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Significant Natural Area Assessment					
Project No:	Property Name: Branch Creek		Ecologist: Glenn Davis		
11001/002					
	Site Name: Branch Creek SNA C		Date: 3 November 2010		
Survey Undertaken By: Glenn Davis and		Waypoint No (mid-point of survey area):			
Ralph Henderson		E: 219 4470			
		N: 559 0660			
LENZ Unit: N4.1d and Q2.2a		Photo No.(s):			
		See below.			
Ecological District: Wanaka Ecological District					
Topography: Hillslope	Slope: >25°	Altitude:		Aspect: SW	
		500 - 760 m	asl		
Threatened Environment Status:		Area Size (ha): <i>57.45.</i>			
Chronically threatened and critically					
underprotected.					
Representativeness:					

Representativeness:

*Grey shrubland* – dominant indigenous vegetation cover in the drier areas of the Wanaka Ecological District, Lakes Ecological Region, and N4.1d environments.

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

Threatened Species	Threat Status		
Falco novaezealandiae "eastern"	At Risk – Recovering		

Provide onsite description of vegetation:

Vegetation type: Shrubland consisting of matagouri (*Discaria toumatou*), *Olearia odorata*, *Olearia bullata*, *Aristotelia fruiticosa*, *Coprosma propinqua*, *Coprosma sp (t)*, *Carmichaelia petriei*, sweet briar (*Rosa rubiginosa*), elderberry (*Sambucus nigra*), *Melicytus alpinus*, *Rubus schmidelioides*, and *Meuhlenbeckia australis*.

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

Overall Health: The shrubland is fragmented but has large intact areas. The vegetation is dominated by mature indigenous species with a minor component of introduced woody weeds, briar and elderberry.

Provide onsite description of fauna habitat:

The shrubland provides habitat for a variety of passerines that are prey for the eastern falcon that is present in the Branch Burn. The population of mature Olearia is expected to support a unique, diverse and abundant invertebrate fauna. Coprosma and *Melicytus alpinus* will provide a food supply for skinks and geckos.

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

The presence of weed species, i.e. elderberry and briar.

## Rarity:

The threatened environment classification identifies the Q2.2a environment to have 39.92% indigenous vegetation cover remaining with 5.07% protected, and the N4.1d environment has 18.6% indigenous vegetation cover remaining with 2.3% protected. The remaining indigenous cover associated with the N4.1d environments is not sufficient to maintain the biodiversity of communities reliant on this environment.

Area Size and Shape (degree to which the area may be or is becoming self-sustaining): The size and shape of the shrubland is largely dictated by geography and ecological processes.

Diversity and Pattern (is there a notable range of species and habitats, aspects, sequences?): The shrubland contains a diverse range of grey shrubland species and is notable for the presence of a large number of mature tree daisies.

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

The shrubland is distinctive within the ecological district for the population of Olearia within the shrubland.

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

The shrubland is connected to shrubland patches that extend throughout the MacDonalds Creek catchment and down onto the Branch Burn flood plain.

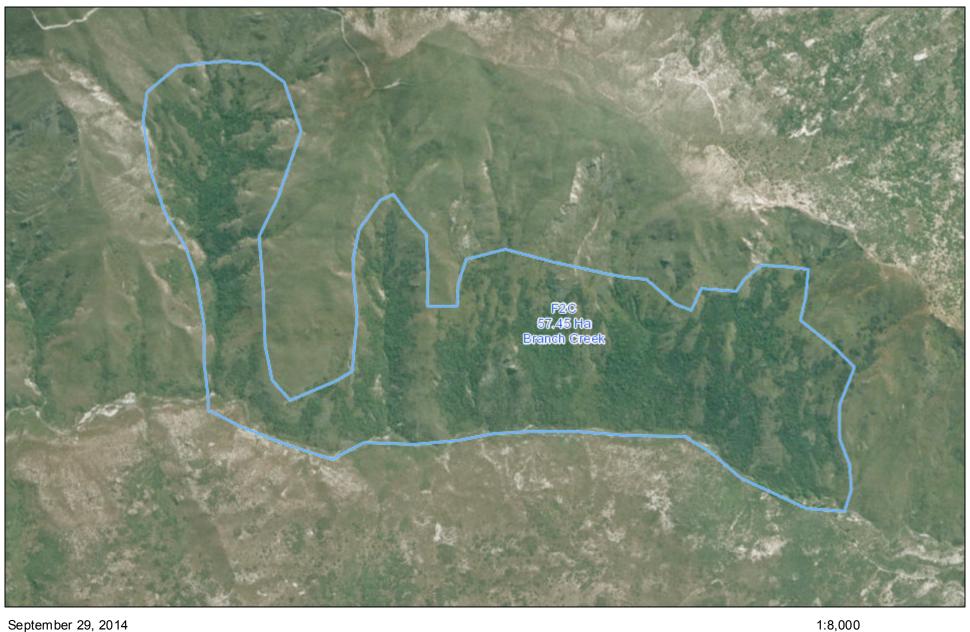
Sustainability (does the site possess the resilience to maintain its ecological integrity and processes?):

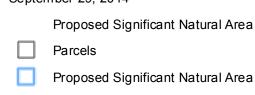
The shrubland is in good condition with a diverse range of mature shrubs and creepers and a predominantly closed canopy. The shrubland will continue to develop providing it remains free from inadvertent fire events.

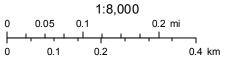
## Recommendation (Accept/Decline):

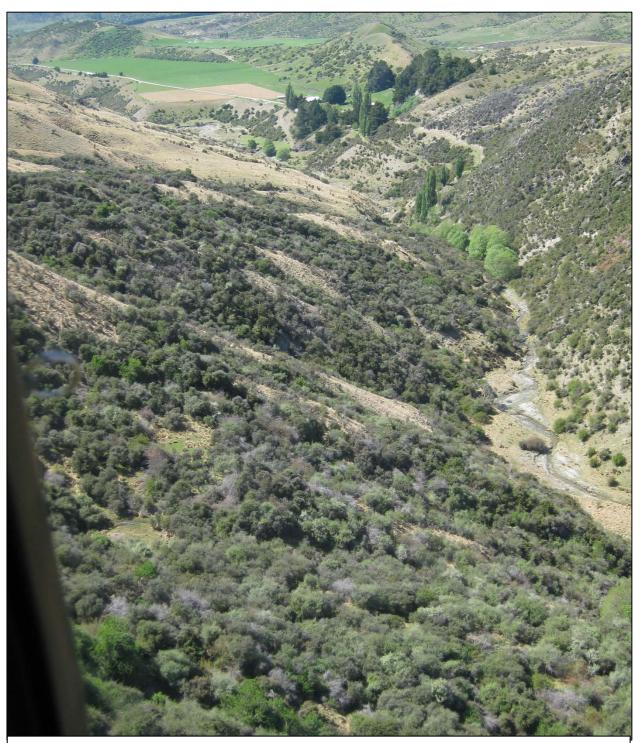
The shrubland is a good example of vegetation that is representative of this environment. Indigenous vegetation cover in these environments is severely reduced from its original extent and less than 6% has any formal protection. It is also important as habitat for a diverse and abundant invertebrate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

Figure 1: The area of potential significance - Branch Creek SNA C - F2C.









**Figure 2:** Eastern end of *Branch Creek SNA C* (lower MacDonalds Creek), looking east toward Cardrona.



Figure 3: Western end of Branch Creek SNA C.