Updated Taris Development, Falls Creek: Flora and fauna assessment

FINAL REPORT

Prepared for Send It Architecture and Taris Alpine Holdings Pty Ltd

5 July 2024

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- Send It Architecture: Andy Mero
- Department of Environment, Energy and Climate Action for access to the Victorian Biodiversity Atlas and Native Vegetation Information Tools
- Department of Climate Change, Energy, the Environment and Water for access to the Protected Matters Search Tool of the Australian Government

Biosis staff involved in this project were:

- Daeyoo Kang (mapping)
- Rose Baulch (background research)
- Katrina Sofo (quality assurance)

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Summary

Biosis Pty Ltd was commissioned by Send It Architecture on behalf of Taris Alpine Holdings Pty Ltd to undertake a flora and fauna assessment of 1 Christie Street, Falls Creek (Crown Allotment 4B). Development of a four-storey ski chalet is proposed for the study area. The study area is located within Falls Creek Alpine Resort, approximately 30 kilometres south-east of Mount Beauty.

Ecological values

Key ecological values identified within the study area are as follows:

- 0.085 hectares of proposed native vegetation removal.
- Areas of Sub-alpine Woodland EVC 43 (Bioregional Conservation Status of Least Concern).
- Potential habitat for four *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) listed fauna species: Broad-toothed Rat *Mastacomys fuscus mordicus,* Gang-gang Cockatoo *Callocephalon fimbriatum,* Alpine Bog Skink *Pseudemoia cryodroma* and White-throated Needletail *Hirundapus caudacutus.*
- Potential habitat for one species listed under the *Flora and Fauna Guarantee Act 1988* (FFG Act): Tussock Skink *Pseudemoia pagenstecheri.*

Government legislation and policy

An assessment of the project in relation to key biodiversity legislation and policy is provided and summarised below.

Legislation / policy	Relevant ecological feature on site	Permit / approval required	Notes
EPBC Act	Broad-toothed Rat and Gang-gang Cockatoo may forage or pass through the study area on occasion. Suitable habitat for Alpine Bog Skink is also present. White-throated Needletail is likely to occupy airspace above the study area on occasion.	Referral not recommended.	White throated Needletail is unlikely to utilise terrestrial habitat within the study area. The removal of small areas of Sub-alpine Woodland is unlikely to lead to a decline in the viability of Gang-gang Cockatoo, Broad-toothed Rat or Alpine Bog Skink at Falls Creek and the project is not considered likely to constitute a significant impact on any of these species.
FFG Act	Protected flora species present.	Protected Flora Permit required.	Site is public land.

Legislation / policy	Relevant ecological feature on site	Permit / approval required	Notes
Planning & Environment Act	All indigenous vegetation to be removed.	Planning permit required, including permission to lop or remove native vegetation.	Permit application needs to address the Guidelines and the provisions of the following overlays: • Bushfire Management Overlay. • Erosion Management Overlay.
CaLP Act	One regionally restricted noxious weed/s present.	N/A	Comply with requirements to control/eradicate

Guidelines for the removal, destruction or lopping of native vegetation (the Guidelines)

An arborist has undertaken an assessment of trees within the study area (Tru Tree Care 2021). The arborist report was reconciled with Biosis mapping and calculations of tree protection zone (TPZ) encroachment. Of the ten large trees within the study area, four will be impacted by the proposed works and have been included in loss calculations. The arborist report is provided in Appendix 5.

Based on the current design, the proposed development will require the removal of 0.085 hectares of native vegetation, including four large trees, from within location category 1. Therefore, the planning permit application will be assessed on the intermediate assessment pathway. The strategic biodiversity value score of the native vegetation to be removed is 0.230.

Due to the site's size, the position of native vegetation on the site and the size of the development, avoidance of native vegetation was not feasible without undermining the projects objectives and rendering the development infeasible. The steps that have been taken during the design of the development to ensure that impacts on biodiversity from the removal of native vegetation have been minimised include:

- To the greatest extent possible, the proposed development has utilised the existing cleared and excavated space in the centre of the site.
- Utilising existing access routes for machinery and vehicle access during construction.
- Locating temporary site storage on existing disturbed land to minimise impacts to native vegetation.

If a permit is granted, the offset requirements would be 0.041 general habitat units. The general offset must be within the North East Catchment Management Authority (CMA) area or the Falls Creek Alpine Resort, and must have a minimum strategic biodiversity value score of 0.216.

Taris Alpine Holdings may decide to purchase the required offset credits from the Victorian native vegetation credit register. A search of the Native Vegetation Credit Register (NVCR) confirms these units are available, a search extract is provided in Appendix 5.

Recommendations

The results of this assessment should be incorporated into the project design, by adding the flora and fauna mapping information into the planning maps and investigating options to retain as much of the mapped vegetation/habitats as possible.

Future requirements for infrastructure and services must be forecast as much as possible at this time and allowance made outside any nominated reserves for all construction works. This includes road batters,

footpaths, drainage and services (including optic fibre). All areas of vegetation/habitat nominated in the design plan as 'retained' are to be treated as no-go zones and are not to be encroached upon as development progresses. Actions to minimise impacts on native vegetation and threatened species habitat should be addressed in the project Site Environmental Management Plan (SEMP).

1. Introduction

1.1 Project background

Biosis Pty Ltd was commissioned by Send It Architecture on behalf of Taris Alpine Holdings Pty Ltd to undertake a flora and fauna assessment of 1 Christie Street, Falls Creek (Crown Allotment 4B). Development of a four-storey ski chalet is proposed for the study area.

Final version 01 of this report was provided in 2021 (dated 26 August 2021) and reflected the building designs at that time. In 2024 building designs were updated and this report (final version 02) reflects the updated design.

1.2 Scope of assessment

The objectives of this investigation are to:

- Describe the vascular flora (ferns, conifers, flowering plants), vertebrate fauna (mammals, birds, reptiles, frogs, fishes) and decapod crustacea (e.g. crayfish).
- Map native vegetation and other habitat features.
- Conduct a vegetation quality assessment.
- Review the implications of relevant biodiversity legislation and policy, including Victoria's *Guidelines for the removal, destruction or lopping of native vegetation* ('the Guidelines').
- Identify potential implications of the proposed development and provide recommendations to assist with development design.
- Recommend any further assessments of the site that may be required (such targeted searches for significant species).

1.3 Location of the study area

The study area is located approximately 17 kilometres south-east of Mount Beauty and approximately 100 kilometres south-east of Wangaratta (Figure 1). It encompasses approximately 0.1 hectares of privately leased public land. It is currently zoned Comprehensive Development Zone (CDZ1). The study area is covered by a Design and Development Overlay (DDO2), an Erosion Management Overlay (EMO1) and a Bushfire Management Overlay (BMO1).

The study area is within the:

- Victorian Alps Bioregion
- Kiewa River Basin
- Management area of North East Catchment Management Authority (CMA)
- Falls Creek Alpine Resort (Uninc.)

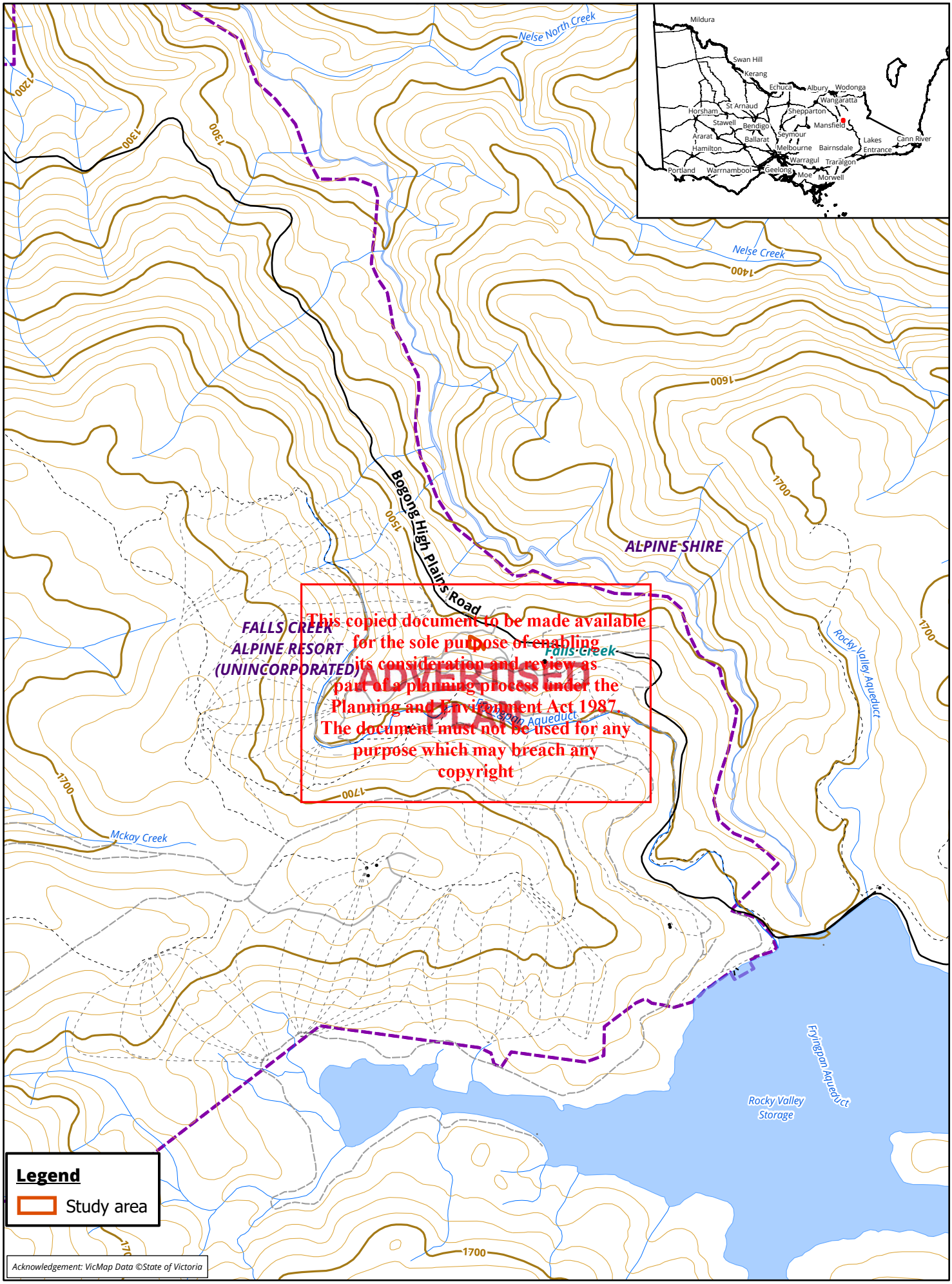

Figure 1 Location of the study area - Falls Creek, Victoria

Matter: 34984,
Date: 27 July 2021 ,
Checked by: GZ, Drawn by: DK, Last edited by: dkang
Layout: 34984_F1_Locality
Project: P:\34900s\34984\Mapping\34984_TarisDevFallsCreek_FFA.aprx

0 250 500 750 1,000
Metres
Scale: 1:20,000 @ A4
Coordinate System GDA 1994 MGA Zone 55

N

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2. Methods

2.1 Database review

In order to provide a context for the study area, information about flora and fauna from within 10 kilometres of the study area (the 'local area') was obtained from relevant biodiversity databases, the Victorian Government Department of Energy, Environment and Climate Action (DEECA) (formerly Department of Environment, Land, Water and Planning (DELWP)) or the Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW). Records from the following databases were collated and reviewed:

- DEECA's Victorian Biodiversity Atlas (VBA), including the 'VBA_FLORA25, FLORA100 & FLORA Restricted' and 'VBA_FAUNA25, FAUNA100 & FAUNA Restricted' datasets (DSE 2009) .
- DCCEEW's Protected Matters Search Tool for matters protected by the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act).

Other sources of biodiversity information were examined including:

- DEECA's Native Vegetation Information Management (NVIM) system.
- DEECA's Ensym NVR Tool Support team was provided with site-based spatial information in order to generate a Native Vegetation Removal Report for the study area.
- Planning Scheme overlays relevant to biodiversity based on http://planningschemes.dpcd.vic.gov.au.

2.2 Definitions of threatened species

The conservation status of a species or ecological community is determined by its listing status under Commonwealth or State legislation / policy (Table 1).

Table 1 Conservation status of threatened species and ecological communities

Significance	
National	Listed as nationally critically endangered, endangered or vulnerable under the EPBC Act
State	Listed as extinct, extinct in the wild, critically endangered, endangered or vulnerable in Victoria under the FFG Act

Lists of threatened species generated from the databases are provided in Appendix 1 (flora) and Appendix 2 (fauna) and the species have been assessed to determine their likelihood of occurrence based on the process outlined below.

2.3 Determining likelihood of occurrence of significant species

Likelihood of occurrence indicates the potential for a species or ecological community to occur regularly within the study area. It is based on expert opinion, information in relevant biodiversity databases and reports, and an assessment of the habitats on site. Likelihood of occurrence is ranked as negligible, low, medium, high or recorded. The rationale for the rank assigned is provided for each species in Appendix 1 (flora) and Appendix 2 (fauna).Those species for which there is little or no suitable habitat within the study area are assigned a likelihood of low or negligible and are not considered further.

Only those species listed under the EPBC Act under the FFG Act (hereafter referred to as 'listed species') are assessed to determine their likelihood of occurrence. The habitat value for threatened species is calculated by the Habitat Importance Modelling produced by DEECA (DELWP 2017). Where threatened species are recorded in the study area this is noted in Appendix 1 (flora) and Appendix 2 (fauna).

Threatened species which have at least medium likelihood of occurrence are given further consideration in this report. The need for targeted survey for these species is also considered.

2.4 Site investigation

2.4.1 Flora assessment

The flora assessment was undertaken on 22 April 2021 and a list of flora species was collected. This list will be submitted to DEECA for incorporation into the Victorian Biodiversity Atlas. Planted species have not been recorded unless they are naturalised.

Native vegetation is defined in the Victoria Planning Provisions as 'plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses' (Clause 73.01).

The Guidelines classify native vegetation into two categories (DELWP 2017):

- A **patch** of native vegetation (measured in hectares) is either:
  - An area of native vegetation, with or without trees, where at least 25 percent of the total perennial understorey cover is native plants.
  - An area with three or more native canopy trees where the drip line (i.e. the outermost boundary of a tree canopy) of each tree touches the drip line of at least one other tree, forming a continuous canopy.
  - Any mapped wetland included in the *Current wetlands map*, available in DEECA systems and tools.

Patch vegetation is classified into ecological vegetation classes (EVCs). An EVC contains one or more floristic (plant) communities, and represents a grouping of broadly similar environments. Definitions of EVCs and benchmarks (condition against which vegetation quality at the site can be compared) are determined by DELWP.

- A **scattered tree** is defined as a native canopy tree that does not form part of a patch of native vegetation.

A canopy tree is a mature tree that is greater than three metres in height and is normally found in the upper layer of a vegetation type. Ecological vegetation class descriptions provide a list of the typical canopy species. A scattered tree is defined as either small or large, and is determined using the large tree benchmark for the relevant EVC. The extent of a small scattered tree is the area of a circle with a 10 metre radius (i.e. 0.031 hectares), while the extent of a large scattered tree is a circle with a 15 metre radius (i.e. 0.070 hectares). A condition score is applied to each scattered tree based on information provided by DEECA 's NVIM system.

A Vegetation Quality Assessment (VQA) was undertaken for all patches of native vegetation identified in the study area. This assessment is consistent with DEECA 's habitat hectare method (DSE 2004) and the Guidelines (DELWP 2017). For the purposes of this assessment the limit of the resolution for identification of a patch of native vegetation was taken to be 0.001 habitat hectares (Hha). That is, if a discrete patch native vegetation was present with sufficient cover but its condition and extent would not have resulted in the identification of at least 0.001 habitat hectares, the vegetation patch of vegetation was not mapped or included in the assessment.

Species nomenclature for flora and fauna follows the Victorian Biodiversity Atlas (VBA).

2.4.2 Fauna assessment

A desktop fauna assessment was undertaken to assess the fauna habitat values of the study area, and to determine the likelihood of significant fauna species occurring. The desktop fauna assessment incorporated a review of database records of significant fauna species, along with photographs and vegetation descriptions obtained during the flora assessment.

2.4.3 Permits

Biosis undertakes flora and fauna assessments under the following permits and approvals:

- Wildlife Authorisation issued by DELWP under the Victorian *Wildlife Act 1975* (Permit Number 10009836).
- Permit to Take/Keep Protected Flora issued by DEECA under the *Flora and Fauna Guarantee Act* 1988 (FFG Act) (Permit Number 10009872).
- Permit to Take Protected Fish issued by DEECA under the Flora and Fauna Guarantee Act 1988 (FFG Act) (Permit Number 10009874).
- Permit to Conduct Research in areas managed by the Parks Victoria issued by DEECA under the *National Parks Act 1975*, *Crown Land (Reserves) Act 1978* and *Parks Victoria Act 2018* (Permit Number 10010071).
- Permit to catch and release fish issued by the Victorian Fisheries Authority under the Victorian *Fisheries Act 1995* (Permit Number RP 1220, Personal File Number 13041).
- Approvals 18.21 and 20.21 issued by the Wildlife and Small Institutions Animal Ethics Committee of the Victorian Government.
- Scientific Procedures Fieldwork Licence issued by the Victorian Government Wildlife and Small Institutions Animal Ethics Committee (Licence Number 20020).

2.5 Qualifications

Ecological surveys provide a sampling of flora and fauna at a given time and season. There are a number of reasons why not all species will be detected at a site during survey, such as low abundance, patchy distribution, species dormancy, seasonal conditions, and migration and breeding behaviours. In many cases these factors do not present a significant limitation to assessing the overall biodiversity values of a site.

The current flora and fauna assessment was conducted in autumn, which is not an optimal time for survey in alpine environments due to the lack of floral identification material present. Despite this, the survey effort is considered sufficient to assess the general values of the study area.

Native Vegetation Removal Reports are prepared through DEECA's NVIM system or requested through DEECA's Ensym NVR Tool Support team. Biosis supplies relevant site-based spatial information as inputs to DEECA's and we are reliant on DEECA's output reports for all assessment pathway applications. Biosis makes every effort to ensure site and spatial information entered into the NVIM, or supplied to DEECA's, is an accurate reflection of proposed native vegetation removal. The Native Vegetation Removal Report can be viewed in Appendix 3.

2.6 Arborist assessment

This report incorporates the results of an arborist assessment conducted by Ben Truran on 29 June 2021. The TPZs and structural root zones (SRZ) were calculated for each large tree within the study area, using TreeTec's online calculator, which is based on guidelines from AS4970 – 2009 Protection of trees on development sites (Tru Tree Care 2021). The building and excavation works as described by the drawings and by Andy Mero (Send It Architecture) were approximated, and the impact on large trees was gauged (Tru Tree Care 2021).

The arborist report has not been updated to reflect new designs provided in 2024. However, where the footprint of the building has reduced or moved further away from a tree, the results of the arborist assessment are considered to remain valid and are reflected in this report's tree loss calculations. The results are summarised in section 5.1 and the full report is provided in Appendix 5.

2.7 Legislation and policy

The implications for the project were assessed in relation to key biodiversity legislation and policy including:

- Matters listed under the EPBC Act, associated policy statements, significant impacts guidelines, listing advice and key threatening processes.
- Threatened taxa, communities and threatening processes listed under Section 10 of the FFG Act and associated action statements and listing advice.
- Guidelines for the removal, destruction or lopping of native vegetation (DELWP 2017).
- *Planning and Environment Act 1987* – specifically Clauses 12.01-2, 52.17 and 66.02 and Overlays in the Alpine Resorts Planning Scheme.
- Noxious weeds and pest animals lists under the *Catchment and Land Protection Act 1994* (CaLP Act).

2.8 Mapping

Send It Architecture supplied updated site plans in 2024 (240523_Taris_Gen 02 Apartments_PP_c.pdf) which are reflected in this report.

Mapping was conducted using hand-held GPS-enabled tablets and aerial photo interpretation. The accuracy of this mapping is therefore subject to the accuracy of the tablets (generally ± 7 metres) and dependent on the limitations of aerial photo rectification and registration.

Mapping has been produced using a Geographic Information System (GIS). Electronic GIS files which contain our flora and fauna spatial data are available to incorporate into design concept plans. However, this mapping may not be sufficiently precise for detailed design purposes.

2.8.1 Vegetation removal mapping

Where the arborist assessed trees as unimpacted but trees are located within the project impact area (per designs shown in 240523_Taris_Gen 02 Apartments_PP_c.pdf) partial vegetation removal has been applied as it is assumed that the canopy will remain unimpacted by the proposed works. Where the arborist has assessed trees as impacted, full clearing has been applied and the entire canopy of the tree deemed lost has been included in vegetation removal area (per the Guidelines).

3. Results

The ecological features of the study area are described below and mapped in Figure 2.

Species recorded during the flora and fauna assessment are listed in Appendix 1 (flora) and Appendix 2 (fauna). Unless of particular note, these species are not discussed further.

Those species recorded or predicted to occur in the local area is also provided in those appendices, along with an assessment of the likelihood of the species occurring within the study area.

3.1 Vegetation and fauna habitat

A large portion of the study area has been highly modified through removal of native vegetation and alteration of the surface profile of the land. A large portion of the property has been excavated to create vehicle access to the site and a central terrace of flat land suitable for development. This area is largely devoid of native vegetation, currently supporting predominantly introduced vegetation and scattered native grasses and forbs. A stone hut has been erected at the eastern edge of the property. These previously disturbed sections of the study area do not meet the definition of a patch as described in the Guidelines and are of limited habitat value except to locally common native and introduced fauna species.

Surrounding the previously disturbed areas is native patch vegetation consistent with the description of Sub-alpine Woodland EVC. A number of large trees are present within this patch vegetation, although none of these trees were noted to be hollow-bearing.

These ecological features are described further in Table 2 and mapped in Figure 2. Photos are provided below Table 2.

3.2 Landscape context

The study area is located within Falls Creek village. Areas within and surrounding the village have been highly modified for the construction of resort infrastructure and ski runs. Small and fragmented patches of common sub-alpine vegetation are scattered throughout, creating a mosaic of disturbed areas, regenerating and native vegetation.

More broadly, the Falls Creek Alpine Resort is surrounded by Alpine National Park which consists of contiguous native alpine, sub-alpine, montane and foothill vegetation. These areas have been variously disturbed by bushfire but otherwise provide high quality contiguous habitat.

Table 2 Summary of vegetation and habitat types within the study area

Vegetation or habitat type	Description	Location	Significant values
Sub-alpine Woodland EVC 43 **Bioregional Conservation Status:** Least Concern	**Structure**: Disturbed woodland with moderate density of shrub cover. **Character species:** Canopy of Bogong Sallee *Eucalyptus pauciflora* subsp. *hedraia* is the dominant canopy species. A variety of shrubs make up the moderately dense midstorey with species including Bogong Daisy-bush *Olearia frostii,* Alpine Mintbush *Prostanthera cuneata*, Rough Coprosma *Coprosma hirtella,* Alpine Podolobium *Podolobium alpestre* and Leafy Bossiaea *Bossiaea foliosa.* The groundcover is made up of a sparse assemblage of grasses, forbs and sedges with species including Ledge Grass *Poa hothamensis,* Soft Snow-grass *Poa hothamensis,* Bidgee-widgee *Acaena novae-zelandiae,* Mountain Fireweed *Senecio gunnii,* Stinking Pennywort *Hydrocotyle laxiflora* and Carpet Sedge *Carex jackiana.* **Weeds:** Moderate cover of weeds with species including Common Blackberry *Rubus anglocandicans*, Timothy Grass *Phleum pratense*, White Clover *Trifolium repens* var. *repens*, Sheep Sorrel *Acetosella vulgaris*, and Flatweed *Hypochaeris radicata.*	Surrounding the cleared terrace within the study area.	Contains some cover of native grasses and shrubs. Native vegetation within the study area is likely habitat for Alpine Bog Skink *Pseudemoia cryodroma.* May be utilised by Broad-toothed Rat *Mastacomys fuscus mordicus* on occasion when passing between patches of more favourable habitat. May be utilised as a foraging resource by a range of woodland bird species including robins, scrubwrens, rosellas, fantails, honeyeaters, currawongs, thornbills and pardalotes. Common fauna species may include Bush Rat *Rattus fuscipes*, Common Wombat *Vombatus ursinus*, Agile Antechinus *Antechinus agilis*.
Predominantly introduced vegetation	Predominantly introduced vegetation occurs within and adjacent to previously disturbed ground. Characteristic species include Cocksfoot *Dactylis glomerata*, Timothy Grass, White Clover, Sheep Sorrel, Flatweed and Smooth Hawksbeard *Crepis capillaris*.	Within and adjacent to the previously cleared terrace and driveway.	This vegetation type may provide habitat for Alpine Bog Skink and a variety of foraging resources for birds and other common species mentioned above.

Photo 1 **Sub-alpine Woodland within the study area. View to north. Photo taken 22 April 2021.**

Photo 2 **Predominantly introduced vegetation within the study area. View to north-east. Photo taken 22 April 2021.**

3.3 Threatened species and ecological communities

Lists of threatened species recorded or predicted to occur within 10 kilometres of the study area or from the relevant catchment (aquatic species) are provided in Appendix 1 (flora) and Appendix 2 (fauna). An assessment of the likelihood of these species occurring in the study area and an indication of where within the site (i.e. which habitats or features of relevance to the species) is included. A summary of those species recorded or with a medium or higher likelihood of occurring in the study area is provided in Table 3.

Table 3 Summary of EPBC Act and FFG Act listed species most likely to occur in the study area

Species name	Listing status	Area of value within the study area
White-throated Needletail	Vulnerable under EPBC Act Vulnerable under FFG Act	Airspace above the study area.
Gang-Gang Cockatoo	Endangered under EPBC Act Endangered under FFG Act	Sub-alpine Woodland vegetation.
Broad-toothed Rat	Vulnerable under EPBC Act Vulnerable under FFG Act	Sub-alpine Woodland vegetation.
Alpine Bog Skink	Endangered under FFG Act	Sub-alpine Woodland and introduced vegetation.
Tussock Skink	Endangered under FFG Act	Sub-alpine Woodland and introduced vegetation.

3.3.1 Threatened ecological communities

EPBC Act listed communities

Two EPBC Act listed threatened ecological communities are recorded or predicted to occur within the 10 kilometre project search area (Appendix 1.3):

- *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland* critically endangered community
- *Alpine Sphagnum Bogs and Associated Fens* endangered community.

Blakely's Red-gum *Eucalyptus blakelyi*, Yellow Box *E. melliodora* and White Box *E. albens* were not recorded within or adjoining the study area, therefore the listed community is not present in the study area. The study area is also in the wrong landscape setting for this community, i.e. it does not occur in sub-alpine landscapes.

The Alpine Sphagnum Bogs and Associated Fens Bog community can be defined by the presence of Peat Moss *Sphagnum* spp., which was not found during assessment. Additionally, no other relevant species which characterise the community were recorded during the assessment and the study area does not support landscape features (i.e. groundwater fed areas with impeded drainage) required for formation of the community. This community is not present in the study area.

FFG Act listed communities

Five FFG Act listed threatened ecological communities are predicted to occur within 10 kilometres of the project search area (Appendix 1.3):

- Alpine Bog Community
- Alpine Snowpatch Community
- *Caltha introloba* Herbland Community

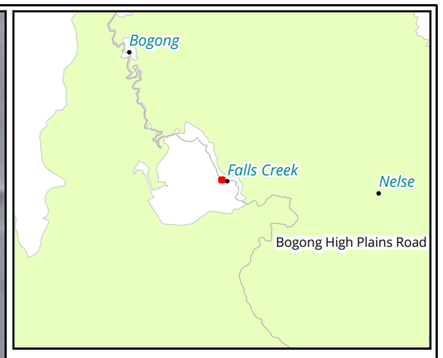
The Alpine Bog Community is synonymous with the federally listed bog community mentioned above. The study area does support characteristic species for this community.

Alpine Snowpatch vegetation communities typically occur on the steeper sheltered alpine slopes, often with a south-eastern aspect, where snow persists into warmer periods of the year. The study area is in a sub-alpine setting (i.e. below the tree-line) and therefore does not support suitable habitat for this community.

The *Caltha introloba* Community occupies a specialised type of habitat. It mainly occurs on flat rocky outwashes of some snowpatch communities in the sub-alpine zone, but has also been recorded within steep snowpatches in the alpine zone above 1800 metres. The study area contains no rocky outwash or snowpatch, therefore it does not meet the requirements to be considered part of this FFG listed community.

EPBC Further survey recommendations

No further surveys are recommended.



Legend

- Study area
- Impact area
- Current parcel boundary
- Large patch tree

Ecological Vegetation Class

- (VAlp0043) Sub-alpine Woodland

Figure 2 Ecological features of the study area

0 5 10 15 20 25

Metres

Scale: 1:500 @ A3

Coordinate System: GDA 1994 MGA Zone 55

N

Matter: 34984,
Date: 17 August 2021 ,
Checked by: GZ, Drawn by: DK, Last edited by: dkang
Layout: 34984_F2_EcoFeatures
Project: P:\34900s\34984\Mapping\
34984_TarisDevFallsCreek_FFA.aprx

4. Biodiversity legislation and government policy

This section provides an assessment of the project in relation to key biodiversity legislation and government policy. This section does not describe the legislation and policy in detail. Where available, links to further information are provided.

4.1 Commonwealth

4.1.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act applies to developments and associated activities that have the potential to significantly impact on Matters of National Environmental Significance (MNES) protected under the Act.

Link for further information including a guide to the referral process is available at: http://www.environment.gov.au/epbc/index.html.

MNES relevant to the project are summarised in Table 4. It includes an assessment against the EPBC Act policy statements published by the Australian Government which provide guidance on the practical application of EPBC Act.

Table 4 Assessment of project in relation to the EPBC Act

MNES	Project specifics	Assessment against significant impact guidelines
Threatened species	32 EPBC Act listed fauna species and 14 EPBC Act listed flora species have been recorded or are predicted to occur in the project search area. The likelihood of these species occurring in the study area is assessed in Table 10 (flora) and Table 12 (fauna).	No flora species are considered likely to occur due to absence of suitable habitat or to previous disturbance within the study area. Most fauna species are not likely to occur or only occur on an irregular basis. Of the fauna with a medium or higher likelihood of occurring, White-throated Needletail is an almost exclusively aerial species which will not be impacted by the proposed works as it is unlikely to utilise terrestrial habitat within the study area. Gang-gang Cockatoo is likely to utilise the study area for occasional foraging but given scale of proposed habitat removal in the context of available habitat of similar or higher quality in the surrounding area, the proposed works are unlikely to impact on this species. Broad-toothed Rat prefers moderate to dense grass or sedge cover within forested areas, it is unlikely the study area will support a permanent or significant population of the species.

MNES	Project specifics	Assessment against significant impact guidelines
		Alpine Bog Skink prefers grassy patches within alpine and sub-alpine grasslands, it is unlikely the study area will support a permanent or significant population of the species. Significant impact to any of the above species is not considered likely.
EPBC Act listed ecological communities	Two EPBC Act listed ecological communities are recorded or predicted to occur in the 10 km project search area.	Remnant Blakely's Red-gum, Yellow Box and White Box trees were not recorded within or adjoining the study area, and the ecological community does not occur in subalpine areas. Therefore, the critically endangered community is not present in the study area. Due to the absence of key indicator species, including Peat Moss *Sphagnum* spp. and other characteristic species, the critically endangered community is not present in the study area.
Migratory species	11 migratory species have been recorded or predicted to occur in the project search area (Table 13).	While some of these species would be expected to use the study area on the rare occasion, it does not provide important habitat for an ecologically significant proportion of any of these species.
Wetlands of international importance (Ramsar sites).	The study area is identified as being within the catchment of seven Ramsar sites: • Banrock Station Wetland Complex • Barmah Forest • Gippsland Lakes • Hattah- Kulkyne lakes • NSW Central Murray State Forests • Riverland • The Coorong, and Lakes Alexandrina and Albert Wetland.	The study area does not drain directly into any Ramsar sit. The development is not likely to result in a significant impact.

On the basis of criteria outlined in the relevant *Significant Impact Guidelines* it is considered unlikely that a significant impact on a Matter of National Environmental Significance would result from the proposed action. Referral of the proposed action to the Australian Government Minister for the Environment to determine whether the action requires approval under the EPBC Act is therefore unlikely to be required, however the proponent may choose to refer the project for legal certainty.

4.2 State

4.2.1 Flora and Fauna Guarantee Act 1988 (FFG Act)

The FFG Act is the key piece of Victorian legislation for the conservation of threatened species and communities and for the management of potentially threatening processes. Under the FFG Act a permit is required from DEECA to 'take' protected flora species. Permit exemptions under the FFG Act generally apply to the non-commercial removal of protected flora from private land, unless there is 'critical habitat' that has been declared on the land. Authorisation under the FFG Act is required to collect, kill, injure or disturb listed fish on private or public land.

Link for further information: https://www.environment.vic.gov.au/conserving-threatened-species/victorias-framework-for-conserving-threatened-species

The FFG Act defines public land as *Crown land or land owned by, or vested in, a public authority,* while private land is defined as *any land other than public land.* A public authority is defined in the FFG Act as a body established for a public purpose by or under any Act and includes:

- an Administrative Office
- a Government Department
- a municipal council
- a public entity
- a State-owned enterprise.

There is one protected flora species present in the study area(Appendix 1.1). A protected flora permit from DEECA will be required if this species will be affected by the proposal, as the study area is on leased Crown land and is therefore considered to be public land for the purposes of the FFG Act.

4.2.2 Catchment and Land Protection Act 1994 (CaLP Act)

The CaLP Act identifies and classifies certain species as noxious weeds or pest animals, and provides a system of controls on noxious species. Declared noxious weeds identified in the study area are listed in Appendix 1 (Table 9).

The proponent must take all reasonable steps to eradicate regionally prohibited weeds, prevent the growth and spread of regionally controlled weeds, and prevent the spread of and as far as possible eradicate established pest animals. The State is responsible for eradicating State prohibited weeds from all land in Victoria.

Link for further information: http://agriculture.vic.gov.au/agriculture/pests-diseases-and-weeds.

4.2.3 Planning and Environment Act 1987 (incl. Planning Schemes)

The *Planning and Environment Act 1987* controls the planning and development of land in Victoria, and provides for the development of planning schemes for all municipalities.

Of particular relevance to the development proposal are controls relating to the removal, destruction or lopping of native vegetation contained within the Alpine Resorts Planning Scheme (the Scheme), including permit requirements. The Scheme (Clause 73.01) defines 'native vegetation' as 'Plants that are indigenous to Victoria, including trees, shrubs, herbs, and grasses'. It is an objective of Clause 12.01-2 of the State Planning Policy Framework (Native Vegetation Management) that removal of native vegetation results in no net loss in the contribution made by native vegetation to Victoria's biodiversity.

Clause 52.17 (Native Vegetation) requires a planning permit to remove, destroy or lop native vegetation including some dead native vegetation. Decision guidelines that must be considered by the referral or responsible authority are contained in Section 7 of the Guidelines, and referred to in Clause 52.17-4. Clause 52.17 does not apply if a Native Vegetation Precinct Plan corresponding to the land is incorporated in the Scheme. It should be noted that where native vegetation does not meet the definition of a patch or scattered tree, as described in Section 3.1, the Guidelines do not apply. However, a permit may still be required to remove, destroy or lop native vegetation under the provisions of the Scheme.

Clause 65.02 requires consideration of native vegetation retention in a subdivision application and siting of open space areas.

Under Clause 66.02 a permit application to remove, destroy or lop native vegetation is required to be referred to DEECA as a recommending referral authority if any of the following apply:

- the class of application is on the detailed assessment pathway
- a property vegetation precinct plan applies to the site or
- the native vegetation is on Crown land occupied or managed by the Responsible Authority.

The need for a permit to remove native vegetation may also be triggered by other overlays within the Scheme. The location of the overlays in relation to the study area can be determined via the following link: http://planningschemes.dpcd.vic.gov.au. The provisions of the following overlays apply to the study area:

- Bushfire Management Overlay (BMO) covers the entire study area.
- Erosion Management Overlay (EMO1) covers the entire study area and is related to the removal of all vegetation, both native and non-native.

Design and Development Overlay – Schedule 2

This overlay aims to ensure that new development in the Falls Creek Village is sensitive in scale and location to the landscape, trees, and views of the village, that buildings are sited appropriately in response to site topography, and works are designed in a manner that encourages the retention of indigenous vegetation. Section 2.2 of the overlay specifically deals with retention of native vegetation, and encourages designs to meet the following requirements:

- Construction should result in no net loss of native vegetation, and must be done in accordance with the Guidelines.
- Development should be level with or below the top of the tree line.
- Development should retain, where feasible, all native vegetation on site that is performing a screening function.
- Visual interruptions to the treed skyline must be avoided.

- Vehicle and pedestrian access points to new buildings must be combined, where possible, to minimise vegetation losses and visual impacts to the village's street frontages.

Victoria's Guidelines for the removal, destruction or lopping of native vegetation

The Guidelines are incorporated into the Victoria Planning Provisions and all planning schemes in Victoria (DELWP 2017). The Guidelines replaced the previous incorporated document titled *Permitted clearing of native vegetation – Biodiversity assessment guidelines* (DEPI 2013) on 12 December 2017.

The purpose of the Guidelines is to guide how impacts to biodiversity should be considered when assessing a permit application to remove, destroy or lop native vegetation. The objective for the guidelines in Victoria is 'No net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation'.

A detailed assessment of the implications for the project under the Guidelines is provided in Section 5 of this report. Under the Guidelines, there are three assessment pathways for assessing an application for a permit to remove native vegetation: basic, intermediate and detailed.

A detailed determination of the assessment pathway for the planning application relevant to the proposed development is provided in Section 5.2. In summary, the planning application for removal of native vegetation must meet the requirements of, and be assessed in, the intermediate assessment pathway.

5. Victoria's Guidelines for the removal, destruction or lopping of native vegetation

The Guidelines set out and describe the application of Victoria's statewide policy in relation to assessing and compensating for the removal of native vegetation in order to achieve the objective of 'no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation' (DELWP 2017).

This objective is to be achieved through Victoria's planning system using an assessment approach that relies on strategic planning and the permit and offset system. The key policy for achieving no net loss to biodiversity is the three-step approach of avoid, minimise and offset:

- **Avoid** the removal, destruction or lopping of native vegetation to ensure that the important biodiversity values of native vegetation continue to be delivered into the future.
- **Minimise** impacts resulting from the removal of native vegetation that cannot be avoided.
- Provide an **offset** to compensate for the biodiversity impact resulting from the removal of native vegetation.

Due to the site's size, the position of native vegetation on the site and the size of the development, avoidance of native vegetation was not feasible without undermining the projects objectives and rendering the development infeasible. The steps that have been taken during the design of the development to ensure that impacts on biodiversity from the removal of native vegetation have been minimised include:

- As much as possible the proposed development has utilised the existing cleared and excavated space in the centre of the site.
- Utilising existing access routes for machinery and vehicle access during construction.
- Locating temporary site storage on existing disturbed land to minimise impacts to native vegetation.

DEECA has provided biodiversity information tools to assist with determining the assessment pathway associated with the removal of native vegetation and the contribution that native vegetation within the study area makes to Victoria's biodiversity.

All planning permit applications to remove native vegetation are assigned to an assessment pathway determined by the extent and location of proposed native vegetation removal. The assessment pathway will dictate the information to be provided in a planning permit application and the decision guidelines DEECA as a referral authority will use to assess the permit application.

The biodiversity information tools have two components:

Site-based information

The site-based information is observable at a particular site. Biosis has collected the requisite site-based information for the assessment against the Guidelines.

Landscape scale information

Landscape scale information requires consideration of information beyond the site. This information is managed by DELWP and can be accessed via the NVIM.

The following section summarises the results of the site-based assessment and the outputs generated by the Native Vegetation Removal Report, which identifies the assessment pathway on which the planning application will be assessed. The full Native Vegetation Removal Report can be viewed in Appendix 3.

5.1 Proposed removal of native vegetation

The extent of native vegetation patches, the location of large trees within patches and any scattered trees were mapped within the study area (Figure 2) and the condition was assessed in relation to standard methods provided by DSE (2004) and pre-determined EVC benchmarks: https://www.environment.vic.gov.au/biodiversity/bioregions-and-evc-benchmarks.

An arborist has undertaken an assessment of trees within the study area (Tru Tree Care 2021). The arborist report was reconciled with Biosis mapping and calculations of tree protection zone (TPZ) encroachment. Of the ten large trees within the study area, four will be impacted by the proposed works and have been included in loss calculations. The arborist report is provided in Appendix 5.

The proposed removal of native vegetation was assessed in accordance with the concept design provided (210628_Taris_PP_V6.4 - Sheet - A102 - SEMP). The development proposes to remove 0.085 hectares of native vegetation, including four large trees within patches (Figure 3). Spatial data (shapefiles) of proposed vegetation removal were submitted to DEECA's native vegetation support team, who provided a Native Vegetation Removal Report for the project. This is provided in Appendix 3 and summarised in the following sections 5.2-5.4.

5.1.1 Vegetation Quality Assessment

A continuous area of the same EVC is termed a 'habitat zone'. Different habitat zones exists where there are different EVCs present and/or discrete (non-continuous) patches of the same EVC. Habitat zones were grouped into condition states. A separate vegetation quality assessment was conducted for each EVC condition state. The results of the vegetation quality assessment are provided in Table 5 below.

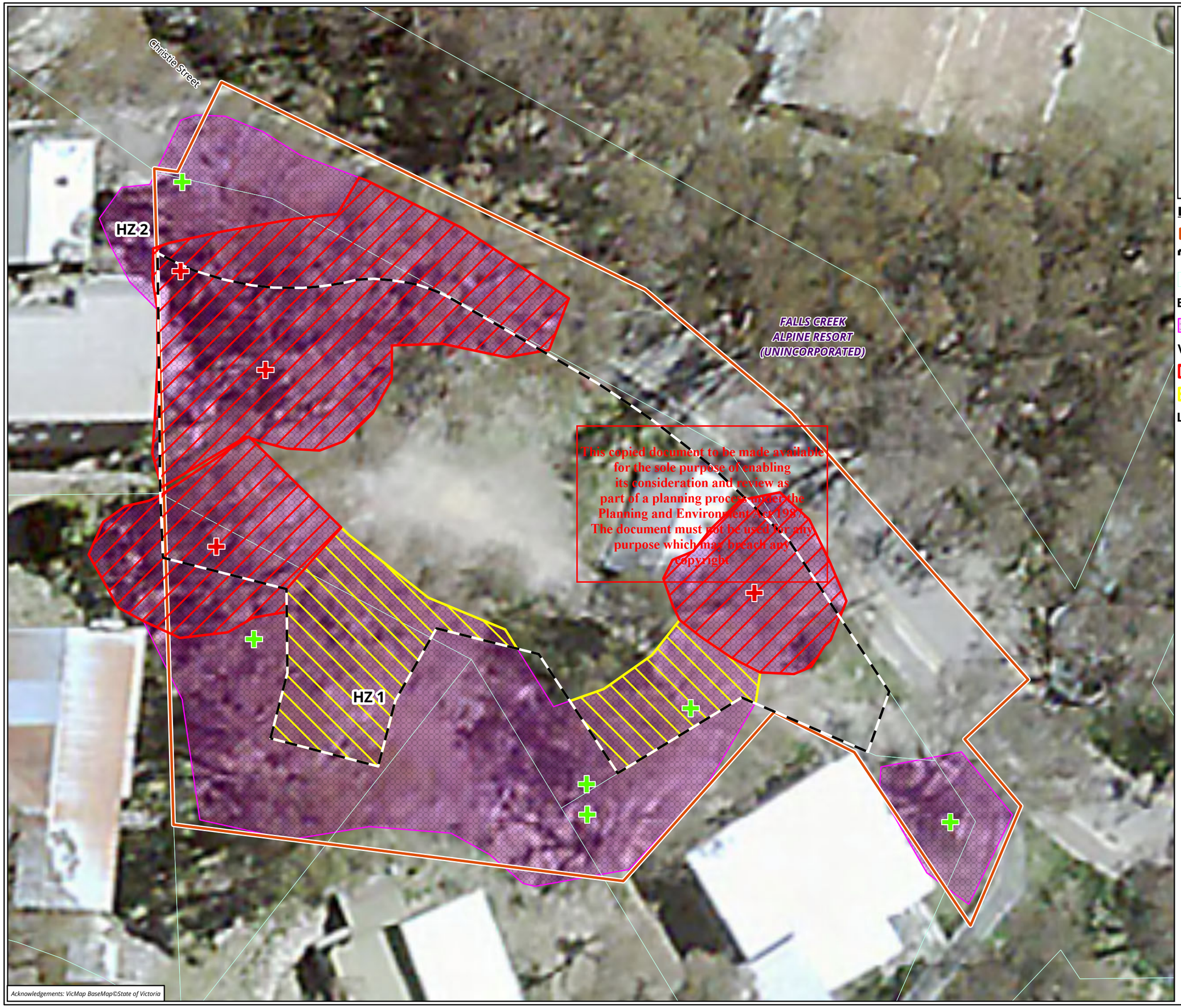
Table 5 Vegetation Quality Assessment scores within the study area

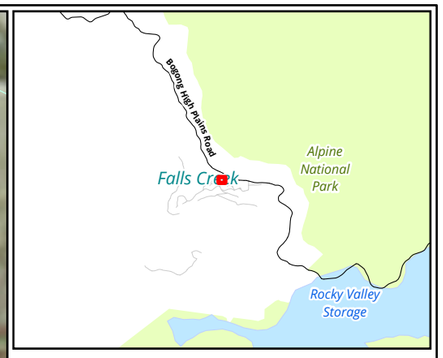
Habitat Zone ID			1, 2	3
EVC #: Sub-alpine Woodland EVC43				
		Max Score	Score	Score
Site Condition	Large Old Trees	10	9	10
	Canopy Cover	5	5	5
	Lack of Weeds	15	4	4
	Understorey	25	20	5
	Recruitment	10	6	0
	Organic Matter	5	5	5
	Logs	5	2	0
	Total Site Score		51	29
Landscape Value	Patch Size	10	1	1
	Neighbourhood	10	3	3
	Distance to Core	5	3	3
	Total Landscape Score		7	7
HABITAT SCORE		100	58	36
Habitat points = #/100		1	0.58	0.36

A total of four large trees occur within patches of native vegetation within the study area. The locations of large trees within patches are shown in Figure 2 and the circumference of each large tree deemed lost is provided below in Table 6. The six other large trees will not be impacted if works are performed as described, as works will not impact TPZs or only minor surface disturbance or lopping of limbs is required. These trees are to be retained.

Table 6 Tree data for large trees deemed lost within the study area

Tree #	Scientific name	Common name	Circumference (cm)	Status
3	*Eucalyptus pauciflora* subsp. *hedraia*	Bogong Sally	135.09	Lost
4	*Eucalyptus pauciflora* subsp. *hedraia*	Bogong Sally	131.95	Lost
5	*Eucalyptus pauciflora* subsp. *hedraia*	Bogong Sally	135.09	Lost
9	*Eucalyptus pauciflora* subsp. *hedraia*	Bogong Sally	135.09	Lost





Legend

- Study area
- Impact area
- Current parcel boundary

Ecological vegetation classes (EVCs)

- (VAlp0043) Sub-alpine Woodland

Vegetation proposed to be removed

- Full clearing
- Partial clearing

Large patch trees

- To be retained
- To be removed

Figure 3 Vegetation proposed to be removed

0 2 4 6 8 10

Metres

Scale: 1:250 @ A3

Coordinate System: GDA2020 MGA Zone 55

N

biosis

Matter: 41016,
Date: 01 July 2024,
Prepared for: GZ, Prepared by: SP, Last edited by: spanter
Layout: 41016_F3_Veg_removal
Project: P:\41000s\41016\Mapping\
41016_Taris_FFA_update.aprx

5.2 Determining the assessment pathway

Applications to remove native vegetation are categorised into one of three assessment pathways: basic, intermediate or detailed. Two factors are used to determine the assessment pathway for a permit application, the **location** and **extent** of the native vegetation proposed to be removed. Location has been divided into three possible categories by DEECA, and has been pre-determined by DEECA for all locations in Victoria. The location of a particular site is determined using the *location map* available in the NVR Map online application tool (https://mapshare.vic.gov.au/nvr/).

The extent of native vegetation proposed to be removed determines the assessment pathway by considering the following:

- The total area (hectares) of native vegetation (including any patches and scattered trees) proposed to be removed
- Whether any large trees are proposed to be removed, either as scattered trees or occurring in patches.

It is proposed to remove < 0.5 hectares of native vegetation and four large trees from within location category 1, therefore the application for removal of this native vegetation must meet the requirements of, and be assessed in, the intermediate assessment pathway. These requirements are provided in Appendix 3.

5.3 Offset requirements

In order to ensure a gain to Victoria's biodiversity that is equivalent to the loss resulting from the proposed removal of native vegetation, compensatory offsets are required. Losses and gains are measured in general or species habitat scores or units. The offset must also include at least one large tree for every large tree removed.

Under the Guidelines any losses of vegetation within sites that are assessed under the basic/intermediate assessment pathway can be offset by the provision of a 'general offset'.

The general offset requirements are provided in Appendix 3 and summarized in Table 7.

Table 7 Summary of DELWP Native Vegetation Removal Report

Attribute	Outcome	Notes
Location category	1	Lowest location risk
Native vegetation removal extent	0.085 hectares	Including patch vegetation and large trees within patches
Assessment pathway	Intermediate	Based on proposed removal of < 0.5 hectares of native vegetation and four large trees
Strategic Biodiversity Value Score	0.270	Consistent score over multiple patches
Offset amount: general habitat units	0.041 units	0.041 general habitat units required
General offset vicinity	North East Catchment Management Authority (CMA) or Falls Creek Alpine Resort (Unincorporated)	The offset site must be located within the same CMA boundary or municipal district as the native vegetation to be removed.
General offset minimum Strategic Biodiversity Value Score	0.216	The offset must have a minimum SBV of 0.216
Large tree attributes	Four large trees	The offset must include protection of at least one large tree for every large tree to be removed.

5.4 Proposed offset strategy

Taris Alpine Holdings may decide to purchase the required offset credits from the Victorian native vegetation credit register. A search of the Native Vegetation Credit Register (NVCR) confirms these units are available, a search extract is provided in Appendix 4.

6. Key ecological values and recommendations

The study area contains a small patch of Sub-alpine Woodland, which has been significantly disturbed by surrounding resort development. This small patch contains a moderate number of the understorey species that define this vegetation type and all structural habitat components are present.

The EPBC Act listed species Broad-toothed Rat may forage within the study area on occasion while White-throated Needletail may occupy airspace above the study area. The FFG Act listed species Alpine Bog Skink may bask and shelter within the study area.

Based on the construction footprint provided by Send It Architecture, potential impact to biodiversity values include:

- Removal of 0.085 hectares of native vegetation with a strategic biodiversity value score of 0.270.
- Removal of habitat for threatened species or potential for indirect impacts, including:
  - Potential habitat for the EPBC Act listed fauna species: White-throated Needletail (flyover) and Broad-toothed Rat.
  - Habitat for FFG Act listed fauna species: Alpine Bog Skink.
- Mortality of wildlife during construction works, particularly resident and relatively sedentary species such as reptiles and frogs.

The primary measure to reduce impacts to biodiversity values within the study area is to avoid and minimise removal of native vegetation and terrestrial and aquatic habitat. It is critical that this be considered during the design phase of the project, when key decisions are made about the location of built infrastructure, site compounds and temporary material storage/stockpiles. The results of this assessment should therefore be incorporated into the project design, by adding the flora and fauna mapping information into the planning maps and investigating options to retain as much of the mapped vegetation/habitats as possible. Priority should be given to highest value areas and retaining larger areas in preference to numerous smaller ones.

All areas of vegetation/habitat nominated in the design plan as 'retained' are to be treated as no-go zones and are not to be encroached upon as development progresses.

A summary of potential implications of development of the study area and recommendations to minimise impacts during the **design phase** of the project is provided in Table 8.

Table 8 Summary of key ecological values, potential implications of developing the study area and recommendations to minimise ecological impacts during the design phase.

Ecological feature (Figure 2)	Implications of development	Recommendations
Native vegetation	The permanent removal of 0.085 hectares of vegetation including four large trees within patches. The application will be assessed on the intermediate assessment pathway.	Avoid and minimise removal of native vegetation, in accordance with the Guidelines. Refer to Section 5. Vegetation outside of the construction footprint should be fenced off and sign-posted as no-go zones. Environmental inductions should inform contractors of no-go zones. Identify and implement appropriate offsets for vegetation losses as outlined in Section 5.3.
Significant species and ecological communities	Removal of known/potential habitat for significant species (as identified in Table 3).	Implement appropriate safeguards to avoid the accidental loss of vegetation during the construction phase of the project. Protect key values by retaining features and including appropriate buffers into design.

Construction and post-construction management

Specific detail relating to preventing impacts to retained native vegetation and aquatic and terrestrial habitat should be addressed in a site-specific Site Environmental Management Plan (SEMP). This will include recommendations to be implemented by contractors to reduce environmental impacts such as environmental inductions, installation of temporary fencing/signage, drainage and sediment control.

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Appendices

Appendix 1 Flora

The following abbreviations and symbols are relevant to this Appendix:

Code	Meaning	Reference
National listings (EPBC Act)		
EX	Extinct	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
CR	Critically endangered	
EN	Endangered	
VU	Vulnerable	
PMST	Protected Matters Search Tool	
State listings (FFG Act and DELWP Advisory List)		
x	Extinct	Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)
cr	Critically endangered	
e	Endangered	
v	Vulnerable	
t	Threatened	
P	Protected (public land only)	
RU	Restricted use	
Weed status (CaLP Act, DAWE Weeds of National Significance and DELWP Advisory List[1])		
SP	State prohibited species	Victorian *Catchment and Land Protection Act 1994* (CaLP Act)
RP	Regionally prohibited species	
RC	Regionally controlled species	

[1] The DELWP Advisory List for Rare or Threatened Plants was revoked in 2021 and are superseded by the current list of threatened species under the FFG Act 1988.

Appendix 1.1 Flora species recorded from the study area

Table 9 Flora species recorded from the study area

Status	Scientific Name	Common Name
Indigenous species		
RU	*Acacia obliquinervia*	Mountain Hickory Wattle
	Acaena novae-zelandiae	Bidgee-widgee
	Asperula gunnii	Mountain Woodruff
	Asperula pusilla	Alpine Woodruff
	Bossiaea foliosa s.s.	Leafy Bossiaea
e, r	*Carex jackiana*	Carpet Sedge
v, RU, r	*Celmisia tomentella*	Silver Snow-daisy
	Clematis aristata	Mountain Clematis
	Coprosma hirtella	Rough Coprosma
	Daviesia latifolia	Hop Bitter-pea
	Dianella tasmanica	Tasman Flax-lily
cr, r	*Eucalyptus pauciflora* subsp. *hedraia*	Bogong Sally
	Geranium spp.	Crane's Bill
	Gonocarpus montanus	Mat Raspwort
	Goodenia hederacea subsp. *alpestris*	Ivy Goodenia
e, RU, r	*Grevillea victoriae* subsp. *victoriae*	Royal Grevillea
	Hydrocotyle laxiflora	Stinking Pennywort
	Lotus spp.	Trefoil
v, P, r	*Olearia frostii*	Bogong Daisy-bush
	Oreomyrrhis eriopoda	Australian Caraway
	Ozothamnus secundiflorus	Cascade Everlasting
e, r	*Phebalium squamulosum* subsp. *alpinum*	Alpine Phebalium
	Poa hiemata	Soft Snow-grass
	Poa hothamensis	Ledge Grass
	Podocarpus lawrencei	Mountain Plum-pine
	Podolobium alpestre	Alpine Shaggy-pea
	Polyscias sambucifolia	Elderberry Panax
RU	*Polystichum proliferum*	Mother Shield-fern
	Poranthera microphylla s.s.	Small Poranthera
RU	*Prostanthera cuneata*	Alpine Mint-bush
	Rubus parvifolius	Small-leaf Bramble
RU	*Senecio gunnii*	Mountain Fireweed
RU	*Senecio linearifolius* var. *latifolius*	Fireweed Groundsel (montane variant)
	Tasmannia xerophila subsp. *xerophila*	Alpine Pepper
	Veronica derwentiana subsp. *derwentiana*	Derwent Speedwell

Introduced species		
	Acetosella vulgaris	Sheep Sorrel
	Achillea millefolium	Milfoil
	Agrostis capillaris	Brown-top Bent
	Anthoxanthum odoratum	Sweet Vernal-grass
	Cerastium glomeratum s.s.	Sticky Mouse-ear Chickweed
	Crepis capillaris	Smooth Hawksbeard
	Dactylis glomerata	Cocksfoot
	Holcus lanatus	Yorkshire Fog
	Hypochaeris radicata	Flatweed
	Lotus uliginosus	Greater Bird's-foot Trefoil
	Lysimachia arvensis var. *arvensis*	Scarlet Pimpernel
	Malus spp.	Apple
	Phleum pratense	Timothy Grass
	Prunella vulgaris	Self-heal
RC	*Rubus anglocandicans*	Common Blackberry
	Sonchus oleraceus	Common Sow-thistle
	Stellaria media	Chickweed
	Trifolium repens var. *repens*	White Clover
	Verbascum virgatum	Twiggy Mullein

Appendix 1.2 Threatened flora species

The following table includes the Nationally Significant threatened flora species that have potential to occur within the study area only. The list of species is sourced from the VBA and PMST (accessed on 21 June 2024). Where years are specified for the most recent database records, these refer to records from the VBA unless otherwise specified. Where no year is specified, the PMST has predicted that the species has potential to occur. A proportion of the flora habitat descriptions have been reproduced with permission from the Royal Botanic Gardens Victoria (VicFlora 2024).

Table 10 Threatened flora species recorded or predicted to occur within 10 km of the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
National significance								
Argyrotegium nitidulum	Shining Cudweed	VU		2020	PMST	Restricted to damp, open grassland communities between Mt Cope and Mt Nelse.	**Low**	No suitable habitat and generally found at higher altitudes (above the treeline) than the study area
Caladenia concolor	Crimson Spider-orchid	VU	e		PMST	Open, grassy understorey in Box Ironbark and dry foothill forests.	**Negligible**	Not known from within the resort, no suitable habitat.
Colobanthus curtisiae	Snowy Colobanth	VU			PMST	Grassland and grassy woodland; known in Victoria from a small number of records in the Alpine National Park.	**Negligible**	Not known from within the resort, no suitable habitat.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Euphrasia crassiuscula subsp. glandulifera	Thick Eyebright	VU	cr	2004	PMST	Alpine grasslands, heathlands and herbfields.	**Negligible**	No suitable habitat.
Euphrasia eichleri	Bogong Eyebright	VU	e	2007	PMST	Low open heath, grassland, and Sphagnum bogs in alpine and higher subalpine tracts.	**Low**	No suitable habitat.
Glycine latrobeana	Clover Glycine	VU	v		PMST	Grasslands and grassy woodlands, particularly those dominated by Kangaroo Grass.	**Negligible**	No suitable grassy woodland within the study area and species is unlikely to occur in sub-alpine areas at Falls Creek
Kelleria bogongensis	Snow Daphne	VU	cr	2006	PMST	Depressions within Bog Snow-grass grassland and Mud Pratia spp. – Alpine Stackhousia spp. herblands. Confined to the Bogong High Plains.	**Negligible**	Most records for this species are between Mount Jim and Mount Jaithmathang on the Bogong High Plains. No suitable habitat for this species within the study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Leucochrysum albicans subsp. tricolor	White Sunray	EN	e		PMST	Grasslands of the Victorian Volcanic Plains, primarily on acidic clay soils derived from basalt, with occasional occurrences on adjacent sedimentary, sandy-clay soils.	**Negligible**	No suitable habitat, no records in or surrounding study area.
Lobelia gelida	Snow Pratia	VU	e		PMST	Alpine grasslands, on heavy dark mud around seasonal pools and creek edges.	**Negligible**	No suitable habitat, no records in or surrounding study area.
Prasophyllum morganii	Mignonette Leek-orchid	VU	x		PMST	Known from only one location near Cobungra in Snow Gum open forest at about 1000 m ASL. Presumed to be extinct.	**Negligible**	Not known from area and presumed extinct.
Pterostylis oreophila	Blue-tongue Greenhood	CR			PMST	Damp, shady habitat along watercourses.	**Negligible**	Species associated with *Leptospermum grandiflorum* thickets. No suitable habitat within the study area.
Thesium australe	Austral Toad-flax	VU	e		PMST	Most commonly in damp grassland and woodland, including subalpine grassy heathlands.	**Negligible**	No suitable habitat, the study area is above the altitudinal

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
								range for this species.
Viola improcera	Dwarf Violet	EN			PMST	Within Victoria only known only from 2 localities (Mt Useful and the Nunniong Plateau) where growing in high-altitude open shrubland or Snow-gum woodland).	**Negligible**	Snow-gum woodland present however habitat within the study area is highly modified. A very rare species only known from two locations in Victoria.
Xerochrysum palustre	Swamp Everlasting	VU	cr		PMST	Sedge-swamps and shallow freshwater marshes and swamps in lowlands, on black cracking clay soils.	**Negligible**	No suitable habitat.

Appendix 1.3 Threatened ecological communities

The following table includes threatened ecological communities that have potential to occur within the project area, compiled with reference to characteristics of FFG Act threatened communities (DEECA 2023) and predictive output from the PMST (accessed on 21 June 2024).

Table 11 Threatened ecological communities predicted to occur within 10 km of the project area.

Ecological Community	Status	Comments
Alpine Sphagnum Bogs and Associated Fens	EN	This community is typically found in alpine, sub-alpine and montane environments, often above the tree line. Can also occur in frost hollows and cold air drainage locations below the tree line (where trees are locally absent). The key defining feature is the presence of Sphagnum Moss *Sphagnum* spp., even though it is not always the dominant genus. The study area did not contain Sphagnum Moss and few other indicator species. Therefore, it does not meet the requirements to be considered part of this EPBC listed community.
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	CR	Remnant woodland eucalypts typical of this community were not recorded within or adjoining the study area and do not occur in sub-alpine areas. The study area therefore does not meet the requirements to be considered part of this EPBC listed community.
Alpine Bog Community	NA	The Alpine Bog Community is described as bog or moss bed with the dominant vegetation including Spreading Rope-rush *Empodisma minus*, Candle Heath *Richea continentis*, Snowgrass *Poa costiniana*, Sphagnum moss *Sphagnum* spp., Alpine Baeckea *Baeckea gunniana*, Silver Astelia *Astelia alpina var. novae-hollandiae* and Fen Sedge *Carex gaudichaudiana*. The study area did not contain *Sphagnum* moss and few other indicator species. Therefore, it does not meet the requirements to be considered part of this FFG listed community.
Alpine Snowpatch Community	NA	Snowpatch vegetation communities typically occur on the steeper sheltered alpine slopes, often with a south-eastern aspect, where snow persists into warmer periods of the year. The site faces north-west and does not retain snow, therefore it does not meet the requirements to be considered part of this FFG listed community.
Caltha introloba Herbland Community	NA	This community occupies a specialised type of habitat. It mainly occurs on flat rocky outwashes of some snowpatch communities in the sub-alpine zone, but has also been recorded within steep snowpatches in the alpine zone above 1800 m. The study area contains no rocky outwash or snowpatch, therefore it does not meet the requirements to be considered part of this FFG listed community.

Appendix 2 Fauna

The following abbreviations and symbols are relevant to this Appendix:

Code	Meaning	Reference
National listings (EPBC Act)		
EX	Extinct	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
CR	Critically endangered	
EN	Endangered	
VU	Vulnerable	
NT	Near threatened	
CD	Conservation dependent	
PMST	Protected Matters Search Tool	
State listings (FFG Act and DELWP Advisory List)[2]		
x	Extinct	Victorian *Flora and Fauna Guarantee Act 1988* (FFG Act)
cr	Critically endangered	
e	Endangered	
v	Vulnerable	
t	Threatened	
P	Protected (fish only)	

[2] The DELWP Advisory Lists for Threatened Terrestrial and Invertebrate Fauna were revoked in 2021 and are superseded by the current list of threatened species under the FFG Act 1988.

Appendix 2.1 Threatened fauna species

The following table includes a list of the threatened fauna species that have potential to occur within the study area. The list of species is sourced from the VBA and PMST (accessed on 21 June 2024). Where years are specified for the most recent database records, these refer to records from the VBA unless otherwise specified. Where no year is specified, the PMST has predicted that the species has potential to occur.

Table 12 Threatened fauna species recorded or predicted to occur within 10 km of the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
National significance								
Gallinago hardwickii	Latham's Snipe	VU		2018	PMST	A migrant to Australia from July to April occurring in a wide variety of permanent and ephemeral wetlands. Prefers open freshwater wetlands with nearby cover, but also recorded on the edges of creeks and rivers, river-pools and floodplains. Forages in soft mud at edge of wetlands and roosts in a variety of vegetation around wetlands including tussock grasslands, reeds and rushes, tea-tree scrub, woodlands and forests.	**Low**	No suitable wetland habitat within study area.
Rostratula australis	Australian Painted-snipe	EN	cr		PMST	Shallows of well-vegetated freshwater wetlands.	**Negligible**	No suitable habitat within study area.
Calyptorhynchus lathami	Glossy Black-Cockatoo	VU	v	2013		Forests and woodlands with Buloke Allocasuarina spp.	**Negligible**	No suitable habitat within study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Callocephalon fimbriatum	Gang-gang Cockatoo	EN	e	2019	PMST	S Vic to E NSW. Forests and woodlands from coast to alpine areas. Autumn-winter dispersal from highlands to lower elevations. Forages in eucalypts, acacias and some exotic garden trees and shrubs.	**High**	Suitable habitat present and recent local records. Species known from the local area.
Neophema chrysostoma	Blue-winged Parrot	VU			PMST	A range of coastal, sub-coastal and semi-arid regions throughout south-eastern Australia. Feeds on seeds of a range of native grasses and herbs.	**Negligible**	No suitable habitat and no local records. Species usually found at lower elevations in coastal and semi-arid regions.
Hirundapus caudacutus	White-throated Needletail	VU	v	1993	PMST	An almost exclusively aerial species within Australia, occurring over most types of habitat, particularly wooded areas.	**High**	Species may utilise air space above the study area, but unlikely to utilize terrestrial habitat.
Calidris ferruginea	Curlew Sandpiper	CR	cr		PMST	Large intertidal sandflats, banks, mudflats, estuaries, inlets, sewage farms, saltworks, harbours, coastal lagoons and bays.	**Negligible**	No suitable habitat and no local records.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Calidris acuminata	Sharp-tailed Sandpiper	VU			PMST	Prefers muddy edges of shallow fresh or brackish wetlands with inundated or emergent low vegetation. Occasionally use flooded paddocks and other ephemeral wetlands.	**Negligible**	No suitable habitat and no local records.
Pycnoptilus floccosus	Pilotbird	VU	v	1997	PMST	E Vic to SE NSW. Largely ground-dwelling among leaf litter, logs and lower storey vegetation of wet sclerophyll forests and rainforest. Less often, alpine and coastal woodlands.	**Low**	Species associated more closely with montane environments. While the species may pass through on occasion, it is unlikely to utilise the study area given the modified context of Falls Creek village
Grantiella picta	Painted Honeyeater	VU	v		PMST	Dry open woodlands and forests. Typically forages for fruit and nectar in mistletoes and in tree canopies.	**Negligible**	No records in the search area, no suitable habitat within the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Anthochaera phrygia	Regent Honeyeater	CR	cr		PMST	A range of dry woodlands and forests dominated by nectar-producing tree species.	**Negligible**	No records in the search area, no suitable habitat within the study area
Stagonopleura guttata	Diamond Firetail	VU	v		PMST	Open forests and woodlands with a grassy ground layer.	**Low**	No suitable habitat and no local records. Species more commonly found at lower elevations in open grassy woodlands. No suitable open grassy woodland within study area.
Climacteris picumnus	Brown Treecreeper	VU		1979	PMST	Open eucalypt forests, woodlands and Mallee, often where there are stands of dead trees.	**Low**	No suitable habitat. Species more commonly found at lower elevations in open woodland. No suitable open woodland

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
								within study area.
Dasyurus maculatus maculatus	Spot-tailed Quoll	EN	e	2001	PMST	Rainforest and wet and dry sclerophyll forests and woodlands.	**Low**	Limited habitat and no previous records within the search area.
Petauroides volans	Southern Greater Glider	EN	e	1987	PMST	Wet and damp sclerophyll forest with large hollow-bearing trees.	**Low**	No suitable habitat and no local records.
Petaurus australis	Yellow-bellied Glider	VU	v		PMST	Sclerophyll forest with large hollow-bearing trees, prefers mature eucalypt dominated forest and woodland. Distributed along South-eastern Australia.	**Low**	No suitable habitat and no local records.
Burramys parvus	Mountain Pygmy-possum	EN	e	2021	PMST	Alpine rock screes and boulder fields supporting heathy vegetation.	**Low**	No core habitat present, but species is known to occur in the local area and may move

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
								through the study area on rare occasion.
Potorous longipes	Long-footed Potoroo	EN	e		PMST	Temperate rainforest, riparian forest and wet and dry sclerophyll forest.	**Negligible**	No suitable habitat and no local records.
Mastacomys fuscus mordicus	Broad-toothed Rat	EN	v	2019	PMST	Sub-alpine Woodland, Heathland, Sedgeland, and Sedge-dominated areas within forest.	**High**	Suitable habitat present and recent local records. Species known from local area.
Pseudomys fumeus	Smoky Mouse	EN	e		PMST	Coastal heath and heathy woodland, wet forest, sub-alpine heath and dry sclerophyll forest.	**Low**	Limited suitable habitat and no local records.
Pteropus poliocephalus	Grey-headed Flying-fox	VU	v		PMST	Rainforest, wet and dry sclerophyll forest, woodland and urban areas.	**Negligible**	No records in the search area, no suitable habitat within the study area

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Liopholis guthega	Guthega Skink	EN	cr	2021	PMST	Alpine woodlands, grasslands and heathlands with sub-surface boulders.	**Negligible**	No suitable habitat within study area.
Liopholis montana	Mountain Skink	EN	e		PMST	Alpine woodland and montane forest environments along the Great Dividing Range in Victoria to the upper Yarra River valley. An exceptionally low altitude population has also been recorded in the Wombat SF. Relatively little is known about the species' biology and ecology.	**Low**	Limited suitable habitat and no local records.
Cyclodomorphus praealtus	Alpine She-oak Skink	EN	cr	2021	PMST	Sparsely-treed subalpine woodland, alpine heathlands and native and introduced alpine grasslands.	**Negligible**	No suitable habitat within study area.
Pseudemoia cryodroma	Alpine Bog Skink	EN	e	2021	PMST	Alpine and Sub-alpine Grassland, Heathland and Woodland.	**High**	Study area supports suitable habitat for this species and recent local records present.
Litoria spenceri	Spotted Tree Frog	CR	cr		PMST	Rocky areas along streams within forest and woodland.	**Negligible**	No suitable habitat and no local records.
Litoria verreauxii alpina	Alpine Tree Frog	VU	cr	2004	PMST	Alpine and subalpine woodland, heath and grassland; breeds in a variety of natural and artificial waterbodies including dams and reservoirs.	**Low**	Limited suitable habitat and no local records.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Galaxias rostratus	Flat-headed Galaxias	CR	v		PMST	Still or slow-moving waters of rivers, billabongs, lakes and swamps.	**Negligible**	No suitable habitat and no local records.
Maccullochella macquariensis	Trout Cod	EN	e		PMST	Streams characterised by a high abundance of large woody debris.	**Negligible**	No suitable habitat and no local records.
Maccullochella peelii	Murray Cod	VU	e		PMST	A diverse range of stream habitats in the Murray-Darling basin, principally the main channels of rivers and their major tributaries.	**Negligible**	No suitable habitat and no local records.
Macquaria australasica	Macquarie Perch	EN	e		PMST	Streams with clear water and deep, rocky holes with abundant cover.	**Negligible**	No suitable habitat and no local records.
Thaumatoperla alpina	Alpine Stonefly	EN	e	2016	PMST	In and around steep, stony and cool alpine streams.	**Negligible**	No suitable habitat and no local records.
State significance								
Lewinia pectoralis	Lewin's Rail		v	1968		Swamps, dense riparian vegetation and saltmarsh.	**Negligible**	No suitable habitat and no local records.
Aythya australis	Hardhead		v	2019		Deep freshwater swamps and wetlands, with abundant aquatic and terrestrial vegetation for roosting. Can occur in sheltered estuaries.	**Negligible**	No suitable habitat and no local records.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Hieraaetus morphnoides	Little Eagle		v	1991		Woodland and open areas. Rabbits are a key component of their diet. Nesting occurs in mature trees in open woodland or riparian vegetation.	**Low**	No preferred habitat or suitable hunting grounds for this species within the study area
Hydroprogne caspia	Caspian Tern		v	1996		Estuaries, inlets, bays, lagoons, inland lakes, flooded pasture, sewage ponds.	**Negligible**	No records in the search area, no suitable habitat within the study area
Actitis hypoleucos	Common Sandpiper		v		PMST	Migrates to Australia from Eurasia in August where it inhabits a wide variety of coastal and inland wetlands with muddy margins before departing north in March.	**Negligible**	No suitable habitat and no local records.
Ornithorhynchus anatinus	Platypus		v	2021		A variety of freshwater waterbodies, particularly those with stable banks suitable for burrows, and shallow waters for foraging.	**Negligible**	No suitable habitat within study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Canis lupus dingo	Dingo		v	2006		Virtually all terrestrial environments but range reduced by exclusion fencing, persecution and hybridisation with domestic dogs.	**Low**	As a highly mobile species Dingo may pass through on rare occasion, however the study area does not support suitable habitat.
Eulamprus kosciuskoi	Alpine Water Skink		e	2017		Alpine sphagnum bogs, wet alpine heathlands and alpine creeks and streams.	**Negligible**	No suitable habitat within study area.
Pseudemoia pagenstecheri	Tussock Skink		e	2021		On the ground in a range of grasslands or sparse grassy woodlands from alps to coast.	**High**	Study area supports suitable habitat and the species is known from the village.
Austroaeschna (Austroaeschna) flavomaculata	Alpine Darner Dragonfly		v	2012		Mountain streams, alpine trickles, and run-off waters, occurring in sphagnum and under rocks in alpine regions of Victoria and NSW	**Negligible**	No suitable habitat within study area.
Riekoperla intermedia	Stonefly		v	1972		Slow flowing stream habitats in the Falls Creek, Mount Feathertop and Mount Bogong area, Victoria.	**Negligible**	No suitable habitat within study area.

Scientific name	Common name	Conservation status		Most recent database record	Other records	Habitat description	Likely occurrence in study area	Rationale for likelihood ranking
		EPBC	FFG					
Colubotelson joyneri	freshwater isopod		cr	2008		Freshwater habitat.	**Negligible**	No suitable habitat within study area.

Appendix 2.2 Migratory species (EPBC Act listed)

Table 13 Migratory fauna species recorded or predicted to occur within 10 km of the study area

Scientific name	Common name	Most recent record
Migratory species		
Gallinago hardwickii	Latham's Snipe	2018
Hirundapus caudacutus	White-throated Needletail	1993
Apus pacificus	Fork-tailed Swift	PMST
Hydroprogne caspia	Caspian Tern	1996
Numenius madagascariensis	Eastern Curlew	PMST
Actitis hypoleucos	Common Sandpiper	PMST
Calidris ferruginea	Curlew Sandpiper	PMST
Calidris acuminata	Sharp-tailed Sandpiper	PMST
Calidris melanotos	Pectoral Sandpiper	PMST
Motacilla flava	Yellow Wagtail	PMST
Rhipidura rufifrons	Rufous Fantail	PMST
Myiagra cyanoleuca	Satin Flycatcher	PMST

Appendix 3 Native Vegetation Removal Report

Native vegetation removal report

This report provides information to support an application to remove, destroy or lop native vegetation in accordance with the *Guidelines for the removal, destruction or lopping of native vegetation*. The report **is not an assessment by DELWP** of the proposed native vegetation removal. Native vegetation information and offset requirements have been determined using spatial data provided by the applicant or their consultant.

Date of issue: **03/07/2024**
Time of issue: **12:27 pm**

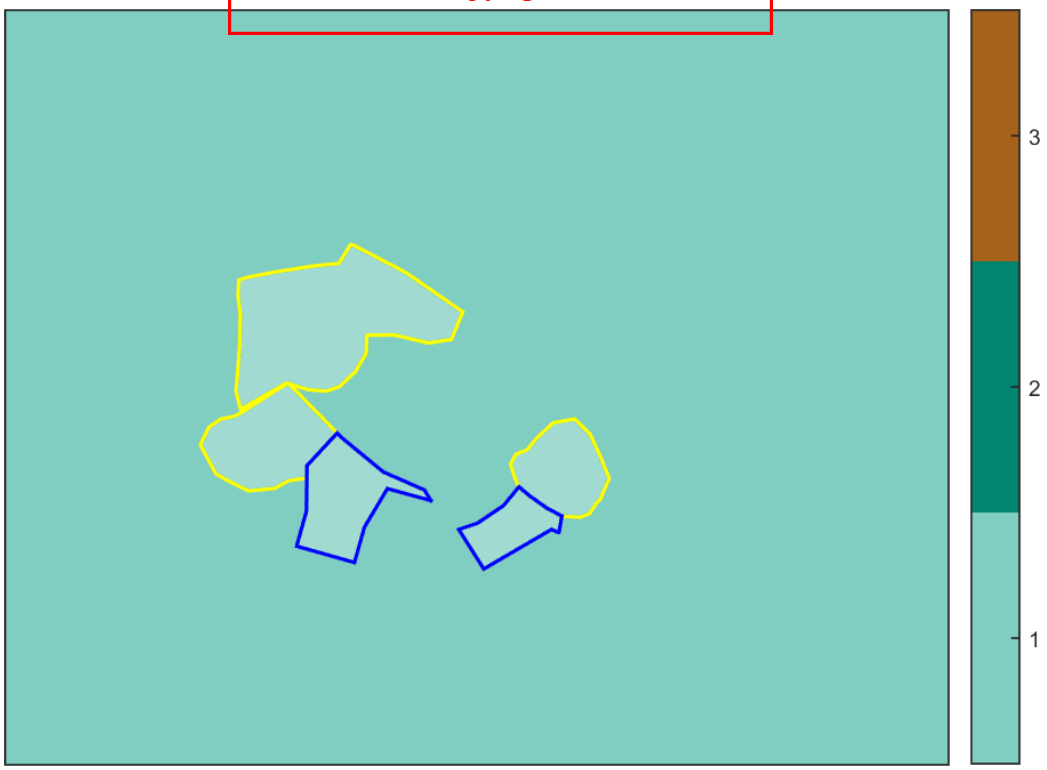
Report ID: BIO_2024_055

Project ID	41016_veg_clearing_20240627

Assessment pathway

Assessment pathway	**Intermediate Assessment Pathway**
Extent including past and proposed	0.085 ha
Extent of past removal	0.000 ha
Extent of proposed removal	0.085 ha
No. Large trees proposed to be removed	4
Location category of proposed removal	Location 1 The native vegetation is within an area mapped as an endangered Ecological Vegetation Class (as per the statewide EVC map), sensitive wetland or coastal area. Removal of less than 0.5 hectares in this location will not have a significant impact on any habitat for a rare or threatened species

1. Location map



VICTORIA State Government | Environment, Land, Water and Planning

Offset requirements if a permit is granted

Any approval granted will include a condition to obtain an offset that meets the following requirements:

General offset amount[1]	0.041 general habitat units
Vicinity	North East Catchment Management Authority (CMA) or Falls Creek Alpine Resort (Unincorporated) Council
Minimum strategic biodiversity value score[2]	0.216
Large trees	4 large trees

NB: values within tables in this document may not add to the totals shown above due to rounding

Appendix 1 includes information about the native vegetation to be removed

Appendix 2 includes information about the rare or threatened species mapped at the site.

Appendix 3 includes maps showing native vegetation to be removed and extracts of relevant species habitat importance maps

1 The general offset amount required is the sum of all general habitat units in Appendix 1.

2 Minimum strategic biodiversity score is 80 per cent of the weighted average score across habitat zones where a general offset is required

Next steps

Any proposal to remove native vegetation must meet the application requirements of the Intermediate Assessment Pathway and it will be assessed under the Intermediate Assessment Pathway.

If you wish to remove the mapped native vegetation you are required to apply for a permit from your local council. Council will refer your application to DELWP for assessment, as required. **This report is not a referral assessment by DELWP.**

This *Native vegetation removal report* must be submitted with your application for a permit to remove, destroy or lop native vegetation.

Refer to the *Guidelines for the removal, destruction or lopping of native* vegetation (the Guidelines) for a full list of application requirements This report provides information that meets the following application requirements:

- The assessment pathway and reason for the assessment pathway
- A description of the native vegetation to be removed (met unless you wish to include a site assessment)
- Maps showing the native vegetation and property
- The offset requirements determined in accordance with section 5 of the Guidelines that apply if approval is granted to remove native vegetation.

Additional application requirements must be met including:

- Topographical and land information
- Recent dated photographs
- Details of past native vegetation removal
- An avoid and minimise statement
- A copy of any Property Vegetation Plan that applies
- A defendable space statement as applicable
- A statement about the Native Vegetation Precinct Plan as applicable
- An offset statement that explains that an offset has been identified and how it will be secured.

Authorised by the Victorian Government, 8 Nicholson Street, East Melbourne.

For more information contact the DELWP Customer Service Centre 136 186

www.delwp.vic.gov.au

Appendix 1: Description of native vegetation to be removed

All zones require a general offset, the general habitat units each zone is calculated by the following equation in accordance with the Guidelines:

General habitat units = extent x condition x general landscape factor x 1.5, where the general landscape factor = 0.5 + (strategic biodiversity value score/2)

The general offset amount required is the sum of all general habitat units per zone.

Native vegetation to be removed

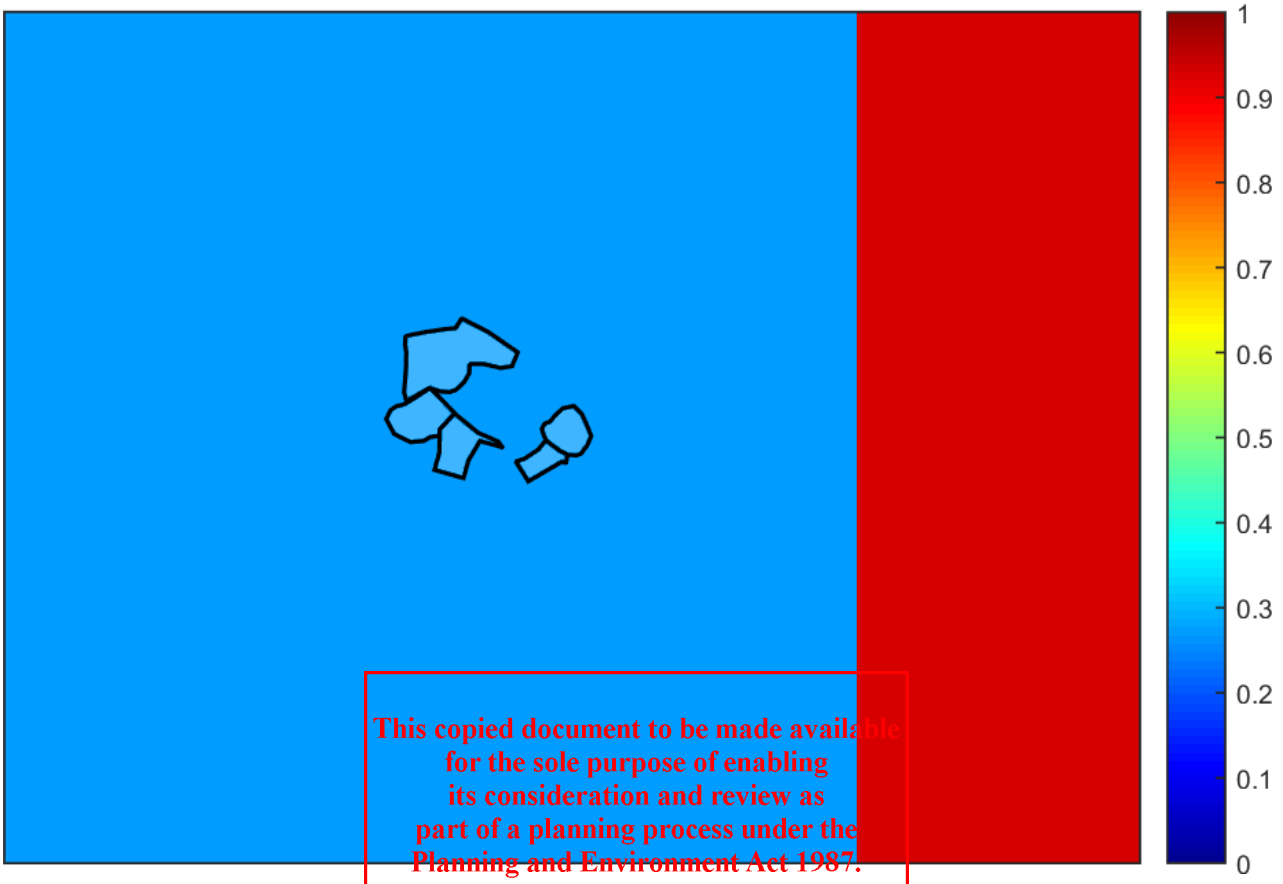
Information provided by or on behalf of the applicant in a GIS file							Information calculated by EnSym					
Zone	**Type**	**BioEVC**	**BioEVC conservation status**	**Large tree(s)**	**Partial removal**	**Condition score**	**Polygon Extent**	**Extent without overlap**	**SBV score**	**HI score**	**Habitat units**	**Offset type**
2-A	Patch	valp0043	Least Concern	2	no	0.580	0.037	0.037	0.270		0.020	General
1-D	Patch	valp0043	Least Concern	1	no	0.580	0.011	0.011	0.270		0.006	General
1-B	Patch	valp0043	Least Concern	0	yes	0.290	0.014	0.014	0.270		0.004	General
1-C	Patch	valp0043	Least Concern	0	yes	0.290	0.007	0.007	0.270		0.002	General
1-A	Patch	valp0043	Least Concern	1	no	0.580	0.016	0.016	0.270		0.009	General

Appendix 2: Information about impacts to rare or threatened species' habitats on site

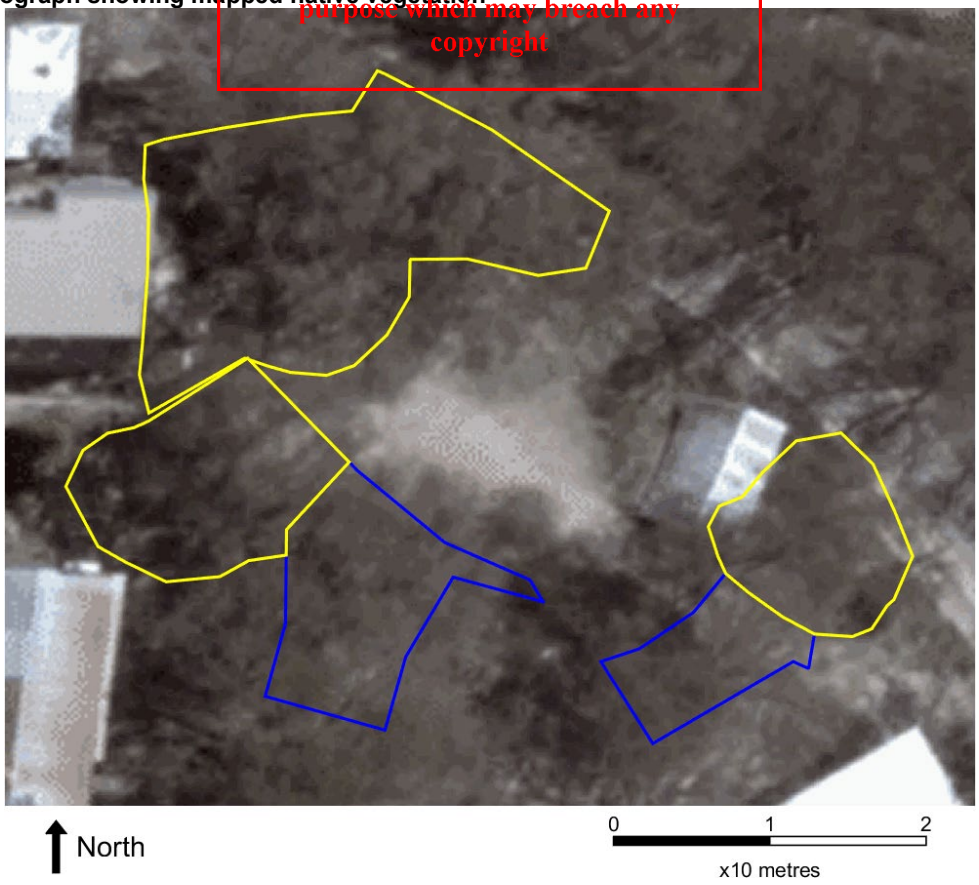
This is not applicable in the Intermediate Assessment Pathway.

Appendix 3 – Images of mapped native vegetation

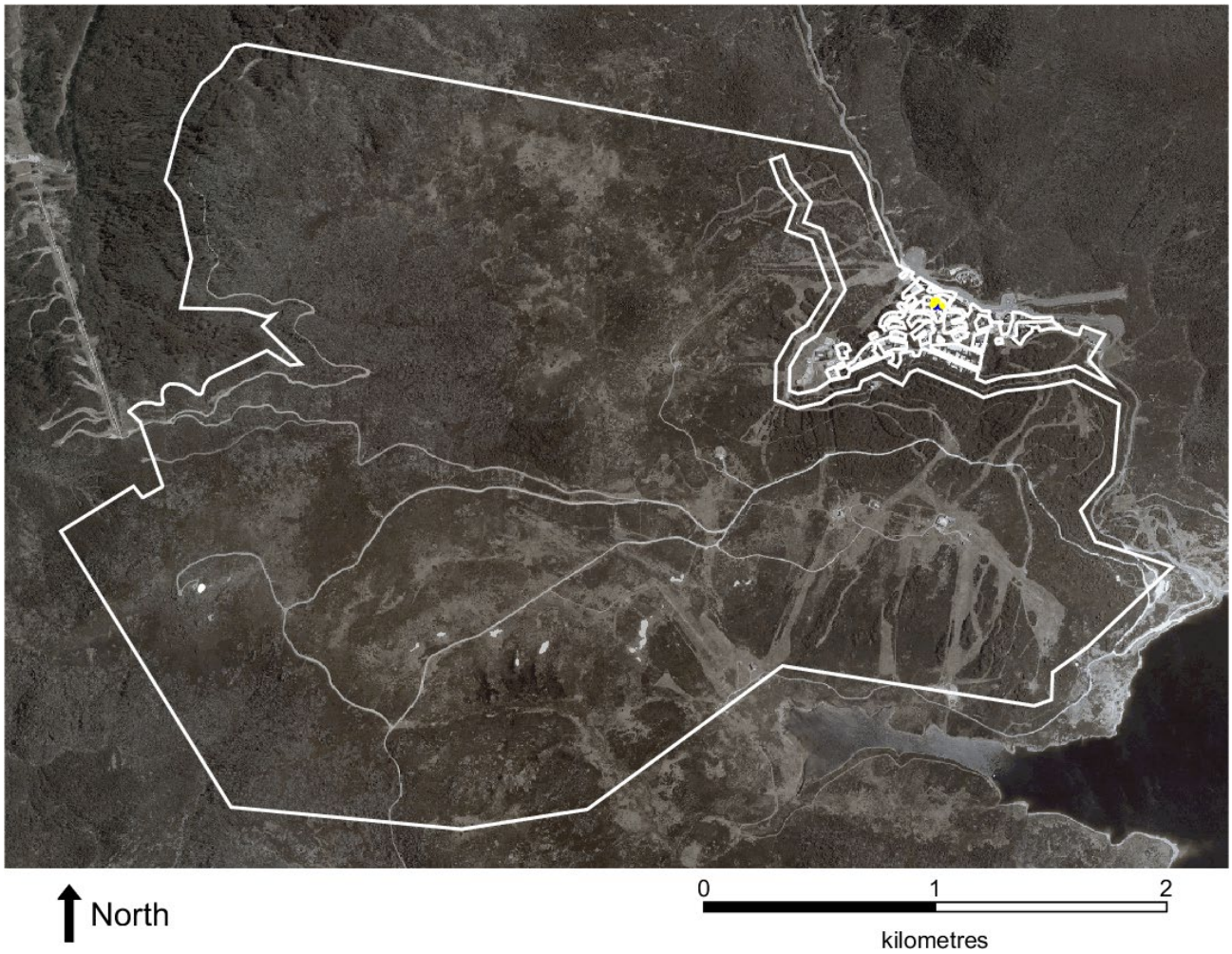
2. Strategic biodiversity values map



3. Aerial photograph showing mapped native vegetation



4. Map of the property in context



Yellow boundaries denote areas of proposed native vegetation removal.

Blue boundaries denote zones of partial removal with a halved condition score.

Appendix 4 NVCR search

Report of available native vegetation credits

This report lists native vegetation credits available to purchase through the Native Vegetation Credit Register.

This report is **not evidence** that an offset has been secured. An offset is only secured when the units have been purchased and allocated to a permit or other approval and an allocated credit extract is provided by the Native Vegetation Credit Register.

Date and time: 05/07/2024 03:29 **Report ID: 25178**

What was searched for?

General offset

General habitat units	Strategic biodiversity value	Large trees	Vicinity (Catchment Management Authority or Municipal district)
0.085	0.216	4	CMA: North East or LGA: Falls Creek Alpine Resort (Unincorporated)

Details of available native vegetation credits on 05 July 2024 03:29

These sites meet your requirements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)
VC_CFL-3074_01	15.112	2888	North East	Towong Shire	Yes	Yes	No	VegLink
VC_CFL-3789_01	15.354	607	North East	Towong Shire	Yes	Yes	No	VegLink

These sites meet your requirements using alternative arrangements for general offsets.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)

There are no sites listed in the Native Vegetation Credit Register that meet your offset requirements when applying the alternative arrangements as listed in section 11.2 of the Guidelines for the removal, destruction or lopping of native vegetation.

These potential sites are not yet available, land owners may finalise them once a buyer is confirmed.

Credit Site ID	GHU	LT	CMA	LGA	Land owner	Trader	Fixed price	Broker(s)

There are no potential sites listed in the Native Vegetation Credit Register that meet your offset requirements.

LT - Large Trees *CMA - Catchment Management Authority* *LGA - Municipal District or Local Government Authority*

Next steps

If applying for approval to remove native vegetation
Attach this report to an application to remove native vegetation as evidence that your offset requirement is currently available.

If you have approval to remove native vegetation
Below are the contact details for all brokers. Contact the broker(s) listed for the credit site(s) that meet your offset requirements. These are shown in the above tables. If more than one broker or site is listed, you should get more than one quote before deciding which offset to secure.

Broker contact details

Broker Abbreviation	Broker Name	Phone	Email	Website
Abezco	Abzeco Pty. Ltd.	(03) 9431 5444	offsets@abzeco.com.au	www.abzeco.com.au
Baw Baw SC	Baw Baw Shire Council	(03) 5624 2411	bawbaw@bawbawshire.vic.gov.au	www.bawbawshire.vic.gov.au
Bio Offsets	Biodiversity Offsets Victoria	0452 161 013	info@offsetsvictoria.com.au	www.offsetsvictoria.com.au
Contact NVOR	Native Vegetation Offset Register	136 186	nativevegetation.offsetregister@delwp.vic.gov.au	www.environment.vic.gov.au/native-vegetation
Ecocentric	Ecocentric Environmental Consulting	0410 564 139	ecocentric@me.com	Not avaliable
Ethos	Ethos NRM Pty Ltd	(03) 5153 0037	offsets@ethosnrm.com.au	www.ethosnrm.com.au
Nillumbik SC	Nillumbik Shire Council	(03) 9433 3316	offsets@nillumbik.vic.gov.au	www.nillumbik.vic.gov.au
TFN	Trust for Nature	8631 5888	offsets@tfn.org.au	www.trustfornature.org.au
VegLink	Vegetation Link Pty Ltd	(03) 8578 4250 or 1300 834 546	offsets@vegetationlink.com.au	www.vegetationlink.com.au
Yarra Ranges SC	Yarra Ranges Shire Council	1300 368 333	biodiversityoffsets@yarraranges.vic.gov.au	www.yarraranges.vic.gov.au

For more information contact the DEECA Customer Service Centre 136 186 or the Native Vegetation Credit Register at nativevegetation.offsetregister@delwp.vic.gov.au

Appendix 5 Arborist report

Tree Assessment

Taris site

Falls Creek

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Method:

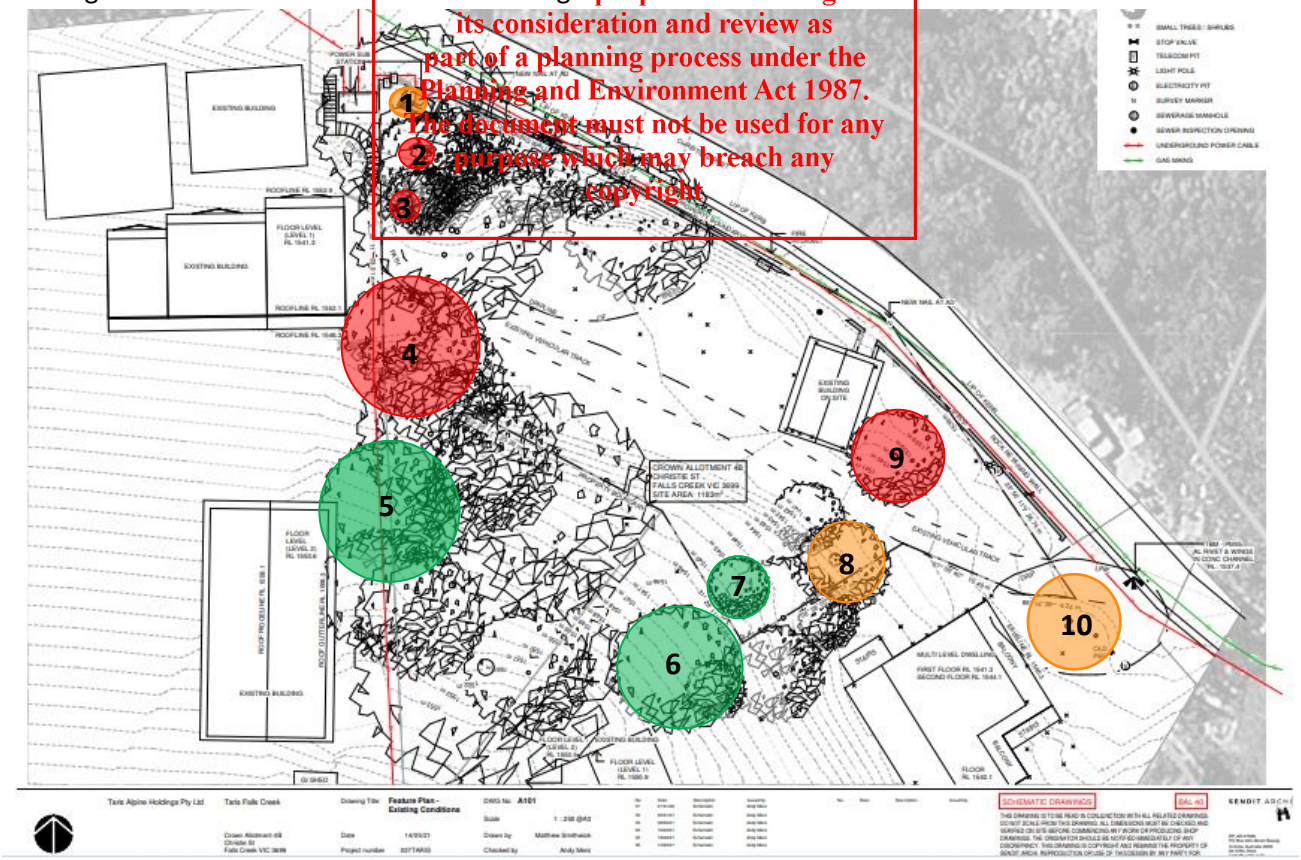
A site meeting was conducted with Andy on Tuesday the 29th of June with an aerial site plan image to discuss required removals for building and the approximate extent of the site. Trees with stems larger than 40cm DBH were identified by Biosis in their survey and a map (appendix 1) and tree retention status table was provided as well as drawings of the site with trees mapped and with proposed building.

The identified significant trees were then measured. The tree protection zones (TPZ) and structural root zones (SRZ) were calculated for each tree using TreeTec's online calculator, which is based on guidelines from AS4970 – 2009 Protection of trees on development sites. The building and excavation works as described by the drawings and by Andy on site were then approximated, and the impact on the trees was gauged.

The site:

The site has had a driveway and site cut done historically and is partially cleared with remnant *Eucalyptus pauciflora ssp. hedraia* existing as individual trunks, as well as multi-stemmed clumps, around the established building site. A small building currently exists, and the site is elevated above the road. Most of these trees are atop the existing site cut or growing in the bank below the existing cut, with many leaning over the road.

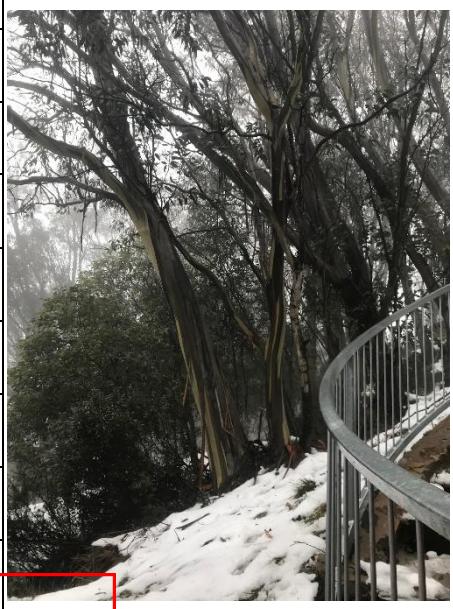
The site is shown below with vegetation cover mapped out. Trees identified as having stems 40cm dbh or larger are indicated colour coded according to their status of retention.



trees to be removed
trees to be retained unless they are impacted in a manner unclear from description of works
trees to be retained

Potentially impacted trees

Tree number	1
Species	*Eucalyptus pauciflora ssp. hedraia*
Height (estimated m)	18
DBH (cm) Caliper at ground level	59 102
Health	Good
Structure	Fair
Faults	Multi stemmed
Tree protection zone (TPZ) Structural Root Zone (SRZ)	7.08m 3.44m
Impact from development	Excavation for rock wall will affect approx. 4% of TPZ
Recommendation	Retain. If TPZ incursion is required >10% the Arborist should be present for excavation.



Tree number	2
Species	*Eucalyptus pauciflora ssp. hedraia*
Height (estimated m)	15
DBH (cm) Caliper at ground level	65 72
Health	Fair/Poor
Structure	Fair. 3 main trunks (see arrows)
Faults	Multi stemmed, 1 stem is dead
Tree protection zone (TPZ) Structural Root Zone (SRZ)	7.8m 2.88m
Impact from development	Excavation for rock wall and driveway will impact SRZ
Recommendation	Remove

Tree number	3
Species	*Eucalyptus pauciflora ssp. hedraia*
Height (estimated m)	20
DBH (cm) Caliper at ground level	55 60
Health	Good
Structure	Good
Faults	Codominant stems
Tree protection zone (TPZ) Structural Root Zone (SRZ)	6.6m 2.67m
Impact from development	Excavation and building footprint will impact SRZ
Recommendation	Remove

Tree number	4
Species	*Eucalyptus pauciflora ssp. hedraia*
Height (estimated m)	14
DBH (cm) Caliper at ground level	59 102
Health	Good
Structure	Fair. Multiple stemmed
Faults	Minor deadwood present
Tree protection zone (TPZ) Structural Root Zone (SRZ)	7.08m 2.88m
Impact from development	Excavation and building footprint will impact SRZ
Recommendation	Remove

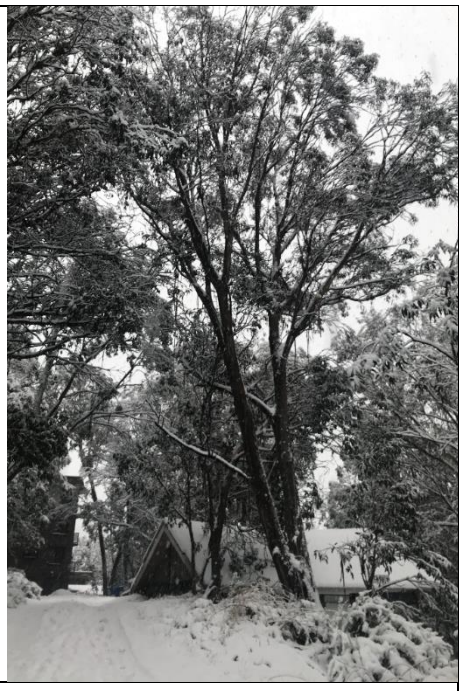
Tree number	5
Species	*Eucalyptus pauciflora ssp. hedraia*
Height (estimated m)	14
DBH (cm) Caliper at ground level	81 142
Health	Good
Structure	Good
Faults	Codominant stems
Tree protection zone (TPZ) Structural Root Zone (SRZ)	9.72m 3.83m
Impact from development	Potential for a minor incursion into TPZ <10%, if at all
Recommendation	Retain

Tree number	6
Species	*Eucalyptus pauciflora ssp. hedraia*
Height (estimated m)	15
DBH (cm) Caliper at ground level	68 139
Health	Good
Structure	Good
Faults	Codominant stems
Tree protection zone (TPZ) Structural Root Zone (SRZ)	8.16m 3.8m
Impact from development	Site cut is approx. 11.6 metres from base of tree, clear of TPZ
Recommendation	Retain

Tree number	7
Species	*Eucalyptus pauciflora ssp. hedraia*
Height (estimated m)	14
DBH (cm) Caliper at ground level	53 93
Health	Good
Structure	Good
Faults	Codominant stems
Tree protection zone (TPZ) Structural Root Zone (SRZ)	6.36m 3.21m
Impact from development	No excavations planned within TPZ.
Recommendation	Retain

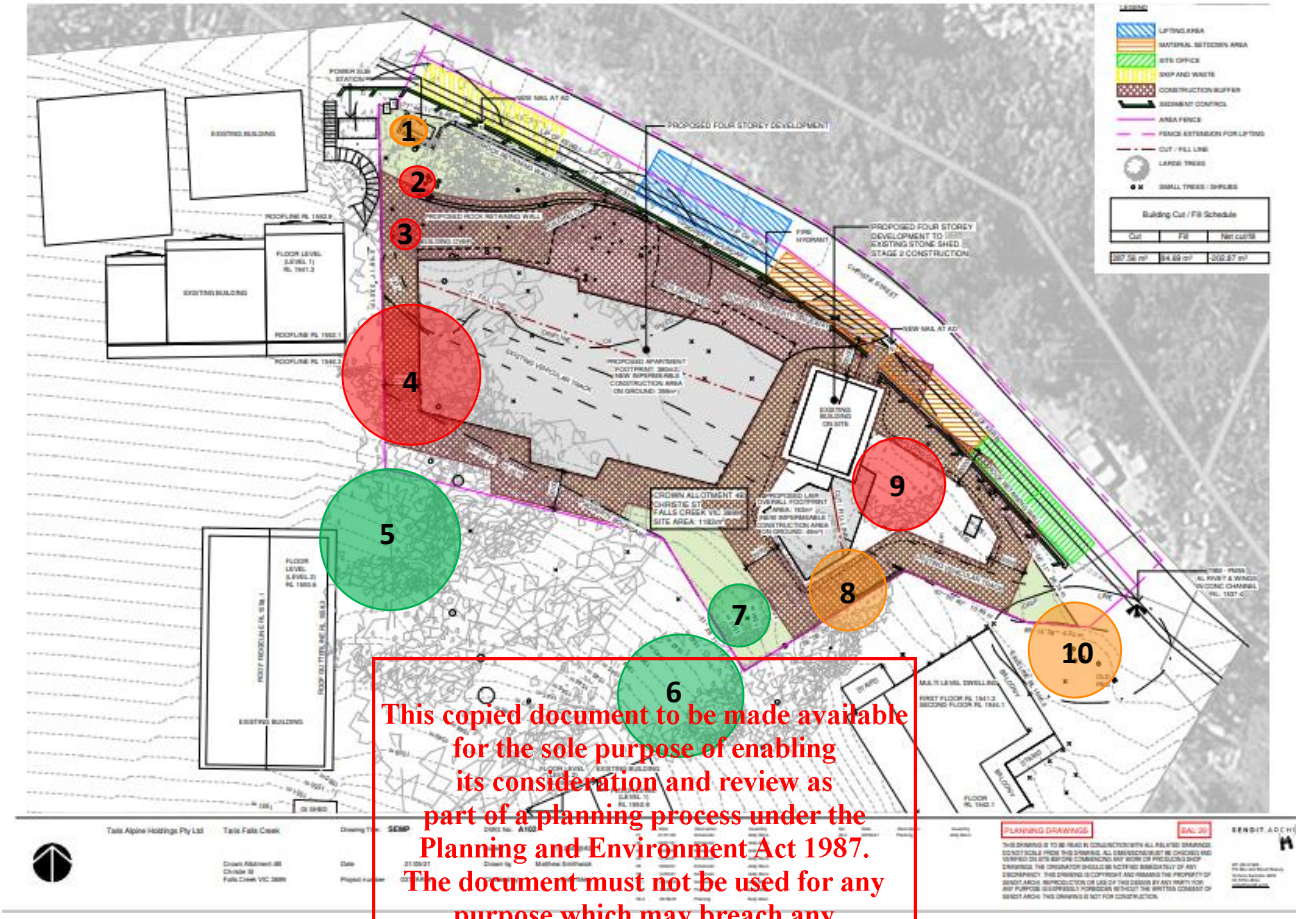
Tree number	8
Species	*Eucalyptus pauciflora ssp. hedraia*
Height (estimated m)	16
DBH (cm) Caliper at ground level	72 115
Health	Good
Structure	Good
Faults	Codominant stems
Tree protection zone (TPZ) Structural Root Zone (SRZ)	8.64m 3.51m
Impact from development	No excavation expected to affect roots. See discussion.
Recommendation	Retain. Prune low limbs over driveway for clearance of traffic

Tree number	9
Species	*Eucalyptus pauciflora ssp. hedraia*
Height (estimated m)	20
DBH (cm) Caliper at ground level	58 76
Health	Good
Structure	Good
Faults	Codominant stems
Tree protection zone (TPZ) Structural Root Zone (SRZ)	7.04m 2.94m
Impact from development	Excavation and building to occur on site of this tree
Recommendation	Remove



Tree number	10
Species	*Eucalyptus pauciflora ssp. hedraia*
Height (estimated m)	17
DBH (cm) Caliper at ground level	90 200
Health	Good
Structure	Good
Faults	Codominant stems
Tree protection zone (TPZ) Structural Root Zone (SRZ)	10.8m 4.43m
Impact from development	No excavation expected to affect roots. See discussion.
Recommendation	Retain

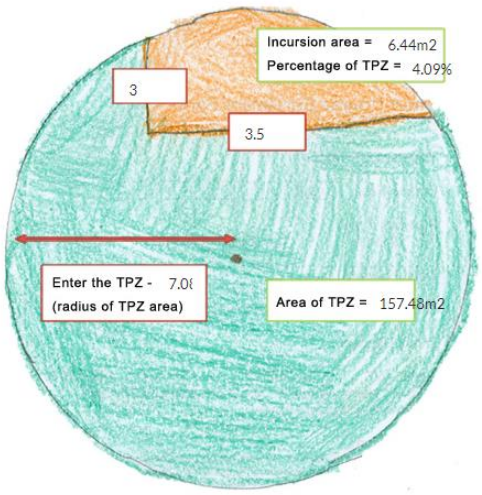
Trees potentially impacted shown overlaid with proposed construction



Discussion:

Trees 2, 3, 4 and 9 are all situated where excavation are required or buildings are situated and are to be removed. Trees 5, 6 and 7 are situated above the existing site cut. The excavations around tree 4 are likely to impact the very edge of the TPZ of tree 5, but this will be minimal, if at all. There were reportedly no requirements to extend the existing site cut around tree 8, meaning that tree 6 is not impacted at all, and excavation within the TPZ of tree 7 is existing, so no root disturbance is expected here.

Trees 1, 8 and 10 are expected to have manageable impact, or have impact within the SRZ or TPZ zones calculated from their size. Tree 1 is approximately 4 metres from the location of the new rock wall. The diagram below estimates the incursion into the TPZ required for this at 4.09%.



Tree 8 is situated right on the edge of a historic excavation and the structural roots can be see exposed below. These roots are growing down and back in to the soil, and are not expected to be impacted by any further excavation. Pruning of this tree is required, specifically lower limb removal to prevent mechanical damage by passing trucks and equipment. This is preferable to not pruning the tree as the access required for construction has potential to cause wounding. Pruning to remove less than one third of the canopy is achievable. The access here is well developed and the compaction of this access way has existed for some years without visually affecting the vigour of this tree.

Tree 10 is situated on an "island" of raised ground surrounded by a rock wall. The SRZ of this tree is calculated at 4.43 metres, however the rock wall is only 1.8 metres away and on the other side of the rock wall is heavily compacted ground as part of the driveway. This tree is in good health, and no excavation is expected within the SRZ. The TPZ measures 10.8 metres. There will be building works near the edge of the TPZ, but any incursion will affect less than 10% of the zone.

If excavation beyond what has been described or depicted is to occur within these TPZ zones then the Arborist should be consulted to ascertain if any further considerations need to be made.

Recommendations:

Species	Tree ID	DBH	Arborist assessment – lost or retained
***Eucalyptus pauciflora* subsp. *hedraia* - Bogong Sally**	**1**	**49**	**Retain**
***Eucalyptus pauciflora* subsp. *hedraia* - Bogong Sally**	**2**	**43**	**Lost**
***Eucalyptus pauciflora* subsp. *hedraia* - Bogong Sally**	**3**	**42**	**Lost**
***Eucalyptus pauciflora* subsp. *hedraia* - Bogong Sally**	**4**	**43**	**Lost**
***Eucalyptus pauciflora* subsp. *hedraia* - Bogong Sally**	**5**	**48**	**Retain**
***Eucalyptus pauciflora* subsp. *hedraia* - Bogong Sally**	**6**	**50**	**Retain**
***Eucalyptus pauciflora* subsp. *hedraia* - Bogong Sally**	**7**	**42**	**Retain**
***Eucalyptus pauciflora* subsp. *hedraia* - Bogong Sally**	**8**	**46**	**Retain**
***Eucalyptus pauciflora* subsp. *hedraia* - Bogong Sally**	**9**	**43**	**Lost**
***Eucalyptus pauciflora* subsp. *hedraia* - Bogong Sally**	**10**	**52**	**Retain**

Table provided by Biosis.

Bibliography:

Costermans, L. (2009) *Native trees and shrubs of south eastern Australia,* Chatswood, NSW: New Holland Publishers

Harris, R. W., Clark, J. R., & Matheny, N. P. (2004). *Arboriculture*. Prentice Hall

Standards Australia. (2009). *Protection of trees on development sites* (AS 4970-2009). Retrieved from SAI Global. https://infostore.saiglobal.com/

Tree Protection Zone (TPZ), Structural Root Zone (SRZ), DBH calculator. (2020, June 18). TREETEC. https://www.treetec.net.au/tpz_srz_dbh_calculator-2/

Appendix 1:

Map of trees to be assessed as provided by Biosis.