Non-Vascular Plant Assessment at Bendigo, Otago

Contract Report No. 7863

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Wildlands

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Contract Report No. 7863

March 2026

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Contents

1.0 Introduction

Matakanui Gold Limited (Matakanui Gold) is applying for resource consents to set up and undertake gold mining activities on the Ardgour and Bendigo Stations in Central Otago. This project has been named the 'Bendigo-Ophir Gold Project' (BOGP) and has been submitted through the Fast-Track Approval process.

The Bendigo-Ophir Gold Project disturbance area covers approximately 610 hectares and is located across the northern area of the Dunstan Mountains. A botanical survey and assessment have already been undertaken for this application (Milner *et al.* 2025), although non-vascular plant species and lichens were not covered. Matakanui Gold has recognised this gap and has commissioned this report to understand the non-vascular plant species and lichens present in the disturbance area.

Non-vascular plant species include two groups: bryophytes and algae. Bryophytes include three informal groups including mosses (Bryophyta), liverworts (Marchantiophyta), and hornworts (Anthocerotophyta). Lichens are a symbiosis of two or more organisms. A lichen is a fungus (mycobiont) that lives a symbiotic life with a photosynthetic partner (photobiont), either a green alga or a cyanobacterium, or both.

Matakanui Gold asked Wildland Consultants Ltd (Wildlands) to undertake a non-vascular plant (mosses, liverworts and hornworts only[1]) and lichen assessment, primarily of the direct disturbance area (Figure 1).

2.0 Methods

Desktop assessment

A desktop assessment of potential non-vascular plants and lichens was undertaken for the site by reviewing relevant literature and databases. This included reviewing web resources such as New Zealand Plant Conservation Network (NZPCN) and iNaturalist. Vegetation and habitats have been previously mapped by RMA Ecology (Milner *et al.* 2025).

Field survey

A field survey was undertaken on the 28, 29 January, 3, 4, and 17 February 2026 (Figure 1). A one-hour search effort was undertaken for each dryland vegetation community type largely within the disturbance footprint (DDF, Appendix 1). Small areas adjacent to the DDF in the ESA were also searched. A one-hour search was also undertaken for the wetland community type, although an extra hour was spent searching in a notable rock tor gully with a stream. The field survey recorded non-vascular plant species and lichens on the site, and specimens were collected for later identification where required. Saxicolous (on rocks) crustose lichens are challenging to collect, so they were photographed only.

Representative photographs of the site and non-vascular plant species were taken. Tracks were recorded on a hand-held GPS device.

Due to the need for a permit to collect samples on DOC-administered land, these areas were not surveyed. However, representative habitat types of these areas were still covered.

[1] Freshwater algae not included.

- Identification of bryophytes was undertaken using a stereo and compound microscope. All mosses, liverworts, and hornworts were identified to species level where possible. Lichens were only identified to genus1 level unless the species was a common and/or characteristic species that could be easily and quickly identified.
- Non-vascular plant identification used books, guides, and online resources (Malcolm & Galloway 1997, Malcolm & Malcolm 2006 and Allison & Child 1971, 1975, Knight 2014, Galloway 2007 and Malcolm *et al.* 2011). Online resources included the eFlora of New Zealand Series by Manaaki Whenua/Landcare Research, New Zealand Plant Conservation Network, and Flora of New Zealand hosted by Manaaki Whenua. Conservation statuses were taken from de Lange *et al.* (2012), de Lange *et al.* (2020), and Michel *et al.* (2026).

3.0 Project Area

3.1 Site description

The project area is on the north-western side of the Dunstan Mountains. The Ecological Study Area (ESA) encompasses the lower foothills, gullies, streams, and mid to upper slopes of the Dunstan Mountains. Land use varies from active farming to conservation land with recreation activities. Vegetation varies and includes exotic grasslands, mixed to indigenous tussocklands, shrublands, and scrub. Other notable habitat features include rock tors, wetlands, and streams.

3.2 Vegetation communities

The vegetation assessment identified eight broad vegetation communities (VC) (Milner *et al.* 2025):

1. Exotic pasture or herbfield (VC1).
2. Mixed depleted herbfield (cushionfield) and grassland (VC2).
3. Mixed tussock shrubland and exotic grassland (VC3).
4. Mixed scrubland (VC4).
5. Indigenous[2] dominant tussockland (VC5)
6. Indigenous herbfield and shrubland (VC6).
7. Indigenous dominant scrubland (VC7).
8. Wetlands (VC8).

Detailed descriptions of these communities are described in the vegetation assessment (Milner *et al.* 2025). Open habitats are later mentioned and refer to habitats that contain low-stature vegetation (herbs, grasses, and prostrate shrubs), and bare ground. Open habitats generally have higher evaporation rates and are usually exposed to high winds and intense sunlight. Vegetation community types (VC), 'exotic pasture or herbfield (VC1)', mixed depleted herbfield (cushionfield) and grassland (VC2)', and 'indigenous dominant tussockland (VC5)' are examples of open habitat. 'Mixed tussock shrubland and exotic grassland (VC3)' 'indigenous herbfield and shrubland (VC6)' and 'indigenous dominant scrubland (VC7) will have small areas of open habitat within them.

[1] If species level identification is required, then more time will be needed to send samples to MWLR for further assessment.
[2] Vegetation assessment report uses 'native' instead of 'indigenous', the latter if which is used in this report. The meaning is the same.

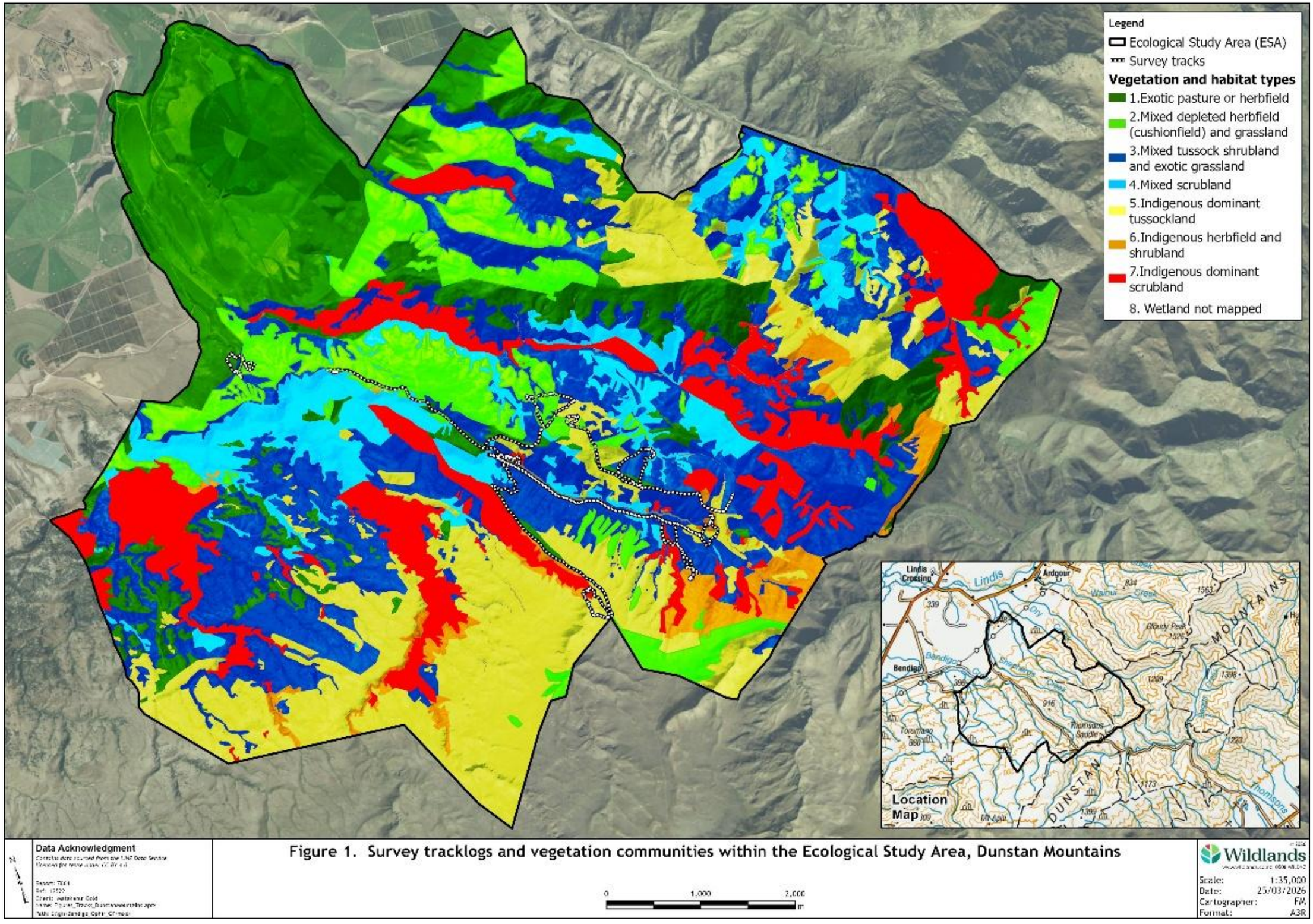

Figure 1. Survey tracklogs and vegetation communities within the Ecological Study Area, Dunstan Mountains

3.3 Ecological District

The project is within the Dunstan Ecological District. Descriptions below have been taken from McEwen (1987).

Dunstan Ecological District

The Dunstan Ecological District covers the block-faulted Dunstan Mountains, that range from 300-1,692 metres above sea level and contain widespread soil hummocks on the summit plateau. The geology is mostly Paleozoic Haast Schists with minor Quaternary glacial outwash gravels and moraine in Clutha-Lindis valley.

The climate of this ecological district is generally dry sub-continental. Rainfall is 380-1,000 millimetres per year. Prevailing winds are northwest. Snow can lie for weeks in winter above 1,200 metres.

Shallow to moderately deep soils from schist with variable cover of loess predominate on rolling, hilly and steep slopes of mountains, shallow to deep soils on terraces and fans in valleys. In wetter higher areas soils are strongly leached with friable, yellowish-brown subsoils. Droughty in summer, deeper soils have pale-coloured compact subsoils and some soils have calcium carbonate accumulations in subsoils along with salty soils (saline soils and solonetzes) and small areas of alluvial soils.

The vegetation was formerly predominantly tussocklands with hard (*Festuca novae-zelandiae*) and silver tussock (*Poa cita*) at low altitudes and snow tussock (*Chionochloa* spp.) up higher. Remnants of tōtara kōtukutuku/Hall's totara (*Podocarpus laetus*) treeland occur at the southeast end with bog pine (*Halocarpus bidwillii*), mountain toatoa (*Phyllocladus alpinus*), and inaka (*Dracophyllum longifolium*). Shrub associations include tauhinu/mountain tōtara (*Podocarpus nivalis*), interlaced with tūmatakuru/matagouri (*Discaria toumatou*), indigenous brooms (*Carmichaelia* spp.), and kānuka (*Kunzea serotina*).

Areas of eroded land support scabweed (*Raoulia* spp.) associations, some with *Luzula ulophylla.* Herbfields dominated by snow mountain daisy (*Celmisia viscosa*) and blue tussock (*Poa colensoi*) mark the lower boundary of the high alpine zone. The exposed high alpine zone contains a cover of cushion associations. Now most areas are modified, almost entirely on northwest slopes, by a long history of pastoral farming and rabbits (*Oryctolagus cuniculus*). Depleted tussocklands with scabweed and patches of tūmatakuru and sweet brier (*Rosa rubiginosa*) scrub are present on western lowlands, with mostly exotic pasture and weed communities on fans and alluviums. Extensive snow tussock cover remains on summit areas of the northern Dunstan Mountains and extensive areas of high alpine cushion and herbfield in the southern half. Much of the district is grazed (extensive sheep and cattle).

This broader ecological district contains local endemic flora species at southern (*Myosotis* sp.) and northern (*Gentianella* sp.) ends of the alpine zone. Species with limited distribution on Dunstan Mountains include *Isolepis aucklandicus*, *Poa pygmaea*, and mosses (*Conostomum australe*, *Ditrichum brevirostrum*, *Sanionia uncinata*, *Pohlia* spp.). Rare or endangered plants in the district include blanket fern (*Asplenium subglandulosum*; rock outcrops), yellow forget-me-not (*Myosotis albosericea*; single site), Maniototo peppercress (*Lepidium solandri*; in Cromwell area), and Cromwell broom (*Carmichaelia compacta*).

Today, most of the district is mainly Low Producing Grassland (39.6%), and Tall Tussock Grassland (38.4%), with smaller areas of High Producing Exotic Grassland (4.9%), Depleted Grassland (4.7%), Mixed Exotic Shrubland (4.3%), Matagouri or Grey Scrub (3.3%) and Mānuka (*Leptospermum scoparium*) and/or kānuka (LCDBv5.0; Landcare Research 2020).

4.0 Bryophytes and Lichens

4.1 Moss, liverworts and lichen species

Forty-six species of moss, 22 liverworts, one hornwort, and 32 lichen species were recorded across the eight habitats within the ESA and DDF. Non-vascular plant species were mostly indigenous (*c.*94 species), with very few introduced/naturalised and exotic also being present (*c.*3 species). The majority of non-vascular plant species were lichens and mosses, noting that liverworts were less abundant due to their preference for moist habitats.

Non-vascular species identified in the below vegetation communities will be more widespread in similar habitats across the ESA.

4.2 Non-vascular plants within the vegetation communities

Rock habitat consisting of schist tors, boulders, and rocks are a common and characteristic feature of most vegetation and habitats within the search area. Crustose lichens are common on rock features with frequent foliose lichens (Plates 1 and 2). Common lichens on rocks include rock shield lichens (*Xanthoparmelia* spp.), rim lichens (*Lecanora* spp.), and yellow map lichen (*Rhizocarpon geographicum*). Mosses, grey-cushioned grimmia (*Grimmia pulvinata* var. *africana*), and the exotic common potia (*Tortula truncata*) are occasional on the boulders and rocks. *Triquetrella papillata* and bristle mosses (*Orthotrichum* spp.) are occasionally nestled in rock crevices or on the border of the rock and open soil. A few mosses such as *Campylopus pallidus*, *Philonotis pyriformis*, and creeping feather moss (*Amblystegium serpens*) are present on the slightly more shaded underside of rocks within open habitats.

Rock habitats at higher elevation within the ‘indigenous dominant tussockland’ have a notable array of abundant and diverse foliose, crustose, and fruticose lichens, and a few mosses on the rocks and mosaic clusters of fruticose, foliose lichens, mosses, and very occasionally leafy liverworts within the rock crevices.

Plate 1 – Rock with various crustose lichens in exotic pasture (within direct disturbance footprint (DDF)). 28 January 2026.

Plate 2 – Crustose and foliose lichens on a boulder within the indigenous dominant tussockland (within DDF). 28 January 2026.

Indigenous shrubs, tumatakurū/matagouri, scented tree daisy (*Olearia odorata*), porcupine shrub (*Melicytus alpinus*), mikimiki (*Coprosma propinqua*), desert broom (*Carmichaelia petriei*), and the exotic shrub sweet brier all were found to have various foliose, leprose, and crustose lichens, mosses, and liverworts on their branches (Plate 3). The exotic tree, silver poplar (*Populus alba*), also supported many crustose lichens and mosses.

Non-vascular plant species were usually more abundant on tumatakurū and porcupine shrub. Common species found on the shrub branches include *Ramalina glaucescens*, *Teloschistes velifer*, shield lichens (*Parmelia* spp.), beard lichen (*Usnea* sp.), sunburst lichen (*Xanthoria* sp.), gold dust lichen (*Chrysothrix candelaris*), bristle mosses, hair pointed grimmia (*Grimmia trichophylla*) and creeping feather moss. The characteristic bloodstain lichen (*Haematomma alpinum*) is present on the occasional porcupine shrub.

Within the denser areas of scrub and/or shrublands, mosses and leafy liverworts are present but rare on the base of the shrubs or on rocks. Cypress-leaved plait moss (*Hypnum cupressiforme*) was often located near the base of shrubs. A few of the leafy liverworts that featured on the base of shrub trunks include: *Frullania falciloba, Frullania pentapleura*, *Heteroscyphus coalitus*, and a species of *Lejeunea* (Plate 5). Dust lichens (*Lepraria* sp.) occasionally feature on the soils within the understorey of the shrubs.

Plate 3 – Abundant fruticose and foliose lichens on a porcupine shrub in the indigenous dominant tussockland (within DDF). 28 January 2026.

Plate 4 – Terricolous *Fissidens tenellus* var. *tenellus* within a rabbit hole within mixed tussock shrubland and exotic grassland within the DDF. 4 February 2026.

Plate 5 – Saxicolous *Frullania pentapleura* on a schist rock within the shrub understorey of mixed tussock shrubland and exotic grassland within the ESA. 4 February 2026.

Abandoned rabbit holes in the open habitats created damper and shadier microhabitats. The rabbit holes occasionally featured creeping feather moss, *Campylodium lineare*, and *Fissidens tenellus* var. *tenellus* on the soil walls and floor (Plate 4).

Open habitats consisting of dry exotic grassland and open soils were mostly devoid of non-vascular plant species. *Triquetrella papillata* and Juniper haircap moss (*Polytrichum juniperinum*) are seldom found on soils. Open habitats consisting of bare soils and herbs (mixed depleted herbfield [cushionfield] and grassland) also contained less non-vascular species but did contain a few scattered species such as resurrection lichen (*Xanthoparmelia semiviridis*), *Cladonia* spp., *Cladia* sp., and *Usnea* sp. that are generally clustered around base of any grass or shrub, or growing on dead and alive *Raoulia australis* (Plate 6).

Plate 6 – Lichens, *Cladonia* sp., *Cladia* sp., and *Xanthoparmelia reptans* growing on the soils around *Raoulia australis*. 29 January 2026.

The ‘indigenous herbfield and shrubland’ vegetation community has a diverse array of fruticose lichens and mosses, with a notable abundance of *Cladonia* species. Mosses were more abundant on the south-facing slope. A few of the more common species in between the shrubs, tussocks, and herbs include red-heart moss (*Breutelia pendula*), star moss (*Syntrichia ruralis*), *Bryum* spp., *Lecanora epibryon* subsp. *broccha*, and *Cladia* species (Plate 7). Lichens were also present on dead litter such as small branches and tussock bases.

The other notably diverse habitat is a rock gully in between the indigenous tussockland and indigenous dominant scrubland (outside of the DDF, Plate 8). Micro-habitats within this gully include sheltered and exposed rock faces, streamside, and sheltered wet soils. A diverse mosaic of mosses and foliose lichens are prominent on the sheltered and moist rock face and contain leafy liverworts intermingled with mosses.

Plate 7 – *Psoroma paleaceum* growing amongst red-heart moss, *Cladia* sp. and *Cladonia* sp. on a mix of litter and soils within the indigenous herbfield and shrubland. 17 February 2026.

Plate 8 – Rock gully with notably diverse mosses, lichens and a few liverworts. 3 February 2026.

Kneiff's hook moss (*Drepanocladus aduncus*) is present in between the sedges and rushes in various abundance within the wetland along Rise and Shine Creek (Plate 9). Silvery bryum (*Bryum argenteum*) is common within the streams and along the edges. Wetter and more shaded stream edges featured other mosses such as *Bryum laevigatum* and *Plagiomnium novae-zelandiae*, with leafy liverworts such as *Heteroscyphus allodontus* and southern crestwort (*Chilosyphus semiteres*) intermingled within them.

Plate 9 – Kneiff's hook moss amongst the sedges within a swamp wetland. 17 February 2026.

4.3 At Risk species

Eight At Risk species are present, most of which are mosses.

- *Bryum coronatum* (At Risk – Uncommon).
- *Orthotrichum hortense* (At Risk – Uncommon).
- *Orthotrichum cupulatum* (At Risk – Uncommon).
- *Orthotrichum cyathiforme* (At Risk – Uncommon).
- Fragile twisted moss (*Tortella fragilis*: At Risk - Uncommon).
- Orobus-seed liverwort (*Targionia hypophylla*; At Risk – Declining).
- Elegant sunburst lichen (*Rusavskia elagans*; At Risk – Naturally Uncommon).
- Resurrection lichen (At Risk – Declining).

Plate 8 – Elegant sunburst lichen on a rock cliff within an upper gully. 3 February 2026.

Plate 9 – Terricolous lichens, *Cladia* sp.*, Xanthoparmelia reptans*, and resurrection lichen within the mixed depleted herbfield (cushionfield) and grassland. 29 January 2026.

Bryum coronatum was recorded on the soils in between prostrate shrubs and tussocks within indigenous herbfield and shrubland. *Campylodium lineare* is potentially present in the rabbit-hole microhabitat within the exotic pasture grassland. Capsules were not present at the time of survey, so this moss species could not be confidently identified to species level. Three species of 'At Risk – Uncommon' bristle mosses (*Orthotrichum* spp.) are present. *Orthotrichum hortense* is the most common of the three, occurring within a range of habitats. *Orthotrichum cupulatum* is present on rock habitat within the mixed scrub, while *Orthotrichum cyathiforme* is present on a silver poplar within the indigenous dominant scrubland. Fragile twisted moss is present on sheltered soils in mixed tussock shrubland and grassland, indigenous-dominant scrub, and indigenous-dominant tussockland. The orobus-seed liverwort is present on the underside of a boulder on shaded soil in exotic grassland. Elegant sunburst lichen is present on the sheltered lower rock cliffs within an upper gully (Plates 6 and 8).

Resurrection lichen was found in most of the vegetation communities across the area but was most common in the herbfields (Plate 9). It is a unique lichen in its vagrant nature, meaning that it is not attached to a substrate. Threats to this lichen include habitat modification and loss from agricultural intensification and weed invasion.

5.0 Summary

Crustose lichens are abundant across all rock habitats in the search area, along with frequent foliose and fruticose lichens. Mosses also frequently featured on rocks. Rock habitats at higher altitudes supported a more diverse array of both mosses and lichens. Lichens and mosses were also common on shrub branches, particularly those of tūmatakuru and porcupine shrub. Vegetation communities that contained more sheltered micro-habitats support a diverse mosaic of lichens, mosses, and liverworts. Liverworts were not common and were generally restricted to shaded micro-habitats in streamside banks or shrub trunk bases and/or intermingled amongst moss species. Species found in the surveyed representative vegetation communities will be more widespread in the other similar habitats within the ESA.

Non-vascular plant surveys and identification can be complex with their very small size and the need for a microscope and/or chemicals for species confirmation. As such, it is possible that additional species may have been missed and more are likely to be present in the ESA.

At Risk lichens, mosses, and one species of liverwort are present in the searched area, with the 'At Risk – Declining' resurrection lichen being the most common and notable in the dryland herbfield and shrubland vegetation communities.

This project has created an opportunity to broaden the knowledge and records of non-vascular plant species in the Central Otago area. Further detailed surveys could be undertaken by a suitably qualified bryologist and/or lichenologist.

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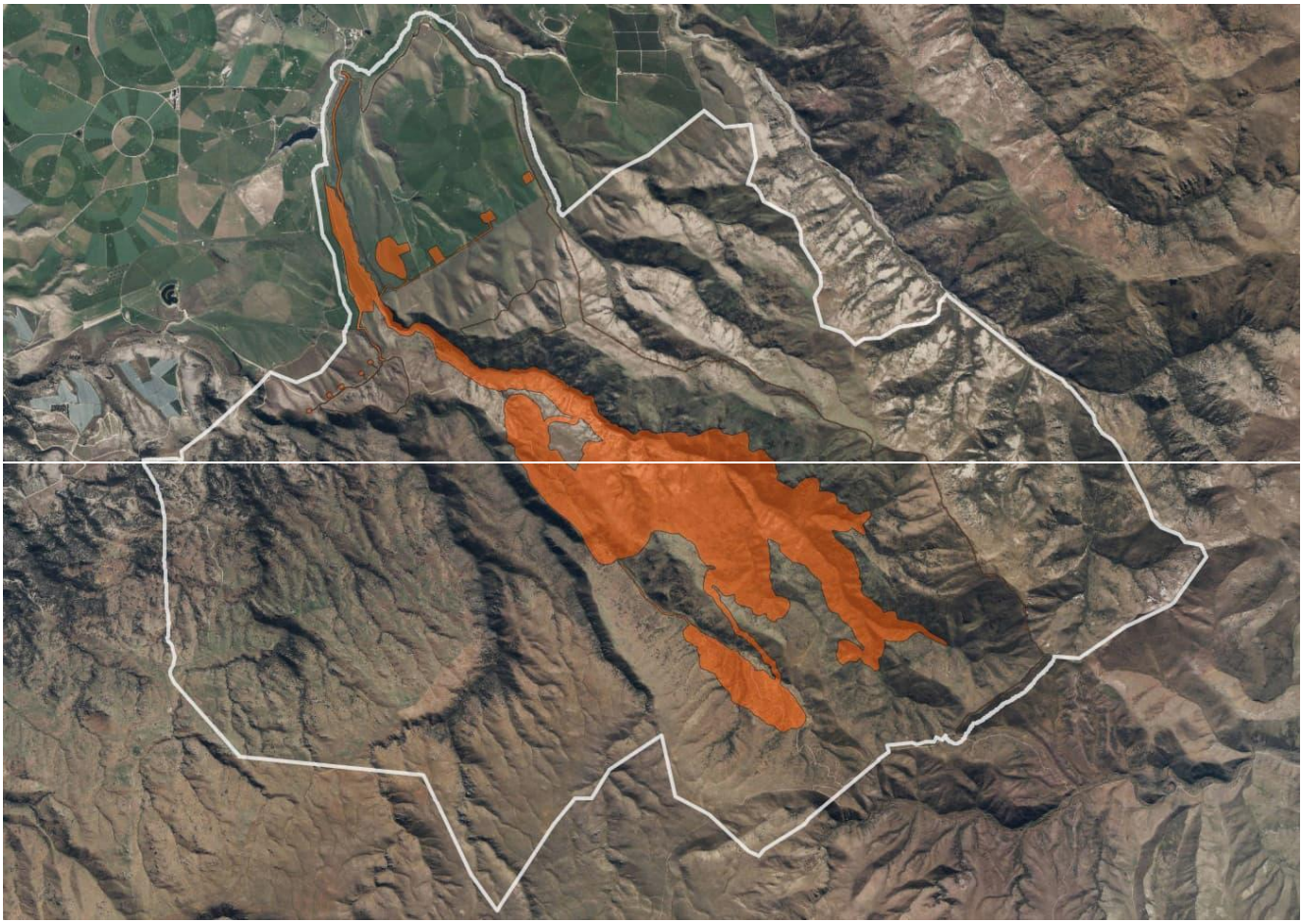
Appendix 1

Ecological study area map

Map taken from Figure 2 within the vegetation assessment (Milner *et al.* 2025). Direct Disturbance Footprint (DDF; orange polygon) within the Ecological Study Area (ESA; white border).



Appendix 2

Non-vascular plant species list

Species	Common Name	Plant Type	Status	Threat Status
Amblystegium serpens	Creeping feather moss	Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Aneura orbiculata		Non-vascular (liverwort)	Indigenous Endemic	Taxonomically unresolved
Anthocerotophyta	Hornwort	Non-vascular hornwort		
Austromelanelixia calva		Non-vascular (lichen)	Indigenous Endemic	Data deficient
Barbula unguiculata		Non-vascular (moss)	Indigenous Non-Endemic	Introduced and Naturalised
Brachythecium albicans		Non-vascular (moss)	Exotic	Introduced and Naturalised
Breutelia affinis		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Bryum argenteum	Silvery bryum	Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Bryum coronatum		Non-vascular (moss)	Indigenous Non-Endemic	At Risk – Uncommon
Bryum funkii		Non-vascular (moss)	Indigenous Non-Endemic	Data Deficient
Bryum laevigatum		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Bryum spp.		Non-vascular (moss)	Indigenous Non-Endemic	
Caloplaca spp.	Firedots	Non-vascular (lichen)	Indigenous Non-Endemic	
Campylopodium lineare		Non-vascular (moss)		At Risk – Uncommon
Campylopus pallidus		Non-vascular (moss)		Not Threatened
Campylopus purpureocaulis		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Candelariella sp.	Goldspeck lichen	Non-vascular (lichen)	Indigenous Non-Endemic	
Cheilolejeunea sp.		Non-vascular (liverwort)		
Chiloscyphus cuspidatus		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Chiloscyphus semiteres	Southern crestwort	Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Chiloscyphus sp.		Non-vascular (liverwort)	Indigenous Endemic	Data deficient
Chrysothrix candelaris	Gold dust lichen, mustard powder lichen	Non-vascular (lichen)	Indigenous Non-Endemic	Not Threatened
Cladia sp.		Non-vascular (lichen)	Indigenous Non-Endemic	
Cladonia aueri		Non-vascular (lichen)	Indigenous Non-Endemic	Not Threatened
Cladonia spp.		Non-vascular (lichen)	Indigenous Non-Endemic	

Species	Common Name	Plant Type	Status	Threat Status
Conostomum pentastichum		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Dicranoloma fasciatum		Non-vascular (moss)	Indigenous Endemic	Not Threatened
Drepanocladus aduncus	Kneiff's Hook-Moss	Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Ephemerum sessile		Non-vascular (moss)	Exotic	Introduced and Naturalised
Fabronia australis		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Fissidens tenellus var. *tenellus*		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Fossombronia sp.	Frillworts	Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Frullania falciloba		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Frullania solanderiana		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Frullania ptychantha		Non-vascular (liverwort)	Indigenous Endemic	Not Threatened
Frullania rostrata		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Funaria hygrometrica		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Grimmia pulvinata var. *africana*	Grey cushioned grimmia	Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Grimmia trichophylla	Hair pointed grimmia	Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Haematomma alpinum	Bloodstain lichen	Non-vascular (lichen)	Indigenous Non-Endemic	Not Threatened
Heteroscyphus allodontus		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Heteroscyphus coalitus		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Holomitrium perichaetiale		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Hypnum cupressiforme var. *cupressiforme*		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Hypogymnia species	Tube lichens	Non-vascular (lichen)	Indigenous Non-Endemic	
Lecanora epibryon subsp. broccha		Non-vascular (lichen)	Indigenous Non-Endemic	Not Threatened
Lecanora spp.	Rim lichens	Non-vascular (lichen)	Indigenous Non-Endemic	
Lejeunea spp.		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Lembophyllum clandestinum		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Lepidozia laevifolia		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Lepraria spp.	Dust lichen	Non-vascular (lichen)	Indigenous Non-Endemic	
Leptodon smithii	Prince-of-Wales Feather-Moss	Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Marchantia berteroana		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened

Species	Common Name	Plant Type	Status	Threat Status
Melanelia sp.		Non-vascular (lichen)	Absent	
Melanohalea zopheroa		Non-vascular (lichen)	Indigenous Non-Endemic	At Risk – Naturally Uncommon
Metzgeria sp.	Veilworts	Non-vascular (liverwort)	Indigenous Non-Endemic	
Orthotrichum cupulatum		Non-vascular (moss)	Indigenous Non-Endemic	At Risk – Uncommon
Orthotrichum cyathiforme		Non-vascular (moss)	Indigenous Endemic	At Risk – Uncommon
Orthotrichum hortense		Non-vascular (moss)	Indigenous Non-Endemic	At Risk – Uncommon
Orthotrichum sp.		Non-vascular (moss)	Indigenous Non-Endemic	
Parmelia spp.	Shield lichens	Non-vascular (lichen)	Indigenous Non-Endemic	
Peltigera sp.	Pelt lichens	Non-vascular (lichen)	Indigenous Non-Endemic	
Peltula spp.		Non-vascular (lichen)	Indigenous Non-Endemic	
Philonotis pyriformis		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Philonotis scabrifolia		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Plagiochila gigantea		Non-vascular (liverwort)	Indigenous Endemic	Not Threatened
Plagiomnium novae-zelandiae		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Pleuridium nervosum		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Poeltiaria sp.		Non-vascular (lichen)	Indigenous Non-Endemic	
Pohlia cruda		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Polytrichum juniperinum	Juniper haircap moss	Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Porella elegantula		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Pseudocyphellaria crocata	Yellow specklebelly	Non-vascular (lichen)	Indigenous Non-Endemic	Not evaluated
Psoroma paleaceum		Non-vascular (lichen)	Indigenous Non-Endemic	Not Threatened
Punctelia sp.		Non-vascular (lichen)	Indigenous Non-Endemic	
Racomitrium striatipilum		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Ramalina glaucescens	Bushy lichen, strap lichen, cartilage lichen	Non-vascular (lichen)	Indigenous Non-Endemic	
Rhacocarpus purpurascens		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Rhizocarpon geographicum	Yellow map lichen	Non-vascular (lichen)	Indigenous Non-Endemic	Not Threatened
Riccardia sp.		Non-vascular (liverwort)	Indigenous Non-Endemic	
Rusavskia elegans	Elegant sunburst lichen	Non-vascular (lichen)	Indigenous Non-Endemic	At Risk – Naturally Uncommon

Species	Common Name	Plant Type	Status	Threat Status
Solenostoma inundatum		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Stereocaulon sp.		Non-Vascular	Indigenous Non-Endemic	
Syntrichia anderssonii		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Syntrichia antarctica		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Syntrichia ruralis	Star moss	Non-vascular (moss)	Indigenous Non-Endemic	Data Deficient
Targionia hypophylla	Orobus-seed liverwort	Non-vascular (liverwort)		At Risk – Declining
Teloschistes sp.		Non-vascular (lichen)	Indigenous Non-Endemic	
Teloschistes velifer		Non-vascular (lichen)	Indigenous Non-Endemic	Not Threatened
Tephromela atra	Black-eye lichen	Non-vascular (lichen)	Indigenous Non-Endemic	Not Threatened
Tortella flavovirens		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Tortella fragilis	Fragile twisted moss	Non-vascular (moss)		At Risk – Uncommon
Tortula truncata	Common potia	Non-vascular (moss)	Exotic	Introduced and Naturalised
Trichocolea rigida		Non-vascular (liverwort)	Indigenous Non-Endemic	Not Threatened
Trichostomopsis australasiae		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Triquetrella papillata		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Umbilicaria spp.	Rock tripes	Non-Vascular	Indigenous Non-Endemic	
Usnea spp.	Beard lichen	Non-vascular (lichen)	Indigenous Non-Endemic	
Wijkia extenuata		Non-vascular (moss)	Indigenous Non-Endemic	Not Threatened
Xanthoparmelia reptans		Non-vascular (lichen)	Indigenous Non-Endemic	Not Threatened
Xanthoparmelia semiviridis	Resurrection lichen	Non-vascular (lichen)	Indigenous Non-Endemic	At Risk – Declining
Xanthoparmelia spp.	Rock shield lichens	Non-vascular (lichen)	Indigenous Non-Endemic	
Xanthoria parietina	Common sunburst lichen	Non-vascular (lichen)	Indigenous Non-Endemic	Not Threatened

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