

Proposed Additions to Kahurangi National Park

Introduction

This paper has been prepared in order to seek the formal support of the Nelson Marlborough Conservation Board for:

- a) a proposal to add two areas of conservation land to National Park pursuant to Section 7 National Parks Act 1980;
- b) a recommendation to the New Zealand Conservation Authority that no further formal investigation pursuant to Section 8 of the Act be required in order to declare these areas part of Kahurangi National Park.

The relevant sections of the National Parks Act 1980 are included as Appendix One.

Relevant land

Identifying Name	Land status	Legal Description	Area (hectares)
West Burnett	Section 25 Conservation Act 1987 Stewardship Area	Section 7 Blk X Pakawau SD	246.0489
Steatite Block	Section 19 Conservation Act 1987 Conservation Park (part of North West Nelson Forest Park)	Section 4 SO 15247	49.04



Location Map

The land areas under consideration are shown circled in red. Kahurangi National Park is shaded yellow.

Background

The West Burnett block was purchased by the Department (via the Forest Heritage Fund) in the mid-1990s. At the time of purchase, the Kahurangi National Park investigation was already well underway and it seems likely that the West Burnett purchase was finalised too late for West Burnett to be included in the Park with the surrounding land. Consequently, West Burnett is completely surrounded by Kahurangi National Park and is an enclave in the National Park as a quirk of history, rather than because of any ecological difference.

The Steatite block, part of North West Nelson Forest Park, was set apart for conservation purposes by New Zealand Gazette 10 August 1995. A permit to mine the block was issued to Steatite Ltd in 2008, but was never exercised and was surrendered in October 2014. The Department now considers it appropriate that the Steatite block be added to the National Park.

It is worth noting that it was not because of low conservation values that the Steatite block did not become part of Kahurangi National Park on its gazettal in 1996. There was no formal assessment made of the values of this area at the time North West Nelson Forest Park was investigated for National Park status. Primarily, this was because it was thought that protracted debate over the mineral resources of the block would delay National Park designation for the less contentious areas of North West Nelson.

Natural Values

West Burnett



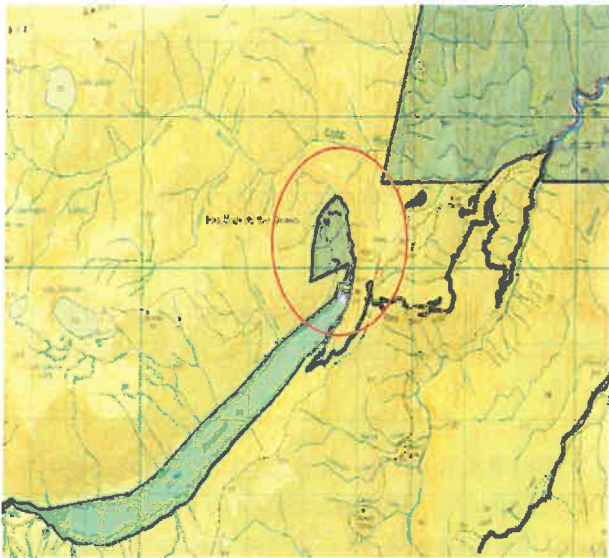
Location map of the West Burnett block, (identified by the red arrow) and aerial view

As can be seen from the aerial image above, the forest flora of West Burnett is contiguous with the surrounding areas of Kahurangi National Park. The underlying geology is Pakawau series conglomerates / coal measures / sandstones with no limestone or dolomite present.

The block contains a high diversity of forest species including NW Nelson endemics, regionally rare species, as well as species which in the south Island are restricted to this general area. The upland plateau softwood forests are particularly well developed with a good range of podocarps and cedar, while the lush low altitude rain forests are excellent examples of their type.

The area is part of a vast tract of continuous forest flanking the Wakamarama Range and is therefore an important habitat for vulnerable species which require sizeable forested areas for their survival¹. A more in-depth report on the natural values of West Burnett is appended.

Steatite Block



Location map and aerial view of the Steatite block

The Steatite block (located near the Cobb dam) has very high natural values associated with its talc/magnesite outcrops. The outcrops and their surroundings constitute ultramafic cliffs, scarps, tors and hills which are nationally rare ecosystems - their protection is therefore considered by the Crown to be of national importance.

The large magnesite outcrop vegetation is important as uncommon examples of ultramafic communities that are highly natural and intact. There is no evidence of previous fires and, remarkably, they are also free of weeds. This is significant as most other ultramafic areas in the Nelson region have been modified in the past, especially by fire. The outcrops are therefore valuable benchmarks against which the modified ultramafic areas can be measured. Furthermore, the unusual physical attributes of the large outcrops have generated a diverse range of microhabitats. Six vegetation types have been identified, which is very diverse for such a small area.

In respect of endemism, the magnesite outcrops are a biodiversity "hotspot" for plants. Nine (13%) of the 67 outcrop species are either regional or local endemics - mostly confined to the Nelson and/or Cobb mineral belts or to the Takaka-Cobb catchments. The Cobb magnesite outcrops support a flora with one of the highest proportions of regional/local endemics in New Zealand and

¹ Information taken from an internal DOC paper (LAN: 180) on the values of West Burnett block by Shannel Courtney, May 1993. The full paper is included as Appendix two of this document.

is comparable to other areas of high endemism nationally, including Red Hills, Mt Burnett and Awahokomo limestones².

One of the outcrops within the site has been partially quarried. The quarry closed in 1981. A road was constructed to access the outcrop to facilitate the quarry operation and this road is used today by the public for walking and by Friends of Cobb as a stoat trap line. A more in-depth report on the natural values of the Steatite block is appended.

Cost implications

The addition of West Burnett and the Steatite block to Kahurangi National Park will not alter their management regime. As such, there are no expected cost implications arising from their addition to the Park. Both areas are adequately defined by survey for gazettal purposes.

Consultation

Strong local support exists for this proposal, as evidenced in the Conservation Board minutes of August 2012, September 2014 and February 2015.

The Department's Directors of Conservation Services (Acting) and Conservation Partnerships for this region both support the addition of West Burnett and the Steatite block to Kahurangi National Park.

An agreement between the Department of Conservation and the Ministry of Business Innovation and Employment (MBIE) requires that all proposed land status changes are referred to the MBIE. MBIE advised in June 2015 that they have no objection to the proposal to elevate the land status of these areas by adding them to Kahurangi National Park.

Manawhenua Ki Mohua confirmed on 1 July 2015 that the Iwi they represent support the additions of the Steatite block and West Burnett to the Park.

Following consultation with the Nelson Marlborough Conservation Board and Manawhenua Ki Mohua, the proposal will be submitted for approval to the New Zealand Conservation Authority (a requirement under the National Parks Act 1980). If approval is given and no further investigation is required, the final legislative steps will be undertaken to add the areas to Kahurangi National Park.

Recommendations

² Information taken from an internal DOC paper by Shannel Courtney (Technical Support Officer - Threatened Plants) entitled *Proposed magnesite quarries, Cobb Valley Assessment of impacts on flora and vegetation and their restoration potential* August 2012

1. That the Board supports the addition of the land parcels to Kahurangi National Park as described in this Board Paper, pursuant to Section 7 of the National Parks Act 1980.
2. That the Board agrees that no further formal investigation pursuant to Section 8 of the National Parks Act 1980 is required.

Contacts:

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Takaka

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Date: 1 July 2015

Appendix One

Sections 7 and 8 of the National Parks Act 1980

7 Constitution of other national parks and addition of land to national parks

- (1) Subject to subsections (2) to (6), the Governor-General may from time to time, by Order in Council made on the recommendation of the Minister,—
- (a) declare that any land of the Crown described in the order, being—
 - (i) any conservation area; or
 - (ii) *[Repealed]*
 - (iii) any land subject to the Tourist and Health Resorts Control Act 1908 or the Tourist Hotel Corporation Act 1974; or
 - (iv) any reserve vested in Her Majesty subject to the Reserves Act 1977; or
 - (v) any land acquired by the Crown for national park purposes,—
 shall be a national park subject to this Act:
 - (b) add any such land to any park:
 - (c) declare that any foreshore described in the order shall be a national park or be added to any park:
 - (d) assign a name to any new national park or change the name of any existing national park.

- (2) The Minister shall not make any recommendation under subsection (1) except on the recommendation of the Authority made after consultation with the appropriate Board (if any).

Section 7, sub-sections (2A) to (6) aren't relevant to this proposal and so are not included here.

8 Investigation of proposals to add to parks or establish new parks

- (1) The Authority may, after having advised the Minister of its intention to do so, request the Director-General to investigate and report to it on any proposal that land should be declared to be a park or part of a park, or acquired for national park purposes.
- (2) Unless the Authority otherwise agrees, the Director-General shall, on receiving any such request—
- (a) give notice of the proposal under investigation by advertisement published in daily newspapers circulating in the cities of Auckland, Hamilton, Wellington, Christchurch, and Dunedin, and in the area affected; and
 - (b) in that notice invite persons and organisations interested to send to the Director-General written suggestions on the proposal under investigation.
- (3) The Director-General shall, on receiving any such request, give notice to the responsible Minister of the Crown of the proposal under investigation.

Appendix Two

Report on the geology, vegetation, flora and wildlife of West Burnett
By Shannel Courtney (Technical Support Officer - Threatened Plants)
May 1993.

DOC-2524286

FILE NOTE

LAN:180

7 May 1993

WAIROA RIVER HEADWATERS - WEST SIDE OF MOUNT BURNETT WAKAMARAMA RANGE

A brief account of the geology, vegetation, flora and wildlife is given below, based on a visit in May 1988.

General

The area is a completely forested catchment and ranges from 200m to over 400m altitude. The geology is entirely cretaceous sandstone, mudstones and conglomerates and Pakawan coal measures. It is quite infertile. Towards the crest of the range the landforms are broad plateau-like ridges which steeply fall away into the Wairoa River which itself runs along a major fault. The block adjoins the palaeozoic dolomite geology of Mt Burnett which is a nationally important area for nature conservation.

The block is a 246 ha enclave completely surrounded by Northwest Nelson Forest Park.

Vegetation

The lower altitude part of the block is covered in tall mixed beech-podocarp-broadleaf forest dominated by hard beech, silver beech, kamahi and quintinia with frequent emergent northern rata, miro and rimu. The high rainfall of the area has encouraged a profusion of ferns, epiphytic plants and true rainforest species including kiekie, toro, numerous species of treefern, hutu, quintinia and *Gahnia xanthocarpa*. The steep gully bottoms support nikau, kahikatea, pukatea and mamaku.

Above about 350m the high rainfall, infertile soils and gentle ridge topography have resulted in a vegetation type which is more typical of higher altitudes, thus there is a peculiar mix of upland and lowland species, including numerous NW Nelson endemics. Silver beech and

mountain beech becomes more common and is associated with southern rata, scattered mountain cedar, yellow-silver pine, silver pine, mountain toatoa and dense stands of rimu. The endemics here include *Metrosideros parkinsonii*, *Dracophyllum townsonii*, *Astelia 'moriceae'* and *Hoheria populnea* var. *ovata*. Two varieties which are narrow endemics to the West Whanganui area are also present within the block: these are *Dracophyllum pubescens* var. *'trimorphum'* and *Brachyglottis rotundifolia* var. *cockaynei*.

Scattered throughout the montane forest are a number of species which in the South Island are only found on this far north-western side, including *Blechnum fraseri*, *Blechnum nigrum*, kauri grass and *Alseuosmia macrophylla*. There are also a number of plants species which are regionally rare or uncommon that occur in a variety of habitats in the block. These include the orchid *Bulbophyllum pygmaeum*, the ferns *Lindsaea viridis* and *gully treefern* (*Cyathea cunninghamii*), and the shrubs *Pittosporum cornifolium* and *Pimelea longifolia*.

Over 130 species of higher plants were found in the block. This is a surprisingly high diversity for a forest ecosystem as it includes many of the temperate rain forest species as well as the softwood communities characteristic of infertile uplands. Such a diversity is most likely due to the variety of landforms and associated water regimes, range of altitude, high rainfall and generally low fertility.

Wildlife

All of the common forest bird species are present. Notable occurrences though were kaka, kakariki, and robin. These species are now confined to large forested blocks in the region such as this area. The fact that it is also surrounded by the vast tract of Northwest Nelson Forest Park makes the area all the more important for wildlife. Although not seen or heard during the survey, falcon and great spotted kiwi are known from the neighbouring forest and are almost certainly present in the area. The steeply incised Wairoa River does not appear to be suitable for blue duck.

The area covers about a quarter of the total range of giant land snail, *Powelliphanta gilliesi* *gilliesi*, endemic to the Mt Burnett Range. This is a threatened species due to the depredations of possums, rats, goats and domestic stock, and is a Category B species for recovery priority (Molloy and Davis, 1992).

Conclusion

The high conservation values of this area make it eminently suitable for addition into Northwest Nelson Forest Park or into a new National Park. This would also rationalise the unusual situation of it being completely surrounded by the Park. It also adjoins Mt Burnett, an area of national conservation importance.

Selective logging of rimu has occurred on the north side of the catchment where trees are able to be hauled onto the road. There has been no further logging in the area for two years and the remainder of the south-facing slopes and all of the north-facing slopes remain virgin.

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The block contains a high diversity of forest species including NW Nelson endemics, regionally rare species as well as species which in the South Island are restricted to this general area. The upland plateau softwood forests are particularly well-developed with a good range of podocarps and cedar, while the lush low altitude rain forests are excellent examples of their type.

The area is part of a vast tract of continuous forest flanking the Wakamarama Range and is therefore an important habitat for vulnerable species which require sizeable forested areas for their survival.

Shannel Courtney
Senior Conservation Officer - Flora

Reference

Molloy J, Davis A. 1992. Setting Priorities for the Conservation of New Zealand's Threatened Plants and Animals. Department of Conservation, Wellington.

Appendix Three

Report:

Proposed magnesite quarries, Cobb Valley

Assessment of impacts on flora and vegetation and their restoration potential

By Shannel Courtney (Technical Support Officer - Threatened Plants)

August 2012

DOC-2524328

Excerpt from pages 1- 2:

1. INTRODUCTION

Steatite Ltd has applied for an access arrangement into a residual enclave of North-west Nelson Forest Park in the Cobb valley for the purpose of quarrying three outcrops of magnesite.

The application area is within ultramafic rocks comprising part of the Cobb Igneous Complex within the Devil River Volcanics group of rock types. These Volcanics form part of the large north-south trending Takaka Terrane which makes up the rock types in the eastern part of Northwest Nelson. These rocks are dated as Cambrian and include some of the oldest rocks in New Zealand. The ultramafic rocks form a narrow, discontinuous "mineral belt", the largest part of which runs for around 10km from the Lockett Range in the north to the upper Takaka River to the south. There are also small ultramafic outliers in the Parapara River to the north and on the Arthur Range to the south. Several individual, relatively small and narrow lenses of magnesite (magnesium carbonate) occur along faults within this ultramafic belt, associated with varying quantities of talc and quartz. Most of these magnesite lenses occur in the Cobb around and below the Cobb Reservoir and along Cobb Ridge in the upper reaches of the Takaka River (Figure 1).

Despite its relatively small extent, the Cobb-upper Takaka magnesite lens complex constitutes the largest occurrence of magnesite rock in New Zealand, with much smaller quantities apparently also occurring in Westland, North Otago and Southland (Ministry of Economic Development). The lens on which the magnesite mining permit area is centred is by far the largest known in New Zealand, being around 1700m long and 700m wide. Much of it is overlain by non-ultramafic morainic and colluvial deposits, but there are numerous magnesite outcrops of varying sizes throughout the lens. Three of the largest outcrops are those proposed for quarrying in this application, each being around two hectares in size. The high magnesium content of the magnesite outcrops is the main determinant of what types of vegetation and plant species occur on them. The base-rich substrate is toxic to many plant species and is the main driver for the development of a suite of specialised flora and native plant communities. A secondary driver that promotes the development of magnesite vegetation and species is the way in which the magnesite outcrops weather. As with limestone, weakly acidic water dissolves the carbonate component of the magnesite resulting in a range of landforms, hydrologies and microhabitats to which a suite of species has adapted. Such habitats are absent or under-developed in non-carbonate rock types.

Ultramafic rocks are limited in extent nationally and magnesite even more so. Consequently, “ultramafic cliffs, scarps and tors” and “ultramafic hills” are listed as being nationally rare ecosystems (Williams et al 2007) and are therefore considered to be of national importance for protection (National Priority Three in: Protecting Our Places: Information about the Statement of National Priorities for Protecting Rare and Threatened Biodiversity on Private Land, Department of Conservation and Ministry for the Environment, 2007). The magnesite outcrops and hill country within the permit area fall into these two nationally rare ecosystem categories (Appendix 4).

Further, as many plant species are confined to ultramafic substrates they are all considered to be naturally uncommon (de Lange et al, 2008) by virtue of the limited extent of their habitat nationally. As such, these concentrations of plants endemic to ultramafic rocks constitute national biodiversity “hotspots”.

I surveyed the application area on three occasions in April, May and July 2012 to investigate the flora and vegetation of the general area, and specifically the three outcrops and proposed road lines. I then assessed the impacts on vegetation and flora of the proposed magnesite extraction operation and the proposed rehabilitation of the quarry sites. Prior to 2012, I visited on different occasions most of the other magnesite lenses in the Cobb and upper Takaka River as part of other work. These visits provided useful information with which to give context to the magnesite vegetation and flora of the application area.

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Excerpt from pages 21-22:

5. SUMMARY OF VEGETATION & FLORA VALUES OF THE ACCESS ARRANGEMENT AREA

- The magnesite lens on which the application area is centred is by far the largest known in New Zealand.
- The magnesite outcrops and their surroundings constitute ultramafic cliffs, scarps, tors and hills which are nationally rare ecosystems - their protection is therefore considered by the Crown to be of national importance.
- In-forest magnesite outcrops are unusual elements and provide rupestral habitat that is not usually present in typical hillslope forests. Outcrop overhangs confer protection from browsing animals and humus “caps” act as a buffer to ameliorate the toxic effects of the magnesite allowing the development of an in-forest outcrop assemblage of palatable understorey species. Proposed roading will impact on some of these outcrops.
- The outcrops occur within a gentle topography of lateral moraine comprising magnetitic boulders. This is an excellent example of forest on moraine boulder field. Where the topography is most subdued, poor drainage has resulted in a notable vegetation type of mountain beech-cedar forest with Gahnia and bog pine. Proposed roading will impact on this geomorphological feature and vegetation type.
- The large magnesite outcrop vegetation is important as uncommon examples of ultramafic communities which are highly natural and intact. There is no evidence of previous fires and remarkably, they are also free of weeds. This is significant as most other ultramafic areas in the Nelson region, have been modified in the past, especially by fire. The outcrops are therefore valuable benchmarks against which the modified ultramafic areas can be measured.
- The unusual physical attributes of the large outcrops have generated a diverse range of microhabitats. Six vegetation types have been identified, which is very diverse for such a small

area. This short-distance diversity is rare in montane ecosystems and compares more with alpine systems.

- The distinctive summit shrublands and herbfields and the overhang dry, short tussocklands and herbfields are outstanding for their unique assemblage of species. This is due to the unusual chemical and physical characteristics of the outcrops, including high magnesium levels, little or no soil development, above-canopy exposed bedrock, overhangs, slots, dissolution features and very high to very low light and water regimes.
- The mānuka and kānuka vegetation on the large outcrops is in a climax state due to the extremely demanding conditions for plant survival. This is a rare phenomenon for species which are usually seral in their ecology. As the outcrop vegetation has never been burnt or cleared they are highly significant examples of this arrested state.
- The magnesite outcrops, access roads and proposed working areas around the periphery of the outcrops support 11 species of nationally threatened or at-risk plants. This is a high number of threatened and at-risk species for a relatively small area.
- The nationally critical *Cardamine* “magnesite” is apparently confined to the Cobb magnesite outcrops and occurs almost entirely within the application area - most of the population being restricted to the Quarry, South and South-west outcrops.
- The outcrops support a range of other species which are notable because have distributional or altitudinal anomalies, being typically alpine or eastern in their distributions. Also combinations of species are unexpected and unusual.
- In respect of endemism, the magnesite outcrops are a biodiversity “hotspot” for plants. Nine (13%) of the 67 outcrop species are either regional or local endemics - mostly confined to the Nelson and/or Cobb mineral belts or to the Takaka-Cobb catchments. The Cobb magnesite outcrops support a flora with one of the highest proportions of regional/local endemics in New Zealand and is comparable to other areas of high endemism in nationally, including Red Hills, Mt Burnett and Awahokomo limestones.

6. RECOMMENDATION

This access arrangement will have permanent adverse effects on the special values of this magnesite area. There is no certitude that the quarry activities can be remedied or mitigated so that there is no nett loss of these values.

Given the considerable importance of the natural values of the magnesite outcrops and the implausibility that any restoration efforts could restore the values that the quarrying would destroy, I strongly recommend that the access arrangement application be declined.

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