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QUEENSTOWN LAKES DISTRICT COUNCIL
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Significant Natural Area Assessment

Project No: *11001/018*	Property Name: *Coopers* Site Name: *Coopers SNA B*	Ecologist: *Glenn Davis* Date: *12 May 2011*	
Survey Undertaken By: *Glenn Davis and Ralph Henderson*		Waypoint No (mid-point of survey area): *See plan below.*	
LENZ Units: *N5.1c* Ecological District: *Wanaka Ecological District*		Photo No.(s): *See attached.*	
Topography: *Terrace*	Slope: *Flat*	Altitude: *340 masl*	Aspect: *East*
Threatened Environment Status: *Acutely Threatened*		Area Size (ha): *12.22*	

Representativeness:
Ecological modeling undertaken by Walker *et. al.* (2003) indicates that the Hawea Flat environment would have supported assemblages of shrubland species such as kanuka, kowhai, manuka and coprosma, plus a range of other shrub species. In addition there is some ecological research that suggests the vegetation cover on drier areas in the intermontane basins would also have included short tussock grassland dominated by hard tussock, blue tussock, silver tussock and a range of sub shrubs (pimelia, coprosma, leucopogon) and native herbs.

Are there threatened species expected/identified in the survey area? If so, list species and threat status.

Threatened Species	Threat Status
Raoulia beauverdii	At Risk - Naturally Uncommon
Pimelea sericeovillosa subsp. pulvinaris	At Risk - Declining

Provide onsite description of vegetation:

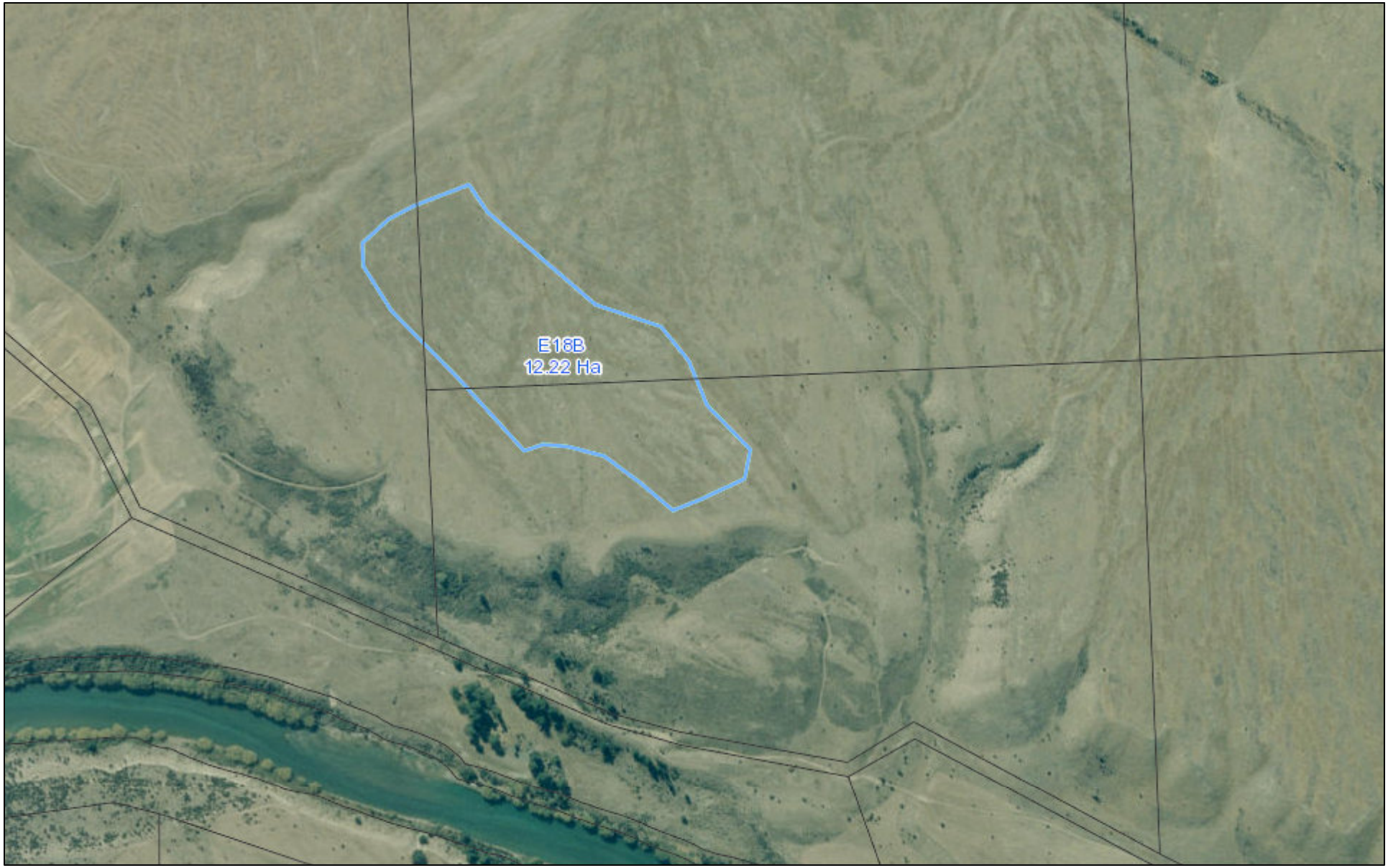
The area consists of a mosaic of short tussock grassland and cushionfield communities. Each community is described below.

Vegetation types:
Short tussock grassland dominated by hard tussock (*Festuca novaezelandiae*), but also including blue tussock (*Poa colensoi*), *Carex breviculmis*, browntop, sweet vernal, catsear, *Leucopogon fraseri*, haresfoot trefoil, sheeps bur (*Achena agnipila*), tussock hawkweed (*Hieracium lepidulum*), mouse-ear hawkweed (*Pilosella officinarum*) and the sub shrubs *Coprosma petriei, Pimelia oreophila.*

Cushionfield – areas of cushionfield are dominated by *Pimelea sericeovillosa subsp. pulvinaris, Raoulia australis*, *Raoulia parkii* and other *Raoulia spp.* The cushionfields also include the mouse-ear hawkweed, scattered *Poa colensoi*, *Poa lindsayi* and *Carex breviculmis.* In addition, matagouri and porcupine shrub are present within the site, albeit very scattered individual

plants. Degree of Modification: The area has clearly had a long history of fire (accidental and controlled) and pastoral activity including over-sowing, topdressing and grazing. In addition rabbits have historically caused significant disturbance to this environment. In our view, while the area is modified, the communities are in a relatively steady state with low intensity grazing by rabbits and sheep an important component of these modified systems.
Provide onsite description of fauna habitat: The area will support a range of invertebrates, and common lizard species are also expected in the area.
Threats to vegetation and flora/fauna species? (Weeds, predators, current management practices): Threats to the vegetation include invasive weeds and dairy farm development.
Rarity: The threatened environment classification identifies the N5.1c environment to have 2.7% indigenous vegetation cover remaining, with 0.8% protected, and it is listed as an acutely threatened environment.
Area Size and Shape (degree to which the area may be or is becoming self-sustaining): The short tussock grassland/cushionfield community covers an area of approximately 12 ha.
Diversity and Pattern (is there a notable range of species and habitats, aspects, sequences?): The vegetation has a good level of indigenous diversity.
Distinctiveness/special ecological characteristics (unusual veg. & landform features, distribution limits?): This area of vegetation is distinctive as short tussock grassland and cushionfield communities on outwash surfaces in the Upper Clutha are acutely threatened according to the threatened environment classification system. Communities associated with outwash surfaces are also listed as “originally rare” terrestrial ecosystems.
Connectivity (how is the site connected to surrounding communities/areas?): Situated in close proximity to the ‘South Hawea Flat Recommended Area for Protection’, which consists of a similar short tussock grassland ecological community.
Sustainability (does the site possess the resilience to maintain its ecological integrity and processes?) The site is of a suitable size and has the resilience to maintain its ecological integrity providing the existing management regime is maintained.
Recommendation (Accept/Decline): Given that the short tussock grassland and cushionfield present is situated within an acutely threatened environment and supports a large population of an “at risk – declining” species (i.e. *Pimelea sericeovillosa subsp. pulvinaris*) we consider the area should be designated as Significant Indigenous Vegetation and Fauna Habitat.

Figure 1: The area of potential significance - Coopers SNA B - E18B



June 22, 2015

1:8,000

0 0.05 0.1 0.2 mi

0 0.1 0.2 0.4 km

Proposed Significant Natural Area

Parcels

Proposed Significant Natural Area

Please note the area shown is indicative and only for discussion purposes.

Figure 2: Example of short tussock grassland community.

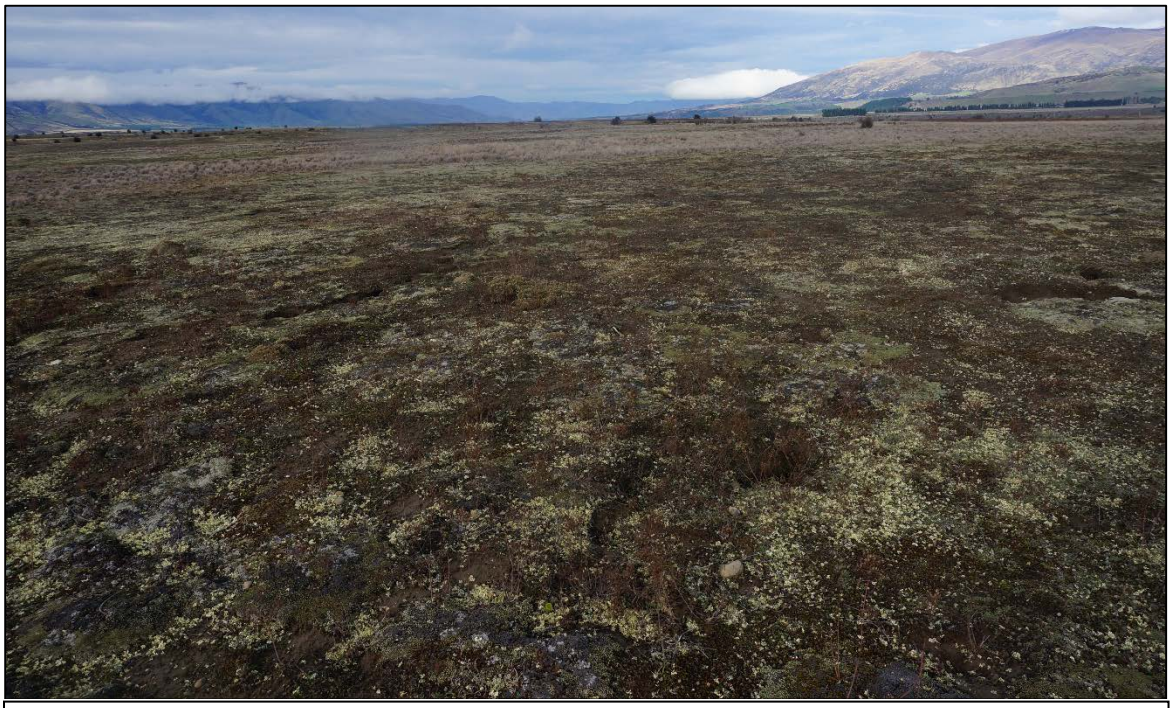


Figure 3: Cushionfield community.