan Range to use the Individual Property Fire Management and Awareness Kits to reduce the bushfire risk to their homes. e) Ensure properties are inspected at the beginning of the bushfire danger period and hazard abatement notices issued as required. f) Ensure that authorities planning wildfire control operations on the Meehan Range are aware of the location of cultural heritage assets and ensure they are not damaged by machinery movement or other activities. g) Implement planning controls on new developments in the Meehan Range region to ensure they incorporate adequate fire protection measures.	a) E b) E - 2 c) E – 1a d) E e) ROU f) REC g) E	<ul style="list-style-type: none"> • Fire protection measures listed in Table 6 implemented and maintained. • Fire risk reduction measures in Section 6.1.1 implemented and maintained. • Fuel modified buffer zones maintained in a fuel reduced condition (fuel loads < 5 tph or grass < 100 mm high) at all times. • Properties inspected annually by Council Hazard Abatement Officers. • No cultural heritage assets damaged during fire management or control operations on the Meehan Range • All new developments on the Meehan Range incorporate fire protection measures to Tasmania Fire Service standards..
5. Minimise the impact of fire, and fire management activities, on water quality in streams.	Maintain a minimum unburnt buffer of 5 m along minor (intermittent) watercourses, and 20 m along major (permanent) watercourses during management burning wherever possible.	REC	<ul style="list-style-type: none"> • Minimal impact on water quality from management burning and fire management activities. • Unburnt buffers maintained along creeklines.

FIRE MANAGEMENT OBJECTIVE	RECOMMENDED ACTION	PRIORITY	PERFORMANCE INDICATORS
6. Maintain existing emergency vehicle access routes shown in Figure 10 in a trafficable condition.	a) Subject to landowner agreement, carry out emergency vehicle access route repairs and maintenance listed in Table 7. b) Negotiate with landowners to gain long term access to emergency vehicle access routes on private property for fire management purposes. Ideally enter into formal agreements such as under the Land Use Planning and Approvals Act, 1993. Non emergency access to trails on private property to be subject to the access protocol in MP 12. c) Subject to landowner agreement, and the access protocol in MP 12, ensure all emergency vehicle access routes shown on Figure 10 are inspected and maintained in a trafficable condition at all times according to MP 2. d) Subject to landowner agreement, establish and maintain the staging/assembly areas shown on Figure 10.	a) E – 1A b) REC - 2 c) ROU – A d) REC - 2	<ul style="list-style-type: none"> • Access routes inspected as required in MP 2, and maintained in a trafficable condition for fire service vehicles. • Agreements completed for all emergency vehicle access routes on private property. • Staging areas established and maintained.
7. Establish additional emergency vehicle access routes to ensure adequate vehicle access for fire control and emergency relocation of residents (subject to landowner agreement).	Subject to landowner agreement, construct new emergency vehicle access routes as shown on Figure 10, and detailed in Section 4.4.	E – 1	Additional emergency vehicle access routes constructed within one year.

FIRE MANAGEMENT OBJECTIVE	RECOMMENDED ACTION	PRIORITY	PERFORMANCE INDICATORS
8. Minimise damage to the emergency vehicle access route system by preventing unauthorised vehicle access.	a) Implement a tiered security lock system to control access to emergency vehicle access routes on the Meehan Range (system that allows for master keys to open all locks, group keys to open several locks and individual keys to open a single lock). Issue master keys to Tasmania Fire Service brigades and other emergency services. Each brigade to be provided with a master key for each vehicle likely to be used to respond to a fire on the Meehan Range. Landowners to be provided with either a group or individual key depending on the access requirements for their property. Landowner keys should not provide access to other properties. b) Provide additional gates at the locations given in Section 4.4.1 and shown on Figure 10. c) Minimise usage of emergency vehicle access routes when wet. d) Inspect gates regularly to ensure that locks are in place and functioning. Inspections to be subject to the access protocol in MP 12, or an agreement with the landowner.	a) REC - 3 b) REC - 2 c) REC d) ROU - A	<ul style="list-style-type: none"> No unauthorised use of emergency vehicle access routes on the Meehan Range. Security lock system implemented, keys distributed to Tasmania Fire Service brigades and other emergency services. Minimal damage to emergency vehicle access routes on the Meehan Range.
9. Signpost all emergency vehicle access routes at their access points, and at trail intersections.	a) Erect appropriate signage at all vehicle access points, and at trail intersections, to guide emergency service vehicles. Signs should include commonly used names and/or codes. Dead end trails should be marked as such on the signs. b) Signs to be reflective and to meet Tasmania Fire Service requirements. c) Erect signs on all emergency vehicle access route gates stating "do not block trail at any time".	a) REC - 5 b) REC - 5 c) REC - 5	Signs erected at all emergency vehicle access route entry points and intersections.
10. Ensure an adequate and accessible water supply for fire fighting.	a) Ensure fire hydrants in nearby urban areas are clearly marked and maintained to Australian Standard AS2419.1 - 2005. b) Investigate and construct new waterholes/dams as recommended in Section 4.5, and near any designated staging areas.	a) E - A b) REC - 3	<ul style="list-style-type: none"> Fire hydrants in nearby urban areas are clearly marked and meet current standards of flow rate and pressure. New water points constructed on the Meehan Range to improve water supply.
11. Ensure all personnel carrying out fire management activities on the Meehan Range are suitably trained, equipped and supervised.	Ensure all personnel engaged in prescribed burning activities on the Meehan Range have the appropriate level of training and equipment as outlined in Section 6.7, and the minimum equipment listed in MP 5.	E	All personnel are able to demonstrate the required level of training and minimum levels of equipment.

FIRE MANAGEMENT OBJECTIVE	RECOMMENDED ACTION	PRIORITY	PERFORMANCE INDICATORS
<p>12. Develop, assist development of, or utilise existing education programs and materials aimed at:</p> <ul style="list-style-type: none"> • reducing arson • informing residents of fire safety issues, and measures to improve protection of themselves and their property • informing residents of the potential impact of their fuel management activities on environmental and other values. 	<p>a) Provide residents with a regular newsletter as outlined in Section 6.4 to keep them informed of the progress of the strategy.</p> <p>b) Organise periodic field days in different parts of the Meehan Range as outlined in Section 6.2.</p>	<p>a) REC - 1</p> <p>b) REC</p>	<ul style="list-style-type: none"> • Newsletter distributed at least annually. • Periodic field days organised. • Reduction in the incidence of illegal fires in the Meehan Range region.
<p>13. Maintain up-to-date information on; emergency vehicle access routes and their condition, water supply points, defensible spaces, and areas burnt in prescribed fires and wildfires.</p>	<p>a) Record fire management activities and wildfires using the procedures in MPs 8 and 9.</p> <p>b) Relay any updated information to the TFS.</p>	<p>a) REC - A/S</p> <p>b) ROU</p>	<p>Records maintained of all fire management activities.</p>
<p>14. Coordination of fire management activities on the Meehan Range amongst the various stakeholders.</p>	<p>a) Set up an implementation committee to oversee the implementation of the fire management strategy.</p> <p>b) Nominate a person (or persons) to be responsible for convening the implementation committee and the implementation of the strategy.</p> <p>c) Implement the procedures for coordinating fire management activities in MP 7.</p> <p>d) Prepare pre-fire season map updates and distribute to TFS brigades and District Office, PWS and Clarence City Council.</p> <p>e) Approach all landowners who have works or activities recommended on their land in this fire management strategy and obtain their cooperation in implementing the relevant activities on their land.</p> <p>f) Immediately inform landowners of any damage to gates and fences during fire fighting or fire management operations.</p>	<p>a) E</p> <p>b) E - 1</p> <p>c) E</p> <p>d) REC - A</p> <p>e) E - 1</p> <p>f) REC</p>	<ul style="list-style-type: none"> • Meetings held and minuted as outlined in MP 7. • Person or persons appointed to be responsible for implementing the strategy. • Landowner cooperation for works on private properties obtained.

FIRE MANAGEMENT OBJECTIVE	RECOMMENDED ACTION	PRIORITY	PERFORMANCE INDICATORS
15. Ensure that residents in the Meehan Range region have access to appropriate resources to assist them in recovering from a major bushfire.	Ensure that the resources listed in Section 6.9 can be made available at short notice to help the community recover from a major wildfire.	E	Resources necessary for community recovery provided quickly following a major wildfire. Minimal complaints from the public regarding assistance following a major wildfire.
16. Ensure that all roads, trails and other infrastructure are checked after a fire to ensure they are safe prior to allowing use by the public.	Implement the safety and rehabilitation procedures in MP 11 following fires.	E	Post-fire safety and rehabilitation procedures carried out after wildfires and management burns.
17. Minimise fire risk to fire sensitive vegetation and threatened flora and fauna.	a) Apply the appropriate fire regime to populations of threatened flora and fauna that require periodic fire for their long-term survival. b) Consult with the DPIW Nature Conservation Branch when planning prescribed burns in units containing populations of threatened flora and fauna. c) Avoid burning the whole of any population of a threatened or rare plant species in a single fire. d) Monitor the recovery of any populations of threatened or rare flora and fauna burnt by wildfires or prescribed burns. e) Fire fighting foams should not be used in the vicinity of known populations of threatened plants during management burns without prior consultation with the DPIW Nature Conservation Branch.	a) E b) E c) E d) E e) E	<ul style="list-style-type: none"> • All prescribed burns carried out according to the requirements of threatened flora and fauna. • No decline in the populations of threatened or rare flora and fauna due to fire. • No decline in the area or distribution of plant communities of conservation value.
18. Exclude fire from wet forest plant communities for the duration of this strategy.	a) Do not prescribe burn wet forest plant communities for the duration of this strategy. b) Exclude wildfire from these plant communities wherever possible.	a) E b) REC	Wet forest plant communities, remain unburnt for the duration of this strategy.
19. Implement a mosaic burning program in selected dry forest plant communities to maintain and enhance existing habitat diversity, and reduce overall fuel loads in bushland areas.	a) Carry out prescribed burning according to the schedule in Table 10 using the procedure in MP 5. b) Regularly revise burning prescriptions to ensure they incorporate the most recent information on the fire ecology of flora, fauna and plant communities of conservation value on the Meehan Range.	a) E - A/S b) REC - A/S	<ul style="list-style-type: none"> • Mosaic of burnt fire management units maintained. • No decline in the populations or distribution of threatened species. • No decline in the area or distribution of plant communities of conservation value.

FIRE MANAGEMENT OBJECTIVE	RECOMMENDED ACTION	PRIORITY	PERFORMANCE INDICATORS
20. Control unwanted plant species through minimising the spread of weeds.	a) Ensure that all vehicles involved in fire management and suppression activities on the Meehan Range are washed to remove any mud, soil or plant material prior to entering the area, particularly vehicle underbodies, in order to control the spread of weeds and plant diseases. b) Encourage landowners to carry out weed control in conjunction with fire management activities (MP 6).	a) REC – A/S b) REC	<ul style="list-style-type: none"> • Pre and post fire weed control carried out in any weed infested fire management units burnt under this strategy. Minimal coppicing or regrowth of weeds from treated rootstock. • All declared noxious weeds removed, reduction in extent of other weeds.