



<b>Significant Natural Area Assessment</b>			
Project No:  11001/037	Property Name: <i>Cochrane &amp; Ashkel Ltd.</i>  Site Name: <i>Cochrane-Ashkel Ltd SNA A</i>	Ecologists: <i>Neill Simpson &amp; Rebecca Lawrence.</i>  Date: 2 <sup>nd</sup> October 2012	
Survey Undertaken By: <i>Neill Simpson &amp; Rebecca Lawrence.</i>		Waypoint No (mid-point of survey area): <i>See attached plan for location.</i>	
LENZ Unit: K3.3b, N4.1d, N5.1c.  Ecological District: <i>Lindis Ecological District.</i>		Photo No.(s): <i>See attached.</i>	
Topography: <i>Rocky outcrop.</i>	Slope: <i>Steep.</i>	Altitude: <i>400 masl.</i>	Aspect: <i>South-east.</i>
Threatened Environment Status:  <i>Acutely threatened &amp; chronically threatened.</i>		Area Size (ha): 5.33	
Representativeness: Pre-settlement vegetation representative of K3, N4 and N5 LENZ environments are understood to have consisted of a mixture of groves of matagouri ( <i>Discaria toumatou</i> ), grasslands with kanuka ( <i>Kunzea ericoides</i> ), and woodlands. The shrubland vegetation on the rocky outcrop lacks the diversity of the original vegetation cover but remains moderately representative of this environment.			
Are there threatened species expected/identified in the survey area? If so, list species and threat status.			
Threatened Species		Threat Status	
<i>Coprosma intertexta</i>		At Risk - Declining	
Provide onsite description of vegetation: Vegetation type: Grey shrubland on rocky outcrop, including <i>Coprosma intertexta</i> , <i>Coprosma propinqua</i> , <i>Coprosma tayloriae</i> , <i>Coprosma rigida</i> , <i>Coprosma crassifolius</i> , <i>Carmichaelia petriei</i> , <i>Melicytus alpinus</i> , <i>Discaria toumatou</i> , <i>Pteridium esculentum</i> , <i>Muehlenbeckia complexa</i> , <i>Cordyline australis</i> . The exotic elderberry ( <i>Sambucus nigra</i> ) is prominent along the lower edge of the woodland with hawthorn, gooseberry and sweet brier also present.			
Degree of Modification: The area has experienced historical disturbances with the lack of woodland diversity a clear indication species have been lost over time, likely due to grazing by livestock. Currently, the area is grazed by sheep.			
Overall Health: Despite current and historical disturbance, the vegetation on the rocky outcrop remains a representative example of a community within the LENZ environments.			

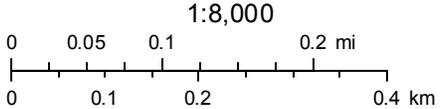
<p>Provide onsite description of fauna habitat:  The shrubland on the rocky outcrop may provide habitat for the following species:  Birds – indigenous insectivorous birds, e.g. bellbirds and fantails.  Herpetofauna – southern alps gecko, McCann’s skink and the Common skink.  Invertebrates – the grey shrubland (in particular the <i>Coprosma</i> species) will provide ideal habitat for invertebrates.</p>
<p>Threats to vegetation and flora/fauna species? (Weeds, predators, current management practices):  Key threats include grazing of livestock and weed-spraying for gorse/broom.</p>
<p>Rarity:  The threatened environment classification identifies the K3.3b, N4.1d and N5.1c environments to have, respectively, 7.3 %, 18.6 % and 2.7 % indigenous vegetation cover remaining, with 1.3 %, 2.3 % and 0.8 % formally protected.</p>
<p>Area Size and Shape (degree to which the area may be or is becoming self-sustaining): The rocky outcrop on the Cochrane and Ashkel Ltd properties is isolated from other shrubland patches; however, shrubland is present approximately 500 m away in a modified state on the slopes of Grandview Mountain to the east of the area of interest.</p>
<p>Diversity and Pattern (is there a notable range of species and habitats, aspects, sequences?):  While the diversity of the shrubland is much reduced since pre-settlement time, there are still a range of <i>Coprosma</i> species present, including <i>Coprosma intertexta</i>, <i>Coprosma propinqua</i>, <i>Coprosma tayloriae</i>, <i>Coprosma rigida</i> and <i>Coprosma crassifolia</i>.</p>
<p>Distinctiveness/special ecological characteristics (unusual veg. &amp; landform features, distribution limits?):  The rocky outcrop covered in shrubland is one of the few remnants of pre-settlement woodland in the Wanaka-Hawea area, and also contains <i>Coprosma intertexta</i>, which is classified as At Risk (within which the species is classified as ‘declining’).</p>
<p>Connectivity (how is the site connected to surrounding communities/areas?):  The shrubland rocky outcrop is isolated from other shrubland patches, but connected to other patches of relict shrubland on the mountain slopes to the east.</p>
<p>Sustainability (does the site possess the resilience to maintain its ecological integrity and processes?):  The shrubland has maintained a moderate degree of ecological integrity despite livestock grazing. With the exclusion of grazing, the ecological integrity and processes would increase and the area would have long term sustainability.</p>
<p>Recommendation (Accept/Decline):  While the rocky outcrop shrubland is a degraded representation of the original vegetation cover in the Hawea area, given the range of <i>Coprosma</i> species and other grey shrubland species still present and surviving, it provides a sustainable area of indigenous vegetation that is acutely threatened. Based on the above considerations we recommend this area for inclusion as an area of Significant Indigenous Vegetation and Fauna Habitat, and that the fencing of this area be seriously considered.</p>

Figure 1: The area of potential significance - Cochrane-Ashkel Ltd SNA A - E37A



June 23, 2015

- Proposed Significant Natural Area
- Parcels
- Proposed Significant Natural Area



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



**Figure 2:** Two representative photographs of the rocky outcrop shrubland.



**Figure 3:** A representative photograph of the rocky outcrop shrubland.