Review of SNA Field Survey Results, Mt Buckley, Dobson, West Coast

Contract Report No. 7536

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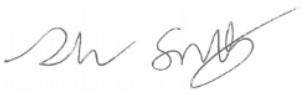

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1.0 Introduction

The proposed Te Tai o Poutini Plan (TTPP; combined District Plan for the Buller, Grey, and Westland District Councils) was notified in mid-2022. Four submitters opposed the extent and presence of Significant Natural Areas (SNA) on their land. These submissions were in relation to five SNAs:

- Mt Buckley (Johnston property; DOC-004).
- Mt Davy (BLA-P002).
- Three SNAs (PUN-043, PUN-044 and PUN-W034) on the Barrytown Flats.

To assist the District Council with making a decision, the Commissioners requested the advice of a qualified, professional ecologist be provided, that will assist with determining the extent and presence of SNAs at these locations. Wildland Consultants Ltd (Wildlands) previously prepared a desktop ecological evaluation of these five SNAs (Wildlands 2025).

The desktop evaluation identified that previous changes to the Mt Buckley SNA boundaries (Boffa Miskell 2007) had been made without any field investigations and were based on two reports, one in 1989, the second in 2002. Wildlands (2025) identified that questions around the boundary needed to be resolved with field work, as the composition of the vegetation in this area cannot be accurately distinguished in aerial imagery. This report has been prepared as an addendum to the Wildlands (2025) desktop evaluation and presents the findings of the field survey for Mt Buckley only. For a complete understanding of the Mt Buckley SNA this report should be read in conjunction with previous reports including reports by Wildlands (2025) and Boffa Miskell (2007).

2.0 Project Scope

The Mt Buckley field survey was limited to the SNA area within the property of the submitter, located at 748 State Highway 7, Dobson. Here after referred to as '**the site**'

The objective for the survey was to determine whether the Mt Buckley SNA as it exists, meets the criteria for SNAs, as set out in in Appendix 1 of the West Coast Regional Policy Statement (WCRPS), or in Appendix 1 of the National Policy Statement for Indigenous Biodiversity (NPS-IB).

The assessment was limited to vegetation and habitats with incidental fauna observations.

Targeted fauna surveys (e.g. five-minute bird counts, acoustic bat monitoring, freshwater fish surveys) were beyond the scope of this assessment.

There was no scope to increase the SNA boundary, only confirm the current boundary or reduce it.

3.0 Methods

Vegetation and habitats in the site were surveyed on 22 and 23 May 2025. Survey methods comprised a walk-through survey with detailed investigations within the different habitats (e.g. regenerating and mature forest) and sub-habitats (e.g. stream gullies and ridgelines) encountered. Investigations were in line with the 'variable-area approach' detailed in recce method manual for describing New Zealand vegetation (Hurst *et al.* 2022).

The vegetation and associated habitat types were broadly described following the structural classes in Atkinson (1985) and evaluated against the criteria for SNAs, as set out in the WCRPS and NPS-IB. Areas of the site identified as meeting/or not meeting the SNA criteria were mapped in the field, using the ArcGIS Field Maps application on an iPad tablet device. A hand-held Garmin GPS (GPSMAP 64sx) was also carried to record waypoints and tracking data. Field mapping was digitised onto aerial imagery using ArcGIS Pro (Version 3.5.0).

Figure 1. Suggested changes to the Mt Buckley SNA, at 748 State Highway 7, Dobson

4.0 Field Survey Results

4.1 Vegetation and habitats

The field survey identified three main vegetation and habitats within the site. These are not easily delineated and at times grade gradually from one to other and therefore have not been mapped (except for the habitat which is suggested for exclusion). The habitat descriptions in this section are brief, and intended for a general understanding of the site – as the forest type of Mt Buckley has been well described in previous reports (e.g. Boffa 2007). Small pockets of scrub, shrubland and fernland are also present around the margins and with forest canopy gaps, but not listed in the descriptions below.

Beech-podocarp forest

Within the larger gullies and upper parts of the site mature beech (mostly red and hard beech/tawhairaunui *Fuscospora fusca F. truncata*) forest is present, with scattered podocarps including rimu (*Dacrydium cupressinum*), miro (*Pectinopitys ferruginea*) and mataī (*Prumnopitys taxifolia* (Plate 1). Mataī is more common on the lower slopes in the north of the site, while miro and rimu are scattered throughout. The mature podocarps are not emergent (above the beech), indicating they may have been passed over during historic logging activities in the area. Toro (*Myrsine salicina*), tāwheowheo (*Quintinia serrata*), kāmahi (*Pterophylla racemosa*) and kanono (*Coprosma grandifolia*) dominant the subcanopy. With the exception of the steeper gullies, the understorey and ground cover tiers are most notable for their absence of plants, with significant ungulate browse and sign observed (Plate 2). Toro saplings, crown fern/petipeti (*Lomaria discolor*), bush rice grass (*Microlaena avenacea*), whekī (*Dicksonia squarrosa*) and kātote/soft tree fern (*Cyathea smithii*) are among the most common understorey species. There is a notable absence of more palatable species such kāpuka (*Griselinia littoralis*), which is present in the subcanopy, but not as saplings or seedings.

Beech forest

Mature beech forest occupies the large ridge lines within the site (Plate 1). While red beech is dominant, hard beech is also locally common. Podocarp species are mostly absence from the canopy, but common in the subcanopy and understorey, including Hall's tōtara (*Podocarpus laetus*), which was not observed as a canopy species, on the site. There are patches of younger (secondary) forest in places with an even-age stand composition, but these are generally small. The understorey is similar to the beech podocarp forest and is open and heavily browsed throughout, with toro saplings, crown fern/petipeti, bush rice grass, kātote/soft tree fern and several kiokio species (*Parablechnum* species) common throughout.

Beech-blackwood-(pine) forest

Around the lower slopes of the site, are pockets of regenerating forest that have a mixture of indigenous beech (*Fuscospora* spp.) and exotic blackwood (*Acacia melanoxylon*) within the canopy, as well as macrocarpa (*Hesperocyparis macrocarpa*) and pine (*Pinus* spp.). The age of these stands is variable with some mature trees scattered, but the indigenous canopy species are generally younger than the exotic and include kānuka (*Kunzea robusta*), whekī and kātote/soft tree fern. The older blackwood and pines appear to have been planted in rows that follow old fence lines or tracks (Plates 3, 4 & 5), but there are some scattered exotics that appear to have self-seeded. The understorey within this habitat is even more sparse and has large tracts without any plants at all (Plates 6 & 7). This could be the result of the low dense canopy and heavy ungulate browse, but the ecological influence of the blackwood and pine trees themselves is also a likely contributing factor.

4.2 Threatened, At Risk and locally uncommon plant species

No threatened or At Risk vascular plants were recorded during the survey. One species recorded as 'locally uncommon' was observed:

- Mataī (uncommon species within the Grey Valley, Boffa 2007) was observed both as mature trees and saplings.

Previous recorded At Risk and locally uncommon plant species not observed include:

- *Raukaua edgerleyi* (At Risk – Declining, de Lange 2023), recorded in previous surveys, but was not observed. However, given its known palatability (i.e. heavily browsed by mammalian browsers) this is not surprising.
- Poataniwha *(Melicope simplex*, near its known southern limit on the West Coast, Norton and Overmars cited in Boffa 2007), was not observed, but could have easily been missed due the heavily browsed nature of most shrubs.

5.0 Fauna Observations

5.1 Birds

South Island kākā (*Nestor meridionalis meridionalis*, Threatened – Nationally Vulnerable, Robertson *et al.* 2021), were observed flying into the site from across the Grey River/Māwheranui valley to the north and foraging within beech forest in the site. Several other Not Threatened birds were also observed including korimako/bellbird (*Anthornis melanura melanura*), pīwakawaka/South Island fantail (*Rhipidura fuliginosa fuliginosa*), grey warbler/riroriro (*Gerygone igata*), and South Island tomtit/miromiro (*Petroica macrocephala macrocephala*).

While not observed during the survey karearea/bush falcon (*Falco novaeseelandiae ferox*, At Risk – Increasing), have been reported on the site (Nick Johnson pers comm). Previously At Risk western weka (*Gallirallus australis australis*), now Not Threatened (Robertson *et al.* 2021), have also been seen and heard on the site (Nick Johnson pers comm).

5.2 Fish

No fish were observed in the waterways on the site, but the at least one waterway is large enough to support fish (Plate 8). A signal northern koura (*Paranephrops planifrons*, Not Threatened), was observed within another waterway on the property, but outside of the SNA boundary.

5.3 Pest animals

Abundant ungulate sign was observed on the site including foliar browse, faecal pellets, wallows and tracking. This is most likely from feral goat (*Capra hircus*) and red deer (*Cervus elaphus*), but chamois (*Rupicapra rupicapra*), have also apparently be photographed by trail cameras on the site (Nick Johnson pers comm). Feral pig (*Sus scrofa*) rooting was also observed, as was abundant brushtail possum (*Trichosurus vulpecula*) sign (Plate 9). Mice (*Mus musculus*), rats (*Rattus* spp.) and stoats (*Mustela erminea*) have apparently been caught in traps on the site (Nick Johnson pers comm). While not observed, hedgehogs (*Erinaceus europaeus*), feral cats (*Felis catus*) and other mustelids (ferrets and weasels, *Mustela* spp.), and wasps (*Vespula* species), are also likely to be present at the site.

5.4 Threatened or At Risk Fauna

One Threatened bird species was observed during the survey:

- South Island kākā (*Nestor meridionalis meridionalis*, Threatened – Nationally Vulnerable).

Mature forest on the site also provides habitat that could support other Threatened or At Risk fauna species including:

- NZ long-tailed bats (*Chalinolobus tuberculatus*, Threatened – Nationally Critical; O'Donnell *et al.* 2023).
- Forest gecko (Mokopirirakau granulatus, At Risk – Declining; Hitchmough *et al.* 2021).
- Karearea/bush falcon (*Falco novaeseelandiae ferox*, At Risk – Increasing).

6.0 Assessment of Significant Natural Area

The field survey confirmed the desktop evaluation (Wildlands 2025) that the Mt Buckley SNA has significant value for representativeness, rarity, and ecological context and would meet several criteria in both the WCRPS and NPSIB criteria sets.

It confirmed the presence of mature beech-podocarp forest with mataī, a distinctive vegetation community (feature) of Whakamarama steepland soils within the Hochstetter Ecological District (Boffa 2007). It also confirmed that the SNA functions as an ecological corridor for birds, including Threatened kākā, which also forage within the site.

Mature beech-podocarp and beech forest is also considered highly likely to provide habitat for other indigenous fauna not observed during the survey, but known to be present in the wider area.

6.1 Evaluation of Mt Buckley SNA boundaries – at 748 State Highway 7

It is suggested that areas of the beech-blackwood-(pine) forest on the site (748 State Highway 7, Dobson), should be removed from the SNA (Figure 1). This is in addition to the suggestion of removing tracks that follow powerline corridors through the middle of SNA (Wildlands (2025).

The beech-blackwood-(pine) forest does not meet the SNA criteria of either the WCRPS or NPSIB, by itself. The indigenous regeneration associated with this forest is less diverse, more modified than other parts of the site. The combination of a low dense canopy, heavily ungulate browse and the influence of exotic species competition in these areas, means they have even less understorey/ground cover and habitat value than the other forest types on the site.

While the beech-blackwood-(pine) forest does add to the overall fauna habitat value by contributing to the 'forest corridor width' (ecological context), the forest corridor has already been physically reduced at this point by the Grey River, the road, and previous SNA exclusions (e.g. historic quarry site to the east). However, the reductions suggested here are still minor in the context of the SNA width (30–50 metres) and it is not considered likely that this reduction would compromise the integrity of the overall SNA or its ecological context.

These areas of the site were included in the 2007 revision by Boffa Miskell to maintain the corridor width throughout the SNA, as a balance to the length (e.g. 3 km long and *c.*1 km wide). The Boffa report then states that:

'*Nevertheless, the boundaries presented in this report should be considered as provisional only and will be subject to change following consultation with the landowner and other interested parties.*'

The ecological principle of maintaining a *c.*1 km corridor is a good consideration, but the implementation of these provisional boundaries was poor and has included habitat that does not meet SNA criteria, and cuts right through an existing house site. Ideally with the suggested removal of this habitat from the SNA the loss of corridor width could be compensated for by the addition of other higher value habitat that adjoins the SNA elsewhere, but that is beyond the scope of this assessment.

7.0 Conclusions

The field investigation of the Mt Buckley SNA found that there were areas of the site that do not meet the SNA criteria and should not have been included in the SNA. These are habitats that have regenerated post (historical) clearance and contain and mixture of exotic and indigenous trees in the canopy. The forest in these areas is also heavily impacted by ungulate browse and other pests and therefore is unlikely to regenerate into an ecologically significant forest type without considerable intervention. The suggested areas for removal are minor in the overall context and are not considered to compromise the integrity of the SNA or its ecological context.

Overall, the Mt Buckley SNA is considered to have significant value for representativeness, rarity, and ecological context, and the other parts of the site surveyed meet and/or contribute to these values and should be retained with the SNA.

Acknowledgments

Nick Johnson (property owner), for taking the time to meet on site provide site orientation and information.

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Appendix 1

Site photos

Plate 1 – Mature rimu (*Dacrydium cupressinum*) within beech-podocarp forest (left) and mature tawhairaunui/red beech (*Fuscospora fusca*), with beech forest (right).

Plate 2 – Open sparse understorey within beech-podocarp forest (left) and deer wallow surrounded by crown fern/petipeti (*Lomaria discolor*), within tawhairaunui/beech (*Fuscospora* species) beech forest (right).

Plate 3 – Mature blackwood (*Acacia melanoxylon*), growing along line of old deer fence and overtopping regenerating indigenous forest species, within current SNA boundary, but suggested for exclusion.

Plate 4 – Mature pines (*Pinus* species), growing along line of old track and overtopping regenerating indigenous forest species, within current SNA boundary but suggested for exclusion.

Plate 5 – Small stand of mature pines (*Pinus* species), within current SNA boundary, but suggested for exclusion.

Plate 6 – A lone kāpuka (*Griselinia littoralis*), within regenerating forest, overtopping sparse understorey, within current SNA boundary, but suggested for exclusion.

Plate 7 – Semi-mature blackwood trees overtop regenerating indigenous species, within current SNA boundary, but suggested for exclusion.

Plate 8 – Waterway draining the northern part of the site.

Plate 9 – Kanono (*Coprosma grandifolia*) tree with heavy scaring from possum bite mark damage.

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