



Private Bag 50072, Queenstown 9348, New Zealand
QUEENSTOWN, 10 Gorge Road, Phone +64 3 441 0499, Fax +64 3 450 2223
WANAKA, 47 Ardmore Street, Phone +64 3 443 0024, Fax +64 3 450 2223

Significant Natural Area Assessment			
Project No: <i>11001/001</i>	Property Name: <i>Loche Linnhe</i> Site Name: <i>Loch Linnhe SNA D</i>	Ecologist: <i>Glenn Davis and Neill Simpson.</i> Date: <i>September 2010</i>	
Survey Undertaken By: <i>Glenn Davis, Neill Simpson and Ralph Henderson</i>		Waypoint No (mid-point of survey area): <i>See plan attached.</i>	
LENZ Unit: <i>Q2.2a</i> Ecological District: <i>Lakes Ecological District</i>		Photo No.(s): <i>See below.</i>	
Topography: <i>Hillslope</i>	Slope: <i>20-30°</i>	Altitude: <i>440 masl</i>	Aspect: <i>Westerly</i>
Threatened Environment Status: <i>Critically underprotected</i>		Area Size (ha): <i>1.46</i>	
Representativeness: <i>Grey Shrubland</i> – whilst the environment is understood to have supported a pre-settlement vegetation dominated beech forest (Leathwick <i>et. al.</i> 2003), grey shrubland is a representative community in the dryer areas of the lakes district and has extended its distribution where farming practices have allowed this to occur.			
Are there threatened species expected/identified in the survey area? If so, list species and threat status.			
Threatened Species		Threat Status	
<i>Olearia fimbriata</i>		Threatened - Nationally Vulnerable	
<i>Falco novaezealandiae</i> “eastern” (eastern NZ Falcon)		At Risk - Recovering	
Provide onsite description of vegetation: Vegetation type: The area consists of grey shrubland and pasture grassland. Species recorded include tree daisys (<i>Olearia odorata</i> , <i>Olearia fimbriata</i>), matagouri, mingimingi (<i>Coprosma propinqua</i>), briar (<i>Rosa rubiginosa</i>), <i>Melicytus alpinus</i> . Climbers and vines identified include <i>Muehlenbeckia australis</i> and <i>Rubus schmidelioides</i> . Degree of Modification: The area has experienced considerable historical disturbance predominantly through burning and grazing however the area has not been disturbed for some time, possibly not for more than 40 years. Overall Health: There are a number of mature trees, however regeneration of the community is low given the lack of safe sites for germination and grazing activity.			

Provide onsite description fauna habitat – species recorded or expected to be present: Shrubland provides habitat for both introduced and indigenous passerines which provide a food source for the eastern falcon, which has been recorded in the vicinity of the shrubland. The DoC CRR report notes the lake faces support the common skink (*Oligosoma n. polychroma*), McCanns skink (*Oligosoma maccanni*) and common gecko (*Hoplodactylus maculatus*). The shrubland will also support a range of invertebrate species, with the *Olearia* species in particular known to be a host specific species for a diverse range of moth species.

Threats to vegetation and flora/fauna species? (Weeds, predators, current management practices):

The key threat is from pastoral management practices and from inadvertent events associated with the public activity along the Kingston Road. The area has been identified and excluded from disturbance through the vegetation clearing consent process, however, the risk of inadvertent disturbance from burning will be ongoing.

Briar is the main weed present and the main threat to the longterm maintenance of the community is the lack of recruitment into the community.

Rarity:

The threatened environment classification identifies the environment to have 39.92% indigenous vegetation cover remaining with 5.07% protected. The remaining cover is considered sufficient to maintain the biodiversity of the indigenous vegetation and habitats. Notwithstanding the above, the level of protection is low, therefore there is a risk of further loss of indigenous vegetation cover.

Threatened species associated with the community are detailed above.

Area Shape and Area/Edge Ratio:

The area is small in size, with a high edge to area ratio.

Diversity and Pattern (is there a notable range of species and habitats, aspects, sequences?):

The area is notable for the presence of *Olearia fimbriata*.

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

The shrubland contains multiple stands of *Olearia odorata* with a number of more isolated mature *Olearia fimbriata* trees. The size of the *Olearia* populations is a special ecological characteristic of the area.

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

The proposed area is connected to nearby adjacent shrubland/pasture grassland and the shrubland and beech forest communities in the Staircase Creek catchment.

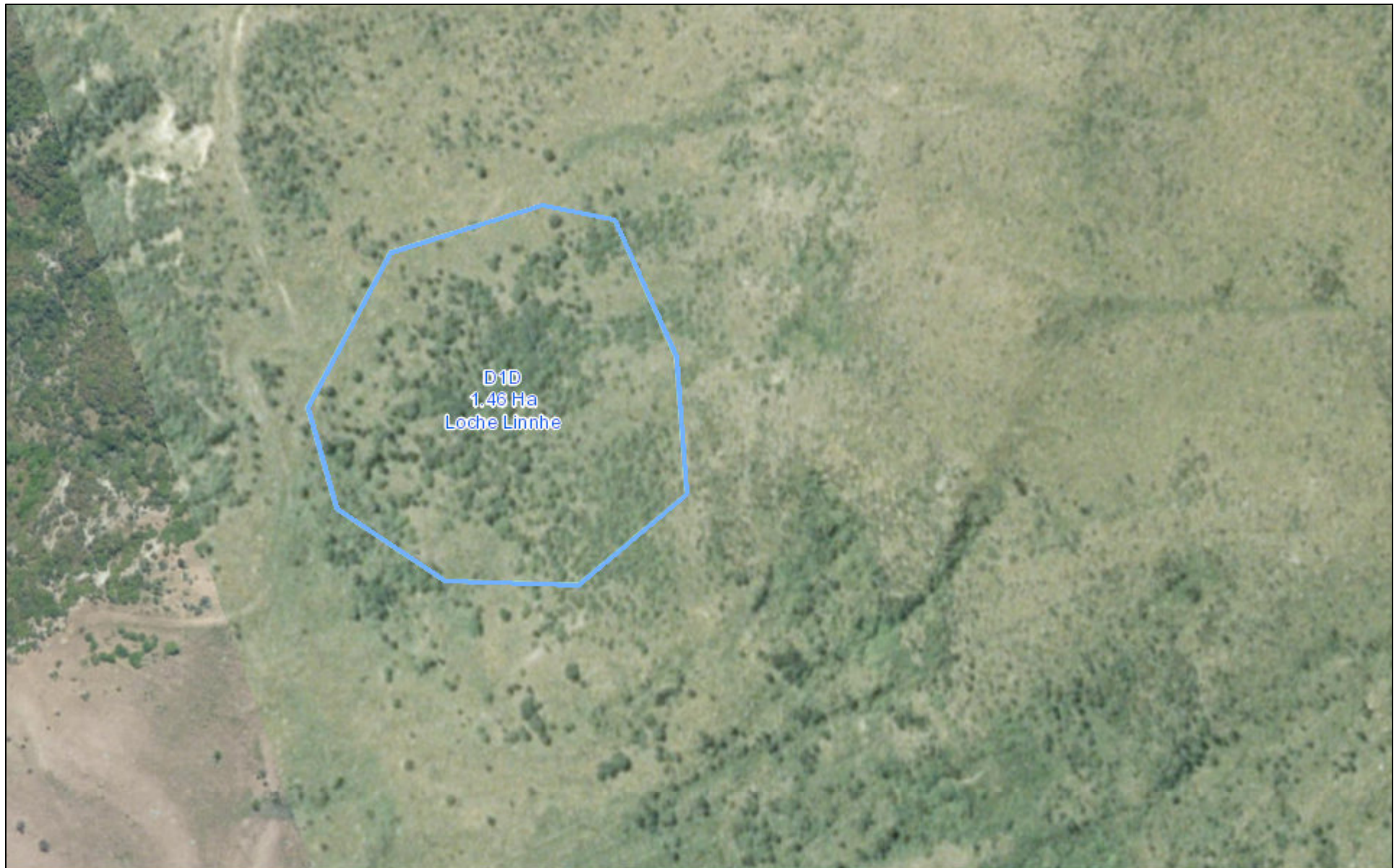
Sustainability (does the site possess the resilience to maintain its ecological integrity and processes?):

The existing long term sustainability of the shrubland is unclear given a lack of recruitment and regeneration. The shrubland canopy is largely open and the pasture grassland sward will restrict future recruitment. Grazing exclusion of the area would be required to assist future regeneration.



Recommendation (Accept/Decline):

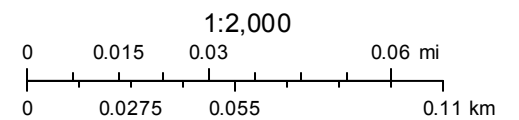
The shrubland is an example of vegetation that is representative of this environment. Indigenous vegetation cover in these environments is severely reduced from its original extent and less than 6% has any formal protection. It is also important as habitat for a diverse and abundant invertebrate fauna and passerines that are critical for the maintenance of the eastern falcon present on the lakes faces of Remarkables Range. Given the high level of representativeness, rarity of quality grey shrubland in these LENZ environments, the presence of threatened tree species and the habitat it provides for falcon, we recommend the area should be considered for designation as a SNA.

Figure 1: The area of potential significance - Loche Linnhe SNA D - D1D



September 24, 2014

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



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



Figure 2: The above photo is representative of the vegetation under consideration for the proposed '*Loche Linnhe SNA D*' area.