

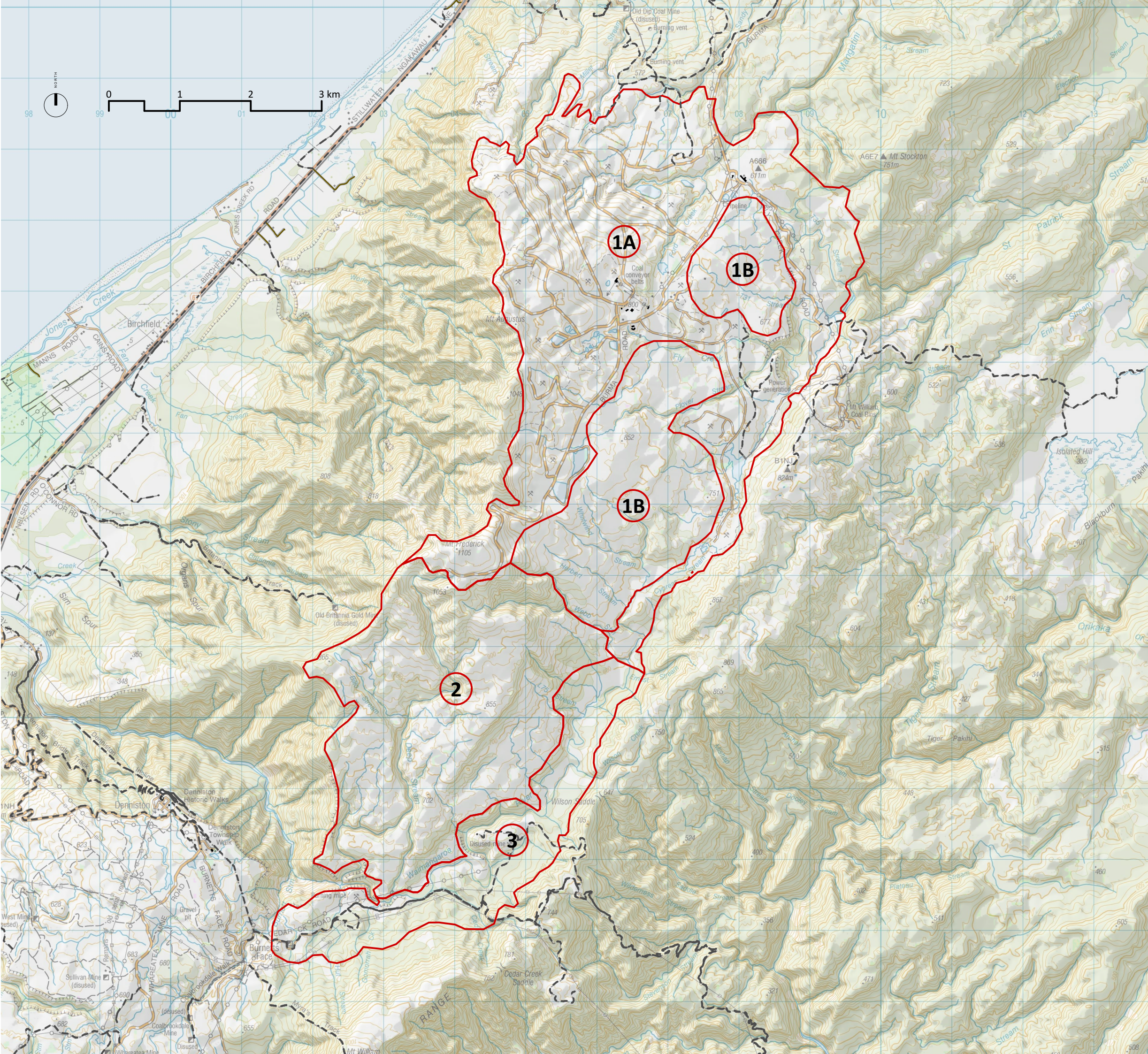
LEGEND

STOCKTON PLATEAU

WALKING AND BIKING TRACKS

SOURCE: LINZ/BOFFA MISKELL/ DOC

MAP 29
STOCKTON PLATEAU
RECREATION TRACKS





EVALUATION OF LANDSCAPE SIGNIFICANCE



Evaluation Of Landscape Significance

A key output of this study is the identification of natural landscapes that meet the significance thresholds under RMA section 6(b). The identification of a landscape feature or a landscape as an ONFL requires that two threshold tests be passed:

1. a test for naturalness – is it natural enough? ³⁴
2. a test for outstandingness – is it outstanding?

The landscape must be both ‘natural’ and ‘outstanding’ but not ‘outstandingly natural’.

1. A TEST FOR NATURALNESS

Naturalness is interpreted differently by ecologists and landscape architects, although their views of natural and naturalness are complementary. Ecologists interpret naturalness in terms of indigenous attributes, while landscape architects take a broader view that can encompass both indigenous and exotic natural attributes. This is consistent with the Mackenzie District Plan Change 13 Appeal Decision where the court restated the principle that perceptions of naturalness under the RMA are a ‘cultural construct’ and ‘vary with the beholder’⁴⁴. Whilst natural science factors are important in underpinning the term, they should not be given undue weight at the expense of experiential and associative factors. In other words, natural character is an outcome of physical environment and perception. Perception is influenced by what we know of an area’s natural characteristics and qualities (including input from natural sciences) and how we experience them⁴⁵.

Taking the above explanation into account, the word ‘natural’ as used in ssection 6(b) of the RMA does not equate with pristine. Natural means principally characterised by natural elements (such as landforms, vegetation, natural water bodies) as opposed to built elements (such as buildings, structures and roads). The criteria for naturalness include the unmodified physical landform and relief, the landscape being uncluttered by structures and / or obvious human influences, the presence of water, vegetation (especially native vegetation) and other ecological patterns. Naturalness is described on a spectrum of high naturalness to low

naturalness. The level of natural character is described on the spectrum of naturalness as a seven-point scale, which extends from pristine wilderness (very high naturalness) to a urban city scale (very low / nil naturalness). An ONF/L must be within the **moderate-high, high or** very high range to qualify as an ONF/L where natural processes of vegetative colonisation and succession are dominant over cultural processes. Refer Figure 3 below.

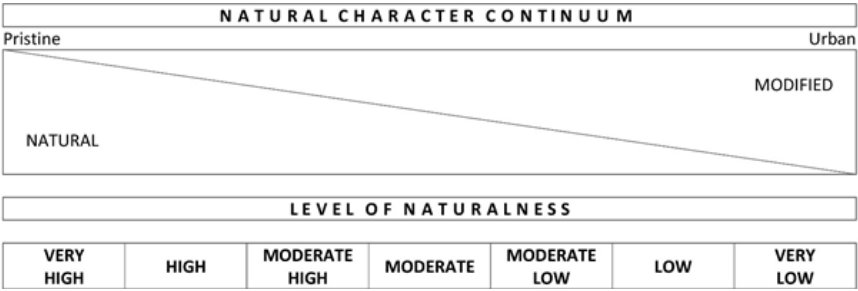


Figure 3: Naturalness continuum

For the purposes of this study the level of naturalness of a landscape will be predominantly determined by presence of unchanged landforms, functioning water, drainage and soil processes, and vegetation patterns, compared to a landscape or feature where human developments such as built form, vegetation modification, and landform modification including underground mining, roads, or other development prevails. This takes account of the physical and perceptual landscape attributes relating to place and naturalness but not necessarily a lay person’s perception of naturalness.

A determination of naturalness must also consider the context afforded by unimplemented mining licences, and exploration and mining permits that have been granted under the Crown Minerals Act over the majority of the plateaux. As mentioned above, although these permits and licences will require an accompanying assessment of effects under the RMA before being implemented, they nevertheless acknowledge the

presence of an important resource that if harvested will result in further modification to the landscape.

2. A TEST FOR OUTSTANDINGNESS

The Environment Court has endorsed the finding that a landscape will be considered outstanding if it is ‘conspicuous, eminent, remarkable or iconic’ within the context of the area concerned⁴⁶. The three overlapping factors or dimensions (physical, perceptual, and associative) that are considered when assessing the values and significance of a landscape embrace earlier lists of factors such as the WESI and Pigeon Bay factors.

Establishing landscape significance requires an informed overall judgement based on the interaction between the values identified within the physical, perceptual and associative dimensions of the landscape. Essentially it is the overlap of these physical, associative and perceptual values that is key to determining whether the values associated with the plateaux are of such significance that the plateaux can be regarded as an outstanding natural feature or landscape.

The assessment also applies across the district as a comparison, acknowledging that much of the Buller District is public conservation land and the land immediately surrounding the plateau to the north (Denniston Waimangaroa) and south, southeast (Paparoa and Mt William Inland Ranges) is identified as an ONL. In practical terms, when undertaking a district or region wide study, this requires re-examining areas or components identified as having at least high natural character and evaluating whether all or part of such areas stand out as exceptional. As mentioned, the relative values that are identified for the Denniston and Stockton plateaux landscapes are undertaken as a professional assessment, bearing in mind that a landscape may be valued by different stakeholders for a variety of reasons and will not necessarily align with those valued by members of the community.

⁴⁴ Federated Farmers o New Zealand (INC) McKenzie Branch & others v Mackenzie District Council, Decision No. [2017] NZEnvC 53 (Plan Change 13).
⁴⁵ New Zealand Institute of Landscape Architects. (May 2021) Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines. Final Draft subject to final editing, graphic design, illustrations, approved by Tuia Pito Ora / NZILA. Paragraph 9.26
⁴⁶ Wakatipu Environmental Society Inc v Queenstown Lakes District Council, Decision No. [2000] NZRMA NZEnvC 59.

Denniston Plateau Evaluation of Landscape Significance

Denniston Plateau is assessed as being of **Moderate to Moderate High naturalness** on the scale above but naturalness is diminished by the degree of cultural modifications to the plateau relating to landform and vegetation, historic structures, infrastructure and continuing land use. While natural elements are dominant in places, there is also a proliferation of buildings and structures (relating to historic mining) scattered over the Denniston Plateau. Infrastructure (in the form of a roading network, power pylons and power poles) is obvious. And although historically coal mining was carried out largely underground, subsidence has affected surface topography in localised areas and drainage systems have been affected.

The Vegetation and Flora Baseline Survey for the Escarpment Mine Project includes Figure 4, an aerial photograph showing pillared areas within the survey area local to the proposed Escarpment Mine, i.e., areas where subsidence and / or surface cracking has occurred or may occur in the future will alter existing vegetation and drainage patterns. In sandstone pavement areas this is allowing the establishment of forest tree species in cracks where material is accumulating thereby speeding a succession to a future forest cover⁴⁷. The available archaeological data and heritage map shows the relatively extensive amount of underground mining that has occurred over the Denniston Plateau to be in the region of 50% so it is likely that similar subsidence has or will occur in these areas too. This also indicates that mining has modified the landform and geological composition of the plateau.

Natural patterns are apparent at the ground surface (as intact sandstone rock pavement and vegetation sequences, a wetland mosaic and associated wetland species, and where dense forest vegetation occurs in gullies) but site investigation and research indicate that the vegetation of the Denniston Plateau has been historically modified by outbreaks of fire, and exotic weed and / or pest species are evident, particularly associated with areas of disturbance and along roadsides. Browsing by introduced animals mainly goats and deer has occurred, and possums, rats, mice and stoats are also present mainly in forest habitats.

In terms of natural processes, there is evidence that colonisation and succession are clearly underway and will likely continue except where there is further disturbance. This is clearly demonstrated at Burnetts Face where recolonisation has occurred to the extent that it is difficult to imagine that this was once the site of a bustling settlement and where mining activity was undertaken. This indicates that underground mining activity was relatively ephemeral in nature. It is unclear whether the revegetation in this area represents the pre-modified vegetation that occurred before human influence but this is unlikely to be detected by a lay person without some ecological knowledge. Of note is that mining continues on the plateau (as the Escarpment Mine) and in this area natural elements, patterns and processes are largely absent.

A determination of naturalness must consider the context afforded by the unimplemented mining licenses, exploration and mining permits that have been granted under the Crown Minerals Act over most of the plateau. Although these permits and licenses will require an accompanying assessment of effects under the RMA before being implemented, they nevertheless acknowledge the presence of an important resource that if harvested will result in further modification to the landscape.

The perception of naturalness will inevitably differ between an expert and lay person depending on the respective extent of knowledge on natural science aspects and other attributes. To a lay person the degree of naturalness of the Denniston Plateau may appear relatively high but with knowledge of the level of modification that has occurred both above and below ground across the Plateau the degree of natural character is inevitably reduced. Also of note is that judgements differ in relation to vegetation. Those with minimal ecological and botanical knowledge often have a bias in favour of a forest environment and against scrub or short stature vegetation, such as that found on the plateau and this can account for differences in the perception of naturalness.

Environment Court findings⁴⁸ stated there were just too many human interventions to turn a blind eye to and given their pervasive presence the Denniston Plateau does not meet the naturalness threshold for consideration as an RMA ssection 6(b) landscape.

For the reasons above, and although it is finely balanced, it is concluded that overall, the Denniston Plateau does not meet the threshold of naturalness to justify being subject to section 6(b) and an ONF/L.

There is no question that the Denniston Plateau is overwhelmingly outstanding regarding the values associated with physical, perceptual and associative factors described above and therefore passes the test for significance. However, the issue is that 'naturalness' and associative values, (where mining is a very important part of the cultural narrative), are inherently contradictory and pose difficulty for management decisions in determining in the future what constitutes appropriate development. In summary, although the Denniston Plateau meets the outstanding threshold it is not sufficiently natural to warrant classification as an ONL.



Photograph 162 : Landscape Modification.

⁴⁷ Nichol, R., & Overmars, F. (2008). Vegetation and flora baseline survey, L&M Coal Ltd Escarpment Mine Project, Denniston Plateau. Resource and Environmental Management Limited.

⁴⁸ West Coast Regional Council and Buller District Council v Buller Coal Limited, Decision No. [2013] NZEnvC 047 (Escarpment Mine).

Stockton Plateau Evaluation Of Landscape Significance

LCU 1

Overall, LCUs 1A and 1B display a **low naturalness** due to the extensive modification related to the widespread mining activity within this landscape character unit. While LCU 1B does appear predominantly natural it is fragmented, and the surrounding mining activity is pervasive to the extent that it dominates the setting and context of LCU 1.

A Coal Mining Licence has been granted over most of LCU 1 and largely implemented. The exception being the southern part of LCU 1B, part of which has been granted an Exploration Permit where it coincides with DOC stewardship land and the balance area to the east which has been granted a Mining Permit.

Although this landscape character unit contains some localised natural science values relating to the presence of tarns, historically rare habitats and significant species, these are reduced by the devastating degree of modification resulting from mining, which conversely contributes to high associative values. Despite the above localised values, the degree of modification is pervasive to the extent that overall LCU 1 does not meet the significance threshold to justify being an ONL.

LCU 2

LCU 2 is assessed as having a **High – Very High naturalness** based on the existing landform, the predominance of natural elements, natural patterns both relating to drainage and vegetation and ongoing natural processes. The presence of the sandstone erosion pavement and deeply incised creeks and associated indigenous vegetation combine to clearly express the formation of this plateau landscape. Although some modification has occurred historically as a result of underground mining this is not obvious on the ground and recolonisation of vegetation has occurred in the interim to the extent that the historic mining activity is not obvious. Notwithstanding that the perception of naturalness will inevitably differ between an expert and a lay person depending on the respective extent of knowledge on natural science aspects and other natural attributes it is considered that even to those well informed the degree of naturalness of LCU 2 will appear high despite the historic mining and low stature vegetation.

This unit is contained by the surrounding landforms, and is visually and physically separated from LCU 1. Overall LCU 2 is highly legible and exemplifies the processes that formed the plateau landscape. With reference to the geology and underlying coal measures LCU 2 is a representative part of a unique or rare landscape in the region or nationally. As part of one of the three plateaux that exist within the Buller District and as part of one of the two coal measures plateaux, few comparable examples of plateau exist.

This LCU has high natural science values and is characterised by an extensive area of historically rare sandstone erosion pavement associated with significant species (*Chionochloa juncea*) and localised historically rare boulderfields of acidic rocks. The obvious presence of a historically rare habitat and significant species contributes to an unusual landscape symbolic of the coal measure plateau due to its recognisable and memorable qualities. The natural patterns of vegetation reflect the underlying natural landform and natural processes and convey a high level of visual coherency with an austere aesthetic.



Photograph 163 : Landscape Modification.

Of note is the Exploration Permit that extends over that part of LCU 2 also coinciding with DOC stewardship land. The balance area of LCU 2 (along the southern area between the Waimangaroa Gorge scarp and Deep Stream and east of Rata Ridge) has been granted a Mining Permit.

In determining an ONL the issue of scale arises and how it is applied to the evaluation of landscape significance. As a general principle the appropriate scale of reference will be at the lowest level that provides sufficient explanation of a situation expressed by Lyle ‘to account for as much as possible by explanations that are as simple as possible’ (Lyle, 1999, p40). In this regard, LCU 2 displays an inner sense of coherence and unity identified as important by Lyle in selecting an appropriate scale of analysis and for the purpose of understanding the environment. In other words, LCU 2 can be recognised as an uninterrupted area possessing homogeneity in its core with clearly defined limits.

On this basis it is considered that LCU 2 can be understood as a landscape feature in terms of s6(b) notwithstanding well-defined boundaries and 11 km² area being approximately 5 km long in a north south direction and 3 km in an east west direction. To the south LCU 2 is defined by the top of the Waimangaroa River gorge, to the west the ridgeline of the coastal hills, to the north an internal ridgeline and deeply incised Webb Stream coinciding with the fault line and to the east the Waimangaroa River valley. In essence the adjoining landforms assist in emphasising the distinctive plateau character of LCU 2.

Overall, in terms of scale and by meeting the thresholds of both ‘naturalness’ and ‘outstandingness’ LCU 2 can be considered an ONF within the Stockton Plateau.

LCU 3

LCU 3 displays a **Moderate – High naturalness** despite the evident modification relating to power transmission corridors, roading and historic underground mining with artefacts in the form of derelict built elements associated with occupation for the purpose of mining. The modification is largely confined to the southern half of the LCU. The balance of the river valley is largely intact with a contiguous indigenous forest cover and evidence of ongoing natural processes.

Of note is that a Mining Permit has been granted over the full extent of LCU 3. LCU 3 has high values relating to its prevailing natural character particularly within the northern half, which is largely uncompromised by modification or built form. There is however human modification afforded by the transmission corridor, roading and historic mining activity within the southern half of the LCU. Although LCU 3 is part of the coal measures plateau, it is characterised as a shallow river valley between the sloping plateau topography of LCU 2 and the steep-sided Mt William Range with extensive largely intact indigenous forest cover. The highly cohesive landform and harmonious forested landcover contribute to high aesthetic values but these attributes are relatively common throughout the Buller District where vast tracts of similar landforms and landcover exist and are identified as ONLs. Overall, however, the values within LCU 3 are not considered sufficiently outstanding at a district level to justify being an ONL.



Photograph 164 : Disturbed Site

Photograph 165 : Escarpment Mine

Photograph 166 : Landscape modifications

APPENDIX A

REFERENCES AND INFORMATION SOURCES

Ballance, P. (n.d.). New Zealand geology: an illustrated guide (148th ed.). Geoscience Society of New Zealand.

Bentley, J. (2011). Peer Review of Landscape and Natural Character Assessment prepared by C Glasson, Escarpment Mine Project, Westport. Department of Conservation.

Boffa, F. (2004). Statement of Evidence - Proposed Cypress Mine.

Boffa, F. (2012). Statement of Evidence for Mt William North Mine, Stockton. Solid Energy.

Boffa, F. (n.d.). Statement of evidence in rebuttal for the proposed Cypress Mine. Solid Energy New Zealand Limited.

Boffa Miskell Landscape Architects. (2011). Proposed Mt William North Mining Area Landscape Assessment. Solid Energy.

Brown, S. K. (2011). Statement of Evidence - Identification of Buller District Outstanding Natural Landscapes for Mokihinui Hydro Power Scheme. Meridian Energy Limited.

Brown, S. K. (2012). Statement of Evidence - Review of assessment of landscape effects of the Escarpment Mine by A Craig, Outline Mokihinui / Buller Study and West Coast Regional Study. Buller District Council.

Brown, S. K. (2012). Rebuttal Evidence - Assessment Approaches.

Brown, S. K. (2013). West Coast Region & Buller / Grey / Westland Districts Landscape study and Natural Character Assessment. West Coast Regional Council.

Buckingham, R. (2008). An investigation of terrestrial ecosystems for the L&M Coal Ltd Escarpment Mine Project. Wildlife Surveys Limited.

Buller District Council. (2000). Buller District Plan.

Craig, A. (2012). First Statement of reply evidence of A W Craig - Graphic Attachment.

Craig, A. W. (2011). Statement of Evidence for the Escarpment Mine.

Densem, G. (2011). Landscape and visual assessment review - RC10/70. Buller District Council.

Densem, G. (2012). Landscape Review - Application for Resource Consents for Mt William North Mine, Stockton. West Coast Regional and Buller District Council.

Department of Conservation. (1987). Ecological Regions and Districts of New Zealand, Third Revised Edition, Publication No. 5. Department of Conservation, Wellington.

Department of Conservation. (2020). West Coast Conservation Management Strategy.

Department of Conservation. (n.d.). Denniston Plateau, Mountain bike tracks.

Federated Farmers of New Zealand (INC) McKenzie Branch & others v Mackenzie District Council, Decision No. [2017] NZEnvC 53 (Plan Change 13).

Glasson, C. (2008). Landscape Assessment for the Escarpment Mine Project, Westport. Prepared for L&M Coal Ltd.

Green, J. (2005). Heritage appreciation and conservation at Denniston. Department of Conservation.

Lister, G. (2012). Statement of Evidence - Mokihinui Hydro Project.

Department of Conservation.

Lyle, J.T. (1985) Design for Human Ecosystems, Landscape, Landuse and Natural Resources.

Mabin, M. C. (2012). Statement of Evidence - Denniston Plateau Geomorphology.

McMorran, T., & Templeton, L. (2020). Geomorphology of the Stockton Plateau (20142615_7407-001-Rev0). Golder Associates (NZ) Limited.

Nathan, S., Rattenbury, M. S., & Suggate, R. P. (2002). Geology of the Greymouth area. Institute of Geological and Nuclear Sciences 1:250000 geological map 12.

New Zealand Government (1991) Resource Management Act.

New Zealand Institute of Landscape Architects. (May 2021) Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines. Final Draft subject to final editing, graphic design, illustrations, approved by Tuia Pito Ora / NZILA.

Nichol, R., & Overmars, F. (2008). Vegetation and flora baseline survey, L&M Coal Ltd Escarpment Mine Project, Denniston Plateau. Resource and Environmental Management Limited.

Petchey, Southern Archaeology Limited, P. G. (2007). Archaeological Survey Report. Department of Conservation.

Pope, J., Newman, N., Craw, D., D Trumm, D. & Rait, R. (2010) Factors that influence coal mine drainage chemistry. West Coast, South Island, New Zealand. Journal of Geology and Geophysics, 53:2-3, 115-128, DOI: 10.1080/00288306.2010.498405.

Resource and Environmental Management Nelson Limited. (2010). Escarpment Mine Project, Concession Application and Assessment of Effects on the Environment.

Ross, Dr, C. (2008). Soils and indicative land rehabilitation, Escarpment Mine Project, Denniston Plateau, Buller (LC0809/20).

Solid Energy. (2003). Resource Consent Applications and Assessment of Environmental Effects. Solid Energy Limited.

Steven, Dr, M. L. (2012). Statement of Evidence on the Escarpment Mine Proposal. West Coast Environmental Network Inc.

Wakatipu Environmental Society Inc v Queenstown Lakes District Council, Decision No. [2000] NZRMA NZEnvC 59.

Watson, K. (2009). Escarpment Mine Project - An Archaeological Assessment.

Watson, K. (2010). Escarpment Mine Project Archaeological Assessment - Addendum.

West Coast Regional Council. (2000) West Coast Regional Policy Statement.

West Coast Regional Council. (2014) Regional Land and Water Plan.

West Coast Regional Council and Buller District Council v Buller Coal Limited, Decision No. [2013] NZEnvC 047 (Escarpment Mine).

Wildlands Consultants Ltd. (2010) Mapping of Vegetation and Habitats on the Stockton and Denniston Plateaux. Contract Report 2334. Department of Conservation.

www.westport.nz. Northern West Coast Walks

www.westport.nz/maps-brochures

https://en.wikipedia.org/wiki/Denniston,_New_Zealand