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Significant Natural Area Assessment

Project No: 11001/040	Property Name: <i>Gibbston Valley Station</i>	Ecologists: <i>Glenn Davis & Rebecca Lawrence</i>
	Site Name: <i>Gibbston Valley SNA D</i>	Date: <i>12th October 2012</i>
Survey Undertaken By: <i>Glenn Davis, Ralph Henderson & Rebecca Lawrence.</i>	<u>Waypoint No (mid-point of survey area):</u> <i>See attached plan for location.</i>	
LENZ Unit: N4.1d and N5.1c	<u>Photo No.(s):</u> <i>See attached.</i>	
Ecological District: <i>Remarkables</i>		
Topography: <i>Rocky outcrop</i>	Slope: <i>Steep</i>	Altitude: <i>350 masl</i>
Threatened Environment Status: <i>Chronically Threatened & Acutely Threatened</i>	Area Size (ha): <i>2.16</i>	

Representativeness:

LENZ unit N4.1d is understood to have originally supported shrubland communities and unit N5.1c is thought to have originally supported grassland. The indigenous plant assemblage found on the site is representative of the original environment including a stand of kowhai. The area does have a woody weed component including briar and exotic grasses.

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

Threatened Species	Threat Status
<i>Falco novaeseelandiae "eastern" (eastern NZ Falcon)</i>	At Risk - Recovering
<i>Pimelea aridula</i>	At Risk - Declining
<i>Olearia lineata</i>	At Risk - Declining
<i>Hebe pimeleoides subsp. faucicola</i>	At Risk - Naturally Uncommon

Provide onsite description of vegetation:

Vegetation type: the SNA D area of grey shrubland is largely dominated by matagouri (*Discaria toumatou*) and kowhai (*Sophora microphylla*), but also includes *Coprosma propinqua*, *Melicytus alpinus*, *Coprosma crassifolia* and *Muehlenbeckia complexa*. Briar (*Rosa rubiginosa*), a woody weed species, is also present within the shrubland community. Other plant species known to be present from previous reports completed on the area of interest include *Olearia lineata*, *Asplenium flabellifolium*, *Pimelea aridula*, *Poa colensoi*, *P. cita*, *Elymus* species, *Raoulia australis*, *R. hookerii* and *Hebe pimeleoides* subsp. *faucicola*.

Degree of Modification: The SNA D area has been modified given the presence of the briar and exotic grasses, but the stand of kowhai provides a significant representation of the indigenous flora of the Wakatipu Lakes District.

<p>Provide onsite description of fauna habitat:</p> <p>The shrubland will provide habitat for a variety of passerines, which support the eastern falcon, and the kowhai provide a food source for native birds such as the tui (<i>Prosthemadera novaeseelandiae</i>). The shrubland is also expected to support common species of lizards (e.g. McCann's skink and Common skink), as well as possibly the Cromwell gecko, Otago/Southland large gecko (Western Otago form) and the Southern mini gecko.</p>
<p>Threats to vegetation and flora/fauna species? (Weeds, predators, current management practices):</p> <p>The greatest risk to this vegetation and habitat are inadvertent fires and the invasion of exotic weeds, in particular briar and exotic grasses.</p>
<p>Rarity:</p> <p>The threatened environment classification identifies the N4.1d and N5.1c environments to have, respectively, 18.6 % and 2.7 % indigenous vegetation cover remaining, with 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):</p> <p>The SNA D area is self-sustaining but the size of the self-sustaining area could be improved with the control of briar.</p>
<p>Diversity and Pattern (is there a notable range of species and habitats, aspects, sequences?):</p> <p>The grey shrubland contains a diverse range of shrubland specific plant and invertebrate species.</p>
<p>Distinctiveness/special ecological characteristics (unusual veg. & landform features, distribution limits?):</p> <p>The vegetation is a good example of indigenous grey shrubland communities situated adjacent to the Kawarau River and is one of the few stands of kowhai present in the Gibbston Valley area. Much of the vegetation on the lower slopes of the Kawarau Gorge is now dominated by briar or thyme, therefore indigenous cover within this area is locally distinctive.</p>
<p>Connectivity (how is the site connected to surrounding communities/areas?):</p> <p>The SNA D area is connected to other areas of grey shrubland throughout the Gibbston Valley.</p>
<p>Sustainability (does the site possess the resilience to maintain its ecological integrity and processes?):</p> <p>Under the current management the shrubland is expected to be self-sustaining. However, weed control for briar would be beneficial to maintaining even greater ecological integrity and processes in the SNA D area.</p>
<p>Recommendation (Accept/Decline):</p> <p>Given the size and number of grey shrubland plant species surviving in the SNA D area, in particular the number of mature kowhai, despite the presence of exotic weeds means the area provides a sustainable area of indigenous vegetation that is chronically threatened. Based on the above considerations we recommend this area for inclusion as an area of Significant Indigenous Vegetation and Fauna Habitat.</p>

Figure 1: The area of potential significance - Gibbston Valley SNA D - F40D.



October 6, 2014

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

1:4,000
0 0.0325 0.065 0.13 mi
0 0.05 0.1 0.2 km

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



Figure 2: A photographic representation of the potential area of significance, i.e. '*Gibbston Valley SNA D*', on the Gibbston Valley Station property.



Figure 3: A photograph of some of the kowhai present in the ‘Gibbstion Valley SNA D’ area, on the Gibbstion Valley Station property.