

Department of Planning and Environment

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Snowy Strategic Activation Precinct

Biodiversity Assessment of
Alpine Sub-Precincts

wsp



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Snowy Strategic Activation Precinct Biodiversity Assessment of Alpine Sub-Precincts

Department of Planning and Environment

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WSP acknowledges that every project we work on takes place on First Peoples lands.

We recognise Aboriginal and Torres Strait Islander Peoples as the first scientists and engineers and pay our respects to Elders past and present.

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Glossary

TERM	DEFINITION
BAM	Biodiversity Assessment Method 2020
BC Act	NSW Biodiversity Conservation Act 2016
Biodiversity offsets	Management actions that are undertaken to achieve a gain in biodiversity values on areas of land in order to compensate for losses to biodiversity values from the impacts of development.
DPE	Department of Planning and Environment
EPBC Act	Commonwealth Environment Protection and Biodiversity Conservation Act 1999
Ha	Hectares
Habitat	An area or areas occupied, or periodically or occasionally occupied, by a species, population or ecological community, including any biotic or abiotic component.
Hollow bearing tree	A living or dead tree that has at least one hollow. A tree is considered to contain a hollow if: (a) the entrance can be seen; (b) the entrance width is at least 5 cm; (c) the hollow appears to have depth (i.e. you cannot see solid wood beyond the entrance); (d) the hollow is at least 1m above the ground.
LGA	Local Government Area
Master Plan	Generic term for a Master Plan for each SAP (informed by Structure Plan). The Master Plan is a statutory document prepared by DPE at the conclusion of the technical studies.
Monero Ngarigo	Aboriginal linguistic group who traditionally occupied the eastern side of the Kosciuszko plateau and further north towards the Murrumbidgee River. The traditional custodians of the Snowy Mountains are the Monero Ngarigo People.
NPWS	National Parks and Wildlife Service
NSW	New South Wales
Plant community type	A NSW plant community type. Plant Community Types are the agreed foundation level for classifying vegetation in NSW and are intended to provide the most ecologically relevant grouping of plant species. Plant Community Types are described in the BioNet Vegetation Classification.
SAP	Special Activation Precinct
Snowy Mountains	The highest mountain range on the continent of mainland Australia, located in southern New South Wales and part of the larger Australian Alps and Great Dividing Range. The mountain range experiences large natural snowfalls every winter.
SAP	Special Activation Precinct
Threatened ecological community (TEC)	Means a critically endangered ecological community, an endangered ecological community or a vulnerable ecological community listed in Schedule 2 of the BC Act.

1 Introduction

Special Activation Precincts (SAPs) are dedicated areas in regional NSW identified by the NSW Government to become thriving hubs. The SAP program facilitates job creation and economic development in these areas through infrastructure investment, streamlining planning approvals and investor attraction.

The SAP program adopts a collaborative and integrated whole-of-government approach, bringing together the local Council and a range of other relevant State and local agencies.

SAPs are unique to regional NSW. By focusing on planning and investment, their goal is to stimulate economic development and create jobs in line with the competitive advantages and economic strengths of a region.

On 15 November 2019, the NSW Government announced its commitment to investigating the Snowy Mountains SAP, to revitalise the Snowy Mountains into a year-round destination and Australia's Alpine Capital, with Jindabyne at its heart. The Snowy Mountains SAP is being delivered through the \$4.2-billion Snowy Hydro Legacy Fund.

Different components of each SAP are led by different teams within the NSW Government:

- The **Department of Regional NSW** assesses potential locations for inclusion in the program and considers government investment for essential infrastructure to service the SAPs.
- The **NSW Department of Planning and Environment** (the Department) is responsible for the planning of SAPs. The Department leads the master planning process, including community and stakeholder engagement, the technical studies required to inform the preparation of a master plan and development of the simplified planning framework for each Precinct.
- The **Regional Growth NSW Development Corporation** (Regional Growth NSW) is responsible for delivering and implementing Special Activation Precincts. This includes attracting investment, providing support to businesses, developing enabling infrastructure, and creating strategic partnerships to foster education, training and collaboration opportunities.

The five core pillars of the Special Activation Precincts are:



The planning framework for each Special Activation Precinct includes three key parts:



State Environmental Planning Policy (Precincts Regional) 2021

- Identifies the Alpine Precinct.
- Requires that an Activation Precinct Certificate be sought prior to a development application or complying development certificate being issued, to ensure the development is consistent with the Master Plan and Delivery Plan.
- Provides zoning and land use controls for each Precinct.
- Identifies Exempt and Complying Development pathways for certain development.

Special Activation Precinct Master Plans

- Made by the NSW Department of Planning and Environment and approved by the Minister.
- Identifies the Vision, Aspirations and Principles for the Precinct.
- Provides more detailed land use controls where required.
- Identifies Performance Criteria at a Precinct-scale for amenity, environmental performance and infrastructure provision.
- Identifies the matters to be addressed as part of the Delivery Plan.

Special Activation Precinct Delivery Plans

- Prepared by Regional Growth NSW and approved by the Planning Secretary.
- Identifies site-level development controls.
- Provides detailed strategies and plans for:
 - Aboriginal cultural heritage
 - environmental protection and management
 - protection of amenity
 - infrastructure and services
 - staging.
- Provides procedures for ongoing monitoring and reporting.

1.1 Snowy Mountains SAP

The Snowy Mountains are located in the south east of NSW and the region is one of Australia's most iconic natural environments. In addition to hosting some of Australia's premier alpine destinations, the Snowy Mountains is home to over 35,000 people and Australia's highest peak, Mount Kosciuszko.

The Snowy Mountains region plays a crucial role within the regional and state economy, with its local population swelling with an additional 1.4 million international and domestic visitors each year. The region's unique natural environment allows locals and visitors to participate in a diverse array of recreational activities year-round, with many visitors still experiencing the region through the peak winter season.

The broad objectives and priorities for the Snowy Mountains SAP are to capitalise on the unique cultural and environmental attributes and revitalise the Snowy Mountains into a year-round destination,. The revitalisation is to focus on year-round adventure and eco-tourism, improving regional transport connectivity, shifting towards a carbon neutral region, increasing the lifestyle and wellbeing activities on offer, and supporting Jindabyne's growth as Australia's national winter sports training base.

The broad conservation objective of the SAP is to avoid, maintain or improve the biodiversity values in the region.

1.2 Investigation area

The Snowy Mountains SAP Investigation Area encompasses 72,211 hectares of land and within this investigation area are several ‘development opportunity areas’ which were identified around and in Jindabyne, and within the Kosciuszko National Park.

This report assessed the Alpine sub-precincts within the Kosciuszko National Park:

- Thredbo Village sub-precinct
- Thredbo Ranger Station sub-precinct
- Perisher Village sub-precinct
- Piper’s Gap sub-precinct
- Smiggin Holes sub-precinct
- Guthega sub-precinct
- Charlotte Pass sub-precinct
- Island Bend sub-precinct
- Sponars Chalet sub-precinct
- Ski Rider Hotel sub-precinct
- Kosciuszko Tourist Park sub-precinct
- Bullocks Flat sub-precinct.

1.3 Purpose of this report

This report presents the ecological opportunities and constraints analysis of the Alpine sub-precincts based on desktop review and ecology surveys. This study has been undertaken to support the SAP in its multidisciplinary approach for strategic planning in ensuring biodiversity constraints and opportunities are realised early on in the planning stage to achieve the desired outcomes.

The purpose of this report is to provide detailed analysis of the biodiversity present within each sub-precinct to guide decisions on developable areas and offset requirements as well as provide performance criteria/standards for development in each sub-precinct.

2 Methodology

This report presents the ecological opportunities and constraints analysis of the Alpine sub-precincts based on desktop review and site inspections including:

- vegetation surveys, including a mixture of Vegetation Integrity Plots according to the method outlined in the Biodiversity Assessment Method 2020, and rapid data points used to aid in vegetation mapping and rapid identification of likely Plant Community Type and condition category
- fauna surveys including:
 - habitat assessment
 - diurnal bird surveys
 - remote camera surveys
 - frog and reptile (herpetofauna) searches.

All work was carried out under the appropriate licences, including a scientific licence as required under Part 2 of the BC Act (Licence Number: SL100630) and an Animal Research Authority.

Detailed methods for the assessment are described in the sections below.

2.1 Desktop review

The following information sources were used in the preparation of this report:

- aerial photographic imagery
- NSW Mitchell Landscapes 3.1
- Interim Biogeographic Regionalisation of Australia (IBRA version 7.0) (Department of Environment & Energy, 2016)
- Atlas of Groundwater Dependent Ecosystems (GDE) (Bureau of Meteorology, 2020)
- Directory of Important Wetlands of Australia (Department of Environment & Energy, 2020)
- Register of Declared Areas of Outstanding Biodiversity Value – Critical habitat declarations in NSW (Office of Environment Energy and Science, 2020a)
- BioNet Threatened Species Profile Database (Office of Environment & Heritage 2022)
- Species Profiles and Threats Database (Department of the Environment and Energy 2022)
- PlantNet Database (Royal Botanic Gardens, 2020)
- EPBC Act Protected Matters Search Tool (Department of Agriculture, Water and the Environment, 2021)
- Atlas of Living Australia—interactive map search (Atlas of living Australia 2021).

The following vegetation mapping datasets and reports were reviewed:

- Eastern Bushlands Database VIS_ID 622 (Holme, 1993)
- Remote Sensing Mapping of Grassy Ecosystems in the Monaro VIS_ID 2513 (Walter and Schelling, 2004)
- Grassy ecosystems of the south eastern highlands: technical report: literature review, data audit, information gap analysis and research strategy. Grasslands, Pre-Settlement, South-eastern Highlands VIS_ID 4099 (Rehwinkel, 1997)
- Revision of Monaro Grassland Mapping (Rehwinkel, 2005)
- Monaro Grassland Mapping, 2005. VIS_ID 3915 (State Government of NSW and Department of Planning and Environment, 2013)
- Grasslands, Pre-Settlement, South-eastern Highlands. VIS_ID 4099 (State Government of NSW and Department of Planning, Industry and Environment 2015)
- Native Vegetation of the Southern Forests: South-east Highlands, Australian Alps, South-west Slopes, and SE Corner Bioregions VIS_ID 3858 & 3859 (Gellie, 2005)

- CRAFTI – Floristics and Structure, Southern CRA, Tumut Subregion VIS_ID 4141 and 4160 (Office of Environment and Heritage NSW, 1999)
- South East Local Land Services Biometric Vegetation Map, 2014. VIS_ID 4211 (EcoLogical Australia, 2014)
- CEEC: Monaro and Werriwa Tablelands Cool Temperate Grassy Woodlands v1.4 (State Government of NSW and Department of Planning, Industry and Environment 2019)
- The flora of Kosciuszko National Park, New South Wales: Summary and overview McRae Provinces Vegetation 1994 VIS_ID 4846 (Doherty *et al.*, 2015)
- Kosciuszko Resorts Vegetation Assessment (Bullocks Flat, Charlottes Pass, Thredbo, Perisher, Mount Selwyn) VIS_ID 4836, 4837, 4838, 4839, 4840, 4841 (Ecology Australia, 2003)
- Kosciuszko National Park Alpine Vegetation 1966 VIS_ID 4842 (State Government of NSW and Department of Planning, Industry and Environment, 1966)
- Alpine Sphagnum Bogs and Associated Fens Endangered Ecological Community, Kosciuszko Resorts VIS_ID 4836 (State Government of NSW and Department of Planning, Industry and Environment, 2018)
- Peat-forming bogs and fens of the Snowy Mountains (State Government of NSW and Department of Planning, Industry and Environment, 2019a)
- Kosciuszko to Coast (K2C) Woodlands. VIS_ID 4056 (State Government of NSW and Department of Planning, Industry and Environment, 2015b).

2.2 Field surveys

Field surveys were undertaken within the Alpine precinct from 8 to 18 December 2020 and from 28 November to 3 December 2021. The survey focused on mapping mostly native vegetation type, their condition and assessing the likelihood of threatened species to utilise habitats available within the study area. This was completed using a combination of the following methods:

- random meanders
- BAM vegetation integrity plots.

Some limited fauna surveys were also undertaken in some sub-precincts including habitat assessments, remote camera surveys, herpetofauna searches, and diurnal bird surveys.

2.2.1 Vegetation mapping

The survey focused on mapping native vegetation type, their condition and assessing the likelihood of threatened species to utilise habitats available within the study area. This was completed using a combination of the following methods:

- random meanders
- BAM vegetation integrity plots.

2.2.1.1 Mapping of native vegetation zones

The vegetation would firstly be assessed to a PCT level and then aligned to a vegetation zone which is defined in the BAM as ‘an area of native vegetation on the study area that is the same PCT and has a similar broad condition state’. A broad condition state infers that the vegetation has a similar tree cover, shrub cover, ground cover, level of weed invasion, or combinations of these attributes which determine vegetation condition. Broad condition state is used for stratifying areas of the same PCT into a vegetation zone. Vegetation zones contain areas of PCTs that are similar to each other, but there is still some variation.

The Vegetation Zone stratification used for this report used the vegetation zone descriptors in Table 2.1. Modification of vegetation zone names has occurred either due to new variations in PCTs being found within the precinct or names have changed to more clearly represent the condition of the vegetation zone.

Table 2.1 Vegetation Zone descriptors for PCTs within the Alpine precinct

Vegetation Zone descriptors	Description
Good	Characterised by PCTs with all structural layers intact, a species diversity typical of relatively undisturbed examples of the PCT, and limited weed invasion. This vegetation zone is reserved for the best condition patches of PCTs within the Alpine precinct.
Moderate	The PCT may have a missing structural layer, lower species diversity, disturbance by tracks or trails, or some weed invasion but overall is still in moderately good condition despite the disturbance.
Poor	PCTs that may have missing structural layers, thinned canopy, low species diversity, and/or significant weed invasion.
Dieback	Areas of PCT 645 that has suffered from dieback.
Car Park Trees	This Vegetation Zone represents individual native trees and groups or rows of trees that are present within car parks (see Friday Flat car park and Ski Rider).
Native dominant grassland	Areas of grassland dominated by native species. Native species have >50% cover as recorded in BAM Plots. These grasslands still contain exotic species, and in some instances may contain a considerable exotic species cover, but native species were dominant at the time of survey.
Exotic dominant grassland	Areas of grassland dominated by exotic species. Exotic species have >50% cover as recorded in BAM Plots. These grasslands still contain native species, but annual or perennial exotic species were dominant at the time of survey.
Fire regeneration	This Vegetation Zone is characterised by dense regrowth of native vegetation post fire in areas such as the Thredbo Ranger Station. This Vegetation Zone lacks large old trees and the vegetation is dominated by dense regrowth of young eucalypts, acacias and shrub layer.
Shrubland	This Vegetation Zone is a shrubland which is either naturally treeless or where the canopy has been removed (e.g. in easements under transmission lines). The shrublands are dominated by native species and so are classified as a modified shrubland version of the original PCT.
Rocky outcrop	This Vegetation Zone is the result of past clearing reducing the woodland structure to a low native shrubland, or scattered trees, that is persisting around granitoid boulders on the hills. The boulders have provided refuge for native shrubs to establish and grow under grazing pressure and therefore these areas possess a different species complement and vegetation structure to surrounding grassland or forested areas.
Revegetation	This Vegetation Zone is characterised by plantings of native species.

2.2.1.2 Random meander survey

Random meander surveys are a variation of the transect type survey and were completed in accordance with the technique described by Cropper (1993) whereby the recorder walks in a random meander throughout the study area recording dominant and key plant species (e.g., threatened species, priority weeds), boundaries between various vegetation communities and condition of vegetation. The time spent in each vegetation community was proportional to the size of the community and its species richness.

Random meander surveys were conducted to undertake flora and fauna habitat assessments, vegetation mapping and opportunistically search for threatened species within area of suitable habitat. This involved ecologists walking through the sub-precincts and where habitat was observed to be potentially suitable, ecologists walked throughout these habitat patches looking for threatened species.

2.2.1.3 BAM vegetation integrity plots

Vegetation integrity plots were completed in accordance with BAM. There have been 111 BAM Plots completed during the survey in the Alpine precinct (see Table 2.2).

Table 2.2 Summary of BAM Plots undertaken within the Alpine precinct

Sub-precinct	PCT	Vegetation Zone	Plots	Number of plots
Thredbo Village	637	Good	THRbbog14	1
	679	Car park trees	FFcarpk	1
		Exotic dominant grassland	THRsgbsal9	1
		Good	THblsal13, THgbsal15, THgbsal16, THRsgbsal1, THsgbsal10, THsgbsal11, THsgbsal2, THsgbsal3, THsgbsal5, THsgbsal6, THsgbsal7, THsgbsal8	12
		Moderate	TGCSGBS	1
		Shrubland	THRheath12, THRsgbsal4, Thredbo1	3
	TOTAL			19
Thredbo Ranger Station	679	Fire regeneration	RSblksal22, RSblksal23	2
		Good	RSsgbsal21	1
		Shrubland	RSgrass24	1
	TOTAL			4
Perisher Village	637	Good	PE1, PE19, PE5, PE7, PVbog1	5
		Highly disturbed area	PE4	1
	645	Dieback	PE17, PE21, PE25, PE26, PE27	5
		Good	PE12, PE13, PE2, PE3, PNip1	5
		Highly disturbed area	PE10, PE11, PE15, PE16, PE18, PE20, PE22, PE6, PE8	9
		Shrubland	PE14, PE23, PE9, PShrub1	4
	TOTAL			29
Pipers Gap	637	Good	PG3, PG5, PG7, PG9, PG4, PG6, PG8	7
		Highly disturbed area	PG1	1
	645	Good	PG2	1
	TOTAL			9

Sub-precinct	PCT	Vegetation Zone	Plots	Number of plots
Smiggin Holes	637	Good	SH4	1
	645	Dieback	SH2, SH6	2
		Highly disturbed area	SH1, SH5	2
		Shrubland	SH3	1
	TOTAL			6
Guthega	637	Good	GUTbog20	1
	645	Dieback	G1, GUTHheat19, GUTHnip1	3
		Shrubland	GUTHheat17, GUTHheat18	2
	TOTAL			6
Charlottes Pass	637	Good	CPbog1, CPbog2, CPbog3	3
	643	Good	CPbould1, CPbould2	3
	645	Good	CPEnip1	1
		Moderate	CPEnip2, CPEnip3	2
	TOTAL			9
Island Bend	679	Exotic Dominant Grassland	IBDNG	1
		Moderate	IBBScreek2	1
		Shrubland	IBBScreek, IBshrub1, IBshrub2	3
	1196	Good	IBSGBSMG, IBSGMG1, IBSGMG2, IBSGMG4, IBSGMG5	5
		Moderate	IBSGMG3	1
	TOTAL			11
Sponars Chalet	644	Exotic Dominant Grassland	poasp22, SponarExG	2
		Moderate	eniph21	1
		Shrubland	SponarShr	1
	TOTAL			4
Ski Rider Hotel	679	Moderate	SkiRidBS	1
	1196	Car park trees	SkiRidCP	1
		Moderate	SkiRidInt1, edalpacd19	2
		Shrubland	SkiRidEase	1
	TOTAL			5

Sub-precinct	PCT	Vegetation Zone	Plots	Number of plots
Kosciuszko Tourist Park	637	Poor	DNG18	1
	1196	Moderate	KTPI1, KTPI2, epaucdal15, epaucdal17	4
		Poor	KTPCamp, epaucdal16	2
	TOTAL			7
Bullocks Flat	679	Moderate	BFBSS, BFBSS2	2
		Poor	BFBSGC	1
	TOTAL			3

A schematic diagram illustrating the layout of each vegetation integrity plot is provided in Figure 2.1.

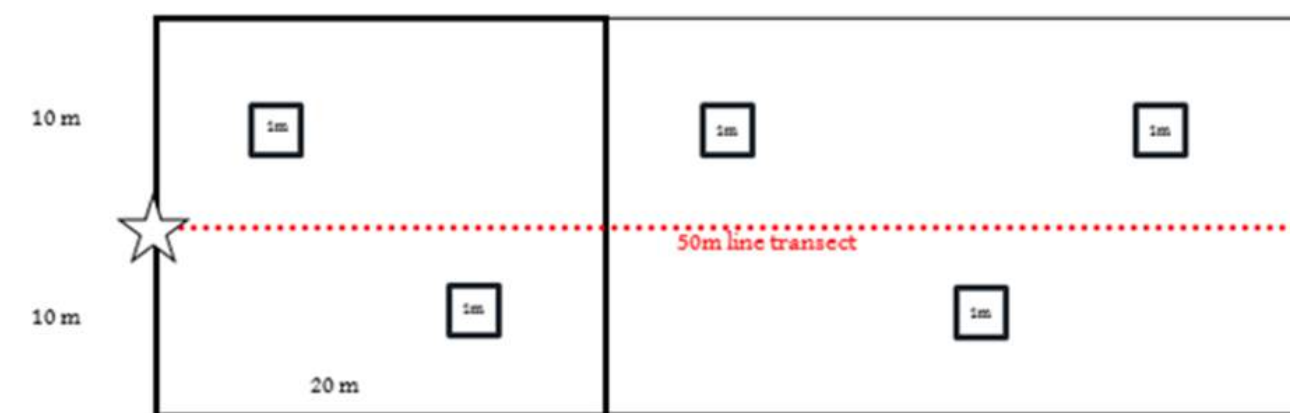


Figure 2.1 Vegetation integrity plot layout

The following site attributes were recorded at each vegetation integrity plot location:

- Location (easting – northing grid type MGA 94, Zone 56).
- Vegetation structure and dominant species and vegetation condition. Vegetation structure was recorded through estimates of percentage foliage cover, average height and height range for each vegetation layer.
- Native and exotic species richness (within a 400-metre squared quadrat): This consisted of recording all species by systematically walking through each 20 metre x 20 metre plot. The cover and abundance (percentage of area of quadrat covered) of each species was estimated. The growth form, stratum/layer and whether each species was native/exotic/high threat weed was also recorded.
- Number of trees with hollows (1000 metre squared quadrat): This was the frequency of hollows within living and dead trees within each 50 metre x 20 metre plot. A hollow was only recorded if (a) the entrance could be seen: (b) the estimated entrance width was at least 5 centimetres across: (c) the hollow appeared to have depth: (d) the hollow was at least 1 metre above the ground and the (e) the centre of the tree was located within the sampled quadrat.
- Number of large trees and stem size diversity (1000 metre squared quadrat): tree stem size diversity was calculated by measuring the diameter at breast height (DBH) (i.e. 1.3 metre from the ground) of all living trees (>5 centimetre DBH) within each 50 metre x 20 metre plot. For multi-stemmed living trees, only the largest stem was included in the count. Number of large trees was determined by comparing living tree stem DBH against the PCTs benchmarks.
- Total length of fallen logs (1000 metre squared quadrat): This was the cumulative total of logs within each 50 metre x 20 metre plot with a diameter of at least 10 centimetres and a length of at least 0.5 metre.

- Litter cover: This comprised estimating the average percentage groundcover of litter (i.e. leaves, seeds, twigs, branchlets and branches with a diameter <10 centimetre which is detached from a living plant) from within five 1 metre x 1 metre sub-plots spaced evenly either side of the 50-metre central transect.
- Evaluation of regeneration: This was estimated as the presence/absence of overstorey species present at the site that was regenerating (i.e. saplings with a diameter at breast height ≤5 centimetre).

Prior to establishing plot survey locations, vegetation stratification was undertaken to provide a representative vegetation zone for sampling. Stratification involved marking waypoints and bearings randomly to provide a representative assessment of the vegetation integrity of the vegetation zone in the study area and establishing the required number of plots at some of these waypoints.

2.2.2 *Fauna surveys*

2.2.2.1 Fauna habitat assessment

Fauna habitat assessments was undertaken to assess the likelihood of threatened species of animal (those species known or predicted to occur within the locality from the literature and database review) occurring within the investigation area. Fauna habitat assessments were the primary assessment tool in assessing whether threatened species were likely to occur. The fauna habitat characteristics assessed include:

- structure and floristics of the canopy, understorey and ground vegetation, including the presence of flowering and fruiting trees providing potential foraging resources
- presence of mistletoes providing potential foraging resources
- presence of hollow-bearing trees providing roosting and breeding habitat for arboreal mammals, birds and reptiles
- presence of the ground cover vegetation, leaf litter, rock outcrops and fallen timber and potential to provide protection for ground-dwelling mammals, reptiles and amphibians
- presence of waterways (ephemeral or permanent) and water bodies
- presence of man-made structures (e.g. culverts) for roosting/breeding microchiropteran bats.

The locations of important habitat features were recorded including:

- hollow-bearing trees
- nest trees (large stick-nests created by raptors)
- aquatic habitat
- rock outcrops.

2.2.2.2 Opportunistic sightings

Opportunistic sightings of animals were recorded including birds, mammals, frogs, and reptiles. Evidence of animal activity, such as scats, diggings, scratch marks, nests/dreys, burrows etc., was also noted. This provided indirect information on animal presence and activity. This was particularly relevant to the consistent sightings of threatened bird species observed during the flora investigations and observations of Broad Toothed-rat runs.

2.2.2.3 Herpetofauna searches

Where habitat was considered suitable for potential of reptiles and amphibians active searches were conducted during the day. This involved looking for active specimens, turning over suitable ground shelter, such as fallen timber, sheets of iron, exposed rocks, raking debris, other debris, and peeling decorticating bark.

Herpetofauna surveys were completed by one or two persons in conjunction with other surveys and random meanders, with all ground shelter returned to their original position. Frogs and reptiles were also surveyed opportunistically during all other surveys in the Alpine precinct.

2.2.2.4 Diurnal bird surveys

Although most birds recorded during the surveys were opportunistic sightings, some formal 20-minute diurnal bird searches were completed within the Alpine precinct area. These were completed by actively walking through the nominated site (transect) over a period of 20 minutes. All birds were identified to the species level, either through direct observation or identification of calls. Diurnal bird surveys were completed during different times of the day, but generally occurred during morning hours or evening. Birds were also recorded opportunistically during other on-site surveys.

To aid identification of species, call playbacks were utilised to determine a reaction of a particular individual and assisted in drawing in individuals of threatened species when habitat was deemed suitable for a likelihood of occurrence.

2.2.2.5 Remote camera surveys

Within the Thredbo Village and Thredbo Ranger Station sub-precincts a remote camera survey was undertaken targeting Eastern Pygmy-possum and Squirrel Glider.

Cameras were mounted to trees between 1.5 metres and two metres from the ground with the camera traps placed pointing toward feeding resources or baits situated between 1.25 metres and three metres from the camera. Bait stations contained rolled oats, peanut butter and honey secured at a height of 1.5 metres to two metres. The tree and surrounding area would be sprayed with a mixture of diluted honey water.

The survey effort included 11 remote camera stations situated throughout PCT 679 with a total of 44 trap nights conducted.

2.3 Avoidance and impact minimisation

The general principle to minimise impacts to biodiversity, should in order of consideration, endeavour to:

- avoid impacts on biodiversity through the planning process
- minimise impacts on biodiversity through the planning process
- mitigate impacts on biodiversity through the use of a range of mitigation measures
- offset residual impacts.

This hierarchy of minimising impact has been considered in the identification of opportunities for development and conservation identified in this report.

Residual impacts to biodiversity would require offsetting. Impacts to biodiversity listed under the EPBC Act would require further assessment including the potential need for a referral to the Commonwealth Department of Agriculture, Water and the Environment if impacts can't be avoided.

To assist with avoidance and minimisation of impacts during the masterplan development phase, the biodiversity values recorded during the site surveys within the investigation area have been mapped and areas of low biodiversity suitable for development have been identified in consultation with DPE BCD and NPWS.

3 Overview of alpine precinct

3.1 Site context

Kosciuszko National Park which is the largest national park in NSW and is also the central segment of the Australian Alps Bioregion containing the highest mountains in Australia (NSW National Parks & Wildlife Service 2006). The park possesses exceptional diversity of alpine plant communities, containing threatened ecological communities (TECs) and provides habitat for a number of rare and threatened species (NSW National Parks & Wildlife Service 2006). The park contains most of the alpine endemic species found on the Australian mainland (NSW National Parks & Wildlife Service 2006).

The Alpine region is characterised by a subalpine climate and environment. Which is subjected to continuous snow cover for one to four months per year, with minimum temperature below zero degrees are six months of the year (Connell Wagner Pty Ltd 2000).

The vegetation is rich and diverse reflecting the range of climates, altitudes, landforms, soil, and geology present. Vegetation occurs in numerous formations including montane forest, wet sclerophyll forests, cool temperate rainforests, open alpine woodlands, alpine heathland, alpine grasslands, herbfields and bogs. Vegetation communities within the national park are largely dominated by Eucalypt species, of which there are approximately 33 species which have been recorded (NSW National Parks & Wildlife Service 2006).

Kosciuszko National Park contains significant biodiversity and it known to provide habitat for approximately 300 vertebrate fauna species, over 800 plant species and high numbers of invertebrates, particularly for high altitude cold-climate specialists which require alpine and subalpine habitats (NSW National Parks & Wildlife Service 2006). Of the 204 species of alpine flowering plants recorded 21 are endemic and 22 are considered rare. Furthermore, 31 species recorded are endemic to the national park and there are numerous threatened flora species which have been recorded (NSW National Parks & Wildlife Service 2006).

The Alpine Precinct contains a wide variety of Plant Community Types. The lower altitude areas of Ski Rider Motel are dominated by the Grassy Woodlands from the Subalpine Woodlands vegetation class dominated by stands of *Eucalyptus pauciflora*, *Eucalyptus dalrympleana* and *Eucalyptus stellulata* with occasional *Eucalyptus delegatensis*. As altitude increases at Sponars Resort, Perisher, Charlottes Pass and Guthega, the vegetation changes to the lower Subalpine Woodlands dominated by *Eucalyptus niphophila* and tall heathy shrublands. At the Charlottes Pass subject land, the Alpine Complex is dominant with the presence of Alpine Heaths (including boulder fields) and Alpine Bogs and Fens (Upland Bog and Valley Bog complexes).

3.2 Threatened biodiversity

3.2.1 Threatened ecological communities

One plant community type within the precinct, Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion (PCT 637) is consistent with a threatened ecological community:

- Alpine Sphagnum Bogs and Associated Fens- listed as endangered under the EPBC Act.
- Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions – listed as an Endangered Ecological Community under the BC Act.

This threatened ecological community is present at Charlottes Pass, Perisher, Guthega and the Kosciuszko Tourist Park.



Photo 3.1 Alpine and sub-alpine peatlands, damp herbfields and fens at Perisher



Photo 3.2 Alpine and sub-alpine peatlands, damp herbfields and fens at Charlottes Pass

Photo credit: Lukas Clews

Photo credit: Lukas Clews

3.2.2 *Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions TEC*

Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions is listed as an Endangered Ecological Community under the BC Act. PCTs consistent with this TEC are limited to PCT 637 – Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion.

This TEC is located within the Monaro subregion at the Kosciuszko Tourist Park and in the Snowy Mountains subregion at Guthega, Perisher and Charlottes Pass (see maps for each sub-precinct provided in Appendices).

The final determination to list Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions as a TEC (see NSW Threatened Species Scientific Committee, 2010), indicates that this plant community is associated with accumulated peaty or organic-mineral sediments on poorly drained flats in the headwaters of streams. It occurs on undulating tablelands and plateaus, above 400–500 m elevation, generally in catchments with basic volcanic or fine-grained sedimentary substrates or, occasionally, granite (NSW Threatened Species Scientific Committee, 2010). The examples of this TEC within the subject lands occur above 1,200 m elevation and are associated with accumulated peaty or organic-mineral sediments on poorly drained flats in the headwaters of streams on granitoid substrate.

The TEC within the subject lands has a variable structure with either a dense, open or sparse layer of shrubs with soft-leaved sedges, grasses and forbs as indicated by the NSW Threatened Species Scientific Committee (2010). The TEC also contains a significant amount of the moss *Sphagnum cristatum* which is a key component of the TEC.

PCT 637 within the subject lands contains a large number of plant species from the characteristic assemblage of species listed in paragraph 2 of the final determination (see NSW Threatened Species Scientific Committee, 2010), including *Acaena novae-zelandiae*, *Baeckea gunniana*, *Brachyscome graminea*, *Callistemon pityoides*, *Carex appressa*, *Carex gaudichaudiana*, *Empodisma minus*, *Epacris microphylla*, *Epacris paludosa*, *Epilobium billardierianum*, *Lythrum salicaria*, *Myriophyllum* sp., *Poa costiniana*, *Poa labillardierei*, *Ranunculus pimpinellifolius*, and *Sphagnum cristatum* as well as a range of other species characteristic of montane peatlands and swamps.

3.2.3 *Alpine Sphagnum Bogs and Associated Fens*

The Alpine Sphagnum Bogs and Associated Fens ecological community occurs primarily within the Australian Alps and is also found in a small area of the Bondo subregion of the South Eastern Highlands IBRA bioregion on mainland Australia. The patches of PCT 637 within the Monaro subregion are therefore excluded from the EPBC Act listed TEC.

Condition thresholds have not been adopted for the Alpine Sphagnum Bogs and Associated Fens ecological community (Threatened Species Scientific Committee, 2009). All patches of PCT 637 within the Snowy Mountains subregion have been assigned to the Alpine Sphagnum Bogs and Associated Fens endangered ecological community as listed under the EPBC Act. The occurrences of this TEC within the subject lands are at Charlottes Pass, Perisher and Guthega.

3.2.4 *Threatened flora*

Of the 204 species of alpine flowering plants recorded within Kosciuszko National Park, 21 are endemic and 22 are considered rare. Furthermore, 31 species recorded are endemic to the national park (NSW National Parks & Wildlife Service 2006). Thirteen threatened species are known or likely to occur within the Alpine precinct (Table 3.1).

Targeted surveys for threatened flora are recommended. The specific seasonal requirements for these species are outlined in Table 3.1. BAM candidate threatened species list for each sub-precinct is provided in the Appendices.

Table 3.1 Threatened flora species known or likely to occur within the Alpine precinct

Scientific name	Common name	BC Act ¹	EPBC Act ²	Survey seasonality
<i>Caladenia montana</i>	—	V	—	Nov
<i>Calotis glandulosa</i>	Gland Burr Daisy	V	V	Oct – Mar
<i>Carex raleighii</i>	Raleigh Sedge	E	—	Dec – Mar
<i>Discaria nitida</i>	Leafy Anchor Plant	V	—	Nov – Apr
<i>Euphrasia scabra</i>	Rough Eyebright	E	—	Feb – Apr
<i>Pterostylis alpina</i>	—	V	—	Aug – Nov
<i>Pterostylis foliata</i>	Slender Greenhood	V	—	Oct – Nov
<i>Pterostylis oreophila</i>	Blue-tongued Greenhood	CE	CE	Dec – Jan
<i>Ranunculus anemoneus</i>	Anemone Buttercup	V	V	Oct – Apr
<i>Rytidosperma vickeryae</i>	Perisher Wallaby Grass	E	—	Feb – Mar
<i>Thelymitra alpicola</i>	—	V	—	Nov – Jan
<i>Thesium australe</i>	Austral toadflax	V	V	Nov – Feb
<i>Xerochrysum palustre</i>	Bog everlasting	—	V	Sep – May

(1) E = Endangered, CE= Critically Endangered under the BC Act.

(2) E = Endangered, CE= Critically Endangered under the EPBC Act.

3.2.5 Threatened fauna

Kosciuszko National Park contains significant biodiversity and it known to provide habitat for approximately 300 vertebrate fauna species. Threatened species and significant habitat known to occur in the precinct include:

- a significant population of Mountain Pygmy Possum (*Burramys parvus*) which is known to occur at Blue Cow and at Charlottes Pass. This species is restricted to alpine and subalpine zones (Connell Wagner Pty Ltd 2000)
- Broad-toothed Rat (*Mastacomys fuscus*) has been recorded within all of the resort areas (NSW Parks and Wildlife Service 2020), and is restricted in NSW to areas above 1000 m
- Guthega Skink (*Liopholis guthega*) is known to occur at Charlottes Pass, Thredbo and Perisher Range Alpine Resort areas (NSW Parks and Wildlife Service 2020)
- sphagnum bogs and fens area important components of the Alpine Complex. Bog and Fen communities offer breeding sites for many threatened and Migratory fauna which occur in the area, including the Alpine Tree Frog, Alpine Water Skink, Latham's Snipe and Broad-toothed Rat (Connell Wagner Pty Ltd 2000)
- habitat for numerous other threatened fauna species including Olive Whistler, Guthega Skink, Mountain Galaxias, Eastern False Pipistrelle, Large Bent-wing Bat, Greater Glider, Eastern Pygmy Possum, Smoky Mouse, Spotted-tailed Quoll, Koala, Gang-gang Cockatoo, Flame Robin, Scarlet Robin, Pink Robin, Diamond Firetail, Brown Treecreeper and Powerful Owl (Connell Wagner Pty Ltd 2000, Biosis 2017).

Targeted threatened species surveys have not been undertaken for the project and are recommended. Many of the species have specific seasonal survey requirements which are restricted to spring and summer (Table 3.2). Fauna survey should be undertaken during appropriate conditions including seasonal requirements as listed but also considering snow cover. For example, there may still be snow in Guthega Skink habitat areas up until November and this may limit adequate survey.



Photo 3.3 Mountain Pygmy Possum

Photo credit: Alicia Palmer



Photo 3.4 Boulder field habitat at Charlottes Pass

Photo credit: Lukas Clews

Table 3.2 Threatened fauna known or likely to occur within the Alpine precinct

Scientific name	Common name	BC Act ¹	EPBC Act ²	Survey timing
<i>Callocephalon fimbriatum</i>	Gang-gang Cockatoo (breeding habitat only)	V	–	Dec – Jan
<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle (Breeding)	V	–	July – Dec
<i>Hieraaetus morphnoides</i>	Little Eagle (Breeding)	V	–	Aug – Oct
<i>Hirundapus caudacutus</i>	White-throated Needle-tail	–	V, M	All
<i>Petroica rodinogaster</i>	Pink Robin	V	–	All year
<i>Ninox connivens</i>	Barking Owl (breeding habitat only)	V	–	May – Dec
<i>Ninox strenua</i>	Powerful Owl (breeding habitat only)	V	–	May – Aug
<i>Tyto novaehollandiae</i>	Masked Owl (breeding habitat only)	V	–	May – Aug
<i>Burramys parvus</i>	Mountain Pygmy-Possum	E	E	Oct – March / Species
<i>Cercartetus nanus</i>	Eastern Pygmy-possum	V	–	Oct – March / Species
<i>Mastacomys fuscus</i>	Broad-toothed Rat	V	V	Oct – May
<i>Pseudomys fumeus</i>	Smoky Mouse	CE	E	Sep – early Dec, then Feb – Apr
<i>Dasyurus maculatus</i>	Spotted-tailed Quoll	V	E	All year
<i>Litoria verreauxii alpina</i>	Alpine Tree Frog	E	V	Nov – Dec
<i>Pseudophryne corroboree</i>	Southern Corroboree Frog	CE	CE	January
<i>Cyclodomorphus praealtus</i>	Alpine She-oak Skink	E	E	Oct – April (survey when other skinks (e.g. Eulamprus) are active, difficult to survey and often assumed present)
<i>Liopholis guthaga</i>	Guthaga Skink	E	E	Oct – April

(1) E = Endangered, CE = Critically Endangered under the BC Act.

(2) E = Endangered, CE = Critically Endangered under the EPBC Act.

(3) The range of this species has been restricted and is likely now extinct from the Snowy SAP Alpine precinct.

In addition to the candidate fauna species identified in the table above, habitat for two species listed under the *Fisheries Management Act 1994* (FM Act) has been mapped within the study area. These are the:

- Alpine Redspot Dragonfly (*Austropetalia tonyana*), listed as Vulnerable under the FM Act which only occurs amongst rocks, logs and moss within the splash zone of waterfalls or in the nearby stream edge. Distribution includes Thredbo River and riparian areas throughout the Alpine precinct
- River Blackfish (*Gadopsis marmoratus*), in which the Snowy River population is listed as Endangered. Distribution includes Thredbo River and Mowamba River.

Preservation of riparian corridors, including setbacks would protect and preserve habitat for these species.

3.3 Other significant values

3.3.1 Connectivity corridors

Development of the subject lands within the Alpine precinct are unlikely to have any broad landscape scale impacts to connectivity as these areas are already ‘key hole’ areas within the large expanse of surrounding habitats. There are unlikely to be new barriers to landscape movement as a result of developing these areas. However, small scale habitat connectivity has been heavily impacted in ski resorts and the cumulative impacts have not been well addressed in the past. Such small scale habitat connectivity for small less mobile threatened mammal species such as Broad-toothed Rat, Mountain Pygmy-possum and Smoky Mouse, reptile species including Alpine She-oak Skink and Guthega Skink, and the Alpine Tree Frog will be a consideration as the design of the various precincts develops. Protection of habitat and preservation of small scale connectivity for these species needs to be maintained and the cumulative effect of numerous small scale developments considered in the assessment process.

3.3.2 Old growth Snow Gum woodland

In the 2002–2003 summer period, a series of wildfires burnt approximately 486, 000 ha of the 673, 542 ha National Park (NSW National Parks & Wildlife Service 2006). The ecological impact of such an event can be significant, resulting in changes to vegetation community distribution and age classes, loss of habitat, localised species extinctions, and impacts to soil and water (NSW National Parks & Wildlife Service 2006). Woodland habitats provide critical habitat resources for a variety of fauna, including tree-hollows which are only present in mature woodland vegetation (ngh environmental 2008). Unburnt areas of old growth Snow Gum woodland are therefore of high conservation value across the park. A large unburnt area of Snow Gum (*Eucalyptus niphophila*) extends along the Perisher Ranges from Charlottes Pass to Perisher Resort which is reported to be the largest area of unburnt woodland in the park (ngh environmental 2008, NSW Parks and Wildlife Service 2020).



Photo 3.5 Example of PCT 645 at Perisher showing *Eucalyptus niphophila* trees



Photo 3.6 Example of PCT 645 at Plot PNip1 at Perisher showing large *Eucalyptus niphophila* trees



Photo 3.7 Example of PCT 645 at Plot CPEnip1 at Charlottes Pass showing large *Eucalyptus niphophila* trees



Photo 3.8 Example of PCT 645 at Plot CPEnip2 at Charlottes Pass showing young tree regrowth

Photo credit: Lukas Clews

3.3.3 Boulder fields

The boulder fields (often associated with Alpine shrubland on scree, blockstreams and rocky sites of high altitude areas of Kosciuszko National Park, Australian Alps Bioregion PCT 643) are known to provide habitat for threatened mammal species including Broad-toothed Rat (*Mastacomys fuscus*), Mountain Pygmy-possum (*Burramys parvus*) and Smoky Mouse (*Pseudomys fumeus*). Monitoring sites for Mountain Pygmy-possum are present in the rocky habitats at Charlottes Pass. This habitat is also potentially suitable for threatened reptile species including Alpine She-oak Skink (*Cyclodomorphus praealtus*) and Guthega Skink (*Liopholis guthega*). Alpine Tree Frog (*Litoria verreauxii alpina*) is also known to be associated with PCT 643. Granite substrate and decomposing granite soils and rocky areas including sub-surface boulders is a habitat constraint for Guthega Skink.

Charlottes Pass contains boulder fields. Steep scree slopes and boulder fields are also present within the broader Assessment Area at Guthega and Perisher.



Photo 3.9 Example of alpine boulder field at Charlottes Pass, Kosciuszko National Park



Photo 3.10 Boulder field at Charlottes Pass, Kosciuszko National Park

4 Thredbo Village sub-precinct

4.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix B-1. Mapping of survey locations and results is provided in Appendix B-2.

4.2 Existing environment

The Thredbo Village sub-precinct consists of largely developed areas in the valley floor at the base of the Thredbo Mountain with surrounded by more developed infrastructure for tourism and residential use. The sub-precinct also extends into adjacent undisturbed vegetated areas, primarily along the slopes. The landscape of the Thredbo Village sub-precinct consists montane, alpine and sub-alpine vegetation and intersects the Thredbo River near the bottom of the valley.

The existing environment of the sub-precinct is described in Table 4.1.

Table 4.1 Summary of existing environment in Thredbo Village sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Thredbo Village sub-precinct contains a number of areas within the previously developed commercial and residential areas of Thredbo Village valley floor with minor expansions into neighbouring bushland. The sub-precinct is mostly bounded by pre-existing infrastructure including housing and carparks as well as Thredbo ski slope bases.</p> <p>The Thredbo Village sub-precinct consists of one major valley floor with both north-west and south-east facing slopes of varying elevation from approximately 1368 m to 1508 m ASL included. Geology is Volcanic Mowambah Granodrite (Biotite – Rich Granodiorite) encompassing the entire sub-precinct with the Crackback Fault running through the valley floor. Soils include shallow gravelly loams and texture-contrast soils (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	South Eastern Highlands – Monaro subregion
Rivers, streams and estuaries	The Thredbo Village sub-precinct encompasses a 2.4 km section of Thredbo River (4th order river) with the first order creek Friday Flat Creek (3 rd order stream) intersecting just north of the sub-precinct and several unnamed first order streams (ephemeral) connecting to Thredbo River within the sub-precinct.
Wetlands and important wetlands	No wetlands of international or national importance are present. Thredbo Village has a three artificially created dams located between areas of the sub-precinct.
Habitat connectivity	The habitat within the Thredbo Village sub-precinct has open connectivity with the surrounding greater vegetated areas of Kosciuszko National Park. However, there are barriers for complete connectivity including Alpine Way running along the southern edge of the sub-precinct and clearings along the northern slopes associated with the ski fields. These would not any significant barrier to movement of mobile species.

Value	Description
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Thredbo Village sub-precinct.
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the Thredbo Village sub-precinct.
Plant Community Types	PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens. PCT 679: Black Sallee – Snow Gum low woodland of montane valleys.
Threatened ecological communities BC Act	Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions (Endangered BC Act). Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion – South Eastern Highlands (Critically Endangered BC Act).
Threatened species habitats (Species credit species)	Based on previous assessments of the Monaro subregion, and limited field survey to date the following threatened species may have habitat in the Thredbo Village sub-precinct: <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Discaria nitida</i> and <i>Thesium australe</i> — mammals including Eastern Pygmy Possum, Broad-toothed Rat and Southern Myotis — birds including Little Eagle, Gang-gang Cockatoo, Barking Owl, Powerful Owl and Pink Robin — frogs including Alpine Tree Frog.

4.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in this sub-precinct is difficult to determine in some portions due to the large amount of development over time for residential use. However, retention of some original vegetation is present throughout and surrounding the precinct, making it easier to determine. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the Thredbo Village sub-precinct is considered to contain the following two PCTs:

- PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion.
- PCT 679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 4.2 Plant Community Types and vegetation zones within the Thredbo Village sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 637	Good	40.4	0.14
	TOTAL		0.14
PCT 679	Car park trees	46	0.87
	Exotic dominant grassland	52.1	0.14
	Good	81.6	13.57
	Moderate	38.9	2.15
	Poor	Not sampled	0.41
	Revegetation	Not sampled	0.14
	Shrubland	47.1	1.51
	TOTAL		18.79
TOTAL NATIVE VEGETATION			18.93



Photo 4.1 An example of PCT 637 in good condition adjacent to Thredbo River



Photo 4.2 An example of PCT 679 in good condition



Photo 4.3 An example of PCT 679 car park trees at Friday Flat



Photo 4.4 An example of PCT 679 exotic dominant grasslands



Photo 4.5 An example of PCT 679 shrubland at Thredbo Village



Photo 4.6 An example of the car park areas suitable for development

4.2.2 Threatened ecological communities

Two threatened ecological communities occur in within this sub-precinct (Table 4.3).

Table 4.3 Threatened ecological communities within Thredbo Village sub-precinct

Threatened ecological community	PCT	EPBC Act	BC Act	Area in sub-precinct (ha)
Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion	679	Not a TEC	Critically Endangered	18.79
Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions	637	Endangered	Endangered	0.14

Alpine and sub-alpine peatlands, damp herbfields and fens (PCT 637) was assessed as consistent with Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions, listed as Endangered under the BC Act and the EPBC Act. Within the sub-precinct, this vegetation persists only in 'good' condition, which is consistent with the BC and EPBC condition thresholds for this TEC.

Black Sallee - Snow Gum low woodland (PCT 679) forms part of the Critically Endangered Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion, as listed under the BC Act. This listing includes all occurrences of the community within the sub-precinct including areas of 'poor' condition, along with 'revegetation', 'car park trees', 'shrubland' and 'exotic-dominant grassland' (the latter two of which, lack trees). This community is not listed under the EPBC Act.

4.3 Opportunities and constraints

This sub-precinct is characterised by a mixture of critically endangered Monaro Tableland Cool Temperate Grassy Woodland in various conditions. Despite this, there are some opportunities within the sub-precinct for future development in the disturbed areas.

The main vegetation type in the Thredbo Village sub-precinct is PCT 679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion. The sub-precinct is mapped as occurring within the South Eastern Highlands – Monaro subregion and the vegetation otherwise fits within the broad definition of the BC Act listed Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion TEC. The sub-precinct also contains an example of the Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion PCT (PCT 637) along Thredbo River which is part of BC Act listed TEC Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions. Avoiding impacts to these TECs should be a priority within this sub-precinct.

There are opportunities for negligible or low impact development in the Thredbo Village East and Thredbo Village West areas including the existing car parks, tennis courts, around existing buildings, and any other disturbed areas.

Redevelopment of existing car parks would need to consider future car parking requirements and alternative transport options.

Redevelopment of the golf course does provide an opportunity and is likely to have low impacts if planned in a manner which retains the stands of Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion TEC.

In summary the constraints and opportunities in this sub-precinct include:

- Constraints – Areas of PCT 679 and 637 which are TECs present in the sub-precinct. Redevelopment of the golf course should be done in a manner that retains the existing stands of Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion TEC.
- Opportunities – Highly disturbed areas with no or limited native vegetation are the most suitable areas for future development.

Constraints mapping for the Thredbo Village sub-precinct is provided in Figure 4.1.

Figure 4.1

Thredbo Village sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Biodiversity Constraints

- High
- Moderate
- Low



0 0.15 0.3 km



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:7,000

Date: 22/03/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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5 Thredbo Ranger Station sub-precinct

5.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix C-1. Mapping of survey locations and results is provided in Appendix C-2.

5.2 Existing environment

The Thredbo Ranger Station sub-precinct is mostly undeveloped with remnant vegetation in the northern portion of the sub-precinct below the Thredbo River, with developed and cleared areas around the road and infrastructure for the ranger station in the central/southern portion. The landscape of the Thredbo Ranger Station is largely montane valley woodland with exotic grassland around the cleared areas.

The existing environment of the sub-precinct is described in Table 5.1.

Table 5.1 Summary of existing environment in Thredbo Ranger station sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Thredbo Ranger Station sub-precinct includes a broader area around the pre-existing ranger station infrastructure including previously cleared vegetation and extending slightly into areas of remnant vegetation adjacent to Thredbo River.</p> <p>The Thredbo Ranger Station sub-precinct stretches approximately 450 m along Thredbo River along the southern side of the valley floor. Due to the gentle gradient and relatively small area elevation ranges only 21 m from 1259 m to 1280 m ASL. Geology is Volcanic Mowambah Granodrite (Biotite – Rich Granodiorite) encompassing the entire sub-precinct with the Crackback Fault running through the valley floor. Soils include shallow gravelly loams and texture-contrast soils (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	South Eastern Highlands – Monaro subregion
Rivers, streams and estuaries	Thredbo Ranger Station sub-precinct lays adjacent for approximately 450 m of the Thredbo River (4th order river) and also the eastern edge of the sub-precinct follows the No 2 Creek (2 nd order stream) for approximately 300 m as it connects to the Thredbo River outside the sub-precinct. Several other unnamed first order streams (ephemeral) that connect with Thredbo River or No 2 Creek are located within 500 m of the Thredbo Ranger Station sub-precinct.
Wetlands and important wetlands	No wetlands of international or national importance are present.
Habitat connectivity	The habitat within the Thredbo Ranger Station sub-precinct has open connectivity with the surrounding greater vegetated areas of Kosciuszko National Park. However, Alpine Way running along the southern edge of the sub-precinct may provide barrier to movement for less mobile species.
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Thredbo Ranger Station sub-precinct. As the area was relatively small no significant rock outcroppings were observed within the sub-precinct during surveys.

Value	Description
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the Thredbo Ranger Station sub-precinct.
Plant Community Types	PCT 679: Black Sallee – Snow Gum low woodland of montane valleys.
Threatened ecological communities BC Act	Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion – South Eastern Highlands (Critically Endangered BC Act).
Threatened species habitats (Species credit species)	<p>Based on previous assessments of the Monaro subregion, and limited field survey to date the following threatened species (species credit species) may have habitat in the Thredbo Ranger Station sub-precinct:</p> <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Discaria nitida</i> and <i>Thesium australe</i> — mammals including Eastern Pygmy Possum, Broad-toothed Rat and Southern Myotis — birds including Little Eagle, Gang-gang Cockatoo, Barking Owl, Powerful Owl and Pink Robin — frogs including Alpine Tree Frog. <p>Olive whistler (<i>Pachycephala olivacea</i>), listed as Vulnerable under BC Act and an ecosystem credit species, is known to occur in this area.</p>

5.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in the Thredbo Ranger Station sub-precinct is not difficult to determine as a large proportion of the original vegetation remains. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the sub-precinct is considered to currently contain the following PCT:

- PCT 679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 5.2 Plant Community Types and vegetation zones within the Thredbo Ranger Station sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 679	Fire regeneration	44.6	2.36
	Good	69.5	1.38
	Shrubland	1.6	1.42
	TOTAL		5.16
TOTAL NATIVE VEGETATION			5.16



Photo 5.1 An example of PCT 679 in good condition



Photo 5.2 An example of PCT 679 shrubland adjacent to Thredbo River



Photo 5.3 An example of PCT 679 fire regeneration

5.2.2 *Threatened ecological communities*

One threatened ecological community occurs within this sub-precinct (Table 5.3).

Table 5.3 Threatened ecological communities within Thredbo Ranger Station sub-precinct

Threatened ecological community	PCT	EPBC Act	BC Act	Area in sub-precinct (ha)
Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion	679	Not a TEC	Critically Endangered	5.16

Black Sallee – Snow Gum low woodland (PCT 679) forms part of the Critically Endangered Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions, as listed under the BC Act. This listing includes all occurrences of the community within the sub-precinct including areas of ‘shrubland’ (lacking trees) and ‘revegetation’ (lacking canopy trees). This community is not listed under the EPBC Act.

5.3 Opportunities and constraints

The Thredbo Ranger Station sub-precinct is characterised by a mixture of critically endangered Monaro Tableland Cool Temperate Grassy Woodland in various conditions. Despite this, there are some opportunities within the sub-precinct for future development in the disturbed areas.

The main vegetation type in the Thredbo Ranger Station sub-precinct is PCT 679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion. The sub-precinct is mapped as occurring within the South Eastern Highlands – Monaro subregion and the vegetation otherwise fits within the broad definition of the BC Act listed Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion TEC. While it will constrain the developable area significantly, avoiding impacts to this TEC should be a priority within this sub-precinct.

There are opportunities for negligible or low impact development in the Thredbo Ranger Station sub-precinct as the existing building is situated in a highly disturbed area with no or limited native vegetation. This disturbed area should be the focus of redevelopment. The area in the north along the Thredbo River is also disturbed but contains significant shrub regrowth (PCT 679: Shrubland vegetation zone) and Broad Toothed Rat has historically been recorded in this area. Riparian areas are sensitive areas, but this area could be sensitively developed for low impact eco-tourism if existing trees are retained, and the footprint is minimised to the greatest extent practicable. The landscaped gateway should be done in a manner that minimises impacts to the TEC. Proposed walking trails will have limited impacts, but they must be kept as narrow as possible, minimise removal of vegetation from the TEC, and be constructed using low impact techniques.

In summary the constraints and opportunities in this sub-precinct include:

- Constraints:
 - areas of PCT 679 (Good condition and Fire regeneration) which is part of the BC Act listed Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion TEC. These are the best components of the TEC within the sub-precinct and should be retained
 - development in the riparian area along the Thredbo River should be approached with care and impacts minimised or avoided.
- Opportunities:
 - highly disturbed areas with no or limited native vegetation are the most suitable areas for future development
 - the area of PCT 679 (shrubland) along the Thredbo River could be sensitively developed for low impact eco-tourism if planned and constructed carefully to minimise the overall footprint and indirect impacts.

Constraints mapping for the Thredbo Ranger Station sub-precinct is provided in Figure 5.1.



Snowy SAP - Biodiversity Constraints

Figure 5.1

Thredbo Ranger Station Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- Watercourse
- Roads
- Biodiversity Constraints**
 - High
 - Moderate
 - Low



Coordinate system: GDA 1994 MGA Zone 55



Scale ratio correct when printed at A3

1:2,000

Date: 22/03/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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6 Perisher Village sub-precinct

6.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix D-1. Mapping of survey locations and results is provided in Appendix D-2.

6.2 Existing environment

The Perisher Village sub-precinct consists of the Perisher Village (developed and residential areas) and a large amount of surrounding remnant vegetation, interspersed with disturbance for additional development, tracks and ski infrastructure. Biodiversity values are variable due to the very large size of the sub-precinct.

The existing environment of the sub-precinct is described in Table 6.1.

Table 6.1 Summary of existing environment in Perisher Village sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Perisher Village sub-precinct contains a number of areas within the previously developed commercial and residential areas of Perisher Village depression with minor expansions into neighbouring bushland. The sub-precinct is mostly bounded by pre-existing infrastructure including housing and carparks as well as Perisher ski chairlift infrastructure.</p> <p>The Perisher Village sub-precinct encompasses the areas surrounding the depression at the base of Mount Perisher including the flatter areas at the bottom and increasing gradients of both south-east and northern facing slopes. Ski field infrastructure within the sub-precinct includes elevations of 1790 ASL and the valley floor flats at approximately 1722 m ASL. Geology is Volcanic Mowambah Granodrite (Biotite – Rich Granodiorite) encompassing the entire sub-precinct. Soils include uniform alpine humus and transitional alpine humus and peat with abundant organic matter. Stonier soil profiles occur on steep slopes (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	Australian Alps – Snowy Mountains subregion
Rivers, streams and estuaries	Perisher Village sub-precinct encompasses approximately a 700 m portion of Perisher Creek (3 rd order stream) and approximately 400 m of Rock Creek (first order stream). One more unnamed 2 nd order stream flows into Perisher Creek within 500 m outside the sub-precinct.
Wetlands and important wetlands	No wetlands of international or national importance are present.
Habitat connectivity	The habitat within the Perisher Village sub-precinct has open connectivity with the surrounding greater vegetated areas of Kosciuszko National Park. However, there are barriers for complete connectivity including Kosciuszko Rd running through the centre of the sub-precinct and clearings along the northern slopes associated with the ski fields. These would not any significant barrier to movement of mobile species.
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Perisher Village sub-precinct. Rock outcropping is a common feature and provides a significant habitat resource for fauna with large surface boulders providing crevices and shelter sites.

Value	Description
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the sub-precinct.
Plant Community Types	PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens. PCT 645: Alpine Snow Gum shrubby open woodland at high altitudes.
Threatened ecological communities BC Act	Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions (Endangered BC Act).
Threatened species habitats (Species credit species)	Based on previous assessments of the Snowy Mountains subregion, and limited field survey to date the following threatened species may have habitat in the Perisher Village sub-precinct: <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Carex raleighii</i>, <i>Discaria nitida</i>, <i>Euphrasia scabra</i>, <i>Pterostylis alpina</i>, <i>Pterostylis foliata</i>, <i>Pterostylis oreophila</i>, <i>Ranunculus anemoneus</i>, <i>Rytidosperma vickeryae</i> and <i>Thesium australe</i> — mammals including Mountain Pygmy-possum and Broad-toothed Rat — birds including Pink Robin and Gang-gang Cockatoo — reptiles and frogs including Alpine She-oak Skink, Guthega Skink, Alpine Tree Frog.

6.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in the Perisher Village sub-precinct can be determined based on the distinct landscape of this sub-precinct. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the sub-precinct is considered to currently contain the following two PCTs:

- PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion.
- PCT 645: Alpine Snow Gum shrubby open woodland at high altitudes in Kosciuszko National Park, Australian Alps Bioregion.

Although not recorded within the surveyed area of the Perisher sub-precinct, PCT 643- Alpine shrubland on Scree, blockstreams and rocky sites of high altitudes areas of KNP Australian Alps Bioregion, occurs in the broader area and is likely to also occur as small areas scattered throughout PCT 637 and PCT 645. Plant community type profiles are provided in Appendix A.

Table 6.2 Plant Community Types and vegetation zones within the Perisher Village sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 637	Good	64.7	1.99
	TOTAL		1.99
PCT 645	Dieback	63	10.32
	Good	64.5	11.28
	Poor	Not sampled	0.09
	Shrubland	36.3	6.79
	TOTAL		28.41
TOTAL NATIVE VEGETATION			30.4

Detailed summaries of the structure and floristics of each PCT within the alpine region is provided in Appendix A.



Photo 6.1 An example of PCT 637 in good condition



Photo 6.2 An example of PCT 645 shrubland



Photo 6.3 An example of PCT 645 dieback



Photo 6.4 An example of PCT 645 in good condition

6.2.2 *Threatened ecological communities*

One threatened ecological community occurs within this sub-precinct (Table 6.3).

Table 6.3 Threatened ecological communities within Perisher Village sub-precinct

Threatened ecological community	PCT	EPBC Act	BC Act	Area in sub-precinct (ha)
Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions	637	Endangered	Endangered	1.99

Alpine and sub-alpine peatlands, damp herbfields and fens (PCT 637) was assessed as consistent with Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions, listed as Endangered under the BC Act and the EPBC Act. Within the sub-precinct, this vegetation persists only in 'good' condition, which is consistent with the BC and EPBC condition thresholds for this TEC.

6.3 Opportunities and constraints

The Perisher Village sub-precinct is dominated by areas of high biodiversity value including:

- PCT 637 which is part of the Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions which is listed as an Endangered Ecological Community under the BC Act and the Alpine Sphagnum Bogs and Associated Fens ecological community which is listed as an Endangered Ecological Community under the EPBC Act.

The remaining vegetation is assigned to PCT 645 which is not a TEC but is known to provide habitat for restricted alpine threatened species including the Broad-toothed Rat, Alpine She-oak Skink and potentially Guthega Skink and the Mountain Pygmy Possum.

- There are also some areas of PCT 645 in good condition within the Perisher Village sub-precinct that are not suffering from dieback which increases the biodiversity value of these areas.
- There is a known population of *Rytidosperma vickeryae* (Perisher Wallaby Grass) to the north of the existing perisher car park and this site should be avoided and indirect impacts minimised through design

Future development within the Perisher Village sub-precinct should be restricted to existing highly disturbed areas with no or limited native vegetation. In summary the constraints and opportunities in this sub-precinct include:

- Constraints:
 - areas of TEC, threatened species habitat, and PCT 645 should be retained and future development should avoid impact on these areas
 - the population of *Rytidosperma vickeryae* (Perisher Wallaby Grass) to the north of the existing perisher car park and this site should be avoided. Indirect impacts to this species and the surrounding PCT637 should be minimised through design and construction controls, particularly indirect/post-construction impacts that might result from sediment laden stormwater and snow push containing gravel and other contaminants.
 - PCT 637 which is part of the Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions Endangered Ecological Community listed under the BC Act and the Alpine Sphagnum Bogs and Associated Fens ecological community which is listed as an Endangered Ecological Community under the EPBC Act. This community occurs to the north of the existing carpark and impacts to this community should be avoided where possible.
- Opportunities: Highly disturbed areas with no or limited native vegetation are the most suitable areas for future development. These areas are dispersed throughout the sub-precinct around existing buildings and in areas that were previously occupied by old buildings.

Constraints mapping for this sub-precinct is provided in Figure 6.1.

Legend

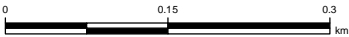
- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Threatened Flora Species

- Rytidosperma vickeryae*

Biodiversity Constraints

- High
- Low



Coordinate system: GDA 1994 MGA Zone 55

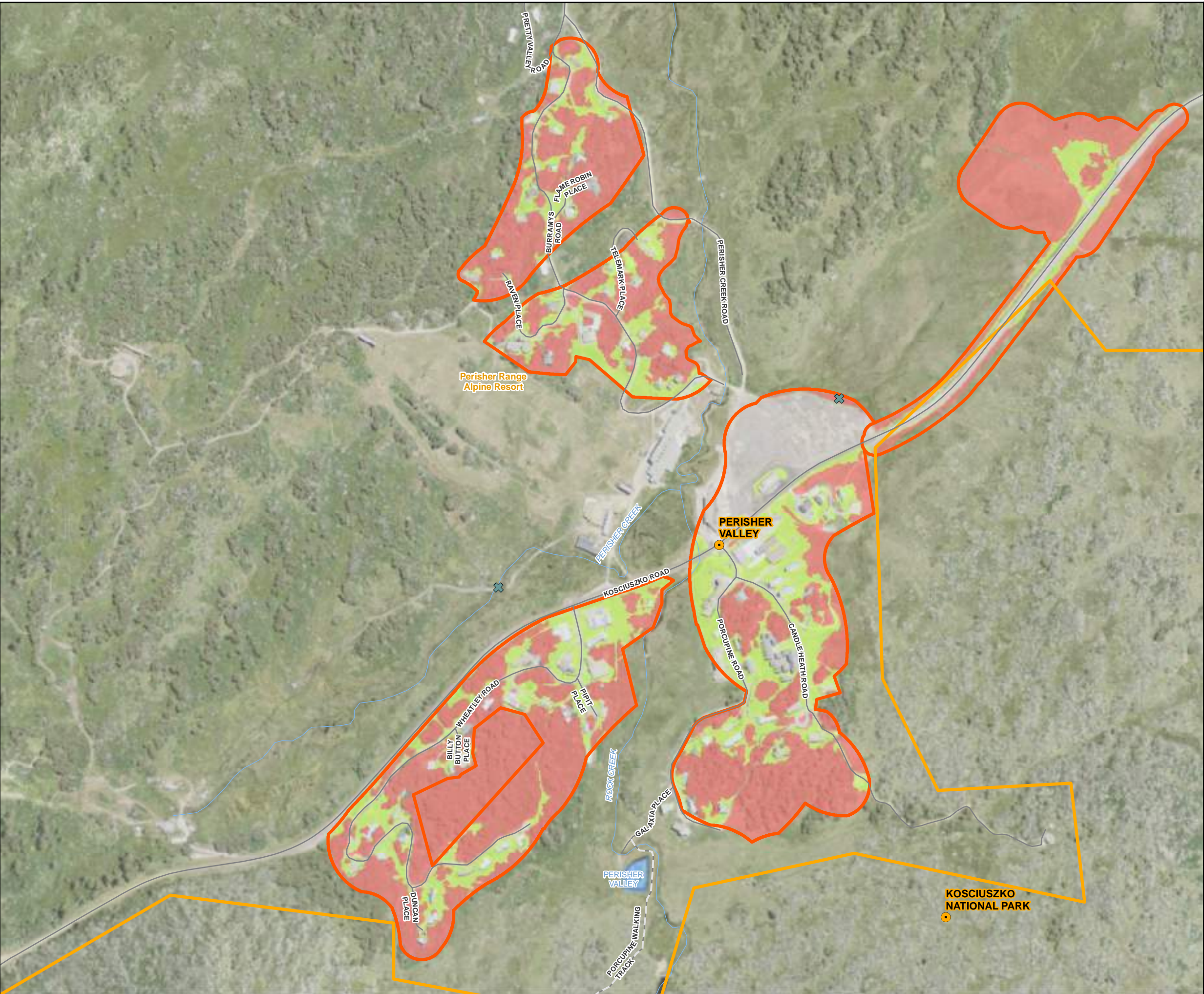
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Date: 22/03/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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7 Pipers Gap sub-precinct

7.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix E-1. Mapping of survey locations and results is provided in Appendix E-2.

7.2 Existing environment

The Pipers Gap sub-precinct consists of a cleared and disturbed area surrounding a building and the Kosciuszko Road (which intersects the sub-precinct). Despite this disturbance, the sub-precinct contains a large proportion of intact vegetation.

The existing environment of the sub-precinct is described in Table 7.1.

Table 7.1 Summary of existing environment in Pipers Gap sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Pipers Gap sub-precinct is found approximately 1 km from Perisher Village along Kosciuszko Rd towards Smiggin Holes. The sub-precinct includes one pre-existing building and surrounding previously cleared areas.</p> <p>The Pipers Gap sub-precinct sits entirely on a south-east facing gradual slope varying from 1730 m ASL to 1743 m ASL. Geology is Volcanic Mowambah Granodrite (Biotite – Rich Granodiorite) encompassing the entire sub-precinct. Soils include uniform alpine humus and transitional alpine humus and peat with abundant organic matter. Stonier soil profiles occur on steep slopes (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	Australian Alps – Snowy Mountains subregion
Rivers, streams and estuaries	Pipers Gap sub-precinct sits near an unnamed first order stream (ephemeral) on the opposite side of Kosciuszko Rd adjacent to the sub-precinct which flows into Pipers Creeks towards Smiggin Holes. Perisher Creek (3 rd order stream) sits over 500 m from the sub-precinct.
Wetlands and important wetlands	No wetlands of international or national importance are present.
Habitat connectivity	The habitat within the Pipers Gap sub-precinct has open connectivity with the surrounding greater vegetated areas of Kosciuszko National Park. Kosciuszko Rd running along the south-eastern edge of the sub-precinct limits connectivity for less mobile species.
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Pipers Gap sub-precinct. Rock outcropping occurs within the precinct and provides habitat resources for fauna with large surface boulders providing crevices and shelter sites.
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the sub-precinct.
Plant Community Types	<p>PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens.</p> <p>PCT 645: Alpine Snow Gum shrubby open woodland at high altitudes.</p>

Value	Description
Threatened ecological communities BC Act	Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions (Endangered BC Act)
Threatened species habitats (Species credit species)	<p>Based on previous assessments of the Snowy Mountains subregion, and limited field survey to date the following threatened species may have habitat in the Pipers Gap sub-precinct:</p> <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Carex raleighii</i>, <i>Discaria nitida</i>, <i>Euphrasia scabra</i>, <i>Pterostylis alpina</i>, <i>Pterostylis foliata</i>, <i>Pterostylis oreophila</i>, <i>Ranunculus anemoneus</i>, <i>Rytidosperma vickeryae</i> and <i>Thesium australe</i> — mammals including Mountain Pygmy-possum and Broad-toothed Rat — birds including Pink Robin — reptiles and frogs including Alpine She-oak Skink, Guthega Skink, Alpine Tree Frog.

7.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in the Pipers Gap sub-precinct can be determined based on the distinct landscape of this sub-precinct. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the sub-precinct is considered to currently contain the following two PCTs:

- PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion.
- PCT 645: Alpine Snow Gum shrubby open woodland at high altitudes in Kosciuszko National Park, Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 7.2 Plant Community Types and vegetation zones within the Pipers Gap sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 637	Good	61.2	6.5
	TOTAL		6.5
PCT 645	Dieback	Not sampled	0.05
	Good	51.5	0.21
	Shrubland	Not sampled	0.14
	TOTAL		0.4
TOTAL NATIVE VEGETATION			6.9



Photo 7.1 PCT 637 shrubby bog in good condition at Pipers Gap



Photo 7.2 An example of PCT 637 sod tussock grassland with shrubs at Pipers Gap



Photo 7.3 PCT 637 *Carex* fen at Pipers Gap



Photo 7.4 The disturbed area at Pipers Gap



Photo 7.5 PCT 637 shrubby upland bog at Pipers Gap



Photo 7.6 An example of PCT 645 in good condition at Pipers Gap

7.2.2 Threatened ecological communities

One threatened ecological community occurs in within this sub-precinct (Table 7.3).

Table 7.3 Threatened ecological communities within Pipers Gap sub-precinct

Threatened ecological community	PCT	EPBC Act	BC Act	Area in sub-precinct (ha)
Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions	637	Endangered	Endangered	6.5

Alpine and sub-alpine peatlands, damp herbfields and fens (PCT 637) was assessed as consistent with Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions, listed as Endangered under the BC Act and the EPBC Act. Within the sub-precinct, this vegetation persists only in 'good' condition, which is consistent with the BC and EPBC condition thresholds for this TEC.

7.3 Opportunities and constraints

Similar to the adjacent Perisher Village sub-precinct, the Pipers Gap sub-precinct is dominated by areas of high biodiversity value, notably PCT 637 which is part of the Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions which is listed as an Endangered Ecological Community under the BC Act and the Alpine Sphagnum Bogs and Associated Fens ecological community which is listed as an Endangered Ecological Community under the EPBC Act.

There are also smaller areas of vegetation assigned to PCT 645 which is not a TEC but is known to provide habitat for restricted alpine threatened species including the Broad-toothed Rat.

There is a known population of *Rytidosperma vickeryae* (Perisher Wallaby Grass) to the north of the existing perisher car park and this site should be avoided and indirect impacts minimised through design.

Future development within the Pipers Gap sub-precinct should be restricted to existing highly disturbed areas with no or limited native vegetation (i.e. the road edges and existing disturbed area at Pipers Gap).

In summary the constraints and opportunities in the Pipers Gap sub-precinct include:

- Constraints:
 - areas of TEC, threatened species habitat should be retained and future development of a car park at Pipers Gap should avoid impact on these areas
 - the population of *Rytidosperma vickeryae* (Perisher Wallaby Grass) should be avoided. Indirect impacts to this species and the surrounding PCT637 should minimised through design and construction controls, particularly indirect/post-construction impacts that might result from sediment laden stormwater and snow push containing gravel and other contaminants.
- Opportunities: The car park and any other facilities at Pipers Gap should be restricted to the highly disturbed areas with no or limited native vegetation as these are the most suitable areas for future development.

Constraints mapping for the Pipers Gap sub-precinct is provided in Figure 7.1.



Snowy SAP - Biodiversity Constraints

Figure 7.1

Pipers Gap Sub-precinct
Alpine SEPP Sub-precinct

Legend

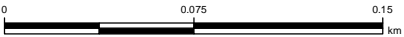
- Study Area
- SAP Precincts
- Roads

Threatened Flora Species

- Rytidosperma vickeryae*

Biodiversity Constraints

- High
- Low



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 22/03/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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8 Smiggin Holes sub-precinct

8.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix F-1. Mapping of survey locations and results is provided in Appendix F-2.

8.2 Existing environment

The Smiggin Holes sub-precinct consists primarily of developed and disturbed areas containing residential dwellings, road and car park. One patch of intact native vegetation occurs to the north of the sub-precinct.

The existing environment of the sub-precinct is described in Table 8.1.

Table 8.1 Summary of existing environment in Smiggin Holes sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Smiggin Holes sub-precinct includes commercial and accommodation infrastructure associated with Smiggin Holes ski field.</p> <p>The Smiggin Holes sub-precinct sits along the lower portion of the Smiggin Holes bowl with areas facing all aspects although mainly western facing. The gradual gradient provides a topography ranging from 1672 m ASL to 1719 m ASL. Geology is Volcanic Mowambah Granodrite (Biotite – Rich Granodiorite) encompassing the entire sub-precinct. Soils include uniform alpine humus and transitional alpine humus and peat with abundant organic matter. Stonier soil profiles occur on steep slopes (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	Australian Alps – Snowy Mountains subregion
Rivers, streams and estuaries	The Smiggin Holes sub-precinct is separated by the first order stream (ephemeral) Smiggin Creek that flows into Pipers Creek (2 nd order stream) situated just outside the sub-precinct to the south.
Wetlands and important wetlands	No wetlands of international or national importance are present.
Habitat connectivity	The habitat within the Smiggin Holes sub-precinct has a high level of habitat connectivity as it is directly connected to the large expanse of habitat within the Kosciuszko National Park. However, there are barriers for complete connectivity including Kosciuszko Rd running to the south of the sub-precinct and clearings along the northern slopes associated with the ski fields. These would not be a significant barrier to movement of mobile species.
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Smiggin Holes sub-precinct. Rock outcropping is a common feature and provides a significant habitat resource for fauna with large surface boulders providing crevices and shelter sites.
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the sub-precinct.

Value	Description
Plant Community Types	PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens. PCT 645: Alpine Snow Gum shrubby open woodland at high altitudes.
Threatened ecological communities BC Act	Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions (Endangered BC Act).
Threatened species habitats (Species credit species)	Based on previous assessments of the Snowy Mountains subregion, and limited field survey to date the following threatened species may have habitat in the Smiggin Holes sub-precinct: <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Carex raleighii</i>, <i>Discaria nitida</i>, <i>Euphrasia scabra</i>, <i>Pterostylis alpina</i>, <i>Pterostylis foliata</i>, <i>Pterostylis oreophila</i>, <i>Ranunculus anemoneus</i>, <i>Rytidosperma vickeryae</i> and <i>Thesium australe</i> — birds including Pink Robin Species known to occur include: <ul style="list-style-type: none"> — mammals including Mountain Pygmy-possum and Broad-toothed Rat — reptiles and frogs including Alpine She-oak Skink, Guthega Skink, Alpine Tree Frog.

8.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in the Smiggin Holes can be determined based on the distinct landscape of this sub-precinct. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the sub-precinct is considered to currently contain the following two PCTs:

- PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion.
- PCT 645: Alpine Snow Gum shrubby open woodland at high altitudes in Kosciuszko National Park, Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 8.2 Plant Community Types and vegetation zones within the Smiggin Holes sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 637	Good	46.6	1.51
	TOTAL		1.51
PCT 645	Dieback	63	1.48
	Shrubland	9.9	0.84
	TOTAL		2.32
TOTAL NATIVE VEGETATION			3.83



Photo 8.1 An example of PCT 637 in good condition at the Smiggin Holes sub-precinct



Photo 8.2 An example of PCT 645 shrubland at the Smiggin Holes sub-precinct



Photo 8.3 PCT 645 at the Smiggin Holes sub-precinct



Photo 8.4 The disturbed area in the north of the Smiggin Holes sub-precinct

8.2.2 *Threatened ecological communities*

One threatened ecological community occurs in within this sub-precinct (Table 8.3).

Table 8.3 Threatened ecological communities within Smiggin Holes sub-precinct

Threatened ecological community	PCT	EPBC Act	BC Act	Area in sub-precinct (ha)
Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions	637	Endangered	Endangered	1.51

Alpine and sub-alpine peatlands, damp herbfields and fens (PCT 637) was assessed as consistent with Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions, listed as Endangered under the BC Act and the EPBC Act. Within the sub-precinct, this vegetation persists only in ‘good’ condition, which is consistent with the BC and EPBC condition thresholds for this TEC.

8.3 Opportunities and constraints

Similar to the Perisher Village sub-precinct, the Smiggin Holes sub-precinct is dominated by areas of high biodiversity value including PCT 637 which is part of the Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions which is listed as an Endangered Ecological Community under the BC Act and the Alpine Sphagnum Bogs and Associated Fens ecological community which is listed as an Endangered Ecological Community under the EPBC Act. The remaining vegetation is assigned to PCT 645 which is not a TEC but is known to provide habitat for restricted alpine threatened species including the Broad-toothed Rat, Alpine She-oak Skink, Guthega Skink, Alpine Tree Frog and the Mountain Pygmy Possum.

Future development within the Smiggin Holes sub-precinct should be restricted to existing highly disturbed areas with no or limited native vegetation.

In summary the constraints and opportunities in this sub-precinct include:

- Constraints: Areas of TEC and threatened species habitat should be retained, and future development should avoid impact on these areas.
- Opportunities: Highly disturbed areas with no or limited native vegetation are the most suitable areas for future development. These areas are dispersed throughout the sub-precinct around existing buildings and there is a large grassy area in the north of the precinct suitable for development.

Constraints mapping for this sub-precinct is provided in Figure 8.1.



Snowy SAP - Biodiversity Constraints

Figure 8.1

Smiggin Holes sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Watercourse
- Roads

Biodiversity Constraints

- High
- Low



0 0.075 0.15
km

Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 22/03/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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9 Guthega sub-precinct

9.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix G-1. Mapping of survey locations and results is provided in Appendix G-2.

9.2 Existing environment

The Guthega sub-precinct occurs along a slope and is largely developed containing residential buildings and ski infrastructure and intersecting Mount Tate Road. Vegetation within the sub-precinct is of mixed condition, and considerably disturbed in patches.

The existing environment of the sub-precinct is described in Table 9.1.

Table 9.1 Summary of existing environment in Guthega sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Guthega sub-precinct contains the infrastructure of the ski field and including privately owned buildings and an area of open heathland.</p> <p>The Guthega sub-precinct all sits along the north-west facing hill slope leading down to Guthega Dam in west on a moderate gradient with elevation starting at 1581 m ASL closest to the dam to 1676 m ASL at the highest area on the southern slope. Geology is Volcanic Mowambah Granodrite (Biotite – Rich Granodiorite) encompassing the entire sub-precinct. Soils include uniform alpine humus and transitional alpine humus and peat with abundant organic matter. As this precinct is largely on a slope, soil profiles are largely stony (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	Australian Alps – Snowy Mountains subregion
Rivers, streams and estuaries	The Guthega sub-precinct sits immediately up slope from Guthega Dam where Guthega River (2 nd order stream), Snowy River (4 th order river) and Blue Cow Creek (3 rd order stream) combine. The Snowy River downstream of the dam passes within 200 m of the sub-precinct as does an unnamed first order (ephemeral) stream that flows into the Snowy River downstream of the sub-precinct. Blue Cow Creek also passes within 200 m of the sub-precinct as it flows into Guthega Dam.
Wetlands and important wetlands	No wetlands of international or national importance are present.
Habitat connectivity	The habitat within the Guthega sub-precinct has a high level of habitat connectivity as it is directly connected to the large expanse of habitat within the Kosciuszko National Park. Infrastructure around Guthega Dam and the artificial body of water is unlikely to present a significant barrier to connectivity.
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Guthega sub-precinct. Rock outcropping is a common feature and provides a significant habitat resource for fauna with large surface boulders providing crevices and shelter sites. Steep scree slopes and boulder fields are also present within the broader Assessment Area of the sub-precinct.

Value	Description
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the sub-precinct.
Plant Community Types	PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens. PCT 645: Alpine Snow Gum shrubby open woodland at high altitudes.
Threatened ecological communities BC Act	Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions (Endangered BC Act).
Threatened species habitats (Species credit species)	Based on previous assessments of the Snowy Mountains subregion, and limited field survey to date the following threatened species may have habitat in the Guthega sub-precinct: <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Carex raleighii</i>, <i>Discaria nitida</i>, <i>Euphrasia scabra</i>, <i>Pterostylis alpina</i>, <i>Pterostylis foliata</i>, <i>Pterostylis oreophila</i>, <i>Ranunculus anemoneus</i>, <i>Rytidosperma vickeryae</i> and <i>Thesium australe</i> — mammals including Mountain Pygmy-possum and Broad-toothed Rat — birds including Pink Robin — reptiles and frogs including Alpine She-oak Skink, Guthega Skink, Alpine Tree Frog.

9.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in Guthega can be determined based on the distinct landscape of this sub-precinct. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the sub-precinct is considered to currently contain the following two PCTs:

- PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion.
- PCT 645: Alpine Snow Gum shrubby open woodland at high altitudes in Kosciuszko National Park, Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 9.2 Plant Community Types and vegetation zones within the Guthega sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 637	Good	48	0.62
	TOTAL		0.62
PCT 645	Dieback	54.5	4.67
	Shrubland	18.7	3.35
	TOTAL		8.02
TOTAL NATIVE VEGETATION			8.64



Photo 9.1 An example of PCT 637 in good condition at Guthega



Photo 9.2 An example of PCT 645 shrubland at Guthega



Photo 9.3 Landscape view of PCT 645 Dieback at Guthega



Photo 9.4 PCT 645 Dieback at Guthega

9.2.2 *Threatened ecological communities*

One threatened ecological community occurs in within this sub-precinct (Table 9.3).

Table 9.3 Threatened ecological communities within Guthega sub-precinct

Threatened ecological community	PCT	EPBC Act	BC Act	Area in sub-precinct (ha)
Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions	637	Endangered	Endangered	0.62

Alpine and sub-alpine peatlands, damp herbfields and fens (PCT 637) was assessed as consistent with Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions, listed as Endangered under the BC Act and the EPBC Act. Within the sub-precinct, this vegetation persists only in ‘good’ condition, which is consistent with the BC and EPBC condition thresholds for this TEC.

Plant community type profiles are provided in Appendix A.

9.3 Opportunities and constraints

Similar to the Perisher Village sub-precinct, the Guthega sub-precinct is dominated by areas of high biodiversity value including:

- PCT 637 which is part of the Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions which is listed as an Endangered Ecological Community under the BC Act and the Alpine Sphagnum Bogs and Associated Fens ecological community which is listed as an Endangered Ecological Community under the EPBC Act.
- The remaining vegetation is assigned to PCT 645 which is not a TEC but is known to provide habitat for restricted alpine threatened species including the Broad-toothed Rat.

Future development within the Guthega sub-precinct should be restricted to existing highly disturbed areas with no or limited native vegetation.

In summary the constraints and opportunities in this sub-precinct include:

- Constraints: Areas of TEC and threatened species habitat should be retained, and future development should avoid impact on these areas.
- Opportunities: Highly disturbed areas with no or limited native vegetation are the most suitable areas for future development. These areas are dispersed throughout the Guthega sub-precinct around existing buildings and roadsides with a larger area towards the Guthega Pondage.

Constraints mapping for this sub-precinct is provided in Figure 9.1.



Snowy SAP - Biodiversity Constraints

Figure 9.1

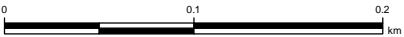
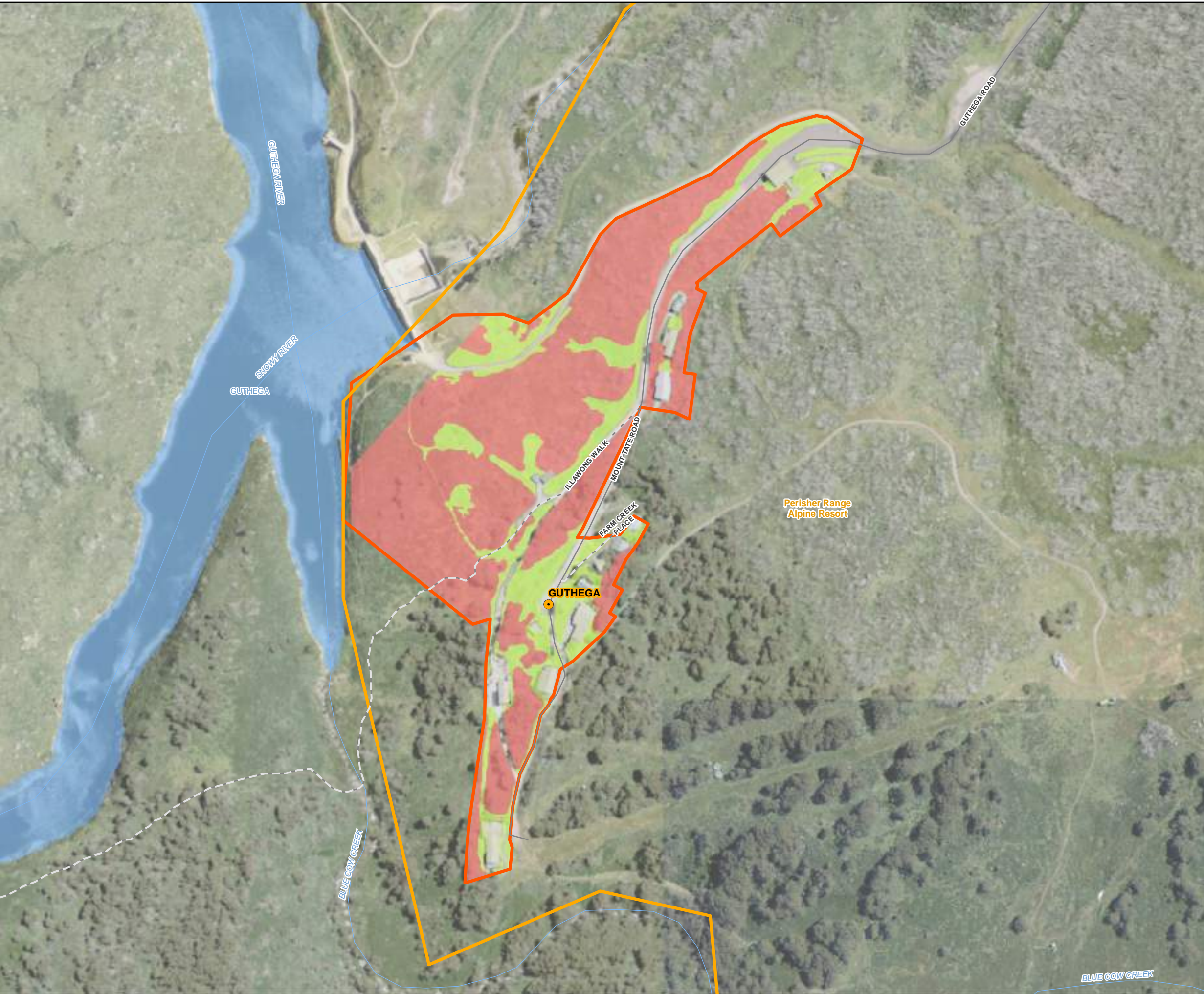
Guthega Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Biodiversity Constraints

- High
- Low



Coordinate system: GDA 1994 MGA Zone 55



Scale ratio correct when printed at A3

1:4,000

Date: 22/03/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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10 Charlotte Pass sub-precinct

10.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix G-1. Mapping of survey locations and results is provided in Appendix G-2.

10.2 Existing environment

The Charlotte Pass sub-precinct is a largely developed and disturbed area occurring southwest of Perisher. Native and remnant vegetation surrounds the developed area.

The existing environment of the sub-precinct is described in Table 10.1.

- highly disturbed areas with limited native vegetation in the vicinity of existing development
- Plant Community Types include:
 - Alpine and sub-alpine peatlands, damp herbfields and fens (PCT 637)
 - Alpine Snow Gum shrubby open woodland at high altitudes (PCT 645)
 - Alpine shrubland on scree, blockstreams and rocky sites of high altitude areas (PCT 643)
- Spencers Creek
- threatened biodiversity includes:
 - significant population of Mountain pygmy Possum to east of village
 - Guthega Skink habitat
 - Broad-toothed rat habitat
- Sphagnum bogs and fens – occurs to north east and west of village and along access road.

Table 10.1 Summary of existing environment in Charlotte Pass sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Charlotte Pass sub-precinct encompasses the pre-existing infrastructure of Charlotte Pass and the immediate area around each building. The Assessment Area sits at the base of bowl with a predominately north-eastern facing slope.</p> <p>The Charlotte Pass sub-precinct gradual gradient ranges from 1757 m ASL to 1799 m ASL in topography. Geology is Volcanic Mowambah Granodrite (Biotite – Rich Granodiorite) encompassing the entire sub-precinct with the Crackback Fault running through the valley floor. Soils include uniform alpine humus and transitional alpine humus and peat with abundant organic matter. Stonier soil profiles occur on steep slopes (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	Australian Alps – Snowy Mountains subregion
Rivers, streams and estuaries	The Charlotte Pass sub-precinct follows Spencers Creek (first order stream) on the north-western side of Charlotte Way. Wrights Creek (2 nd order stream) is situated more than 500 m from the sub-precinct and flows into Spencers Creek downstream of the sub-precinct.
Wetlands and important wetlands	No wetlands of international or national importance are present.

Value	Description
Habitat connectivity	The habitat within the Smiggin Holes sub-precinct has a high level of habitat connectivity as it is directly connected to the large expanse of habitat within the Kosciuszko National Park. There are no significant barriers to connectivity in the surrounding locality.
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Charlotte Pass sub-precinct. Rock outcropping is a common feature and provides a significant habitat resource for fauna with large surface boulders providing crevices and shelter sites. The granitoid geology of the assessment areas provide a number of areas with rocky outcropping, particularly the subject land at Charlotte Pass sub-precinct where boulder fields are present.
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the sub-precinct.
Plant Community Types	PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens. PCT 643: Alpine shrubland on scree, blockstreams and rocky sites of high altitude areas. PCT 645: Alpine Snow Gum shrubby open woodland at high altitudes.
Threatened ecological communities BC Act	Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions (Endangered BC Act).
Threatened species habitats (Species credit species)	Based on previous assessments of the Snowy Mountains subregion, and limited field survey to date the following threatened species may have habitat in the Charlotte Pass sub-precinct: <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Carex raleighii</i>, <i>Discaria nitida</i>, <i>Euphrasia scabra</i>, <i>Pterostylis alpina</i>, <i>Pterostylis foliata</i>, <i>Pterostylis oreophila</i>, <i>Ranunculus anemoneus</i>, <i>Rytidosperma vickeryae</i> and <i>Thesium australe</i> — mammals including Mountain Pygmy-possum and Broad-toothed Rat — birds including Pink Robin — reptiles and frogs including Alpine She-oak Skink, Guthega Skink, Alpine Tree Frog. <i>Argyrotegium nitidulum</i> (Shining Cudweed), listed as Vulnerable under the EPBC Act found in the vicinity of Charlottes Pass. Potential habitat for the species occur in damp and wet areas including open wet ground and heathland, near streams and bogs.

10.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in Charlotte Pass can be determined based on the distinct landscape of this sub-precinct. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the sub-precinct is considered to currently contain the following two PCTs:

- PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion.
- PCT 643: Alpine shrubland on scree, blockstreams and rocky sites of high altitude areas of Kosciuszko National Park, Australian Alps Bioregion
- PCT 645: Alpine Snow Gum shrubby open woodland at high altitudes in Kosciuszko National Park, Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 10.2 Plant Community Types and vegetation zones within the Charlotte Pass sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 637	Good	62.3	3.46
	TOTAL		3.46
PCT643	Good	31.1	0.95
	TOTAL		0.95
PCT 645	Good	59.4	2.09
	Moderate	54.6	1.59
	TOTAL		3.68
TOTAL NATIVE VEGETATION			9



Photo 10.1 An example of PCT 637 upland bog in good condition at Charlottes Pass



Photo 10.2 An example of PCT 643 in good condition at Charlottes Pass showing Podocarpus and boulders



Photo 10.3 An example of PCT 645 in good condition at Charlottes Pass showing large trees



Photo 10.4 An example of PCT 637 *Carex* fen in good condition



Photo 10.5 PCT 637 upland bog under the chairlift at Charlottes Pass



Photo 10.6 PCT 645 moderate condition at Charlottes Pass

10.2.2 *Threatened ecological communities*

One threatened ecological community occurs in within this sub-precinct (Table 10.3).

Table 10.3 Threatened ecological communities within Charlotte Pass sub-precinct

Threatened ecological community	PCT	EPBC Act	BC Act	Area in sub-precinct (ha)
Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions	637	Endangered	Endangered	3.46

Alpine and sub-alpine peatlands, damp herbfields and fens (PCT 637) was assessed as consistent with Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions, listed as Endangered under the BC Act and the EPBC Act. Within the sub-precinct, this vegetation persists only in 'good' condition, which is consistent with the BC and EPBC condition thresholds for this TEC.

Plant community type profiles are provided in Appendix A.

10.3 Opportunities and constraints

The Charlottes Pass sub-precinct is highly constrained from a biodiversity perspective as it is dominated by areas of high biodiversity value. These values include:

- large areas of PCT 637 which is part of the Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions which is listed as an Endangered Ecological Community under the BC Act and the Alpine Sphagnum Bogs and Associated Fens ecological community which is listed as an Endangered Ecological Community under the EPBC Act
- the remaining vegetation is assigned to PCT 645 and 643 which are not TECs but are known to provide habitat for restricted alpine threatened species such as Mountain Pygmy-possum, Guthega Skink and Broad-toothed Rat.

Future development within the Charlottes Pass sub-precinct should be restricted to existing highly disturbed areas with no or limited native vegetation.

In summary the constraints and opportunities in this sub-precinct include:

- Constraints: Areas of TEC and threatened species habitat should be retained, and future development should avoid impact on these areas.
- Opportunities: Highly disturbed areas with no or limited native vegetation are the most suitable areas for future development. These areas are dispersed throughout the Charlottes Pass sub-precinct around existing buildings and roadsides.

Constraints mapping for this sub-precinct is provided in Figure 10.1.



Snowy SAP - Biodiversity Constraints

Figure 10.1

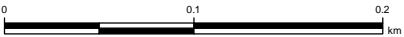
Charlotte Pass sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Biodiversity Constraints

- High
- Low



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:4,000

Date: 22/03/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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11 Island Bend sub-precinct

11.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix I-1. Mapping of survey locations and results is provided in Appendix I-2.

11.2 Existing environment

The Island Bend sub-precinct occurs just south-east of the Snowy River and contains a mixture of disturbed areas (primarily roads and tracks) and remnant native vegetation.

The existing environment of the sub-precinct is described in Table 11.1.

Table 11.1 Summary of existing environment in Island Bend sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Island Bend campground sub-precinct is situated downstream of the Snowy River from Guthega Dam by approximately 11.5 km and includes some previously disturbed native vegetation, with existing camping area and associated infrastructure.</p> <p>The Island Bend sub-precinct sits on a small peak and mostly slopes down to the Snowy River in a north facing aspect. Elevation ranges from 1197 m ASL near to the river to 1296 m ASL at the peak of the crest. Geology is Volcanic Mowambah Granodrite (Biotite – Rich Granodiorite) encompassing the entire sub-precinct. Soils include shallow gravelly loams and texture-contrast soils (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	South Eastern Highlands – Monaro subregion
Rivers, streams and estuaries	The Island Bend sub-precinct sits along the edge of The Snowy River (4 th order River) for approximately 2 km. There are several unnamed first order streams (ephemeral) that flow into the Snowy River adjacent to the three areas of the sub-precinct.
Wetlands and important wetlands	No wetlands of international or national importance are present.
Habitat connectivity	The Island Bend sub-precinct has open connectivity with the surrounding greater vegetated areas of Kosciuszko National Park. Guthega Rd is unlikely to cause any insignificant hindrance to connectivity for most species however the wider portions of the Snowy River adjacent to the sub-precinct could present a hindrance to movement of some fauna species.
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Island Bend sub-precinct.
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the Island Bend sub-precinct.
Plant Community Types	<p>PCT 679: Black Sallee - Snow Gum low woodland of montane valleys.</p> <p>PCT 1196: Snow Gum - Mountain Gum shrubby open forest of montane areas.</p>

Value	Description
Threatened ecological communities BC Act	Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion – South Eastern Highlands (Critically Endangered BC Act).
Threatened species habitats (Species credit species)	<p>Based on previous assessments of the Monaro subregion, and limited field survey to date the following threatened species may have habitat in the Island Bend sub-precinct:</p> <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Discaria nitida</i> and <i>Thesium australe</i> — mammals including Eastern Pygmy Possum, Broad-toothed Rat and Southern Myotis — birds including Little Eagle, Gang-gang Cockatoo, Barking Owl, Powerful Owl and Pink Robin — frogs including Alpine Tree Frog.

11.2.1 Plant community types

Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the sub-precinct is considered to currently contain the following two PCTs:

- PCT 679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion.
- PCT 1196: Snow Gum – Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 11.2 Plant Community Types and vegetation zones within the Island Bend sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 679	Exotic dominant grassland	0.8	4.73
	Moderate	52.8	2.63
	Shrubland	20.3	5.46
	TOTAL		12.82
PCT 1196	Good	63.4	17.13
	Moderate	36.7	5.58
	Shrubland	Not sampled	0.2
	TOTAL		22.91
TOTAL NATIVE VEGETATION			9



Photo 11.1 An example of PCT 679 in moderate condition at Island Bend



Photo 11.2 An example of PCT 679 exotic dominant grassland at Island Bend



Photo 11.3 An example of PCT 679 shrubland at Island Bend



Photo 11.4 An example of PCT 1196 in good condition at Island Bend

11.2.2 *Threatened ecological communities*

One threatened ecological community occurs within this sub-precinct (Table 11.3).

Table 11.3 Threatened ecological communities within Island Bend sub-precinct

Threatened ecological community	PCT	EPBC Act	BC Act	Area in sub-precinct (ha)
Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion	679	Not a TEC	Critically Endangered	12.82

Black Sallee – Snow Gum low woodland (PCT 679) forms part of the Critically Endangered Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion, as listed under the BC Act. This listing includes all occurrences of the community within the sub-precinct including areas of ‘shrubland’ and ‘exotic dominant grassland’ which are treeless. This community is not listed under the EPBC Act.

11.3 Opportunities and constraints

The Island Bend sub-precinct:

- is dominated by the tall wet forest of PCT 1196: Snow Gum – Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion. While PCT 1196 is not part of a TEC, it is in good to moderate condition and provides habitat for a range of threatened species including the BC Act listed Gang-gang Cockatoo and breeding habitat may be present for this species given the size of the mature trees and presence of hollows. As such, areas of PCT 1196 are considered to pose a moderate constraint.
- has smaller patches of PCT 679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion along the tributary of Diggers Creek that runs through the sub-precinct. PCT 679 is part of the critically endangered Monaro Tableland Cool Temperate Grassy Woodland TEC and as such poses the highest biodiversity constraints within this sub-precinct.

There are opportunities within the sub-precinct for future or low impact development such as camping sites and cabins in the disturbed areas at Island Bend. This includes within the Exotic dominant grassland areas and highly disturbed area with no or limited native vegetation. There are also likely to be small pockets or clearings within other areas of the vegetation too small to map that would be suitable for camping areas or cabins.

The disturbed areas should be the focus of redevelopment. Any proposed walking trails will have limited impacts, but they should be kept as narrow as possible, minimise removal of vegetation from the TEC, and be constructed using low impact techniques. Existing roads should be used where possible to minimise impacts to biodiversity.

The area proposed for eco-tourism development in the north west of the sub-precinct adjacent to the Snowy River has not been surveyed so constraints associated with this area are unknown at this point. Areas closed due to asbestos contamination were also not surveyed but constraints have been estimated based off the adjacent vegetation.

In summary the constraints and opportunities in this sub-precinct include:

- Constraints: Areas of PCT 679 which is part of the BC Act listed Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion TEC. These are the best components of the TEC within the sub-precinct and should be retained. Impact to areas of PCT 1196 should also be minimised due to the presence of threatened species habitat.
- Opportunities: Exotic dominant grassland areas and highly disturbed areas with no or limited native vegetation are the most suitable areas for future development. There are also likely to be smaller pockets or clearings within other areas of the better condition patches of vegetation too small to map that would be suitable for camping areas or cabins. Existing roads should be used where possible.

Constraints mapping for the Island Bend sub-precinct is provided in Figure 11.1.



Snowy SAP - Biodiversity Constraints

Figure 11.1

Island Bend Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- Waterbodies
- Watercourse
- Roads

Biodiversity Constraints

- High
- Moderate
- Low



Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
1:5,000 Date: 22/03/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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12 Sponars Chalet sub-precinct

12.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix J-1. Mapping of survey locations and results is provided in Appendix J-2.

12.2 Existing environment

The Sponars Chalet sub-precinct is a disturbed area containing the Sponars Chalet Resort and associated facilities. The landscape is primarily disturbed, exotic grassland with some shrubland and remnant trees on the eastern and western edges.

The existing environment of the sub-precinct is described in Table 12.1.

Table 12.1 Summary of existing environment in Sponars Chalet sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Sponars Chalet sub-precinct sits immediately off Kosciuszko Rd 8.5 km north-east of Perisher Ski Resort and encompasses the two Chalet buildings along with the surrounding previously cleared area with limited native vegetation.</p> <p>The Sponars Chalet sub-precinct sits on a gradual east facing slope with elevation varying from 1515 m ASL to 1538 m ASL. Geology is Volcanic Mowambah Granodrite (Biotite – Rich Granodiorite) encompassing the entire sub-precinct. Soils include uniform alpine humus and transitional alpine humus and peat with abundant organic matter. Stonier soil profiles occur on steep slopes (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	Australian Alps – Snowy Mountains subregion
Rivers, streams and estuaries	The Sponars Chalet sub-precinct sits within 100 m from Diggers Creek (3 rd order stream) and its associated dammed water which also includes an unnamed first order stream (ephemeral) that flows into the dam from the east. Little Diggers Creek (2 nd order stream) also flows into Diggers Creek upstream of the dam within 100 m from the sub-precinct.
Wetlands and important wetlands	No wetlands of international or national importance are present.
Habitat connectivity	<p>The habitat within the Sponars Chalet sub-precinct has open connectivity with the surrounding greater vegetated areas of Kosciuszko National Park.</p> <p>Kosciuszko Rd running along the southern edge of the sub-precinct may present barrier to connectivity for less mobile species.</p>
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Sponars Chalet sub-precinct.
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the sub-precinct.

Value	Description
Plant Community Types	PCT 644: Alpine Snow Gum - Snow Gum shrubby woodland at intermediate altitudes in northern Kosciuszko National Park.
Threatened ecological communities BC Act	No threatened ecological communities occur within the sub-precinct.
Threatened species habitats (Species credit species)	<p>Based on previous assessments of the Snowy Mountains subregion, and limited field survey to date the following threatened species may have habitat in the Sponars Chalet sub-precinct:</p> <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Carex raleighii</i>, <i>Discaria nitida</i>, <i>Euphrasia scabra</i>, <i>Pterostylis alpina</i>, <i>Pterostylis foliata</i>, <i>Pterostylis oreophila</i>, <i>Ranunculus anemoneus</i>, <i>Rytidosperma vickeryae</i> and <i>Thesium australe</i> — mammals including Mountain Pygmy-possum and Broad-toothed Rat — birds including Pink Robin — reptiles and frogs including Alpine She-oak Skink, Guthega Skink, Alpine Tree Frog.

12.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in the Sponars Chalet sub-precinct is difficult to determine given the high disturbance and considerably modified vegetation, though remnant vegetation at the edges of the sub-precinct give a good indication. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the Sponars Chalet sub-precinct is considered to contain the following PCT:

- PCT 644: Alpine Snow Gum – Snow Gum shrubby woodland at intermediate altitudes in northern Kosciuszko National Park, South Eastern Highlands Bioregion and Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 12.2 Plant Community Types and vegetation zones within the Sponars Chalet sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 644	Exotic dominant grassland	0.3	3.05
	Moderate	25	1.67
	Shrubland	10.3	0.58
	TOTAL		5.3
TOTAL NATIVE VEGETATION			5.3



Photo 12.1 PCT 644 exotic dominant grassland at Sponars Chalet



Photo 12.2 Close up of PCT 644 exotic dominant grassland at Sponars Chalet



Photo 12.3 An example of PCT 644 shrubland at Sponars Chalet



Photo 12.4 An example of PCT 644 in moderate condition at Sponars Chalet

12.2.2 *Threatened ecological communities*

No threatened ecological communities occur within the Sponars Chalet sub-precinct.

12.3 Opportunities and constraints

The Sponars Chalet sub-precinct is one of the least constrained sub-precincts in the Alpine precinct from a biodiversity perspective. The grassland in the clearing around Sponars Chalet does contain some native species but is dominated by exotic species and as such is classed as an Exotic dominant grassland version of PCT 644: Alpine Snow Gum – Snow Gum shrubby woodland at intermediate altitudes in northern Kosciuszko National Park, South Eastern Highlands Bioregion and Australian Alps Bioregion. PCT 644 is not part of a TEC and given the degraded nature of the grassland this area is considered to be a low biodiversity constraint. The small patches of PCT 644 within the grassland would be low constraint given their small size and limited habitat value.

The patches of PCT 644 that are present to the west of the chalet are in moderate condition and are likely to provide habitat for threatened species. The shrublands in between the chalet and Sponars Lake are also likely to provide habitat for threatened species. Therefore, these two areas are of higher constraint to development than the disturbed grassland areas.

The area around Sponars Lake has not been surveyed so any constraints associated with the areas of the proposed loop walk around Sponars Lake are unknown at this point.

In summary the constraints and opportunities in the Sponars Chalet sub-precinct include:

- Constraints: Future development should avoid the areas of PCT 645 in moderate condition to the west of the chalet and the shrublands between the chalet and the lake.
- Opportunities: Future development should be limited to the areas of Exotic dominant grassland. The scattered trees and small stands of trees within the grasslands should be retained.

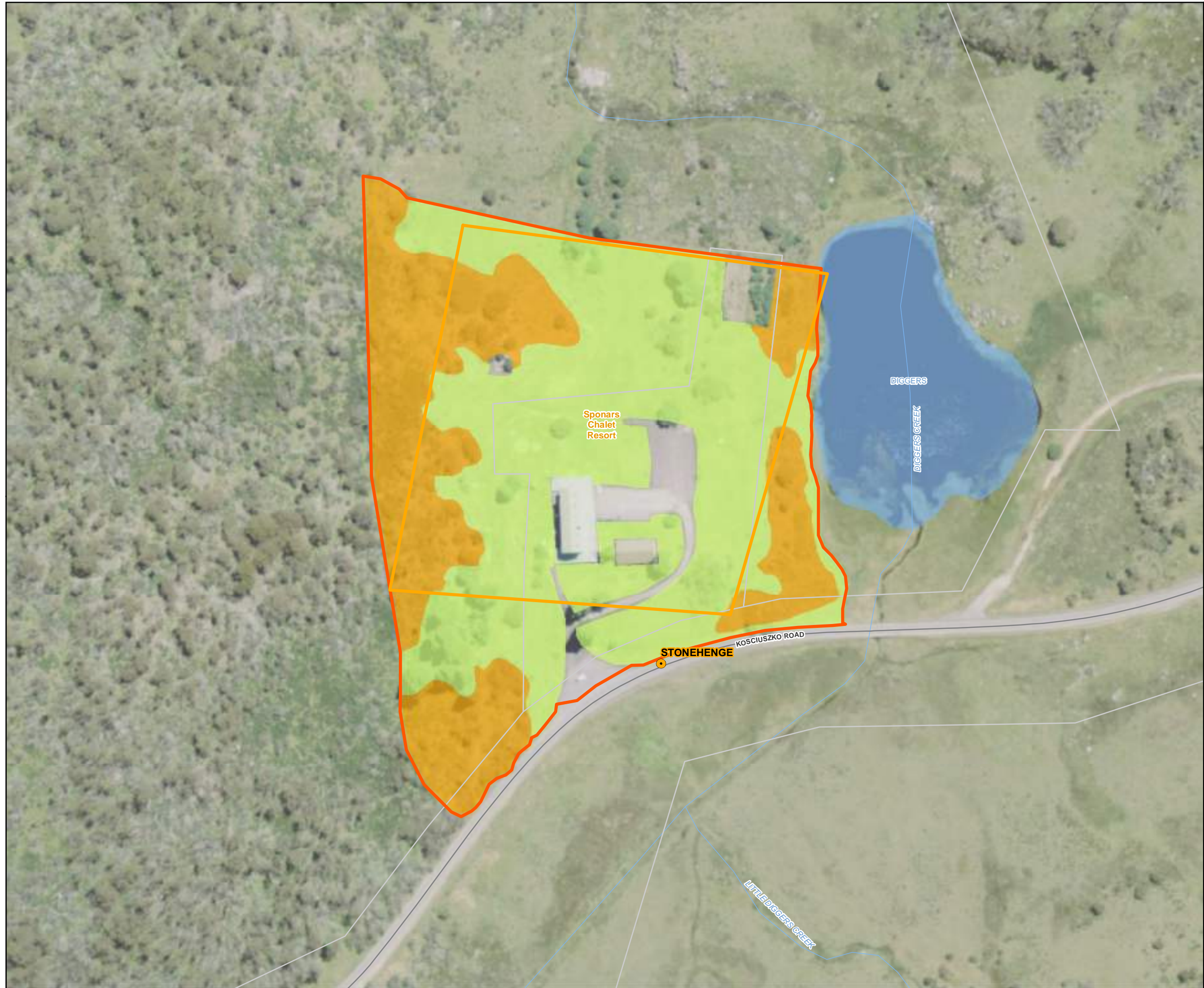
Constraints mapping for the Sponars Chalet sub-precinct is provided in Figure 12.1.

Legend

- Study Area
- SAP Precincts
- Cadastre
- Waterbodies
- Watercourse
- Roads

Biodiversity Constraints

- Moderate
- Low



13 Ski Rider Hotel sub-precinct

13.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix K-1. Mapping of survey locations and results is provided in Appendix K-2.

13.2 Existing environment

The Ski Rider Hotel sub-precinct includes the Ski Rider Hotel infrastructure, and surrounding area, as well as intersecting Sawpitt Creek. The landscape of the sub-precinct is disturbed and partially developed though remnant vegetation remains in the areas surrounding the hotel.

The existing environment of the sub-precinct is described in Table 13.1.

Table 13.1 Summary of existing environment in Ski Rider Hotel sub-precinct

Value	Description
General description (topographic setting, geology and soils)	The Ski Rider Hotel sub-precinct includes the area the hotel infrastructure and previously cleared space immediately surrounding. The sub-precinct sits on almost level ground with an elevation of 1454 m ASL. The geology is Volcanic Kalkite Monzogranite (sporadically porphyritic biotite monzogranite to granodiorite) encompassing the entire sub-precinct. Soils include uniform alpine humus and transitional alpine humus and peat with abundant organic matter. Stonier soil profiles occur on steep slopes (Department of Planning Industry and Environment, 2022).
IBRA region and subregion	Australian Alps – Snowy Mountains subregion
Rivers, streams and estuaries	The Ski Rider Hotel sub-precinct is situated within 100 m from Sawpit Creek (2 nd order stream) flowing past to the northern site. An unnamed 200 m first order stream (ephemeral) also flows to the east of the sub-precinct, connecting with Sawpit Creek downstream.
Wetlands and important wetlands	No wetlands of international or national importance are present.
Habitat connectivity	The habitat within the Ski Rider Hotel sub-precinct has open connectivity with the surrounding greater vegetated areas of Kosciuszko National Park. Kosciuszko Rd running along the southern edge of the sub-precinct may cause some minor limitations for less mobile species.
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Ski Rider Hotel sub-precinct. As the area was relatively small no significant rock outcroppings were observed within the sub-precinct during surveys.
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the Ski Rider Hotel sub-precinct.
Plant Community Types	PCT 679: Black Sallee – Snow Gum low woodland of montane valleys. PCT 1196: Snow Gum – Mountain Gum shrubby open forest of montane areas.

Value	Description
Threatened ecological communities BC Act	Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion – South Eastern Highlands (Critically Endangered BC Act).
Threatened species habitats (Species credit species)	<p>Based on previous assessments of the Snowy Mountains subregion, and limited field survey to date the following threatened species may have habitat in the Ski Rider Hotel sub-precinct:</p> <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Carex raleighii</i>, <i>Discaria nitida</i>, <i>Euphrasia scabra</i>, <i>Pterostylis alpina</i>, <i>Pterostylis foliata</i>, <i>Pterostylis oreophila</i>, <i>Ranunculus anemoneus</i>, <i>Rytidosperma vickeryae</i> and <i>Thesium australe</i> — mammals including Mountain Pygmy-possum and Broad-toothed Rat — birds including Pink Robin — reptiles and frogs including Alpine She-oak Skink, Guthega Skink, Alpine Tree Frog.

13.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in the Ski Rider Hotel sub-precinct is difficult to determine given the high disturbance and considerably modified vegetation, though remnant vegetation at the edges of the sub-precinct give a good indication. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the Ski Rider Hotel sub-precinct is considered to contain the following two PCTs:

- PCT 679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion.
- PCT 1196: Snow Gum – Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 13.2 Plant Community Types and vegetation zones within the Ski Rider Hotel sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 679	Moderate	46.5	1.29
	TOTAL		1.29
PCT 1196	Car Park Trees	27.4	0.31
	Moderate	81.6	6.56
	Shrubland	50.5	0.1
	TOTAL		6.97
TOTAL NATIVE VEGETATION			8.26



Photo 13.1 An example of PCT 679 in moderate condition along Sawpit Creek at Ski Rider



Photo 13.2 An example of PCT 1196 in moderate condition at Ski Rider



Photo 13.3 An example of PCT 1196 shrubland under power lines at Ski Rider



Photo 13.4 An example of PCT 1196 car park trees at Ski Rider

13.2.2 *Threatened ecological communities*

No threatened ecological communities occur within the Ski Rider Hotel sub-precinct.

13.3 Opportunities and constraints

The Ski Rider Hotel sub-precinct:

- is dominated by the tall wet forest of PCT 1196: Snow Gum - Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion
- has a strip of *Eucalyptus stellulata* dominant vegetation along Sawpit Creek that is attributed to PCT 679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion. The Ski Rider Hotel sub-precinct is mapped within the Australian Alps – Snowy Mountains subregion so in this case PCT 679 is not considered to be part of the BC Act listed Monaro Tableland Cool Temperate Grassy Woodland TEC.

The areas of PCT 1196 and PCT 679 surrounding the Ski Rider Hotel are in moderate condition and provide habitat for a range of threatened species including the BC Act listed Gang-gang Cockatoo. These areas pose a moderate constraint to development.

The opportunities for development within the Ski Rider Hotel sub-precinct reside in the existing disturbed area which contains buildings, car parks, and internal access roads. There are some large trees around the buildings and car park, and these should be retained where possible.

In summary the constraints and opportunities in this sub-precinct include:

- Constraints: Impact to areas of PCT 1196 and PCT 679 outside of the existing disturbed area should be minimised due to the presence of threatened species habitat.
- Opportunities: The opportunities for development within the Ski Rider Hotel sub-precinct reside in the existing disturbed area which contains buildings, car parks, and internal access roads. The large trees around existing buildings and the car park should be retained.

Constraints mapping for the Ski Rider Hotel sub-precinct is provided in Figure 13.1.



Snowy SAP - Biodiversity Constraints

Figure 13.1

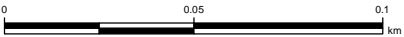
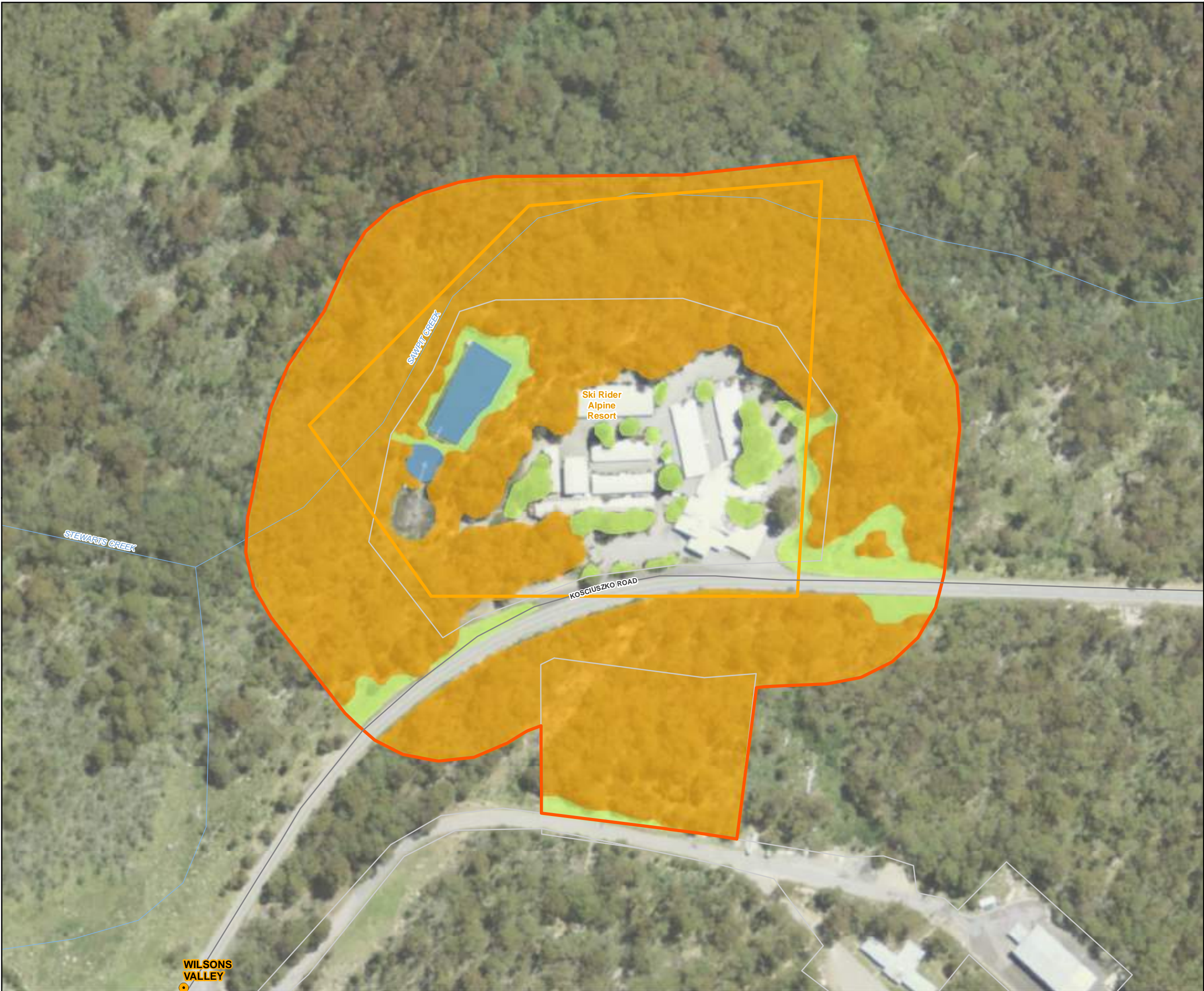
Ski Rider Hotel sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Cadastre
- Waterbodies
- Watercourse
- Roads

Biodiversity Constraints

- Moderate
- Low



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 22/03/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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14 Kosciuszko Tourist Park sub-precinct

14.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix L-1. Mapping of survey locations and results is provided in Appendix L-2.

14.2 Existing environment

The Kosciuszko Tourist Park sub-precinct contains developed and disturbed areas for the tourist park infrastructure and access tracks. The landscape of the sub-precinct is primarily vegetated around the infrastructure and contains disturbed but remnant vegetation.

The existing environment of the sub-precinct is described in Table 14.1.

Table 14.1 Summary of existing environment in Kosciuszko Tourist Park sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Kosciuszko Tourist Park sub-precinct sits approximately 10 km from Jindabyne town towards Perisher Valley and is bound to the west of Kosciuszko Rd. It encompasses minor existing accommodation infrastructure and extends into neighbouring national park bushland.</p> <p>The Kosciuszko Tourist Park sub-precinct is on relatively flat topography with an average elevation of 1190 m ASL. The geology is Volcanic Kalkite Monzogranite (sporadically porphyritic biotite monzogranite to granodiorite) encompassing the entire sub-precinct. Soils include shallow gravelly loams and texture-contrast soils (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	South Eastern Highlands – Monaro subregion
Rivers, streams and estuaries	The Kosciuszko Tourist Park sub-precinct is bordered to the north and around to the east by Sawpit Creek (3 rd order stream) that flows to the east. An unnamed first order stream (ephemeral) begins within the sub-precinct and flows into Sawpit Creek outside of the study area.
Wetlands and important wetlands	No wetlands of international or national importance are present.
Habitat connectivity	The habitat within the Kosciuszko Tourist Park sub-precinct has open connectivity with the surrounding greater vegetated areas of Kosciuszko National Park. Kosciuszko Rd to the west of the sub-precinct may provide a barrier for less mobile species.
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Kosciuszko Tourist Park sub-precinct.
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the sub-precinct.
Plant Community Types	<p>PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens.</p> <p>PCT 1196: Snow Gum – Mountain Gum shrubby open forest of montane areas.</p>

Value	Description
Threatened ecological communities BC Act	Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions (Endangered BC Act).
Threatened species habitats (Species credit species)	<p>Based on previous assessments of the Monaro subregion, and limited field survey to date the following threatened species may have habitat in the Kosciuszko Tourist Park sub-precinct:</p> <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Discaria nitida</i> and <i>Thesium australe</i>. — mammals including Eastern Pygmy Possum, Broad-toothed Rat and Southern Myotis — birds including Little Eagle, Gang-gang Cockatoo, Barking Owl, Powerful Owl and Pink Robin — frogs including Alpine Tree Frog.

14.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in the Kosciuszko Tourist Park sub-precinct is somewhat difficult to determine given the high disturbance and considerably modified vegetation, however it is largely forested. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the Kosciuszko Tourist Park sub-precinct is considered to contain the following two PCTs:

- PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion.
- PCT 1196: Snow Gum – Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 14.2 Plant Community Types and vegetation zones within the Kosciuszko Tourist Park sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 637	Poor	35.9	0.52
	TOTAL		0.52
PCT 1196	Moderate	89.4	7.62
	Poor	46.2	4.77
	TOTAL		12.39
TOTAL NATIVE VEGETATION			12.91



Photo 14.1 An example of PCT 1196 in moderate condition in the south of the KTP sub-precinct



Photo 14.2 An example of PCT 1196 in poor condition in the current camp site



Photo 14.3 PCT 637 poor condition showing sedges and rushes amongst exotic ground layer



Photo 14.4 PCT 637 adjacent to the sub-precinct showing shrub layer

14.2.2 *Threatened ecological communities*

One threatened ecological community occurs in within this sub-precinct (Table 14.3).

Table 14.3 Threatened ecological communities within Kosciuszko Tourist Park sub-precinct

Threatened ecological community	PCT	EPBC Act	BC Act	Area in sub-precinct (ha)
Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions	637	Endangered	Endangered	0.52

Alpine and sub-alpine peatlands, damp herbfields and fens (PCT 637) was assessed as consistent with Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions, listed as Endangered under the BC Act and the EPBC Act. Within the sub-precinct, this vegetation persists only in ‘moderate’ condition, which is consistent with the BC and EPBC condition thresholds for this TEC.

Plant community type profiles are provided in Appendix A.

14.3 Opportunities and constraints

The Kosciuszko Tourist Park sub-precinct:

- is dominated by the tall wet forest of PCT 1196: Snow Gum – Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion
- has some small disturbed boggy areas in poor condition that have been attributed to PCT 637: Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion which is part of a BC Act and EPBC Act listed TEC.

The main areas of constraint in the Kosciuszko Tourist Park are the areas of PCT 1196 that are in moderate condition in the south of the sub-precinct. These areas contain large mature trees and provide habitat for a range of threatened species including the BC Act listed Gang-gang Cockatoo. These areas have been used as campgrounds in the past as evidenced by old infrastructure such as overgrown roads and disused amenities buildings. The vegetation has largely grown back, and these areas pose a moderate constraint to development. However, there is opportunity to reopen this area using the old access roads and sensitively reinstating the former camping areas, and developing eco cabins, by retaining existing trees and minimising the footprints of the camping areas to the greatest extent practicable.

The areas of PCT 1196 in poor condition pose limited constraints as this area is already an active campground but renewal of this area should be done in a manner that retains the existing trees. Existing access roads should be used.

The areas of PCT 637 are in poor condition and although they are part of a TEC, the condition is poor and as such these areas do not pose a significant constraint to development. These areas are wet and are therefore unlikely to provide suitable conditions for camping.

In summary the constraints and opportunities in this sub-precinct include:

- Constraints: Impact to areas of PCT 1196 in moderate condition should be minimised due to the presence of threatened species habitat.
- Opportunities: The opportunities for development within the Kosciuszko Tourist Park sub-precinct reside in the existing camping ground which contains buildings, camping areas, car parks, and internal access roads with a canopy of mature trees. The existing trees should be retained. Renewal of the old camping area in the south of the sub-precinct should be done in a manner that minimises the footprint and therefore minimises impacts to biodiversity.

Constraints mapping for the Kosciuszko Tourist Park sub-precinct is provided in Figure 14.1.



Snowy SAP - Biodiversity Constraints

Figure 14.1

Kosciuszko Tourist Park sub-precinct
Alpine SEPP Sub-precinct

Legend

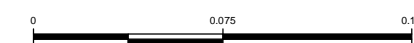
- Study Area
- SAP Precincts
- Cadastre
- Watercourse
- Roads

Threatened Flora Species

- Carex sp.*

Biodiversity Constraints

- Moderate
- Low



Coordinate system: GDA 1994 MGA Zone 55



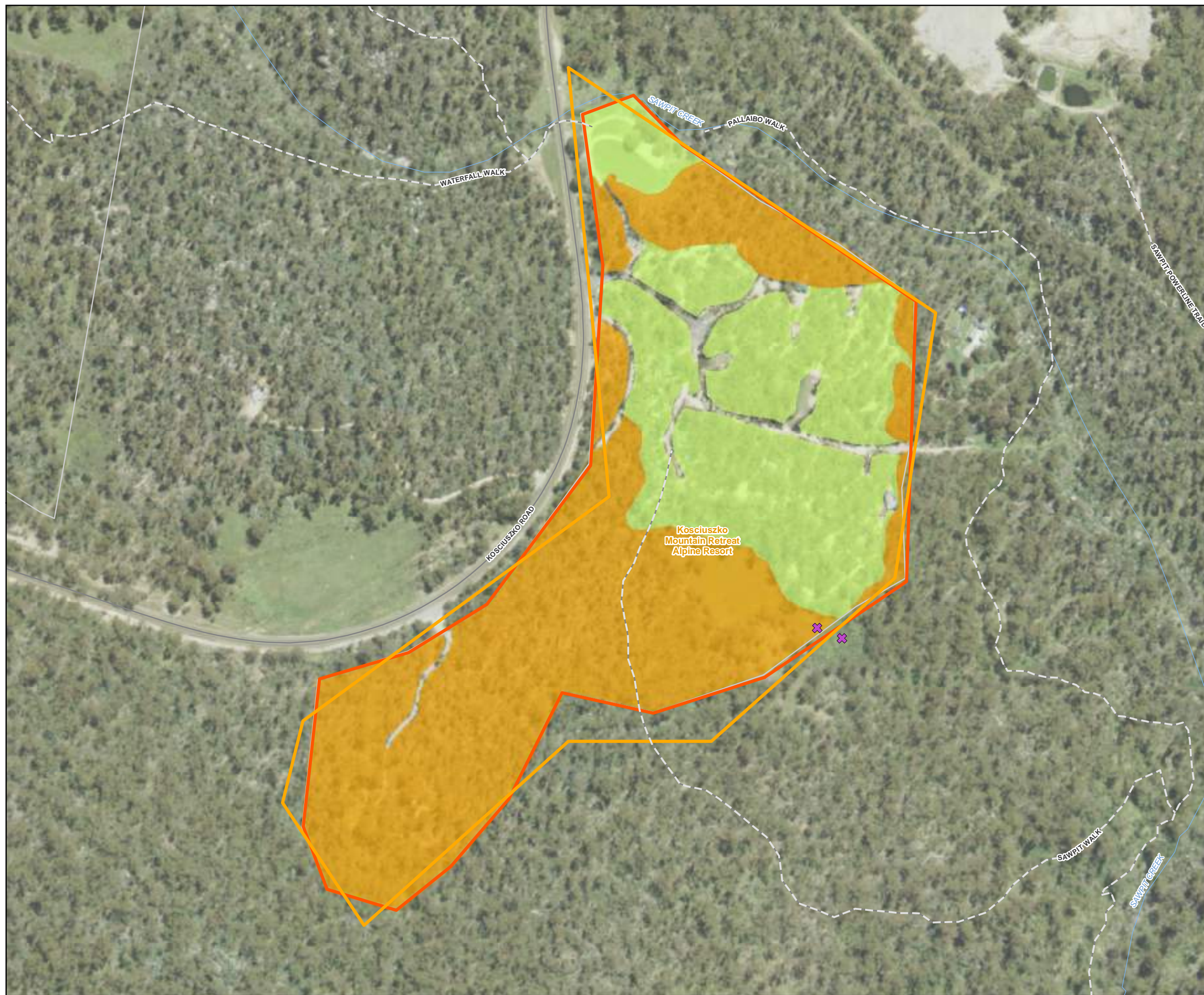
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Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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15 Bullocks Flat

15.1 Field surveys

The methodology for the field surveys is described in Section 2. Data from BAM plots undertaken within the sub-precinct are provided in Appendix M-1. Mapping of survey locations and results is provided in Appendix M-2.

15.2 Existing environment

The Bullocks Flat sub-precinct is nearly all developed for ski infrastructure. Small patches of remnant native vegetation in disturbed condition remain throughout the sub-precinct.

The existing environment of the sub-precinct is described in Table 15.1.

Table 15.1 Summary of existing environment in Bullocks Flat sub-precinct

Value	Description
General description (topographic setting, geology and soils)	<p>The Bullocks Flat sub-precinct is situated almost halfway from Jindabyne town to Thredbo Ski Resort (approx. 14 km) on Alpine way and is the public station parking and Skitube access to Perisher Resort.</p> <p>The Bullocks Flat sub-precinct has little variation in topography with an average elevation of 1135 m ASL. Geology is Volcanic Mowambah Granodrite (Biotite – Rich Granodiorite) encompassing the entire sub-precinct with the Crackback Fault running north of the sub-precinct through the valley floor. Soils include shallow gravelly loams and texture-contrast soils (Department of Planning Industry and Environment, 2022).</p>
IBRA region and subregion	South Eastern Highlands – Monaro subregion
Rivers, streams and estuaries	<p>The Bullocks-Flat sub-precinct is situated nearby the fork of Little Thredbo River (4th order river) flowing within 200 m east of the sub-precinct and Thredbo River (5th order river) to the north where it passes within 400 m of the sub-precinct.</p> <p>Within 500 m of the sub-precinct there are other unnamed first and second order streams that flow into both rivers and Crackenback Lake approximately 500 m to the east. There is also an unnamed small dam immediately north of the sub-precinct as fill point from Thredbo River.</p>
Wetlands and important wetlands	No wetlands of international or national importance are present.
Habitat connectivity	The habitat within the Bullocks Flat sub-precinct has open connectivity with the surrounding greater vegetated areas of Kosciuszko National Park. However, there are barriers including Alpine Way running along the southern edge of the sub-precinct and the nearby Thredbo River that may provide a barrier to movement for less mobile species.
Karst, caves, crevices, cliffs, rocks and other geological features of significance	There are no areas of karst, caves, cliffs, or other geological features of significance in the Bullocks Flat sub-precinct. As the area was relatively small no significant rock outcroppings were observed within the sub-precinct during surveys.
Areas of Outstanding Biodiversity Value	No Areas of Outstanding Biodiversity Value occur within the Bullocks Flat sub-precinct.

Value	Description
Plant Community Types	PCT 679: Black Sallee – Snow Gum low woodland of montane valleys.
Threatened ecological communities BC Act	Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion – South Eastern Highlands (Critically Endangered BC Act).
Threatened species habitats (Species credit species)	Based on previous assessments of the Monaro subregion, and limited field survey to date the following threatened species may have habitat in the Bullocks Flat sub-precinct: <ul style="list-style-type: none"> — plants including <i>Calotis glandulosa</i>, <i>Discaria nitida</i> and <i>Thesium australe</i>. — mammals including Eastern Pygmy Possum, Broad-toothed Rat and Southern Myotis — birds including Little Eagle, Gang-gang Cockatoo, Barking Owl, Powerful Owl and Pink Robin — frogs including Alpine Tree Frog.

15.2.1 Plant community types

The type and distribution of the original vegetation that would have occurred in the Bullocks Flat sub-precinct is difficult to determine given the high disturbance and modified vegetation due to development and high use for tourism. Based on the field surveys undertaken to date and comparison of the site's geology, soils, elevation, and topography to similar less disturbed areas in the alpine region, the Bullocks Flat sub-precinct is considered to contain the following PCT:

- PCT 679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion.

Plant community type profiles are provided in Appendix A.

Table 15.2 Plant Community Types and vegetation zones within the Bullocks Flat sub-precinct

Vegetation type	Vegetation zone	Vegetation integrity score	Area in sub-precinct (ha)
PCT 679	Moderate	59.3	0.96
	Poor	20.5	1.7
	TOTAL		2.66
TOTAL NATIVE VEGETATION			2.66



Photo 15.1 An example of PCT 679 in moderate condition at Bullocks Flat



Photo 15.2 PCT 679 in Moderate condition at Bullocks Flat



Photo 15.3 PCT 679 in poor condition at Bullocks Flat



Photo 15.4 Native trees in gardens at Bullocks Flat

15.2.2 *Threatened ecological communities*

One threatened ecological community occurs within this sub-precinct (Table 15.3).

Table 15.3 Threatened ecological communities within Bullocks Flat sub-precinct

Threatened ecological community	PCT	EPBC Act	BC Act	Area in sub-precinct (ha)
Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion	679	Not a TEC	Critically Endangered	2.66

Black Sallee – Snow Gum low woodland (PCT 679) forms part of the Critically Endangered Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion, as listed under the BC Act. This listing includes all occurrences of the community within the sub-precinct including ‘moderate’ and ‘poor condition states. This community is not listed under the EPBC Act.

15.3 Opportunities and constraints

The Bullocks Flat sub-precinct is dominated by the Ski Tube and car parks but does contain some small stands of critically endangered Monaro Tableland Cool Temperate Grassy Woodland in Moderate to Poor condition. There are opportunities within the sub-precinct for future development in the disturbed areas which make up the majority of the sub-precinct.

The main vegetation type in the Bullocks Flat sub-precinct is PCT 679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion. The sub-precinct is mapped as occurring within the South Eastern Highlands – Monaro subregion and the vegetation otherwise fits within the broad definition of the BC Act listed Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion TEC. While this PCT is present it does not constrain the developable area significantly, and avoiding impacts to the small, localised areas of this TEC should be a priority within this sub-precinct.

In summary the constraints and opportunities in this sub-precinct include:

- Constraints: Areas of PCT 679 (Moderate condition) which is part of the BC Act listed Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion TEC. These are the best components of the TEC within the sub-precinct and should be retained.
- Opportunities: Highly disturbed areas with no or limited native vegetation and the scattered areas of PCT 679 in poor condition are the most suitable areas for future development. However, existing trees should be retained where possible.

Constraints mapping for the Bullocks Flat sub-precinct is provided in Figure 15.1.



Snowy SAP - Biodiversity Constraints

Figure 15.1

Bullocks Flat Terminal
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Biodiversity Constraints

- High
- Low



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:5,000

Date: 22/03/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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16 Masterplanning

The Alpine precincts occur within Kosciuszko National Park. The key opportunity in this precinct is to improve visitor experiences to allow greater engagement with the unique environment. Opportunities include:

- low impact sustainable development
- focussing development within already disturbed areas as far as possible
- locating development near to existing infrastructure to limit the need for additional impacts associated with creation of infrastructure and services (e.g. roads and utilities).
- co-locating (and infill) developments as to minimise the spread of impacts on biodiversity values
- offset funding to improve conservation outcomes within Kosciuszko National Park for its unique alpine biodiversity.

An evidenced based approach should be adopted to determine the best outcome and to provide a clear pathway for the right types of future development, in the right locations. This process should seek to avoid and minimise impacts to biodiversity with a focus on mapping areas best suited to future development and expansion. This includes already disturbed areas of existing development, cleared areas, and areas supporting exotic vegetation. Areas of good condition vegetation have the highest biodiversity values and development in these areas should be avoided or minimised.

When considering the development location and impacts it is important to consider all the elements required including associated infrastructure (e.g. roads, utilities) as well as asset protection zones.

With a focus on avoiding and minimising impacts on biodiversity, development is therefore best suited to areas that are already disturbed including areas of existing development, cleared areas, and areas supporting exotic vegetation. It is acknowledged however that some disturbed areas may still contain constraints such as threatened fauna habitat and hydrological functions important for surrounding vegetation communities which may require avoidance or minimisation/mitigation.

The following considerations should be made to minimise impacts to biodiversity as far as reasonably practicable:

- development within areas of high conservation value (Montane Peatlands and Swamps and good condition vegetation) is avoided or minimised and offset
- focussing or keeping development within already disturbed areas as far as possible
- locating development nearby existing infrastructure to limit the need for additional impacts associated with creation of infrastructure and services (e.g. roads and utilities)
- maintaining a buffer between high ecological constraints and development. A buffer of 30 m should be applied, or for specific species as specified in the Threatened Species Database
- co-locating (and infill) developments as to minimise the spread of impacts on biodiversity values.

16.1 Aims

The aim of the SAP should be to avoid, conserve and enhance biodiversity values of the region. Specifically, the aims should be:

- to preserve the Precinct's unique landscape and biodiversity values
- to avoid impacts to threatened ecological communities, threatened species and their habitats
- to minimise the removal of existing native vegetation wherever possible
- to preserve and rehabilitate natural waterways, which contribute to the area's character and biodiversity
- to improve water quality and reduce stormwater run-off particularly to sensitive habitats
- to prioritise new development in areas of low ecological value (disturbed areas) and minimise impacts within undisturbed areas of Kosciuszko National Park
- to minimise impacts to important habitats such as rocky boulder fields, unburnt areas of old growth Snow Gum woodland, bogs and fens

- to avoid impacts to endemic alpine biodiversity with highly restricted distributions: Mountain Pygmy Possum, Alpine Skink and Guthega Skink
- to preserve natural waterways and bogs and fens
- to ensure that any impacts within Kosciuszko National Park are offset through direct management measures within the Park and should be related to the biodiversity impacted.

16.2 Performance criteria

- a** Development is to avoid Threatened ecological communities and threatened species habitat to minimise impacts to areas of high ecological value. Areas of high ecological value vegetation should not be removed. Development may occur in these areas if it is for essential infrastructure.
- b** Development should be concentrated in and around already disturbed areas. Where possible, development should provide a buffer between areas of high ecological values and buildings and structures.
- c** Development should be focused on colocation and redevelopment to minimise the impact to biodiversity valued land.
- d** Development within the Kosciuszko National Park should minimise its impact to the environmental and natural landscape, implement sustainable development and consider the impacts of bushfire asset protection zones (APZ).
- e** Development must offset any impacts to biodiversity through direct management measures within Kosciuszko National Park and should be related to the biodiversity impacted.
- f** Riparian corridors must be preserved and revegetated where possible. Setbacks to the corridors are to be provided in accordance with the Guidelines for Controlled Activities on Waterfront Land (2018, NRAR).
- g** Any revegetation or planting within the National Park should utilise local species.

16.3 Supporting provisions to be developed

- a** Design guidance should be provided to identify how these areas will ensure will be protected during the short-term construction phase of development and in the long-term use of the area. Design guidance for each Sub-Precinct identifying how biodiversity aims will be addressed, including:
 - i** the retention and maintenance of existing native vegetation and areas of high ecological areas
 - ii** additional planting and areas for new public open spaces, publicly accessible areas or paths, including appropriate management strategies for these areas
 - iii** Riparian corridors, setbacks and design objectives for development interfacing with watercourses
 - iv** plantings along road reserves that address visual amenity, public amenity considerations and road safety
 - v** client ready species which are locally endemic to the Alpine Region
 - vi** site-based setbacks, landscaping and public domain requirements
 - vii** how vegetation clearing and biodiversity offsets will be managed (either across Precinct, Sub-Precincts or on a development-by-development basis).

17 Limitations

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17.5 Field survey limitations

No sampling technique can eliminate the possibility that a species is present on a site. For example, some species of plant may be present in the soil seed bank and some fauna species use habitats on a sporadic or seasonal basis and may not be present on site during surveys. The conclusions in this report are based upon previous studies, data acquired for the site and the biodiversity field surveys and are, therefore, merely indicative of the environmental condition of the site at the time of preparing the report, including the presence or otherwise of species. Also, it should be recognised that site conditions, including the presence of threatened species, can change with time.

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Appendix A

PCT descriptions



A1.1 PCT637: Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion

Vegetation formation: Alpine Complex

Vegetation class: Alpine Bogs and Fens

The Alpine and sub-alpine peatlands, damp herbfields and fens, South Eastern Highlands Bioregion and Australian Alps Bioregion PCT (PCT 637) is described in the BioNet Vegetation Classification database as a low shrubland, wet herbfield or sedgeland often with moss hummocks, occurring in areas with impeded drainage and peaty soils between 1100 and 2000 m elevation.

The dominant species in this PCT as outlined in the BioNet Vegetation Classification database are *Baeckea gunniana*, *Epacris paludosa*, and *Richea continentis* with a ground stratum characterised by species including *Baloskion australe*, *Brachyscome obovata*, *Carex gaudichaudiana*, *Empodisma minus*, *Luzula modesta*, *Oreobolus distichus*, *Oreomyrrhis ciliata*, *Poa costiniana*, and *Sphagnum cristatum* (a moss).

The vegetation within the subject lands that has been assigned to this PCT is considered to be nearest to being representative of PCT 637 for the following reasons:

- The mid stratum is dominated by species typical of PCT 637 including *Epacris paludosa*, *Richea continentis*, and *Baeckea gunniana* among a variety of other species.
- The ground stratum contains species typical of PCT 637 including *Carex gaudichaudiana*, *Empodisma minus*, *Luzula* sp., *Oreobolus distichus*, *Oreomyrrhis* spp., *Poa costiniana*, and *Sphagnum cristatum*.
- The vegetation occurs in areas with impeded drainage and peaty soils between 1,100 and 2,000 m elevation.

No other PCTs as described in the BioNet Vegetation Classification database provide a better fit for the description of this vegetation. A summary of the vegetation structure and floristics of PCT 637 within the subject lands is given below in Table A.1. This list of species reflects the local variation gathered from the floristic plots undertaken within the subject lands. PCT 637 is situated adjacent to PCT 643 and PCT 645 and there is overlap with species at ecotones.

Photos of PCT 637 taken from within the subject lands showing variation are presented in Photo A.1 to Photo A.4.

This PCT is part of the Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin, South East Corner, South Eastern Highlands and Australian Alps bioregions which is listed as an Endangered Ecological Community under the BC Act.

Table A.1 Floristic and structural summary of PCT 637 within the development site

Vegetation layer	Dominant species recorded from the surveys
Tree canopy (upper stratum)	Absent
Midstorey (mid-stratum)	<i>Epacris paludosa</i> , <i>Epacris microphylla</i> , <i>Epacris breviflora</i> , <i>Epacris petrophila</i> , <i>Richea continentis</i> , <i>Baeckea gunniana</i> , <i>Oxylobium ellipticum</i> , <i>Callistemon ptyoides</i> , <i>Cassinia monticola</i> , <i>Hovea montana</i> , <i>Hakea microcarpa</i> , <i>Grevillea australis</i> , <i>Olearia algida</i> , <i>Olearia phlogopappa</i> , <i>Nematolepis ovatifolia</i> , <i>Rubus parvifolius</i> , <i>Prostanthera cuneata</i> , <i>Pimelea ligustrina</i> , <i>Pimelea alpina</i>

Vegetation layer	Dominant species recorded from the surveys
Groundcovers (ground stratum)	<i>Poa costiniana</i> , <i>Poa phillipsiana</i> , <i>Poa labillardierei</i> , <i>Poa hiemata</i> , <i>Carex appressa</i> , <i>Carex gaudichaudiana</i> , <i>Carex inversa</i> , <i>Empodisma minus</i> , <i>Epilobium billardierianum</i> subsp. <i>Cinereum</i> , <i>Acaena ovina</i> , <i>Acaena novae-zelandiae</i> , <i>Aciphylla glacialis</i> , <i>Aciphylla simplicifolia</i> , <i>Brachyscome graminea</i> , <i>Brachyscome decipiens</i> , <i>Euphrasia collina</i> subsp. <i>Diversicolor</i> , <i>Oschatzia cuneifolia</i> , <i>Oreomyrrhis brevipes</i> , <i>Oreomyrrhis eriopoda</i> , <i>Lythrum salicaria</i> , <i>Chrysocephalum apiculatum</i> , <i>Ranunculus graniticola</i> , <i>Ranunculus gunnianus</i> , <i>Ranunculus pimpinellifolius</i> , <i>Ranunculus millanii</i> , <i>Celmisia pugioniformis</i> , <i>Celmisia longifolia</i> , <i>Festuca asperula</i> , <i>Craspedia aurantia</i> , <i>Scleranthus biflorus</i> , <i>Trisetum spicatum</i> , <i>Senecio gunnii</i> , <i>Luzula</i> sp., <i>Cardamine lilacina</i> , <i>Oreobolus distichus</i> , <i>Neopaxia australasica</i> , <i>Myriophyllum</i> sp., <i>Viola fuscoviolacea</i> , <i>Sphagnum cristatum</i> (moss so not detailed in BAM plot surveys).
Exotic species	<i>Anthoxanthum odoratum</i> , <i>Rubus ulmifolius</i> , <i>Taraxacum officinale</i> , <i>Hypochaeris radicata</i> , — <i>Veronica peregrina</i> , <i>Cerastium glomeratum</i>
High Threat Weeds	<i>Achillea millefolium</i> , <i>Acetosella vulgaris</i>



Photo A.1 Example of PCT 637 at Plot PVbog at Perisher



Photo A.2 Example of PCT 637 at Plot CPBog3 at Charlottes Pass



Photo A.3 Example of PCT 637 at Plot CPBog2 at Charlottes Pass



Photo A.4 Example of PCT 637 at Plot CPBog1 at Charlottes Pass

A1.2 PCT643: Alpine shrubland on scree, blockstreams and rocky sites of high altitude areas of Kosciuszko National Park, Australian Alps Bioregion

Vegetation formation: Alpine Complex

Vegetation class: Alpine Heaths

The Alpine shrubland on scree, blockstreams and rocky sites of high altitude areas of Kosciuszko National Park, Australian Alps Bioregion PCT (PCT 643) is described in the BioNet Vegetation Classification database as an open or closed shrubland occurring in rocky areas above 1,300 m in the sub-alpine and alpine areas of Kosciuszko National Park.

The dominant species in this PCT as outlined in the BioNet Vegetation Classification database are *Grevillea australis*, *Nematolepis ovatifolia*, *Oxylobium ellipticum*, *Podocarpus lawrencei*, *Prostanthera cuneata*, *Leucopogon montanus*, and *Olearia phlogopappa* subsp. *flavescens* with a ground stratum characterised by species including *Acaena novae-zelandiae*, *Asperula gunnii*, *Austrodanthonia alpicola*, *Carex breviculmis*, *Deyeuxia crassiuscula*, *Epilobium billardierianum*, *Luzula novae-cambriae*, *Poa fawcettiae*, *Polystichum proliferum*, *Scleranthus singuliflorus*, *Oreomyrrhis eriopoda*, and *Viola betonicifolia*.

The vegetation within the subject lands that has been assigned to this PCT is considered to be nearest to being representative of PCT 643 for the following reasons:

- The mid stratum is dominated by species typical of PCT 643 including *Grevillea australis*, *Oxylobium ellipticum*, *Podocarpus lawrencei*, *Prostanthera cuneata*, *Acrothamnus montanus* (syn. *Leucopogon montanus*) and *Olearia phlogopappa*.
- The ground stratum contains species typical of PCT 643 including *Polystichum proliferum* and *Oreomyrrhis eriopoda*.
- The vegetation occurs in rocky areas above 1,300m in the sub-alpine and alpine areas of Kosciuszko National Park. Within the subject lands this PCT was found at Charlottes Pass where there are large boulder fields and heath of *Podocarpus lawrencei*.

No other PCTs as described in the BioNet Vegetation Classification database provide a better fit for the description of this vegetation. A summary of the vegetation structure and floristics of PCT 643 within the subject lands is given below in Table A.2. This list of species reflects the local variation gathered from the floristic plots undertaken within the subject lands. PCT 643 is situated adjacent to PCT 637 and PCT 645 and there is overlap with species at ecotones.

Photos of PCT 643 taken from within the subject lands showing variation are presented in Photo A.5 to Photo A.8.

This PCT is not part of a TEC.

Table A.2 Floristic and structural summary of PCT 643 within the development site

Vegetation layer	Dominant species recorded from the surveys
Tree canopy (upper stratum)	<i>Eucalyptus niphophila</i> juveniles at edges.
Midstorey (mid-stratum)	<i>Podocarpus lawrencei</i> , <i>Prostanthera cuneata</i> , <i>Tasmannia xerophila</i> , <i>Oxylobium ellipticum</i> , <i>Pimelea ligustrina</i> , <i>Epacris paludosa</i> , <i>Epacris petrophila</i> , <i>Olearia brevipedunculata</i> , <i>Olearia phlogopappa</i> , <i>Olearia algida</i> , <i>Baeckea gunniana</i> , <i>Oxylobium ellipticum</i> , <i>Grevillea australis</i> , <i>Acrothamnus montanus</i> .
Groundcovers (ground stratum)	<i>Polystichum proliferum</i> , <i>Senecio gunnii</i> , <i>Poa sieberiana</i> var. <i>cyanophylla</i> , <i>Poa hiemata</i> , <i>Oreomyrrhis eriopoda</i> , <i>Celmisia longifolia</i> , <i>Carex inversa</i> , <i>Asperula gunnii</i> , <i>Cardamine lilacina</i> , <i>Lythrum salicaria</i> , <i>Craspedia aurantia</i> .
Exotic species	None apart from High Threat Weeds listed below.
High Threat Weeds	<i>Pinus sp.</i> , <i>Acetosella vulgaris</i> .



Photo A.5 Example of PCT 643 at Plot CPBould1 at Charlottes Pass



Photo A.6 Example of PCT 643 on a narrow boulder field between stands of *Eucalyptus niphophila* at Charlottes Pass



Photo A.7 Example of PCT 643 at Plot CPBould2 at Charlottes Pass



Photo A.8 Example of PCT 643 on a broader more extensive boulder field at Charlottes Pass

A1.3 PCT644: Alpine Snow Gum – Snow Gum shrubby woodland at intermediate altitudes in northern Kosciuszko National Park, South Eastern Highlands Bioregion and Australian Alps Bioregion

Vegetation formation: Grassy Woodlands

Vegetation class: Subalpine Woodlands

The Alpine Snow Gum - Snow Gum shrubby woodland at intermediate altitudes in northern Kosciuszko National Park, South Eastern Highlands Bioregion and Australian Alps Bioregion PCT (PCT 644) is described in the BioNet Vegetation Classification database as a low open woodland with mixed understorey of shrubs and tussock grasses occurring in sub-alpine areas between 1,500 and 1,700 m usually on free draining slopes, ridges and spurs.

The dominant species in this PCT as outlined in the BioNet Vegetation Classification database are *Eucalyptus niphophila* and *Eucalyptus pauciflora* with a shrub layer of *Bossiaea foliosa*, *Daviesia ulicifolia*, *Hovea montana*, and *Leucopogon montanus*. The ground stratum characterised by species including *Goodenia hederaceae*, *Poa* spp., *Scleranthus biflorus*, *Stellaria pungens*, *Helichrysum scorpioides*, and *Oreomyrrhis eriopoda*.

The vegetation within the subject lands that has been assigned to this PCT is considered to be nearest to being representative of PCT 644 for the following reasons:

- The canopy is dominated by the characteristic species *Eucalyptus niphophila* and *Eucalyptus pauciflora*.
- The mid stratum is dominated by *Bossiaea foliosa* which is a species typical of PCT 644 and lacks species such as *Prostanthera cuneata* which is more typical of PCT 645.
- The ground stratum contains species typical of PCT 644 including *Poa* spp., *Oreomyrrhis eriopoda* and *Scleranthus biflorus*.

No other PCTs as described in the BioNet Vegetation Classification database provide a better fit for the description of this vegetation. A summary of the vegetation structure and floristics of PCT 644 within the subject lands is given below in Table A.3. This list of species reflects the local variation gathered from the floristic plots undertaken within the subject lands.

Photos of PCT 644 taken from within the subject lands showing variation are presented in Photo A.9 to Photo A.12.

This PCT is not part of a TEC.

Table A.3 Floristic and structural summary of PCT 644 within the development site

Vegetation layer	Dominant species recorded from the surveys
Tree canopy (upper stratum)	<i>Eucalyptus niphophila</i> , <i>Eucalyptus pauciflora</i>
Midstorey (mid-stratum)	<i>Cassinia monticola</i> , <i>Melicytus angustifolius</i> subsp. <i>divaricatus</i> , <i>Hakea microcarpa</i> , <i>Bossiaea foliosa</i> , <i>Ozothamnus thyrsoideus</i> , <i>Olearia phlogopappa</i> , <i>Hovea linearis</i> , <i>Epacris breviflora</i> , <i>Kunzea ericoides</i> , <i>Mirbelia oxylobioides</i>
Groundcovers (ground stratum)	<i>Acaena</i> sp., <i>Oxalis</i> sp., <i>Geranium solanderi</i> , <i>Poa fawcettiae</i> , <i>Poa costiniana</i> , <i>Chrysocephalum apiculatum</i> , <i>Veronica subtilis</i> , <i>Scleranthus biflorus</i> , <i>Epilobium billardierianum</i> , <i>Ranunculus productus</i> , <i>Oreomyrrhis eriopoda</i> , <i>Oreomyrrhis argentea</i> , <i>Carex</i> sp., <i>Ranunculus pimpinellifolius</i> , <i>Asperula scoparia</i>
Exotic species	<i>Anthoxanthum odoratum</i> , <i>Trifolium repens</i> , <i>Taraxacum officinale</i> , <i>Malus</i> sp., <i>Hypochaeris radicata</i> ,
High Threat Weeds	<i>Acetosella vulgaris</i>



Photo A.9 Example of PCT 644 at Sponars Resort showing shrub layer of *Bossiaea foliosa* in flower



Photo A.10 Example of PCT 644 at Sponars Resort showing *Eucalyptus niphophila* trees



Photo A.11 Example of PCT 644 at Plot CPBould2 at Sponars Resort showing derived shrubland



Photo A.12 Example of PCT 644 at Sponars Resort showing dense shrub layer up slope

A1.4 PCT645: Alpine Snow Gum shrubby open woodland at high altitudes in Kosciuszko National Park, Australian Alps Bioregion

Vegetation formation: Grassy Woodlands

Vegetation class: Subalpine Woodlands

The Alpine Snow Gum shrubby open woodland at high altitudes in Kosciuszko National Park, Australian Alps Bioregion PCT (PCT 645) is described in the BioNet Vegetation Classification database as a low open woodland with mixed understorey of shrubs and tussock grasses occurring in sub-alpine areas between 1,600 and 1,900 m on slopes, ridges and spurs.

The dominant species in this PCT as outlined in the BioNet Vegetation Classification database are *Eucalyptus niphophila* with a shrub layer of *Hovea montana*, *Olearia phlogopappa*, *Prostanthera cuneata*, and *Tasmannia xerophila*. The ground stratum characterised by species including *Asperula gunnii*, *Poa ensiformis*, *Poa hiemata*, and *Stellaria pungens*.

The vegetation within the subject lands that has been assigned to this PCT is considered to be nearest to being representative of PCT 645 for the following reasons:

- The canopy is dominated by the characteristic species *Eucalyptus niphophila*.
- The mid stratum is characterised by the typical species *Hovea montana*, *Olearia phlogopappa*, *Prostanthera cuneata*, and *Tasmannia xerophila*.
- The ground stratum contains species typical of PCT 645 including *Poa hiemata* and *Asperula gunnii*.

No other PCTs as described in the BioNet Vegetation Classification database provide a better fit for the description of this vegetation. A summary of the vegetation structure and floristics of PCT 645 within the subject lands is given below in Table A.4. This list of species reflects the local variation gathered from the floristic plots undertaken within the subject lands.

Photos of PCT 645 taken from within the subject lands showing variation are presented in Photo A.13 to Photo A.16.

This PCT is not part of a TEC.

Table A.4 Floristic and structural summary of PCT 645 within the development site

Vegetation layer	Dominant species recorded from the surveys
Tree canopy (upper stratum)	<i>Eucalyptus niphophila</i>
Midstorey (mid-stratum)	<i>Nematolepis ovatifolia</i> , <i>Hovea montana</i> , <i>Oxylobium ellipticum</i> , <i>Prostanthera cuneata</i> , <i>Olearia brevipedunculata</i> , <i>Olearia algida</i> , <i>Olearia phlogopappa</i> , <i>Pimelea alpina</i> , <i>Grevillea australis</i> , <i>Orites lancifolius</i> , <i>Podocarpus lawrencei</i> , <i>Acrothamnus montanus</i> , <i>Baeckea gunniana</i> , <i>Melicytus dentatus</i> , <i>Epacris microphylla</i> , <i>Ozothamnus secundiflorus</i> , <i>Callistemon ptyoides</i> , <i>Tasmannia xerophila</i> , <i>Richea continentis</i> , <i>Epacris paludosa</i>
Groundcovers (ground stratum)	<i>Lycopodium fastigiatum</i> , <i>Deyeuxia quadriseta</i> , <i>Viola betonicifolia</i> , <i>Oreobolus distichus</i> , <i>Craspedia aurantia</i> , <i>Aciphylla simplicifolia</i> , <i>Aciphylla glacialis</i> , <i>Luzula novae-cambriae</i> , <i>Chrysocephalum apiculatum</i> , <i>Empodisma minus</i> , <i>Oreomyrrhis eriopoda</i> , <i>Euphrasia collina</i> , <i>Caladenia</i> sp., <i>Poa hiemata</i> , <i>Acaena novae-zelandiae</i> , <i>Chiloglottis valida</i> , <i>Viola betonicifolia</i> , <i>Gonocarpus montanus</i> , <i>Asperula gunnii</i> , <i>Festuca asperula</i> , <i>Celmisia longifolia</i> , <i>Senecio gunnii</i> , <i>Poa sieberiana</i> var. <i>cyanophylla</i> , <i>Poa sieberiana</i> var. <i>sieberiana</i> , <i>Carex appressa</i> , <i>Asperula pusilla</i> , <i>Polystichum proliferum</i> , <i>Blechnum penna-marina</i> subsp. <i>alpina</i>
Exotic species	<i>Trifolium repens</i> , <i>Taraxacum officinale</i> , <i>Malus pumila</i> , <i>Lotus uliginosus</i>
High Threat Weeds	<i>Pinus</i> sp., <i>Acetosella vulgaris</i> , <i>Achillea millefolium</i>



Photo A.13 Example of PCT 645 at Perisher showing *Eucalyptus niphophila* trees



Photo A.14 Example of PCT 645 at Plot PNip1 at Perisher showing large *Eucalyptus niphophila* trees



Photo A.15 Example of PCT 645 at Plot CPEnip1 at Charlottes Pass showing large *Eucalyptus niphophila* trees



Photo A.16 Example of PCT 645 at Plot CPEnip2 at Charlottes Pass showing young tree regrowth

A1.5 PCT679: Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion

Vegetation formation: Grassy Woodlands

Vegetation class: Subalpine Woodlands

The Black Sallee – Snow Gum low woodland of montane valleys, South Eastern Highlands Bioregion and Australian Alps Bioregion PCT (PCT 679) is described in the BioNet Vegetation Classification database as a low open woodland often with a wet heath and/or tussock grass understorey occurring in frost hollow drainage lines in montane and tableland areas.

The dominant species in this PCT as outlined in the BioNet Vegetation Classification database are *Eucalyptus stellulata*, *Eucalyptus pauciflora*, *Eucalyptus rubida*, *Eucalyptus dalrympleana*, and *Eucalyptus aggregata*. The shrub layer is characterised by *Baeckea utilis*, *Hakea microcarpa*, and *Leucopogon hookeri*. The ground cover is characterised by species including *Acaena novae-zelandiae*, *Asperula scoparia*, *Carex appressa*, *Carex inversa*, *Empodisma minus*, *Poa labillardierei* var. *labillardierei*, *Poa sieberiana* var. *sieberiana*, *Hydrocotyle peduncularis* and *Restio australis*.

The vegetation within the subject lands that has been assigned to this PCT is considered to be nearest to being representative of PCT 679 for the following reasons:

- The canopy is dominated by the characteristic species *Eucalyptus stellulata* and *Eucalyptus pauciflora* with *Eucalyptus rubida* and *Eucalyptus dalrympleana* also present to a varying degree depending on landscape position.
- The mid stratum is characterised by the typical species *Hakea microcarpa* and a range of other shrub species.
- The ground stratum contains species typical of PCT 679 including *Acaena novae-zelandiae*, *Asperula scoparia*, *Carex appressa*, *Carex inversa*, *Empodisma minus*, *Poa labillardierei* var. *labillardierei*, and *Poa sieberiana* var. *sieberiana*.

No other PCTs as described in the BioNet Vegetation Classification database provide a better fit for the description of this vegetation. A summary of the vegetation structure and floristics of PCT 679 within the subject lands is given below in Table A.5. This list of species reflects the local variation gathered from the floristic plots undertaken within the subject lands.

Photos of PCT 679 taken from within the subject lands showing variation are presented in Photo A.17 and Photo A.18.

This PCT is part of the Monaro Tableland Cool Temperate Grassy Woodland in the South Eastern Highlands Bioregion as listed under the BC Act where it is present in the Monaro subregion.

Table A.5 Floristic and structural summary of PCT 679 within the development site

Vegetation layer	Dominant species recorded from the surveys
Tree canopy (upper stratum)	<i>Eucalyptus stellulata</i> , <i>Eucalyptus dalrympleana</i> , <i>Eucalyptus rubida</i> , <i>Eucalyptus pauciflora</i>
Midstorey (mid-stratum)	<i>Tasmannia xerophila</i> , <i>Leptospermum grandifolium</i> , <i>Callistemon pityoides</i> , <i>Bossiaea foliosa</i> , <i>Rubus parvifolius</i> , <i>Leucopogon gelidus</i> , <i>Polyscias sambucifolia</i> subsp. <i>leptophylla</i> , <i>Baeckea gunniana</i> , <i>Olearia megalophylla</i> , <i>Epacris breviflora</i> , <i>Epacris microphylla</i> , <i>Cassinia aculeata</i> , <i>Olearia phlogopappa</i> , <i>Grevillea lanigera</i> , <i>Melicytus angustifolius</i> subsp. <i>divaricatus</i> , <i>Ozothamnus thyrsoides</i> , <i>Pimelea pauciflora</i> , <i>Hakea microcarpa</i> , <i>Olearia erubescens</i> ,

Vegetation layer	Dominant species recorded from the surveys
Groundcovers (ground stratum)	<i>Imperata cylindrica</i> , <i>Blechnum nudum</i> , <i>Ranunculus pimpinellifolius</i> , <i>Geranium solanderi</i> , <i>Luzula flaccida</i> , <i>Carex inversa</i> , <i>Asperula scoparia</i> , <i>Polystichum proliferum</i> , <i>Carex appressa</i> , <i>Carex longibrachiata</i> , <i>Carex inversa</i> , <i>Acaena ovina</i> , <i>Acaena novae-zelandiae</i> , <i>Deyeuxia</i> sp., <i>Selaginella uliginosa</i> , <i>Ranunculus lappaceus</i> , <i>Geum urbanum</i> , <i>Stellaria pungens</i> , <i>Elymus scaber</i> , <i>Poa helmsii</i> , <i>Empodisma minus</i> , <i>Gonocarpus micranthus</i> , <i>Poranthera microphylla</i> , <i>Lagenifera stipitata</i> , <i>Veronica gracilis</i> , <i>Veronica subtilis</i> , <i>Festuca asperula</i> , <i>Dichondra</i> sp. A, <i>Oreomyrrhis eriopoda</i> , <i>Senecio prenanthoides</i> , <i>Scleranthus biflorus</i> , <i>Poa ensiformis</i> , <i>Poa labillardierei</i> , <i>Poa sieberiana</i> var. <i>cyanophylla</i> , <i>Poa sieberiana</i> var. <i>sieberiana</i>
Exotic species	<i>Anthoxanthum odoratum</i> , <i>Cerastium vulgare</i> , <i>Hypochaeris radicata</i> , <i>Ligustrum vulgare</i> , <i>Geranium molle</i> , <i>Medicago lupulina</i> , <i>Veronica peregrina</i> , <i>Cerastium balearicum</i> , <i>Aira elegantissima</i> , <i>Trifolium repens</i> , <i>Spergularia rubra</i> , <i>Bromus hordeaceus</i> , <i>Vulpia myuros</i> , <i>Festuca rubra</i>
High Threat Weeds	<i>Acetosella vulgaris</i> , <i>Crataegus monogyna</i> , <i>Holcus lanatus</i> , <i>Rubus fruticosus</i> agg., <i>Bromus diandrus</i> , <i>Rosa rubiginosa</i>

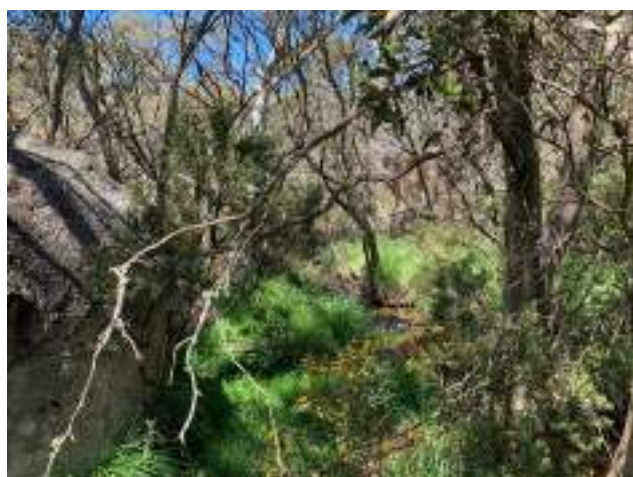


Photo A.17

Example of PCT 679 on Sawpit Creek at Ski Rider Motel



Photo A.18

Example of PCT 679 at Bullocks Flat Terminal

A1.6 PCT1196: Snow Gum – Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion

Vegetation formation: Grassy Woodlands

Vegetation class: Subalpine Woodlands

The Snow Gum – Mountain Gum shrubby open forest of montane areas, South Eastern Highlands Bioregion and Australian Alps Bioregion PCT (PCT 1196) is described in the BioNet Vegetation Classification database as an open to tall open forest with an open shrubby understorey and grassy ground layer widespread on montane to sub alpine slopes and ridges.

The dominant species in this PCT as outlined in the BioNet Vegetation Classification database are *Eucalyptus pauciflora*, *Eucalyptus dalrympleana*, *Eucalyptus fastigata*, *Eucalyptus delagatensis*, and *Eucalyptus robertsonii* subsp. *robertsonii*. The shrub layer is characterised by *Acacia dealbata*, *Coprosma hirtella*, *Daviesia latifolia*, *Daviesia ulicifolia*, *Olearia erubescens*, *Olearia megalophylla*, *Oxylobium ellipticum*, *Platylobium formosum*, *Daviesia mimosoides* and *Polyscias sambucifolia*. The ground cover is characterised by species including *Acaena novae-zelandiae*, *Acaena ovina*, *Asperula scoparia*, *Dianella tasmanica*, *Geranium neglectum*, *Lomandra longifolia*, *Luzula flaccida*, *Microlaena stipoides* var. *stipoides*, *Persoonia chamaepitys*, *Poa meionectes*, *Poa sieberiana* var. *sieberiana*, *Poranthera microphylla*, *Senecio gunnii*, *Stellaria pungens*, *Stylidium graminifolium*, *Brachycome spathulate*, *Helichrysum scorpioides*, *Lagenifera stipitata*, and *Viola betonicifolia*.

The vegetation within the subject lands that has been assigned to this PCT is considered to be nearest to being representative of PCT 1196 for the following reasons:

- The canopy is dominated by the characteristic species *Eucalyptus pauciflora* and *Eucalyptus dalrympleana* with occasional *Eucalyptus delagatensis* (present at Ski Rider Motel).
- The mid stratum is characterised by the typical species *Acacia melanoxylon*, *Coprosma hirtella*, *Daviesia ulicifolia*, *Olearia erubescens*, *Daviesia mimosoides* and *Polyscias sambucifolia*.
- The ground stratum contains species typical of PCT 1196 including *Acaena novae-zelandiae*, *Acaena ovina*, *Asperula scoparia*, *Dianella tasmanica*, *Lomandra longifolia*, *Luzula flaccida*, *Poa meionectes*, *Poa sieberiana* var. *sieberiana*, *Poranthera microphylla*, *Senecio gunnii*, *Stellaria pungens*, *Stylidium graminifolium*.

No other PCTs as described in the BioNet Vegetation Classification database provide a better fit for the description of this vegetation. A summary of the vegetation structure and floristics of PCT 1196 within the subject lands is given below in Table A.6. This list of species reflects the local variation gathered from the floristic plots undertaken within the subject lands.

Photos of PCT 1196 taken from within the subject lands showing variation are presented in Photo A.19 to Photo A.22.

This PCT is not part of a TEC.

Table A.6 Floristic and structural summary of PCT 1196 within the development site

Vegetation layer	Dominant species recorded from the surveys
Tree canopy (upper stratum)	<i>Eucalyptus pauciflora</i> , <i>Eucalyptus dalrympleana</i> , <i>Eucalyptus stellulata</i>
Midstorey (mid-stratum)	<i>Mirbelia oxylobioides</i> , <i>Exocarpos strictus</i> , <i>Brachyloma daphnoides</i> , <i>Leucopogon gelidus</i> , <i>Acrothamnus hookeri</i> , <i>Olearia erubescens</i> , <i>Acacia melanoxylon</i> , <i>Coprosma hirtella</i> , <i>Bossiaea foliosa</i> , <i>Rubus parvifolius</i> , <i>Polyscias sambucifolia</i> , <i>Daviesia mimosoides</i> , <i>Leucopogon fletcheri</i> , <i>Ozothamnus thyrsoides</i> , <i>Daviesia ulicifolia</i> , <i>Acacia falciformis</i> , <i>Acacia decora</i> , <i>Lomatia myricoides</i> , <i>Acacia siculiformis</i>

Vegetation layer	Dominant species recorded from the surveys
Groundcovers (ground stratum)	<i>Calotis scabiosifolia</i> , <i>Daucus glochidiatus</i> , <i>Stellaria pungens</i> , <i>Senecio gunnii</i> , <i>Galium ciliare</i> , <i>Poa sieberiana</i> var. <i>sieberiana</i> , <i>Poa sieberiana</i> var. <i>cyanophylla</i> , <i>Poa meionectes</i> , <i>Poranthera microphylla</i> , <i>Ophioglossum lusitanicum</i> , <i>Geranium solanderi</i> , <i>Hydrocotyle laxiflora</i> , <i>Euchiton involucratus</i> , <i>Glycine clandestina</i> , <i>Stackhousia monogyna</i> , <i>Herpolirion novae-zelandiae</i> , <i>Chiloglottis valida</i> , <i>Acaena novae-zelandiae</i> , <i>Acaena ovina</i> , <i>Hypericum gramineum</i> , <i>Asperula conferta</i> , <i>Veronica gracilis</i> , <i>Luzula flaccida</i> , <i>Viola betonicifolia</i> , <i>Elymus scaber</i> , <i>Ranunculus plebeius</i> , <i>Crassula sieberiana</i> , <i>Lomandra longifolia</i> , <i>Gonocarpus tetragynus</i> , <i>Dianella tasmanica</i> , <i>Cymbonotus lawsonianus</i> , <i>Craspedia variabilis</i> , <i>Ajuga australis</i> , <i>Cynoglossum australe</i> , <i>Polystichum proliferum</i> , <i>Clematis aristata</i> , <i>Goodenia hederacea</i> , <i>Veronica derwentiana</i> , <i>Poa ensiformis</i> , <i>Stylidium graminifolium</i> , <i>Asperula scoparia</i>
Exotic species	<i>Anthoxanthum odoratum</i> , <i>Aira elegantissima</i> , <i>Hypochaeris radicata</i> , <i>Medicago lupulina</i> , <i>Poa pratensis</i> , <i>Trifolium repens</i>
High Threat Weeds	<i>Cotoneaster</i> sp., <i>Rubus fruticosus</i> agg., <i>Rosa rubiginosa</i> , <i>Holcus lanatus</i> , <i>Achillea millefolium</i>



Photo A.19 Example of PCT 1196 at the Kosciuszko Tourist Park



Photo A.20 Example of PCT 1196 at the Kosciuszko Tourist Park



Photo A.21 Example of PCT 1196 at the Kosciuszko Tourist Park



Photo A.22 Example of PCT 1196 at Ski Rider Motel showing remnant trees in the car park

Appendix B

Thredbo Village sub-precinct



Appendix B-1
**Thredbo Village
sub-precinct survey data**

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal1			34	30	2	12	3	12	1	0	4	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			244.2	193.3	50	75.2	63.2	4.7	0.2	0	50.9	0.3
<i>Eucalyptus pauciflora</i>	40	22	TG		40							
<i>Bossiaea foliosa</i>	60	300	SG			60						
<i>Hovea montana</i>	5	150	SG			5						
<i>Olearia phlogopappa</i>	5	200	SG			5						
<i>Poa phillipsiana</i>	60	1000	GG				60					
<i>Anthoxanthum odoratum</i>	50	1000	EX								50	
<i>Scleranthus biflorus</i>	0.1	1	FG					0.1				
<i>Ozothamnus secundiflorus</i>	1	5	SG			1						
<i>Stellaria pungens</i>	0.3	50	FG					0.3				
<i>Acaena novae-zelandiae</i>	1	200	FG					1				
<i>Senecio gunnii</i>	2	150	FG					2				
<i>Asperula gunnii</i>	0.3	100	FG					0.3				
<i>Tasmania xerophila</i>	0.5	2	SG			0.5						
<i>Rubus ulmifolius</i>	0.5	10	EX								0.5	
<i>Eucalyptus stellulata</i>	10	3	TG		10							
<i>Acetosella vulgaris</i>	0.3	30	HT									0.3
<i>Galium spp.</i>	0.1	3	FG					0.1				
<i>Acrothamnus hookeri</i>	1	4	SG			1						
<i>Hakea microcarpa</i>	1	2	SG			1						
<i>Modiola caroliniana</i>	0.1	2	EX								0.1	
<i>Pimelea curviflora</i> var. <i>sericea</i>	0.1	4	FG					0.1				
<i>Polystichum proliferum</i>	0.2	1	EG						0.2			
<i>Veronica derwentiana</i>	0.2	1	FG					0.2				
<i>Geranium solanderi</i>	0.2	6	FG					0.2				
<i>Asperula scoparia</i>	0.2	5	FG					0.2				
<i>Cassinia monticola</i>	0.5	4	SG			0.5						
<i>Lagenophora stipitata</i>	0.1	2	FG					0.1				
<i>Plantago spp.</i>	0.1	1	FG					0.1				
<i>Prostanthera cuneata</i>	0.1	1	SG			0.1						
<i>Oxylobium ellipticum</i>	0.1	1	SG			0.1						
<i>Podocarpus lawrencei</i>	0.5	2	SG			0.5						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	3	100	GG				3					
<i>Poa ensiformis</i>	0.2	0.2	GG				0.2					
<i>Podocarpus lawrencei</i>	0.5	2	SG			0.5						

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal2			24	21	1	5	6	8	1	0	3	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			180.9	155.7	30	76.4	40.8	8.2	0.3	0	25.2	5.2
<i>Eucalyptus pauciflora</i>	30	16	TG		30							
<i>Bossiaea foliosa</i>	70	1000	SG			70						
<i>Olearia phlogopappa</i>	3	300	SG			3						
<i>Deyeuxia</i> spp.	0.1	4	GG				0.1					
<i>Poa sieberiana</i> var. <i>sieberiana</i>	20	1000	GG				20					
<i>Stellaria pungens</i>	0.3	100	FG					0.3				
<i>Poa meionectes</i>	0.1	10	GG				0.1					
<i>Acaena novae-zelandiae</i>	5	1000	FG					5				
<i>Asperula gunnii</i>	2	300	FG					2				
<i>Luzula densiflora</i>	0.1	2	GG				0.1					
<i>Poa phillipsiana</i>	20	300	GG				20					
<i>Pimelea curviflora</i> var. <i>sericea</i>	0.1	2	FG					0.1				
<i>Anthoxanthum odoratum</i>	20	500	EX								20	
<i>Polystichum proliferum</i>	0.3	3	EG						0.3			
<i>Hydrocotyle sibthorpioides</i>	0.2	100	FG					0.2				
<i>Rubus fruticosus</i> agg.	5	50	HT									5
<i>Senecio gunnii</i>	0.3	20	FG					0.3				
<i>Tasmania xerophila</i>	3	6	SG			3						
<i>Geranium solanderi</i>	0.2	20	FG					0.2				
<i>Podocarpus lawrencei</i>	0.2	1	SG			0.2						
<i>Ozothamnus secundiflorus</i>	0.2	1	SG			0.2						
<i>Acetosella vulgaris</i>	0.2	20	HT									0.2
<i>Celmisia pugioniformis</i>	0.1	2	FG					0.1				
<i>Poa ensiformis</i>	0.5	20	GG				0.5					

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal3			27	22	2	6	3	11	0	0	5	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			136.9	119.4	30	33	54	2.4	0	0	17.5	2
<i>Eucalyptus pauciflora</i>	20	10	TG		20							
<i>Eucalyptus stellulata</i>	10	8	TG		10							
<i>Cassinia monticola</i>	5	20	SG			5						
<i>Poa phillipsiana</i>	50	500	GG				50					
<i>Hovea montana</i>	10	200	SG			10						
<i>Bossiaea foliosa</i>	10	200	SG			10						
<i>Ranunculus lappaceus</i>	0.1	3	FG					0.1				
<i>Poa sieberiana</i>	2	50	GG				2					
<i>Acetosella vulgaris</i>	1	150	HT									1
<i>Hakea microcarpa</i>	3	20	SG			3						
<i>Coronidium monticola</i>	1	30	FG					1				
<i>Holcus lanatus</i>	1	50	HT									1
<i>Olearia phlogopappa</i>	3	100	SG			3						
<i>Stylidium spp.</i>	0.1	1	FG					0.1				
<i>Asperula gunnii</i>	0.2	10	FG					0.2				
<i>Acaena novae-zelandiae</i>	0.3	30	FG					0.3				
<i>Geranium solanderi</i>	0.1	3	FG					0.1				
<i>Anthoxanthum odoratum</i>	10	500	EX								10	
<i>Pimelea curviflora</i> var. <i>sericea</i>	0.1	2	FG					0.1				
<i>Poa pratensis</i>	5	300	EX								5	
<i>Acrothamnus hookeri</i>	2	3	SG			2						
<i>Rubus ulmifolius</i>	0.5	2	EX								0.5	
<i>Stellaria pungens</i>	0.2	10	FG					0.2				
<i>Hydrocotyle sibthorpioides</i>	0.1	2	FG					0.1				
<i>Poa ensiformis</i>	2	20	GG				2					
<i>Poranthera microphylla</i>	0.1	2	FG					0.1				
<i>Ranunculus graniticola</i>	0.1	2	FG					0.1				

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal5			29	26	2	9	5	8	2	0	3	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			100.9	98.6	25	40.6	26.5	5.8	0.7	0	2.3	0
<i>Carex appressa</i>	15	500	GG				15					
<i>Eucalyptus pauciflora</i>	20	14	TG		20							
<i>Eucalyptus stellulata</i>	5	2	TG		5							
<i>Olearia phlogopappa</i>	10	300	SG			10						
<i>Poa ensiformis</i>	5	150	GG				5					
<i>Geranium solanderi</i>	2	100	FG					2				
<i>Rubus parvifolius</i>	2	50	SG			2						
<i>Veronica derwentiana</i>	2	100	FG					2				
<i>Polystichum proliferum</i>	0.5	6	EG						0.5			
<i>Acaena novae-zelandiae</i>	1	100	FG					1				
<i>Ozothamnus secundiflorus</i>	1	4	SG			1						
<i>Bossiaea foliosa</i>	20	500	SG			20						
<i>Baeckea utilis</i>	1	2	SG			1						
<i>Blechnum penna-marina</i> subsp. <i>alpina</i>	0.2	10	EG						0.2			
<i>Stellaria pungens</i>	0.2	10	FG					0.2				
<i>Poa phillipsiana</i>	5	150	GG				5					
<i>Hovea montana</i>	5	100	SG			5						
<i>Senecio gunnii</i>	0.1	2	FG					0.1				
<i>Taraxacum officinale</i>	0.1	1	EX								0.1	
<i>Tasmannia xerophila</i>	1	10	SG			1						
<i>Anthoxanthum odoratum</i>	2	50	EX								2	
<i>Poa sieberiana</i> var. <i>sieberiana</i>	0.5	20	GG				0.5					
<i>Asperula gunnii</i>	0.3	50	FG					0.3				
<i>Rubus ulmifolius</i>	0.2	2	EX								0.2	
<i>Podocarpus lawrencei</i>	0.5	2	SG			0.5						
<i>Epilobium</i> spp.	0.1	3	FG					0.1				
<i>Polyscias sambucifolia</i>	0.1	1	SG			0.1						
<i>Veronica gracilis</i>	0.1	5	FG					0.1				
<i>Poa helmsii</i>	1	20	GG				1					

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal6			33	30	3	10	4	13	0	0	3	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			214.9	154.4	65	10.1	61.6	17.7	0	0	60.5	0
<i>Eucalyptus pauciflora</i>	10	7	TG		10							
<i>Eucalyptus dalrympleana</i>	5	3	TG		5							
<i>Eucalyptus stellulata</i>	50	26	TG		50							
<i>Hovea montana</i>	5	100	SG			5						
<i>Veronica derwentiana</i>	15	500	FG					15				
<i>Poa sieberiana</i> var. <i>sieberiana</i>	60	1000	GG				60					
<i>Anthoxanthum odoratum</i>	60	2000	EX								60	
<i>Craspedia variabilis</i>	0.1	2	FG					0.1				
<i>Olearia phlogopappa</i>	0.2	4	SG			0.2						
<i>Hydrocotyle laxiflora</i>	0.2	30	FG					0.2				
<i>Stellaria pungens</i>	0.1	10	FG					0.1				
<i>Acaena novae-zelandiae</i>	0.2	30	FG					0.2				
<i>Solenogyne dominii</i>	0.1	2	FG					0.1				
<i>Asperula gunnii</i>	0.2	30	FG					0.2				
<i>Polyscias sambucifolia</i>	0.5	2	SG			0.5						
<i>Senecio gunnii</i>	0.2	4	FG					0.2				
<i>Carex appressa</i>	1	20	GG				1					
<i>Hypochaeris radicata</i>	0.3	20	EX								0.3	
<i>Hakea microcarpa</i>	1	3	SG			1						
<i>Wahlenbergia ceracea</i>	0.1	1	FG					0.1				
<i>Acrothamnus hookeri</i>	1	6	SG			1						
<i>Ozothamnus thyrsoides</i>	0.5	2	SG			0.5						
<i>Ozothamnus secundiflorus</i>	0.3	1	SG			0.3						
<i>Cassinia</i> spp.	0.1	2	SG			0.1						
<i>Rytidosperma penicillatum</i>	0.1	2	GG				0.1					
<i>Acaena ovina</i>	0.2	20	FG					0.2				
<i>Coronidium</i> spp.	1	50	FG					1				
<i>Bossiaea foliosa</i>	1	3	SG			1						
<i>Daviesia ulicifolia</i>	0.5	2	SG			0.5						
<i>Dichondra repens</i>	0.2	30	FG					0.2				
<i>Taraxacum officinale</i>	0.2	30	EX								0.2	
<i>Linum marginale</i>	0.1	2	FG					0.1				
<i>Poa ensiformis</i>	0.5	10	GG				0.5					

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal7			38	35	3	12	4	15	0	1	3	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			197.8	136.7	60	22.5	22.2	31.7	0	0.3	61.1	0
<i>Eucalyptus pauciflora</i>	20	10	TG		20							
<i>Eucalyptus stellulata</i>	20	14	TG		20							
<i>Anthoxanthum odoratum</i>	60	2000	EX								60	
<i>Hydrocotyle laxiflora</i>	5	500	FG					5				
<i>Veronica derwentiana</i>	20	1000	FG					20				
<i>Polyscias sambucifolia</i> subsp. <i>leptophylla</i>	3	30	SG			3						
<i>Acaena novae-zelandiae</i>	2	200	FG					2				
<i>Asperula scoparia</i>	1	150	FG					1				
<i>Coronidium</i> spp.	1	200	FG					1				
<i>Craspedia</i> spp.	0.3	30	FG					0.3				
<i>Poa sieberiana</i> var. <i>sieberiana</i>	20	500	GG				20					
<i>Senecio gunnii</i>	1	100	FG					1				
<i>Glycine clandestina</i>	0.3	10	OG							0.3		
<i>Pimelea pauciflora</i>	1	1	SG			1						
<i>Oxalis perennans</i>	0.2	30	FG					0.2				
<i>Stellaria pungens</i>	0.2	50	FG					0.2				
<i>Trifolium repens</i>	0.1	20	EX								0.1	
<i>Acaena ovina</i>	0.2	20	FG					0.2				
<i>Ozothamnus thyrsoideus</i>	5	200	SG			5						
<i>Acrothamnus hookeri</i>	3	30	SG			3						
<i>Hovea montana</i>	1	30	SG			1						
<i>Taraxacum officinale</i>	1	50	EX								1	
<i>Hakea microcarpa</i>	1	2	SG			1						
<i>Bossiaea foliosa</i>	2	6	SG			2						
<i>Leptospermum myrtifolium</i>	2	4	SG			2						
<i>Eucalyptus dalrympleana</i>	20	8	TG		20							
<i>Daviesia ulicifolia</i>	2	6	SG			2						
<i>Galium gaudichaudii</i>	0.2	10	FG					0.2				
<i>Dichondra repens</i>	0.3	100	FG					0.3				
<i>Oreomyrrhis</i> spp.	0.1	2	FG					0.1				
<i>Poa ensiformis</i>	1	50	GG				1					
<i>Coprosma hirtella</i>	0.5	10	SG			0.5						
<i>Poranthera microphylla</i>	0.1	3	FG					0.1				
<i>Pimelea curviflora</i> var. <i>sericea</i>	0.1	2	FG					0.1				
<i>Olearia megalophylla</i>	1	10	SG			1						
<i>Carex appressa</i>	0.2	10	GG				0.2					
<i>Tasmannia xerophila</i>	1	4	SG			1						
<i>Poa helmsii</i>	1	20	GG				1					

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal8			39	35	3	11	4	17	0	0	4	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			180	128.5	36.5	24.2	25.2	42.6	0	0	51.5	1
<i>Eucalyptus stellulata</i>	20	14	TG		20							
<i>Eucalyptus pauciflora</i>	15	8	TG		15							
<i>Hakea microcarpa</i>	2	10	SG			2						
<i>Hovea montana</i>	10	500	SG			10						
<i>Leptospermum myrtifolium</i>	3	20	SG			3						
<i>Arthropodium milleflorum</i>	0.2	4	FG					0.2				
<i>Veronica derwentiana</i>	30	1000	FG					30				
<i>Anthoxanthum odoratum</i>	50	2000	EX								50	
<i>Hydrocotyle sibthorpioides</i>	1	50	FG					1				
<i>Acaena ovina</i>	1	100	FG					1				
<i>Asperula scoparia</i>	0.2	20	FG					0.2				
<i>Coronidium scorpioides</i>	2	300	FG					2				
<i>Hydrocotyle laxiflora</i>	2	300	FG					2				
<i>Oreomyrrhis</i> spp.	1	150	FG					1				
<i>Poa ensiformis</i>	5	300	GG				5					
<i>Poa sieberiana</i> var. <i>sieberiana</i>	15	200	GG				15					
<i>Pimelea pauciflora</i>	1	4	SG			1						
<i>Craspedia</i> spp.	0.1	3	FG					0.1				
<i>Cymbonotus preissianus</i>	0.1	1	FG					0.1				
<i>Cassinia monticola</i>	0.2	2	SG			0.2						
<i>Veronica subtilis</i>	0.1	2	FG					0.1				
<i>Taraxacum officinale</i>	0.3	30	EX								0.3	
<i>Acetosella vulgaris</i>	1	50	HT									1
<i>Acaena novae-zelandiae</i>	1	30	FG					1				
<i>Olearia megalophylla</i>	1	20	SG			1						
<i>Acrothamnus hookeri</i>	2	15	SG			2						
<i>Geranium solanderi</i>	1	50	FG					1				
<i>Linum marginale</i>	0.3	4	FG					0.3				
<i>Eucalyptus dalrympleana</i>	1.5	6	TG		1.5							
<i>Polyscias sambucifolia</i>	0.5	3	SG			0.5						
<i>Pratia pedunculata</i>	0.3	20	FG					0.3				
<i>Oxalis</i> spp.	0.3	20	FG					0.3				
<i>Daviesia ulicifolia</i>	2	10	SG			2						
<i>Senecio</i> spp.	2	500	FG					2				
<i>Bossiaea foliosa</i>	2	3	SG			2						
<i>Poa labillardierei</i>	5	200	GG				5					
<i>Podolobium alpestre</i>	0.5	2	SG			0.5						
<i>Lotus corniculatus</i>	0.2	10	EX								0.2	
<i>Poa helmsii</i>	0.2	10	GG				0.2					

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal10			39	37	3	12	5	16	0	1	2	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			170.9	149.9	50	25.5	57.2	16.9	0	0.3	21	0
<i>Eucalyptus stellulata</i>	15	10	TG		15							
<i>Eucalyptus dalrympleana</i>	20	16	TG		20							
<i>Eucalyptus pauciflora</i>	15	12	TG		15							
<i>Daviesia ulicifolia</i>	5	200	SG			5						
<i>Veronica derwentiana</i>	5	200	FG					5				
<i>Coprosma hirtella</i>	3	50	SG			3						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	5	150	GG				5					
<i>Poa ensiformis</i>	50	1000	GG				50					
<i>Asperula scoparia</i>	1	100	FG					1				
<i>Olearia megalophylla</i>	5	200	SG			5						
<i>Stellaria pungens</i>	1	50	FG					1				
<i>Glycine clandestina</i>	0.3	10	OG							0.3		
<i>Viola hederacea</i>	3	300	FG					3				
<i>Gonocarpus montanus</i>	0.5	50	FG					0.5				
<i>Acrothamnus hookeri</i>	3	20	SG			3						
<i>Acaena ovina</i>	1	100	FG					1				
<i>Anthoxanthum odoratum</i>	20	1000	EX								20	
<i>Dianella tasmanica</i>	3	50	FG					3				
<i>Poranthera microphylla</i>	0.1	1	FG					0.1				
<i>Tasmannia xerophila</i>	2	6	SG			2						
<i>Polyscias sambucifolia</i>	3	20	SG			3						
<i>Hydrocotyle laxiflora</i>	0.5	50	FG					0.5				
<i>Hypochaeris radicata</i>	1	50	EX								1	
<i>Craspedia</i> spp.	0.2	10	FG					0.2				
<i>Geranium solanderi</i>	0.2	30	FG					0.2				
<i>Luzula flaccida</i>	0.1	1	GG				0.1					
<i>Poa labillardierei</i>	2	30	GG				2					
<i>Pimelea pauciflora</i>	1	3	SG			1						
<i>Pimelea linifolia</i> subsp. <i>caesia</i>	0.1	1	SG			0.1						
<i>Brachyscome aculeata</i>	0.1	2	FG					0.1				
<i>Olearia phlogopappa</i>	0.3	1	SG			0.3						
<i>Ozothamnus thyrsoides</i>	2	10	SG			2						
<i>Coronidium scorpiodes</i>	1	20	FG					1				
<i>Leptospermum myrtifolium</i>	1	2	SG			1						
<i>Pimelea ligustrina</i>	0.1	1	SG			0.1						
<i>Lagenophora stipitata</i>	0.1	2	FG					0.1				
<i>Senecio gunnii</i>	0.1	1	FG					0.1				
<i>Podolepis robusta</i>	0.1	1	FG					0.1				
<i>Luzula densiflora</i>	0.1	2	GG				0.1					

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal11			24	21	2	9	1	9	0	0	3	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			151.6	125.6	13	88.8	20	3.8	0	0	26	1
<i>Eucalyptus pauciflora</i>	10	9	TG		10							
<i>Bossiaea foliosa</i>	70	1000	SG			70						
<i>Olearia phlogopappa</i>	10	1000	SG			10						
<i>Lagenophora stipitata</i>	1	100	FG					1				
<i>Oxylobium ellipticum</i>	2	50	SG			2						
<i>Poa phillipsiana</i>	20	500	GG				20					
<i>Hovea montana</i>	2	30	SG			2						
<i>Ozothamnus secundiflorus</i>	1	4	SG			1						
<i>Rubus ulmifolius</i>	20	500	EX								20	
<i>Anthoxanthum odoratum</i>	5	500	EX								5	
<i>Acetosella vulgaris</i>	1	100	HT									1
<i>Stellaria pungens</i>	0.5	50	FG					0.5				
<i>Asperula gunnii</i>	0.3	30	FG					0.3				
<i>Tasmannia xerophila</i>	2	6	SG			2						
<i>Oreomyrrhis eriopoda</i>	0.2	4	FG					0.2				
<i>Scleranthus fasciculatus</i>	0.2	1	FG					0.2				
<i>Acaena novae-zelandiae</i>	0.2	50	FG					0.2				
<i>Geranium solanderi</i>	1	50	FG					1				
<i>Rubus parvifolius</i>	1	20	SG			1						
<i>Cassinia monticola</i>	0.3	2	SG			0.3						
<i>Hydrocotyle laxiflora</i>	0.3	20	FG					0.3				
<i>Senecio gunnii</i>	0.1	2	FG					0.1				
<i>Polyscias sambucifolia</i>	0.5	2	SG			0.5						
<i>Eucalyptus stellulata</i>	3	1	TG		3							

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal13			27	22	1	6	3	11	1	0	5	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			185.5	129.4	30	89.3	3.1	6.8	0.2	0	56.1	0.5
<i>Eucalyptus stellulata</i>	30	9	TG		30							
<i>Bossiaea foliosa</i>	80	1000	SG			80						
<i>Anthoxanthum odoratum</i>	50	2000	EX								50	
<i>Lagenophora stipitata</i>	1	30	FG					1				
<i>Stellaria pungens</i>	1	50	FG					1				
<i>Rubus ulmifolius</i>	5	50	EX								5	
<i>Coronidium spp.</i>	1	30	FG					1				
<i>Tasmannia xerophila</i>	3	20	SG			3						
<i>Acaena novae-zelandiae</i>	1	150	FG					1				
<i>Hypochaeris radicata</i>	0.5	20	EX								0.5	
<i>Poa sieberiana</i> var. <i>sieberiana</i>	2	50	GG				2					
<i>Hovea montana</i>	3	20	SG			3						
<i>Hakea microcarpa</i>	2	10	SG			2						
<i>Geranium solanderi</i>	1	50	FG					1				
<i>Olearia phlogopappa</i>	1	3	SG			1						
<i>Leptinella filicula</i>	1	3	FG					1				
<i>Oxalis spp.</i>	0.3	10	FG					0.3				
<i>Poa spp.</i>	0.1	2	GG				0.1					
<i>Asperula scoparia</i>	0.1	2	FG					0.1				
<i>Hydrocotyle sibthorpioides</i>	0.2	10	FG					0.2				
<i>Poranthera microphylla</i>	0.1	3	FG					0.1				
<i>Polystichum proliferum</i>	0.2	1	EG						0.2			
<i>Myosotis discolor</i>	0.1	2	EX								0.1	
<i>Ranunculus graniticola</i>	0.1	1	FG					0.1				
<i>Rubus parvifolius</i>	0.3	20	SG			0.3						
<i>Acetosella vulgaris</i>	0.5	30	HT									0.5
<i>Poa ensiformis</i>	1	30	GG				1					

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal15			28	22	1	8	2	11	0	0	6	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			164.6	80.6	30	26	20.1	4.5	0	0	84	3.5
<i>Eucalyptus stellulata</i>	30	14	TG		30							
<i>Anthoxanthum odoratum</i>	80	2000	EX								80	
<i>Acetosella vulgaris</i>	3	500	HT									3
<i>Hovea montana</i>	2	30	SG			2						
<i>Asperula scoparia</i>	0.3	50	FG					0.3				
<i>Acrothamnus hookeri</i>	20	400	SG			20						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	20	300	GG				20					
<i>Hypochaeris radicata</i>	0.3	30	EX								0.3	
<i>Veronica subtilis</i>	0.2	20	FG					0.2				
<i>Coronidium</i> spp.	2	10	FG					2				
<i>Acaena novae-zelandiae</i>	1	50	FG					1				
<i>Pimelea pauciflora</i>	1	3	SG			1						
<i>Cassinia monticola</i>	1	3	SG			1						
<i>Bossiaea foliosa</i>	0.3	1	SG			0.3						
<i>Dichondra repens</i>	0.3	30	FG					0.3				
<i>Rytidosperma penicillatum</i>	0.1	1	GG				0.1					
<i>Geranium solanderi</i>	0.2	10	FG					0.2				
<i>Ranunculus graniticola</i>	0.1	2	FG					0.1				
<i>Holcus lanatus</i>	0.5	20	HT									0.5
<i>Tragopogon porrifolius</i>	0.1	1	EX								0.1	
<i>Trifolium repens</i>	0.1	3	EX								0.1	
<i>Olearia megalophylla</i>	1	10	SG			1						
<i>Rubus parvifolius</i>	0.5	6	SG			0.5						
<i>Olearia phlogopappa</i>	0.2	1	SG			0.2						
<i>Pterostylis</i> spp.	0.1	2	FG					0.1				
<i>Poranthera microphylla</i>	0.1	1	FG					0.1				
<i>Lagenophora stipitata</i>	0.1	2	FG					0.1				
<i>Stylidium montanum</i>	0.1	3	FG					0.1				

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal16			31	25	1	8	5	10	0	1	6	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			177.9	93.3	40	18	21.3	13.9	0	0.1	84.6	4
<i>Eucalyptus stellulata</i>	40	25	TG		40							
<i>Poa sieberiana</i> var. <i>sieberiana</i>	20	500	GG				20					
<i>Anthoxanthum odoratum</i>	80	2000	EX								80	
<i>Acaena novae-zelandiae</i>	3	300	FG					3				
<i>Acrothamnus hookeri</i>	5	100	SG			5						
<i>Rubus ulmifolius</i>	0.3	4	EX								0.3	
<i>Cassinia monticola</i>	2	6	SG			2						
<i>Melicytus angustifolius</i>	1	1	SG			1						
<i>Tasmannia xerophila</i>	2	4	SG			2						
<i>Bossiaea foliosa</i>	2	2	SG			2						
<i>Coronidium</i> spp.	10	500	FG					10				
<i>Hovea montana</i>	2	10	SG			2						
<i>Asperula gunnii</i>	0.1	3	FG					0.1				
<i>Cynoglossum suaveolens</i>	0.1	2	FG					0.1				
<i>Acetosella vulgaris</i>	3	300	HT									3
<i>Asperula scoparia</i>	0.2	20	FG					0.2				
<i>Stellaria pungens</i>	0.1	10	FG					0.1				
<i>Ranunculus graniticola</i>	0.1	2	FG					0.1				
<i>Poa helmsii</i>	0.1	2	GG				0.1					
<i>Hakea microcarpa</i>	1	10	SG			1						
<i>Veronica subtilis</i>	0.1	4	FG					0.1				
<i>Gonocarpus tetragynus</i>	0.1	3	FG					0.1				
<i>Olearia phlogopappa</i>	3	50	SG			3						
<i>Holcus lanatus</i>	1	20	HT									1
<i>Hypochaeris radicata</i>	0.2	20	EX								0.2	
<i>Glycine clandestina</i>	0.1	2	OG							0.1		
<i>Rytidosperma penicillatum</i>	0.1	3	GG				0.1					
<i>Geranium potentilloides</i>	0.1	5	FG					0.1				
<i>Trifolium repens</i>	0.1	10	EX								0.1	
<i>Luzula flaccida</i>	0.1	1	GG				0.1					
<i>Poa ensiformis</i>	1	20	GG				1					

Veg Zone = PCT679 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal4			26	21	1	10	4	6	0	0	5	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			122.8	116.6	15	76.5	21.6	3.5	0	0	6.2	3
<i>Olearia phlogopappa</i>	50	500	SG			50						
<i>Hakea microcarpa</i>	10	100	SG			10						
<i>Cassinia monticola</i>	5	50	SG			5						
<i>Rubus parvifolius</i>	2	20	SG			2						
<i>Asperula gunnii</i>	1	100	FG					1				
<i>Acetosella vulgaris</i>	2	200	HT									2
<i>Hovea montana</i>	3	50	SG			3						
<i>Holcus lanatus</i>	1	20	HT									1
<i>Poa pratensis</i>	2	30	EX								2	
<i>Poa ensiformis</i>	0.5	10	GG				0.5					
<i>Poa phillipsiana</i>	20	300	GG				20					
<i>Veronica derwentiana</i>	0.3	3	FG					0.3				
<i>Stellaria pungens</i>	0.1	4	FG					0.1				
<i>Poa sieberiana</i> var. <i>sieberiana</i>	1	10	GG				1					
<i>Bossiaea foliosa</i>	3	10	SG			3						
<i>Eucalyptus pauciflora</i>	15	7	TG		15							
<i>Polyscias sambucifolia</i>	0.3	1	SG			0.3						
<i>Tasmannia xerophila</i>	2	6	SG			2						
<i>Geranium solanderi</i>	1	100	FG					1				
<i>Ozothamnus secundiflorus</i>	1	3	SG			1						
<i>Carex appressa</i>	0.1	1	GG				0.1					
<i>Acaena novae-zelandiae</i>	1	200	FG					1				
<i>Leptospermum myrtifolium</i>	0.2	1	SG			0.2						
<i>Rubus ulmifolius</i>	1	2	EX								1	
<i>Cymbonotus preissianus</i>	0.1	2	FG					0.1				
<i>Anthoxanthum odoratum</i>	0.2	10	EX								0.2	

Veg Zone = PCT679 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THheath12			22	18	1	6	3	8	0	0	4	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			174.6	152.3	3	83	60.8	5.5	0	0	22.3	2
Cassinia monticola	60	1000	SG			60						
Poa phillipsiana	60	1000	GG				60					
Anthoxanthum odoratum	20	1000	EX								20	
Olearia myrsinoides	10	300	SG			10						
Stellaria pungens	1	50	FG					1				
Geranium solanderi	0.5	30	FG					0.5				
Rubus ulmifolius	0.3	3	EX								0.3	
Acetosella vulgaris	1	50	HT									1
Hovea montana	1	8	SG			1						
Oxylobium ellipticum	10	200	SG			10						
Holcus lanatus	1	30	HT									1
Epilobium billardierianum	0.2	3	FG					0.2				
Poranthera microphylla	0.3	20	FG					0.3				
Asperula gunnii	0.3	50	FG					0.3				
Coronidium spp.	2	100	FG					2				
Poa spp.	0.3	20	GG				0.3					
Hakea microcarpa	1	2	SG			1						
Eucalyptus stellulata	3	1	TG		3							
Acaena novae-zelandiae	1	50	FG					1				
Veronica subtilis	0.2	20	FG					0.2				
Carex inversa	0.5	30	GG				0.5					
Olearia phlogopappa	1	10	SG			1						

Veg Zone = PCT679 Shrubland	30 Nov 2021	8:28 AM	Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
	Thredbo1		# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: Thredbo1			30	21	2	8	6	5	0	0	9	2
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			130.9	119.7	6	72.7	40.5	0.5	0	0	11.2	0.5
<i>Eucalyptus stellulata</i>	1	1	TG		1							
<i>Eucalyptus pauciflora</i>	5	2	TG		5							
<i>Hakea microcarpa</i>	20	25	SG			20						
<i>Hovea Montana</i>	30	200	SG			30						
<i>Bossiaea foliosa</i>	5	10	SG			5						
<i>Cassinia monticola</i>	2	10	SG			2						
<i>Olearia phlogopappa</i> var. <i>flavescens</i>	10	100	SG			10						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	10	100	GG				10					
<i>Anthoxanthum odoratum</i>	10	200	EX								10	
<i>Acetosella vulgaris</i>	0.4	100	HT									0.4
<i>Luzula</i> sp.	0.2	20	GG				0.2					
<i>Geranium solanderi</i>	0.1	10	FG					0.1				
<i>Acrothamnus hookeri</i>	0.5	20	SG			0.5						
<i>oxylobium ellipticum</i>	5	50	SG			5						
<i>Betula pendula</i>	0.1	10	EX								0.1	
<i>Hypochaeris radicata</i>	0.2	25	EX								0.2	
<i>Asperula gunnii</i>	0.1	10	FG					0.1				
<i>Acaena novae-zelandiae</i>	0.1	1	FG					0.1				
<i>Olearia brevipedunculata</i>	0.2	10	SG			0.2						
<i>Poa ensiformis</i> ? No seed heads	0.1	1	GG				0.1					
<i>Carex breviculmis</i>	0.1	10	GG				0.1					
<i>Stellaria pungens</i>	0.1	10	FG					0.1				
<i>Taraxacum officinale</i>	0.1	10	EX								0.1	
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	30	200	GG				30					
<i>Verbascum virgatum</i>	0.1	1	EX								0.1	
<i>Ranunculus graniticola</i>	0.1	1	FG					0.1				
<i>Achillea millefolium</i>	0.1	10	HT									0.1
<i>Alopecurus pratensis</i>	0.1	10	EX								0.1	
<i>Bromus</i> sp.	0.1	10	GG				0.1					
<i>Holcus lanatus</i>	0.1	10	EX								0.1	

Veg Zone = PCT679 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: TGCSGBS			33	22	2	9	5	6	0	0	11	3
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			86.8	25.6	7	6.9	10.5	1.2	0	0	61.2	0.4
<i>Eucalyptus pauciflora</i>	5	15	TG		5							
<i>Eucalyptus stellulata</i>	2	5	TG		2							
<i>Hakea microcarpa</i>	1	10	SG			1						
<i>Prostanthera cuneata</i>	2	5	SG			2						
<i>Ozothamnus thyrsoideus</i>	1	4	SG			1						
<i>Carex appressa</i>	10	50	GG				10					
<i>Holcus lanatus</i>	0.1	10	HT									0.1
<i>Festuca rubra</i>	60	2000	EX								60	
<i>Lythrum salicaria</i>	0.1	2	FG					0.1				
<i>Cerastium glomeratum</i>	0.1	1	EX								0.1	
<i>Isolepis spp.</i>	0.1	10	GG				0.1					
<i>Asperula gunnii</i>	0.1	10	FG					0.1				
<i>Rumex crispus</i>	0.1	2	EX								0.1	
<i>Eleocharis spp.</i>	0.1	100	GG				0.1					
<i>Juncus australis</i>	0.1	3	GG				0.1					
<i>Olearia algida</i>	1	1	SG			1						
<i>Oxylobium ellipticum</i>	1	10	SG			1						
<i>Hypochaeris radicata</i>	0.1	5	EX								0.1	
<i>Lotus uliginosus</i>	0.1	50	EX								0.1	
<i>Bossiaea foliosa</i>	0.2	1	SG			0.2						
<i>Callistemon pityoides</i>	0.5	1	SG			0.5						
<i>Ranunculus graniticola</i>	0.2	50	FG					0.2				
<i>Acaena novae-zelandiae</i>	0.5	100	FG					0.5				
<i>Veronica gracilis</i>	0.1	15	FG					0.1				
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	0.2	10	GG				0.2					
<i>Hovea montana</i>	0.1	1	SG			0.1						
<i>Baeckea gunniana</i>	0.1	1	SG			0.1						
<i>Trifolium repens</i>	0.2	200	EX								0.2	
<i>Achillea millefolium</i>	0.2	200	HT									0.2
<i>Geranium solanderi</i>	0.2	200	FG					0.2				
<i>Acetosella vulgaris</i>	0.1	100	HT									0.1
<i>Cirsium vulgare</i>	0.1	1	EX								0.1	
<i>Medicago lupulina</i>	0.1	10	EX								0.1	

Veg Zone = PCT679 Planted			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: FFcarpk			23	15	3	10	1	0	1	0	8	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			227.6	203.8	95	108	0.5	0	0.3	0	23.8	3
<i>Eucalyptus pauciflora</i>	70	60	TG		70							
<i>Eucalyptus stellulata</i>	5	10	TG		5							
<i>Callistemon pityoides</i>	40	20	SG			40						
<i>Prostanthera cuneata</i>	2	7	SG			2						
<i>Hovea montana</i>	0.1	5	SG			0.1						
<i>Olearia megalophylla</i>	0.1	10	SG			0.1						
<i>Bossiaea foliosa</i>	5	10	SG			5						
<i>Hakea microcarpa</i>	20	25	SG			20						
<i>Hypochaeris radicata</i>	0.1	30	EX								0.1	
<i>Festuca rubra</i>	20	1000	EX								20	
<i>Acetosella vulgaris</i>	2	100	HT									2
<i>Malus pumila</i>	0.1	1	EX								0.1	
<i>Holcus lanatus</i>	1	100	HT									1
<i>Sonchus asper</i>	0.1	1	EX								0.1	
<i>Coprosma hirtella</i>	0.5	10	SG			0.5						
<i>Olearia phlogopappa</i>	0.2	5	SG			0.2						
<i>Leptospermum grandifolium</i>	40	20	SG			40						
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	0.5	200	GG				0.5					
<i>Dactylis glomerata</i>	0.3	20	EX								0.3	
<i>Polystichum proliferum</i>	0.3	10	EG						0.3			
<i>Galium aparine</i>	0.2	100	EX								0.2	
<i>Eucalyptus delegatensis</i>	20	20	TG		20							
<i>Ozothamnus secundiflorus</i>	0.1	1	SG			0.1						

Veg Zone = PCT679 ExoticDomGrass			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THsgbsal9			27	20	2	3	3	12	0	0	7	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			99.7	43.3	2.3	4	26	11	0	0	56.4	1
<i>Acaena ovina</i>	2	100	FG					2				
<i>Rytidosperma penicillatum</i>	1	100	GG				1					
<i>Anthoxanthum odoratum</i>	50	2000	EX								50	
<i>Poa labillardierei</i>	20	500	GG				20					
<i>Trifolium repens</i>	1	100	EX								1	
<i>Lotus corniculatus</i>	0.3	20	EX								0.3	
<i>Acaena novae-zelandiae</i>	1	100	FG					1				
<i>Acetosella vulgaris</i>	1	100	HT									1
<i>Taraxacum officinale</i>	1	100	EX								1	
<i>Coronidium spp.</i>	0.5	50	FG					0.5				
<i>Hypochaeris radicata</i>	3	200	EX								3	
<i>Eucalyptus dalrympleana</i>	0.3	4	TG		0.3							
<i>Oxalis perennans</i>	1	100	FG					1				
<i>Hovea montana</i>	2	30	SG			2						
<i>Asperula scoparia</i>	0.3	20	FG					0.3				
<i>Veronica derwentiana</i>	0.1	3	FG					0.1				
<i>Geranium solanderi</i>	0.1	4	FG					0.1				
<i>Hydrocotyle laxiflora</i>	0.2	20	FG					0.2				
<i>Eucalyptus stellulata</i>	2	1	TG		2							
<i>Poa sieberiana</i> var. <i>sieberiana</i>	5	200	GG				5					
<i>Daviesia ulicifolia</i>	1	3	SG			1						
<i>Microseris lanceolata</i>	0.3	10	FG					0.3				
<i>Bossiaea foliosa</i>	1	2	SG			1						
<i>Dianella tasmanica</i>	0.2	3	FG					0.2				
<i>Tragopogon porrifolius</i>	0.1	1	EX								0.1	
<i>Senecio gunnii</i>	5	500	FG					5				
<i>Podolepis robusta</i>	0.3	20	FG					0.3				

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: THbbog14			18	14	0	6	6	2	0	0	4	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			145.5	137.3	0	97	39	1.3	0	0	8.2	2
Baeckea gunniana	75	1000	SG			75						
Carex gaudichaudiana	3	200	GG				3					
Carex appressa	15	300	GG				15					
Carex inversa	1	100	GG				1					
Epilobium billardierianum subsp. cinereum	0.3	20	FG					0.3				
Lotus corniculatus	1	300	EX								1	
Hakea microcarpa	10	100	SG			10						
Acaena ovina	1	100	FG					1				
Acetosella vulgaris	2	300	HT									2
Rubus ulmifolius	0.2	10	EX								0.2	
Rubus parvifolius	1	30	SG			1						
Anthoxanthum odoratum	5	500	EX								5	
Empodisma minus	5	500	GG				5					
Callistemon pityoides	5	20	SG			5						
Epacris microphylla	3	20	SG			3						
Poa labillardierei	5	150	GG				5					
Epacris paludosa	3	20	SG			3						
Poa costiniana	10	200	GG				10					

Appendix B-2
Thredbo Village
sub-precinct mapping



Snowy SAP - Field Survey Effort

Figure B.1

Thredbo Village sub-precinct
Alpine SEPP Sub-precinct

Legend

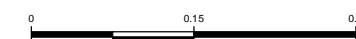
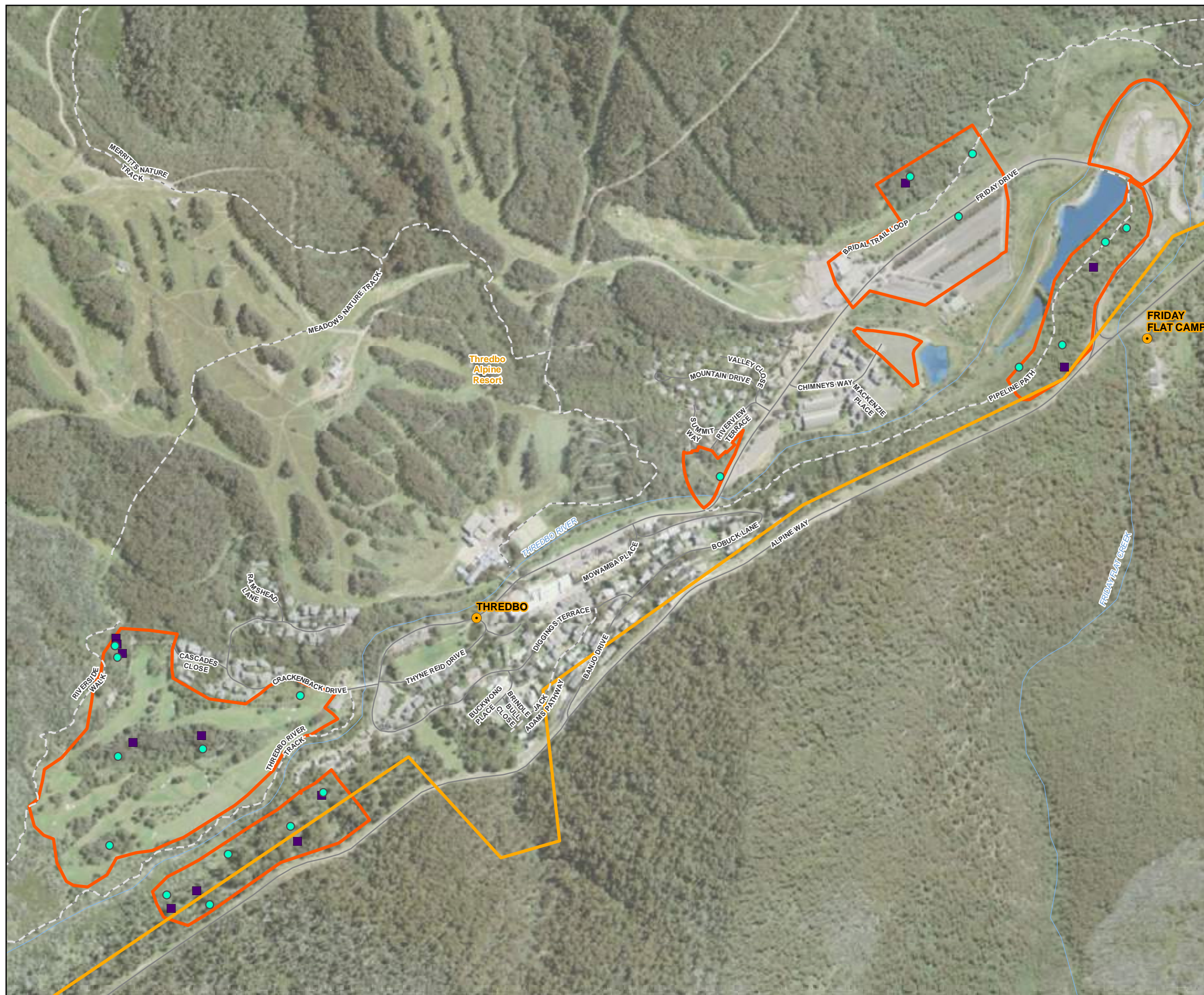
- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Field Suvey Effort

- BAM Plot

Fauna Habitat Assessment Sites

- Camera trap



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:7,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure B.2

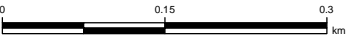
Thredbo Village sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 679, Exotic dominant grassland
- PCT 679, Revegetation
- PCT 679, Car Park Trees
- PCT 679, Moderate
- PCT 679, Good
- PCT 679, Poor
- PCT 679, Shrubland
- PCT 637, Good
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:7,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure B.3

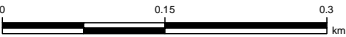
Thredbo Village sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Threatened Ecological Communities

- Monaro Tableland Cool Temperate Grassy Woodland in The South Eastern Highlands Bioregion
- Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:7,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - EPBC Act Listed Biodiversity

Figure B.4

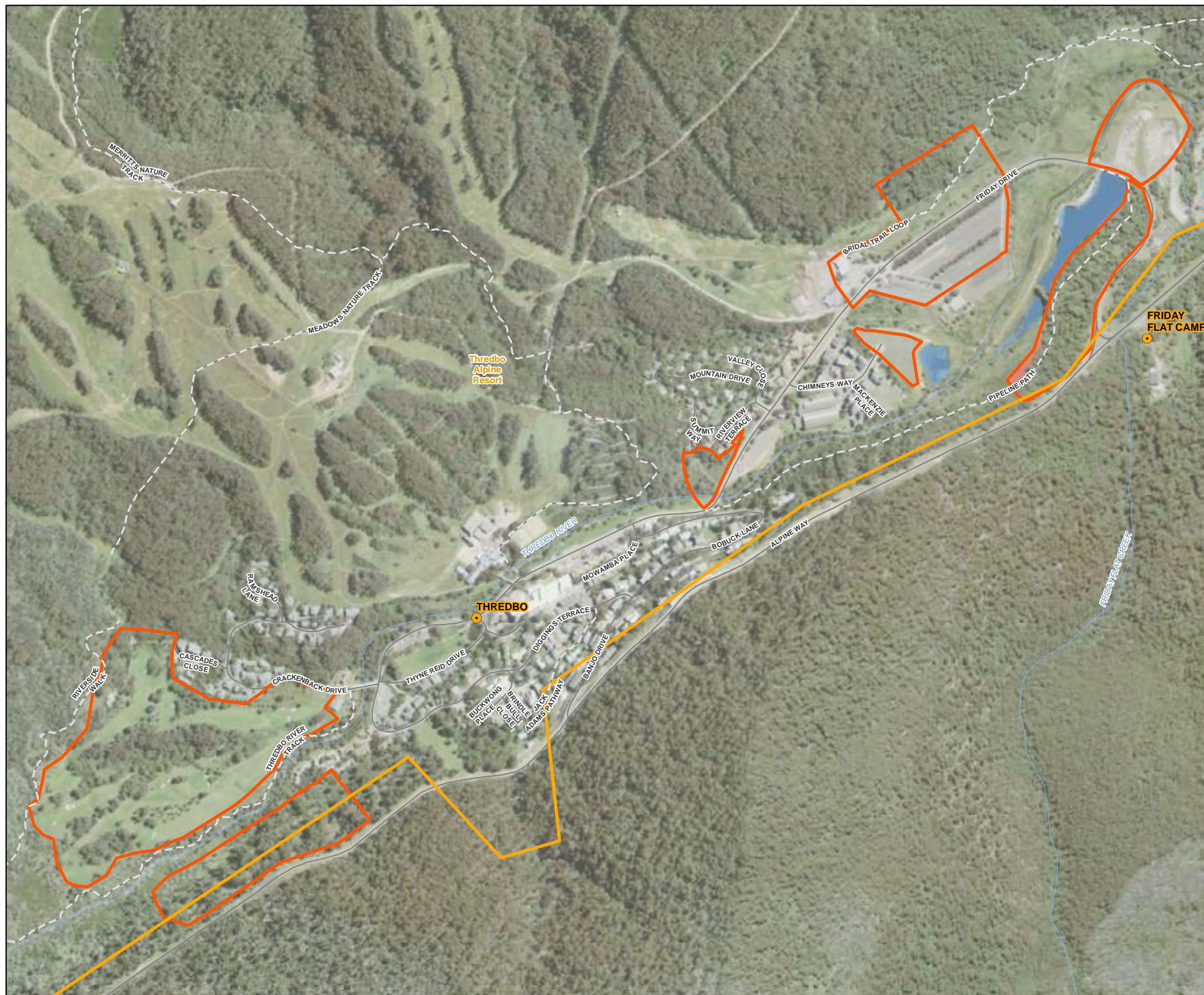
Thredbo Village sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Threatened Ecological Communities

- Alpine Sphagnum Bogs and Associated Fens



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

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Date: 18/02/2022

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Appendix B-3
Thredbo Village
BAM candidate species

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023687/BAAS17060/22/00031173	Thredbo Village	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	16/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Thesium australe</i> Austral Toadflax		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Eucalyptus aggregata</i> Black Gum		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<p><i>Mastacomys fuscus</i> Broad-toothed Rat</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Callocephalon fimbriatum</i> Gang-gang Cockatoo</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Leucochrysum albicans var. tricolor</i> Hoary Sunray</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Miniopterus orianae oceanensis</i> Large Bent-winged Bat</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Discaria nitida</i> Leafy Anchor Plant</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Hieraaetus morphnoides</i> Little Eagle</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Calotis glandulosa</i> Mauve Burr-daisy		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Petroica rodinogaster</i> Pink Robin		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Euphrasia scabra</i> Rough Eyebright		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Eucalyptus parvula</i> Small-leaved Gum		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne corroboree</i> Southern Corroboree Frog		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Monotoca rotundifolia</i> Trailing Monotoca		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<p><i>Haliaeetus leucogaster</i> White-bellied Sea-Eagle</p>		<table border="1"> <tr> <td><input type="checkbox"/> Jan</td> <td><input type="checkbox"/> Feb</td> <td><input type="checkbox"/> Mar</td> <td><input type="checkbox"/> Apr</td> </tr> <tr> <td><input type="checkbox"/> May</td> <td><input type="checkbox"/> Jun</td> <td><input checked="" type="checkbox"/> Jul</td> <td><input checked="" type="checkbox"/> Aug</td> </tr> <tr> <td><input checked="" type="checkbox"/> Sep</td> <td><input checked="" type="checkbox"/> Oct</td> <td><input checked="" type="checkbox"/> Nov</td> <td><input checked="" type="checkbox"/> Dec</td> </tr> </table> <p><input type="checkbox"/> Survey month outside the specified months?</p>	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr											
<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug											
<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec											

Threatened species Manually Added

None added

Appendix C

Thredbo Ranger Station sub-precinct



Appendix C-1
**Thredbo Ranger Station
sub-precinct survey data**

Veg Zone = PCT679 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: RSsgbsal21			32	28	3	10	2	13	0	0	4	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			146.7	86.1	55	19.6	5.1	6.4	0	0	60.6	0.2
<i>Eucalyptus pauciflora</i>	15	7	TG		15							
<i>Eucalyptus stellulata</i>	10	6	TG		10							
<i>Eucalyptus dalrympleana</i>	30	7	TG		30							
<i>Acrothamnus hookeri</i>	10	200	SG			10						
<i>Coronidium spp.</i>	0.3	10	FG					0.3				
<i>Daviesia ulicifolia</i>	1	10	SG			1						
<i>Anthoxanthum odoratum</i>	60	2000	EX								60	
<i>Asperula scoparia</i>	1	50	FG					1				
<i>Poa sieberiana</i> var. <i>sieberiana</i>	5	300	GG				5					
<i>Hakea microcarpa</i>	2	8	SG			2						
<i>Stellaria pungens</i>	0.3	20	FG					0.3				
<i>Brachyscome spathulata</i>	0.5	20	FG					0.5				
<i>Acaena novae-zelandiae</i>	3	300	FG					3				
<i>Tasmannia xerophila</i>	2	20	SG			2						
<i>Leptospermum myrtifolium</i>	2	3	SG			2						
<i>Hypochaeris radicata</i>	0.2	20	EX								0.2	
<i>Pratia pedunculata</i>	0.2	10	FG					0.2				
<i>Cynoglossum suaveolens</i>	0.1	4	FG					0.1				
<i>Senecio gunnii</i>	0.3	20	FG					0.3				
<i>Cassinia monticola</i>	0.2	3	SG			0.2						
<i>Asperula gunnii</i>	0.1	3	FG					0.1				
<i>Ranunculus lappaceus</i>	0.1	2	FG					0.1				
<i>Luzula flaccida</i>	0.1	2	GG				0.1					
<i>Hydrocotyle sibthorpioides</i>	0.2	50	FG					0.2				
<i>Bossiaea foliosa</i>	2	4	SG			2						
<i>Rubus parvifolius</i>	0.2	5	SG			0.2						
<i>Geranium solanderi</i>	0.2	10	FG					0.2				
<i>Senecio spp.</i>	0.1	2	FG					0.1				
<i>Trifolium repens</i>	0.2	20	EX								0.2	
<i>Olearia erubescens</i>	0.1	1	SG			0.1						
<i>Acetosella vulgaris</i>	0.2	10	HT									0.2
<i>Phebalium squamulosum</i> subsp. <i>alpinum</i>	0.1	1	SG			0.1						

Veg Zone = PCT679 Fire_Regen			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: RSblksal22			23	19	1	9	2	7	0	0	4	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			231.7	161.4	70	87.1	3	1.3	0	0	70.3	0.1
<i>Eucalyptus stellulata</i>	70	300	TG		70							
<i>Acrothamnus hookeri</i>	1	4	SG			1						
<i>Anthoxanthum odoratum</i>	70	2000	EX								70	
<i>Bossiaea foliosa</i>	80	1000	SG			80						
<i>Senecio gunnii</i>	0.2	6	FG					0.2				
<i>Acaena novae-zelandiae</i>	0.3	30	FG					0.3				
<i>Rubus parvifolius</i>	0.3	10	SG			0.3						
<i>Polyscias sambucifolia</i>	3	30	SG			3						
<i>Stellaria pungens</i>	0.1	3	FG					0.1				
<i>Asperula scoparia</i>	0.2	10	FG					0.2				
<i>Hydrocotyle laxiflora</i>	0.3	30	FG					0.3				
<i>Geranium solanderi</i>	0.1	2	FG					0.1				
<i>Olearia phlogopappa</i>	0.1	1	SG			0.1						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	2	20	GG				2					
<i>Pimelea pauciflora</i>	1	4	SG			1						
<i>Carex appressa</i>	1	3	GG				1					
<i>Tasmannia xerophila</i>	1	4	SG			1						
<i>Cassinia monticola</i>	0.2	1	SG			0.2						
<i>Coprosma hirtella</i>	0.5	1	SG			0.5						
<i>Acetosella vulgaris</i>	0.1	3	HT									0.1
<i>Hypochaeris radicata</i>	0.1	2	EX								0.1	
<i>Myosotis discolor</i>	0.1	1	EX								0.1	
<i>Geranium antrorsum</i>	0.1	3	FG					0.1				

Veg Zone = PCT679 Fire_Regen			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: RSblksal23			24	21	1	7	3	10	0	0	3	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			222.4	141.9	60	75.2	4.1	2.6	0	0	80.5	0.3
<i>Eucalyptus stellulata</i>	60	200	TG		60							
<i>Bossiaea foliosa</i>	70	1000	SG			70						
<i>Anthoxanthum odoratum</i>	80	2000	EX								80	
<i>Polyscias sambucifolia</i>	2	30	SG			2						
<i>Geranium solanderi</i>	0.3	20	FG					0.3				
<i>Pimelea pauciflora</i>	1	10	SG			1						
<i>Acaena novae-zelandiae</i>	1	50	FG					1				
<i>Poa labillardierei</i>	2	30	GG				2					
<i>Luzula densiflora</i>	0.1	3	GG				0.1					
<i>Oreomyrrhis eriopoda</i>	0.1	2	FG					0.1				
<i>Cassinia monticola</i>	0.5	3	SG			0.5						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	2	50	GG				2					
<i>Rubus parvifolius</i>	0.2	3	SG			0.2						
<i>Senecio gunnii</i>	0.2	5	FG					0.2				
<i>Acetosella vulgaris</i>	0.3	30	HT									0.3
<i>Dichondra repens</i>	0.3	100	FG					0.3				
<i>Acrothamnus hookeri</i>	0.5	4	SG			0.5						
<i>Coronidium</i> spp.	0.1	3	FG					0.1				
<i>Galium gaudichaudii</i>	0.1	1	FG					0.1				
<i>Asperula gunnii</i>	0.2	10	FG					0.2				
<i>Trifolium repens</i>	0.2	30	EX								0.2	
<i>Oxalis</i> spp.	0.1	3	FG					0.1				
<i>Stellaria pungens</i>	0.2	5	FG					0.2				
<i>Hakea microcarpa</i>	1	1	SG			1						

Veg Zone = PCT679 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: RSgrass24			31	28	1	4	8	15	0	0	3	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			147.9	117.5	0.2	60.2	53.6	3.5	0	0	30.4	0.2
<i>Hakea microcarpa</i>	5	4	SG			5						
<i>Pimelea pauciflora</i>	5	6	SG			5						
<i>Cassinia monticola</i>	50	300	SG			50						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	5	50	GG				5					
<i>Poa labillardierei</i>	20	200	GG				20					
<i>Ranunculus graniticola</i>	0.5	20	FG					0.5				
<i>Anthoxanthum odoratum</i>	30	500	EX								30	
<i>Poa phillipsiana</i>	3	30	GG				3					
<i>Craspedia aurantia</i>	0.1	2	FG					0.1				
<i>Carex appressa</i>	5	30	GG				5					
<i>Poranthera microphylla</i>	0.1	2	FG					0.1				
<i>Luzula densiflora</i>	0.3	20	GG				0.3					
<i>Scleranthus biflorus</i>	0.2	2	FG					0.2				
<i>Acetosella vulgaris</i>	0.2	30	HT									0.2
<i>Asperula gunnii</i>	0.1	4	FG					0.1				
<i>Dichondra repens</i>	0.3	100	FG					0.3				
<i>Hydrocotyle sibthorpioides</i>	0.2	20	FG					0.2				
<i>Geranium</i> spp.	0.1	4	FG					0.1				
<i>Leptorhynchos squamatus</i>	0.1	3	FG					0.1				
<i>Senecio gunnii</i>	0.2	2	FG					0.2				
<i>Veronica subtilis</i>	0.2	6	FG					0.2				
<i>Lagenifera stipitata</i>	0.2	4	FG					0.2				
<i>Euphrasia collina</i> subsp. <i>diversicolor</i>	1	1	FG					1				
<i>Trifolium repens</i>	0.2	30	EX								0.2	
<i>Pultenaea fasciculata</i>	0.2	1	SG			0.2						
<i>Poa costiniana</i>	20	300	GG				20					
<i>Eucalyptus stellulata</i>	0.2	2	TG		0.2							
<i>Epilobium billardierianum</i> subsp. <i>cinereum</i>	0.1	2	FG					0.1				
<i>Juncus</i> spp.	0.2	20	GG				0.2					
<i>Carex inversa</i>	0.1	5	GG				0.1					
<i>Acaena ovina</i>	0.1	2	FG					0.1				

Appendix C-2
**Thredbo Ranger Station
sub-precinct mapping**



Snowy SAP - Field Survey Effort

Figure C.1

Thredbo Ranger Station Sub-precinct
Alpine SEPP Sub-precinct

Legend

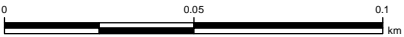
- Study Area
- Watercourse
- Roads

Field Suvey Effort

- BAM Plot
- Opportunistic bird survey

Fauna Habitat Assessment Sites

- Camera trap



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure C.2

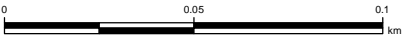
Thredbo Ranger Station Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 679, Fire regeneration
- PCT 679, Good
- PCT 679, Shrubland
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure C.3

Thredbo Ranger Station Sub-precinct
Alpine SEPP Sub-precinct

Legend

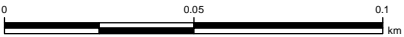
- Study Area
- Watercourse
- Roads

Threatened Fauna Species

- Gang-gang Cockatoo

Threatened Ecological Communities

- Monaro Tableland Cool Temperate
Grassy Woodland in The South
Eastern Highlands Bioregion



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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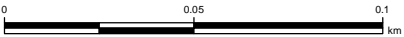
Snowy SAP - EPBC Act Listed Biodiversity

Figure C.4

Thredbo Ranger Station Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- Watercourse
- Roads



Coordinate system: GDA 1994 MGA Zone 55



Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix C-3
**Thredbo Ranger Station
BAM candidate species**

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023687/BAAS17060/22/00031172	Thredbo Ranger Station	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	16/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Thesium australe</i> Austral Toadflax		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Eucalyptus aggregata</i> Black Gum		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<i>Mastacomys fuscus</i> Broad-toothed Rat	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Callocephalon fimbriatum</i> Gang-gang Cockatoo	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Leucochrysum albicans var. tricolor</i> Hoary Sunray	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Miniopterus orianae oceanensis</i> Large Bent-winged Bat	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Discaria nitida</i> Leafy Anchor Plant	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Hieraaetus morphnoides</i> Little Eagle	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<i>Calotis glandulosa</i> Mauve Burr-daisy		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Petroica rodinogaster</i> Pink Robin		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Euphrasia scabra</i> Rough Eyebright		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Eucalyptus parvula</i> Small-leaved Gum		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne corroboree</i> Southern Corroboree Frog		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Monotoca rotundifolia</i> Trailing Monotoca		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<p><i>Haliaeetus leucogaster</i> White-bellied Sea-Eagle</p>		<table border="1"> <tr> <td><input type="checkbox"/> Jan</td> <td><input type="checkbox"/> Feb</td> <td><input type="checkbox"/> Mar</td> <td><input type="checkbox"/> Apr</td> </tr> <tr> <td><input type="checkbox"/> May</td> <td><input type="checkbox"/> Jun</td> <td><input checked="" type="checkbox"/> Jul</td> <td><input checked="" type="checkbox"/> Aug</td> </tr> <tr> <td><input checked="" type="checkbox"/> Sep</td> <td><input checked="" type="checkbox"/> Oct</td> <td><input checked="" type="checkbox"/> Nov</td> <td><input checked="" type="checkbox"/> Dec</td> </tr> </table> <p><input type="checkbox"/> Survey month outside the specified months?</p>	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr											
<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug											
<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec											

Threatened species Manually Added

None added

Appendix D

Perisher Village sub-precinct



Appendix D-1
Perisher Village
sub-precinct survey data

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherP11			31	26	0	5	7	13	1	0	5	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			107.7	106.3	0	17.4	87.5	1.3	0.1	0	1.4	0.2
<i>Acaena ovina</i>	0.1	20	FG					0.1				
<i>Achillea millefolium</i>	0.1	50	HT									0.1
<i>Anthoxanthum odoratum</i>	1	50	EX								1	
<i>Epacris petrophila</i>	0.2	20	SG			0.2						
<i>Acetosella vulgaris</i>	0.1	100	HT									0.1
<i>Astelia psychrocharis</i>	0.1	2	FG					0.1				
<i>Blechnum penna-marina</i>	0.1	5	EG						0.1			
<i>Brachyscome spathulata</i>	0.1	20	FG					0.1				
<i>Carex breviculmis</i>	0.2	100	GG				0.2					
<i>Carex gaudichaudiana</i>	0.2	50	GG				0.2					
<i>Cotula alpina</i>	0.1	1	FG					0.1				
<i>Dactylis glomerata</i>	0.1	50	EX								0.1	
<i>Empodisma minus</i>	5	10	GG				5					
<i>Epilobium billardierianum</i>	0.1	50	FG					0.1				
<i>Gonocarpus montanus</i>	0.1	10	FG					0.1				
<i>Ranunculus dissectifolius</i>	0.1	20	FG					0.1				
<i>Ranunculus graniticola</i>	0.1	30	FG					0.1				
<i>Hydrocotyle sibthorpioides</i>	0.1	10	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Luzula novae-cambriae</i>	0.1	10	GG				0.1					
<i>Olearia algida</i>	2	20	SG			2						
<i>Oreomyrrhis eriopoda</i>	0.1	50	FG					0.1				
<i>Pimelea alpina</i>	0.1	50	SG			0.1						
<i>Plantago euryphylla</i>	0.1	5	FG					0.1				
<i>Poa costiniana</i>	1	20	GG				1					
<i>Poa phillipsiana</i>	1	20	GG				1					
<i>Poa hiemata</i>	80	2000	GG				80					
<i>Richea continentis</i>	15	20	SG			15						
<i>Brachyscome spathulata</i>	0.1	10	FG					0.1				
<i>Viola fuscoviolacea</i>	0.1	10	FG					0.1				
<i>Epacris glacialis</i>	0.1	10	SG			0.1						

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI5			38	33	1	12	6	13	1	0	2	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			110.1	109.6	0.1	51.2	50.5	7.7	0.1	0	0.2	0.1
<i>Acaena novae-zelandiae</i>	0.1	20	FG					0.1				
<i>Acaena ovina</i>	0.1	5	FG					0.1				
<i>Epacris microphylla</i>	15	100	SG			15						
<i>Epacris breviflora</i>	0.1	20	SG			0.1						
<i>Acetosella vulgaris</i>	0.1	20	HT									0.1
<i>Asperula gunnii</i>	1	100	FG					1				
<i>Astelia alpina</i> var. <i>novae-hollandiae</i>	0.1	3	FG					0.1				
<i>Acaena novae-zelandiae</i>	0.1	3	FG					0.1				
<i>Chionochloa frigida</i>	0.1	2	GG				0.1					
<i>Blechnum penna-marina</i>	0.1	5	EG						0.1			
<i>Brachyscome spathulata</i>	0.1	20	FG					0.1				
<i>Asteraceae</i> spp.	0.1	20	FG					0.1				
<i>Cardamine lilacina</i>	0.1	20	FG					0.1				
<i>Carex breviculmis</i>	0.1	20	GG				0.1					
<i>Celmisia pugioniformis</i>	5	60	FG					5				
<i>Deyeuxia</i> spp.	0.1	20	GG				0.1					
<i>Empodisma minus</i>	10	20	GG				10					
<i>Eucalyptus pauciflora</i>	0.1	10	TG		0.1							
<i>Euchiton</i> spp.	0.5	50	FG					0.5				
<i>Grevillea australis</i>	5	20	SG			5						
<i>Hovea montana</i>	1	20	SG			1						
<i>Acrothamnus hookeri</i>	2	50	SG			2						
<i>Luzula</i> spp.	0.2	20	GG				0.2					
<i>Oreomyrrhis eriopoda</i>	0.1	2	FG					0.1				
<i>Oxylobium ellipticum</i>	5	50	SG			5						
<i>Olearia algida</i>	1	10	SG			1						
<i>Nematolepis ovatifolia</i>	15	50	SG			15						
<i>Pimelea biflora</i>	0.1	10	SG			0.1						
<i>Pimelea alpina</i>	5	50	SG			5						
<i>Plantago euryphylla</i>	0.1	1	FG					0.1				
<i>Poa costiniana</i>	40		GG				40					
<i>Podocarpus lawrencei</i>	1	1	SG			1						
<i>Richea continentis</i>	1	5	SG			1						
<i>Scleranthus biflorus</i>	0.3	30	FG					0.3				
<i>Brachyscome obovata</i>	0.1	20	FG									
<i>Asteraceae</i> spp. (<i>spathulate herb</i>)	0.1	10	FG									
<i>Stylidium graminifolium</i>	0.1	10	FG									
<i>Taraxacum officinale</i>	0.1	5	EX								0.1	

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI7			23	18	0	5	4	9	0	0	5	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			110.3	109.8	0	7.4	100.2	2.2	0	0	0.5	0.2
<i>Achillea millefolium</i>	0.1	20	HT									0.1
<i>Anthoxanthum odoratum</i>	0.1	20	EX								0.1	
<i>Acetosella vulgaris</i>	0.1	50	HT									0.1
<i>Astelia psychrocharis</i>	0.5	20	FG					0.5				
<i>Brachyscome spp.</i>	0.1	5	FG					0.1				
<i>Carex breviculmis</i>	0.1	50	GG				0.1					
<i>Celmisia pugioniformis</i>	1	50	FG					1				
<i>Epilobium billardierianum</i>	0.1	20	FG					0.1				
<i>Empodisma minus</i>	20	100	GG				20					
<i>Euchiton spp.</i>	0.1	20	FG					0.1				
<i>Grevillea australis</i>	5	50	SG			5						
<i>Ranunculus dissectifolius</i>	0.1	20	FG					0.1				
<i>Ranunculus graniticola</i>	0.1	20	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Acrothamnus hookeri</i>	0.1	20	SG			0.1						
<i>Brachyscome obovata</i>	0.1	10	FG					0.1				
<i>Erigeron sp.</i>	0.1	10	EX								0.1	
<i>Luzula spp.</i>	0.1	20	GG				0.1					
<i>Ozothamnus hookeri</i>	2	100	SG			2						
<i>Pimelea biflora</i>	0.2	20	SG			0.2						
<i>Pimelea alpina</i>	0.1	50	SG			0.1						
<i>Poa costiniana</i>	80	1000	GG				80					
<i>Brachyscome spathulata</i>	0.1	20	FG					0.1				

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI19			38	29	0	10	7	12	0	0	6	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			116.6	102.1	0	73.7	27.3	1.1	0	0	12.3	0.2
<i>Microseris lanceolata</i>	0.1	20	FG					0.1				
<i>Poranthera microphylla</i>	0.1	5	FG					0.1				
<i>Achillea millefolium</i>	0.1	40	HT									0.1
<i>Acaena novae-zelandiae</i>	0.1	50	FG					0.1				
<i>Anthoxanthum odoratum</i>	10	200	EX								10	
<i>Acetosella vulgaris</i>	0.1	20	HT									0.1
<i>Asperula gunnii</i>	0.1	50	FG					0.1				
<i>Asperula pusilla</i>	0	20	FG					0				
<i>Asteraceae spp.</i>	0.1	20	FG					0.1				
<i>Carex breviculmis</i>	0.1	20	GG				0.1					
<i>Carex gaudichaudiana</i>	0.1	10	GG				0.1					
<i>Dactylis glomerata</i>	2	50	EX								2	
<i>Empodisma minus</i>	5	100	GG				5					
<i>Epilobium billardierianum</i>	0.1	10	FG					0.1				
<i>Festuca rubra</i>	0.1	20	EX								0.1	
<i>Forb sp. (no flowers or seed)</i>	0.1	10	FG					0.1				
<i>Grevillea australis</i>	30	50	SG			30						
<i>Ranunculus graniticola</i>	0.1	50	FG					0.1				
<i>Hovea montana</i>	0.1	10	SG			0.1						
<i>Luzula novae-cambriae</i>	0.1	10	GG				0.1					
<i>Olearia phlogopappa subsp. flavescens</i>	1	10	SG			1						
<i>Oreomyrrhis eriopoda</i>	0.1	50	FG					0.1				
<i>Oxylobium ellipticum</i>	2	20	SG			2						
<i>Ozothamnus hookeri</i>	10	40	SG			10						
<i>Pentachondra pumila</i>	0.1	2	SG			0.1						
<i>Pimelea alpina</i>	0.2	20	SG			0.2						
<i>Pimelea biflora</i>	0.1	20	SG			0.1						
<i>Plantago euryphylla</i>	0.1	10	FG					0.1				
<i>Poa fawcettiae</i>	1	50	GG				1					
<i>Poa phillipsiana</i>	20	1000	GG				20					
<i>Podolepis robusta</i>	0.1	10	FG					0.1				
<i>Poa spp.</i>	1	10	GG				1					
<i>Prostanthera cuneata</i>	0.2	10	SG			0.2						
<i>Richea continentis</i>	30	200	SG			30						
<i>Scleranthus biflorus</i>	0.1	20	FG									
<i>Brachyscome obovata</i>	0.1	10	FG									
<i>Taraxacum officinale</i>	0	10	EX								0	
<i>Epacris glacialis</i>	2	20	SG									

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PVbog1			17	16	0	4	4	8	0	0	1	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			73.3	73.2	0	27.1	45.3	0.8	0	0	0.1	0
<i>Epacris breviflora</i>	1	100	SG			1						
<i>Richea continentis</i>	25	200	SG			25						
<i>Empodisma minus</i>	25	200	GG				25					
<i>Poa costiniana</i>	20	100	GG				20					
<i>Olearia algida</i>	1	100	SG			1						
<i>Linum marginale</i>	0.1	50	FG					0.1				
<i>Poranthera oreophila</i>	0.1	50	FG					0.1				
<i>Oreobolus distichus</i>	0.2	20	GG				0.2					
<i>Acaena novae-zelandiae</i>	0.1	10	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	1	EX								0.1	
<i>Craspedia aurantia</i>	0.1	10	FG					0.1				
<i>Neopaxia australasica</i>	0.1	10	FG					0.1				
<i>Brachyscome decipiens</i>	0.1	1	FG					0.1				
<i>Senecio gunnii</i>	0.1	1	FG					0.1				
<i>Cassinia monticola</i>	0.1	1	SG			0.1						
<i>Carex gaudichaudiana</i>	0.1	1	GG				0.1					
<i>Viola fuscoviolacea</i>	0.1	50	FG					0.1				

Veg Zone = PCT637 ExoticDomGrass			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI4			20	12	0	2	3	7	0	0	8	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			100.1	29	0	0.2	27.1	1.7	0	0	71.1	3
Achillea millefolium	1	50	HT									1
Anthoxanthum odoratum	5	100	EX								5	
Acetosella vulgaris	2	100	HT									2
Carex breviculmis	0.1	10	GG				0.1					
Dactylis glomerata	1	50	EX								1	
Geranium sp.	0.1	20	FG					0.1				
Epilobium billardierianum	0.2	20	FG					0.2				
Euchiton spp.	0.1	20	FG					0.1				
Brachyscome spathulata	0.1	5	FG					0.1				
Cerastium glomeratum	0.1	5	EX								0.1	
Grevillea australis	0.1	1	SG			0.1						
Ranunculus graniticola	1	50	FG					1				
Pimelea biflora	0.1	5	SG			0.1						
Festuca rubra	60	1000	EX								60	
Poa costiniana	25	100	GG				25					
Poa hiemata	2	10	GG				2					
Scleranthus biflorus	0.1	5	FG					0.1				
Brachyscome obovata	0.1	2	FG					0.1				
Taraxacum officinale	1	50	EX								1	
Trifolium repens	1	50	EX								1	

Veg Zone = PCT645 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI2			22	21	1	9	5	6	0	0	1	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			109.8	109.6	5	82.7	20.5	1.4	0	0	0.2	0.2
<i>Acaena novae-zelandiae</i>	0.1	30	FG					0.1				
<i>Acetosella vulgaris</i>	0.2	20	HT									0.2
<i>Asperula gunnii</i>	1	200	FG					1				
<i>Astelia alpina</i> var. <i>novae-hollandiae</i>	0.1	20	FG					0.1				
<i>Carex breviculmis</i>	0.2	100	GG				0.2					
<i>Chiloglottis</i> spp.	0.1	20	FG					0.1				
<i>Deyeuxia monticola</i>	0.1	10	GG				0.1					
<i>Geranium</i> sp.	0.1	10	FG					0.1				
<i>Eucalyptus pauciflora</i>	5	14	TG		5							
<i>Grevillea australis</i>	1	50	SG			1						
<i>Hovea montana</i>	5	200	SG			5						
<i>Luzula novae-cambriae</i>	0.1	10	GG				0.1					
<i>Olearia phlogopappa</i> subsp. <i>flavescens</i>	0.5	20	SG			0.5						
<i>Orites lancifolius</i>	15	100	SG			15						
<i>Oxylobium ellipticum</i>	10	50	SG			10						
<i>Nematolepis ovatifolia</i>	1	20	SG			1						
<i>Pimelea alpina</i>	0.1	20	SG			0.1						
<i>Poa hiemata</i>	20	200	GG				20					
<i>Prostanthera cuneata</i>	50	100	SG			50						
<i>Chionochloa frigida</i>	0.1	20	GG				0.1					
<i>Senecio gunnii</i>	0.1	20	FG					0.1				
<i>Tasmannia xerophila</i> subsp. <i>xerophila</i>	0.1	1	SG			0.1						

Veg Zone = PCT645 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI3			21	19	1	8	3	6	1	0	2	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			102.3	102	15	69.4	11.1	6.4	0.1	0	0.3	0.2
<i>Acetosella vulgaris</i>	0.2	50	HT									0.2
<i>Anthoxanthum odoratum</i>	0.1	50	EX								0.1	
<i>Asperula gunnii</i>	1	1000	FG					1				
<i>Carex breviculmis</i>	0.1	100	GG				0.1					
<i>Veronica derwentiana</i> subsp. <i>maideniana</i>	5	20	FG					5				
<i>Geranium</i> sp.	0.1	10	FG					0.1				
<i>Eucalyptus pauciflora</i>	15	8	TG		15							
<i>Orites lancifolius</i>	10	200	SG			10						
<i>Hovea montana</i>	2	200	SG			2						
<i>Olearia phlogopappa</i> subsp. <i>flavescens</i>	0.1	10	SG			0.1						
<i>Orchidaceae</i> spp.	0.1	1	FG					0.1				
<i>Oxylobium ellipticum</i>	2	50	SG			2						
<i>Pimelea alpina</i>	0.2	20	SG			0.2						
<i>Poa</i> spp.	10	200	GG				10					
<i>Podocarpus lawrencei</i>	0.1	1	SG			0.1						
<i>Polystichum proliferum</i>	0.1	1	EG						0.1			
<i>Prostanthera cuneata</i>	40	400	SG			40						
<i>Carex</i> spp.	1	200	GG				1					
<i>Senecio gunnii</i>	0.1	20	FG					0.1				
<i>Stellaria pungens</i>	0.1	20	FG					0.1				
<i>Tasmannia xerophila</i> subsp. <i>xerophila</i>	15	50	SG			15						

Veg Zone = PCT645 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI14			31	28	1	8	6	11	2	0	3	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			121.4	121.1	20	83.3	16.5	1.1	0.2	0	0.3	0.1
<i>Acetosella vulgaris</i>	0.1	20	HT									0.1
<i>Asperula gunnii</i>	0.1	100	FG					0.1				
<i>Asperula pusilla</i>	0.1	30	FG					0.1				
<i>Caladenia</i> spp.	0.1	3	FG					0.1				
<i>Carex breviculmis</i>	0.1	50	GG				0.1					
<i>Chiloglottis</i> spp.	0.1	1	FG					0.1				
<i>Deyeuxia</i> spp.	0.1	20	GG				0.1					
<i>Dianella tasmanica</i>	0.1	5	FG					0.1				
<i>Geranium antrorsum</i>	0.1	10	FG					0.1				
<i>Epilobium billardierianum</i>	0.1	20	FG					0.1				
<i>Eucalyptus pauciflora</i>	20	15	TG		20							
<i>Argyrotegium poliochlorum</i>	0.1	20	FG					0.1				
<i>Cyperaceae</i> spp.	1	300	GG				1					
<i>Hovea montana</i>	20	400	SG			20						
<i>Hypochaeris radicata</i>	0.1	4	EX								0.1	
<i>Ozothamnus alpinus</i>	0.1	10	SG			0.1						
<i>Oxylobium ellipticum</i>	1	10	SG			1						
<i>Pimelea ligustrina</i>	0.2	20	SG			0.2						
<i>Poa costiniana</i>	15	400	GG				15					
<i>Poa hiemata</i>	0.2	50	GG				0.2					
<i>Polystichum proliferum</i>	0.1	1	EG						0.1			
<i>Prostanthera cuneata</i>	30	400	SG			30						
<i>Senecio gunnii</i>	0.1	10	FG					0.1				
<i>Stellaria pungens</i>	0.1	50	FG					0.1				
<i>Tasmannia xerophila</i> subsp. <i>xerophila</i>	30	200	SG			30						
<i>Taraxacum officinale</i>	0.1	2	EX								0.1	
<i>Orites lancifolius</i>	1	5	SG			1						
<i>Lycopodium fastigiatum</i>	0.1	2	EG						0.1			
<i>Luzula</i> spp.	0.1	10	GG				0.1					
<i>Olearia phlogopappa</i> subsp. <i>flavescens</i>	1	10	SG			1						
<i>Chrysocephalum apiculatum</i>	0.1	10	FG					0.1				

Veg Zone = PCT645 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PNip1			33	26	1	9	2	14	0	0	7	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			59.1	58.4	40	8	7	3.4	0	0	0.7	0.2
<i>Eucalyptus niphophila</i>	40	20	TG		40							
<i>Olearia phlogopappa</i>	1	20	SG			1						
<i>Veronica derwentiana</i>	2	100	FG					2				
<i>Acaena novae-zelandiae</i>	0.1	100	FG					0.1				
<i>Ozothamnus thyrsoides</i>	0.2	5	SG			0.2						
<i>Prostanthera cuneata</i>	5	100	SG			5						
<i>Malus pumila</i>	0.1	2	EX								0.1	
<i>Cardamine lilacina</i>	0.1	2	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Poa sieberiana</i>	5	200	GG				5					
<i>Asperula gunnii</i>	0.1	100	FG					0.1				
<i>Achillea millefolium</i>	0.1	100	HT									0.1
<i>Acetosella vulgaris</i>	0.1	100	HT									0.1
<i>Oxylobium ellipticum</i>	1	100	SG			1						
<i>Craspedia aurantia</i>	0.1	20	FG					0.1				
<i>Hovea montana</i>	0.2	100	SG			0.2						
<i>Olearia brevipedunculata</i>	0.1	200	SG			0.1						
<i>Chrysocephalum apiculatum</i>	0.2	50	FG					0.2				
<i>Ozothamnus secundiflorus</i>	0.3	3	SG			0.3						
<i>Senecio prenanthoides</i>	0.1	10	FG					0.1				
<i>Dianella tasmanica</i>	0.1	30	FG					0.1				
<i>Tasmannia xerophila</i>	0.1	2	SG			0.1						
<i>Asperula pusilla</i>	0.1	20	FG					0.1				
<i>Asperula conferta</i>	0.1	20	FG					0.1				
<i>Pimelea alpina</i>	0.1	10	SG			0.1						
<i>Cerastium sp.</i>	0.1	1	EX								0.1	
<i>Celmisia longifolia</i>	0.1	50	FG					0.1				
<i>Dactylis glomerata</i>	0.1	10	EX								0.1	
<i>Crassula sieberiana</i>	0.1	1	FG					0.1				
<i>Geranium sessiliflorum subsp. brevicaule</i>	0.1	10	FG					0.1				
<i>Taraxacum officinale</i>	0.1	1	EX								0.1	
<i>Poa hiemata</i>	2	100	GG				2					
<i>Oreomyrrhis eriopoda</i>	0.1	5	FG					0.1				

Veg Zone = PCT645 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI9			22	21	1	9	4	7	0	0	1	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			104.9	104.4	1	92.4	10.3	0.7	0	0	0.5	0.5
<i>Acetosella vulgaris</i>	0.5	200	HT									0.5
<i>Asperula gunnii</i>	0.1	20	FG					0.1				
<i>Asperula pusilla</i>	0.1	20	FG					0.1				
<i>Carex breviculmis</i>	0.1	50	GG				0.1					
<i>Cyperaceae spp.</i>	0.1	20	GG				0.1					
<i>Asteraceae spp.</i>	0.1	10	FG					0.1				
<i>Deyeuxia spp.</i>	0.1	20	GG				0.1					
<i>Geranium spp.</i>	0.1	20	FG					0.1				
<i>Eucalyptus niphophila</i>	1	4	TG		1							
<i>Grevillea australis</i>	0.1	5	SG			0.1						
<i>Olearia phlogopappa subsp. flavescens</i>	0.1	20	SG			0.1						
<i>Hovea montana</i>	5	100	SG			5						
<i>Melicytus angustifolius subsp. divaricatus</i>	0.1	20	SG			0.1						
<i>Cassinia monticola</i>	0.1	3	SG			0.1						
<i>Asteraceae spp.</i>	0.1	20	FG					0.1				
<i>Oxylobium ellipticum</i>	1	20	SG			1						
<i>Nematolepis ovatifolia</i>	5	30	SG			5						
<i>Pimelea alpina</i>	1	50	SG			1						
<i>Poa costiniana</i>	10	200	GG				10					
<i>Prostanthera cuneata</i>	80	300	SG			80						
<i>Senecio gunnii</i>	0.1	20	FG					0.1				
<i>Scleranthus biflorus</i>	0.1	20	FG					0.1				

Veg Zone = PCT645 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI23			18	17	1	10	3	3	0	0	1	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			125.9	125.8	0.1	122.2	3.2	0.3	0	0	0.1	0.1
<i>Acaena novae-zelandiae</i>	0.1	40	FG					0.1				
<i>Acetosella vulgaris</i>	0.1	100	HT									0.1
<i>Asperula pusilla</i>	0.1	40	FG					0.1				
<i>Carex breviculmis</i>	0.1	20	GG				0.1					
<i>Eucalyptus niphophila</i>	0.1	3	TG		0.1							
<i>Grevillea australis</i>	2	100	SG			2						
<i>Cassinia monticola</i>	0.1	20	SG			0.1						
<i>Hovea montana</i>	10	200	SG			10						
<i>Melicytus angustifolius subsp. divaricatus</i>	0.1	20	SG			0.1						
<i>Olearia brevipedunculata</i>	2	50	SG			2						
<i>Oxylobium ellipticum</i>	20	300	SG			20						
<i>Ozothamnus hookeri</i>	1	100	SG			1						
<i>Nematolepis ovatifolia</i>	15	300	SG			15						
<i>Pimelea alpina</i>	2	200	SG			2						
<i>Poa phillipsiana</i>	0.1	20	GG				0.1					
<i>Poa costiniana</i>	3	40	GG				3					
<i>Prostanthera cuneata</i>	70	2000	SG			70						
<i>Scleranthus biflorus</i>	0.1	10	FG					0.1				

Veg Zone = PCT645 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PShrub1			22	19	0	7	2	10	0	0	3	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			72.4	72.1	0	45.6	25.1	1.4	0	0	0.3	0.2
<i>Prostanthera cuneata</i>	20	100	SG			20						
<i>Oxylobium ellipticum</i>	20	50	SG			20						
<i>Poa sieberiana</i>	25	200	GG				25					
<i>Craspedia aurantia</i>	0.5	10	FG					0.5				
<i>Asperula pusilla</i>	0.1	50	FG					0.1				
<i>Achillea millefolium</i>	0.1	1	HT									0.1
<i>Luzula novae-cambriae</i>	0.1	20	GG				0.1					
<i>Pimelea alpina</i>	0.1	10	SG			0.1						
<i>Acetosella vulgaris</i>	0.1	20	HT									0.1
<i>Grevillea australis</i>	0.3	10	SG			0.3						
<i>Ranunculus graniticola</i>	0.1	20	FG					0.1				
<i>Olearia algida</i>	0.1	1	SG			0.1						
<i>Scleranthus biflorus</i>	0.1	1	FG					0.1				
<i>Euphrasia collina subsp. diversicolor</i>	0.1	10	FG					0.1				
<i>Brachyscome spathulata</i>	0.1	10	FG					0.1				
<i>Oreomyrrhis eriopoda</i>	0.1	2	FG					0.1				
<i>Aciphylla simplicifolia</i>	0.1	2	FG					0.1				
<i>Euchiton spp.</i>	0.1	5	FG					0.1				
<i>Nematolepis ovatifolia</i>	5	10	SG			5						
<i>Melicytus angustifolius subsp. divaricatus</i>	0.1	1	SG			0.1						
<i>Festuca rubra</i>	0.1	2	EX								0.1	
<i>Chrysocephalum apiculatum</i>	0.1	10	FG					0.1				

Veg Zone = PCT645 Dieback			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI17			38	29	1	11	5	10	2	0	7	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			106.5	97.8	5	90.2	0.5	1.9	0.2	0	5.6	0.2
<i>Achillea millefolium</i>	0.1	100	HT									0.1
<i>Acaena novae-zelandiae</i>	0.1	50	FG					0.1				
<i>Anthoxanthum odoratum</i>	0.1	20	EX								0.1	
<i>Asteraceae spp.</i>	0.1	20	FG					0.1				
<i>Acetosella vulgaris</i>	0.1	100	HT									0.1
<i>Asperula gunnii</i>	0.1	50	FG					0.1				
<i>Asperula pusilla</i>	0.1	50	FG					0.1				
<i>Carex breviculmis</i>	0.1	20	GG				0.1					
<i>Chrysocephalum apiculatum</i>	0.1	20	FG					0.1				
<i>Dactylis glomerata</i>	5	100	EX								5	
<i>Eucalyptus pauciflora</i>	5	1	TG		5							
<i>Geranium potentilloides</i>	0.1	20	FG					0.1				
<i>Cyperaceae spp.</i>	0.1	20	GG				0.1					
<i>Grevillea australis</i>	3	10	SG			3						
<i>Hovea montana</i>	25	100	SG			25						
<i>Hypochaeris radicata</i>	0.1	10	EX								0.1	
<i>Brachyscome obovata</i>	0.1	20	FG					0.1				
<i>Luzula spp.</i>	0.1	20	GG				0.1					
<i>Lycopodium fastigiatum</i>	0.1	10	EG						0.1			
<i>Olearia brevipedunculata</i>	0.1	20	SG			0.1						
<i>Olearia phlogopappa subsp. flavescens</i>	4	100	SG			4						
<i>Cassinia monticola</i>	5	100	SG			5						
<i>Oreomyrrhis eriopoda</i>	0.1	20	FG					0.1				
<i>Olearia algida</i>	5	40	SG			5						
<i>Nematolepis ovatifolia</i>	5	20	SG			5						
<i>Pimelea alpina</i>	1	20	SG			1						
<i>Pimelea ligustrina</i>	0.1	20	SG			0.1						
<i>Poa phillipsiana</i>	0.1	10	GG				0.1					
<i>Poa costiniana</i>	0.1	10	GG				0.1					
<i>Polystichum proliferum</i>	0.1	10	EG						0.1			
<i>Prostanthera cuneata</i>	40	300	SG			40						
<i>Richea continentis</i>	2	1	SG			2						
<i>Scleranthus biflorus</i>	1	20	FG					1				
<i>Senecio gunnii</i>	0.1	20	FG					0.1				
<i>Stellaria pungens</i>	0.1	20	FG									
<i>Tasmannia xerophila subsp. xerophila</i>	3	20	SG									
<i>Taraxacum officinale</i>	0.1	10	EX								0.1	
<i>Trifolium repens</i>	0.1	20	EX								0.1	

Veg Zone = PCT645 Dieback			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI21			29	27	1	10	4	11	1	0	2	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			130.3	130.1	20	86.7	22.2	1.1	0.1	0	0.2	0
<i>Asperula gunnii</i>	0.1	200	FG					0.1				
<i>Asperula pusilla</i>	0.1	200	FG					0.1				
<i>Astelia alpina</i> var. <i>novae-hollandiae</i>	0.1	10	FG					0.1				
<i>Chiloglottis</i> spp.	0.1	1	FG					0.1				
<i>Coprosma quadrifida</i>	0.1	10	SG			0.1						
<i>Coronidium scorpioides</i>	0.1	20	FG					0.1				
<i>Crassula sieberiana</i>	0.1	10	FG					0.1				
<i>Dactylis glomerata</i>	0.1	20	EX								0.1	
<i>Deyeuxia crassiuscula</i>	0.1	20	GG				0.1					
<i>Eucalyptus niphophila</i>	20	50	TG		20							
<i>Asteraceae</i> spp.	0.1	20	FG					0.1				
<i>Gonocarpus montanus</i>	0.1	10	FG					0.1				
<i>Ozothamnus alpinus</i>	0.1	20	SG			0.1						
<i>Hovea montana</i>	10	200	SG			10						
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Cyperaceae</i> spp.	0.1	100	GG				0.1					
<i>Olearia phlogopappa</i> subsp. <i>flavescens</i>	0.5	100	SG			0.5						
<i>Olearia brevipedunculata</i>	5	50	SG			5						
<i>Oreomyrrhis</i> spp.	0.1	20	FG					0.1				
<i>Oxylobium ellipticum</i>	5	100	SG			5						
<i>Orites lancifolius</i>	5	30	SG			5						
<i>Nematolepis ovatifolia</i>	1	50	SG			1						
<i>Poa fawcettiae</i>	2	50	GG				2					
<i>Poa hiemata</i>	20	200	GG				20					
<i>Polystichum proliferum</i>	0.1	1	EG						0.1			
<i>Prostanthera cuneata</i>	50	1000	SG			50						
<i>Senecio gunnii</i>	0.1	100	FG					0.1				
<i>Cotula alpina</i>	0.1	5	FG					0.1				
<i>Tasmannia xerophila</i> subsp. <i>xerophila</i>	10	100	SG			10						

Veg Zone = PCT645 Dieback			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI25			29	21	1	10	3	6	1	0	8	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			110.5	103.9	10	77.1	15.2	1.5	0.1	0	6.6	0.2
<i>Achillea millefolium</i>	0.1	40	HT									0.1
<i>Acaena novae-zelandiae</i>	0.1	20	FG					0.1				
<i>Acetosella vulgaris</i>	0.1	100	HT									0.1
<i>Asperula gunnii</i>	0.1	200	FG					0.1				
<i>Asperula pusilla</i>	0.1	50	FG					0.1				
<i>Carex breviculmis</i>	0.1	20	GG				0.1					
<i>Dactylis glomerata</i>	5	300	EX								5	
<i>Eucalyptus pauciflora</i>	10	50	TG		10							
<i>Festuca rubra</i>	0.1	100	EX								0.1	
<i>Geranium potentilloides</i>	1	50	FG					1				
<i>Cassinia monticola</i>	10	500	SG			10						
<i>Hovea montana</i>	2	100	SG			2						
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Cyperaceae spp.</i>	0.1	100	GG				0.1					
<i>Malus pumila</i>	1	50	EX								1	
<i>Olearia algida</i>	1	20	SG			1						
<i>Olearia phlogopappa subsp. flavescens</i>	5	100	SG			5						
<i>Olearia brevipedunculata</i>	30	500	SG			30						
<i>Oreomyrrhis eriopoda</i>	0.1	100	FG					0.1				
<i>Oxylobium ellipticum</i>	2	50	SG			2						
<i>Nematolepis ovatifolia</i>	2	50	SG			2						
<i>Pimelea ligustrina</i>	0.1	5	SG			0.1						
<i>Poa costiniana</i>	15	300	GG				15					
<i>Polystichum proliferum</i>	0.1	1	EG						0.1			
<i>Prostanthera cuneata</i>	5	100	SG			5						
<i>Senecio gunnii</i>	0.1	100	FG					0.1				
<i>Tasmania xerophila subsp. xerophila</i>	20	100	SG			20						
<i>Taraxacum officinale</i>	0.1	10	EX								0.1	
<i>Trifolium repens</i>	0.1	20	EX								0.1	

Veg Zone = PCT645 Dieback			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI26			27	22	1	11	3	7	0	0	5	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			115.3	114.8	10	103.8	0.3	0.7	0	0	0.5	0.1
<i>Acaena novae-zelandiae</i>	0.1	50	FG					0.1				
<i>Acetosella vulgaris</i>	0.1	100	HT									0.1
<i>Asperula gunnii</i>	0.1	100	FG					0.1				
<i>Asperula pusilla</i>	0.1	100	FG					0.1				
<i>Carex breviculmis</i>	0.1	20	GG				0.1					
<i>Cirsium vulgare</i>	0.1	1	EX								0.1	
<i>Dactylis glomerata</i>	0.1	20	EX								0.1	
<i>Epilobium billardierianum</i>	0.1	20	FG					0.1				
<i>Eucalyptus pauciflora</i>	10	30	TG		10							
<i>Geranium potentilloides</i>	0.1	100	FG					0.1				
<i>Cyperaceae spp.</i>	0.1	100	GG				0.1					
<i>Grevillea australis</i>	1	10	SG			1						
<i>Argyrotegium poliochlorum</i>	0.1	20	FG					0.1				
<i>Hovea montana</i>	0.5	50	SG			0.5						
<i>Malus pumila</i>	0.1	20	EX								0.1	
<i>Melicytus angustifolius subsp. divaricatus</i>	0.1	2	SG			0.1						
<i>Olearia phlogopappa subsp. flavescens</i>	0.1	20	SG			0.1						
<i>Olearia brevipedunculata</i>	5	30	SG			5						
<i>Oxylobium ellipticum</i>	1	20	SG			1						
<i>Ozothamnus alpinus</i>	3	50	SG			3						
<i>Nematolepis ovatifolia</i>	1	10	SG			1						
<i>Pimelea ligustrina</i>	0.1	10	SG			0.1						
<i>Poa costiniana</i>	0.1	20	GG				0.1					
<i>Prostanthera cuneata</i>	90	1500	SG			90						
<i>Senecio gunnii</i>	0.1	20	FG					0.1				
<i>Tasmannia xerophila subsp. xerophila</i>	2	20	SG			2						
<i>Taraxacum officinale</i>	0.1	1	EX								0.1	

Veg Zone = PCT645 Dieback			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI27			25	21	1	10	4	5	1	0	4	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			117.8	117.4	5	81.6	30.2	0.5	0.1	0	0.4	0.2
<i>Achillea millefolium</i>	0.1	100	HT									0.1
<i>Acaena novae-zelandiae</i>	0.1	50	FG					0.1				
<i>Acetosella vulgaris</i>	0.1	100	HT									0.1
<i>Asperula gunnii</i>	0.1	30	FG					0.1				
<i>Asperula pusilla</i>	0.1	100	FG					0.1				
<i>Carex breviculmis</i>	0.1	50	GG				0.1					
<i>Dactylis glomerata</i>	0.1	50	EX								0.1	
<i>Eucalyptus pauciflora</i>	5	30	TG		5							
<i>Grevillea australis</i>	2	20	SG			2						
<i>Olearia algida</i>	3	50	SG			3						
<i>Hovea montana</i>	25	200	SG			25						
<i>Cyperaceae spp.</i>	0.1	100	GG				0.1					
<i>Malus pumila</i>	0.1	10	EX								0.1	
<i>olearia phlogopapa var subrepanda</i>	10	200	SG			10						
<i>Oreomyrrhis spp.</i>	0.1	10	FG					0.1				
<i>Oxylobium ellipticum</i>	10	200	SG			10						
<i>Nematolepis ovatifolia</i>	1	20	SG			1						
<i>Pimelea alpina</i>	0.5	10	SG			0.5						
<i>Poa costiniana</i>	5	100	GG				5					
<i>Poa phillipsiana</i>	25	200	GG				25					
<i>Podocarpus lawrencei</i>	0.1	1	SG			0.1						
<i>Podolepis spp.</i>	0.1	20	FG					0.1				
<i>Polystichum proliferum</i>	0.1	1	EG						0.1			
<i>Prostanthera cuneata</i>	25	200	SG			25						
<i>Tasmannia xerophila subsp. xerophila</i>	5	100	SG			5						

Veg Zone = PCT645 Disturbed	30 Nov 2021	10:31 AM	Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
	PE10		# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI10			19	10	0	4	3	3	0	0	9	2
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			89.7	7.2	0	1.3	5.2	0.7	0	0	82.5	0.6
<i>Prostanthera cuneata</i>	1	3	SG			1						
<i>Conium maculatum</i>	0.1	2	EX								0.1	
<i>Grevillea Australis</i>	0.1	1	SG			0.1						
<i>Olearia erubescens</i>	0.1	2	SG			0.1						
<i>Pop sp. sieberiana? No seed heads</i>	5	50	GG				5					
<i>Acetosella vulgaris</i>	0.2	25	HT									0.2
<i>Carex breviculmis</i>	0.1	5	GG				0.1					
<i>Trifolium repens</i>	0.4	50	EX								0.4	
<i>Taraxacum officinale</i>	0.1	10	EX								0.1	
<i>Ranunculus graniticola</i>	0.1	2	FG					0.1				
<i>Achillea millefolium</i>	0.4	700	HT									0.4
<i>Festuca rubra</i>	80	2000	EX								80	
<i>Holcus lanatus</i>	0.2	10	EX								0.2	
<i>Hypochaeris radicata</i>	1	100	EX								1	
<i>Luzula novae-cambriae</i>	0.1	2	GG				0.1					
<i>cerastium glomeratum</i>	0.1	10	EX								0.1	
<i>Cassinia monticola</i>	0.1	1	SG			0.1						
<i>Oreomyrrhis eriopoda</i>	0.1	5	FG					0.1				
<i>Chrysocephalum apiculatum</i>	0.5	100	FG					0.5				

Veg Zone = PCT645 ExoticDomGrass			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI6			17	8	0	2	3	3	0	0	9	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			100	4.5	0	1.1	3.1	0.3	0	0	95.5	0.2
Achillea millefolium	0.1	100	HT									0.1
Acetosella vulgaris	0.1	10	HT									0.1
Carex breviculmis	0.1	10	GG				0.1					
Dactylis glomerata	2	50	EX								2	
Geranium spp.	0.1	20	FG					0.1				
Festuca rubra	90	1000	EX								90	
Hovea montana	0.1	1	SG			0.1						
Ranunculus graniticola	0.1	20	FG					0.1				
Hypochaeris radicata	0.1	20	EX								0.1	
Narcissus pseudonarcissus	0.1	20	EX								0.1	
Poa annua	1	100	EX								1	
Poa fawcettiae	1	20	GG				1					
Poa costiniana	2	20	GG				2					
Prostanthera cuneata	1	10	SG			1						
Scleranthus biflorus	0.1	20	FG					0.1				
Taraxacum officinale	0.1	20	EX								0.1	
Trifolium repens	2	50	EX								2	

Veg Zone = PCT645 ExoticDomGrass			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI8			14	4	0	0	1	3	0	0	10	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			103.9	1.3	0	0	1	0.3	0	0	102.6	1.2
Achillea millefolium	0.2	200	HT									0.2
Alopecurus pratensis	10	1000	EX								10	
Acetosella vulgaris	1	100	HT									1
Dactylis glomerata	5	1000	EX								5	
Geranium spp.	0.1	20	FG					0.1				
Euchiton spp.	0.1	10	FG					0.1				
Festuca rubra	85	2000	EX								85	
Cerastium glomeratum	0.1	5	EX								0.1	
Ranunculus graniticola	0.1	5	FG					0.1				
Narcissus pseudonarcissus	0.1	2	EX								0.1	
Poa costiniana	1	20	GG				1					
Poa pratensis	1	10	EX								1	
Taraxacum officinale	0.1	20	EX								0.1	
Trifolium repens	0.1	200	EX								0.1	

Veg Zone = PCT645 ExoticDomGrass	30 Nov 2021	2:31 PM	Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
	PE20		# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI20			19	12	0	5	4	3	0	0	7	2
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			110.8	9.5	0	3	6.2	0.3	0	0	101.3	2.2
<i>Festuca rubra</i>	25	2000	EX								25	
<i>Dactylis glomerata</i>	70	2000	EX								70	
<i>Poa sp. costiniana? No seed heads</i>	5	50	GG				5					
<i>Grevillea Australis</i>	2	20	SG			2						
<i>Hovea Montana</i>	0.5	5	SG			0.5						
<i>Acetosella vulgaris</i>	2	200	HT									2
<i>Nematolepis ovatifolia</i>	0.2	5	SG			0.2						
<i>Hypochaeris radicata</i>	2	20	EX								2	
<i>Poa sieberiana</i>	1	10	GG				1					
<i>Ranunculus graniticola</i>	0.1	1	FG					0.1				
<i>Taraxacum officinale</i>	0.1	10	EX								0.1	
<i>Olearia brevipedunculata</i>	0.2	3	SG			0.2						
<i>Carex breviculmis</i>	0.1	10	GG				0.1					
<i>Achillea millefolium</i>	0.2	20	HT									0.2
<i>Pimelea axiflora</i>	0.1	1	SG			0.1						
<i>Acaena novae-zelandiae</i>	0.1	70	FG					0.1				
<i>Scleranthus singuliflorus</i>	0.1	1	FG					0.1				
<i>Luzula sp.</i>	0.1	2	GG				0.1					
<i>Trifolium repens</i>	2	200	EX								2	

Veg Zone = PCT645 ExoticDomGrass	30 Nov 2021	2:51 PM	Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
	PE22		# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI22			15	8	0	4	2	2	0	0	7	2
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			113.2	39.7	0	13.1	26	0.6	0	0	73.5	1.5
Nematolepis ovatifolia	1	10	SG			1						
Grevillea australis	2	20	SG			2						
Olearia algida	10	200	SG			10						
Melicytus angustifolius	0.1	3	SG			0.1						
Poa sp. costiniana? no seed head	25	2000	GG				25					
Brachyscome scapigera	0.5	100	FG					0.5				
Empodisma minus	1	1000	GG				1					
Acetosella vulgaris	1	500	HT									1
Ranunculus graniticola	0.1	1	FG					0.1				
Festuca rubra	70	2000	EX								70	
Trifolium repens	0.4	5	EX								0.4	
Achillea millefolium	0.5	200	HT									0.5
Taraxacum officinale	1	10	EX								1	
Dactylis glomerata	0.5	5	EX								0.5	
Hypochaeris radicata	0.1	10	EX								0.1	

Veg Zone = MISC Veg Poor			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI4			20	12	0	2	3	7	0	0	8	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			100.1	29	0	0.2	27.1	1.7	0	0	71.1	3
<i>Achillea millefolium</i>	1	50	HT									1
<i>Anthoxanthum odoratum</i>	5	100	EX								5	
<i>Acetosella vulgaris</i>	2	100	HT									2
<i>Carex breviculmis</i>	0.1	10	GG				0.1					
<i>Dactylis glomerata</i>	1	50	EX								1	
<i>Geranium sp.</i>	0.1	20	FG					0.1				
<i>Epilobium billardierianum</i>	0.2	20	FG					0.2				
<i>Euchiton spp.</i>	0.1	20	FG					0.1				
<i>Brachyscome spathulata</i>	0.1	5	FG					0.1				
<i>Cerastium glomeratum</i>	0.1	5	EX								0.1	
<i>Grevillea australis</i>	0.1	1	SG			0.1						
<i>Ranunculus graniticola</i>	1	50	FG					1				
<i>Pimelea biflora</i>	0.1	5	SG			0.1						
<i>Festuca rubra</i>	60	1000	EX								60	
<i>Poa costiniana</i>	25	100	GG				25					
<i>Poa hiemata</i>	2	10	GG				2					
<i>Scleranthus biflorus</i>	0.1	5	FG					0.1				
<i>Brachyscome obovata</i>	0.1	2	FG					0.1				
<i>Taraxacum officinale</i>	1	50	EX								1	
<i>Trifolium repens</i>	1	50	EX								1	

Veg Zone = MISC Veg Poor			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI6			17	8	0	2	3	3	0	0	9	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			100	4.5	0	1.1	3.1	0.3	0	0	95.5	0.2
<i>Achillea millefolium</i>	0.1	100	HT									0.1
<i>Acetosella vulgaris</i>	0.1	10	HT									0.1
<i>Carex breviculmis</i>	0.1	10	GG				0.1					
<i>Dactylis glomerata</i>	2	50	EX								2	
<i>Geranium spp.</i>	0.1	20	FG					0.1				
<i>Festuca rubra</i>	90	1000	EX								90	
<i>Hovea montana</i>	0.1	1	SG			0.1						
<i>Ranunculus graniticola</i>	0.1	20	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Narcissus pseudonarcissus</i>	0.1	20	EX								0.1	
<i>Poa annua</i>	1	100	EX								1	
<i>Poa fawcettiae</i>	1	20	GG				1					
<i>Poa costiniana</i>	2	20	GG				2					
<i>Prostanthera cuneata</i>	1	10	SG			1						
<i>Scleranthus biflorus</i>	0.1	20	FG					0.1				
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Trifolium repens</i>	2	50	EX								2	

Veg Zone = MISC Veg Poor			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI8			14	4	0	0	1	3	0	0	10	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			103.9	1.3	0	0	1	0.3	0	0	102.6	1.2
<i>Achillea millefolium</i>	0.2	200	HT									0.2
<i>Alopecurus pratensis</i>	10	1000	EX								10	
<i>Acetosella vulgaris</i>	1	100	HT									1
<i>Dactylis glomerata</i>	5	1000	EX								5	
<i>Geranium spp.</i>	0.1	20	FG					0.1				
<i>Euchiton spp.</i>	0.1	10	FG					0.1				
<i>Festuca rubra</i>	85	2000	EX								85	
<i>Cerastium glomeratum</i>	0.1	5	EX								0.1	
<i>Ranunculus graniticola</i>	0.1	5	FG					0.1				
<i>Narcissus pseudonarcissus</i>	0.1	2	EX								0.1	
<i>Poa costiniana</i>	1	20	GG				1					
<i>Poa pratensis</i>	1	10	EX								1	
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Trifolium repens</i>	0.1	200	EX								0.1	

Veg Zone = MISC Veg Poor			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI11			13	4	0	0	3	1	0	0	9	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			107.8	5.2	0	0	5.1	0.1	0	0	102.6	1.2
<i>Achillea millefolium</i>	0.2	200	HT									0.2
<i>Acetosella vulgaris</i>	1	200	HT									1
<i>Carex breviculmis</i>	0.1	100	GG				0.1					
<i>Cerastium glomeratum</i>	0.1	2	EX								0.1	
<i>Dactylis glomerata</i>	20	400	EX								20	
<i>Epilobium spp.</i>	0.1	1	FG					0.1				
<i>Festuca rubra</i>	80	2000	EX								80	
<i>Hypochaeris radicata</i>	0.1	50	EX								0.1	
<i>Poa costiniana</i>	5	200	GG				5					
<i>Poa pratensis</i>	0.1	10	EX								0.1	
<i>Poa spp.</i>			GG				0					
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Trifolium repens</i>	1	400	EX								1	

Veg Zone = MISC Veg Poor			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PerisherPI15			19	9	1	2	2	3	1	0	10	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			104.4	3.6	0.1	2	1.1	0.3	0.1	0	100.8	0.2
<i>Achillea millefolium</i>	0.1	100	HT									0.1
<i>Acaena novae-zelandiae</i>	0.1	20	FG					0.1				
<i>Acetosella vulgaris</i>	0.1	50	HT									0.1
<i>Cerastium glomeratum</i>	0.1	5	EX								0.1	
<i>Cyperaceae spp.</i>	0.1	1	GG				0.1					
<i>Dactylis glomerata</i>	80	3017	EX								80	
<i>Epilobium billardierianum</i>	0.1	1	FG					0.1				
<i>Eucalyptus pauciflora</i>	0.1	1	TG		0.1							
<i>Festuca rubra</i>	20	500	EX								20	
<i>Festuca arundinacea</i>	0.1	1	EX								0.1	
<i>Lotus spp.</i>	0.1	10	EX								0.1	
<i>Olearia phlogopappa subsp. flavescens</i>	1	2	SG			1						
<i>Rorippa dictyosperma</i>	0.1	1	FG					0.1				
<i>Nematolepis ovatifolia</i>	1	5	SG			1						
<i>Poa costiniana</i>	1	20	GG				1					
<i>Polystichum proliferum</i>	0.1	1	EG						0.1			
<i>Rumex crispus</i>	0.1	2	EX								0.1	
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Trifolium repens</i>	0.1	200	EX								0.1	

Appendix D-2
Perisher Village
sub-precinct mapping



Snowy SAP - Field Survey Effort

Figure D.1

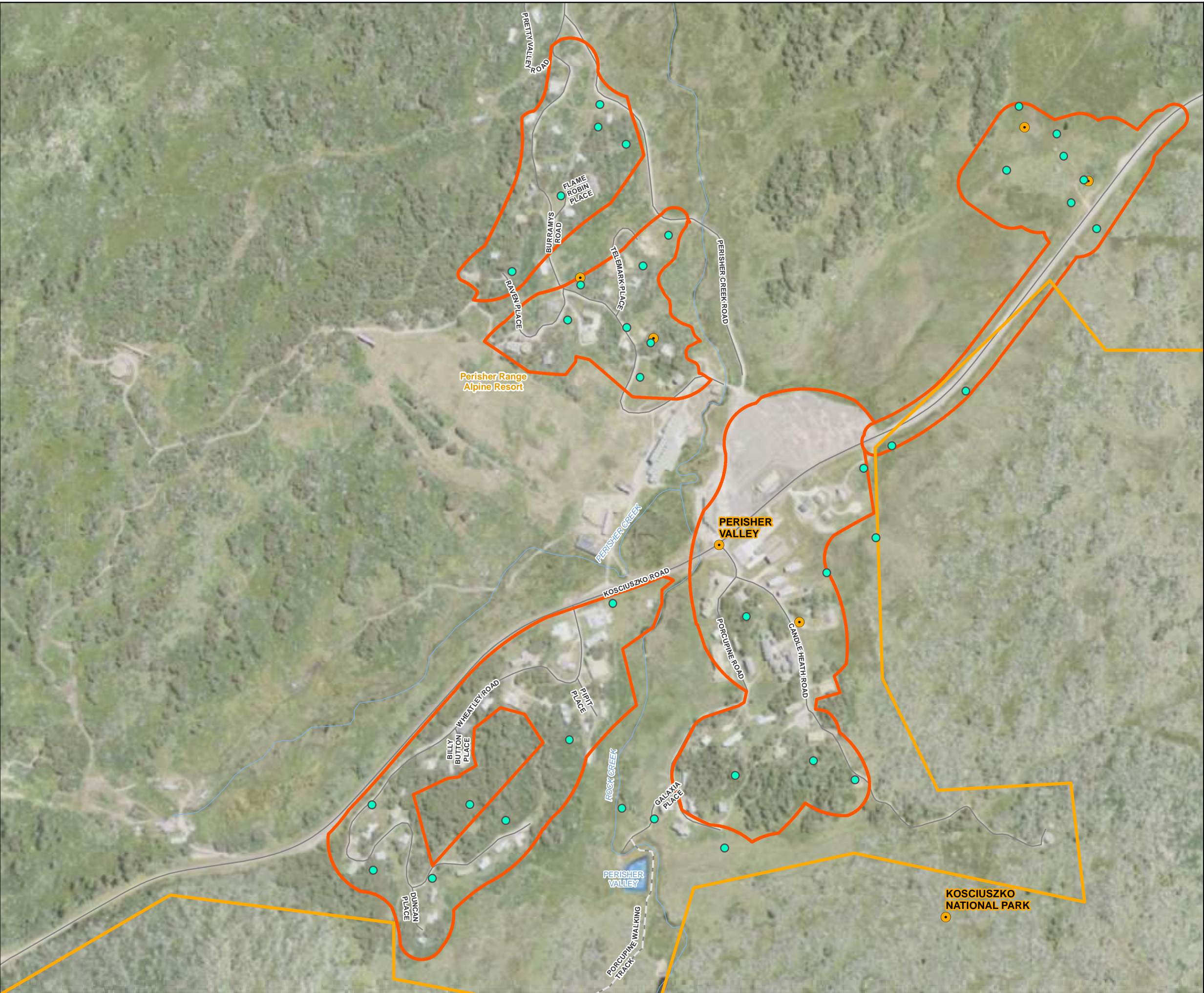
Perisher Village Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Field Suvey Effort

- BAM Plot
- Opportunistic bird survey



0 0.15 0.3
km



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:7,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure D.2

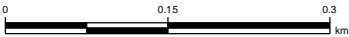
Perisher Village Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 645, Shrubland
- PCT 645, Dieback
- PCT 645, Good
- PCT 645, Poor
- PCT 637, Good
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55

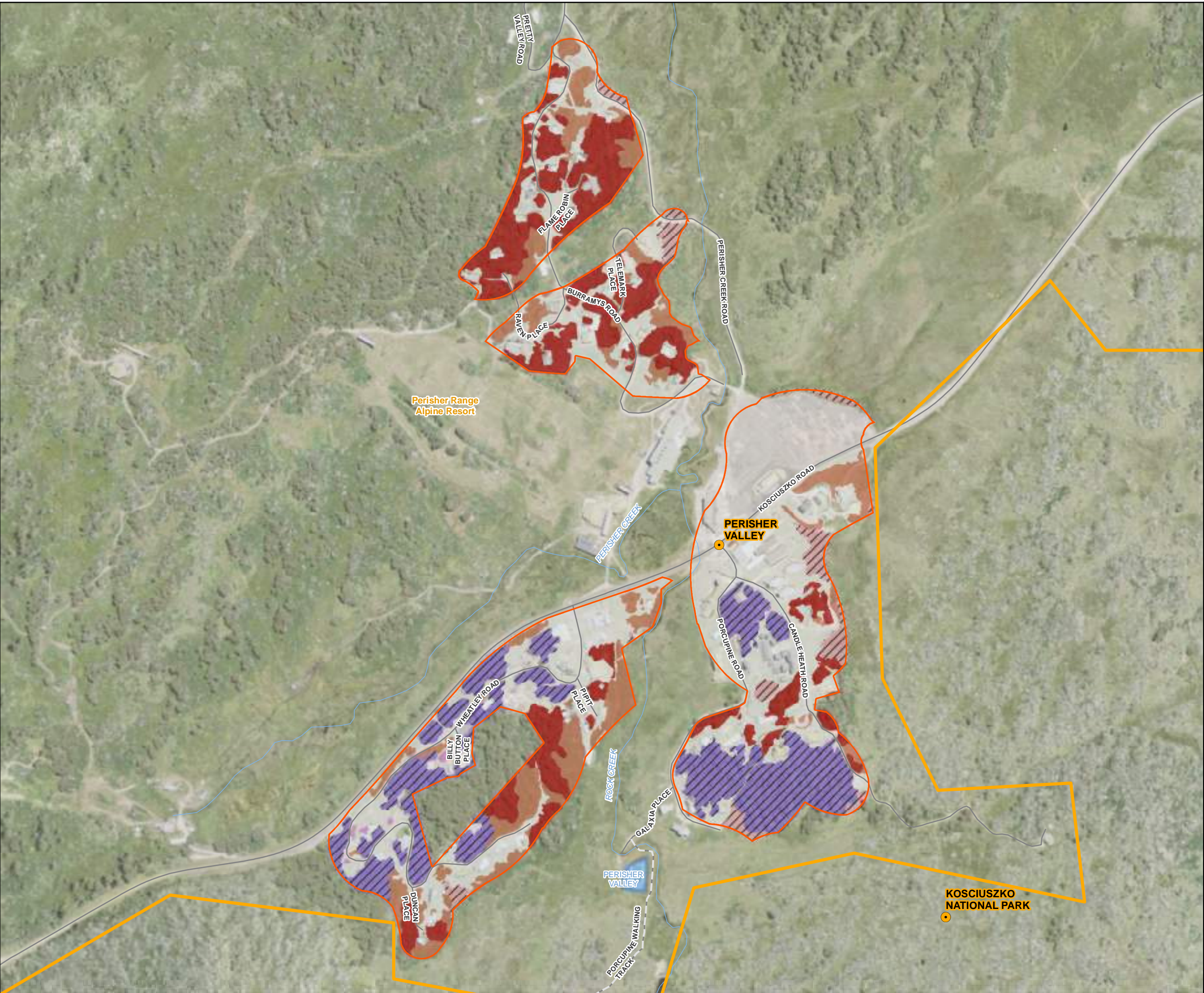
Scale ratio correct when printed at A3

1:7,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure D.3

Perisher Village Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Threatened Flora Species

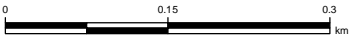
- Rytidosperma vickeryae*

Threatened Fauna Species

- Broad-toothed Rat
- Flame Robin

Threatened Ecological Communities

- Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:7,000 Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - EPBC Act Listed Biodiversity

Figure D.4

Perisher Village Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Threatened Flora Species

- Rytidosperma vickeryae*

Threatened Ecological Communities

- Alpine Sphagnum Bogs and Associated Fens



Coordinate system: GDA 1994 MGA Zone 55

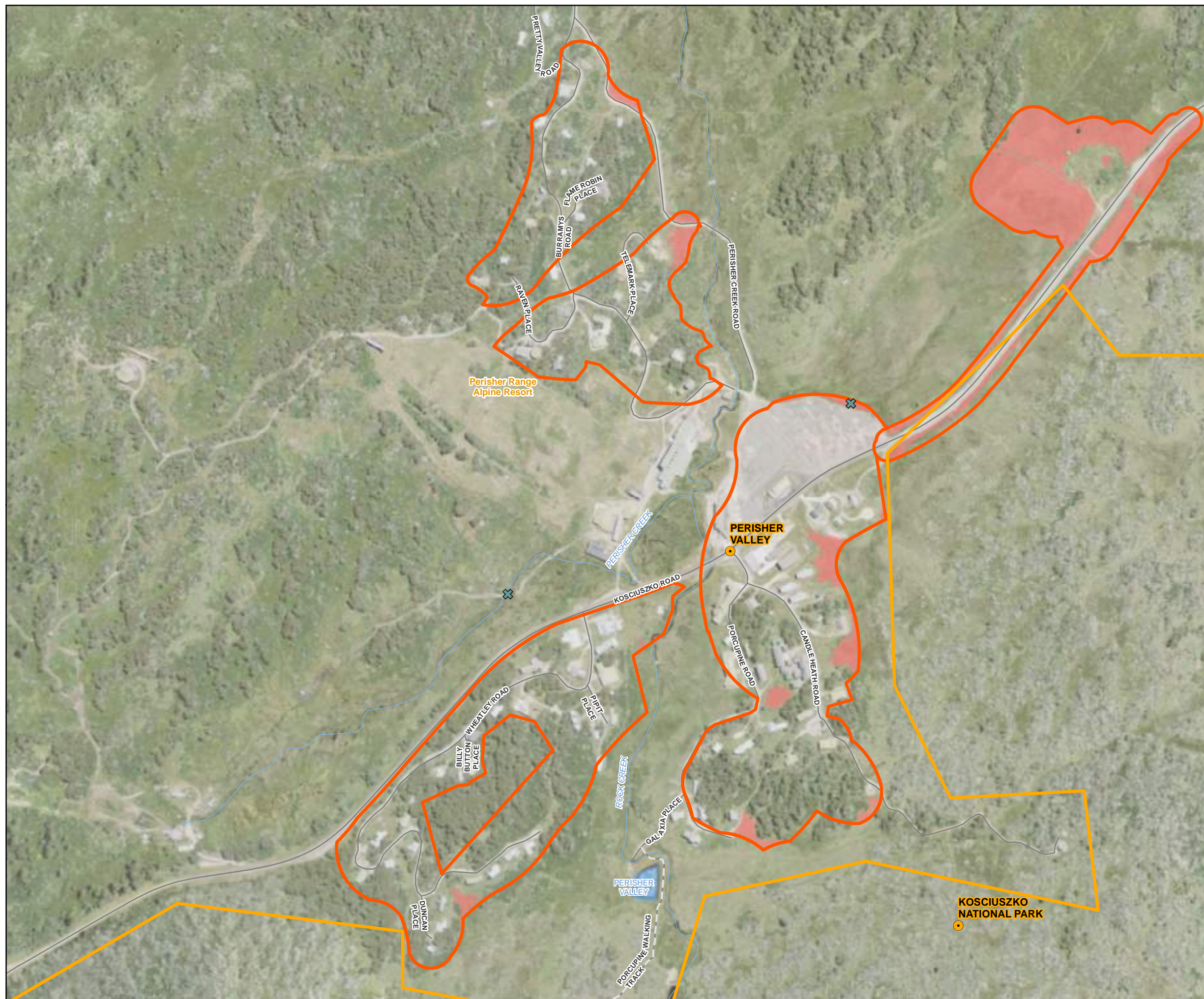
Scale ratio correct when printed at A3

1:7,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix D-3
Perisher Village
BAM candidate species

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023705/BAAS17060/22/00031134	Perisher	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	15/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Cyclodomorphus praealtus</i> Alpine She-oak Skink		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Ranunculus anemoneus</i> Anemone Buttercup		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<p><i>Pterostylis oreophila</i> Blue-tongued Greenhood</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Mastacomys fuscus</i> Broad-toothed Rat</p>		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input checked="" type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Callocephalon fimbriatum</i> Gang-gang Cockatoo</p>		<div> <input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Liopholis guthega</i> Guthega Skink</p>		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Discaria nitida</i> Leafy Anchor Plant</p>		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Hieraaetus morphnoides</i> Little Eagle</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Burramys parvus</i> Mountain Pygmy-possum		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne pengilleyi</i> Northern Corroboree Frog		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Rytidosperma vickeryae</i> Perisher Wallaby-grass		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Carex raleighii</i> Raleigh Sedge		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Euphrasia scabra</i> Rough Eyebright		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne corroboree</i> Southern Corroboree Frog		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<p><i>Xerochrysum palustre</i> Swamp Everlasting</p>		<table border="1"> <tr> <td><input type="checkbox"/> Jan</td> <td><input type="checkbox"/> Feb</td> <td><input type="checkbox"/> Mar</td> <td><input type="checkbox"/> Apr</td> </tr> <tr> <td><input type="checkbox"/> May</td> <td><input type="checkbox"/> Jun</td> <td><input type="checkbox"/> Jul</td> <td><input type="checkbox"/> Aug</td> </tr> <tr> <td><input type="checkbox"/> Sep</td> <td><input type="checkbox"/> Oct</td> <td><input type="checkbox"/> Nov</td> <td><input type="checkbox"/> Dec</td> </tr> </table> <p><input type="checkbox"/> Survey month outside the specified months?</p>	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec
<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr											
<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug											
<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec											

Threatened species Manually Added

None added

Appendix E

Pipers Gap sub-precinct



Appendix E-1
Pipers Gap
sub-precinct survey data

Veg Zone = PCT645 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PipersGapPI2			23	19	1	8	4	6	0	0	4	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			123.8	118.8	10	26.5	80.4	1.9	0	0	5	2
<i>Acaena novae-zelandiae</i>	0.1	20	FG					0.1				
<i>Acetosella vulgaris</i>	1	100	HT									1
<i>Achillea millefolium</i>	1	100	HT									1
<i>Anthoxanthum odoratum</i>	2	100	EX								2	
<i>Asperula gunnii</i>	0.1	1	FG					0.1				
<i>Brachyscome spathulata</i>	0.1	20	FG					0.1				
<i>Carex breviculmis</i>	0.1	20	GG				0.1					
<i>Dactylis glomerata</i>	1	100	EX								1	
<i>Empodisma minus</i>	0.2	50	GG				0.2					
<i>Eucalyptus pauciflora</i>	10	9	TG		10							
<i>Grevillea australis</i>	5	50	SG			5						
<i>Hovea montana</i>	0.5	50	SG			0.5						
<i>Asteraceae spp.</i>	0.1	10	FG					0.1				
<i>Luzula novae-cambriae</i>	0.1	5	GG				0.1					
<i>Nematolepis ovatifolia</i>	20	200	SG			20						
<i>Olearia algida</i>	0.1	5	SG			0.1						
<i>Olearia brevipedunculata</i>	0.1	20	SG			0.1						
<i>Oxylobium ellipticum</i>	0.2	20	SG			0.2						
<i>Pimelea alpina</i>	0.5	20	SG			0.5						
<i>Poa hiemata</i>	80	2000	GG				80					
<i>Podocarpus lawrencei</i>	0.1	1	SG			0.1						
<i>Ranunculus graniticola</i>	1	1000	FG					1				
<i>Scleranthus biflorus</i>	0.5	50	FG					0.5				

Veg Zone = PCT637 Good	28 Nov 2021	10:59 AM	Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
	PG3		# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PipersGapPI3			22	20	0	5	6	9	0	0	2	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			127.7	127.5	0	34.1	90.7	2.7	0	0	0.2	0
<i>Epacris glacialis</i>	20	50	SG			20						
<i>Ranunculus gunnianus</i>	0.2	20	FG					0.2				
<i>Richea continentis</i>	2	10	SG			2						
<i>Olearia algida</i>	2	20	SG			2						
<i>Empodisma minus</i>	20	1000	GG				20					
<i>Poa sp. costiniana? no seed heads</i>	70	2000	GG				70					
<i>Asperula gunnii</i>	1	200	FG					1				
<i>Luzula novae-cambriae</i>	0.4	100	GG				0.4					
<i>Craspedia sp.? Rosette leaf only</i>	0.2	100	FG					0.2				
<i>Astelia psychrocharis</i>	0.5	10	FG					0.5				
<i>Pimelea alpina</i>	0.1	10	SG			0.1						
<i>Schoenus calypttratus</i>	0.1	10	GG				0.1					
<i>Stylidium graminifolium</i>	0.4	100	FG					0.4				
<i>Linaria arvensis</i>	0.1	10	EX								0.1	
<i>Baeckea gunniana</i>	10	20	SG			10						
<i>Hypochaeris radicata</i>	0.1	10	EX								0.1	
<i>Lagenifera stipitata</i>	0.1	10	FG					0.1				
<i>Gonocarpus montanus</i>	0.1	10	FG					0.1				
<i>Aciphylla simplicifolia</i>	0.1	20	FG					0.1				
<i>Celmisia costiniana</i>	0.1	10	FG					0.1				
<i>Lachnagrostis meionectes? No seed heads</i>	0.1	20	GG				0.1					
<i>Oreobolus distichus</i>	0.1	10	GG				0.1					

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PipersGapPI4			24	21	0	4	7	10	0	0	3	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			100	97.7	0	74.1	21.6	2	0	0	2.3	0.2
<i>Acetosella vulgaris</i>	0.2	20	HT									0.2
<i>Anthoxanthum odoratum</i>	2	50	EX								2	
<i>Baloskion australe</i>	0.1	20	GG				0.1					
<i>Brachyscome spathulata</i>	0.1	20	FG					0.1				
<i>Brachyscome obovata</i>	1	10	FG					1				
<i>Carex gaudichaudiana</i>	0.1	20	GG				0.1					
<i>Celmisia pugioniformis</i>	0.1	20	FG					0.1				
<i>Empodisma minus</i>	0.2	1	GG				0.2					
<i>Epacris microphylla</i>	70	200	SG			70						
<i>Erigeron nitidus</i>	0.1	20	FG					0.1				
<i>Grevillea australis</i>	2	50	SG			2						
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Forbe species (no reproductive material)</i>	0.1	20	FG					0.1				
<i>Luzula modesta</i>	0.1	20	GG				0.1					
<i>Luzula spp.</i>	1	50	GG				1					
<i>Microseris lanceolata</i>	0.1	20	FG					0.1				
<i>Olearia algida</i>	2	50	SG			2						
<i>Poa costiniana</i>	20	200	GG				20					
<i>Ranunculus graniticola</i>	0.1	20	FG					0.1				
<i>Richea continentis</i>	0.1	1	SG			0.1						
<i>Rytidosperma nudiflorum</i>	0.1	20	GG				0.1					
<i>Scleranthus biflorus</i>	0.2	50	FG					0.2				
<i>Stylidium graminifolium</i>	0.1	20	FG					0.1				
<i>Cotula alpina</i>	0.1	50	FG					0.1				

Veg Zone = PCT637 Good	28 Nov 2021	1:10 PM	Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
	PG5		# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PipersGapPI5			18	17	0	5	7	5	0	0	1	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			108.4	108.2	0	97	8.3	2.9	0	0	0.2	0
Richea continentis	40	2000	SG			40						
Baeckea gunniana	40	2000	SG			40						
Olearia algida	10	500	SG			10						
Astelia psychrocharis	2	100	FG					2				
Poa sp. costiniana? no seed heads	2	100	GG				2					
Empodisma minus	5	1000	GG				5					
Epacris glacialis	5	200	SG			5						
Oreobolus distichus	0.4	1000	GG				0.4					
Stylidium graminifolium	0.4	1000	FG					0.4				
Epacris petrophila	2	200	SG			2						
Aciphylla simplicifolia	0.1	20	FG					0.1				
Luzula novae-cambriae	0.2	50	GG				0.2					
Poa sp. hiemata? No seed heads	0.4	100	GG				0.4					
Carpha nivicola	0.2	50	GG				0.2					
Ranunculus gunnianus	0.2	25	FG					0.2				
Asperula gunnii	0.2	50	FG					0.2				
Dactylis glomerata	0.2	50	EX								0.2	
Carex sp.	0.1	10	GG				0.1					

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PipersGapPI6			28	22	0	12	4	6	0	0	6	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			125.6	118.4	0	34.6	82.3	1.5	0	0	7.2	3
Acetosella vulgaris	1	50	HT									1
Achillea millefolium	2	200	HT									2
Acrothamnus hookeri	0.1	1	SG			0.1						
Anthoxanthum odoratum	3	100	EX								3	
Asperula gunnii	0.1	10	FG					0.1				
Brachyscome spathulata	0.1	10	FG					0.1				
Cardamine lilacina	0.1	20	FG					0.1				
Carex breviculmis	0.2	20	GG				0.2					
Dactylis glomerata	0.1	1	EX								0.1	
Epacris microphylla	10	50	SG			10						
Empodisma minus	2	20	GG				2					
Epacris glacialis	0.1	1	SG			0.1						
Grevillea australis	20	100	SG			20						
Coronidium scorpioides	0.1	10	FG					0.1				
Hovea montana	1	50	SG			1						
Hypochaeris radicata	0.1	20	EX								0.1	
Luzula spp.	0.1	10	GG				0.1					
Olearia algida	0.1	10	SG			0.1						
Oxylobium ellipticum	0.1	50	SG			0.1						
Ozothamnus alpinus	0.1	10	SG			0.1						
Nematolepis ovatifolia	0.1	5	SG			0.1						
Pimelea alpina	1	50	SG			1						
Poa phillipsiana	80	2000	GG				80					
Ranunculus graniticola	0.1	20	FG					0.1				
Richea continentis	1	10	SG			1						
Cassinia monticola	1	20	SG			1						
Trifolium repens	1	50	EX								1	
Oreomyrrhis eriopoda	1	100	FG					1				

Veg Zone = PCT637 Good	28 Nov 2021	1:44 PM	Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
	PG7		# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PipersGapPI7			25	23	0	6	6	11	0	0	2	1
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			110.3	110	0	20	83.1	6.9	0	0	0.3	0.1
<i>Poa sp? Costiniana no seed heads</i>	80	2000	GG				80					
<i>Grevillea Australis</i>	2	15	SG			2						
<i>Cardamine lilacina</i>	0.1	25	FG					0.1				
<i>Ranunculus graniticola</i>	2	500	FG					2				
<i>Pimelea alpina</i>	1	1000	SG			1						
<i>Hypochaeris radicata</i>	0.2	25	EX								0.2	
<i>Acetosella vulgaris</i>	0.1	10	HT									0.1
<i>Empodisma minus</i>	0.4	200	GG				0.4					
<i>Astelia psychrocharis</i>	0.2	2	FG					0.2				
<i>Brachyscome spathulata</i>	0.4	100	FG					0.4				
<i>Scleranthus singuliflorus</i>	0.2	20	FG					0.2				
<i>Argyrotegium poliochlorum</i>	1	50	FG					1				
<i>Asperula gunnii</i>	0.4	200	FG					0.4				
<i>Brachyscome scapigera</i>	0.4	100	FG					0.4				
<i>Celmisia costiniana</i>	2	50	FG					2				
<i>Luzula novae-cambriae</i>	0.1	10	GG				0.1					
<i>Craspedia sp.? Rosette leaf only</i>	2	2000	GG				2					
<i>Acrothamnus hookeri</i>	1	10	SG			1						
<i>Pentachondra pumila</i>	10	500	SG			10						
<i>Oreomyrrhis eriopoda</i>	0.1	10	FG					0.1				
<i>Epacris petrophila</i>	5	100	SG			5						
<i>Epacris glacialis</i>	1	10	SG			1						
<i>Lagenifera stipitata</i>	0.1	10	FG					0.1				
<i>Carex breviculmis</i>	0.5	100	GG				0.5					
<i>Rytidosperma sp.? spent old dead seed head</i>	0.1	1	GG				0.1					

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PipersGapPI8			25	20	0	4	7	9	0	0	5	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			117.1	114.8	0	22.1	90.6	2.1	0	0	2.3	0.1
<i>Achillea millefolium</i>	0.1	20	HT									0.1
<i>Astelia psychrocharis</i>	0.1	20	FG					0.1				
<i>Baloskion australe</i>	0.2	20	GG				0.2					
<i>Brachyscome spathulata</i>	0.1	20	FG					0.1				
<i>Carex gaudichaudiana</i>	0.1	10	GG				0.1					
<i>Dactylis glomerata</i>	1	20	EX								1	
<i>Empodisma minus</i>	10	100	GG				10					
<i>Epacris microphylla</i>	10	200	SG			10						
<i>Euchiton spp.</i>	0.1	20	FG					0.1				
<i>Euphrasia collina subsp. diversicolor</i>	1	1	FG					1				
<i>Poa phillipsiana</i>	0.1	10	GG				0.1					
<i>Hypochaeris radicata</i>	0.1	50	EX								0.1	
<i>Juncus antarcticus</i>	0.1	20	GG				0.1					
<i>Olearia algida</i>	2	500	SG			2						
<i>Oreomyrrhis spp.</i>	0.5	50	FG					0.5				
<i>Pentachondra pumila</i>	0.1	10	SG			0.1						
<i>Poa hiemata</i>	80	2000	GG				80					
<i>Richea continentis</i>	10	20	SG			10						
<i>Scleranthus biflorus</i>	0.1	2	FG					0.1				
<i>Cyperaceae spp.</i>	0.1	20	GG				0.1					
<i>Brachyscome obovata</i>			FG					0				
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Trifolium repens</i>	1	50	EX								1	
<i>Ranunculus graniticola</i>	0.1	50	FG					0.1				
<i>Celmisia pugioniformis</i>	0.1	20	FG					0.1				

Veg Zone = PCT637 Good	28 Nov 2021	3:16 PM	Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
	PG9		# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PipersGapPI9			12	11	0	2	4	5	0	0	1	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			117.2	117.1	0	25	90.3	1.8	0	0	0.1	0
Carex gaudichaudiana	80	2000	GG				80					
Richea continentis	20	100	SG			20						
Ranunculus graniticola	1	100	FG					1				
Euphrasia collina	0.5	50	FG					0.5				
Empodisma minus	10	2000	GG				10					
Ranunculus dissectifolius	0.1	10	FG					0.1				
Poa sp. costiniana? No seed head	0.1	10	GG				0.1					
Trifolium repens	0.1	10	EX								0.1	
Epilobium billardierianum	0.1	20	FG					0.1				
Epacris glacialis	5	25	SG			5						
Oreomyrrhis eriopoda	0.1	10	FG					0.1				
Poa sp. hiemata? No seed head	0.2	10	GG				0.2					

Veg Zone = PCT637 Disturbed	28 Nov 2021	9:48 AM	Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
	pg1		# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: PipersGapPl1			19	9	0	2	6	1	0	0	10	2
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			100.9	12.9	0	1.1	11.7	0.1	0	0	88	1.1
<i>Taraxacum officinale</i>	0.3	50	EX								0.3	
<i>Achillea millefolium</i>	1	500	HT									1
<i>Anthoxanthum odoratum</i>	25	2000	EX								25	
<i>Dactylis glomerata</i>	50	2000	EX								50	
<i>Trifolium repens</i>	1	500	EX								1	
<i>Poa labillardierei? No seed heads</i>	0.2	2	GG				0.2					
<i>Poa sp. costiniana? No seed heads</i>	1	100	GG				1					
<i>Poa sieberiana? No seed heads</i>	0.2	2	GG				0.2					
<i>Poa sp. hiemata? No seed heads</i>	10	500	GG				10					
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Ranunculus graniticola</i>	0.1	20	FG					0.1				
<i>Grevillea Australis</i>	1	5	SG			1						
<i>Holcus lanatus</i>	0.4	10	EX								0.4	
<i>Empodisma minus</i>	0.2	50	GG				0.2					
<i>Acetosella vulgaris</i>	0.1	10	HT									0.1
<i>Festuca rubra</i>	0.1	10	EX								0.1	
<i>Vulpia myuros? No seed heads</i>	10	2000	EX								10	
<i>Dichelachne sp.?</i>	0.1	10	GG				0.1					
<i>Epacris glacialis</i>	0.1	1	SG			0.1						

Appendix E-2
Pipers Gap
sub-precinct mapping



Snowy SAP - Field Survey Effort

Figure E.1

Pipers Gap Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Roads

Field Suvey Effort

- BAM Plot
- Opportunistic bird survey

Perisher Range
Alpine Resort

KOSCIUSKO ROAD



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure E.2

Pipers Gap Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Roads

Plant Community Types and Vegetation Zones

- PCT 645, Shrubland
- PCT 645, Dieback
- PCT 645, Good
- PCT 637, Good
- Miscellaneous/exotic

Persher Range
Alpine Resort

KOSCIUSKO ROAD



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure E.3

Pipers Gap Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Roads

Threatened Flora Species

- Rytidosperma vickeryae*

Threatened Fauna Species

- Broad-toothed Rat
- Flame Robin

Threatened Ecological Communities

- Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin

Perisher Range
Alpine Resort

KOSCIUSZKO ROAD



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - EPBC Act Listed Biodiversity

Figure E.4

Pipers Gap Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Roads

Threatened Flora Species

- Rytidosperma vickeryae*

Threatened Ecological Communities

- Alpine Sphagnum Bogs and Associated Fens



0 0.075 0.15 km

Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix E-3
Pipers Gap
BAM candidate species

BAM Candidate Species Report

Proposal Details

Pipers Gap

Assessment Id	Proposal Name	BAM data last updated *
00023705/BAAS17060/21/00023706	Snowy SAP Snowy Mountains region	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	15/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
2	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Burramys parvus</i> Mountain Pygmy-possum	Yes (assumed present)	<div> <input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Callocephalon fimbriatum</i> Gang-gang Cockatoo	Yes (assumed present)	<div> <input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Carex raleighii</i> Raleigh Sedge	Yes (assumed present)	<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Cyclodomorphus praealtus</i> Alpine She-oak Skink	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Delma impar</i> Striped Legless Lizard	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Discaria nitida</i> Leafy Anchor Plant	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Euphrasia scabra</i> Rough Eyebright	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Hieraaetus morphnoides</i> Little Eagle	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Liopholis guthega</i> Guthega Skink	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<i>Litoria verreauxii alpina</i> Alpine Tree Frog	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Mastacomys fuscus</i> Broad-toothed Rat	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Pseudophryne corroboree</i> Southern Corroboree Frog	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Pseudophryne pengilleyi</i> Northern Corroboree Frog	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Pterostylis oreophila</i> Blue-tongued Greenhood	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Ranunculus anemoneus</i> Anemone Buttercup	Yes (assumed present)	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<i>Rytidosperma vickeryae</i> Perisher Wallaby-grass	Yes (assumed present)	<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Xerochrysum palustre</i> Swamp Everlasting	Yes (assumed present)	<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr </div> <div> <input checked="" type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

Threatened species Manually Added

None added

Appendix F

Smiggin Holes sub-precinct



Appendix F-1
Smiggin Holes
sub-precinct survey data

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SmigginsPI4			37	29	0	7	6	16	0	0	7	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			101	100.2	0	55.3	43.3	1.6	0	0	0.7	0.1
<i>Achillea millefolium</i>	0.1	20	HT									0.1
<i>Acaena novae-zelandiae</i>	0.1	10	FG					0.1				
<i>Anthoxanthum odoratum</i>	0.1	20	EX								0.1	
<i>Astelia psychrocharis</i>	0.1	10	FG					0.1				
<i>Erigeron spp.</i>	0.1	20	EX								0.1	
<i>Brachyscome spp.</i>	0.1	10	FG					0.1				
<i>Cardamine lilacina</i>	0.1	20	FG					0.1				
<i>Carex gaudichaudiana</i>	0.1	50	GG				0.1					
<i>Celmisia pugioniformis</i>	0.1	10	FG					0.1				
<i>Dactylis glomerata</i>	0.1	20	EX								0.1	
<i>Epacris microphylla</i>	25	200	SG			25						
<i>Empodisma minus</i>	5	100	GG				5					
<i>Epilobium billardierianum</i>	0.1	20	FG					0.1				
<i>Euchiton spp.</i>	0.1	20	FG					0.1				
<i>Asteraceae spp.</i>	0.1	20	FG					0.1				
<i>Grevillea australis</i>	10	100	SG			10						
<i>Ranunculus graniticola</i>	0.1	20	FG					0.1				
<i>Ranunculus gunnianus</i>	0.1	20	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	10	EX								0.1	
<i>Juncus antarcticus</i>	0.1	10	GG				0.1					
<i>Acrothamnus hookeri</i>	0.1	10	SG			0.1						
<i>Microseris lanceolata</i>	0.1	20	FG					0.1				
<i>Brachyscome graminea</i>	0.1	20	FG					0.1				
<i>Luzula spp.</i>	0.1	20	GG				0.1					
<i>Neopaxia australasica</i>	0.1	20	FG					0.1				
<i>Oreomyrrhis eriopoda</i>	0.1	50	FG					0.1				
<i>Olearia algida</i>	10	300	SG			10						
<i>Pimelea alpina</i>	0.1	20	SG			0.1						
<i>Pimelea biflora</i>	0.1	10	SG			0.1						
<i>Poa costiniana</i>	30	1000	GG				30					
<i>Poa spp.</i>	8	100	GG				8					
<i>Richea continentis</i>	10	20	SG			10						
<i>Brachyscome obovata</i>	0.1	50	FG					0.1				
<i>Senecio gunnii</i>	0.1	20	FG					0.1				
<i>Ranunculus dissectifolius</i>	0.1	20	FG									
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Trifolium repens</i>	0.1	50	EX								0.1	

Veg Zone = PCT645 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SmigginsPI3			30	23	0	7	5	11	0	0	7	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			102.1	85.7	0	34.2	50.3	1.2	0	0	16.4	0.1
<i>Acaena novae-zelandiae</i>	0.1	100	FG					0.1				
<i>Anthoxanthum odoratum</i>	1	100	EX								1	
<i>Acetosella vulgaris</i>	0.1	100	HT									0.1
<i>Cardamine lilacina</i>	0.1	1	FG					0.1				
<i>Carex breviculmis</i>	0.1	50	GG				0.1					
<i>Cerastium glomeratum</i>	0.1	1	EX								0.1	
<i>Baloskion australe</i>	0.1	10	GG				0.1					
<i>Dactylis glomerata</i>	10	200	EX								10	
<i>Empodisma minus</i>	0.1	20	GG				0.1					
<i>Epacris glacialis</i>	1	10	SG			1						
<i>Euchiton spp.</i>	0.2	100	FG					0.2				
<i>Festuca rubra</i>	5	100	EX								5	
<i>Geranium antrorsum</i>	0.1	10	FG					0.1				
<i>Grevillea australis</i>	2	20	SG			2						
<i>Ranunculus graniticola</i>	0.1	20	FG					0.1				
<i>Acrothamnus hookeri</i>	0.1	1	SG			0.1						
<i>Microseris lanceolata</i>	0.1	1	FG					0.1				
<i>Asteraceae spp.</i>	0.1	20	FG					0.1				
<i>Melicytus angustifolius subsp. divaricatus</i>	0.1	5	SG			0.1						
<i>Oreomyrrhis eriopoda</i>	0.1	20	FG					0.1				
<i>Olearia algida</i>	10	200	SG			10						
<i>Ozothamnus secundiflorus</i>	1	1	SG			1						
<i>Poa costiniana</i>	25	1000	GG				25					
<i>Poranthera microphylla</i>	0.1	10	FG					0.1				
<i>Richea continentis</i>	20	10	SG			20						
<i>Poa spp.</i>	25	1000	GG				25					
<i>Scleranthus biflorus</i>	0.1	2	FG					0.1				
<i>Brachyscome obovata</i>	0.1	20	FG					0.1				
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Trifolium repens</i>	0.1	100	EX								0.1	

Veg Zone = PCT645 Dieback			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SmigginsPI2			28	20	1	11	2	6	0	0	8	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			99	97.3	25	41.6	30.1	0.6	0	0	1.7	0.2
<i>Achillea millefolium</i>	0.1	50	HT									0.1
<i>Anthoxanthum odoratum</i>	0.1	50	EX								0.1	
<i>Acetosella vulgaris</i>	0.1	50	HT									0.1
<i>Asperula gunnii</i>	0.1	100	FG					0.1				
<i>Asperula pusilla</i>	0.1	50	FG					0.1				
<i>Brachyscome spathulata</i>	0.1	10	FG					0.1				
<i>Dactylis glomerata</i>	0.1	20	EX								0.1	
<i>Eucalyptus pauciflora</i>	25	100	TG		25							
<i>Festuca rubra</i>	1	200	EX								1	
<i>Cyperaceae spp.</i>	0.1	50	GG				0.1					
<i>Grevillea australis</i>	1	20	SG			1						
<i>Hovea montana</i>	10	200	SG			10						
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Malus pumila</i>	0.1	3	EX								0.1	
<i>Olearia brevipedunculata</i>	15	200	SG			15						
<i>Olearia phlogopappa subsp. flavescens</i>	1	20	SG			1						
<i>Oreomyrrhis eriopoda</i>	0.1	20	FG					0.1				
<i>Oxylobium ellipticum</i>	2	20	SG			2						
<i>Ozothamnus alpinus</i>	5	50	SG			5						
<i>Ozothamnus secundiflorus</i>	1	10	SG			1						
<i>Nematolepis ovatifolia</i>	1	20	SG			1						
<i>Pimelea alpina</i>	0.5	50	SG			0.5						
<i>Poa costiniana</i>	30	100	GG				30					
<i>Senecio gunnii</i>	0.1	10	FG					0.1				
<i>Pultenaea fasciculata</i>	0.1	10	SG			0.1						
<i>Stellaria pungens</i>	0.1	10	FG					0.1				
<i>Tasmannia xerophila subsp. xerophila</i>	5	20	SG			5						
<i>Taraxacum officinale</i>	0.1	10	EX								0.1	

Veg Zone = PCT645 Dieback			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SmigginsPI6			28	18	1	9	3	5	0	0	10	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			119.3	38.4	15	2.7	20.2	0.5	0	0	80.9	0.2
<i>Eucalyptus pauciflora</i>	15	20	TG		15							
<i>Dactylis glomerata</i>	40	1000	EX								40	
<i>Poa costiniana</i>	20	500	GG				20					
<i>Acaena novae-zelandiae</i>	0.1	100	FG					0.1				
<i>Achillea millefolium</i>	0.1	100	HT									0.1
<i>Trifolium repens</i>	0.1	100	EX								0.1	
<i>Hypochaeris radicata</i>	0.2	100	EX								0.2	
<i>Cerastium glomeratum</i>	0.1	50	EX								0.1	
<i>Chrysocephalum apiculatum</i>	0.1	20	FG					0.1				
<i>Hovea montana</i>	0.1	10	SG			0.1						
<i>Tasmannia xerophila</i> subsp. <i>xerophila</i>	0.1	10	SG			0.1						
<i>Festuca rubra</i>	40	1000	EX								40	
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Oxylobium ellipticum</i>	0.1	20	SG			0.1						
<i>Acrothamnus hookeri</i>	0.1	1	SG			0.1						
<i>Acetosella vulgaris</i>	0.1	20	HT									0.1
<i>Olearia brevipedunculata</i>	1	10	SG			1						
<i>Ozothamnus secundiflorus</i>	1	10	SG			1						
<i>Luzula novae-cambriae</i>	0.1	5	GG				0.1					
<i>Senecio gunnii</i>	0.1	10	FG					0.1				
<i>Carex breviculmis</i>	0.1	20	GG				0.1					
<i>Astelia alpina</i> var. <i>novae-hollandiae</i>	0.1	10	FG					0.1				
<i>Malus pumila</i>	0.1	5	EX								0.1	
<i>Callistemon pityoides</i>	0.1	1	SG			0.1						
<i>Oreomyrrhis</i> spp.	0.1	50	FG					0.1				
<i>Cassinia monticola</i>	0.1	10	SG			0.1						
<i>Ozothamnus hookeri</i>	0.1	5	SG			0.1						
<i>Brassicaceae</i> spp.	0.1	1	EX								0.1	

Veg Zone = MISC Veg Poor			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SmigginsPI1			19	12	1	4	3	4	0	0	7	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			109.3	43.9	1	2.3	40.2	0.4	0	0	65.4	0.2
<i>Ranunculus graniticola</i>	0.1	20	FG					0.1				
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Poa costiniana</i>	40	1000	GG				40					
<i>Dactylis glomerata</i>	5	100	EX								5	
<i>Eucalyptus pauciflora</i>	1	2	TG		1							
<i>Grevillea australis</i>	2	5	SG			2						
<i>Anthoxanthum odoratum</i>	20	40	EX								20	
<i>Hovea montana</i>	0.1	2	SG			0.1						
<i>Achillea millefolium</i>	0.1	50	HT									0.1
<i>Nematolepis ovatifolia</i>	0.1	2	SG			0.1						
<i>Acetosella vulgaris</i>	0.1	20	HT									0.1
<i>Lupinus polyphyllus</i>	0.1	1	EX								0.1	
<i>Geranium spp.</i>	0.1	3	FG					0.1				
<i>Scleranthus biflorus</i>	0.1	2	FG					0.1				
<i>Oreomyrrhis eriopoda</i>	0.1	20	FG					0.1				
<i>Luzula novae-cambriae</i>	0.1	1	GG				0.1					
<i>Ozothamnus alpinus</i>	0.1	1	SG			0.1						
<i>Carex hebes</i>	0.1	10	GG				0.1					
<i>Festuca rubra</i>	40	1000	EX								40	

Veg Zone = MISC Veg Poor			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	High Threat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SmigginsPI5			13	2	0	0	2	0	0	0	10	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			96.6	0.2	0	0	0.2	0	0	0	96.3	0.1
<i>Festuca rubra</i>	95	3000	EX								95	
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Trifolium repens</i>	0.5	100	EX								0.5	
<i>Dactylis glomerata</i>	0.1	100	EX								0.1	
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Juncus spp.</i>	0.1	1	GG				0.1					
<i>Anthoxanthum odoratum</i>	0.1	10	EX								0.1	
<i>Geranium sp.</i>	0.1	20	FB									
<i>Erophila verna subsp. verna</i>	0.1	20	EX								0.1	
<i>Achillea millefolium</i>	0.1	10	HT									0.1
<i>Carex breviculmis</i>	0.1	20	GG				0.1					
<i>Festuca arundinacea</i>	0.1	10	EX								0.1	
<i>Cerastium glomeratum</i>	0.1	10	EX								0.1	

Appendix F-2
Smiggin Holes
sub-precinct mapping



Snowy SAP - Field Survey Effort

Figure F.1

Smiggin Holes sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Watercourse
- Roads

Field Suvey Effort

- BAM Plot



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure F.2

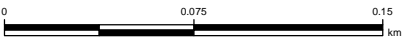
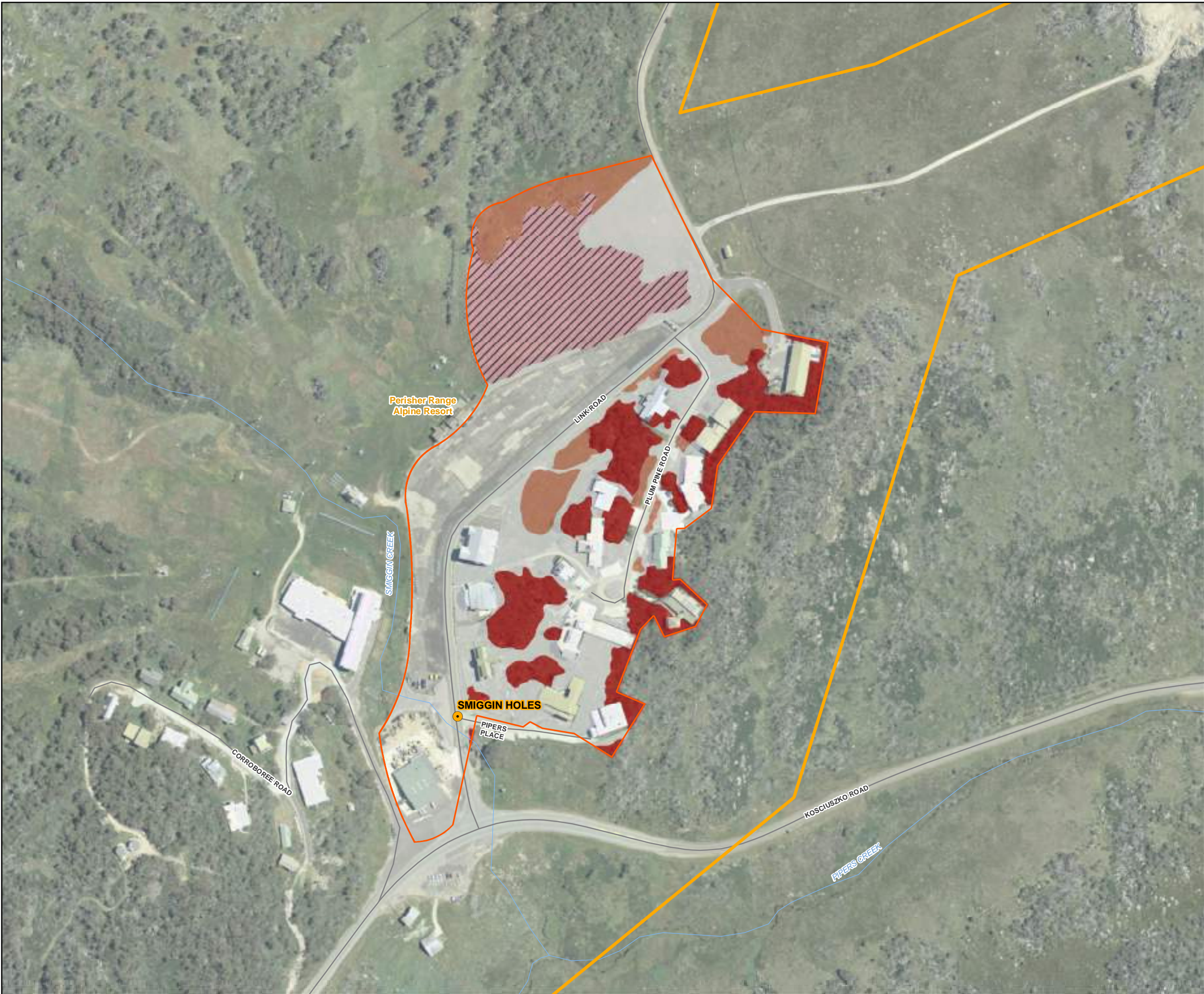
Smiggin Holes sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 645, Shrubland
- PCT 645, Dieback
- PCT 637, Good
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure F.3

Smiggin Holes sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Watercourse
- Roads

Threatened Ecological Communities

- Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin



0 0.075 0.15
km

Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000 Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - EPBC Act Listed Biodiversity

Figure F.4

Smiggin Holes sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Watercourse
- Roads

Threatened Ecological Communities

- Alpine Sphagnum Bogs and Associated Fens



0 0.075 0.15 km

Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix F-3
Smiggin Holes
BAM candidate species

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023705/BAAS17060/22/00031159	Smiggin Holes	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	22/03/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Cyclodomorphus praealtus</i> Alpine She-oak Skink		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Ranunculus anemoneus</i> Anemone Buttercup		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<p><i>Pterostylis oreophila</i> Blue-tongued Greenhood</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Mastacomys fuscus</i> Broad-toothed Rat</p>		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input checked="" type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Callocephalon fimbriatum</i> Gang-gang Cockatoo</p>		<div> <input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Liopholis guthega</i> Guthega Skink</p>		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Discaria nitida</i> Leafy Anchor Plant</p>		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Hieraaetus morphnoides</i> Little Eagle</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Burramys parvus</i> Mountain Pygmy-possum		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne pengilleyi</i> Northern Corroboree Frog		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Rytidosperma vickeryae</i> Perisher Wallaby-grass		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Carex raleighii</i> Raleigh Sedge		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Euphrasia scabra</i> Rough Eyebright		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne corroboree</i> Southern Corroboree Frog		<div> <input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

Xerochrysum palustre

Swamp Everlasting

<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr
<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug
<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec

☐ Survey month outside the specified months?

Threatened species Manually Added

None added

Appendix G

Guthega sub-precinct



Appendix G-1
Guthega
sub-precinct survey data

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: GUTHbog20			15	14	0	10	4	0	0	0	1	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			145.8	145.3	0	74.3	71	0	0	0	0.5	0
<i>Epacris paludosa</i>	40	500	SG			40						
<i>Richea continentis</i>	5	50	SG			5						
<i>Empodisma minus</i>	40	1000	GG				40					
<i>Baeckea gunniana</i>	20	300	SG			20						
<i>Oxylobium ellipticum</i>	5	150	SG			5						
<i>Carex appressa</i>	25	500	GG				25					
<i>Callistemon pityoides</i>	1	2	SG			1						
<i>Poa costiniana</i>	5	300	GG				5					
<i>Poa phillipsiana</i>	1	6	GG				1					
<i>Cassinia monticola</i>	1	3	SG			1						
<i>Anthoxanthum odoratum</i>	0.5	20	EX								0.5	
<i>Hovea montana</i>	0.3	2	SG			0.3						
<i>Grevillea australis</i>	0.5	2	SG			0.5						
<i>Olearia phlogopappa</i>	1	10	SG			1						
<i>Nematolepis ovatifolia</i>	0.5	1	SG			0.5						

Veg Zone = PCT645 Dieback			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: GUTHnip1			31	25	1	13	4	5	2	0	6	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			79.6	69	10	42.1	16	0.7	0.2	0	10.6	0.2
<i>Eucalyptus niphophila</i>	10	20	TG		10							
<i>Callistemon pityoides</i>	3	10	SG			3						
<i>Acaena novae-zelandiae</i>	0.2	100	FG					0.2				
<i>Empodisma minus</i>	5	1000	GG				5					
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	5	100	GG				5					
<i>Carex appressa</i>	5	100	GG				5					
<i>Baeckea gunniana</i>	5	20	SG			5						
<i>Olearia phlogopappa</i>	2	50	SG			2						
<i>Asperula pusilla</i>	0.1	20	FG					0.1				
<i>Poa sieberiana</i> var. <i>sieberiana</i>	1	50	GG				1					
<i>Anthoxanthum odoratum</i>	10	500	EX								10	
<i>Trifolium repens</i>	0.1	100	EX								0.1	
<i>Ozothamnus secundiflorus</i>	1	6	SG			1						
<i>Oxylobium ellipticum</i>	20	100	SG			20						
<i>Tasmannia xerophila</i>	5	20	SG			5						
<i>Celmisia longifolia</i>	0.1	1	FG					0.1				
<i>Achillea millefolium</i>	0.1	10	HT									0.1
<i>Acetosella vulgaris</i>	0.1	10	HT									0.1
<i>Senecio gunnii</i>	0.1	5	FG					0.1				
<i>Polystichum proliferum</i>	0.1	1	EG						0.1			
<i>Malus pumila</i>	0.2	1	EX								0.2	
<i>Hovea montana</i>	2	50	SG			2						
<i>Chrysocephalum apiculatum</i>	0.2	30	FG					0.2				
<i>Nematolepis ovatifolia</i>	0.1	1	SG			0.1						
<i>Olearia brevipedunculata</i>	0.5	50	SG			0.5						
<i>Orites lancifolius</i>	3	10	SG			3						
<i>Pimelea alpina</i>	0.1	1	SG			0.1						
<i>Lotus uliginosus</i>	0.1	10	EX								0.1	
<i>Richea continentis</i>	0.1	5	SG			0.1						
<i>Epacris paludosa</i>	0.3	10	SG			0.3						
<i>Blechnum penna-marina</i> subsp. <i>alpina</i>	0.1	5	EG						0.1			

Veg Zone = PCT645 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: GUTHheat17			17	16	0	10	2	4	0	0	1	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			182.7	182.2	0	121.2	60	1	0	0	0.5	0.5
Nematolepis ovatifolia	70	1000	SG			70						
Olearia phlogopappa	5	150	SG			5						
Oxylobium ellipticum	8	200	SG			8						
Hovea montana	15	200	SG			15						
Grevillea australis	8	50	SG			8						
Poa phillipsiana	10	200	GG				10					
Poa hiemata	50	1000	GG				50					
Melicytus angustifolius	2	10	SG			2						
Pimelea axiflora subsp. alpina	3	20	SG			3						
Acaena novae-zelandiae	0.5	50	FG					0.5				
Ozothamnus secundiflorus	5	25	SG			5						
Acetosella vulgaris	0.5	200	HT									0.5
Asperula gunnii	0.2	20	FG					0.2				
Cassinia monticola	0.2	2	SG			0.2						
Oreomyrrhis eriopoda	0.2	20	FG					0.2				
Olearia brevipedunculata	5	150	SG			5						
Celmisia spp.	0.1	4	FG					0.1				

Veg Zone = PCT645 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: GUTHheat18			21	19	1	10	2	6	0	0	2	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			151.2	150.4	2	88.3	55	5.1	0	0	0.8	0.5
<i>Nematolepis ovatifolia</i>	50	300	SG			50						
<i>Grevillea australis</i>	15	100	SG			15						
<i>Poa hiemata</i>	50	1000	GG				50					
<i>Ranunculus graniticola</i>	0.5	50	FG					0.5				
<i>Olearia brevipedunculata</i>	3	100	SG			3						
<i>Celmisia spp.</i>	1	200	FG					1				
<i>Acrothamnus hookeri</i>	1	2	SG			1						
<i>Coronidium spp.</i>	1	300	FG					1				
<i>Poa phillipsiana</i>	5	100	GG				5					
<i>Olearia phlogopappa</i>	10	200	SG			10						
<i>Ozothamnus secundiflorus</i>	2	3	SG			2						
<i>Pimelea axiflora subsp. alpina</i>	0.3	10	SG			0.3						
<i>Asperula gunnii</i>	0.3	100	FG					0.3				
<i>Podolepis robusta</i>	2	5	FG					2				
<i>Acetosella vulgaris</i>	0.5	50	HT									0.5
<i>Eucalyptus niphophila</i>	2	2	TG		2							
<i>Oxylobium ellipticum</i>	5	100	SG			5						
<i>Melicytus angustifolius</i>	1	2	SG			1						
<i>Acaena novae-zelandiae</i>	0.3	20	FG					0.3				
<i>Anthoxanthum odoratum</i>	0.3	20	EX								0.3	
<i>Cassinia monticola</i>	1	4	SG			1						

Veg Zone = PCT645 Dieback			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: GUTHheat19			19	17	1	11	2	3	0	0	2	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			172.1	166.1	15	80.1	63	8	0	0	6	1
<i>Nematolepis ovatifolia</i>	10	200	SG			10						
<i>Grevillea australis</i>	5	50	SG			5						
<i>Poa hiemata</i>	60	1000	GG				60					
<i>Asperula gunnii</i>	5	500	FG					5				
<i>Anthoxanthum odoratum</i>	5	500	EX								5	
<i>Eucalyptus niphophila</i>	15	12	TG		15							
<i>Hovea montana</i>	5	100	SG			5						
<i>Olearia phlogopappa</i>	20	500	SG			20						
<i>Cassinia monticola</i>	5	30	SG			5						
<i>Pimelea ligustrina subsp. ciliata</i>	30	500	SG			30						
<i>Olearia brevipedunculata</i>	1	20	SG			1						
<i>Poa phillipsiana</i>	3	50	GG				3					
<i>Oreomyrrhis eriopoda</i>	2	200	FG					2				
<i>Oxylobium ellipticum</i>	2	100	SG			2						
<i>Ozothamnus secundiflorus</i>	1	6	SG			1						
<i>Coronidium spp.</i>	1	30	FG					1				
<i>Phebalium squamulosum subsp. alpinum</i>	1	6	SG			1						
<i>Acetosella vulgaris</i>	1	50	HT									1
<i>Pimelea axiflora subsp. alpina</i>	0.1	2	SG			0.1						

Veg Zone = PCT645 Dieback	29 Nov 2021	8:24 AM	Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
	G1		# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: G1			34	25	1	12	4	8	0	0	9	2
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			164	162	10	69.2	61.2	21.6	0	0	2	0.5
<i>Eucalyptus niphophila</i>	10	10	TG		10							
<i>Olearia phlogopappa</i>	20	100	SG			20						
<i>Hovea montana</i>	20	200	SG			20						
<i>Ozothamnus alpinus</i>	20	200	SG			20						
<i>Olearia brevipedunculata</i>	5	100	SG			5						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	20	200	GG				20					
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	0.2	20	GG				0.2					
<i>Empodisma minus</i>	40	2000	GG				40					
<i>Asperula gunnii</i>	0.5	200	FG					0.5				
<i>Oxylobium ellipticum</i>	0.2	1	SG			0.2						
<i>Acetosella vulgaris</i>	0.4	50	HT									0.4
<i>Stellaria pungens</i>	0.2	20	FG					0.2				
<i>Veronica gracilis</i>	0.1	10	FG					0.1				
<i>Dactylis glomerata</i>	0.5	20	EX								0.5	
<i>Pimelea axiflora</i>	2	200	SG			2						
<i>Richea continentis</i>	0.4	10	SG			0.4						
<i>Epacris paludosa</i>	0.2	2	SG			0.2						
<i>Chrysocephalum apiculatum</i>	0.1	10	FG					0.1				
<i>Achillea millefolium</i>	0.1	10	HT									0.1
<i>Gonocarpus</i> sp.	0.1	10	FG					0.1				
<i>Tasmannia xerophila</i>	0.2	2	SG			0.2						
<i>Orites lancifolius</i>	1	5	SG			1						
<i>Asperula pusilla</i>	0.5	200	FG					0.5				
<i>Olearia phlogopappa</i> var. <i>flavescens</i>	0.1	2	SG			0.1						
<i>Microlaena</i> sp.? no seed heads	1	200	GG				1					
<i>Holcus lanatus</i>	0.4	5	EX								0.4	
<i>Acaena novae-zelandiae</i>	20	0.1	FG					20				
<i>Olearia phlogopappa</i> subsp. <i>serrata</i>	0.1	2	SG			0.1						
<i>Geranium</i> sp. <i>solanderi</i> ?	0.1	1	FG					0.1				
<i>Anthoxanthum odoratum</i>	0.2	5	EX								0.2	
<i>Hypochoeris radicata</i>	0.1	5	EX								0.1	
<i>Lotus</i> sp.	0.1	1	EX								0.1	
<i>Taraxacum officinale</i>	0.1	1	EX								0.1	
<i>Trifolium repens</i>	0.1	5	EX								0.1	

Appendix G-2
Guthega
sub-precinct mapping



Snowy SAP - Field Survey Effort

Figure G.1

Guthega Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Field Suvey Effort

- BAM Plot
- Opportunistic bird survey



Coordinate system: GDA 1994 MGA Zone 55

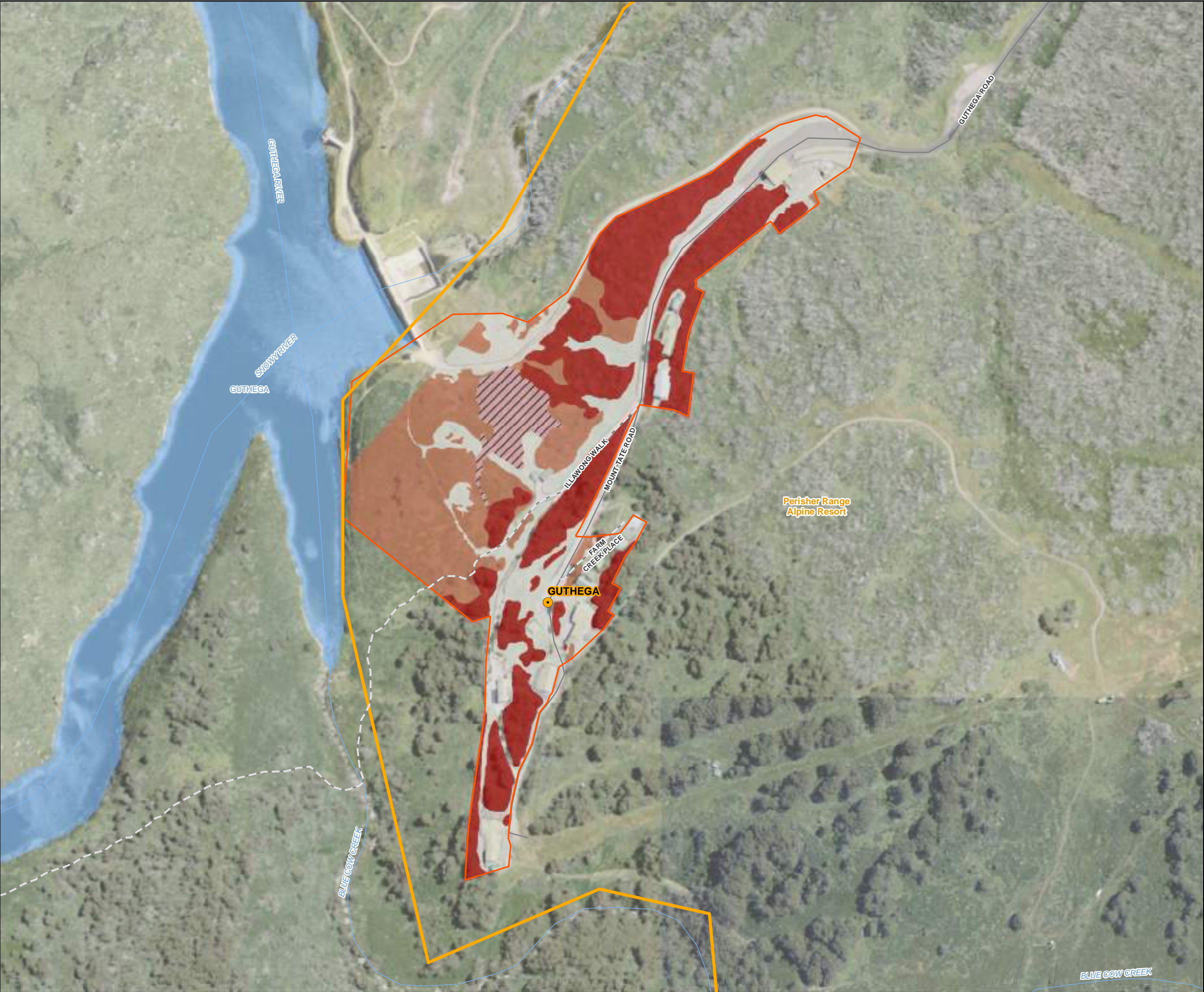
Scale ratio correct when printed at A3

1:4,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure G.2

Guthega Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 645, Shrubland
- PCT 645, Dieback
- PCT 637, Good
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:4,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure G.3

Guthega Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Threatened Fauna Species

- Flame Robin

Threatened Ecological Communities

- Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin



Coordinate system: GDA 1994 MGA Zone 55



Scale ratio correct when printed at A3

1:4,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - EPBC Act Listed Biodiversity

Figure G.4

Guthega Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Threatened Ecological Communities

- Alpine Sphagnum Bogs and Associated Fens



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:4,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix G-3
Guthega
BAM candidate species

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023705/BAAS17060/22/00031160	Guthega	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	16/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Cyclodomorphus praealtus</i> Alpine She-oak Skink		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Ranunculus anemoneus</i> Anemone Buttercup		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<i>Pterostylis oreophila</i> Blue-tongued Greenhood		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Mastacomys fuscus</i> Broad-toothed Rat		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Callocephalon fimbriatum</i> Gang-gang Cockatoo		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Liopholis guthega</i> Guthega Skink		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Discaria nitida</i> Leafy Anchor Plant		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Hieraaetus morphnoides</i> Little Eagle		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Burramys parvus</i> Mountain Pygmy-possum		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne pengilleyi</i> Northern Corroboree Frog		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Rytidosperma vickeryae</i> Perisher Wallaby-grass		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Carex raleighii</i> Raleigh Sedge		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Euphrasia scabra</i> Rough Eyebright		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne corroboree</i> Southern Corroboree Frog		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<p><i>Xerochrysum palustre</i> Swamp Everlasting</p>		<table border="1"> <tr> <td><input type="checkbox"/> Jan</td> <td><input type="checkbox"/> Feb</td> <td><input type="checkbox"/> Mar</td> <td><input type="checkbox"/> Apr</td> </tr> <tr> <td><input type="checkbox"/> May</td> <td><input type="checkbox"/> Jun</td> <td><input type="checkbox"/> Jul</td> <td><input type="checkbox"/> Aug</td> </tr> <tr> <td><input type="checkbox"/> Sep</td> <td><input type="checkbox"/> Oct</td> <td><input type="checkbox"/> Nov</td> <td><input type="checkbox"/> Dec</td> </tr> </table> <p><input type="checkbox"/> Survey month outside the specified months?</p>	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec
<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr											
<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug											
<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec											

Threatened species Manually Added

None added

Appendix H

Charlottes Pass sub-precinct



Appendix H-1
**Charlottes Pass
sub-precinct survey data**

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: CPbog1			30	28	0	9	6	13	0	0	2	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			23.8	23.6	0	9.6	11.4	2.6	0	0	0.2	0.1
<i>Olearia algida</i>	1	20	SG			1						
<i>Richea continentis</i>	5	100	SG			5						
<i>Epacris breviflora</i>	2	30	SG			2						
<i>Chrysocephalum apiculatum</i>	1	500	FG					1				
<i>Ranunculus graniticola</i>	0.1	10	FG					0.1				
<i>Acetosella vulgaris</i>	0.1	50	HT									0.1
<i>Poa hiemata</i>	10	500	GG				10					
<i>Celmisia pugioniformis</i>	0.5	500	FG					0.5				
<i>Festuca asperula</i>	0.2	50	GG				0.2					
<i>Craspedia aurantia</i>	0.1	20	FG					0.1				
<i>Oreomyrrhis eriopoda</i>	0.1	20	FG					0.1				
<i>Aciphylla simplicifolia</i>	0.1	20	FG					0.1				
<i>Empodisma minus</i>	0.5	1000	GG				0.5					
<i>Luzula spp.</i>	0.1	10	GG				0.1					
<i>Carex gaudichaudiana</i>	0.5	1000	GG				0.5					
<i>Grevillea australis</i>	0.5	20	SG			0.5						
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Prostanthera cuneata</i>	0.5	20	SG			0.5						
<i>Nematolepis ovatifolia</i>	0.2	10	SG			0.2						
<i>Hovea montana</i>	0.2	10	SG			0.2						
<i>Celmisia longifolia</i>	0.1	20	FG					0.1				
<i>Baeckea gunniana</i>	0.1	10	SG			0.1						
<i>Pimelea ligustrina</i>	0.1	1	SG			0.1						
<i>Aciphylla glacialis</i>	0.1	50	FG					0.1				
<i>Brachyscome graminea</i>	0.1	20	FG					0.1				
<i>Euphrasia collina subsp. diversicolor</i>	0.1	10	FG					0.1				
<i>Oschatzia cuneifolia</i>	0.1	50	FG					0.1				
<i>Oreomyrrhis brevipes</i>	0.1	20	FG					0.1				
<i>Carex inversa</i>	0.1	30	GG				0.1					
<i>Lythrum salicaria</i>	0.1	1	FG					0.1				

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: CPbog2			14	10	0	0	6	4	0	0	4	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			117.8	117	0	0	116.5	0.5	0	0	0.8	0
<i>Anthoxanthum odoratum</i>	0.5	100	EX								0.5	
<i>Ranunculus graniticola</i>	0.2	100	FG					0.2				
<i>Festuca asperula</i>	25	500	GG				25					
<i>Trisetum spicatum</i>	60	100	GG				60					
<i>Taraxacum officinale</i>	0.1	100	EX								0.1	
<i>Veronica peregrina</i>	0.1	50	EX								0.1	
<i>Cerastium glomeratum</i>	0.1	5	EX								0.1	
<i>Acaena novae-zelandiae</i>	0.1	10	FG					0.1				
<i>Carex breviculmis</i>	0.5	500	GG				0.5					
<i>Carex gaudichaudiana</i>	25	1000	GG				25					
<i>Ranunculus pimpinellifolius</i>	0.1	20	FG					0.1				
<i>Brachyscome graminea</i>	0.1	20	FG					0.1				
<i>Poa costiniana</i>	5	20	GG				5					
<i>Carpha nivicola</i>	1	50	GG				1					

Veg Zone = PCT637 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: CPbog3			30	27	0	7	5	15	0	0	3	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			89.6	89.3	0	24.7	63.1	1.5	0	0	0.3	0.1
<i>Grevillea australis</i>	1	20	SG			1						
<i>Epacris petrophila</i>	20	30	SG			20						
<i>Olearia algida</i>	1	30	SG			1						
<i>Carex gaudichaudiana</i>	20	1000	GG				20					
<i>Poa costiniana</i>	40	1000	GG				40					
<i>Craspedia aurantia</i>	0.1	20	FG					0.1				
<i>Ranunculus graniticola</i>	0.1	100	FG					0.1				
<i>Empodisma minus</i>	2	1000	GG				2					
<i>Oreomyrrhis eriopoda</i>	0.1	50	FG					0.1				
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Richea continentis</i>	0.5	100	SG			0.5						
<i>Scleranthus biflorus</i>	0.1	10	FG					0.1				
<i>Lythrum salicaria</i>	0.1	1	FG					0.1				
<i>Acaena novae-zelandiae</i>	0.1	20	FG					0.1				
<i>Trisetum spicatum</i>	1	100	GG				1					
<i>Senecio gunnii</i>	0.1	10	FG					0.1				
<i>Luzula spp.</i>	0.1	10	GG				0.1					
<i>Ranunculus gunnianus</i>	0.1	20	FG					0.1				
<i>Epacris paludosa</i>	2	50	SG			2						
<i>Trifolium repens</i>	0.1	20	EX								0.1	
<i>Myriophyllum spp.</i>	0.1	10	FG					0.1				
<i>Ranunculus pimpinellifolius</i>	0.1	10	FG					0.1				
<i>Prostanthera cuneata</i>	0.1	1	SG			0.1						
<i>Chrysocephalum apiculatum</i>	0.1	1	FG					0.1				
<i>Aciphylla simplicifolia</i>	0.1	10	FG					0.1				
<i>Achillea millefolium</i>	0.1	1	HT									0.1
<i>Veronica serpyllifolia</i>	0.1	1	FG					0.1				
<i>Pimelea alpina</i>	0.1	1	SG			0.1						
<i>Cardamine lilacina</i>	0.1	50	FG					0.1				
<i>Ranunculus millanii</i>	0.1	20	FG					0.1				

Veg Zone = PCT643 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: CPbould1			17	15	1	8	2	3	1	0	2	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			52.9	52.7	0.1	51.1	1.1	0.3	0.1	0	0.2	0.2
<i>Pinus spp.</i>	0.1	5	HT									0.1
<i>Acetosella vulgaris</i>	0.1	50	HT									0.1
<i>Podocarpus lawrencei</i>	45	100	SG			45						
<i>Tasmania xerophila</i>	5	20	SG			5						
<i>Oxylobium ellipticum</i>	0.5	10	SG			0.5						
<i>Pimelea ligustrina</i>	0.1	5	SG			0.1						
<i>Poa fawcettiae</i>	1	50	GG				1					
<i>Acaena novae-zelandiae</i>	0.1	50	FG					0.1				
<i>Lythrum salicaria</i>	0.1	2	FG					0.1				
<i>Eucalyptus niphophila</i>	0.1	1	TG		0.1							
<i>Epacris paludosa</i>	0.1	10	SG			0.1						
<i>Polystichum proliferum</i>	0.1	20	EG						0.1			
<i>Olearia brevipedunculata</i>	0.1	1	SG			0.1						
<i>Olearia phlogopappa</i>	0.2	5	SG			0.2						
<i>Senecio gunnii</i>	0.1	5	FG					0.1				
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	0.1	1	GG				0.1					
<i>Olearia algida</i>	0.1	1	SG			0.1						

Veg Zone = PCT643 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: CPbould2			22	21	0	11	2	7	1	0	1	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			44	43.9	0	42.8	0.3	0.7	0.1	0	0.1	0.1
<i>Acetosella vulgaris</i>	0.1	100	HT									0.1
<i>Pimelea ligustrina</i>	0.1	5	SG			0.1						
<i>Epacris petrophila</i>	0.5	30	SG			0.5						
<i>Podocarpus lawrencei</i>	40	100	SG			40						
<i>Prostanthera cuneata</i>	0.5	10	SG			0.5						
<i>Oreomyrrhis eriopoda</i>	0.1	20	FG					0.1				
<i>Celmisia longifolia</i>	0.1	1	FG					0.1				
<i>Olearia brevipedunculata</i>	0.3	20	SG			0.3						
<i>Carex inversa</i>	0.1	20	GG				0.1					
<i>Poa hiemata</i>	0.2	30	GG				0.2					
<i>Baeckea gunniana</i>	0.1	1	SG			0.1						
<i>Epacris paludosa</i>	0.5	10	SG			0.5						
<i>Oxylobium ellipticum</i>	0.2	20	SG			0.2						
<i>Grevillea australis</i>	0.2	2	SG			0.2						
<i>Acrothamnus montanus</i>	0.3	20	SG			0.3						
<i>Asperula gunnii</i>	0.1	10	FG					0.1				
<i>Olearia phlogopappa</i>	0.1	5	SG			0.1						
<i>Cardamine lilacina</i>	0.1	1	FG					0.1				
<i>Senecio gunnii</i>	0.1	10	FG					0.1				
<i>Lythrum salicaria</i>	0.1	5	FG					0.1				
<i>Craspedia aurantia</i>	0.1	5	FG					0.1				
<i>Polystichum proliferum</i>	0.1	5	EG						0.1			

Veg Zone = PCT645 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: CPnip1			28	27	1	11	3	11	1	0	1	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			70.5	70.3	40	14	15.1	1.1	0.1	0	0.2	0.2
<i>Eucalyptus niphophila</i>	40	10	TG		40							
<i>Caladenia spp.</i>	0.1	1	FG					0.1				
<i>Olearia phlogopappa</i>	0.3	3	SG			0.3						
<i>Olearia brevipedunculata</i>	0.3	20	SG			0.3						
<i>Prostanthera cuneata</i>	5	50	SG			5						
<i>Craspedia aurantia</i>	0.1	20	FG					0.1				
<i>Podocarpus lawrencei</i>	0.5	10	SG			0.5						
<i>Hovea montana</i>	0.1	5	SG			0.1						
<i>Poa hiemata</i>	10	100	GG				10					
<i>Oxylobium ellipticum</i>	5	100	SG			5						
<i>Pimelea alpina</i>	0.1	5	SG			0.1						
<i>Nematolepis ovatifolia</i>	0.1	1	SG			0.1						
<i>Acrothamnus montanus</i>	2	20	SG			2						
<i>Chrysocephalum apiculatum</i>	0.1	10	FG					0.1				
<i>Luzula novae-cambriae</i>	0.1	10	GG				0.1					
<i>Acaena novae-zelandiae</i>	0.1	20	FG					0.1				
<i>Acetosella vulgaris</i>	0.2	50	HT									0.2
<i>Chiloglottis valida</i>	0.1	1	FG					0.1				
<i>Viola betonicifolia</i>	0.1	20	FG					0.1				
<i>Gonocarpus montanus</i>	0.1	10	FG					0.1				
<i>Asperula gunnii</i>	0.1	50	FG					0.1				
<i>Oreomyrrhis eriopoda</i>	0.1	50	FG					0.1				
<i>Olearia algida</i>	0.5	5	SG			0.5						
<i>Aciphylla simplicifolia</i>	0.1	5	FG					0.1				
<i>Poa spp.</i>	5	5	GG				5					
<i>Euphrasia collina</i>	0.1	25	FG					0.1				
<i>Lycopodium fastigiatum</i>	0.1	10	EG						0.1			
<i>Grevillea australis</i>	0.1	1	SG			0.1						

Veg Zone = PCT645 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: CPnip2			25	24	1	10	5	7	1	0	1	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			42.2	42.1	1	34.7	5.5	0.7	0.2	0	0.1	0.1
<i>Eucalyptus niphophila</i>	1	2	TG		1							
<i>Nematolepis ovatifolia</i>	25	50	SG			25						
<i>Hovea montana</i>	2	50	SG			2						
<i>Oxylobium ellipticum</i>	2	20	SG			2						
<i>Prostanthera cuneata</i>	2	50	SG			2						
<i>Poa hiemata</i>	5	100	GG				5					
<i>Lycopodium fastigiatum</i>	0.2	50	EG						0.2			
<i>Olearia brevipedunculata</i>	0.3	20	SG			0.3						
<i>Pimelea alpina</i>	0.1	50	SG			0.1						
<i>Deyeuxia quadriseta</i>	0.1	1	GG				0.1					
<i>Viola betonicifolia</i>	0.1	20	FG					0.1				
<i>Oreobolus distichus</i>	0.1	20	GG				0.1					
<i>Olearia algida</i>	0.1	20	SG			0.1						
<i>Olearia phlogopappa</i>	0.1	5	SG			0.1						
<i>Craspedia aurantia</i>	0.1	30	FG					0.1				
<i>Aciphylla simplicifolia</i>	0.1	20	FG					0.1				
<i>Grevillea australis</i>	0.1	20	SG			0.1						
<i>Luzula novae-cambriae</i>	0.1	50	GG				0.1					
<i>Chrysocephalum apiculatum</i>	0.1	20	FG					0.1				
<i>Empodisma minus</i>	0.2	20	GG				0.2					
<i>Oreomyrrhis eriopoda</i>	0.1	10	FG					0.1				
<i>Pinus spp.</i>	0.1	1	HT									0.1
<i>Celmisia pugioniformis</i>	0.1	20	FG					0.1				
<i>Orites lancifolius</i>	3	20	SG			3						
<i>Euphrasia collina</i>	0.1	1	FG					0.1				

Veg Zone = PCT645 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: CPnip3			27	25	1	12	2	10	0	0	2	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			141.5	141.2	60	10	70.1	1.1	0	0	0.3	0
<i>Eucalyptus niphophila</i>	60	25	TG		60							
<i>Podocarpus lawrencei</i>	5	20	SG			5						
<i>Festuca asperula</i>	70	100	GG				70					
<i>Celmisia longifolia</i>	0.2	50	FG					0.2				
<i>Acaena novae-zelandiae</i>	0.1	20	FG					0.1				
<i>Asperula spp.</i>	0.1	20	FG					0.1				
<i>Senecio gunnii</i>	0.1	3	FG					0.1				
<i>Trifolium repens</i>	0.1	20	EX								0.1	
<i>Olearia brevipedunculata</i>	2	50	SG			2						
<i>Taraxacum officinale</i>	0.2	20	EX								0.2	
<i>Nematolepis ovatifolia</i>	0.1	5	SG			0.1						
<i>Baeckea gunniana</i>	0.1	1	SG			0.1						
<i>Melicytus dentatus</i>	0.1	1	SG			0.1						
<i>Caladenia gracilis</i>	0.1	1	FG					0.1				
<i>Aciphylla glacialis</i>	0.1	1	FG					0.1				
<i>Aciphylla simplicifolia</i>	0.1	10	FG					0.1				
<i>Oreomyrrhis eriopoda</i>	0.1	10	FG					0.1				
<i>Oxylobium ellipticum</i>	2	100	SG			2						
<i>Olearia phlogopappa</i>	0.1	1	SG			0.1						
<i>Epacris microphylla</i>	0.1	1	SG			0.1						
<i>Empodisma minus</i>	0.1	10	GG				0.1					
<i>Pimelea alpina</i>	0.1	10	SG			0.1						
<i>Euphrasia collina</i>	0.1	60	FG					0.1				
<i>Craspedia aurantia</i>	0.1	10	FG					0.1				
<i>Grevillea australis</i>	0.2	5	SG			0.2						
<i>Olearia algida</i>	0.1	10	SG			0.1						
<i>Ozothamnus secundiflorus</i>	0.1	1	SG			0.1						

Appendix H-2
Charlottes Pass
sub-precinct mapping



Snowy SAP - Field Survey Effort

Figure H.1

Charlotte Pass sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads
- Field Suvey Effort
 - BAM Plot
 - Opportunistic bird survey



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:4,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure H.2

Charlotte Pass sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 645, Good
- PCT 645, Moderate
- PCT 643, Good
- PCT 637, Good
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:4,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure H.3

Charlotte Pass sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Threatened Fauna Species

- Flame Robin

Threatened Ecological Communities

- Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:4,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - EPBC Act Listed Biodiversity

Figure H.4

Charlotte Pass sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Threatened Ecological Communities

- Alpine Sphagnum Bogs and Associated Fens



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:4,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix H-3
Charlottes Pass
BAM candidate species

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023705/BAAS17060/22/00031174	Charlottes Pass	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	16/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Cyclodomorphus praealtus</i> Alpine She-oak Skink		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Ranunculus anemoneus</i> Anemone Buttercup		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<p><i>Pterostylis oreophila</i> Blue-tongued Greenhood</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Mastacomys fuscus</i> Broad-toothed Rat</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Callocephalon fimbriatum</i> Gang-gang Cockatoo</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Liopholis guthega</i> Guthega Skink</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Discaria nitida</i> Leafy Anchor Plant</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Hieraaetus morphnoides</i> Little Eagle</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Burramys parvus</i> Mountain Pygmy-possum		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne pengilleyi</i> Northern Corroboree Frog		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Rytidosperma vickeryae</i> Perisher Wallaby-grass		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Carex raleighii</i> Raleigh Sedge		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Euphrasia scabra</i> Rough Eyebright		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudomys fumeus</i> Smoky Mouse		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<p><i>Pseudophryne corroboree</i> Southern Corroboree Frog</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Xerochrysum palustre</i> Swamp Everlasting</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

Threatened species Manually Added

None added

Appendix I

Island Bend sub-precinct



Appendix I-1
Island Bend
sub-precinct survey data

Veg Zone = PCT1196 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBSGMG1			33	24	2	6	3	12	1	0	9	4
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			76.6	70.6	60	7.4	0.9	2.2	0.1	0	6	0.6
<i>Eucalyptus dalrympleana</i>	40	11	TG		40							
<i>Eucalyptus pauciflora</i>	20	20	TG		20							
<i>Bossiaea foliosa</i>	2	20	SG			2						
<i>Cotoneaster spp.</i>	0.3	2	HT									0.3
<i>Leucopogon gelidus</i>	5	7	SG			5						
<i>Chiloglottis valida</i>	0.2	50	FG					0.2				
<i>Anthoxanthum odoratum</i>	5	1000	EX								5	
<i>Asperula scoparia</i>	1	1000	FG					1				
<i>Hydrocotyle laxiflora</i>	0.1	20	FG					0.1				
<i>Brachyscome spathulata</i>	0.1	10	FG					0.1				
<i>Geranium solanderi</i>	0.1	20	FG					0.1				
<i>Stellaria pungens</i>	0.1	20	FG					0.1				
<i>Ranunculus graniticola</i>	0.1	20	FG					0.1				
<i>Acaena novae-zelandiae</i>	0.1	50	FG					0.1				
<i>Poranthera microphylla</i>	0.1	20	FG					0.1				
<i>Dactylis glomerata</i>	0.1	20	EX								0.1	
<i>Poa sieberiana</i>	0.5	200	GG				0.5					
<i>Olearia erubescens</i>	0.1	20	SG			0.1						
<i>Rubus fruticosus agg.</i>	0.1	1	HT									0.1
<i>Senecio gunnii</i>	0.1	20	FG					0.1				
<i>Luzula spp.</i>	0.1	20	GG				0.1					
<i>Coprosma hirtella</i>	0.1	1	SG			0.1						
<i>Rubus parvifolius</i>	0.1	20	SG			0.1						
<i>Rosa rubiginosa</i>	0.1	1	HT									0.1
<i>Cerastium glomeratum</i>	0.1	10	EX								0.1	
<i>Polyscias sambucifolia</i>	0.1	3	SG			0.1						
<i>Cirsium vulgare</i>	0.1	1	EX								0.1	
<i>Ajuga australis</i>	0.1	1	FG					0.1				
<i>Holcus lanatus</i>	0.1	10	HT									0.1
<i>Cynoglossum australe</i>	0.1	3	FG					0.1				
<i>Poa meionectes</i>	0.3	200	GG				0.3					
<i>Trifolium repens</i>	0.1	10	EX								0.1	
<i>Polystichum proliferum</i>	0.1	1	EG						0.1			

Veg Zone = PCT1196 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBSGMG2			31	29	2	14	3	8	1	1	2	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			75.4	74.8	50	21.5	2.3	0.8	0.1	0.1	0.6	0
<i>Eucalyptus pauciflora</i>	40	20	TG		40							
<i>Eucalyptus dalrympleana</i>	10	4	TG		10							
<i>Poa sieberiana</i>	2	30	GG				2					
<i>Stylidium graminifolium</i>	0.1	20	FG					0.1				
<i>Leucopogon gelidus</i>	5	10	SG			5						
<i>Daviesia mimosoides</i>	10	20	SG			10						
<i>Bossiaea foliosa</i>	5	10	SG			5						
<i>Leucopogon fletcheri</i>	0.1	1	SG			0.1						
<i>Ozothamnus thyrsoides</i>	0.1	1	SG			0.1						
<i>Daviesia ulicifolia</i>	0.2	5	SG			0.2						
<i>Olearia erubescens</i>	0.1	1	SG			0.1						
<i>Polyscias sambucifolia</i>	0.1	1	SG			0.1						
<i>Lomandra longifolia</i>	0.2	20	GG				0.2					
<i>Exocarpos strictus</i>	0.2	30	SG			0.2						
<i>Stellaria pungens</i>	0.1	1	FG					0.1				
<i>Asperula scoparia</i>	0.1	10	FG					0.1				
<i>Coprosma hirtella</i>	0.1	1	SG			0.1						
<i>Clematis aristata</i>	0.1	10	OG							0.1		
<i>Goodenia hederacea</i>	0.1	5	FG					0.1				
<i>Anthoxanthum odoratum</i>	0.5	100	EX								0.5	
<i>Asplenium flabellifolium</i>	0.1	60	EG						0.1			
<i>Stackhousia monogyna</i>	0.1	5	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	10	EX								0.1	
<i>Olearia phlogopappa</i>	0.1	1	SG			0.1						
<i>Oxalis perennans</i>	0.1	1	FG					0.1				
<i>Luzula spp.</i>	0.1	2	GG				0.1					
<i>Acacia falciformis</i>	0.3	1	SG			0.3						
<i>Acacia decora</i>	0.1	1	SG			0.1						
<i>Lomatia myricoides</i>	0.1	1	SG			0.1						
<i>Chiloglottis valida</i>	0.1	20	FG					0.1				
<i>Senecio gunnii</i>	0.1	1	FG					0.1				

Veg Zone = PCT1196 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBSGMG4			37	29	2	9	2	15	0	1	7	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			94.1	81.5	70	7.7	2	1.7	0	0.1	10.6	0.1
<i>Eucalyptus pauciflora</i>	60	100	TG		60							
<i>Eucalyptus dalrympleana</i>	10	5	TG		10							
<i>Bossiaea foliosa</i>	5	50	SG			5						
<i>Leucopogon gelidus</i>	0.1	5	SG			0.1						
<i>Ozothamnus thyrsoideus</i>	2	50	SG			2						
<i>Hakea microcarpa</i>	2	30	SG									
<i>Acacia siculiformis</i>	0.1	5	SG			0.1						
<i>Polyscias sambucifolia</i>	0.1	5	SG			0.1						
<i>Veronica derwentiana</i>	0.1	2	FG					0.1				
<i>Poa sieberiana</i>	1	30	GG				1					
<i>Hypochaeris radicata</i>	0.1	50	EX								0.1	
<i>Anthoxanthum odoratum</i>	10	1000	EX								10	
<i>Acaena novae-zelandiae</i>	0.1	50	FG					0.1				
<i>Geranium solanderi</i>	0.1	50	FG					0.1				
<i>Stellaria pungens</i>	0.1	100	FG					0.1				
<i>Asperula scoparia</i>	0.1	100	FG					0.1				
<i>Poranthera microphylla</i>	0.1	10	FG					0.1				
<i>Chiloglottis valida</i>	0.1	5	FG					0.1				
<i>Taraxacum officinale</i>	0.1	1	EX								0.1	
<i>Senecio gunnii</i>	0.1	2	FG					0.1				
<i>Hydrocotyle laxiflora</i>	0.3	100	FG					0.3				
<i>Echium vulgare</i>	0.1	5	EX								0.1	
<i>Glycine clandestina</i>	0.1	5	OG							0.1		
<i>Poa meionectes</i>	1	50	GG				1					
<i>Arthropodium milleflorum</i>	0.1	2	FG					0.1				
<i>Trifolium repens</i>	0.1	50	EX								0.1	
<i>Chrysocephalum apiculatum</i>	0.1	20	FG					0.1				
<i>Olearia erubescens</i>	0.1	10	SG			0.1						
<i>Pratia pedunculata</i>	0.1	10	FG					0.1				
<i>Olearia megalophylla</i>	0.1	1	SG			0.1						
<i>Rubus fruticosus agg.</i>	0.1	1	HT									0.1
<i>Pimelea pauciflora</i>	0.1	1	SG			0.1						
<i>Verbascum thapsus</i>	0.1	1	EX								0.1	
<i>Ranunculus graniticola</i>	0.1	2	FG					0.1				
<i>Coprosma hirtella</i>	0.1	1	SG			0.1						
<i>Wahlenbergia stricta</i>	0.1	2	FG					0.1				
<i>Ajuga australis</i>	0.1	10	FG					0.1				

Veg Zone = PCT1196 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBSGMG5			36	33	2	9	3	17	0	2	3	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			97	95.7	50	41.7	2.1	1.7	0	0.2	1.3	0
<i>Eucalyptus pauciflora</i>	40	50	TG		40							
<i>Eucalyptus dalrympleana</i>	10	10	TG		10							
<i>Bossiaea foliosa</i>	40	100	SG			40						
<i>Leucopogon gelidus</i>	1	50	SG			1						
<i>Polyscias sambucifolia</i>	0.1	2	SG			0.1						
<i>Acacia falciformis</i>	0.1	5	SG			0.1						
<i>Hydrocotyle laxiflora</i>	0.1	20	FG					0.1				
<i>Anthoxanthum odoratum</i>	1	200	EX								1	
<i>Poa sieberiana</i> var. <i>sieberiana</i>	1	200	GG				1					
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	1	50	GG				1					
<i>Stellaria pungens</i>	0.1	50	FG					0.1				
<i>Asperula scoparia</i>	0.1	50	FG					0.1				
<i>Ajuga australis</i>	0.1	50	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	10	EX								0.1	
<i>Viola betonicifolia</i>	0.1	50	FG					0.1				
<i>Pratia pedunculata</i>	0.1	1	FG					0.1				
<i>Chrysocephalum apiculatum</i>	0.1	20	FG					0.1				
<i>Geranium solanderi</i>	0.1	20	FG					0.1				
<i>Daviesia ulicifolia</i>	0.1	1	SG			0.1						
<i>Hypericum gramineum</i>	0.1	1	FG					0.1				
<i>Clematis aristata</i>	0.1	50	OG							0.1		
<i>Aira elegantissima</i>	0.2	200	EX								0.2	
<i>Pimelea pauciflora</i>	0.1	1	SG			0.1						
<i>Senecio gunnii</i>	0.1	2	FG					0.1				
<i>Acaena novae-zelandiae</i>	0.1	20	FG					0.1				
<i>Chiloglottis valida</i>	0.1	2	FG					0.1				
<i>Luzula flaccida</i>	0.1	1	GG				0.1					
<i>Arthropodium milleflorum</i>	0.1	5	FG					0.1				
<i>Oreomyrrhis eriopoda</i>	0.1	1	FG					0.1				
<i>Ozothamnus thyrsoides</i>	0.1	10	SG			0.1						
<i>Glycine clandestina</i>	0.1	5	OG							0.1		
<i>Daucus glochidiatus</i>	0.1	10	FG					0.1				
<i>Wahlenbergia stricta</i>	0.1	2	FG					0.1				
<i>Coprosma hirtella</i>	0.1	1	SG			0.1						
<i>Ranunculus graniticola</i>	0.1	1	FG					0.1				
<i>Olearia erubescens</i>	0.1	2	SG			0.1						

Veg Zone = PCT1196 Good			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBSGBSMG			36	26	3	9	4	9	1	0	9	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			92.2	81.3	60	19.1	0.9	1.1	0.2	0	10.8	0.1
<i>Eucalyptus dalrympleana</i>	30	10	TG		30							
<i>Eucalyptus stellulata</i>	10	15	TG		10							
<i>Eucalyptus pauciflora</i>	20	20	TG		20							
<i>Bossiaea foliosa</i>	15	20	SG			15						
<i>Persoonia subvelutina</i>	1	10	SG			1						
<i>Hakea microcarpa</i>	0.2	2	SG			0.2						
<i>Pimelea pauciflora</i>	0.3	10	SG			0.3						
<i>Olearia erubescens</i>	0.1	10	SG			0.1						
<i>Polystichum proliferum</i>	0.2	5	EG						0.2			
<i>Veronica derwentiana</i>	0.1	10	FG					0.1				
<i>Rubus parvifolius</i>	0.3	80	SG			0.3						
<i>Acaena novae-zelandiae</i>	0.1	20	FG					0.1				
<i>Geranium solanderi</i>	0.1	20	FG					0.1				
<i>Poa sieberiana</i> var. <i>sieberiana</i>	0.1	10	GG				0.1					
<i>Poa ensiformis</i>	0.5	10	GG				0.5					
<i>Poa meionectes</i>	0.2	100	GG				0.2					
<i>Chrysocephalum apiculatum</i>	0.2	100	FG					0.2				
<i>Hydrocotyle laxiflora</i>	0.2	100	FG					0.2				
<i>Stellaria pungens</i>	0.1	50	FG					0.1				
<i>Anthoxanthum odoratum</i>	10	1000	EX								10	
<i>Carex gaudichaudiana</i>	0.1	1	GG				0.1					
<i>Hypochaeris radicata</i>	0.1	1	EX								0.1	
<i>Polyscias sambucifolia</i>	2	5	SG			2						
<i>Asperula scoparia</i>	0.1	10	FG					0.1				
<i>Holcus lanatus</i>	0.1	10	HT									0.1
<i>Cirsium vulgare</i>	0.1	2	EX								0.1	
<i>Verbascum thapsus</i>	0.1	1	EX								0.1	
<i>Medicago lupulina</i>	0.1	2	EX								0.1	
<i>Trifolium repens</i>	0.1	50	EX								0.1	
<i>Lotus uliginosus</i>	0.1	1	EX								0.1	
<i>Grevillea lanigera</i>	0.1	1	SG			0.1						
<i>Ozothamnus thyrsoides</i>	0.1	1	SG			0.1						
<i>Pratia pedunculata</i>	0.1	1	FG					0.1				
<i>Taraxacum officinale</i>	0.1	1	EX								0.1	
<i>Cynoglossum australe</i>	0.1	1	FG					0.1				
<i>Acaena ovina</i>	0.1	1	FG									

Veg Zone = PCT1196 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBSGMG3			26	13	2	2	2	6	1	0	13	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			113.2	36.8	35	0.4	0.3	1	0.1	0	76.4	0.4
<i>Eucalyptus pauciflora</i>	30	6	TG		30							
<i>Eucalyptus dalrympleana</i>	5	1	TG		5							
<i>Ozothamnus thyrsoides</i>	0.3	2	SG			0.3						
<i>Veronica derwentiana</i>	0.5	20	FG					0.5				
<i>Anthoxanthum odoratum</i>	75	1000	EX								75	
<i>Hypochaeris radicata</i>	0.1	10	EX								0.1	
<i>Verbascum thapsus</i>	0.1	4	EX								0.1	
<i>Achillea millefolium</i>	0.1	50	HT									0.1
<i>Hypericum japonicum</i>	0.1	1	FG					0.1				
<i>Poa sieberiana</i>	0.2	20	GG				0.2					
<i>Echium vulgare</i>	0.1	2	EX								0.1	
<i>Lupinus polyphyllus</i>	0.1	2	EX								0.1	
<i>Trifolium repens</i>	0.1	5	EX								0.1	
<i>Veronica peregrina</i>	0.1	20	EX								0.1	
<i>Anagallis arvensis</i>	0.1	10	EX								0.1	
<i>Cerastium glomeratum</i>	0.1	10	EX								0.1	
<i>Hydrocotyle laxiflora</i>	0.1	50	FG					0.1				
<i>Cynoglossum australe</i>	0.1	2	FG					0.1				
<i>Polystichum proliferum</i>	0.1	3	EG						0.1			
<i>Stellaria pungens</i>	0.1	10	FG					0.1				
<i>Cirsium vulgare</i>	0.1	2	EX								0.1	
<i>Geranium solanderi</i>	0.1	10	FG					0.1				
<i>Persoonia chamaepeuce</i>	0.1	1	SG			0.1						
<i>Pastinaca sp.</i>	0.1	3	EX								0.1	
<i>Poa ensiformis</i>	0.1	10	GG				0.1					
<i>Acetosella vulgaris</i>	0.3	100	HT									0.3

Veg Zone = PCT679 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBScreek			22	16	0	4	9	3	0	0	6	3
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			99	86.7	0	0.8	85.6	0.3	0	0	12.3	5.2
<i>Hakea microcarpa</i>	0.3	5	SG			0.3						
<i>Baeckea gunniana</i>	0.3	30	SG			0.3						
<i>Lotus uliginosus</i>	0.1	50	EX								0.1	
<i>Holcus lanatus</i>	5	100	HT									5
<i>Anthoxanthum odoratum</i>	5	100	EX								5	
<i>Trifolium repens</i>	2	200	EX								2	
<i>Juncus sarophorus</i>	0.1	100	GG				0.1					
<i>Carex gaudichaudiana</i>	20	2000	GG				20					
<i>Carex appressa</i>	60	2000	GG				60					
<i>Festuca asperula</i>	0.1	20	GG				0.1					
<i>Ranunculus pimpinellifolius</i>	0.1	20	FG					0.1				
<i>Carex fascicularis</i>	5	500	GG				5					
<i>Isolepis spp.</i>	0.1	100	GG				0.1					
<i>Luzula flaccida</i>	0.1	20	GG				0.1					
<i>Salix spp.</i>	0.1	1	HT									0.1
<i>Juncus australis</i>	0.1	100	GG				0.1					
<i>Epilobium billardierianum</i>	0.1	20	FG					0.1				
<i>Acaena novae-zelandiae</i>	0.1	10	FG					0.1				
<i>Acetosella vulgaris</i>	0.1	50	HT									0.1
<i>Poa sieberiana</i>	0.1	50	GG				0.1					
<i>Callistemon pityoides</i>	0.1	2	SG			0.1						
<i>Epacris breviflora</i>	0.1	1	SG			0.1						

Veg Zone = PCT679 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBshrub1			26	13	0	3	4	6	0	0	13	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			112.3	46.2	0	45.1	0.5	0.6	0	0	66.1	0.2
<i>Hakea microcarpa</i>	40	60	SG			40						
<i>Anthoxanthum odoratum</i>	60	1000	EX								60	
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Medicago lupulina</i>	0.1	10	EX								0.1	
<i>Festuca rubra</i>	0.1	50	EX								0.1	
<i>Holcus lanatus</i>	0.1	50	HT									0.1
<i>Trifolium repens</i>	5	300	EX								5	
<i>Daucus glochidiatus</i>	0.1	1	FG					0.1				
<i>Epilobium billardierianum</i>	0.1	1	FG					0.1				
<i>Carex inversa</i>	0.1	50	GG				0.1					
<i>Lotus uliginosus</i>	0.1	10	EX								0.1	
<i>Pimelea pauciflora</i>	5	20	SG			5						
<i>Juncus sarophorus</i>	0.2	30	GG				0.2					
<i>Pastinaca spp.</i>	0.1	2	EX								0.1	
<i>Cirsium vulgare</i>	0.1	2	EX								0.1	
<i>Acetosella vulgaris</i>	0.1	30	HT									0.1
<i>Geranium solanderi</i>	0.1	10	FG					0.1				
<i>Carex appressa</i>	0.1	20	GG				0.1					
<i>Acaena ovina</i>	0.1	20	FG					0.1				
<i>Cerastium glomeratum</i>	0.1	20	EX								0.1	
<i>Taraxacum officinale</i>	0.1	10	EX								0.1	
<i>Ranunculus graniticola</i>	0.1	5	FG					0.1				
<i>Rumex crispus</i>	0.1	1	EX								0.1	
<i>Leucopogon gelidus</i>	0.1	1	SG			0.1						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	0.1	1	GG				0.1					
<i>Scleranthus biflorus</i>	0.1	1	FG					0.1				

Veg Zone = PCT679 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBshrub2			24	19	0	4	5	10	0	0	5	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			105.7	45.2	0	41.6	0.5	3.1	0	0	60.5	0.1
<i>Hakea microcarpa</i>	40	100	SG			40						
<i>Leucopogon gelidus</i>	1	50	SG			1						
<i>Stylidium graminifolium</i>	2	500	FG					2				
<i>Juncus sarophorus</i>	0.1	10	GG				0.1					
<i>Anthoxanthum odoratum</i>	60	2000	EX								60	
<i>Epilobium billardierianum</i>	0.2	100	FG					0.2				
<i>Hypochaeris radicata</i>	0.2	100	EX								0.2	
<i>Senecio gunnii</i>	0.1	2	FG					0.1				
<i>Acaena ovina</i>	0.1	20	FG					0.1				
<i>Taraxacum officinale</i>	0.1	10	EX								0.1	
<i>Schoenus apogon</i>	0.1	100	GG				0.1					
<i>Luzula flaccida</i>	0.1	20	GG				0.1					
<i>Euchiton japonicus</i>	0.1	100	FG					0.1				
<i>Acetosella vulgaris</i>	0.1	50	HT									0.1
<i>Asperula scoparia</i>	0.2	100	FG					0.2				
<i>Gonocarpus montanus</i>	0.1	20	FG					0.1				
<i>Ranunculus graniticola</i>	0.1	5	FG					0.1				
<i>Juncus vaginatus</i>	0.1	40	GG				0.1					
<i>Epacris microphylla</i>	0.1	20	SG			0.1						
<i>Leptospermum grandifolium</i>	0.5	1	SG			0.5						
<i>Rytidosperma spp.</i>	0.1	10	GG				0.1					
<i>Geranium solanderi</i>	0.1	20	FG					0.1				
<i>Scleranthus biflorus</i>	0.1	10	FG					0.1				
<i>Festuca rubra</i>	0.1	10	EX								0.1	

Veg Zone = PCT679 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBBScreek2			35	24	2	8	4	10	0	0	11	4
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			133.9	67.8	50	11.5	5.3	1	0	0	66.1	5.4
<i>Eucalyptus stellulata</i>	40	10	TG		40							
<i>Eucalyptus dalrympleana</i>	10	2	TG		10							
<i>Callistemon ptyoides</i>	5	10	SG			5						
<i>Leptospermum grandifolium</i>	0.1	2	SG			0.1						
<i>Leucopogon gelidus</i>	1	20	SG			1						
<i>Hakea microcarpa</i>	0.1	5	SG			0.1						
<i>Cirsium vulgare</i>	0.1	1	EX								0.1	
<i>Poa sieberiana</i>	0.1	1	GG				0.1					
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	0.1	5	GG				0.1					
<i>Hypochaeris radicata</i>	0.1	30	EX								0.1	
<i>Anthoxanthum odoratum</i>	60	1000	EX								60	
<i>Holcus lanatus</i>	5	100	HT									5
<i>Trifolium repens</i>	0.2	100	EX								0.2	
<i>Pimelea pauciflora</i>	0.1	1	SG			0.1						
<i>Geranium solanderi</i>	0.1	50	FG					0.1				
<i>Acetosella vulgaris</i>	0.2	150	HT									0.2
<i>Luzula flaccida</i>	0.1	10	GG				0.1					
<i>Oreomyrrhis eriopoda</i>	0.1	1	FG					0.1				
<i>Veronica subtilis</i>	0.1	50	FG					0.1				
<i>Arthropodium milleflorum</i>	0.1	20	FG					0.1				
<i>Cerastium glomeratum</i>	0.1	1	EX								0.1	
<i>Medicago lupulina</i>	0.1	20	EX								0.1	
<i>Acaena ovina</i>	0.1	1	FG					0.1				
<i>Olearia erubescens</i>	0.1	10	SG			0.1						
<i>Asperula scoparia</i>	0.1	1	FG					0.1				
<i>Acaena novae-zelandiae</i>	0.1	10	FG					0.1				
<i>Rubus parvifolius</i>	0.1	10	SG			0.1						
<i>Carex appressa</i>	5	200	GG				5					
<i>Baeckea gunniana</i>	5	20	SG			5						
<i>Dactylis glomerata</i>	0.1	10	EX								0.1	
<i>Rubus fruticosus</i> agg.	0.1	5	HT									0.1
<i>Rosa rubiginosa</i>	0.1	1	HT									0.1
<i>Senecio gunnii</i>	0.1	1	FG					0.1				
<i>Stellaria pungens</i>	0.1	10	FG					0.1				
<i>Ranunculus graniticola</i>	0.1	10	FG					0.1				

Veg Zone = PCT679 ExoticDomGrass			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: IBDNG			15	6	0	1	1	4	0	0	9	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			116.8	6	0	0.1	0.3	5.6	0	0	110.8	25
Hakea microcarpa	0.1	3	SG			0.1						
Festuca rubra	20	2000	EX								20	
Geranium solanderi	5	1500	FG					5				
Asperula conferta	0.1	50	FG					0.1				
Ranunculus graniticola	0.3	200	FG					0.3				
Trifolium repens	5	1000	EX								5	
Medicago lupulina	0.3	200	EX								0.3	
Taraxacum officinale	0.1	20	EX								0.1	
Hypochaeris radicata	0.1	30	EX								0.1	
Rytidosperma spp.	0.3	100	GG				0.3					
Anthoxanthum odoratum	60	2000	EX								60	
Holcus lanatus	20	500	HT									20
Acetosella vulgaris	5	200	HT									5
Plantago lanceolata	0.3	100	EX								0.3	
Acaena ovina	0.2	50	FG					0.2				

Appendix I-2
Island Bend
sub-precinct mapping



Snowy SAP - Field Survey Effort

Figure I.1

Island Bend Sub-precinct
Alpine SEPP Sub-precinct

Legend

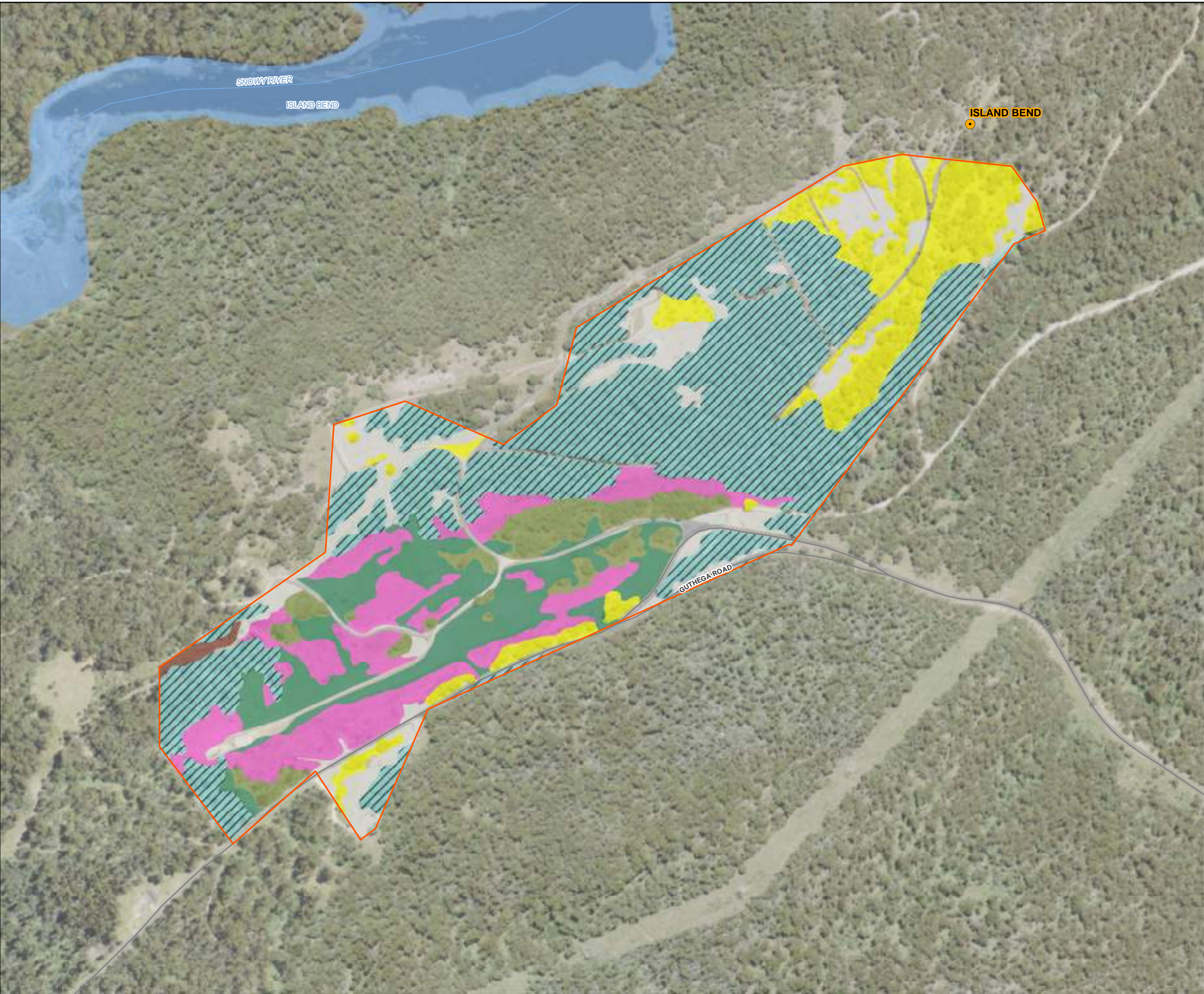
- Study Area
- Waterbodies
- Watercourse
- Roads
- Field Survey Effort**
 - BAM Plot
 - Opportunistic bird survey



Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
1:5,000 Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure I.2

Island Bend Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- Waterbodies
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 1196, Good
- PCT 1196, Shrubland
- PCT 1196, Moderate
- PCT 679, Exotic dominant grassland
- PCT 679, Moderate
- PCT 679, Shrubland
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
1:5,000 Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure I.3

Island Bend Sub-precinct
Alpine SEPP Sub-precinct

Legend

Study Area

Waterbodies

Watercourse

Roads

Hollow-bearing tree

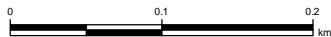
Threatened Fauna Species

Gang-gang Cockatoo

Flame Robin

Threatened Ecological Communities

Monaro Tableland Cool Temperate
Grassy Woodland in The South
Eastern Highlands Bioregion



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:5,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - EPBC Act Listed Biodiversity

Figure I.4

Island Bend Sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- Waterbodies
- Watercourse
- Roads



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:5,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix I-3
Island Bend
BAM candidate species

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023687/BAAS17060/22/00031169	Island Bend	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	16/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Thesium australe</i> Austral Toadflax		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Eucalyptus aggregata</i> Black Gum		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<i>Mastacomys fuscus</i> Broad-toothed Rat		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Cercartetus nanus</i> Eastern Pygmy-possum		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Callocephalon fimbriatum</i> Gang-gang Cockatoo		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Petauroides volans</i> Greater Glider		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Leucochrysum albicans</i> var. <i>tricolor</i> Hoary Sunray		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Phascolarctos cinereus</i> Koala		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Miniopterus orianae oceanensis</i> Large Bent-winged Bat		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Discaria nitida</i> Leafy Anchor Plant		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Hieraaetus morphnoides</i> Little Eagle		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug </div> <div> <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Calotis glandulosa</i> Mauve Burr-daisy		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Petroica rodinogaster</i> Pink Robin		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input checked="" type="checkbox"/> May <input checked="" type="checkbox"/> Jun <input checked="" type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug </div> <div> <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Euphrasia scabra</i> Rough Eyebright		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Eucalyptus parvula</i> Small-leaved Gum		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Pseudomys fumeus</i> Smoky Mouse		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Pseudophryne corroboree</i> Southern Corroboree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Monotoca rotundifolia</i> Trailing Monotoca		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Haliaeetus leucogaster</i> White-bellied Sea-Eagle		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

Threatened species Manually Added

None added

Appendix J

Sponars Chalet sub-precinct



Appendix J-1
Sponars Chalet
sub-precinct survey data

Veg Zone = PCT644 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SponarShr			28	23	0	8	3	12	0	0	5	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			131.8	60.4	0	48.6	10.6	1.2	0	0	71.4	0.2
<i>Hakea microcarpa</i>	5	20	SG			5						
<i>Bossiaea foliosa</i>	30	100	SG			30						
<i>Ozothamnus thyrsoideus</i>	10	20	SG			10						
<i>Olearia phlogopappa</i>	1	20	SG			1						
<i>Malus spp.</i>	1	2	EX								1	
<i>Anthoxanthum odoratum</i>	70	1000	EX								70	
<i>Acetosella vulgaris</i>	0.2	50	HT									0.2
<i>Hypochaeris radicata</i>	0.1	10	EX								0.1	
<i>Poa sp. costiniana</i>	10	100	GG				10					
<i>Acaena novae-zelandiae</i>	0.1	20	FG					0.1				
<i>Hovea linearis</i>	0.1	1	FG					0.1				
<i>Trifolium repens</i>	0.1	2	EX								0.1	
<i>Geranium solanderi</i>	0.1	10	FG					0.1				
<i>Veronica subtilis</i>	0.1	3	FG					0.1				
<i>Scleranthus biflorus</i>	0.1	1	FG					0.1				
<i>Epacris breviflora</i>	0.1	10	SG			0.1						
<i>Melicytus angustifolius subsp. divaricatus</i>	0.2	3	SG			0.2						
<i>Chrysocephalum apiculatum</i>	0.1	20	FG					0.1				
<i>Epilobium billardierianum</i>	0.1	40	FG					0.1				
<i>Ranunculus productus</i>	0.1	20	FG					0.1				
<i>Oreomyrrhis eriopoda</i>	0.1	10	FG					0.1				
<i>Oreomyrrhis argentea</i>	0.1	10	FG					0.1				
<i>Kunzea ericoides</i>	0.3	20	SG			0.3						
<i>Carex spp.</i>	0.3	50	GG				0.3					
<i>Poa sp. fawcettiae</i>	0.3	100	GG				0.3					
<i>Ranunculus pimpinellifolius</i>	0.1	20	FG					0.1				
<i>Asperula scoparia</i>	0.1	10	FG					0.1				
<i>Mirbelia oxylobioides</i>	2	50	SG			2						

Veg Zone = PCT644 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: eniph21			13	9	2	2	2	3	0	0	4	1
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			135.2	36.7	35	0.5	0.8	0.4	0	0	98.5	3
<i>Eucalyptus niphophila</i>	20	8	TG		20							
<i>Eucalyptus pauciflora</i>	15	1	TG		15							
<i>Anthoxanthum odoratum</i>	95	2000	EX								95	
<i>Acetosella vulgaris</i>	3	50	HT									3
<i>Acaena spp.</i>	0.2	10	FG					0.2				
<i>Oxalis spp.</i>	0.1	2	FG					0.1				
<i>Geranium spp.</i>	0.1	10	FG					0.1				
<i>Trifolium repens</i>	0.3	150	EX								0.3	
<i>Taraxacum officinale</i>	0.2	20	EX								0.2	
<i>Poa spp. fawcettiae</i>	0.3	20	GG				0.3					
<i>Poa costiniana</i>	0.5	30	GG				0.5					
<i>Cassinia monticola</i>	0.2	1	SG			0.2						
<i>Melicytus angustifolius subsp. divaricatus</i>	0.3	2	SG			0.3						

Veg Zone = PCT644 ExoticDomGrass			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: poasp22			9	4	0	1	1	2	0	0	5	1
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			63.3	6.1	0	0.5	5	0.6	0	0	57.2	3
Poa sp. costiniana	5	300	GG				5					
Anthoxanthum odoratum	50	500	EX								50	
Acaena spp.	0.3	10	FG					0.3				
Chrysocephalum spp.	0.3	20	FG					0.3				
Acetosella vulgaris	3	300	HT									3
Taraxacum officinale	1	50	EX								1	
Hypochaeris radicata	0.2	20	EX								0.2	
Melicytus angustifolius subsp. divaricatus	0.5	6	SG			0.5						
Arrhenatherum elatius	3	100	EX								3	

Veg Zone = PCT644 ExoticDomGrass			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SponarExG			9	3	0	0	1	2	0	0	6	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			72.2	1.7	0	0	1	0.7	0	0	70.5	0.2
<i>Poa costiniana</i>	1	50	GG				1					
<i>Poa pratensis</i>	40	1000	EX								40	
<i>Acetosella vulgaris</i>	0.2	100	HT									0.2
<i>Anthoxanthum odoratum</i>	30	2000	EX								30	
<i>Hypochaeris radicata</i>	0.1	10	EX								0.1	
<i>Acaena novae-zelandiae</i>	0.5	50	FG					0.5				
<i>Ranunculus spp.</i>	0.2	20	FG					0.2				
<i>Trifolium repens</i>	0.1	20	EX								0.1	
<i>Stellaria graminea</i>	0.1	1	EX								0.1	

Appendix J-2
Sponars Chalet
sub-precinct mapping



Snowy SAP - Field Survey Effort

Figure J.1

Sponars Chalet sub-precinct
Alpine SEPP Sub-precinct

Legend

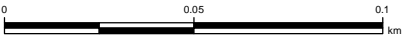
- Study Area
- SAP Precincts
- Cadastre
- Waterbodies
- Watercourse
- Roads

Field Suvey Effort

- BAM Plot
- Opportunistic bird survey

Fauna Habitat Assessment Sites

- Bird survey
- Herpetofauna survey



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure J.2

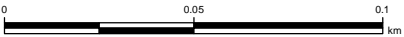
Sponars Chalet sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Cadastre
- Waterbodies
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 644, Moderate
- PCT 644, Exotic dominant grassland
- PCT 644, Shrubland
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure J.3

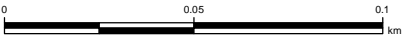
Sponars Chalet sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Cadastre
- Waterbodies
- Watercourse
- Roads

Threatened Fauna Species

- Flame Robin



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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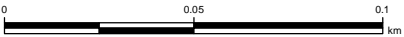
Snowy SAP - EPBC Act Listed Biodiversity

Figure J.4

Sponars Chalet sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Cadastre
- Waterbodies
- Watercourse
- Roads



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix J-3
Sponars Chalet
BAM candidate species

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023705/BAAS17060/22/00031161	Sponars Resort	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	16/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Cyclodomorphus praealtus</i> Alpine She-oak Skink		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Mastacomys fuscus</i> Broad-toothed Rat		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input checked="" type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<i>Callocephalon fimbriatum</i> Gang-gang Cockatoo		<div> <input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Liopholis guthega</i> Guthega Skink		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Miniopterus orianae oceanensis</i> Large Bent-winged Bat		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Discaria nitida</i> Leafy Anchor Plant		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Hieraaetus morphnoides</i> Little Eagle		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug </div> <div> <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Burramys parvus</i> Mountain Pygmy-possum		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Petroica rodinogaster</i> Pink Robin		<table border="1"> <tr> <td><input type="checkbox"/> Jan</td> <td><input type="checkbox"/> Feb</td> <td><input type="checkbox"/> Mar</td> <td><input type="checkbox"/> Apr</td> </tr> <tr> <td><input type="checkbox"/> May</td> <td><input type="checkbox"/> Jun</td> <td><input type="checkbox"/> Jul</td> <td><input type="checkbox"/> Aug</td> </tr> <tr> <td><input type="checkbox"/> Sep</td> <td><input type="checkbox"/> Oct</td> <td><input type="checkbox"/> Nov</td> <td><input type="checkbox"/> Dec</td> </tr> </table> <input type="checkbox"/> Survey month outside the specified months?	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec
<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr											
<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug											
<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec											
<i>Haliaeetus leucogaster</i> White-bellied Sea-Eagle		<table border="1"> <tr> <td><input type="checkbox"/> Jan</td> <td><input type="checkbox"/> Feb</td> <td><input type="checkbox"/> Mar</td> <td><input type="checkbox"/> Apr</td> </tr> <tr> <td><input type="checkbox"/> May</td> <td><input type="checkbox"/> Jun</td> <td><input type="checkbox"/> Jul</td> <td><input type="checkbox"/> Aug</td> </tr> <tr> <td><input type="checkbox"/> Sep</td> <td><input type="checkbox"/> Oct</td> <td><input type="checkbox"/> Nov</td> <td><input type="checkbox"/> Dec</td> </tr> </table> <input type="checkbox"/> Survey month outside the specified months?	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug	<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec
<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr											
<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input type="checkbox"/> Jul	<input type="checkbox"/> Aug											
<input type="checkbox"/> Sep	<input type="checkbox"/> Oct	<input type="checkbox"/> Nov	<input type="checkbox"/> Dec											

Threatened species Manually Added

None added

Appendix K

Ski Rider Hotel sub-precinct



Appendix K-1
Ski Rider Hotel
sub-precinct survey data

Veg Zone = PCT1196 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SkiRidInt1			29	27	2	7	2	16	0	0	2	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			163.7	123.6	50	21	50.1	2.5	0	0	40.1	0
<i>Eucalyptus pauciflora</i>	40	40	TG		40							
<i>Eucalyptus dalrympleana</i>	10	10	TG		10							
<i>Bossiaea foliosa</i>	20	50	SG			20						
<i>Acrothamnus hookeri</i>	0.5	10	SG			0.5						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	50	200	GG				50					
<i>Anthoxanthum odoratum</i>	40	500	EX								40	
<i>Chrysocephalum apiculatum</i>	1	200	FG					1				
<i>Ajuga australis</i>	0.1	10	FG					0.1				
<i>Iuzula flaccida</i>	0.1	10	GG				0.1					
<i>Stellaria pungens</i>	0.1	50	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Asperula scoparia</i>	0.1	200	FG					0.1				
<i>Euchiton involucratus</i>	0.1	10	FG					0.1				
<i>Geranium solanderi</i>	0.1	50	FG					0.1				
<i>Olearia phlogopappa</i>	0.1	10	SG			0.1						
<i>Glaucous lily</i> sp. (no reproductive material)	0.1	10	FG					0.1				
<i>Pratia purpurascens</i>	0.1	10	FG					0.1				
<i>Daucus glochidiatus</i>	0.1	1	FG					0.1				
<i>Green lily</i> sp. (no reproductive material)	0.1	10	FG					0.1				
<i>Viola betonicifolia</i>	0.1	10	FG					0.1				
<i>Acaena</i> spp. (no reproductive material)	0.1	10	FG					0.1				
<i>Acacia siculiformis</i>	0.1	2	SG			0.1						
<i>Monotoca scoparia</i>	0.1	5	SG			0.1						
<i>Acacia falciformis</i>	0.1	1	SG			0.1						
<i>Hairy alernate leaf forb</i> (no reproductive material)	0.1	1	FG					0.1				
<i>Brachyscome spathulata</i>	0.1	5	FG					0.1				
<i>Hypericum gramineum</i>	0.1	1	FG					0.1				
<i>Daviesia ulicifolia</i> subsp. <i>ruscifolia</i>	0.1	1	SG			0.1						
<i>Wahlenbergia stricta</i>	0.1	5	FG					0.1				

Veg Zone = PCT1196 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: edalpacd19			30	28	3	12	2	10	0	1	2	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			110.2	95.1	55	34	1.1	4.7	0	0.3	15.1	0
<i>Eucalyptus delegatensis subsp. delegatensis</i>	20	3	TG		20							
<i>Eucalyptus pauciflora</i>	20	12	TG		20							
<i>Eucalyptus dalrympleana</i>	15	8	TG		15							
<i>Acacia obliquinervia</i>	5	8	SG			5						
<i>Polyscias sambucifolia</i>	2	6	SG			2						
<i>Bossiaea foliosa</i>	20	500	SG			20						
<i>Daviesia ulicifolia</i>	3	20	SG			3						
<i>Clematis aristata</i>	0.3	20	OG							0.3		
<i>Poa sieberiana var. sieberiana</i>	1	200	GG				1					
<i>Anthoxanthum odoratum</i>	15	500	EX								15	
<i>Leucopogon gelidus</i>	1	10	SG			1						
<i>Acrothamnus hookeri</i>	1	5	SG			1						
<i>Asperula scoparia</i>	3	500	FG					3				
<i>Senecio gunnii</i>	0.5	10	FG					0.5				
<i>Coprosma hirtella</i>	0.1	3	SG			0.1						
<i>Stellaria pungens</i>	0.2	200	FG					0.2				
<i>Gonocarpus montanus</i>	0.1	4	FG					0.1				
<i>Olearia phlogopappa</i>	0.2	10	SG			0.2						
<i>Solenogyne spp.</i>	0.1	6	FG					0.1				
<i>Derwentia perfoliata</i>	0.3	20	SG			0.3						
<i>Hydrocotyle sibthorpioides</i>	0.2	50	FG					0.2				
<i>Geranium potentilloides</i>	0.2	50	FG					0.2				
<i>Luzula flaccida</i>	0.1	2	GG				0.1					
<i>Taraxacum officinale</i>	0.1	5	EX								0.1	
<i>Lagenifera stipitata</i>	0.1	5	FG					0.1				
<i>Grevillea lanigera</i>	1	10	SG			1						
<i>Rubus parvifolius</i>	0.3	3	SG			0.3						
<i>Microseris lanceolata</i>	0.2	20	FG					0.2				
<i>Olearia megalophylla</i>	0.1	3	SG			0.1						
<i>Helichrysum spp.</i>	0.1	5	FG					0.1				

Veg Zone = PCT1196 Shrubland			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SkiRidEase			19	15	1	6	1	6	0	1	4	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			113.1	112.6	0.1	71.8	40	0.6	0	0.1	0.5	0.1
Brachyscome spathulata	0.1	5	FG					0.1				
Acetosella vulgaris	0.1	3	HT									0.1
Daviesia ulicifolia	1	10	SG			1						
Bossiaea foliosa	70	200	SG			70						
Olearia phlogopappa	0.2	10	SG			0.2						
Poa sieberiana var. sieberiana	40	100	GG				40					
Clematis aristata	0.1	50	OG							0.1		
Olearia erubescens	0.1	10	SG			0.1						
Anthoxanthum odoratum	0.2	100	EX								0.2	
Stellaria pungens	0.1	50	FG					0.1				
Coprosma hirtella	0.4	3	SG			0.4						
Euchiton involucratus	0.1	10	FG					0.1				
Hypericum gramineum	0.1	20	FG					0.1				
Taraxacum officinale	0.1	10	EX								0.1	
Dianella tasmanica	0.1	1	FG					0.1				
Acacia falciformis	0.1	1	SG			0.1						
Eucalyptus pauciflora	0.1	10	TG		0.1							
Senecio gunnii	0.1	1	FG					0.1				
Hypochaeris radicata	0.1	2	EX								0.1	

Veg Zone = PCT1196 CarParkTrees			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SkiRidCP			14	9	1	8	0	0	0	0	5	0
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			28.3	27.8	25	2.8	0	0	0	0	0.5	0
Eucalyptus dalrympleana	25	2	TG		25							
Coprosma hirtella	0.1	2	SG			0.1						
Leptospermum myrtifolium	0.3	3	SG			0.3						
Hakea microcarpa	0.1	2	SG			0.1						
Ozothamnus thyrsoides	0.1	1	SG			0.1						
Callistemon pityoides	1	7	SG			1						
Anthoxanthum odoratum	0.1	20	EX								0.1	
Poa annua	0.1	50	EX								0.1	
Sonchus oleraceus	0.1	1	EX								0.1	
Anagallis arvensis	0.1	20	EX								0.1	
Taraxacum officinale	0.1	1	EX								0.1	
Ozothamnus cupressoides	0.1	1	SG			0.1						
Bossiaea foliosa	0.1	1	SG			0.1						
Leptospermum grandifolium	1	1	SG			1						

Veg Zone = PCT679 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: SkiRidBSC			29	25	2	9	4	8	2	0	4	1
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			152.2	82	50	23.1	7	1.5	0.4	0	70.2	10
<i>Eucalyptus stellulata</i>	40	50	TG		40							
<i>Eucalyptus dalrympleana</i>	10	1	TG		10							
<i>Bossiaea foliosa</i>	20	40	SG			20						
<i>Callistemon pityoides</i>		5	SG			0						
<i>Leptospermum grandifolium</i>	2	1	SG			2						
<i>Grevillea lanigera</i>	0.2	3	SG			0.2						
<i>Stellaria pungens</i>	0.1	50	FG					0.1				
<i>Anthoxanthum odoratum</i>	60	1000	EX								60	
<i>Acetosella vulgaris</i>	10	400	HT									10
<i>Carex appressa</i>	1	20	GG				1					
<i>Poa helmsii</i>	5	50	GG				5					
<i>Elymus scaber</i>	0.5	50	GG				0.5					
<i>Geranium solanderi</i>	0.1	20	FG					0.1				
<i>Cerastium vulgare</i>	0.1	1	EX								0.1	
<i>Blechnum nudum</i>	0.1	10	EG						0.1			
<i>Acaena novae-zelandiae</i>	0.3	100	FG					0.3				
<i>Empodisma minus</i>	0.5	200	GG				0.5					
<i>Baeckea gunniana</i>	0.5	1	SG			0.5						
<i>Gonocarpus micranthus</i>	0.1	20	FG					0.1				
<i>Poranthera microphylla</i>	0.1	20	FG					0.1				
<i>Epacris breviflora</i>	0.1	5	SG			0.1						
<i>Ranunculus lappaceus</i>	0.5	1	FG					0.5				
<i>Tasmania xerophila</i>	0.1	10	SG			0.1						
<i>Olearia phlogopappa</i>	0.1	5	SG			0.1						
<i>Olearia megalophylla</i>	0.1	1	SG			0.1						
<i>Asperula scoparia</i>	0.1	50	FG					0.1				
<i>Polystichum proliferum</i>	0.3	10	EG						0.3			
<i>Lagenifera stipitata</i>	0.2	50	FG					0.2				
<i>Hypochaeris radicata</i>	0.1	5	EX								0.1	

Appendix K-2
Ski Rider Hotel
sub-precinct mapping



Snowy SAP - Field Survey Effort

Figure K.1

Ski Rider Hotel sub-precinct
Alpine SEPP Sub-precinct

Legend

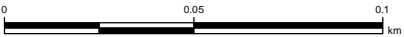
- Study Area
- SAP Precincts
- Cadastre
- Waterbodies
- Watercourse
- Roads

Field Suvey Effort

- BAM Plot
- Opportunistic bird survey

Fauna Habitat Assessment Sites

- Anabat
- Bird survey
- Reptile search



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure K.2

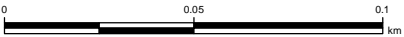
Ski Rider Hotel sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Cadastre
- Waterbodies
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 1196, Shrubland
- PCT 1196, Car Park Trees
- PCT 1196, Moderate
- PCT 679, Moderate
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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WILSONS VALLEY



Snowy SAP - BC Act Listed Biodiversity

Figure K.3

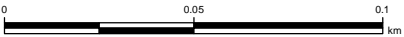
Ski Rider Hotel sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Cadastre
- Waterbodies
- Watercourse
- Roads
- Hollow-bearing tree

Threatened Fauna Species

- Gang-gang Cockatoo



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:2,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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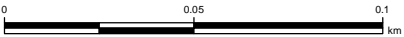
Snowy SAP - EPBC Act Listed Biodiversity

Figure K.4

Ski Rider Hotel sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Cadastre
- Waterbodies
- Watercourse
- Roads



Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
1:2,000
Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix K-3
Ski Rider Hotel
BAM candidate species

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023705/BAAS17060/22/00031163	Ski Rider	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	16/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Pterostylis alpina</i> Alpine Greenhood		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Cyclodomorphus praealtus</i> Alpine She-oak Skink		<input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<i>Thesium australe</i> Austral Toadflax		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Mastacomys fuscus</i> Broad-toothed Rat		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Caladenia montana</i> Caladenia montana		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Cercartetus nanus</i> Eastern Pygmy-possum		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Callocephalon fimbriatum</i> Gang-gang Cockatoo		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Petauroides volans</i> Greater Glider		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Liopholis guthega</i> Guthega Skink		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Leucochrysum albicans var. tricolor</i> Hoary Sunray		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Prasophyllum keltonii</i> Kelton's Leek Orchid		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Phascolarctos cinereus</i> Koala		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Miniopterus orianae oceanensis</i> Large Bent-winged Bat		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Discaria nitida</i> Leafy Anchor Plant		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Hieraaetus morphnoides</i> Little Eagle		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Calotis glandulosa</i> Mauve Burr-daisy		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne pengilleyi</i> Northern Corroboree Frog		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Petroica rodinogaster</i> Pink Robin		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr <input checked="" type="checkbox"/> May <input checked="" type="checkbox"/> Jun <input checked="" type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Prasophyllum bagoense</i> Prasophyllum bagoense		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Euphrasia scabra</i> Rough Eyebright		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Pterostylis foliata</i> Slender Greenhood		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudomys fumeus</i> Smoky Mouse		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne corroboree</i> Southern Corroboree Frog		<div> <input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Litoria spenceri</i> Spotted Tree Frog		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Xerochrysum palustre</i> Swamp Everlasting		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr </div> <div> <input checked="" type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Haliaeetus leucogaster</i> White-bellied Sea-Eagle		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input checked="" type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug </div> <div> <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

Threatened species Manually Added

None added

Appendix L

Kosciuszko Tourist Park sub-precinct



Appendix L-1
**Kosciuszko Tourist Park
sub-precinct survey data**

Veg Zone = PCT1196 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: KTPI1			49	36	2	5	5	23	0	1	10	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			137.6	106.2	45	15.6	40.5	5	0	0.1	31.1	0
<i>Eucalyptus dalrympleana</i>	35	5	TG		35							
<i>Eucalyptus pauciflora</i>	10	40	TG		10							
<i>Exocarpos strictus</i>	15	100	SG			15						
<i>Mirbelia oxylobioides</i>	0.2	5	SG			0.2						
<i>Hypericum gramineum</i>	2	50	FG					2				
<i>Daucus glochidiatus</i>	0.1	20	FG					0.1				
<i>Stellaria pungens</i>	0.1	50	FG					0.1				
<i>Galium ciliare</i>	0.1	50	FG					0.1				
<i>Glycine clandestina</i>	0.1	20	OG							0.1		
<i>Lomandra longifolia</i>	0.1	10	GG				0.1					
<i>Calotis scabiosifolia</i>	0.1	30	FG					0.1				
<i>Gonocarpus tetragynus</i>	0.1	50	FG					0.1				
<i>Senecio gunnii</i>	0.1	50	FG					0.1				
<i>Dianella tasmanica</i>	0.2	20	FG					0.2				
<i>Asperula scoparia</i>	0.2	200	FG					0.2				
<i>Poa sieberiana</i>	40	200	GG				40					
<i>Geranium solanderi</i>	0.2	100	FG					0.2				
<i>Viola betonicifolia</i>	0.2	200	FG					0.2				
<i>Hypochaeris radicata</i>	0.1	20	EX								0.1	
<i>Hydrocotyle laxiflora</i>	0.2	100	FG					0.2				
<i>Anthoxanthum odoratum</i>	0.2	200	EX								0.2	
<i>Elymus scaber</i>	0.1	100	GG				0.1					
<i>Poa pratensis</i>	30	100	EX								30	
<i>Chrysocephalum apiculatum</i>	0.1	50	FG					0.1				
<i>Acrotriche serrulata</i>	0.2	100	EX								0.2	
<i>Acrothamnus hookeri</i>	0.2	200	SG			0.2						
<i>Luzula flaccida</i>	0.2	200	GG				0.2					
<i>Trifolium repens</i>	0.1	10	EX								0.1	
<i>Medicago lupulina</i>	0.1	10	EX								0.1	
<i>Carex spp.</i>	0.1	10	GG				0.1					
<i>Rumex brownii</i>	0.1	1	FG					0.1				
<i>Cymbonotus lawsonianus</i>	0.2	100	FG					0.2				
<i>Trifolium arvense</i>	0.1	1	EX								0.1	
<i>Leptospermum myrtifolium</i>	0.1	1	SG			0.1						
<i>Craspedia variabilis</i>	0.1	2	FG					0.1				
<i>Stackhousia monogyna</i>	0.1	1	FG					0.1				
<i>Scleranthus biflorus</i>	0.3	100	FG					0.3				
<i>Crassula sieberiana</i>	0.1	100	FG					0.1				
<i>Aira elegantissima</i>	0.1	10	EX								0.1	

Veg Zone = PCT1196 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: KTPI1			49	36	2	5	5	23	0	1	10	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			137.6	106.2	45	15.6	40.5	5	0	0.1	31.1	0
Ajuga australis	0.1	1	FG					0.1				
Senecio spp.	0.1	1	FG					0.1				
Acaena novae-zelandiae	0.1	5	FG					0.1				
Acaena ovina	0.1	5	FG					0.1				
Cirsium vulgare	0.1	1	EX								0.1	
Taraxacum officinale	0.1	5	EX								0.1	
Olearia erubescens	0.1	2	SG			0.1						
Acacia melanoxylon	0.1	1	TG									
Coprosma hirtella	0.1	5	SG									
Glaucous lily (no reproductive material)	0.1	1	FG									

Veg Zone = PCT1196 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: KTPI2			40	36	2	6	4	22	1	1	4	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			160.8	160.4	60	65.5	32.2	2.5	0.1	0.1	0.4	0
<i>Eucalyptus dalrympleana</i>	25	10	TG		25							
<i>Eucalyptus pauciflora</i>	35	100	TG		35							
<i>Pterostylis mutica</i>	0.1	1	FG					0.1				
<i>Mirbelia oxylobioides</i>	60	200	SG			60						
<i>Exocarpos strictus</i>	5	50	SG			5						
<i>Brachyloma daphnoides</i>	0.2	10	SG			0.2						
<i>Calotis scabiosifolia</i>	0.1	20	FG					0.1				
<i>Daucus glochidiatus</i>	0.1	20	FG					0.1				
<i>Stellaria pungens</i>	0.1	50	FG					0.1				
<i>Senecio gunnii</i>	0.1	50	FG					0.1				
<i>Galium ciliare</i>	0.1	50	FG					0.1				
<i>Poa sieberiana</i>	30	200	GG				30					
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	2	200	GG				2					
<i>Acrotriche serrulata</i>	0.1	30	SG			0.1						
<i>Poranthera microphylla</i>	0.2	2	FG					0.2				
<i>Ophioglossum lusitanicum</i>	0.1	20	EG						0.1			
<i>Geranium solanderi</i>	0.2	100	FG					0.2				
<i>Hydrocotyle laxiflora</i>	0.2	100	FG					0.2				
<i>Euchiton involucratus</i>	0.1	10	FG					0.1				
<i>Glycine clandestina</i>	0.1	10	OG							0.1		
<i>Anthoxanthum odoratum</i>	0.1	10	EX								0.1	
<i>Stackhousia monogyna</i>	0.1	20	FG					0.1				
<i>Herpolirion novae-zelandiae</i>	0.1	10	FG					0.1				
<i>Chiloglottis valida</i>	0.1	2	FG					0.1				
<i>Aira elegantissima</i>	0.1	1	EX								0.1	
<i>Acaena novae-zelandiae</i>	0.1	10	FG					0.1				
<i>Leucopogon gelidus</i>	0.1	10	SG			0.1						
<i>Hypericum gramineum</i>	0.1	20	FG					0.1				
<i>Asperula conferta</i>	0.1	50	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	5	EX								0.1	
<i>Veronica gracilis</i>	0.1	10	FG					0.1				
<i>Medicago lupulina</i>	0.1	10	EX								0.1	
<i>Wahlenbergia</i> spp.	0.1	1	FG					0.1				
<i>Luzula flaccida</i>	0.1	1	GG				0.1					
<i>Viola betonicifolia</i>	0.1	1	FG					0.1				
<i>Senecio</i> spp.	0.1	10	FG					0.1				
<i>Elymus scaber</i>	0.1	20	GG				0.1					
<i>Acrothamnus hookeri</i>	0.1	5	SG			0.1						
<i>Ranunculus plebeius</i>	0.1	2	FG					0.1				
<i>Crassula sieberiana</i>	0.1	2	FG					0.1				

Veg Zone = PCT1196 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: epaucdal15			33	31	3	12	3	13	0	0	2	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			127.7	117.6	45	54.4	15.1	3.1	0	0	10.1	0
<i>Eucalyptus pauciflora</i>	20	22	TG		20							
<i>Eucalyptus dalrympleana</i>	20	18	TG		20							
<i>Eucalyptus stellulata</i>	5	3	TG		5							
<i>Leucopogon gelidus</i>	2	10	SG			2						
<i>Ozothamnus thyrsoides</i>	5	100	SG			5						
<i>Poa sieberiana</i> var. <i>sieberiana</i>	10	200	GG				10					
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	5	200	GG				5					
<i>Mirbelia oxylobioides</i>	30	500	SG			30						
<i>Grevillea lanigera</i>	5	150	SG			5						
<i>Anthoxanthum odoratum</i>	10	300	EX								10	
<i>Veronica plebeia</i>	0.3	50	FG					0.3				
<i>Hydrocotyle sibthorpioides</i>	0.3	200	FG					0.3				
<i>Craspedia variabilis</i>	0.2	3	FG					0.2				
<i>Senecio gunnii</i>	1	50	FG					1				
<i>Pimelea linifolia</i> subsp. <i>caesia</i>	0.1	3	SG			0.1						
<i>Gonocarpus tetragynus</i>	0.2	30	FG					0.2				
<i>Galium gaudichaudii</i>	0.1	6	FG					0.1				
<i>Asperula conferta</i>	0.1	4	FG					0.1				
<i>Exocarpos strictus</i>	5	10	SG			5						
<i>Brachyloma daphnoides</i>	3	20	SG			3						
<i>Geranium solanderi</i>	0.2	10	FG					0.2				
<i>Brachyscome aculeata</i>	0.3	10	FG					0.3				
<i>Helichrysum</i> spp.	0.1	3	FG					0.1				
<i>Persoonia chamaepeuce</i>	0.1	1	SG			0.1						
<i>Daviesia mimosoides</i> subsp. <i>mimosoides</i>	3	20	SG			3						
<i>Taraxacum officinale</i>	0.1	5	EX								0.1	
<i>Lomandra longifolia</i>	0.1	1	GG				0.1					
<i>Solenogyne gunnii</i>	0.1	2	FG					0.1				
<i>Olearia erubescens</i>	0.1	1	SG			0.1						
<i>Acacia implexa</i>	1	2	SG			1						
<i>Poranthera microphylla</i>	0.1	2	FG					0.1				
<i>Cymbonotus lawsonianus</i>	0.1	3	FG					0.1				
<i>Olearia megalophylla</i>	0.1	2	SG			0.1						

Veg Zone = PCT1196 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: epaucdal17			37	34	3	8	3	19	0	1	3	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			163.4	158.1	57	11.9	80.8	8.2	0	0.2	5.3	0
<i>Eucalyptus pauciflora</i>	15	8	TG		15							
<i>Eucalyptus dalrympleana</i>	40	14	TG		40							
<i>Exocarpos strictus</i>	3	20	SG			3						
<i>Mirbelia oxylobioides</i>	5	50	SG			5						
<i>Euchiton involucratus</i>	0.2	5	FG					0.2				
<i>Hydrocotyle laxiflora</i>	1	300	FG					1				
<i>Geranium solanderi</i>	1	200	FG					1				
<i>Poa sieberiana</i> var. <i>sieberiana</i>	80	2000	GG				80					
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	0.5	50	GG				0.5					
<i>Senecio gunnii</i>	0.5	20	FG					0.5				
<i>Anthoxanthum odoratum</i>	5	500	EX								5	
<i>Cullen microcephalum</i>	1	150	FG					1				
<i>Gonocarpus tetragynus</i>	0.1	5	FG					0.1				
<i>Aira elegantissima</i>	0.1	3	EX								0.1	
<i>Taraxacum officinale</i>	0.2	20	EX								0.2	
<i>Pterostylis</i> spp.	0.1	3	FG					0.1				
<i>Brachyscome aculeata</i>	0.3	30	FG					0.3				
<i>Acaena ovina</i>	0.3	20	FG					0.3				
<i>Asperula scoparia</i>	1	300	FG					1				
<i>Glycine clandestina</i>	0.2	30	OG							0.2		
<i>Ozothamnus thyrsoides</i>	1	6	SG			1						
<i>Stellaria pungens</i>	0.5	100	FG					0.5				
<i>Dianella longifolia</i>	0.2	6	FG					0.2				
<i>Acrothamnus hookeri</i>	2	30	SG			2						
<i>Dichondra repens</i>	1	300	FG					1				
<i>Lomandra longifolia</i>	0.3	4	GG				0.3					
<i>Acacia dealbata</i>	2	20	TG		2							
<i>Stackhousia monogyna</i>	0.3	20	FG					0.3				
<i>Cymbonotus</i> spp.	0.1	3	FG					0.1				
<i>Coprosma</i> spp.	0.2	4	SG			0.2						
<i>Oxalis</i> spp.	0.2	30	FG					0.2				
<i>Ajuga australis</i>	0.2	20	FG					0.2				
<i>Viola betonicifolia</i>	0.1	10	FG					0.1				
<i>Galium gaudichaudii</i>	0.1	6	FG					0.1				
<i>Leucopogon gelidus</i>	0.3	6	SG			0.3						
<i>Olearia megalophylla</i>	0.1	4	SG			0.1						
<i>Olearia phlogopappa</i>	0.3	2	SG			0.3						

Veg Zone = PCT1196 Poor			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: epaucdal16			19	13	3	2	1	7	0	0	6	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			118.3	75.5	70	0.2	3	2.3	0	0	42.8	0
<i>Eucalyptus pauciflora</i>	15	5	TG		15							
<i>Eucalyptus dalrympleana</i>	50	14	TG		50							
<i>Eucalyptus stellulata</i>	5	4	TG		5							
<i>Stellaria pungens</i>	0.3	20	FG					0.3				
<i>Anthoxanthum odoratum</i>	40	500	EX								40	
<i>Poa sieberiana</i> var. <i>sieberiana</i>	3	50	GG				3					
<i>Taraxacum officinale</i>	1	300	EX								1	
<i>Hydrocotyle sibthorpioides</i>	1	500	FG					1				
<i>Medicago lupulina</i>	0.5	300	EX								0.5	
<i>Vulpia myuros</i>	1	150	EX								1	
<i>Euchiton</i> spp.	0.3	50	FG					0.3				
<i>Asperula conferta</i>	0.2	20	FG					0.2				
<i>Ajuga australis</i>	0.1	3	FG					0.1				
<i>Acaena</i> spp.	0.1	2	FG					0.1				
<i>Trifolium repens</i>	0.2	30	EX								0.2	
<i>Aira elegantissima</i>	0.1	3	EX								0.1	
<i>Chrysocephalum</i> spp.	0.3	50	FG					0.3				
<i>Ozothamnus thyrsoides</i>	0.1	3	SG			0.1						
<i>Brachyloma daphnoides</i>	0.1	1	SG			0.1						

Veg Zone = PCT1196 Poor			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: KTPCamp			34	24	3	5	3	13	0	0	10	1
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			60.3	48.5	45	1	0.7	1.8	0	0	11.8	0.1
<i>Eucalyptus dalrympleana</i>	30	7	TG		30							
<i>Eucalyptus pauciflora</i>	10	3	TG		10							
<i>Eucalyptus stellulata</i>	5	2	TG		5							
<i>Mirbelia oxylobioides</i>	0.2	2	SG			0.2						
<i>Acrothamnus hookeri</i>	0.5	1	SG			0.5						
<i>Exocarpos strictus</i>	0.1	1	SG			0.1						
<i>Acrotriche serrulata</i>	0.1	1	SG			0.1						
<i>Stellaria pungens</i>	0.1	100	FG					0.1				
<i>Calotis scabiosifolia</i>	0.1	10	FG					0.1				
<i>Elymus scaber</i>	0.1	20	GG				0.1					
<i>Euchiton involucratus</i>	0.1	20	FG					0.1				
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	0.5	100	GG				0.5					
<i>Hydrocotyle laxiflora</i>	0.5	100	FG					0.5				
<i>Gonocarpus tetragynus</i>	0.1	10	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	10	EX								0.1	
<i>Taraxacum officinale</i>	0.1	10	EX								0.1	
<i>Plantago lanceolata</i>	0.1	10	EX								0.1	
<i>Anthoxanthum odoratum</i>	10	100	EX								10	
<i>Rytidosperma tenuius</i>	0.1	10	GG				0.1					
<i>Dichondra</i> sp. A	0.2	50	FG					0.2				
<i>Poa pratensis</i>	1	100	EX								1	
<i>Acetosella vulgaris</i>	0.1	1	HT									0.1
<i>Prunella vulgaris</i>	0.1	1	EX								0.1	
<i>Medicago lupulina</i>	0.1	25	EX								0.1	
<i>Trifolium repens</i>	0.1	10	EX								0.1	
<i>Galium ciliare</i>	0.1	10	FG					0.1				
<i>Asperula scoparia</i>	0.1	1	FG					0.1				
<i>Cymbonotus lawsonianus</i>	0.1	1	FG					0.1				
<i>Craspedia variabilis</i>	0.1	1	FG					0.1				
<i>Ajuga australis</i>	0.1	1	FG					0.1				
<i>Acaena</i> spp. (no reproductive material)	0.1	5	FG					0.1				
<i>Geranium solanderi</i>	0.1	10	FG					0.1				
<i>Aira elegantissima</i>	0.1	20	EX								0.1	
<i>Ozothamnus thyrsoides</i>	0.1	1	SG			0.1						

Veg Zone = PCT637			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: DNG18			14	8	0	0	3	5	0	0	6	0
Species	Cover	Abundance	Sum cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			132.3	39.4	0	0	35.2	4.2	0	0	92.9	0
Poa pratensis	50	2000	EX								50	
Anthoxanthum odoratum	40	2000	EX								40	
Juncus falcatus	30	200	GG				30					
Asperula scoparia	3	150	FG					3				
Stellaria angustifolia	0.3	30	FG					0.3				
Carex inversa	5	500	GG				5					
Trifolium repens	2	1000	EX								2	
Oreobolus spp.	0.2	10	GG				0.2					
Taraxacum officinale	0.3	20	EX								0.3	
Hydrocotyle sibthorpioides	0.5	200	FG					0.5				
Medicago lupulina	0.5	200	EX								0.5	
Ranunculus lappaceus	0.2	10	FG					0.2				
Myosotis discolor	0.1	20	EX								0.1	
Hypoxis hygrometrica	0.2	20	FG					0.2				

Appendix L-2
**Kosciuszko Tourist Park
sub-precinct mapping**



Snowy SAP - Field Survey Effort

Figure L.1

Kosciuszko Tourist Park sub-precinct
Alpine SEPP Sub-precinct

Legend

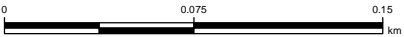
- Study Area
- SAP Precincts
- Cadastre
- Watercourse
- Roads

Field Suvey Effort

- BAM Plot

Fauna Habitat Assessment Sites

- Bird survey
- Herpetofauna survey



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - Plant Community Types

Figure L.2

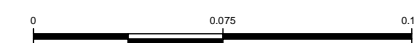
Kosciuszko Tourist Park sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Cadastre
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 1196, Poor
- PCT 1196, Moderate
- PCT 637, Poor
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55



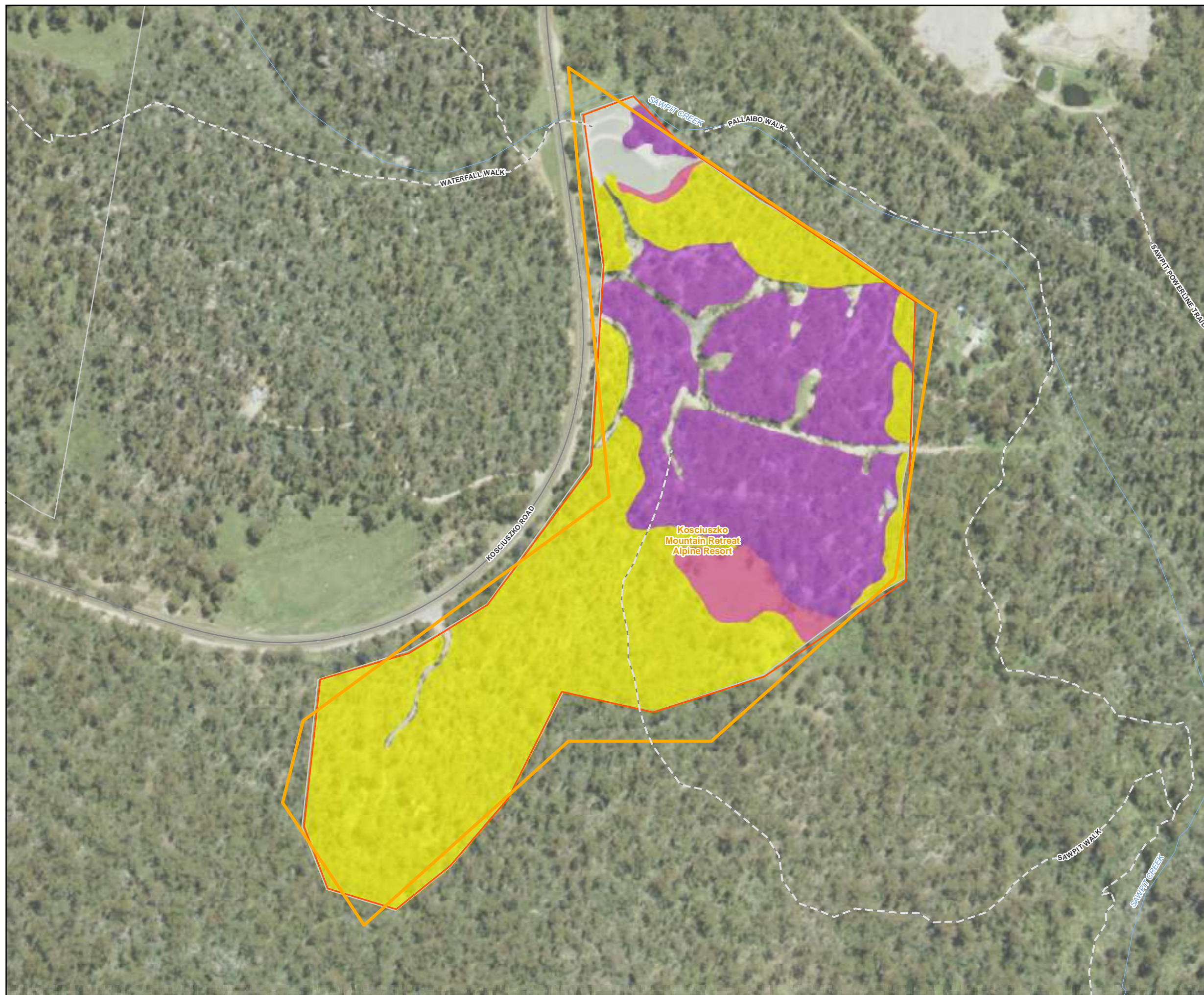
Scale ratio correct when printed at A3

1:3,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure L.3

Kosciuszko Tourist Park sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Cadastre
- Watercourse
- Roads
- Hollow-bearing tree

Threatened Flora Species

- Carex sp.*

Threatened Ecological Communities

- Montane Peatlands and Swamps of the New England Tableland, NSW North Coast, Sydney Basin



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000 Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - EPBC Act Listed Biodiversity

Figure L.4

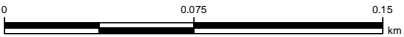
Kosciuszko Tourist Park sub-precinct
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Cadastre
- Watercourse
- Roads

Threatened Ecological Communities

- Alpine Sphagnum Bogs and Associated Fens



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:3,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix L-3
**Kosciuszko Tourist Park
BAM candidate species**

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023687/BAAS17060/22/00031170	Kosciuszko Tourist Park	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	16/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Thesium australe</i> Austral Toadflax		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Eucalyptus aggregata</i> Black Gum		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<i>Mastacomys fuscus</i> Broad-toothed Rat		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Cercartetus nanus</i> Eastern Pygmy-possum		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Callocephalon fimbriatum</i> Gang-gang Cockatoo		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Petauroides volans</i> Greater Glider		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Leucochrysum albicans</i> var. <i>tricolor</i> Hoary Sunray		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Phascolarctos cinereus</i> Koala		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Miniopterus orianae oceanensis</i> Large Bent-winged Bat		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Discaria nitida</i> Leafy Anchor Plant		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Hieraaetus morphnoides</i> Little Eagle		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug </div> <div> <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Calotis glandulosa</i> Mauve Burr-daisy		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Petroica rodinogaster</i> Pink Robin		<div> <input checked="" type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input checked="" type="checkbox"/> May <input checked="" type="checkbox"/> Jun <input checked="" type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug </div> <div> <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input checked="" type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Euphrasia scabra</i> Rough Eyebright		<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Pseudomys fumeus</i> Smoky Mouse	<div> <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne corroboree</i> Southern Corroboree Frog	<div> <input checked="" type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Monotoca rotundifolia</i> Trailing Monotoca	<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input checked="" type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Haliaeetus leucogaster</i> White-bellied Sea-Eagle	<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input checked="" type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

Threatened species Manually Added

None added

Appendix M

Bullocks Flat sub-precinct



Appendix M-1
Bullocks Flat
sub-precinct survey data

Veg Zone = PCT679 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: BFBSS2			40	21	1	4	5	11	0	0	19	5
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			194.9	53.1	40	10.9	0.9	1.3	0	0	141.8	60.4
<i>Eucalyptus stellulata</i>	40	10	TG		40							
<i>Melicytus angustifolius</i> subsp. <i>divaricatus</i>	10	10	SG			10						
<i>Crataegus monogyna</i>	60	20	HT									60
<i>Anthoxanthum odoratum</i>	80	2000	EX								80	
<i>Geranium solanderi</i>	0.1	10	FG					0.1				
<i>Hypochaeris radicata</i>	0.1	10	EX								0.1	
<i>Cirsium vulgare</i>	0.2	20	EX								0.2	
<i>Ozothamnus thyrsoides</i>	0.2	3	SG			0.2						
<i>Pimelea pauciflora</i>	0.5	1	SG			0.5						
<i>Hakea microcarpa</i>	0.2	5	SG			0.2						
<i>Veronica gracilis</i>	0.1	5	FG					0.1				
<i>Ligustrum vulgare</i>	0.1	1	EX								0.1	
<i>Geranium molle</i>	0.1	10	EX								0.1	
<i>Festuca asperula</i>	0.5	100	GG				0.5					
<i>Medicago lupulina</i>	0.1	50	EX								0.1	
<i>Holcus lanatus</i>	0.1	10	HT									0.1
<i>Acetosella vulgaris</i>	0.1	10	HT									0.1
<i>Dichondra</i> sp. A	0.3	100	FG					0.3				
<i>Acaena</i> sp.	0.1	20	FG					0.1				
<i>Taraxacum officinale</i>	0.1	20	EX								0.1	
<i>Oreomyrrhis eriopoda</i>	0.1	1	FG					0.1				
<i>Rubus fruticosus</i> agg.	0.1	1	HT									0.1
<i>Stellaria pungens</i>	0.1	50	FG					0.1				
<i>Veronica peregrina</i>	0.1	10	EX								0.1	
<i>Cerastium balearicum</i>	0.1	10	EX								0.1	
<i>Carex appressa</i>	0.1	10	GG				0.1					
<i>Lagenifera stipitata</i>	0.1	20	FG					0.1				
<i>Asperula scoparia</i>	0.1	50	FG					0.1				
<i>Aira elegantissima</i>	0.1	5	EX								0.1	
<i>Senecio prenanthoides</i>	0.1	10	FG					0.1				
<i>Scleranthus biflorus</i>	0.1	10	FG					0.1				
<i>Poa ensiformis</i>	0.1	10	GG				0.1					
<i>Pastinaca</i> sp.	0.1	10	EX								0.1	
<i>Trifolium repens</i>	0.1	10	EX								0.1	
<i>Carex inversa</i>	0.1	5	GG				0.1					
<i>Bromus diandrus</i>	0.1	2	HT									0.1
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	0.1	2	GG				0.1					
<i>Spergularia rubra</i>	0.1	2	EX								0.1	
<i>Asperula conferta</i>	0.1	5	FG					0.1				
<i>Bromus hordeaceus</i>	0.1	1	EX								0.1	

Veg Zone = PCT679 Moderate			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: BFBSS			42	28	2	5	9	12	0	0	14	4
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			140.2	56.7	12	22.2	21.3	1.2	0	0	83.5	2.3
<i>Eucalyptus stellulata</i>	10	10	TG		10							
<i>Eucalyptus rubida</i>	2	1	TG		2							
<i>Melicytus angustifolius</i> subsp. <i>divaricatus</i>	20	20	SG			20						
<i>Pimelea pauciflora</i>	1	3	SG			1						
<i>Leucopogon gelidus</i>	1	5	SG			1						
<i>Crataegus monogyna</i>	2	2	HT									2
<i>Poa labillardierei</i>	20	100	GG				20					
<i>Senecio prenanthoides</i>	0.1	5	FG					0.1				
<i>Cirsium vulgare</i>	0.2	10	EX								0.2	
<i>Anthoxanthum odoratum</i>	80	2000	EX								80	
<i>Carex appressa</i>	0.2	20	GG				0.2					
<i>Acetosella vulgaris</i>	0.1	20	HT									0.1
<i>Hypochaeris radicata</i>	0.2	100	EX								0.2	
<i>Trifolium repens</i>	0.2	50	EX								0.2	
<i>Medicago lupulina</i>	0.1	10	EX								0.1	
<i>Cerastium balearicum</i>	0.1	5	EX								0.1	
<i>Rubus parvifolius</i>	0.1	10	SG			0.1						
<i>Dichondra</i> sp. A	0.1	20	FG					0.1				
<i>Lagenifera stipitata</i>	0.1	20	FG					0.1				
<i>Asperula scoparia</i>	0.1	20	FG					0.1				
<i>Geranium solanderi</i>	0.1	10	FG					0.1				
<i>Hydrocotyle laxiflora</i>	0.1	10	FG					0.1				
<i>Holcus lanatus</i>	0.1	20	HT									0.1
<i>Scleranthus biflorus</i>	0.1	20	FG					0.1				
<i>Ozothamnus thyrsoides</i>	0.1	10	SG			0.1						
<i>Carex inversa</i>	0.1	20	GG				0.1					
<i>Juncus phaeanthus</i>	0.1	10	GG				0.1					
<i>Asperula conferta</i>	0.1	10	FG					0.1				
<i>Festuca asperula</i>	0.1	50	GG				0.1					
<i>Senecio gunnii</i>	0.1	2	FG					0.1				
<i>Vulpia myuros</i>	0.1	10	EX								0.1	
<i>Taraxacum officinale</i>	0.1	1	EX								0.1	
<i>Elymus scaber</i>	0.1	2	GG				0.1					
<i>Carex longibrachiata</i>	0.1	10	GG				0.1					
<i>Bromus hordeaceus</i>	0.1	10	EX								0.1	
<i>Rubus fruticosus</i> agg.	0.1	1	HT									0.1
<i>Poa sieberiana</i> var. <i>cyanophylla</i>	0.1	20	GG				0.1					
<i>Veronica peregrina</i>	0.1	1	EX								0.1	
<i>Rytidosperma</i> spp.	0.5	10	GG				0.5					
<i>Oxalis perennans</i>	0.1	10	FG					0.1				
<i>Acaena ovina</i>	0.1	10	FG					0.1				
<i>Euchiton involucratus</i>	0.1	10	FG					0.1				

Veg Zone = PCT679 Poor			Covers	Native	Trees	Shrubs	Grass	Forb	Fern	Other	Exotic	HighThreat
			# spp	Count	Count	Count	Count	Count	Count	Count	Count	Count
BAM Plot: BFBSCG			24	16	2	3	4	7	0	0	8	2
Species	Cover	Abundance	Sum cover	Cover	Sum	Sum	Sum	Sum	Sum	Sum	Sum	Sum
			97.8	17.1	10	0.7	5.7	0.7	0	0	80.7	0.2
<i>Eucalyptus stellulata</i>	5	6	TG		5							
<i>Eucalyptus rubida</i>	5	1	TG		5							
<i>Ozothamnus thyrsoideus</i>	0.1	1	SG			0.1						
<i>Juncus phaeanthus</i>	0.1	100	GG				0.1					
<i>Festuca asperula</i>	5	10	GG				5					
<i>Pimelea pauciflora</i>	0.5	20	SG			0.5						
<i>Carex inversa</i>	0.5	300	GG				0.5					
<i>Anthoxanthum odoratum</i>	80	1000	EX								80	
<i>Hypochaeris radicata</i>	0.1	15	EX								0.1	
<i>Medicago lupulina</i>	0.1	20	EX								0.1	
<i>Trifolium repens</i>	0.1	20	EX								0.1	
<i>Holcus lanatus</i>	0.1	20	HT									0.1
<i>Vulpia myuros</i>	0.1	100	EX								0.1	
<i>Cirsium vulgare</i>	0.1	2	EX								0.1	
<i>Scleranthus biflorus</i>	0.1	10	FG					0.1				
<i>Acaena spp.</i>	0.1	20	FG					0.1				
<i>Geranium solanderi</i>	0.1	20	FG					0.1				
<i>Carex appressa</i>	0.1	20	GG				0.1					
<i>Lagenifera stipitata</i>	0.1	1	FG					0.1				
<i>Leucopogon gelidus</i>	0.1	10	SG			0.1						
<i>Acetosella vulgaris</i>	0.1	1	HT									0.1
<i>Senecio prenanthoides</i>	0.1	5	FG					0.1				
<i>Asperula conferta</i>	0.1	10	FG					0.1				
<i>Hydrocotyle algida</i>	0.1	10	FG					0.1				

Appendix M-2
Bullocks Flat
sub-precinct mapping



Snowy SAP - Field Survey Effort

Figure M.1

Bullocks Flat Terminal
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Field Suvey Effort

- BAM Plot
- Opportunistic bird survey

Fauna Habitat Assessment Sites

- Anabat





Snowy SAP - Plant Community Types

Figure M.2

Bullocks Flat Terminal
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Plant Community Types and Vegetation Zones

- PCT 679, Moderate
- PCT 679, Poor
- Miscellaneous/exotic



Coordinate system: GDA 1994 MGA Zone 55
Scale ratio correct when printed at A3
1:5,000 Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - BC Act Listed Biodiversity

Figure M.3

Bullocks Flat Terminal
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads

Hollow-bearing tree

Threatened Fauna Species

Gang-gang Cockatoo

Threatened Ecological Communities

Monaro Tableland Cool Temperate
Grassy Woodland in The South
Eastern Highlands Bioregion



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:5,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Snowy SAP - EPBC Act Listed Biodiversity

Figure M.4

Bullocks Flat Terminal
Alpine SEPP Sub-precinct

Legend

- Study Area
- SAP Precincts
- Waterbodies
- Watercourse
- Roads



Coordinate system: GDA 1994 MGA Zone 55

Scale ratio correct when printed at A3

1:5,000

Date: 18/02/2022

Data sources: - NSWSS, Geoscience Australia, DPIE, Metromap

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Appendix M-3
Bullocks Flat
BAM candidate species

BAM Candidate Species Report

Proposal Details

Assessment Id	Proposal Name	BAM data last updated *
00023687/BAAS17060/22/00031171	Bullocks Flat	24/11/2021
Assessor Name	Report Created	BAM Data version *
Lukas Leslie Clews	16/02/2022	50
Assessor Number	Assessment Type	BAM Case Status
BAAS17060	Biocertification	Open
Assessment Revision	Date Finalised	
0	To be finalised	

* Disclaimer: BAM data last updated may indicate either complete or partial update of the BAM calculator database. BAM calculator database may not be completely aligned with Bionet.

List of Species Requiring Survey

Name	Presence	Survey Months
<i>Litoria verreauxii alpina</i> Alpine Tree Frog		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Thesium australe</i> Austral Toadflax		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?
<i>Eucalyptus aggregata</i> Black Gum		<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec <input type="checkbox"/> Survey month outside the specified months?

BAM Candidate Species Report

<p><i>Mastacomys fuscus</i> Broad-toothed Rat</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Callocephalon fimbriatum</i> Gang-gang Cockatoo</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Leucochrysum albicans var. tricolor</i> Hoary Sunray</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Miniopterus orianae oceanensis</i> Large Bent-winged Bat</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Discaria nitida</i> Leafy Anchor Plant</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<p><i>Hieraaetus morphnoides</i> Little Eagle</p>		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<i>Calotis glandulosa</i> Mauve Burr-daisy		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Petroica rodinogaster</i> Pink Robin		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Euphrasia scabra</i> Rough Eyebright		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Eucalyptus parvula</i> Small-leaved Gum		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Pseudophryne corroboree</i> Southern Corroboree Frog		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>
<i>Monotoca rotundifolia</i> Trailing Monotoca		<div> <input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr </div> <div> <input type="checkbox"/> May <input type="checkbox"/> Jun <input type="checkbox"/> Jul <input type="checkbox"/> Aug </div> <div> <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec </div> <div> <input type="checkbox"/> Survey month outside the specified months? </div>

BAM Candidate Species Report

<p><i>Haliaeetus leucogaster</i> White-bellied Sea-Eagle</p>		<table border="1"> <tr> <td><input type="checkbox"/> Jan</td> <td><input type="checkbox"/> Feb</td> <td><input type="checkbox"/> Mar</td> <td><input type="checkbox"/> Apr</td> </tr> <tr> <td><input type="checkbox"/> May</td> <td><input type="checkbox"/> Jun</td> <td><input checked="" type="checkbox"/> Jul</td> <td><input checked="" type="checkbox"/> Aug</td> </tr> <tr> <td><input checked="" type="checkbox"/> Sep</td> <td><input checked="" type="checkbox"/> Oct</td> <td><input checked="" type="checkbox"/> Nov</td> <td><input checked="" type="checkbox"/> Dec</td> </tr> </table> <p><input type="checkbox"/> Survey month outside the specified months?</p>	<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr	<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug	<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec
<input type="checkbox"/> Jan	<input type="checkbox"/> Feb	<input type="checkbox"/> Mar	<input type="checkbox"/> Apr											
<input type="checkbox"/> May	<input type="checkbox"/> Jun	<input checked="" type="checkbox"/> Jul	<input checked="" type="checkbox"/> Aug											
<input checked="" type="checkbox"/> Sep	<input checked="" type="checkbox"/> Oct	<input checked="" type="checkbox"/> Nov	<input checked="" type="checkbox"/> Dec											

Threatened species Manually Added

None added

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