

Appendix 7

Walking Track Rehabilitation

A7.1 Introduction

Restoration of vegetation on degraded walking track sections at Mt Feathertop, Victoria, was undertaken following development of a Restoration Plan in January 2000. A copy of the Restoration Plan is included in an attachment to this appendix.

The section of track focussed on in the restoration project runs along a ridge leading to the summit of the mountain, at an altitude of 1740-1922 metres. This section of track was badly degraded with vegetation and soil disturbance rated as moderate to severe. The damage included:

- braiding, where multiple, criss-crossing tracks had developed;
- widened sections of track (1.5 – 2.7 metres wide);
- deeply scoured sections of track that had become redundant;
- deeply scoured sections that were still in use; and
- very steep, rocky sections, where the track alignment was poorly defined (leading to walker impacts becoming more spread out).

Due to the severity of impacts occurring on the Mt Feathertop ridge, a track management plan was developed, which included realignment and upgrading of the track, as well as closure and restoration of redundant sections of track and damaged verges.

A7.2 Description of work undertaken on Mt Feathertop

Work undertaken to address walking track impacts on Mt Feathertop included:

- xii) collecting seed and preparing hardy indigenous tubestock for planting;
- xiii) identifying and hardening a preferred track alignment;
- xiv) installing appropriate drainage;
- xv) preparing the soil or substrate on redundant sections of track and track verges for planting;
- xvi) mulching and planting restoration areas,
- xvii) watering, protecting and maintaining sites until rehabilitation was well established and self-supporting.

A7.3 Key considerations in walking track rehabilitation

Key issues that need to be considered in walking track rehabilitation are detailed below.

- iv) Timing issues need to be considered from the outset to allow the works and plant preparation to be scheduled appropriately.
- v) The preferred track location needs to be identified, taking into consideration the vulnerability of environments passed through (particularly gradient, drainage, soil and vegetation type), opportunities to confine the track to areas that are already degraded, and scenic opportunities. By locating the track in areas less vulnerable to degradation and constructing it to best practice standards, the repetition of the existing problems could be avoided.
- vi) Plants suitable for rehabilitation need to be identified from the indigenous plants occurring at each site. Variations between each site need to be considered in choosing which species to use in specific areas; however, more significant

considerations involve identifying species that can be propagated easily and are hardy enough to survive in poor soil and exposed conditions.

- vii) Once appropriate species for rehabilitation have been identified, seed collection and propagation need to be commenced, taking into consideration the timing of the works and when tubestock will be required.
- viii) Soil loss is likely to be a major limiting factor for rehabilitation. Where topsoil is absent, options could include, potential to import soil, creation of an organic soil substitute, and use of additives such as copra peat to build-up subsoil enough for the most hardy species to establish.
- ix) Improving drainage and appropriately grading sites should be emphasised, to reduce potential for further soil loss and create adequate conditions for plants to establish.
- x) Weed control is an important consideration, particularly as there is high potential for weeds to be introduced by walkers, as well as on work materials and machinery. Once introduced, weeds are likely to take advantage of exposed soils and disturbance. The Feathertop site was relatively low in weeds, therefore, control of existing weeds was a relatively minor consideration, however, strong emphasis was placed on ensuring that rehabilitation and track construction did not contribute to the introduction of new weeds.
- xi) Classifying walking track impacts into 5 classes, as detailed in section A5.5.1 allows rehabilitation treatments to be tailored to the type of track degradation that had occurred, as well as specific environmental attributes of each site.

**Attachment A7 Mt Feathertop Walking Track, Strategy for
Vegetation Restoration**

Example of a walking track rehabilitation project

**MOUNT FEATHERTOP WALKING TRACK
STRATEGY FOR VEGETATION RESTORATION**

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Summary

This strategy refers to those degraded sections of the Mount Feathertop walking track from grid reference 118164 to grid reference 124170 (Map - Bogong Alpine Area, Outdoor Leisure Series). It provides general principles and guidelines for activities associated with the proposed works. It is anticipated that finer details, ie specific site plans, for the vegetation restoration will evolve as work progresses.

The height above sea level for these sections ranges from 1740 metres to 1922 metres. Generally the track follows an exposed narrow ridge over a series of knobs and saddles terminating at North Peak. The overall aspect of the track is south southwest, with the grade ranging from 5% to greater than 100%.

Vegetation of the surrounding area is predominantly low open heathland, dominated by the shrub *Grevillea australis* up to 1780 metres replaced by *Kunzea muelleri* from 1780 metres up to 1820 metres. From 1880 to 1920 metres the vegetation is predominantly exposed grassland/herbfield. The route of the walking track, being on the spur, also carries a complex array of alpine forbs, grasses and herbs.

NB Populations of the rare plant species *Ranunculus eichlerianus* have been described “in saddles along the ridge running up to the summit of Mt. Feathertop” and “in the vicinity of the Federation Hut camping area” (ANP Management Statement Special protection Zone 13). These populations will be located and all workers on site will be made aware of these locations and the need to protect them.

According to the Natural Resources and Environment Flora information system, a number of other plant species listed as Victorian Rare or Threatened Species and/or Australian Rare or Threatened Species may occur in the vicinity of the track. A thorough botanical search of the track and surrounding area is necessary to map the locations of significant flora.

Those plant species observed during a site assessment on 21 December 1999, in close proximity to the track or as remnant “islands”, and which may be useful for restoration works are described in Table 6 - Species list, propagation and establishment methods (page 14).

Current track conditions.

Disturbance to soils and vegetation on the various track alignments ranges from moderate to severe. The disturbed sections have been categorised into 5 groups according to depth of entrenchment, width, disturbance level and future use. There are obvious links from one group to another.

1. Braided/traversing redundant sections.

This group consists of separate routes around knolls that lead to the same destination, or new routes traversing severely disturbed areas. Entrenchment of these sections is from 10mm. to 150mm. The slope is gentle, ranging from 0% to 20%. The width varies from 300 to 800mm. There appears to be reasonable depths of soil material/rock fines for plant growth. These sections are to be closed, reducing numerous tracks to a single route. This will obviously increase traffic on the remaining track and hardening of the remaining alignment will be necessary to limit future disturbance.

2. Widened single-track sections.

This group encompasses a large area of disturbed track alignment. Entrenchment in these sections ranges between 100 and 300mm. The slope varies from 30% to 60%. The width ranges from 1500 to 2700mm. The vegetation has been reduced to small areas of remnant islands. Soil material is limited, consisting mostly of loose large stones and rock fines. The track will continue to follow this route.

3. Deeply scoured redundant section

This group describes a single section of the track that is to become redundant. Entrenchment is severe ranging from 400 to 600mm. The slope is generally steep from 40% to greater than 100%. The width ranges from 1200 to 1700mm. Vegetation and soil material have been removed completely, with washing occurring down to bedrock.

4. Very deeply scoured sections.

Disturbance in this group is severe, but is largely limited to a single site. Entrenchment ranges from 500 to 1000mm. The slope varies from 50% to 70%. The width varies from 2900mm. to 4200mm. Small islands of vegetation, from slumping edges, exist beside bedrock. Apart from vegetation islands soil material has been washed away down to bedrock. The stabilised track will continue to follow the current alignment through this section.

5. Very steep rises

This group is generally limited to areas on the final steep rises to Mount Feathertop and North Peak. The track alignment at these sites is poorly defined. Walkers appear to gain footing wherever it is possible. The slope is generally greater than 100%. The various routes are very rocky and there is little soil material. Restoration of these areas will be very difficult.

Proposed treatments.

Table 1 below describes the proposed treatments for each group.

Table 1 - Proposed treatments.

Group	Approximate area	Proposed treatment
1. Braided/traversing redundant sections.	380m ²	<ul style="list-style-type: none"> • Harden favoured alignment. • Close and secure redundant alignment. • Loosen soil material with pick to \approx 200mm. • Install invert drains as required. • Plant tube-stock – add sterile copra peat to in-situ soil material. • Direct seed. • Mulch. • Water as required.
2. Widened single-track sections	450m ²	<ul style="list-style-type: none"> • Install invert drains at minimum intervals of 5 metres. • Excavate for rock pitching/track stabilisation. • Stockpile/protect soil material. • Import soil (pending research) • Construct terracettes where appropriate. • Plant tube-stock • Direct seed • Mulch • Water as required
3. Deeply scoured redundant sections	60m ²	<ul style="list-style-type: none"> • Harden favoured alignment • Install drainage to protect site from run-off. • Install rock terracettes & percolating drainage • Import soil (pending research) • Plant tube stock • Direct seed • Mulch • Water as required

Table 1 – Proposed treatments continued...

Group	Approximate area	Proposed treatment
4. Very deeply scoured sections	80m ²	<ul style="list-style-type: none"> • Excavate for retaining walls • Stockpile/protect soil material • Import soil (pending research) • Plant tube stock • Direct seed • Mulch • Water as required
5. Very steep rises	80m ²	<ul style="list-style-type: none"> • To be advised

Principles for track stabilisation works.

This strategy does not address all the requirements of the track stabilisation works. However the following principles should be adhered to.

- All works should be confined to disturbed areas of the walking track alignment.
- Vegetation adjacent to working areas should be protected as required.
- Materials delivery sites should be confined to the disturbed areas of the walking track alignment.
- Initial works should provide adequate drainage to all the sections of the walking track to be treated, to assist natural colonisation by vegetation to occur.
- Drainage works should ensure no outflows from invert drains impinge on biological values.
- Drainage works should encourage percolation of water through the regolith, and not concentrate water flows. Invert drains should be installed at no greater than 5 metre intervals and should not exceed a grade of 1%.
- All exposed or stockpiled soil material should be protected from loss by wind and water.

Material for vegetation restoration.

Seed

For timing of seed collection see Table 2 - Indicative seed collection calendar (page 8).

Direct seeding

To ensure the genetic integrity of the area seed should be sourced as much as possible from the environs of the track. However it will be necessary to source seed from close by areas to ensure sufficient volumes of seed are collected to enable successful direct seeding. The Mount Hotham Resort Area has consistently produced reasonable volumes of indigenous seed. “High Knob” and “Twin Knobs” are at similar elevations to the works area. These areas should be investigated as suitable locations for seed collection.

Seed for Tube-stock

All tube-stock should be raised from seed collected from the environs of the track. Seed collection should commence as soon as possible in January 2000 and continue through to April 2000. Further seed collection will be necessary in subsequent years. It will be necessary to coordinate seed collection activities with the movements of the helicopter ferrying in stonemasons and their materials.

Seed should be stored appropriately.

Table 2 - Indicative seed collection calendar.

Dec-99	Jan-00	Feb-00	Mar-00	Apr-00
	<i>Aceana noveaealandia</i>			
		<i>Aciphylla glacialis</i>		
	<i>Asperula gunni</i>			
	<i>Austrodanthonia spp.</i>			
	<i>Brachyscome spp.</i>			
		<i>Bracteantha subundulata</i>		
		<i>Celmisia astelifolia spp. agg.</i>		
		<i>Chrysocephalum semipapposum</i>		
		<i>Craspedia spp.</i>		
	<i>Eucalyptus pauciflora</i>			
		<i>Goodenia hederacea</i>		
		<i>Helipterum albicans</i>		
	<i>Luzula spp.</i>			
		<i>Microseris lanceolata</i>		
		<i>Oreomyrrhis eriopoda</i>		
		<i>Poa fawcettiae</i>		
		<i>Poa heimata</i>		
	<i>Ranunculus spp.</i>			
	<i>Rytidospermum spp.</i>			
		<i>Senecio gunnii</i>		
		<i>Senecio pinnatifolius</i>		
		<i>Stellaria pungens</i>		
	<i>Trisetum spicatum ssp. austaliense</i>			

Material for Division

Experimentation with the removal and replacement of sod material has occurred at Mount Hotham. This technique has had very limited success. The risk of losing a valuable resource far outweighs the possible benefits. Every effort should be made to ensure that existing vegetation remains undisturbed. If it is absolutely unavoidable to disturb remnant islands of vegetation in the track alignment all such material should be removed to a suitable location to enable tube-stock or similar to be produced from vegetative division.

Close coordination with stonemasons and strict staging of stabilisation works will be necessary to ensure material for division is removed and delivered to a suitable location in prime condition. Storage of material is not acceptable. Constraints on helicopter flying time due to weather, fires etc. must be thoroughly investigated

Material for division should be placed in plastic bags and watered to field capacity. These should in turn, be placed in polyester sacks. The material should then be flown to Bright and delivered as soon as possible to a suitable location (preferably Ovens Research Station).

Cutting material

Some plant species eg *Grevillea australis* can only be raised from cutting material. All cutting material will be sourced from the environs of the track.

Planting and seeding Rates

Final selection of species and volumes for restoration works will be dependent on seed availability and viability. Only persons with a thorough knowledge of alpine restoration works should be employed for seed collection.

Planting rates

Dense planting rates will be necessary to ensure the success of restoration works. 3" round pots should be the preferred container for shrubs and forbs as this ensures a sizeable root mass to assist in survival rates. 2" round pots should be the preferred container for grasses. See table 3 for indicative planting rates and species numbers.

Tube-stock will need to be hardened to field conditions at lower altitudes for a minimum of 2 weeks. They should then be transported to a suitable location, at a similar altitude to the walking track, for a period of at least 2 weeks prior to planting. Mount Hotham Resort Area is the preferred location for hardening at altitude. Tube-stock will need to be stored beneath shade-cloth (30%-50%) and watered regularly during hardening off and storage prior to planting.

Seeding rates

Aceana noveaezealandia and *Senecio pinnatifolius* have proven to be very effective in direct seeding at disturbed sites at Mount Hotham. *Poa hothamensis* has proven to be an excellent species for direct seeding in many disturbed sites. It appears that at high elevations *Poa hothamensis* may act as a nurse crop to other species but may not persist. I was unable to locate *Poa hothamensis* on 21 December 1999 but assume it will be present, especially where *Eucalyptus pauciflora* woodland joins the track from the western edge of the spur. *Craspedia spp.* has been used successfully in direct seeding of disturbed sites at Mount Hotham. Other species to add to the seed mix will be dependent on seed availability. See Table 4 for indicative seeding rates and volumes required

Table 3 - Indicative planting rates and plant numbers.

Section	Approx. Area/m ²	Shrubs				Grasses						Forbs						Total Plants/m ²
		<i>Grevillea australis</i>		<i>Kunzea muelleri</i>		<i>Poa fawcettiae</i> <i>Poa heimata</i>		<i>Rytidosperma spp</i>		<i>Trisetum spp.</i>		<i>Craspedia spp.</i>		<i>Celmisia astellifolia</i>		<i>Leptorhynchus squamatus</i>		
		/m ²	Total	/m ²	Total	/m ²	Total	/m ²	Total	/m ²	Total	/m ²	Total	/m ²	Total	/m ²	Total	
1.Braided/traversing redundant sections.	380	3	1140		0	2	760		0	1	380	0.5	190	0.5	190	1	380	8
2.Widened single-track sections	450	1	450	2	900	2	900	1	450	1	450	0.5	225	1	450	0.5	225	9
3.Deeply scoured redundant sections	60	2	120	1	60	1	60	1	60	1	60	1	60	1	60	1	60	9
4.Very deeply scoured sections	70	3	210		0	2	140	1	70	2	140	1	70	1	70	1	70	11
5.Very steep rises	80		0		0	3	240	3	240	2	160		0	1	80		0	9
TOTALS	1040		1920		960		2100		820		1190		545		850		735	

Table 4 - Indicative seeding rates and volumes

Section	Approx. Area/m ²	<i>Senecio pinnatifolius</i>		<i>Poa hothamensis</i>		<i>Poa fawcettiae</i> <i>Poa heimata</i>		<i>Rytidosperma spp</i>		<i>Trisetum spicatum</i>		<i>Craspedia spp.</i>		<i>Luzula spp.</i>		<i>Aceana novea-zealandia</i>		<i>Oreomyrhis eriopoda</i>	
		g/m ²	Total	g/m ²	Total	g/m ²	Total	g/m ²	Total	g/m ²	Total	g/m ²	Total	g/m ²	Total	g/m ²	Total	g/m ²	Total
1.Braided/traversing redundant sections.	380	1	380		0	4	1520	0.5	190	0.5	190	0.5	190	0.5	190	4	1520	0.5	190
2.Widened single-track sections	450	1	450		0	4	1800	0.5	225	0.5	225	0.5	225	0.5	225	4	1800	1	450
3.Deeply scoured redundant sections	60	1	60		0	4	240	0.5	30	0.5	30	1	60	0.5	30	4	240	0.5	30
4.Very deeply scoured sections	70	1	70	6	420	4	280	1	70	1	70	1	70	0.5	35	6	420	1	70
5.Very steep rises	80		0		0	4	320	4	320	2	160		0	2	160	2	160	2	160
TOTALS	1040		960		420		4160		835		675		545		640		4140		900

Soil additives/fertilisers.

The lack of available sterile soil material is a common limiting factor to restoration and revegetation works in alpine areas. A minimum depth of 200 mm. of soil material is required to sustain plant growth. The requirement for, and the volumes of, sterile soil required for restoration of the Mount Feathertop walking track will be determined as work progresses. There is no doubt that significant quantities of sterile soil will be required. Protection of the existing soil material on the walking track is essential for successful restoration works.

The inclusion of sterile copra peat has been used on the 'Pinch Pit' at Rocky Valley Dam to assist growth of shrubs in poor soil conditions. This method of improving soil conditions for plant growth should be employed in sections where soil loss has not been severe.

'Dynamic lifter' broadcast over treated sites has been used effectively to encourage vigour in restoration and revegetation works at many sites in alpine areas. However this may encourage the growth of weed species. For this reason it is recommended that application of dynamic lifter be withheld until the second year after initial works, when any weed invasion has been controlled. Then it should be broadcast at 100-150 grams/m².

'Osmocote' applied directly to tube-stock planting has also been used effectively to encourage vigour. 5 to 10 grams of osmocote should be incorporated into the soil, close to the root-zone of each plant.

There are many disturbed alpine sites requiring revegetation and restoration works, on private and public land, and leased areas. The availability of suitable sterile soil material is a key to success at Mount Feathertop and a large number of similar sites. Parks Victoria is strongly encouraged to contribute to a research project to commence this year. Which will provide techniques and costs for the production of suitable sterile soil material for restoration and revegetation works.

Mulch

Numerous materials are marketed for mulching of revegetation and restoration works. Recent trials and works conclude that currently the only effective mulch material is weed free, fine fescue straw secured with open weave jute-mesh ("soil saver"). Terry Murphy in Mansfield is a very cooperative fellow who strives to produce suitable weed and seed free straw for such works. Close liaison with Terry and inspection of straw prior to delivery to the works area is extremely important. Methods to sterilise straw should be investigated.

For temporary soil stabilisation works coconut fibre matting is light weight, weed free and effective. The most stable of these products is light grade 'fibremulch'. Unfortunately indigenous vegetation has difficulty penetrating this material. It is possible to have this material manufactured to a desired width. The Mount Hotham Resort Management Board has undertaken trials with a less dense 'fibremulch'. No results are available as yet.

Water

Tube-stock requires watering to field capacity immediately prior to planting, then watering in once planted. As a guide 100 plants require a minimum of 20 litres of water during planting.

The requirement for water after initial treatment will be dictated by:

- Timing of planting/seeding
- Seasonal conditions

- Microclimates
- Aspect
- Quality and depth of soil material
- Mulches

Consideration and manipulation of the above factors will reduce the requirement for watering after initial planting and seeding. However treated areas should be watered on a regular basis for the first year after establishment in the absence of adequate rainfall.

There are 2 sources of water in the vicinity of the works area – the water tank at Federation Hut and a spring on the northwest spur track. If necessary water will need to be flown in by helicopter.

Weed control

Weed control has been considered throughout this strategy. The following points serve to emphasise areas where the threat of weed invasion can be reduced.

The only weed species observed on 21 December 1999 were scattered *Hypochaeris radicata* (Cat's Ear) and numerous *Acetosella vulgaris* (Sheep Sorrel). Weed invasion of the area is very low. Every effort needs to be taken to ensure this remains the case.

- Imported rock for stabilisation works will be pressure washed prior to delivery (pers. comm. Dayle Beatson – Project Manager).
- Workers at the site should be briefed on weed species and encouraged to effect weed control works (by hand) as the stabilisation occurs.
- Mulches will be weed free.
- Improvement to soil conditions may encourage weed invasion. Fertiliser use should be conservative until weed incursion is understood and controlled.
- Monitoring works should identify weed control requirements and rapid action should be taken to implement control works.
- Persons with appropriate knowledge and experience should undertake seed collection, processing, and storage.
- Workers at the site should be briefed on the need to ensure weed seed is not transported to the site from the camping area at Federation Hut, or from the spring on northwest spur track.
- Weed control works should be undertaken at Federation Hut and the spring on northwest spur track to ensure that walkers do not transport weed seed to the works area.

Timing

The timing of vegetation establishment will be dependant on the progress of track stabilisation works and seasonal rainfall.

Below is an indicative guide to vegetation restoration works timing.

Table 5 - Indicative restoration works timing.

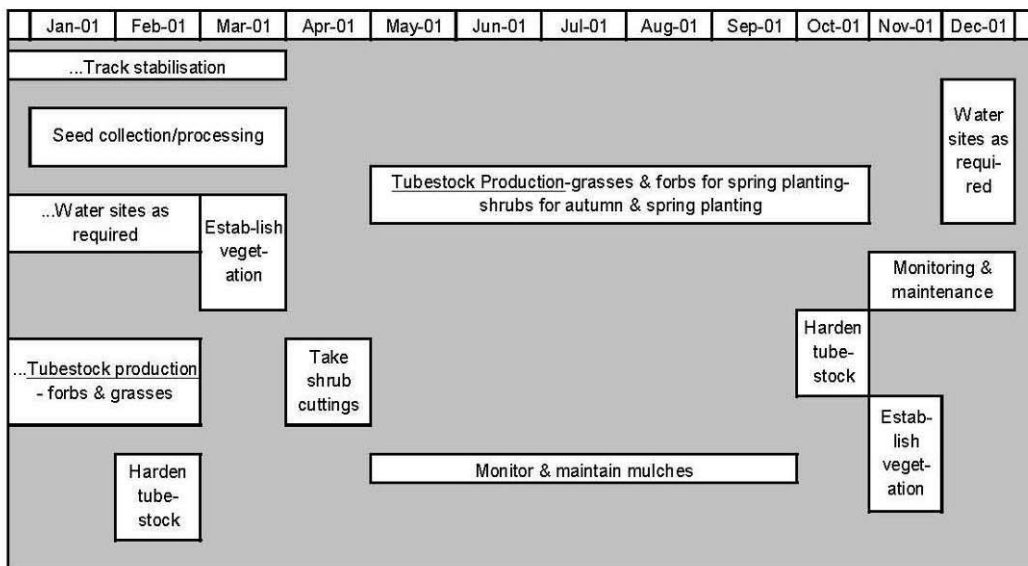
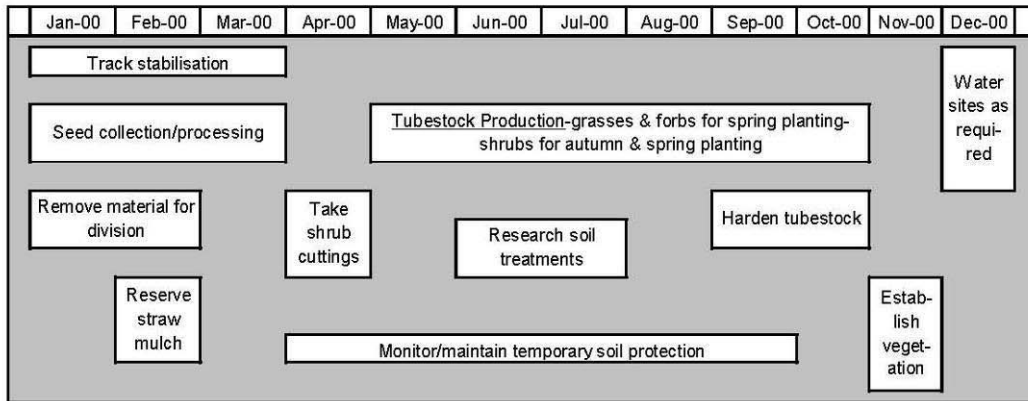


Table 6 – Species list, propagation and establishment methods.

Species		Propagation technique			Establishment technique		Comments
Proper Name	Common Name	Seed	Cuttings	Division	Tubestock	Direct seed	
<i>Aceana novezealandia</i>	Bidgee-widgee					✓	Grows readily from direct seeding. May collect significant volumes of seed. Is colonising sections where soil is collecting.
<i>Aciphylla glacialis</i>	Snow Aciphyll					✓	Little horticultural knowledge. Seed generally not predated.
<i>Asperula gunni</i>	Mountain woodruff		✓	✓	✓		Is colonising areas in saddles where soil is collecting.
<i>Austrodanthonia spp.</i>	Wallaby-grass	✓		✓	✓	✓	Widespread on track at all elevations. Unknown horticulture. Growing on remnant islands.
<i>Brachyscome spp.</i>	Daisy	✓		✓	✓	✓	Abundant species adjacent to track to forming dense areas. Not a vigorous spp.
<i>Bracteantha subundulata</i>	Orange everlasting	✓			✓	✓	Scattered occurrence at lower elevations.
<i>Celmisia astelifolia spp. agg.</i>	Silver Daisy	✓		✓	✓	✓	Currently flowering abundantly. Widespread at all elevations. Seed often heavily predated.
<i>Chrysocephalum semipapposum</i>	Clustered Everlasting	✓			✓	✓	Scattered occurrence to ≈1800m. Vigorous seeder moderately predated.
<i>Craspedia spp.</i>	Billy-buttons	✓		✓	✓	✓	Very useful for direct seeding and tubestock. Seed often heavily predated.
<i>Eucalyptus pauciflora</i>	Snow gum	✓			✓		Isolated groups on western side of ridge. Low numbers of tubestock would be useful.
<i>Goodenia hederacea</i>	Ivy Goodenia			✓	✓		Colonising species. Can be grown from division.
<i>Grevillea australis</i>	Alpine Grevillea		✓		✓		Dominant shrub to ≈ 1800m. Hardy tubestock species.
<i>Helipterum albicans</i>	Hoary Sunray	✓		✓	✓	✓	May colonise rocky sites.

Table 6 continued

Species		Propagation technique			Establishment technique		Comments
Proper Name	Common Name	Seed	Cuttings	Division	Tubestock	Direct seed	
<i>Kunzea muelleri</i>	Yellow Kunzea		✓	✓	✓		Dominant shrub from ≈ 1780m. to ≈ 1820m. Little known as tubestock.
<i>Luzula spp.</i>	Woodrush	✓			✓	✓	Scattered/common at all elevations. Important component at higher elevations. Occurs as “self recruit” in disturbed sites at Mount Hotham.
<i>Microseris lanceolata</i>	Yam Daisy	✓			✓	✓	Scattered occurrence. Occurs as “self recruit” in disturbed sites at Mount Hotham.
<i>Olearia phlogopappa var. flavescens</i>	Dusty Daisy bush		✓		✓		Very low abundance. Has been found useful at other sites e.g. Mount Hotham.
<i>Oreomyrrhis eriopoda</i>	Australian Carraway	✓		✓	✓	✓	Scattered occurrence at all elevations. Seed rarely predated.
<i>Poa fawcettiae</i>	Horny Snow-grass	✓		✓	✓	✓	Abundant grass at all elevations. May produce moderate seed crop this season. Seed often of low viability.
<i>Poa heimata</i>	Soft Snowgrass	✓		✓	✓	✓	Abundant grass at all elevations.
<i>Ranunculus spp.</i>	Buttercups	✓		✓	✓	✓	<i>Ranunculus eichlerianus</i> has been recorded adjacent to the track and is listed as a threatened species. (see ANP Management Statement-Special Protection Zone 13.)
<i>Rytidospermum spp.</i>	Wallaby-grass	✓		✓	✓	✓	Abundant grass in remnant islands on track. Dominant at higher elevations.
<i>Scleranthus spp.</i>	Knawels			✓	✓		
<i>Senecio gunnii</i>	Mountain Fireweed	✓			✓	✓	Scattered individuals along track. Useful colonising species.
<i>Senecio pinnatifolius</i>	Variable Groundsel	✓			✓	✓	Excellent colonising species for direct seeding if sufficient seed available. Scattered individuals to ≈ 1850m.
<i>Stellaria pungens</i>	Prickly Starwort	✓	✓	✓	✓	✓	Good colonising species. Scattered individuals to ≈ 1800m.
<i>Trisetum spicatum ssp. austaliense</i>	Bristle-grass	✓		✓	✓	✓	Common and widespread on track at all elevations. Tends to be strongly rhizomatous. Indications of good seed crop.

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Pers. Comm.:Dayle Beatson, Project Manager. Parks Victoria, BRIGHT.

Pers. Comm.: Warwick Papst. Latrobe University.

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