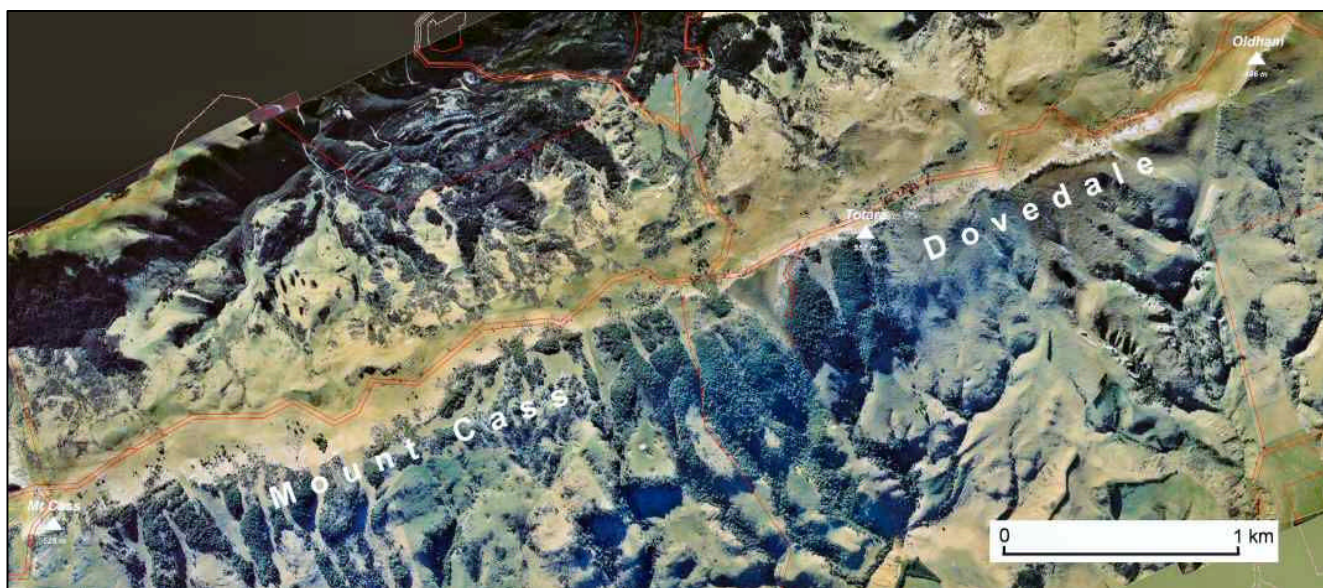


The Mount Cass Windfarm – An Archaeological Assessment

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Introduction

MainPower, an electricity distribution company for the North Canterbury and Kaikoura region, plans to construct a wind farm in the Mount Cass area, some six kilometres east of Waipara. As one of the many studies being carried out for this proposal, it has requested an Archaeological Assessment of the limestone ridge stretching from Mount Cass itself, past Totara Peak, to Oldham Peak, a distance of some five and a half kilometres.

MainPower asked for the identification of any sites of archaeological significance and for proposed mitigation measures for any such sites that might be affected by the proposals.

For the present purposes the area between Mount Cass and Totara is referred to as Mount Cass and the area between Totara and Oldham as Dovedale (see above aerial photograph). The Windfarm as a whole is referred to as the Mount Cass Windfarm.

Legal Requirements

There are two main pieces of New Zealand legislation that relate to any work that affects archaeological sites. These are the Historic Places Act 1993 and the Resource Management Act 1991.

The **Historic Places Act** is administered by the New Zealand Historic Places Trust and there is an Authority (consent) process for any work affecting archaeological sites. For the purpose of the Act an archaeological site is defined as any place in New Zealand that:

(a) Either –

- (i) was associated with human activity that occurred before 1900; or
- (ii) is the site of the wreck of any vessel where that wreck occurred before 1900; and

(b) Is or may be able through investigation by archaeological methods to provide evidence relating to the history of New Zealand.

Anyone who intends to carry out work that may damage, modify or destroy an archaeological site must first obtain an Authority from the New Zealand Historic Places Trust. The archaeological Authority process applies to archaeological sites on land of all tenure including public, private and designated land, and to all sites that fit the Historic Places Act definition, regardless of whether or not:

- The site is recorded in the Site Recording Scheme of the New Zealand Archaeological Association or is registered by the Trust,
- The site only becomes known about as a result of ground disturbance,
- The activity is permitted under a district or regional plan, or a resource or building consent has been granted.

The **Resource Management Act** requires City, District and Regional Councils to manage the use, development, and protection of natural and physical resources in a way that provides for the well-being of today's communities while safeguarding the options of future generations. The protection of historic heritage from inappropriate subdivision, use, and development is identified as a matter of national importance.

Historic heritage is defined as those natural and physical resources that contribute to an understanding and appreciation of New Zealand's history and cultures, derived from archaeological, architectural, cultural, historic, scientific, or technological qualities.

Historic heritage includes:

- historic sites, structures, places, and areas,
- archaeological sites,
- sites of Maori significance, including wahi tapu,
- surroundings associated with the natural and physical resources.

These categories are not mutually exclusive and some archaeological sites may include above ground structures or may also be places that are of significance to Maori communities.

Where resource consent is required for any activity the assessment of effects is required to address cultural and historic heritage matters.

General

For the purposes of the field work associated with this Assessment, a somewhat wider definition of the term 'archaeological site' was used – based on the following explanation given in the New Zealand Archaeological Association's *Archaeological Site Recording in New Zealand** :

Archaeology is the study of the physical evidence of past human activity. It deals with a range of material from earthwork structures and lost or discarded tools to old rubbish dumps. It is also concerned with the environment, how it has affected human settlement and how humans have transformed it for their own purposes.

It should be noted that while neither definition says so in as many words, they both apply to evidence of European and well as Maori origin.

Although there is no existing evidence for them having done so, it is likely that people travelled into this Mount Cass-Dovedale area from coastal or inland settlements in pre-European times to hunt for moas and other forest-dwelling birds. Any indication of such activity could provide useful information relating to the history of New Zealand. In more recent times, the general area has been (and still is) used for grazing and other farm-related activities, tramping, scientific studies and the hunting of introduced fauna.

The types of archaeological sites that were specifically looked for in the field when making this Assessment were:

- Camp sites – temporary encampments in the shelter of rocks or a cliff face, identifiable by materials left behind.
- Fireplaces – burnt and usually broken stones, and possibly charcoal.
- Ovens – hollows in the ground surface containing fireplace material.
- Artwork – drawings, scratchings or carvings on rock faces sheltered from weathering.
- Burials – human remains that have been deposited either as a body or one or more bones,

* WALTON, Tony (editor), 1999. *Archaeological Site recording in New Zealand*. New Zealand Archaeological Association, Monograph 23.

sometimes but not always deliberately hidden from cursory view.

- Caches – artifact(s) that have been stored or hidden in a sheltered place for subsequent collection.
- Artifacts – man-made objects which may be discarded, lost or cached.
- Quarries – if the limestone contains flint nodules (as it does in some areas in Canterbury) there is the possibility of finding evidence of it being broken out of the rock for use in making artifacts.
- Miscellaneous – items such as unworked lithic materials that do not occur naturally in the immediate vicinity or firewood stacked in a shelter.
- Other evidence relating to the early European utilization of the area.

Nearby Archaeological Sites

Existing records of archaeological sites in the general area were consulted. The New Zealand Archaeological Association established a Site Recording Scheme in 1958 to create simple but systematic files of information about archaeological sites. An index to this scheme is maintained by the Department of Conservation in Wellington, and regional files are kept by the New Zealand Historic Places Trust in Christchurch.

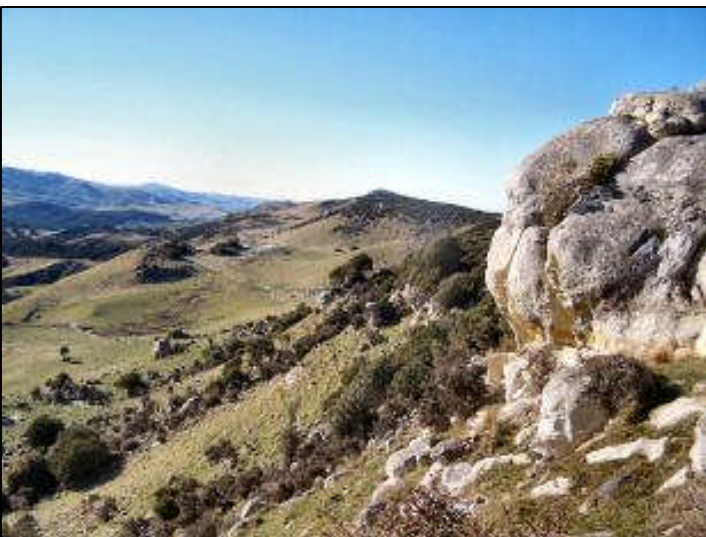
There are no recorded archaeological sites in the Mount Cass or Dovedale areas, the nearest being some human burials about five kilometres to the south (site number N34/20) and some occupational rock shelters over six kilometres to the east (N34/18-19). Other archaeological sites – pits, pa, burials, occupational shelters, ovens – occur nearby in both these distal localities.

Aerial photographs, supplied by MainPower, were studied. While it was not thought that actual archaeological sites would be seen on these, the purpose of examining them was to identify “likely” areas which could then be subjected to field surveys. No such areas were found.

Field Surveys

A field survey was made of the greater part of the ridge on the Mount Cass section on 20 June 2006. For this, two people (Michael Trotter and Jeanette McIsaac) walked along the ridge, examining both the top (where the wind turbines are likely to be located) and the upper part of northern scarp face (where there was greater likelihood of utilized shelters). Except in patches of dense bush, all “shelter” type rock formations and flat areas of ground were examined. In some places snow up to 30-40 centimetres deep covered the ground, inhibiting close examination, but these were not considered to be sufficient to affect the survey as a whole. As well, a thorough search was made of, and around, every piece of limestone in two areas of about 50 metres square, as a test for the reliability of observations on the general survey.

Aerial photographs, examined as stereo pairs, indicated that the Dovedale section of the ridge was much the same as the Mount Cass section, though with less bush cover from Totara peak eastward. There was, therefore, less need to survey it, the Mount Cass section being considered fairly representative of the whole Windfarm area as regards archaeological potential.



Shelter type rock formations at Mount Cass

Nevertheless, a general survey of the Dovedale section was undertaken on 9 January 2008 (by Michael Trotter accompanied by Emma Ward from MainPower). Likely rock formations along the top of the ridge where the wind turbines will be erected were examined, and a “cave” like overhang that had been pointed out to us on the scarp face was inspected. As well, a general examination was made of much of the fallen limestone below the face of the ridge. The very northern part of this section was not inspected in detail as it was evident from a distance that it was a most unlikely place to find archaeological evidence.

Results

Only one piece of limestone warranted further study. This was a small overhang with black and red marks on the overhanging rock face in the Mount Cass section. Detailed examination of both the marks and the “floor” of the overhang using standard archaeological methods did not, however, reveal any indication of human activity here. (Such markings were not uncommon on both the Mount Cass and Dovedale sections but elsewhere could be dismissed without close examination.)



Shelter type rock formation with red and black marks on the overhanging rock face.

At the western end of the Mount Cass area there was a section of obsolete rabbit fencing, which had been replaced by newer rabbit fencing near by. The obsolete piece is not of any great significance itself, and as it would not be any earlier than about 1920, is not covered by the *Historic Places Act*. Elsewhere there were some pieces of old fences containing split wooden posts that had been upgraded with more modern fencing.

The vegetation along the whole of the ridge has been modified by human activity but not in a way that would warrant recording or preserving as an archaeological site.

Assessment

By their very nature, most archaeological sites of the type likely to occur in the Windfarm area tend not to be visible on the surface of the ground. Much evidence of past human activity, if not deliberately placed in a protective situation at the time, disappears through scattering and weathering if it is not protected by sheltering rocks or covered by soil. It is thus not possible to say with certainty that there are no archaeological sites in the area.

However, there are two factors that allow an assessment to be made. One is the terrain itself. People using the area are unlikely to have camped on the ridge or to have carried out other activities that would lead to evidence of their presence being left there. Much more hospitable situations can be found on the valley floor to the north where there is both shelter and water available.

The other factor is that absolutely no archaeological evidence of any past human activity was found during fairly comprehensive field searches.

There is therefore no indication of anything of an archaeological nature that needs to be taken into consideration in the planning of a Windfarm in the Mount Cass area.

Recommendation

Contractors working on the Windfarm should adhere to an Accidental Discovery Protocol which would take effect in the unlikely case of any archaeological evidence being uncovered.

It might be a useful precaution to have an archaeologist have a further look at the area during the time that access roading is being constructed. If anything of archaeological importance were to be noted at this stage, application could be made to the New Zealand Historic Places Trust for an Authority to disturb, modify or destroy any archaeological site in the area, under Section 11 or 12 of the *Historic Places Act 1993*. The completion of this process could help avoid a possibly long delay if something significant was found during the actual construction work. If the consent process has been fully dealt with beforehand then any unexpected discovery can be dealt with by an authorized archaeologist relatively quickly.

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[Illustrations in this report have been compressed to facilitate electronic transmission.]