



<b>Significant Natural Area Assessment</b>			
Project No:  <i>11001/010</i>	Property Name: <i>Mt Earnslaw Station</i>  Site Name: <i>Mount Alfred Faces SNA C</i>	Ecologist: <i>Simon Beale</i>  Date: <i>23 May 2011</i>	
Survey Undertaken By: <i>Simon Beale and Neil Simpson</i>		<u>Waypoint No (mid-point of survey area):</u> <i>E: 214 4000</i> <i>N: 559 5000</i>	
LENZ Unit: <i>Q4.1c, Q2.1a, Q1.1d, P5.1e, Q1.1c, P5.1d</i> Ecological District: <i>Dart</i>		Photo No.(s): <i>See attached.</i>	
Topography: <i>Hillslope</i>	Slope: ( <i>&gt;20°</i> )	Altitude: <i>340 - 1000 m asl</i>	Aspect: <i>E - NE</i>
Threatened Environment Status: <i>Ranges from comparatively safe from clearing (Q1.1d, P5.1d, P5.1e) to critically underprotected (Q2.1a).</i>		Natural Area Size (ha): <i>323.43</i>	
Representativeness: Mixed beech forest, montane and sub-alpine shrubland, subalpine short tussockland. Moderate degree of representativeness.			
Are there threatened species expected in the survey area? If so, list species and threat status.			
Threatened Species		Threat Status	
<i>None observed.</i>			
Provide onsite description of vegetation:			
Vegetation types: <ul style="list-style-type: none"> <li>• Mature mountain-red beech forest;</li> <li>• Mingimingi (<i>Coprosma propinqua</i>)- matagouri- manuka/bracken shrubland. Sub-dominant shrubs include <i>Corokia cotoneaster</i>, <i>Coprosma rugosa</i> and koromiko (<i>Hebe salicifolia</i>), along with emergent young broadleaved trees such as kohuhu (<i>Pittosporum tenuifolium</i>), <i>Griselinia littoralis</i>, lancewood, red matipo (<i>Myrsine australis</i>) and marbleleaf (<i>Carpodetus serratus</i>).</li> </ul>			
Structural Classes: Forest and shrubland.			
Shrubland Canopy: Mingimingi – matagouri – manuka.			
Shrubland Ground Cover: Prickly shield fern, tussock hawkweed.			
Shrubland Climbers/Vines: <i>Rubus schmidelioides</i> , <i>Muehlenbeckia australis</i> .			

Degree of Modification: The area has experienced historical disturbance (fire), but has not been disturbed for a long period.

Degree of Recruitment: Broadleaf species (kohuhu, *Griselinia littoralis*, lancewood, red matipo and marbleleaf) emergent within shrubland.

Overall Health: The more extensive areas of shrubland associated with the lower slopes appear to be intact, impenetrable and have a closed canopy. Largely free of introduced weed species apart from some localised loose groupings of rowan and elderberry trees.

Degree of Modification: The area has suffered from previous forest clearances such as fire as evident in the present forest/shrubland vegetation patterns.

Overall Health: The shrubland is in good health by virtue of the extensive and relatively closed canopy.

Provide onsite description fauna habitat – species recorded or expected to be present:  
Beech forest and forest edges provides suitable habitat for nectivorous birds (tui and bellbird), insectivorous birds (South Island robin, rifleman, tomtit, fantail, grey warbler, brown creeper) along with silvereye, yellow crowned parakeet, long tailed cuckoo, morepork and Eastern falcon.

Large beech trees provide suitable roosting and nest opportunities for long tailed bat.

Shrubland provides suitable habitat for insectivorous birds (tomtit, fantail, grey warbler), Australasian harrier and Eastern falcon.

The beech forest margins and shrublands provide high quality feeding habitat for Eastern falcon.

Threats to vegetation and flora/fauna species? (Weeds, predators, current management practices):  
The area is largely free of woody weeds. Fire is the greatest threat to the integrity of the indigenous vegetation cover.

Rarity:  
The beech forest and shrubland is not uncommon in the Dart Ecological District. Both vegetation types and terrain likely to provide suitable habitat for threatened avifauna (Eastern falcon, rifleman) and long tailed bat.

Area Shape and Area/Edge Ratio:  
The large expanses of forest and shrublands ensure self-sustaining/successional processes despite the high area/edge ratios.

Diversity and Pattern (is there a notable range of species and habitats, aspects, sequences?):  
Beech forest and shrubland occurs over wide altitudinal range.  
The area contains diverse assemblages of shrubland species. The forest/shrubland mosaics contribute significantly to the vegetation pattern.

Distinctiveness/special ecological characteristics (unusual veg. & landform features, distribution limits?):

Highly distinctive in terms of the varied vegetation types associated with hill slopes, bluff systems, lake shore and riparian margins. Old specimens of matagouri exist near Diamond Creek.

Connectivity (how is the site connected to surrounding communities/areas?):

Beech forest and shrubland exhibits high degree of connectivity with beech forest and shrubland on western side of Mt Alfred within existing SNA, and large sedgeland associated with Diamond Creek and Lake Reid.

Sustainability (does the site possess the resilience to maintain its ecological integrity and processes?):

The forest and shrubland is in good condition. Forest edges generally merge with shrubland cover minimising edge effects. Large size of area and floristic diversity contributes to its resilience. Regeneration and succession is evident throughout area with young broadleaved trees, notably kohuhu emergent in many parts of the shrubland. Expansion of beech forest into shrubland is taking place.

Recommendation (Accept/Decline):

We consider this area should be designated as a SNA in view of the following ecological attributes:


- The diversity of vegetation types and landform features;
- The floristic diversity of the shrublands;
- The wide altitudinal range and vegetation sequences;
- The variety of habitats the area affords to indigenous fauna, providing suitable habitat for three threatened species of native bird and long tailed bat;
- The good condition of the vegetation with large areas of forest and shrubland with closed canopies and regeneration and succession processes evident.

Figure 1a: The area of potential significance – Mt Alfred Faces SNA C – A10C\_1,2.



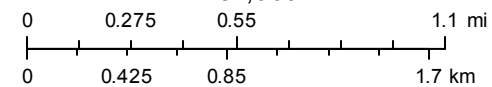
July 2, 2015

Proposed\_Significant\_Natural\_Areas - Proposed SNA

 Proposed SNA

 Parcels

1:32,000



QLDC


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

Figure 1b: The area of potential significance – Mt Alfred Faces SNA C – A10C\_2



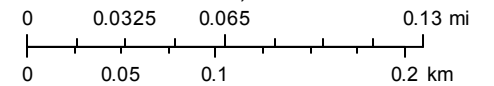
July 2, 2015

Proposed\_Significant\_Natural\_Areas - Proposed SNA

 Proposed SNA

 Parcels

1:4,000



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



**Figure 2:** Panoramas of Mt Alfred, from near Mt Earnslaw Station (top) and from River Jordan picnic area (middle and bottom).



**Figure 3:** View of shrubland from near Diamond Lake outlet. Numerous kohuhu trees evident within shrubland on lower slopes.



**Figure 4:** Close up view of shrubland abutting valley floor between Diamond Lake and Lake Reid.