Hamilton Environmental Services
ABN: 89 108 410 911

Memorandum

TO: KEVIN RAVEN, MYRTLEFORD SKI CLUB

FROM: DR. STEVE HAMILTON, HAMILTON ENVIRONMENTAL SERVICES

DATE: 26TH FEBRUARY 2024

SUBJECT: SUMMARY OF FINDINGS FROM ENVIRONMENTAL ASSESSMENT FOR PROPOSED NEW WORKS, MYRTLEFORD SKI CLUB, FALLS CREEK ROAD, FALLS CREEK

Background

The Myrtleford Ski Club are proposing to have installed a metal walkway above an existing gravel path to facilitate safer access to their premises at Falls Creek Road, Falls Creek from the Hub Apartments at 8 Falls Creek Road. This metal walkway has been designed to blend in with the existing landscaped stairs that provide access from Falls Creek Road and to the existing entrance way of the building (Kevin Raven pers. comm. 2023).

The location of the proposed works is shown in Fig. 1.

Figure 1 **Location of the proposed works – outlined in red – relative to the district (Image from ESRI Australia 2023).**

The metal walkway will be approximately 15 m in length and 1.2 m in width, and will be an above-ground construction supported by posts (Kevin Raven pers. comm. 2023), presumably with posts at

approximately 1.5 m spacings along both sides of the walkway, with post holes likely to be 600 mm depth and 300 mm width.

The layout of the proposed works relative to existing site features is shown in Fig. 2.

Hamilton Environmental Services (HES) was engaged to undertake a flora and fauna assessment of the proposed works area in January 2023, and should any native vegetation be likely impacted by the proposed development, prepare a Net Loss Report for the works, with details on the offset requirement associated with assessed losses, and the strategy for offsetting these requirements.

Method

Dr. Steve Hamilton undertook a field assessment of the works area on the 4th May 2023; this assessment was delayed several months from engagement because of the blockage of the access road due to landslip along this road in 2022.

On the day of assessment, light snow had fallen across the Falls Creek settlement over the previous night; this light and patchy snow did not inhibit the vegetation assessment (snow was brushed aside for observation purposes).

The proposed works site and environs were assessed by Dr. Steve Hamilton over a period of 30 minutes by foot, with the following assessments undertaken (if required):

- Compilation of a detailed flora species list of any vegetation across the site and its immediate environs, including the attribution of cover/abundance to each species;
- Casual sightings of fauna noted;
- Recording the location, species, diameter and other characteristics of any tree species within the assessed area. Location would be determined with a hand-held GPS;
- A Vegetation Quality Assessment would be completed if any native vegetation *Patches* were identified in order to provide a basis to the determination of loss according to the *Native Vegetation Removal Guidelines 2017*;
- Images taken at various photopoints and descriptions made at multiple locations.

Findings

In Victoria, the Department of Energy, Environment, and Climate Action (DEECA) have developed an on-line mapping layer that categorises pre-1750 and 2005 natural vegetation communities into Ecological Vegetation Classes (EVCs) and have developed EVC Benchmark Statements for each of these EVCs that represent the best known example of this EVC.

The assessed clearance area is within the Victorian Alps Bioregion (DEECA 2023a).

The site is mapped as being Sub-alpine Trees Vegetation EVC (EVC 44; DEECA 2023a and 2023b), which is clearly incorrect given that the site and immediate area is dominated by a moderately dense stand of Snow Gum (*Eucalyptus pauciflora*). Prior to European settlement, based on the extant native vegetation at or near the site (mostly remnant tree cover only, with minimal understorey), the vegetation of the site was almost certainly wholly Sub-alpine Woodland EVC (EVC 43; Bioregional Conservation Status [BCS] Least Concern; DEECA 2023a and 2023b).

The relevant EVC Benchmark Statement referred to above can be seen in Appendix A.

The proposed works area of approximately 35 m^2 (0.0035 ha) retains very little vegetation; the existing gravel path – over which the proposed ramp/stair is proposed for construction - is heavily compacted from use, and any ground layer vegetation on it is sparse (the ground surface is 90 % rock, gravel and bare earth), and any vegetation present is wholly introduced annual and perennial ground layer species, such as Winter-grass (*Poa annua*), Sheep Sorrel (*Acetosella vulgaris*), Creeping Fog (*Holcus mollis*), Kikuyu Grass (*Cenchrus clandestinum*) and White Clover (*Trifolium repens*)(10 % projective foliage cover). No indigenous ground layer vegetation was observed on this gravel path.

The proposed development footprint will be contained within the extent of the existing gravel path.

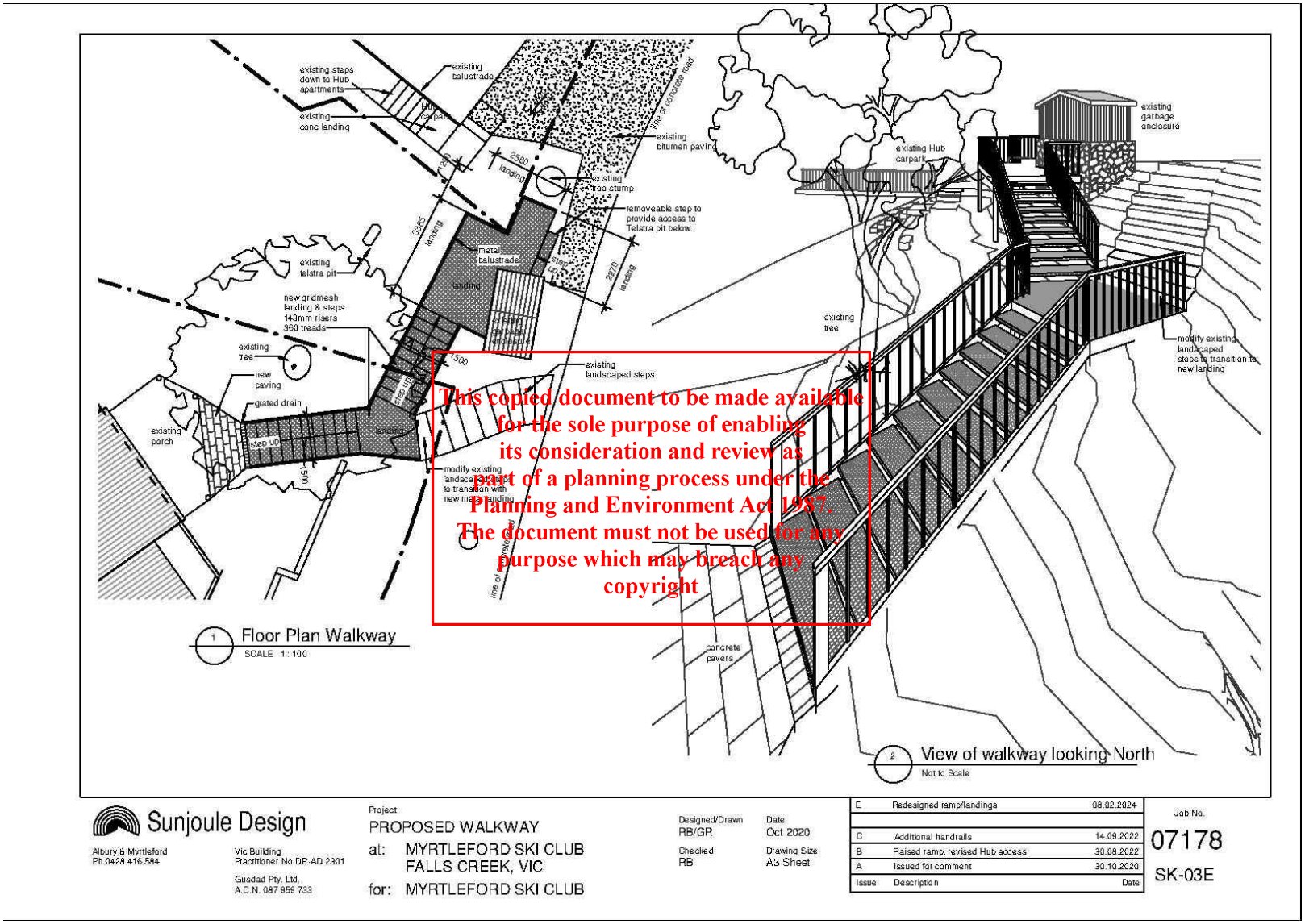

Figure 2 **Proposed layout for the alterations/works at the Myrtleford Ski Club, Falls Creek Road, Falls Creek (Sunjoule Design, Revision E, dated 8/2/24).**

The batter slope to the east of the existing gravel path (upslope to Falls Creek Road) is similarly sparse of any ground layer vegetation (the ground surface is 80 % rock, gravel and bare earth and leaf litter), and any ground layer vegetation is dominated by introduced annual and perennial species such as Sheep Sorrel, Creeping Fog, White Clover (15 % projective foliage cover); there is a low abundance of the indigenous species Soft Snow-grass (*Poa hiemata*) and Variable Willow-herb (*Epilobium billardiereanum*)(5 % projective foliage cover).

The downslope batter to the west of the existing gravel path is dominated by leaf litter (60 % cover) and introduced perennial species, such as Cocksfoot (*Dactylis glomeratus*), Yorkshire Fog (*Holcus lanatus*), and Twiggy Mullein (*Verbascum virgatum*)(40 % projective foliage cover); there was a very low abundance of the indigenous graminoid Common Grass-sedge (*Carex breviculmis*)(< 1 % projective foliage cover).

Neither the upslope or downslope batters will be impacted by the proposed development (Kevin Raven pers. comm. 2023).

No fauna were observed at the site.

There were no threatened species observed at the site (Department of Environment, Land, Water and Planning [DELWP] 2021).

Plate 1 shows views of the proposed development area.

Construction projects that involve earthworks or soil disturbance can cause indirect losses of native vegetation that are retained during construction due to root damage and soil modification within the zone where roots occur. Of particular concern is the longer-term impact of soil compaction and excavation (e.g. trenching for pipelines) close to trees and the effects of this on immediate and longer-term tree health. The Department of Sustainability and Environment (DSE; now DEECA) has provided guidance and clarity on this issue and has defined an acceptable distance for tree retention in order to prevent indirect losses of native vegetation during and after construction activities as a guiding principle. These designated *Tree Protection Zones* (TPZs) – and in some cases the *Structural Root Zone* (SRZ) - should be established for the duration of construction activities (DSE 2011) as part of the development conditions; while the defined TPZ is a definition of the root zone necessary for the tree's vigour and long-term viability, the SRZ is a smaller more pertinent measure of the stability of all trees, and especially standing dead trees, as it defines the extent of lateral woody root growth and associated soil cohesion necessary to hold the tree upright (Standards Australia 2009).

There are scattered Snow Gums within proximity to the proposed works, and the location of these trees relative to the existing and proposed structures can be seen in Fig. 3.

Tree 1 will be immediately next to the proposed metal walkway. This tree has a multi-stemmed diameter at breast height (dbh) of 46 cm, with a TPZ of 5.5 m, and an SRZ (based on a basal diameter of 70 cm) of 2.85 m. The TPZ and SRZ of this tree will be clearly significantly impinged by the walkway in terms of coincidence. However, given the proposed elevated construction method, there are will only be up to 14-15 posts within the TPZ, and 9-10 posts within the SRZ, and the extent of the impact of these post holes within the TPZ is significantly less than the 10 % of the area that would deem the tree a loss.

Trees 2, 3 and 4 are found on the upslope towards Falls Creek Road on the southern side of the existing landscape steps, with multi-stemmed dbhs of 28 cm, 34 cm and 20 cm, respectively. Notwithstanding the minimal impact of the proposed construction method of the metal walkway, the TPZs of all three trees is impinged by < 10 % of their area by coincidence with the walkway footprint.

Figure 3 **Aerial image showing the location of assessed trees, showing Tree Protection Zones and a Structural Root Zone relative to the existing and proposed structures (Image from Google Earth 25th December 2023).**

Plate 1 **Views of the proposed works area: looking up the existing landscaped stairs to Falls Creek Road (top right), looking south along the existing gravel track as it approaches the Ski Lodge (top right), looking south along the existing gravel track (middle left), Tree 1 (middle right), looking north along the existing gravel track (bottom left), and looking south along the existing gravel track from the 8 Falls Creek Road car park (bottom right). Images taken by the author on 4th May 2023. Selection trees are numbered in white. Extent of the proposed development footprint is outlined with red lines.**

Under the *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP 2017) there are two categories of native vegetation that are to be considered in regard to the determination of net loss and the requirement for offset: *Scattered Trees* or *Patches*.

A *Patch* of native vegetation is either: an area of vegetation where at least 25 % of the total perennial understorey plant cover is native, or any area with three or more native canopy trees where the drip line of each tree touches the drip line of at least one other tree, forming a continuous canopy, or any mapped wetland included in the current wetlands map, available in DELWP (now DEECA) systems and tools and these areas were mapped (DELWP 2017).

A *Scattered Tree* is a native canopy tree that does not form part of a *Patch* (DELWP 2017).

Based on the field assessment, the proposed metal walkway development will not result in any native vegetation loss.

Summary

The proposed metal walkway development has been determined to not result in any native vegetation loss.

A mature Snow Gum that will be immediately adjacent to the proposed metal walkway development; however, the minimal impact of the proposed construction method results in the extent of the impact of post holes within the TPZ being significantly less than the 10 % of the area that would deem the tree a loss.

Therefore, under the *Native Vegetation Removal Regulations 2017*, there is no Net Loss, no offset requirement, and therefore no offset required for these proposed works.

Care will need to be employed during construction that the trees on the site, and any other adjacent native vegetation on the batter slopes, are not impacted.

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APPENDIX A EVC BENCHMARK DESCRIPTION

Department of Sustainability and Environment

EVC/Bioregion Benchmark for Vegetation Quality Assessment

Victorian Alps bioregion

EVC 43: Sub-alpine Woodland

Description:
Grows on a wide range of geologies and aspects, in the higher altitudinal levels above 1200 m. Rainfall is relatively high and snow may persist for long periods over winter. Soils are generally skeletal sandy clay loams with a rich humus topsoil layer. A low, open woodland to 10 m tall dominated by Snow Gum *Eucalyptus pauciflora*, with the understorey variously consisting of a rich suite of grasses and herbs, or a dense layer of woody shrubs, depending on soil fertility.

Large trees:

Species	DBH(cm)	#/ha
Eucalyptus spp.	40 cm	15 / ha

Tree Canopy Cover:

%cover	Character Species	Common Name
15%	*Eucalyptus pauciflora*	Snow Gum

Understorey:

Life form	#Spp	%Cover	LF code
Immature Canopy Tree	1	5%	IT
Understorey Tree or Large Shrub	1	5%	T
Medium Shrub	5	20%	MS
Small Shrub	2	10%	SS
Large Herb	5	10%	LH
Medium Herb	3	10%	MH
Small or Prostrate Herb	2	5%	SH
Medium to Small Tufted Graminoid	4	20%	MTG
Medium to Tiny Non-tufted Graminoid	1	5%	MNG
Ground Fern	1	1%	GF
Bryophytes/Lichens	na	20%	BL
Soil Crust	na	10%	S/C

LF Code	Species typical of at least part of EVC range	Common Name
T	*Acacia obliquinervia*	Mountain Hickory Wattle
MS	*Podolobium alpestre*	Alpine Podolobium
MS	*Olearia phlogopappa*	Dusty Daisy-bush
MS	*Tasmannia xerophila*	Alpine Pepper
SS	*Leucopogon hookeri*	Mountain Beard-heath
LH	*Senecio gunnii*	Mountain Fireweed
MH	*Stellaria pungens*	Prickly Starwort
MH	*Oreomyrrhis eriopoda*	Australian Caraway
MH	*Viola betonicifolia ssp. betonicifolia*	Showy Violet
MH	*Asperula gunnii*	Mountain Woodruff
MTG	*Stylidium graminifolium s.l.*	Grass Trigger-plant
MTG	*Dianella tasmanica*	Tasman Flax-lily
MTG	*Poa australis spp. agg.*	Tussock Grass
MTG	*Carex breviculmis*	Common Grass-sedge
GF	*Polystichum proliferum*	Mother Shield-fern

Victoria The Place To Be

EVC 43: Sub-alpine Woodland - Victorian Alps bioregion

Recruitment:
Continuous

Organic Litter:
20 % cover

Logs:
10 m/0.1 ha.

Weediness:

LF Code	Typical Weed Species	Common Name	Invasive	Impact
MH	*Acetosella vulgaris*	Sheep Sorrel	high	high
MH	*Hypochoeris radicata*	Cat's Ear	high	low

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