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TE KUHA COAL MINE

LANDSCAPE AND VISUAL PRELIMINARY REVIEW

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INTRODUCTION

- 1 Isthmus was engaged by the Department of Conservation to review the 'Draft Landscape Assessment Report & Visual Supplements ('**Assessment**') prepared by Rough and Milne Landscape Architects for the proposed Te Kuha Coal Project.
- 2 The project proposes a 70ha open-cast coal mine on the backdrop range to Westport. The site is located on the skyline ridge between Mt Rochfort and the Buller Gorge. It includes a haul road from the coal mine to a rail loading facility at Te Kuha at the western entrance to the Buller Gorge.
- 3 The majority of the project is within a Water Conservation Reserve administered by the Buller District Council. Approximately 20% of the mine area (which is the primary focus of this review) lies within land administered by the Department of Conservation on the east (Buller Gorge side) of the ridge.
- 4 The main potential landscape issues are:
 - Whether the site is part of an Outstanding Natural Feature / Landscape;
 - Landscape effects as experienced from the Buller Gorge;
 - Landscape effects within the site itself including effects on landform features, vegetation, creeks and a tarn; and
 - Effects on visual amenity from Westport and surrounding areas including from roads in the coastal plains.
- 5 This preliminary review is a desk-top review of the following:
 - The methodology;
 - The appraisal of the existing landscape;
 - The description of the proposal;
 - The analysis of effects; and
 - The measures proposed to avoid, remedy or mitigate adverse effects.

THE METHODOLOGY

The Assessment

- 6 The methodology is sound in its general approach and the way it has been applied to the project. It:
 - Covers the matters listed in the RMA Fourth Schedule (including description and evaluation of existing environment, description of proposal, relevant statutory context, assessment of the nature and magnitude of effects, and recommended measures to avoid, remedy or mitigate adverse effects –although it doesn't address alternatives).
 - Is in keeping with the general guidance given in the NZILA Best Practice Guide 2010 ('**Best Practice Guide**').
 - Where relevant defines the terms used and explains how assessments have been made.

The photosimulations

- 7 The photosimulations appear at face value to have prepared in accordance with best practice. Images include (i) a sufficiently wide field of view (FOV) to depict context, and (ii) separate A3

images to depict correct scale for a reading distance of 500mm for a 'cropped' part of the view. The following further information or changes are recommended:

- a) That the photosimulation methodology be provided, including the information on which the 3D computer model is based, so that the photosimulations can be verified.;
- b) That viewpoint 13 is re-done with a better quality photo. This is warranted given that is arguably the most important viewpoint, given that it is in an ONL and the report classifies the visual effects as 'substantial'; and
- c) That photosimulations be prepared from three additional viewpoints (to be confirmed on site) which are discussed in more detail below.

THE DESCRIPTION AND EVALUATION OF EXISTING ENVIRONMENT

The existing landscape

- 8 The Assessment contains a descriptive inventory of landscape features and an evaluation of values. The descriptive inventory is thorough, and is placed in context by means of descriptive extracts quoted from the Regional Policy Statement and District Plan.
- 9 The evaluation makes the following pertinent points:
 - There are some **noteworthy biophysical features** on site including rock outcrops, boulder fields, mountain streams ('creeks'), a tarn, and vegetation including what is understood to be 'first growth' bush and sub-alpine scrub. It notes that the site is part of a RAP (Recommended Area for Protection) because of its ecological aspects;
 - The site has '**very high**' or '**very high to pristine**' (page 36) **natural character** (6-7 on a 7 point scale). This is fair taking context into account (i.e. the site is not remote, rather it is in view of Westport); and
 - The site has '**very high**' **visual amenity values** and that, in particular, the site is different to other coal mines in the area because of its high visibility on the backdrop hills behind Westport and the eastern part is on the skyline ridge above the Buller Gorge.
- 10 To that extent the description of the existing environment is thorough and fair. The Assessment does not address associative values thoroughly. In part this is a question of how matters are analysed. For instance the Assessment points to a tension between the economic value derived from coal mining on the one hand and, on the other hand, economic value derived from tourism based on the natural environment. While weighing such economic aspects is not within the scope of a landscape assessment, both mining and tourism are relevant characteristics of the West Coast's actual landscape and its associative aspects. For example, a characteristic of the West Coast's landscape is the juxtaposition of resource extraction (historically with distinctive engineering) and a dramatic natural landscape. The history associated with such landscapes is a relevant landscape value. Likewise the Lower Buller Gorge should be analysed in closer detail including its biophysical, perceptual and associative values. This is discussed in more detail below.

Outstanding Natural Landscape

- 11 The Assessment identifies that the area east of the ridge is part of an area identified as an Outstanding Natural Landscape ('ONL') in a report by Brown NZ Ltd ('Brown Report') which was appended to Mr Brown's evidence on the Mokihinui project and which he was commissioned to

review by Buller District Council. The findings of the Brown Report have not (to date) been considered by the Buller District Council or incorporated into the District Plan. However, two points can be made in relation to this ONL:

- 11.1 Given that it has not been considered by Buller District Council, it would be appropriate if the Assessment provided a view on whether it supports the Brown Report appraisal with respect to the site on the basis of a professional assessment; and
- 11.2 Also, the Brown Report lumps smaller landscapes into what it terms 'Landscape Units', of which the site falls within the 'Paparoa and McWilliam Inland Ranges' which extend more than 50km from north to south. However, and more pertinently with respect to this application, the area simultaneously falls within the Lower Buller Gorge which deserves specific consideration. While (as has been noted) the Buller District Plan does not include an inventory of ONF/ONLs it does note the following:

"Outstanding natural features and landscapes represent an important tourist attraction and recreation asset and contribute to a sense of District identity. **Particular features include** karst areas, wetland systems, **the Buller Gorge**, the Paparoa and Karamea landscapes, the Buller coal measures and coastal dune systems." (Section 4.9.2) (emphasis added)
- 11.3 In addition, the Lower Buller Gorge is a Scenic Reserve. However, the boundary of the scenic reserve does not accurately follow the topography. As a consequence the mining area is on the skyline above the boundary of the scenic reserve.

THE DESCRIPTION OF THE PROPOSAL

- 12 While the Assessment contains sufficient information on most aspects of the proposal to enable an appraisal of the overall scale of effects, it is recommended that further information be sought to clarify the following matters:
 - 12.1 Sheet 7 of the Graphic Supplement appears to depict finished contours for years 1 to 3 and most of year 4, but only existing contours for years 5 to 8 and the balance of year 4. The areas for which finished contours are not provided comprise the skyline where the potential effects are greatest. Similarly, it is difficult at face value to reconcile the 3D computer model / photosimulations depiction of the existing and finished landform with the description of backfilling provided in the Assessment. For instance, the 3D model and photosimulations appear to depict backfilling along the ridge, but the description on pages 43-44 says that overburden from years 4-8 will be moved downhill and not returned to the ridge following mining. It may be that the tones used in the diagrams lead to misinterpretation. It would therefore be useful to have both existing and finished contours for the mining site to enable the earthworks to be understood more closely and the 3D model checked.
 - 12.2 While the photosimulation viewpoints appear (on the basis of desk-top review) to fairly represent the places from where the mine will be visible, it would be useful to include the following locations (to be checked on site visit) in order to fully understand the project:
 - From SH6 in the lower Buller Gorge west of 'Horseshoe Bend' (From maps it appears that the mine may be visible on the skyline from some places on this

section of road. If this is correct, a further photosimulation might be warranted from this location for the reasons given in paragraph 10 above. Either way, further information on the visibility of the mine from this section of road is warranted.

- From SH6 opposite the loading facility at Te Kuha (at the entrance to the Lower Buller Gorge). With regard this viewpoint it would also be useful if the extent of vegetation clearance around the loading facility was quantified (the Assessment currently says the vegetation clearance will be “no more than necessary” (page 49)), in particular the extent to which vegetation clearance affects visibility of the facility from SH6;
- From Mount Rochfort. Although people need to go out of their way to reach this site, I understand from the Assessment that it is a public viewpoint, and a photosimulation overlooking the site from such an elevated viewpoint would help understanding of the project.

THE ASSESSMENT OF EFFECTS

13 The ‘Effects’ section of the Assessment is split into two parts:

- A visual effects appraisal of the photosimulations from representative viewpoints (which comprises the bulk of the section); and
- A paragraph assessing the effects on biophysical aspects within the site.

Visual amenity effects

14 The Assessment concludes that the effects on (visual aspects of) ‘natural character’ and ‘visual amenity’ during mining will be:

- ‘Substantial’ from the representative viewpoint within the Buller Gorge.
- ‘Substantial from those viewpoints on the coastal plain closer to the site such as from SH6 at Norris Creek (Omanu Creek);
- ‘Moderate’ from Westport and surrounding areas; and
- ‘Moderate-low’ from more distant locations (such as the Cape Foulwind walkway).

15 These appraisals seem fair on the basis of the desk-top review.

Biophysical effects

16 The Assessment concludes that there will be ‘moderate to substantial’ natural character effects within the site itself, and ‘moderate’ visual effects.

17 These appraisals do not seem reasonable based on the desk-top review. Open-cast mining within an area of bush and landform features of high value is likely to have effects near the top of the scale for both biophysical and visual aspects. (The Assessment may be basing its appraisal on ‘averaging’ the effects within the mining area over the wider permit area).

Lower Buller Gorge

18 The effects on the Lower Buller Gorge warrant closer examination given the significance of the Gorge and the potential effects. As discussed above:

- a) That part of the site east of the ridge is within an area identified in the Brown Report as an ONL;

- b) The Lower Buller Gorge warrants consideration as an ONL in its own right; and
 - c) The Lower Buller Gorge is also a Scenic Reserve.
- 19 The Assessment identifies that the mine will be visible on the skyline from within the Gorge, and at one point will be the focal point from SH6. For these reasons, the following further information is recommended:
- a) A closer appraisal of the existing landscape values of the Lower Buller Gorge, including a professional view on whether it is an ONL or not;
 - b) A more detailed analysis of the visibility from within the Gorge and effects on the sequence of views travelling through the Gorge; and
 - c) An appraisal of such visual effects on the overall landscape value of the Gorge.

THE MEASURES PROPOSED TO AVOID, REMEDY OR MITIGATE ADVERSE EFFECTS

- 20 Measures to avoid, remedy and mitigate adverse effects are discussed throughout the Assessment (where relevant) rather than collated under a separate heading. The measures include:
- a) A plan for progressive mining and rehabilitation which includes backfilling, contouring, and re-vegetating mined areas;
 - b) Alignment and design of the haul road; and
 - c) Incidental matters such as the colour of the loading facility.
- 21 It is recommended that further information be provided on the following matters:
- a) While the plan entails backfilling those parts of the mine below the skyline, such measures (as I understand it) do not extend to the ridge where the modifications will be most obvious. It would be useful to understand the practicality or otherwise of applying such a technique to the ridgeline area.
 - b) Given the adverse effects of the eastern part of the mine on the Lower Buller Gorge it would be useful to understand the practicality or otherwise of any alternative plans that might confine mining to the west side of the ridge (and therefore avoid effects on the Gorge).

THE ASSESSMENT'S CONCLUSIONS

- 22 The Assessment's following conclusions on visual effects appear reasonable based on desk-top review:
- a) All open cast mines have unavoidable landscape and visual effects;
 - b) Unlike most mines on the West Coast, the proposal will be visible from Westport and the Buller Gorge;
 - c) During mining the proposal will have moderate visual effects from most places (including locations in Westport), but substantial visual effects from some places on SH6 within the Buller Gorge and from places on the coastal plain closer to the site;

- d) Following mining the effects will reduce over time as the site is re-vegetated. However, the landform (including the skyline ridge) will be permanently altered and the difference between the revegetation and surrounding vegetation will persist for some time.
- 23 The Assessment's conclusions in relation to sections 6(a), 6(b) and 7(c) of the RMA can be paraphrased as follows:
- a) With regards s6(a), there will be effects on streams during mining, but the culverts / bridges will be removed following mining and the streams restored. The tarn will be protected by a 100m buffer.
- b) With regards s6(b), the on the 'Paparoa and McWilliam Inland Ranges ONL' will be negligible because the mine will comprise only a very small part of an expansive area.
- c) With regards s7(c), the remediation of the site following mining will maintain visual aspects of amenity values.
- 24 I disagree with aspects of these conclusions for the following reasons:
- a) **The conclusion with regards s6(b) relies on diluting the effects** of the mine over the whole of the so-called Paparoa and McWilliam Inland Ranges 'landscape unit' (which as discussed covers an area more than 50km from north to south). However, the actual effects will be experienced from the more specific landscape of the Lower Buller Gorge which, while it is within a wider ONL, also warrants consideration in its own right. In this regard, the Assessment notes that there will be 'substantial' visual effects from a location in the middle of the Gorge, the mining being located on the skyline at the focal point of views from that part of the Gorge.
- b) **The conclusion on s7(c) is not consistent with the Assessment itself** which by its own analysis determines that amenity values will not be maintained during mining. Rather the Assessment says there will adverse effects on amenity values ranging between 'moderate-low', 'moderate' and 'substantial' and that such effects will be mitigated (reduced in severity) and partly remedied during and after mining.
- c) **The conclusion omits a conclusion on s7(f)** (maintenance and enhancement of the quality of the environment) which is a relevant landscape matter that covers (amongst other things) the biophysical changes to the landscape within the mine area. The Assessment identifies the area has having high biophysical values as a combination of natural flora and ecology, and topographic features (including streams, rock outcrops and boulder fields). The Assessment recognises that there will be substantial adverse effects on these elements during mining and, although the site is to be restored, there will be residual adverse effects.

SUMMARY

- 25 The Assessment follows a **sound methodology** and most of the individual findings within the main body of the Assessment appear to be accurate (based on desk-top review).
- 26 While there is **sufficient information** on most aspects of the project to enable an appraisal of overall effects, it is recommended **further information** be sought on the following aspects:

- 26.1 Additional before and after contour information on the mining area, particularly with regards to the ridge area, to enable the 3D computer model and photosimulations to be verified and to understand the effects on the ridge.
 - 26.2 Additional photosimulations (following checking on site) from (i) SH6 opposite Te Kuha, (ii) within the Lower Buller Gorge, and (iii) Mount Rochfort.
 - 26.3 Re-doing the photosimulation from Viewpoint 13 with a better quality photo.
 - 26.4 Further analysis of the existing landscape qualities of, and landscape effects on, the Lower Buller Gorge.
 - 26.5 Information on the practicality or otherwise of reconfiguring mining to avoid the area east of the ridge, or backfilling to the ridge-top mined areas.
- 27 I do not agree with aspects of the conclusions with regards to sections of the RMA. In particular:
- 27.1 By the Assessment's own account there will be some significant effects from the Lower Buller Gorge (page 61). I do not agree that such effects on that specific landscape should be diluted over a much wider 'landscape unit'.
 - 27.2 By the Assessment's own account, there will be some adverse visual amenity effects; therefore visual amenity will not be maintained.
 - 27.3 The conclusions do not address the effects on biophysical and other landscape values within the site itself that would fall under s7(f).

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