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APPENDIX D

Preliminary Landscape Assessment

Isthmus.

MEMO: PRELIMINARY LANDSCAPE OBSERVATIONS MIMIHAU SOUTHLAND POTENTIAL WIND FARM SITE

Introduction

1. The memo sets out preliminary impressions of the potential Mimihau Southland site based on observations from helicopter and roads and desk-top research. These initial thoughts are for the purpose of scoping and issues. They carry caveats that further work would be required to fully understand landscape matters, including input from tangata whenua and from other environmental disciplines.

MIMIHAU

Summary

2. The Mimihau Southland site is an unremarkable back slope (dip-slope), in a productive rural landscape, with limited visibility.

3. The main landscape issue is that it is the back slope of a bush-clad scarp that has reserve status and forms part of the Catlins Forest Park. The wind turbines will be prominent on the skyline behind the scarp in views from the south. However, the wind turbines will be set back from the scarp, ridgeline features, and bush.

4. There would be potential effects on visual aspects of amenity values for rural properties in the Redan-Mokoreta area, although the nearest dwelling is approximately 3km away and settlement density relatively low.

Mimihau landscape attributes and values

5. The landform is a cuesta – it has a steep, bush-clad scarp to the south-east and a gentler back slope (dip slope) to the north-west. It is part of the Southland Syncline, a distinctive pattern of greywacke hills running between the Catlins and the Takitimu Mountains. While the northern limb of the syncline has a strong pattern of parallel ridges, the southern limb is broken up by faults and folds into a blocky pattern of cuesta landforms.

6. The back slope (dip slope is unremarkable. It has a relatively broad surface that lends itself to a wind farm. It has mixed landcover comprising fingers of pasture on the spurs, fingers of bush mainly in the gullies, plantation forest, areas of regenerating scrubland, and areas of wild grassland along parts of the ridge in DoC stewardship.

7. The scarp has the higher landscape values compared to the backslope. It is prominent and has a sharp skyline. It rises roughly 400m – 500m from the toe of the scarp, with typical slopes of 1V:2H. Named ridgeline features comprise the highest peak, Mokoreta (713m), and two

distinctive knolls further east, Puke Mimihau (664) and The Cairn (658m). Streams rising on the scarp are tributaries of the Mokoreta River which flows through a farming landscape to join the Mataura River south of Wyndham.

8. There is an arc of smaller hills (eroded remnants of a former cuesta ridge that are distinctive peaks) to the south which help to filter views to the main scarp. These include Egremont, Mt Herbert and other unnamed hills.

9. The scarp is bush clad and in DoC stewardship. It falls under the umbrella of the Catlins Forest Park which comprises several discontinuous natural areas. Some lower parts of the scarp are pine plantation.

10. Such bush-clad scarps and farmed/forested backslopes is a characteristic pattern of the area. For example there are scarps above the Mimihau Stream North and South branches to the north. Kaiwera Downs wind farm is on a similar back slope landform.

11. The hills are not identified as ONL in the Southland District Plan. The Plan identifies some ONLs (e.g. Fiordland, Rakiura), but unhelpfully states that there are areas that have not been assessed. We reviewed the district landscape assessment (1997) which describes the area as a 'working landscape'. The Plan does schedule ONFs, and the schedule does not include the scarp.

12. We consider the whole cuesta landform (i.e. scarp and backslope) would fall well short of an ONL given the unremarkable nature of the back slope. While the scarp has moderately high aesthetic value and is likely to have moderately high natural values (because of its bush cover and moderate geomorphic interest) it is a feature whose landscape values are of local significance. It would not reach the threshold of ONF.

Effects on landscape values

13. The backslope is an appropriate location for a wind farm. It is a 'working' landscape of farmland and forestry, accessed by existing farm and forest roads.

14. The landform has a broad surface (albeit dissected by streams), and the pattern of wind turbines would be consistent with that broad backslope surface. That contributes to 'aesthetic coherence'.

15. The site has a relatively even (albeit tilted) landform surface which also reduces potential effects of earthworks. It is understood the wind turbines will co-exist with the regenerating scrubland and plantation. Matters of detail will include minimising (and offsetting) the effects of access roads and wind turbine pads in the regenerating scrubland, and design of earthworks where roads cross saddles (heads of watercourses) near the ridge.

16. There will be some potential visual effects on the scarp skyline as viewed from the south – the wind turbines will be prominent behind the skyline ridge and will diminish the naturalness of the skyline. However, to put those things in context

    i) The significance of the scarp skyline is restricted to a locality

ii) the scarp skyline is one feature within a working landscape, surrounded by a mix of farmland and plantation

iii) the extent of effect will be reduced by the setback of the wind turbines from the ridgeline – such setbacks mean the wind turbines will be perceived as part of the back slope beyond the scarp (they will give the ridge room to breathe):

- The nearest wind turbine will be set back more than 1km and at 100m lower elevation compared to the Mokoreta peak.
- The wind turbines avoid the section of skyline between Mokoreta and the other named peaks (Puke Mimihau and The Cairn) – although see comment on extending the wind farm at the end of this section.
- The nearest the wind turbines will be to the ridgeline is at the southern end of the wind farm where there is a headland plateau. That plateau is 100m lower in elevation than the more distinctive section of the scarp further east. Views to this plateau are filtered by the outlier peaks to the south (Egremont, Mt Herbert). Even in this area, the wind turbines would still be set back from the bush skyline in the order of 200m or more [confirm].

17. The wind farm will have potential effects on visual aspects of amenity values for rural properties to the south and east. These mainly comprise properties on the Wyndham Mokoreta Road, (between Redan and Mokoreta) and to a lesser extent on Wyndham Station Road.

- The scarp and skyline will be an important feature in the northerly outlook of rural properties on Wyndham Mokoreta Road. The nearest dwelling in this area is approximately 3km away, and there are some fourteen-odd properties between 3km and 6km away in this area. As discussed above, views from this area are filtered by the smaller outlier peaks of Egremont and Mount Herbert.
- The clearest public views will also be from this section of road. By comparison, Wynham Station Road is an unsealed minor road, views are more restricted by topography, and wind turbines will be some 5km away.
- Wyndham, the nearest township, is more than 12km away and views are likely to be screened by topography [confirm with ZTV], and in any event the wind farm would be an incidental distant element.
- Settlement is much sparser to the north of the wind farm, and views are screened by hills in that direction. The nearest houses with likely views of the wind farm (near the intersection of Waiarikiriki Mimihau Road and Venlaw Road) are roughly 5km away. Houses in this area also tend to be oriented in the opposite direction.

18. As noted above, the indicative wind farm layout is consistent with the landform. It would be appropriate in that respect for the wind farm size to extend further to the north-east so that it occupied more of the backslope (such a layout would have aesthetic coherence with landform and be an efficient use of landscape resource), although in doing so it would also be preferable for such wind turbines to be set back from the top of the scarp and to avoid the skyline features (i.e. Mokoreta, Puke Mimihau, The Cairn) as noted above.

19. There is a commentary on cumulative effects below.

Figure 1: Mimihau Southland back slope (helicopter view).

Figure 2: Mimihau Southland bush clad scarp (helicopter view).

Figure 3: Mimihau Southland (distant ridgeline).

Cumulative effects of Mimihau and Kaiwera Downs

20. We considered potential cumulative effects between the Mimihau potential wind farm site and Kaiwera Downs.

21. Mimihau and the consented Kaiwera Downs Wind Farm are approximately 6km apart. Both are on similar landform types – i.e. Kaiwera Downs wind farm will also be on the backslope of a cuesta landform, the scarp of which rises above the Mimihau Stream North Branch. The Kaiwera Downs consent is for greater number (83 v 38) of smaller wind turbines (145m v 220m).

- On the one hand, the two wind farms will follow a consistent pattern on similar landform types – which will contribute to 'aesthetic coherence'. The narrow intervening cuesta (along the Mimihau Stream South Branch) will provide a breathing space between the two sites, avoiding perceptions of wind turbines spreading across every hilltop. As noted, there is 6km separation.
- On the other hand, the different sizes of the wind turbines will potentially contribute to visual clutter (for example, as has happened on the ranges east of Palmerston North). However, the topography and road pattern limits opportunities to see the two wind farms together in the same view, or even to see them in sequence. Kaiwera Downs will be mainly visible from State Highway 93 (the Old Coach Road between Clinton and Mataura), while Mimihau will be mainly visible from the road between Wyndham and Mokoreta (and its extension to Tahakopa or Waikawa). You would have to go out of your way on unsealed roads to visit both sites.
- Notwithstanding, there would have been some benefit if the Kaiwera Downs site were to have had a consistent wind turbine with Mimihau. In general terms, larger wind turbines are preferable because they result in fewer wind turbines, spaced further apart. The larger size has little effect on perceptions of scale because wind turbines lack scale references and have a generic scaleable form. The larger turbines rotate slower (all other things being equal) and therefore have a more restful appearance. They are a more efficient use of the landscape resource (they generate more electricity with fewer turbines from a given landscape [confirm this in terms of area]).

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APPENDIX: RELEVANT POLICY STATEMENTS AND PLANS

22. The following is a brief search of the statutory planning and other documents for the purpose of framing the preliminary landscape observations. They typically have general provisions for ONLs/ONFs that echo the form of s6(b), and general provisions for electricity generation that echo the NPS REG.

Southland Regional Policy Statement 2017

23. The RPS has a good description of 'landscape'. It recognises that electricity generation associated with features such as wind farms… are likely to permanently change landscapes for their lifespan. (In our view, an adverse effect is the consequence of change on identified landscape values – change itself is not an adverse effect).

24. It has policies to identify, assess and **protect** outstanding natural features and landscapes from **inappropriate** subdivision, use and development, and also to identify, assess and **manage** locally distinctive and valued natural features and landscapes. However, the methods section of the RPS delegates such identification, assessment, and protection/management to local territorial authorities.

Southland District Plan

25. Section 2.3 addresses ONF/ONLs and for a second tier of 'Visual Amenity Landscapes'. The Plan refers to various reports including a Southland Regional Landscape Assessment, 1997, but goes on to say that there are a range of natural features and landscapes in the District that **have not be assessed** to determine their landscape values, including the Southland Hills (Longwoods, Taringaturas, Hokonuis and Inland Catlins). The objectives and policies echo section 6(b) of the RMA. The relevant provision where sites have not been assessed is Policy NFL.3 which is *"Avoid, remedy or mitigate adverse effects of subdivision, land use and development on the District's natural features and landscapes that have not been assessed by Council for landscape values*."

26. Schedule 5.9 lists 'Significant Geological Sites and Landforms' which are derived from the 'New Zealand Geopreservation Inventory'. The site is not identified in that schedule.

27. Section 2.9 addresses Energy, Mineral and Infrastructure. The provisions recognise the importance of renewable electricity generation and provides for ("promotes") the development of such generation as required by the National Policy Statement for Renewable Electricity Generation 2011. The relevant policy is to "*Provide for the investigation and development of renewable electricity…whilst avoiding, remedying or mitigating adverse effects on the environment*". The provisions recognise that such generation needs to be in areas where the natural resource is located and provide for offsetting of adverse effects that cannot be avoided, remedied or mitigated.

Southland Regional Landscape Assessment 1997

28. The study was carried out for the Regional Council. It identifies Te Waipounamu World Heritage Area (Fiordland) and Rakiura Steward Island as ONLs. It identified other areas that may be considered outstanding including certain inland mountains and the entire Southland Coast. It also referred to the characteristics of the hills of eastern Southland as follows: *"The plains, valleys, basin and rolling hills of central and eastern Southland are the working landscapes familiar to all who live in or visit the regional. Although these lowland and hill landscapes generally lack the qualities of the outstanding landscape described earlier, they may contain many highly prized landmarks, special features, views, and remnant natural areas of importance."*