BEFORE AN EXPERT PANEL
SOUTHLAND WIND FARM PROJECT

Under the	**FAST-TRACK APPROVALS ACT 2024**
In the matter of	an application for resource consents, a concession, wildlife approvals, an archaeological authority and approvals relating to complex freshwater fisheries activities in relation to the Southland Wind Farm project
By	**CONTACT ENERGY LIMITED**
	Applicant

SOUTHLAND WIND FARM TECHNICAL ASSESSMENT #3: LANDSCAPE, VISUAL, AND NATURAL CHARACTER EFFECTS

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18 August 2025

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EXECUTIVE SUMMARY

1. Contact Energy Limited (**Contact**) is seeking resource consent to construct, operate and maintain a wind farm on elevated land in eastern Southland, in the Mimihau/Venlaw area, approximately 12km east of Wyndham.

2. In addition to the wind farm, an overhead 220kV transmission line and switching station (also known as a Grid Injection Point (**GIP**)) is required to connect the wind farm to the Transpower National Grid. Collectively the wind farm and grid connection works are known as the Southland Wind Farm Project (**Project** or **SWF**).

3. The proposed SWF will be comprised of up to 55 turbines, with a maximum tip height of up to 220m, across an approximate 5,800 ha wind farm site area. An identified transmission route will connect the SWF substation to a switching station at the GIP.

4. The Project site is part of a cuesta landform; the broader landform includes a steep, bush-clad scarp sloping to the southeast and a gentler back slope (or dip slope) to the northwest. The backslope is a broad surface that has mixed landcover comprising pasture on the spurs, fingers of indigenous bush mainly in gullies, plantation forestry, areas of regenerating scrubland, and areas of wild grassland along parts of the ridge. The proposed wind turbines within the Project are outside of the steeper bush-clad scarp, however in places are close to the crest. The cuesta landform is known locally as 'Slopedown' due to its distinctive shape and profile when viewed from the west. The highest point on the landform is Mokoreta, which is not on the Project Site but on the adjacent Department of Conservation (**DOC**) land.

5. The bush-clad scarp has higher landscape and ecological values compared to the backslope, including a prominent sharp skyline and a ridgeline comprising of named features including Mokoreta (713m), Puke Mimihau (664m) and The Cairn (658m). Neither the scarp nor other features within or near the Project site are identified as Outstanding Natural Landscapes (**ONLs**) or Outstanding Natural Features (**ONFs**) in the Southland District Plan. Similarly, no ONLs or ONFs are identified within or near the Project site in the Gore District Plan or the Clutha District Plan. Nonetheless, this report expresses

views on whether there are any ONLs or ONFs in the vicinity of the SWF site and, in any event, whether the SWF is an appropriate development in this landscape setting.

6. The landscape within, and surrounding, the SWF site is a regionally / locally typical rural landscape, primarily farmland and forestry, with a dispersed, low-density rural population present in the surrounding areas. Nearby conservation and other natural areas, including the adjacent bush clad scarp, are specifically described and evaluated below. The Catlin Conservation Park is to the east and southeast of the site.

7. The scale of the surrounding landforms typically determines how dominant a wind farm may be perceived to be. The cuesta on which the SWF is proposed is a large-scale landform which can accommodate the scale of the proposed SWF; that is, the large-scale landform provides a suitable platform for the grouping of large-scale turbines of the SWF.

8. Wind turbines, by function of their size and location, are prominent in a landscape and affect landscape values. The effects of the SWF on the landscape and visual amenity values of the site and surrounding area are assessed below, including the appropriateness of the location for a wind farm, the scale relationship with the surrounding landscape, aesthetic coherence, effects on rural character and amenity and cumulative effects.

9. In summary, the SWF design (ie the layout of the turbines, transmission lines, and associated infrastructure) mitigates impacts on the more ‘natural’ landscape elements by avoiding indigenous vegetation, wetlands, and waterways as far as is practicable and locating turbines in modified parts of the landscape, ensuring set-backs to the predominant natural features within the landscape (highest parts of the ridgelines, peaks, scarps etc). The broad form and working character of the landscape, in particular the farmed and forested dip slope, means that, while prominent, the SWF will not domesticate the landscape in the same way it would in an area with either higher natural values or an area with a greater density of dwellings.

10. In addition, the layout of the SWF protects the 'aesthetic coherence' of the Project site, by being set back an appropriate distance from the highest parts of the scarp and ridgeline, providing 'breathing space' to key landscape features and creating a consistent pattern of wind turbines distributed throughout the dip slope landform. The patterns of the wind turbines and roading layout are specifically designed to respond to the underlying landform and landcover, avoiding steeper land and gullies and indigenous vegetation, as far as is practicable. These landscape constraints have been considered with the sizing, placement and design of the wind farm project and have assisted in reducing the landscape and visual effects of the project on the surrounding environment. Landscape mitigation recommendations have been made to the wind farm design team throughout the iterative design process.

11. The operational (Stage 1) Kaiwera Downs Wind Farm is located approximately 10km north of the SWF. The closest turbines in the consented (Stage 2) Kaiwera Downs Wind Farm are located approximately 4km to the north of the SWF. An assessment of the cumulative effects of the Kaiwera Downs Wind Farm and the SWF has been completed. The intervening landform patterns and uses (including agri-industrial processing) of the surrounding environment provide perspective and context to the SWF and the Site. Further, the similarity in pattern and landforms on which both wind farms sit provides aesthetic coherence. As a result, the cumulative effects will be very limited.

12. Overall, the SWF is consistent with the existing rural environment, and the effects of the SWF on the landscape character of the site and surrounding area will be **low-moderate**. Mitigation - including location of turbines, set back from key landscape features, the pattern of turbine layout, roading and transmission line design and placement, and the various measures comprising a wide-ranging ecological enhancement package proposed by Contact, assists in limiting the effects on landscape character. Over time this will ensure the integration of the wind farm into the rural environment.

13. Construction-related effects of the SWF and transmission infrastructure are largely localised, therefore limiting impacts on the landscape. The internal roading network will largely use existing

forestry and/or farm tracks and roads (upgraded as required). Additional roads avoid wetlands, high value ecological areas, and waterways where practicable. Mitigation measures to avoid impacts of the construction and stormwater runoff post-construction include additional planting to assist with stormwater treatment, stabilisation of earth-worked areas, and like-for-like revegetation.

14. Potential visual amenity effects on people and communities – noting that actual effects will vary depending on people's subjective perspectives and other factors – are assessed from sixteen representative public viewpoints illustrated by photo simulations and context photographs. Potential effects were also assessed (using aerial photos, topographic maps and roadside observations) for all 165 dwellings within a 10km radius of the wind farm, the closest being 2.3km from a turbine. A comprehensive housing inventory is provided in **Appendix D**. House locations are mapped in **Figure 7** in the **Graphic Attachments**.

15. The SWF will result in potential adverse effects on visual amenity values, primarily on the views from dwellings, particularly in the Redan-Mokoreta area. The level of effect on each dwelling depends on the location, distance, and orientation to the wind turbines. Given the intervening topography and the varying views of and distances from the SWF, potential adverse visual amenity effects at assessed dwellings will range from neutral to moderate-high.

16. Of the residences assessed, 10 are assessed as potentially experiencing **moderate-high adverse effects**, 5 are assessed as experiencing **moderate adverse effects**, 23 experiencing **moderate-low effects**, 46 experiencing **low effects**, 32 experiencing **very low effects** and 48 experiencing **neutral effects**. The mitigation recommendations, including regarding the layout and location of turbines, assist in limiting visual amenity effects.

17. For the 15 dwellings that may experience either **moderate-high** or **moderate adverse visual effects**, an offer should be made to incorporate planting into the relevant properties that could screen or

integrate views of the turbines into the landscape, or otherwise provide some visual amenity benefit.[1]

18. The high and very high natural science values of the site will be largely avoided or protected by the SWF and over time, ecological and natural character values can be enhanced through the habitat and restoration package.

19. The route and location for the transmission line and switching station GIP have been selected to avoid or mitigate effects on the landscape character as well as avoiding, as much as practicable, effects on visual amenity values.

20. In my opinion there are no significant resource management issues in relation to landscape and natural character that would give rise to unacceptable adverse effects as a result of the construction and maintenance of the SWF. Specifically, there are no identified outstanding natural features (**ONF**) or landscapes (**ONL**) or areas of outstanding natural character within or close to the Project site.

21. Notwithstanding that, even if any wind turbines or other infrastructure forming part of the Project were proposed to be located within an ONF (which I do not consider to be the case), the Project's effects on any such values have been mitigated through design and the measures summarised below.

22. As such, in my view the adverse effects of the Project, as relevant to my field of expertise, are acceptable. This overall conclusion takes into account all elements of the Project, including the wind turbines and transmission infrastructure, and considers their effects individually, cumulatively, and in conjunction with the nearby Kaiwera Downs Wind Farm.

23. I acknowledge that a previous Expert Consenting Panel, drawing on expert advice from Anne Steven, reached different conclusions on some of these matters. With respect, I consider those findings to be incorrect, for reasons addressed below.

[1] See proposed condition WF26.

INTRODUCTION

24. Isthmus Group Ltd (**IGL**) has been engaged by Contact to provide landscape design advice and undertake an assessment of the landscape character and visual amenity effects arising from the SWF. IGL provided advice on site selection and landscape capacity to Contact prior to the selection of the site as a preferred option and the commencement of the design and assessment of the effects of the SWF.

25. The design and location of roads and turbine pads and the refinement of the route and location of the transmission line and switching station have evolved in ways that help minimise landscape and amenity issues since the original design of the SWF and continue to avoid specific effects where practical.

Qualifications and experience

26. I am a Principal Landscape Architect at IGL, with 27 years of professional experience in New Zealand and the United Kingdom. I have qualifications of Bachelor of Horticulture (Massey University 1995) and Bachelor of Landscape Architecture (Lincoln University, 1997) and am a Registered Member and Fellow of the New Zealand Institute of Landscape Architects Tuia Pito Ora, as well as being a past President.

27. I have experience in assessing and assisting in the assessment of consent applications for Roads of National Significance, several renewable energy generation projects, including geothermal power stations, wind farms and solar farms, and new transmission lines and substation upgrades for Transpower and local lines companies. Specific renewable energy and transmission assessment projects include the Long Gully Wind farm, the Turitea Wind Farm, the Nga Awa Purua, Te Mihi and Tauhara Geothermal Power stations, and the Hairini to Mount Maunganui partial transmission realignment.

28. I have been assisted in the preparation of the Landscape and Visual Assessment for the SWF by other qualified and experienced landscape architects working at IGL, and qualified and experienced visualisation specialists at IGL for the preparation of the maps and visual simulations.

Code of conduct

29. I confirm that I have read the Code of Conduct for expert witnesses contained in the Environment Court Practice Note 2023. This assessment has been prepared in compliance with that Code, as if it were evidence being given in Environment Court proceedings. In particular, unless I state otherwise, this assessment is within my area of expertise and I have not omitted to consider material facts known to me that might alter or detract from the opinions I express.

Purpose and scope of assessment

30. The purpose of this report is to undertake an evaluation of the existing landscape character and visual amenity values of the Project site and surrounding area to assess the effects of the SWF on these values to inform Contact's applications for approvals under the Fast-track Approvals Act 2024 (**FTAA**).

31. This includes an assessment of the SWF in the wider (sub-regional) context and the immediate Project site and surrounds. This assessment considers the physical, associative, and perceptual aspects of the Project site and the effects on those aspects through the effects assessment.

32. This assessment considers cumulative effects of the SWF, including in conjunction with the consented Kaiwera Downs (Stage 2) wind farm (currently under construction).

33. My assessment has also considered the cultural landscape report prepared separately to this assessment by Te Ao Mārama Incorporated (**TAMI**) on behalf of Kā Papatipu Rūnaka. I attended several meetings and hui with TAMI over the course of the preparation of this assessment and these meetings have informed this report, as has the position ultimately reached by mana whenua on cultural effects (ie that various agreed measures will be effective in mitigating the potential adverse cultural effects of the SWF).

34. This assessment has also been informed by all other relevant information that came to light during the previous consenting process for the SWF, under the COVID-19 Recovery (Fast-track Consenting) Act 2020. This includes the information provided by persons invited to comment (including a number living locally), the evaluative material

provided by Ms Steven, and the expert conferencing I undertook with Ms Steven).[2] Also relevant to my assessment is the extensive information available regarding the ecological values of the site, as reported by experts advising Contact and those undertaking peer reviews for the last Expert Consenting Panel, and I have considered that information too.

35. The proposed SWF is assessed in relation to relevant statutory documents, including, but not limited to, the Southland District Plan, the Gore District Plan, the Resource Management Act 1991 (**RMA**) and the Southland Regional Policy Statement (**RPS**).

Structure of this report

36. I acknowledge that this report is lengthy; in my view it contains greater detail than would typically be required for a proposal of this kind. I am providing this level of detail to assist the Expert Panel and because additional detailed analysis is available, having been provided during the previous consenting process in response to the feedback of Ms Steven.

37. To assist readers' navigation, the structure of my report is as follows:

    (a) A **brief description of the key elements of the Project** that are relevant to my assessment;

    (b) A summary of my **assessment methodology**;

    (c) A description of **the existing environment** against which I have assessed the Project's effects;

    (d) A summary of **key statutory considerations** relevant to my assessment;

    (e) My **assessment of the Project's landscape, visual, and natural character effects**, focusing first on the **wind turbines and associated roading and other infrastructure**, addressing:

        (i) The appropriateness of this location for a wind farm;

[2] https://www.epa.govt.nz/assets/Uploads/Documents/Fast-track-consenting/Southland-Wind-Farm/Expert-conferencing/Landscape-Expert-Conferencing-JWS.pdf.

(ii) The 'scale relationship' between the proposed wind turbines and the landscape in this location;

(iii) The Project's cumulative effects;

(iv) Nighttime visibility of the Project;

(v) Implications of the colour of the turbines;

(vi) Construction-related effects;

(vii) Meteorological masts;

(viii) Effects on rural character and amenity;

(ix) Effects on the cultural landscape;

(x) Potential effects on the ONF candidate referred to as Slopedown / Mokoreta – Pukemimihau;

(xi) Potential effects on visual amenity;

(xii) Effects on natural character; and

(xiii) A summary of the effects of the wind farm;

(f) My evaluation of the **transmission infrastructure**, addressing in turn:

(i) A more detailed description of the proposed infrastructure;

(ii) The RMA planning context for assessing the transmission infrastructure:

(iii) Effects of the substation;

(iv) Effects of the transmission line;

(v) Effects of the GIP switching station; and

(vi) Other options considered for locating the transmission infrastructure;

(g) An evaluation of the **planning and other statutory considerations** relevant to my assessment;

(h) A brief acknowledgement of **the ecological enhancement measures** proposed as part of the Project, which are relevant to my assessment; and

(i) A brief **conclusion**.

38. There are also various appendices to my report, comprising:

(a) **Appendix A**: Graphic attachments (which are separate to this document due to the file size);

(b) **Appendix B**: Archaeological records;

(c) **Appendix C**: Planning context and relevant provisions;

(d) **Appendix D**: An inventory of dwellings within 10km of the Project and my assessment of potential visual effects from them; and

(e) **Appendix E**: an extract from the Southland Murihiku Regional Landscape Assessment, Boffa Miskell.

THE SOUTHLAND WIND FARM PROJECT

39. Contact is seeking various approvals necessary for the construction, operation and maintenance of the SWF, Southland (the **Project**).

40. The full project description for the Project is in the AEE and I do not repeat it here. Suffice to note that a general description of the Project and its key elements is as follows:

(a) Construction and operation of up to 55 wind turbines, each up to approximately 7MW in capacity and a maximum blade ‘tip height’ of up to 220m;

(b) 'Turbine Envelope Zones' allowing some flexibility in the micro-siting of each turbine from their current indicative locations (which flexibility I have taken into account in my assessment);

(c) Electrical reticulation, consisting of underground cables and wind turbine transformers;

(d) A wind farm substation to collect the power generated by the wind turbines, which will be located on Jedburgh Station;

(e) A switching station (also known as GIP) located adjacent to the existing Transpower 220kV circuit between Invercargill and Dunedin (the North Makarewa to Three Mile Hill A Circuit);

(f) An overhead single or double circuit 220kV transmission line between the wind farm substation and the GIP to provide connection to the Transpower National Grid;

(g) Up to two permanent meteorological masts, each up to approximately 140m in height;

(h) An operations and maintenance facility located on Jedburgh Station; and

(i) Construction of roading, turbine foundations and 'hard stand' areas adjacent to each turbine.

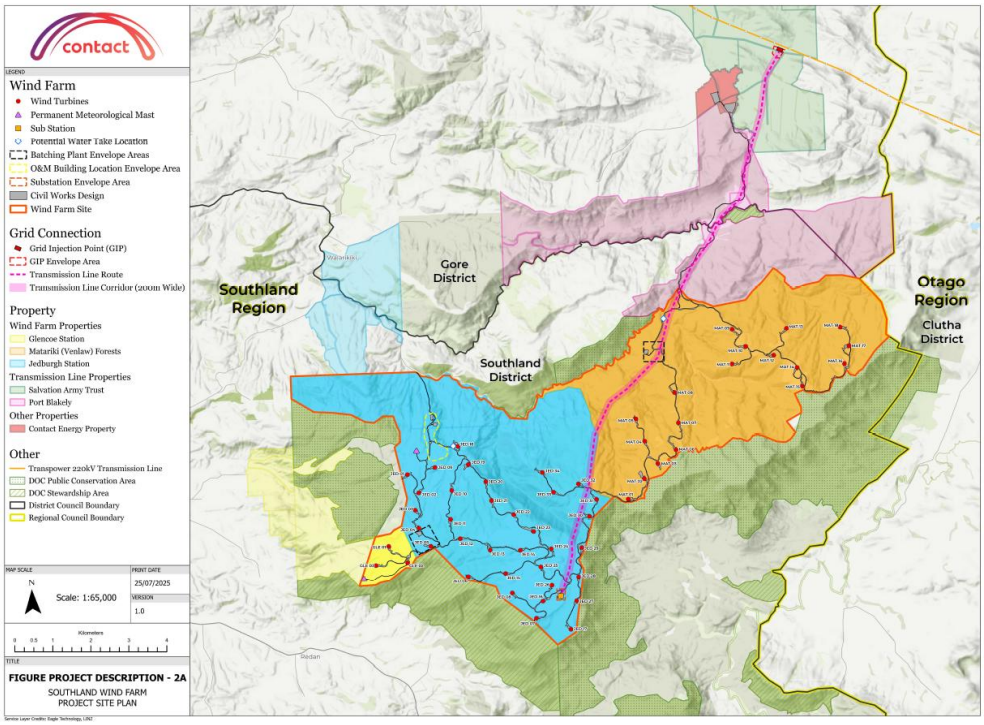

Figure 1: Southland Wind Farm Project Site Design (Source: Figure Project Description – 2A (Part G))

METHODOLOGY

Introduction

41. I have used the following methodology to assess the landscape and visual amenity values of the Project site, and the natural character of relevant water courses and their margins, and the SWF's potential effects on those values.

42. The assessment methodology is based on Te Tangi A Te Manu Aotearoa New Zealand Landscape Assessment Guidelines (**TTatM**); Tuia Pito Ora New Zealand Institute of Landscape Architects, July 2022.

43. I have undertaken the following steps, in accordance with those Guidelines:

(a) I carried out a desktop review of the Project site area, including a review of relevant documents and statutory provisions;

(b) I have visited the site several times, including to the surrounding roads and areas. Collectively, colleagues and I visited the site in April and September 2022; and in March, May, and October 2023. I have also made site visits to the general area since then, in 2024 and 2025. The site visits included observations of the Project site and surrounds from public roads and by helicopter;

(c) During site visits in May 2023, photographs were taken and have been used for the visual simulations, which are included within **Appendix A – Graphic Attachments**;

(d) I attended several meetings with representatives of TAMI and the Southland District Council;

(e) I prepared an assessment and description of the existing landscape context of the Project site and the surrounding area, incorporating a description of the geology, land uses and land cover of the Project site, including historical and cultural associations;

(f) I undertook an analysis of the landscape character and values of the Project site and of the surrounding area;

(g) I prepared an assessment of the visibility of the proposed SWF from the surrounding landscape;

(h) I carried out an assessment of the potential landscape effects of the SWF on the wider landscape context;

(i) I assessed the effects of the SWF on the natural character values of the streams and wetlands and their margins, working closely with the ecology experts on the project; and

(j) I assessed the potential visual effects of the SWF on the wider viewing catchment, including the effects on all dwellings within 10km of a proposed turbine location.

44. The level of landscape, natural character or visual effect is described using a rating scale.[3] Words are used in preference to numbers to reduce the likelihood of using 'scores' in a formulaic way.

45. A comparison of how adverse effect ratings assigned in accordance with TTatM relate to the terminology used in the RMA of 'less than minor', 'minor' and 'more than minor' is provided below.

46. A change in a landscape does not in itself mean that a proposal will result in an adverse effect on the values of that landscape:

> "*Change itself is not an effect: landscapes change constantly. It is the implications of change for a landscape's values that is the effect*."[4]

47. An assessment of effects combines both value ratings (Very Low – Very High) and nature of effects (Adverse, Positive). The nature of effects can be Adverse (negative) or Beneficial (positive):

(a) An adverse effect relates to an activity which results in a reduction in landscape and / or visual amenity values; in this circumstance the RMA terminology of 'less than minor', 'minor' and 'more than minor' is applied.

(b) A positive effect relates to an activity which enhances landscape and / or visual amenity values through for example, restoration and / or provision of positive elements or features.

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[3] The scale is symmetrical around 'moderate'. The scale is based on the recommended NZILA Best Practice Guide and is consistent with the Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'.

[4] Refer 6.03 of TTatM.

48. Where a proposal will result in a change, but that change will have no effect on the characteristics or values of a particular landscape or view, a nature of effect rating of 'neutral' is provided.

49. In preparing this assessment I have read the relevant sections of the following related technical assessments that support the application (in addition to the various materials described in the purpose / scope section of my assessment above):

    (a) Terrestrial and Wetland Ecology, Wildland Consultants Ltd. (**the Wildlands Assessment**);

    (b) Review of Terrestrial and Wetland Ecology and Ecology Offsetting and Compensation, Roger MacGibbon (**the MacGibbon Assessment**);

    (c) Freshwater Ecology, Ryder Consulting (**the Ryder Assessment**);

    (d) Landscape, Visual and Natural Character Assessment, Shannon Bray (**the Bray Assessment**); and

    (e) the Cultural Impact Assessment prepared by TAMI (**CIA**).

50. A detailed description of the work undertaken for each process listed above is contained under the relevant headings throughout the report.

51. As noted above I have read the separate assessment evidence prepared by Mr Bray. Mr Bray has undertaken his own assessment of the site, its' characteristics and its' ability to accommodate the SWF proposal. Mr Bray has acknowledged my evidence and has adopted some parts of it. Mr Bray has taken a slightly different approach towards his assessment. I consider it to be complementary to my own, and in particular he covers some of the big picture considerations relating to the need to accommodate renewable energy projects in our landscapes if we are to meet Aotearoa New Zealands' renewable energy and decarbonisation goals.

52. I generally agree with Mr Brays statement of evidence and support his conclusions in relation to the potential effects of the project and the appropriateness of the site for such a project.

53. I have also viewed a video that Mr Bray has had prepared that illustrates the location and form of the SWF project. The video is based on GoogleEarth aerial photography and a video that Mr Bray took during a helicopter flyover of the site. The video includes several images described as 'Visuals' in the video, which illustrate the project when viewed from the helicopter.

54. I consider that the video provides a useful illustration of the project and its' location. The video should not be used to assess the effects of the project, however, will assist decision makers in understanding the location and design of the SWF, particularly in relation to the underlying scale and topography of the site and its surrounding landscape context.

EXISTING ENVIRONMENT

55. As noted above, my colleagues and I at IGL have undertaken numerous site visits to the SWF site and the surrounding area. Photographs of the Project site were taken at various locations and are included as the photographs of Viewpoints 1 – 16 included within **Appendix A - Graphic Attachments**. These provide a visual representation of the site and its context.

The Southland Wind Farm's wider landscape setting

56. The SWF site is located on Slopedown Hill in eastern Southland. (refer to **Figure 1 – Appendix A**).

57. The area surrounding the SWF site is characterised by regionally typical rural land uses (predominantly sheep and beef pastoral farming and forestry).

58. The topography of the area is comprised of rolling hill landscapes, with flat terraces and valleys including the Mataura River and the eastern Southland plains to the west. The rolling hills of the area are characteristic of the 'front ridges' off the plains which meld into the sharper hill form of the Catlins area to the south-east of the Project site.

59. Hills and steeper slopes tend to be covered in a mix of exotic plantation forestry or indigenous vegetation within conservation estate land. Given the steeper nature of the heavily vegetated hills, exotic

plantations and indigenous vegetation are more prominent in views than the farmed lowlands and plateaus.

60. The Catlins is located to the south and south-east of the Project site. This area spans the Southland and Otago provincial boundary. The Catlins coastline is an area along the eastern Southland coastline from Kaka Point to Slope Point and is some 40km to the east and south of the Project site.

61. The Catlins area covers approximately 1,900 km² and is a rugged coastline, with a mixture of sandy beaches, estuaries, and cliffs. The inland Catlins area is dominated by several parallel ranges[5], typically at 400m-700m in height, separated by the valleys of the Owaka, Catlins and Tahakopa Rivers, draining south-eastwards to the Pacific Ocean; refer to the Sketches, Maps and Aerials Photographs in **Figures 1-8 – Appendix A Graphic Attachments**.

62. The ranges in the south-eastern part of the Catlins are largely clad in temperate indigenous forest, which in some areas extend down to the coast. This area is collectively known as the Catlins Conservation Park. Valley floors with gentle topography within this area are largely comprised of pastoral agricultural land.

63. The scarp adjacent to the SWF site is within the Catlins Conservation Park, however the closest part of the **main** area of the Catlins Conservation Park is a contiguous area of forested hill and valley landscape that lies approximately 10km to the southeast of the Project site. The Catlins Conservation Park includes the Beresford Range, the MacLennan Range, the Forest Range, Mt Darby, Mt Herbert, the Slopedown escarpment and other small, isolated parcels of Department of Conservation (**DoC)** land.[6]

64. The northwestern slopes of the inland Catlins area mostly flow to the west and into the Mataura River catchment. The Mokoreta River, located to the south of the Project site, is the largest of these tributaries.

65. The Catlins Conservation Park and the Slopedown Conservation Area, administered by DoC, are in the immediate vicinity of the

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5 Including the 'Slopedown' cuesta landform.
6 Outdoor Access Map.

Project site, adjacent to the south and southwest of the Project site respectively; see **Figure 1** above.

66. The Slopedown Conservation area is separated from the broader Catlins Conservation Park and is predominantly comprised of indigenous vegetation on steeper land.

67. The eastern Southland plains, to the west of the Project site, comprise a rural working landscape, including flat productive land with gridded paddocks and shelter belts. The inland Catlins hills provide a landscape backdrop to the eastern Southland plains.

68. Large scale hydrological features in the regional context of the SWF include the Clutha Mata au River (and tributaries), which drains Lakes Wakatipu, Wanaka and Hāwea on the western side of Central Otago and the Queenstown Lakes to the eastern coastline at Inch Clutha; the Owaka, Tahakopa and Waikawa Rivers (and tributaries) which drain the Catlins hill country and valleys to the southeast coastline; and the Mataura, Waihopai, Makarewa and Aparima Rivers (and their tributaries) which drain the Southland plains and valleys to the south to the Foveaux Straight / Te Ara a Kiwa.

69. The broad landscape structure of the Southland Region includes the following most recognisable large-scale hills, islands, valleys and plains:

    (a) Fiordland – including the Fiordland National Park;

    (b) Rakiura (Stewart Island);

    (c) The Catlins (coastal edge and expansive inland hills);

    (d) The Hokonui Hills;

    (e) The Takitimu Mountains;

    (f) Mokoreta / Slopedown;

    (g) The lower Mataura and Aparima/Oreti Valleys draining southwards towards Invercargill and the Awarua Plains and wetlands; and

    (h) The broad expanse of the Southland plains.

70. Fiordland, Rakiura and the Southland plains are considerably larger than the other landscape features and structures in the region.

71. The Southland Syncline is a geologically linked line of hills connecting the Catlins coastal area to inland Southland through the Beresford and MacLennan Ranges, Mokoreta / Slopedown, the Hokonui Hills and the Takitimu Mountains. The sub-regional and local landscape context of the SWF site is illustrated on **Figures 40 and 41 in Appendix A Graphic Attachments**.

72. The Southland landscape is described in the Southland Regional Landscape Assessment (1997) (**1997 Landscape Assessment**). The 1997 Landscape Assessment identifies two extensive landscapes of Southland that are outstanding. These are Te Waipounamu World Heritage Area – Fiordland, and Rakiura (Stewart Island). Both of these are vast and distinctly defined areas and are significant distances from the Project site (Rakiura Stewart Island is approximately 90km to the southwest of the site and Te Waipounamu World Heritage Area – Fiordland is over 120km to the west).

73. The 1997 Landscape Assessment describes the general area within which the SWF is proposed as a 'working landscape'.[7] No features within or near the Project site are identified as ONLs or ONFs in the 1997 Landscape Assessment or in the Southland District or Regional Plans (although a region-wide desktop study undertaken some years ago, albeit since the 1997 Landscape Assessment was prepared, identified one relevant potential ONF 'candidate', which I discuss in detail below).

Outstanding Natural Feature or Landscape?

Background

74. The Southland/Murihiku[8] Regional Landscape Assessment, Boffa Miskell, 2019 (**SMRLA**) was prepared for all the District and Regional Councils within Southland (Southland Regional Council, Southland

[7] I note that, in the previous consenting process, Ms Steven and the Expert Consenting Panel took issue with this categorisation as they considered it downplayed the localised more natural areas (such as the DoC-administered land near the Project site). In this assessment I have (again) carefully considered the implications of the Project on all elements of the receiving landscape.

[8] The term 'Southland / Murihiku' is often used to describe the area within the Southland region, however as mapped and defined in Āpiti Hono Tātai Hono, Murihiku does not have the same boundaries as Southland and extends up into the Otago region.

District Council, Gore District Council, and Invercargill City Council) and for TAMI.

75. The SMRLA, which has only recently been made publicly available,[9] has not been adopted by the Councils, and nor has it been consulted on, otherwise tested by its communities, or been the basis of any draft or proposed plan change. I understand that the Southland District Council does not currently intend to undertake any plan changes to potentially incorporate any of the findings of the SMRLA until 2028, when a full District Plan review is undertaken. Nonetheless, the previous Expert Panel that considered this Project gave significant weight to the SMRLA (and the comments made by some local people who oppose the Project) in finding that part of the Project is proposed to be situated within an ONF, which was the basis for its key conclusions on landscape matters. I therefore discuss the SMRLA in detail below.

76. The number and extent of ONF and ONL candidate areas identified in the SMRLA are considerably different to any previous areas identified, including in the 1997 Landscape Assessment. Again, they have not yet been subject to any public or landowner consultation or feedback. Under current best practice, such steps are integral to the identification and adoption of outstanding natural features and landscapes under section 6(b) of the RMA, and to underpin planning instruments with statutory force.

77. The Gore District Council has recently notified a plan change to identify its outstanding natural features and landscapes. The plan change identifies areas that are different from those in the SMRLA. The exercise of considering the recommended ONF and ONL candidate areas within the SMRLA within their local context has not yet been completed for the rest of the Southland Region or districts.

78. While the recommendations from the SMRLA have not been through a statutory process or been publicly notified, my assessment considers the information in the SMRLA and whether any relevant areas within the Project site may qualify as ONFs or ONLs.

9 Mid-2024.

Commentary on Southland/Murihiku Regional Landscape Study (2019) and the 'Inland Catlins Character Area' ONF candidate

79. The SMRLA identifies the SWF site as being located within the Inland Catlins Character area. This character area is broadly defined as the immediate hinterland from the Coastal Catlins character area in the south, the Southland Syncline geological formation to the north, the Southland/Otago provincial boundary to the east and the Mataura River to the west.

80. This categorisation in the SMRLA is comparable with the earlier 1997 Landscape Assessment, which is the basis of the Operative Southland District Plan, which also identifies the area as Inland Catlins.

81. The SMRLA definition of the northern boundary of the Inland Catlins area varies with the bordering Clutha District Council, which defines the Inland Catlins area as *"south of the Catlins Lake and extending inland to the Wisp Range and south to the Southland District boundary"*.

82. The SMRLA instead uses the geological feature of the Southland Syncline to define the northern extent of Inland Catlins. The inclusion of the areas east of Gore and Mataura as part of the Inland Catlins is inconsistent, in my view, with an inner coastal catchment, i.e., the area east of Gore and Mataura is not affected by coastal conditions. The inland Catlins area is up to 50-60km from the closest coastal edge. The SWF site within this character area is 40km from the closest coastal edge. The character of the environment around Waikawa Valley (coastal Catlins) is significantly different from the valleys of Ferndale, Kaiwera and Slopedown further to the north.

83. The 1997 Landscape Assessment provides some detail of the 'Characteristic Landscape' of the Inland Catlins, with a specific focus on the forest reserves, including Slopedown and Venlaw. The report describes the Inland Catlins area as follows:

> *"The Catlins contain a number of forest reserves e.g. Venlaw, Slopedown and Waipapa Point. The Pukerau Red Tussock Scientific Reserve is nearby. The hills themselves provide a backdrop to the eastern Southland Plains.*

Suggested boundaries: likely to relate closely to vegetation boundaries in the case of tussock and bush remnants. Boundaries problematic for landforms."

Landscape Values/ONF

Introduction

84. The SMRLA utilises a rating (scoring) system, evaluating individual attributes to allow for overall evaluation of the landscape attributes (Biophysical, Sensory and Associative). This approach then allows candidates for ONLs and ONFs to be identified through a matrix of landscape attribute ratings (see section 5 and Appendix 1 of SMRLA).

85. This approach results in the SMRLA identifying Slopedown/Mokoreta-Pukemimihau as an ONF candidate, see **Appendix A** and **Appendix E**, with landscape attributes rated: Biophysical – High; Sensory – Very High; and Associative – Moderate-High.

86. TTatM provides some commentary on this approach:

"5.33 Be cautious with rating (scoring) individual attributes to evaluate landscapes for the following reasons:

- *Conceptually, landscape is the interplay of dimensions—not the sum of their parts.*
- *Value is embodied in specific character and attributes, not the generic criteria/factors that typically make up a scoring framework.*
- *The relative significance of any criterion/factor depends on context.*
- *While in practice a high score for one dimension is often mirrored by high scores in the other dimensions (given that the physical, associative, and perceptual dimensions typically resonate with each other), such self-reinforcing tendencies do not always hold true and should not be misconstrued. It is possible for a landscape to have a single over-riding reason for its value.*
- *Some criteria/factors, particularly in more detailed schema, may be in opposition (for example, rarity vs representativeness, historic heritage vs naturalness).*

5.34 It is more credible to treat landscape criteria as pointers than part of a mathematical formula. Ultimately, reasons and explanation in support of professional judgement are more important than prescribed criteria."

Delineation and values of a potential ONF

87. While the scarp likely qualifies as a landscape 'feature' (i.e. it is singular and distinctive), the Slopedown/Mokoreta-Pukemimihau ONF candidate mapped in the SMRLA contains a grouping of features, including the scarp and dip slope and a mosaic of natural (and non-natural) vegetation on the dip slope. I note that Ms Steven, in the previous process, appeared to be of the view that the relevant 'feature' was the entire cuesta landform, which is at odds with the SMRLA which focuses on only part of that area. While that broader cuesta landform could be a feature, clearly there are large parts of that area that could not qualify as outstanding.

88. The SMRLA notes that the ONF candidate is based on vegetation type and in this regard, it relies on a GIS database rather than ground truthing or strong vegetation and landform boundaries. The work undertaken by Wildlands in respect of the SWF provides a far more comprehensive understanding on the existing vegetation quality and identifies a mosaic of vegetation on the Jedburgh plateau; see **Figure 3**, below.

89. While the mosaic of natural and non-natural vegetation within the identified ONF candidate has some elevated ecological values (discussed below), that mosaic of vegetation is not a 'feature' in the landscape sense (because it is not singular and distinctive) and it is clearly and significantly affected by browsing, productive land management practices and the presence of stock and pest animals. That is, as well as not being a 'feature', the mosaic is not particularly 'natural' as a whole, even if parts of it are. While such ecological values warrant consideration (e.g. from a perspective of biophysical and natural character effects) the mapped areas on the dip slope do not constitute a 'feature', in my view.

90. The scarp (generally to the south of the proposed SWF turbines), on the other hand, is a singular and distinctive 'feature' and in my view does warrant consideration as a candidate for potential ONF. See

Figure 3 below. It is distinguished from the dip-slope in landform and in vegetation cover. In this instance, it is proper to place greater emphasis on landform and the feature's singularity, as opposed to mapping vegetation type, which is in line with the approaches to landscape boundaries suggested in the SMRLA (Section 5, pages 114-115) and TTaTM (Section 5, pages 110-111).[10]

91. In delineating the scarp as a feature, it is appropriate to include a strip along the top of the scarp (an offset from the ridge) which would capture the features of the skyline and the interface between bush and tussock. This strip is identified in the landform diagram I have prepared, See **Figure 3**.

92. The landscape values and attributes for the scarp and dip slope, as assessed in the SMRLA, are detailed in **Appendix E**. The landscape values are noted throughout this report, rather than providing them in a specific table format. To enable comparison with the SMRLA, a similar format has been used. Ratings for each value have also been applied.

93. Specifically, I rate the landscape attributes of the scarp as follows: Biophysical – Moderate-High; Sensory – High; and Associative – Moderate.

94. I rate the landscape attributes of the backslope as Biophysical – Moderate; Sensory – Moderate-Low; and Associative – Moderate-Low. The ratings for the back slope are clearly distinguished and are lower than the ratings for the scarp, reinforcing the separation of the two distinct areas.

95. A broad summary of the landscape values of the scarp (as different and separate to the SWF Site), as I assess them, is as follows:

    (a) it is a noteworthy geomorphic feature (although it is not identified in the Geopreservation Inventory,[11] which indicates to me that it does not have significant overall geomorphic value);

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10 Section 5: Whenua Aromatawai – Assessing Landscapes, provides guidance on who to assess landscape character and values https://nzila.co.nz/media/uploads/2022_09/Te_Tangi_a_te_Manu_Version_01_2022_.pdf.

11 The New Zealand Geo preservation inventory and web site identifies the location and mapped extent of 3200 outstanding geological sites and landforms throughout the country. The site outlines the significance and other information about each site.

(b) it has a coherent forest cover of higher ecological value (different and distinguished from the mosaic of working rural land cover on the dip slope, where the Wildlands reports highlight pest animal grazing and lack of palatable species in the understorey);

(c) it is part of the Catlins Conservation Park (but is not a National Park);

(d) it is visually prominent (but its visibility – in terms of views of the face of the scarp – is largely limited to a local area in the Mokoreta River valley to the south and south-east); the south end of the scarp is also visible from the Southland Plains to the west;

(e) it has a skyline distinctive for its flatness, length, and sharpness (but likewise limited to views from the south, south-east and west);

(f) the distinctive 'Slopedown', a sharp drop in the skyline of the landform, as viewed from the west (the Southland Plains) is the southernmost section of the scarp and is outside of and separated from the SWF site;

(g) it has associative values as an identifying backdrop or landmark to the Mokoreta farming community, is used for limited recreation; and

(h) the cultural impact report, completed by TAMI, notes values in the landscape, albeit that the traditional Māori uses of the area were extensive rather than intensive, reflecting the movement/s of Ngāi Tahu. Key features including streams and rivers and topographical high points on the skyline have te reo names.

Could the scarp be outstanding in the context of the region and district?

96. The 1997 Landscape Assessment identified two Regional ONLs: Rakiura Stewart Island and Fiordland. The SMRLA has identified 9 candidates for ONLs and 10 candidates for ONFs:[12]

[12] The list of ONL candidate is copied from page 117 and the list of ONF candidates is copied from page 155 of the SMRLA (2019).

OUTSTANDING NATURAL LANDSCAPES (ONL) IN SOUTHLAND/MURIHIKU REGION

LANDSCAPE AREA

1 Coastal Fiordland / Te Atawhenua ki Tai

2 Inland Fiordland / Te Atawhenua ki Uta

3 Livingstone-Eyre Mountains / Mata-puke-koikoi

4 Umbrella-Garvie Mountains / Mata-puke-taratara

5 Takitimu Mountains / Te Mauka Takitimu

6 Longwood Range / Ōhekeia

7 Awarua-Waituna Wetland Complex / Awarua ki Waipārera

8 Inland Catlins / Waikawa-Tautuku

9 Coastal Catlins / Te Ākau Tai Toka

OUTSTANDING NATURAL FEATURES (ONF) IN SOUTHLAND/MURIHIKU REGION

LANDSCAPE FEATURE AREA

1 Waterfall Range / Hokonui

2 Slopedown / Mokoreta - Pukemimihau

3 Waiau River Mouth / Matatarawae

4 Pahia Hill / Ōmāwhero

5 Ōraka-Kawakaputa Bay / Ōraka ki Kawhakaputaputa

6 Riverton Hill / Te Haki ki Taramea

7 Oreti Beach-Sandy Point / Mateawaewae – Oreti ki Waimatuku

8 Bluff Hill - Omaui / Motupōhue ki Ōmāui

9 Toetoes Harbour / Toetoe

10 Outer Islands / Ngā Motu o Te Ara-a-Kiwa

97. Rakiura Stewart Island is not assessed in the SMRLA study and is assessed in a separate study. The map of all ONLs and ONFs identified in the SRMLA is on page 116 of the study.

98. The SMRLA study is a technical study and comes with the following disclaimer on the version of the study on the Environment Southland website:[13]

> *Disclaimer*
>
> *a. These studies are not local government policy.*
>
> *b. These Studies are incomplete as they do not include cultural advice on values or matters of importance to Ngāi Tahu ki Murihiku. Any use of these studies to inform policy creation or resource consent applications must be accompanied by cultural assessments and advice.*
>
> *c. The cultural assessments and wider matters that need to be considered are best identified by Ngāi Tahu ki Murihiku in a manner deemed appropriate by mana whenua. Please contact Te Ao Mārama Inc. via office@tami.maori.nz to receive advice on what would be required for your specific project. Te Ao Mārama Inc. represent Ngāi Tahu ki Murihiku on Resource Management and Local Government matters.*
>
> *d. These studies have not been tested by the general public through a public consultation process.*
>
> *e. Prior to informing regulations, a Local Government agency will need to follow the necessary steps in the Resource Management Act after accumulating any other relevant information they deem fit.*

99. The disclaimer is clear that cultural assessments have not been fully integrated into the SMRLA report. It is also clear that any resource consent applications should separately consider cultural matters.

100. In the case of the SWF that has happened and Ngāi Tahu ki Murihiku have confirmed their view that the cultural and te taiao effects relevant to them have been appropriately avoided, remedied, mitigated, offset and compensated by the Project.

101. In relation to the number and the extent of the ONLs and ONFs identified in the SMRLA the study has not yet informed policy let

[13] Cover page of the SMRLA (2019) on the ES website. Southland Regional Landscape Study.pdf

alone the public consultation and engagement that will need to be carried out. In my experience, typical rural landscapes where productive activities are carried out, which is the case for large parts of the Slopedown / Mokoreta-Pukemimihau ONF candidate, are least likely to be confirmed as ONFs through the public consultation process, given their productive and less natural nature. By contrast, some of the ONL and ONF candidates identified are clearly ONLs and/or ONFs, in my view, namely:

(a) Coastal Fiordland / Te Atawhenua ki Tai;

(b) Inland Fiordland / Te Atawhenua ki Uta;

(c) Takitimu Mountains / Te Mauka Takitimu;

(d) Inland Catlins / Waikawa-Tautuku;

(e) Coastal Catlins / Te Ākau Tai Toka;

(f) Bluff Hill - Omaui / Motupōhue ki Ōmāui;

(g) Outer Islands / Ngā Motu o Te Ara-a-Kiwa; and

(h) Rakiura / Stewart Island (assessed separately).

102. However, I consider that other landscape and natural features are less identifiable and in many cases are much smaller in scale and less obviously outstanding in a regional or district context. This includes the Slopedown / Mokoreta-Pukemimihau feature.

103. Moreover, the incomplete nature of the SMRLA makes it an unconfirmed and potentially unreliable guide as to whether the Slopedown / Mokoreta-Pukemimihau landform is outstanding in a district or regional context. Until such public consultation and confirmation has been complete, the SMRLA remains untested, as identified in the Environment Southland Disclaimer copied above.

104. Given the above, the 'feature' that the SMRLA describes as the Slopedown/Mokoreta-Pukemimihau ONF candidate, I consider that the scarp is the most likely candidate for an ONF. In my view, the rest of that 'feature' – namely the plateau and the dip slope (where the SWF turbines are proposed to be located) – demonstrably falls below the threshold of an ONF. This is because its biophysical values are

not outstanding (in terms of geomorphology and ecology), its aesthetic values are limited to a local area, and its associative values likewise appear localised.

105. The scarp appears to be a more likely ONF candidate than other discrete areas occupied by the SWF, due to elevated and more specific biophysical, sensory and associative values, however this observation would still require confirmation through a public planning process.

106. I also reiterate that the entire Slopedown/Mokoreta-Pukemimihau ONF candidate is not a distinctive 'feature', and so therefore cannot be an ONF, in my view.

107. However, for the purpose of the assessment of the effects of the SWF on the potential ONF values, the site has been conservatively considered as if it were part of a confirmed ONF. With that in mind, I have referred to the effects on potential ONL / ONF values in the effects assessment section below.

Geomorphology

108. The Project site is on a cuesta landform, which is characterised by south-facing scarps and shallower dip slopes (or back slope) to the north/northwest. The SWF is sited on the northwest facing dip slopes of this landform and is outside of the scarp.

109. This cuesta landform is part of the larger Southland Syncline, which is a distinctive pattern of greywacke hills between the Catlins, in the southeast, to the Takitimu Mountains in the northwest.

110. The northern limb, around the Lumsden/Hokonui Hills area of this geological formation, is the most distinct with the folds being steep to overturned. These form a strong pattern of parallel ridges. The southern limb is shallower in form and by comparison is less distinct, being broken up by faults and folds, although there are some clear parallel structures in and around the Lochindorb area.

111. The area directly to the south of the southern limb of the Southland Syncline is part of the same geological formation. This area is broken up by faults and folds, making the blockier pattern of cuesta landforms, one of which the SWF site sits on.

112. Geologically, the SWF Site and immediate surrounds are classified as Ferndale Group Sandstone, which is described as a sandstone and interbedded mudstone with minor shellbeds, conglomerate and coal. This is part of the Murihiku Terrane, which is one of the constituent 'terranes' of the New Zealand basement rocks.[14]

113. The Land Use Capability (**LUC**) classifications of the soils, as developed by Manaaki Whenua Landcare Research,[15] on and around the proposed SWF site (refer to **Figure 4 - Appendix A** - Soils), include:

(a) LUC Class 3 – Arable. Moderate limitations, restricting crop types and intensity of cultivation, suitable for cropping, viticulture, berry fruit, pastoralism, tree crops and forestry.

(b) LUC Class 4 – Arable. Significant limitations for arable use of cultivation, very limited crop types, suitable for occasional cropping, pastoralism, tree crops and forestry. Some Class 4 is also suitable for viticulture and berry fruit.

(c) LUC Class 5 – Non-arable. Highly productive pastoral land, not suitable for crops but only slight limitations to pastoral, viticulture, tree crops and forestry.

(d) LUC Class 6 – Non-arable. Moderate to very severe limitations to pastoral use. High-risk land requiring active management to achieve sustainable production. Can be suited to grazing with intensive soil conservation measures but more suited to forestry.

Cultural and archaeological values

114. A CIA has been undertaken by TAMI.

115. The CIA specifically addresses relevant cultural values, including cultural landscapes.

116. An archaeological assessment for the SWF site by Origin Consultants identified three archaeological sites in relative proximity to the

[14] New Zealand geology: an illustrated guide, Peter Balance, 2009. Published by the Geoscience Society of New Zealand.

[15] Our Environment – Manaaki Whenua Landcare Research https://ourenvironment.scinfo.org.nz/maps-and- ools/app/Land%20Capability/lri_luc_main

proposed SWF, shown in **Figure 6 - Appendix A** - Archaeological, and are listed in **Appendix B.**

117. These, and additional sites of cultural and archaeological note, are further expanded on in 'The Cry of the People Te Tangi a Tauira – Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008' (refer to **Figure 6 - Appendix A** - Archaeological). Āpiti Hono Tātai Hono: Ngā Whenua o Ngāi Tahu ki Murihiku is the cultural landscape assessment method prepared and followed by Ngāi Tahu.

118. The whole of the Murihiku (Southland and parts of Otago) area has cultural significance to Ngāi Tahu ki Murihiku. In order to understand the overall physical relationship between the landscapes that make up Murihiku, a sketch[16] is included as **Figure 1** in the **Graphic Attachments**. This sketch illustrates the relationship between some of the important parts of Murihiku, as discussed and described by TAMI on behalf of Kā Papatipu Rūnaka.

119. Āpiti Hono Tātai Hono describes the method of understanding Murihiku in relation to Ira Atua and Ira Tangata, or layers of Whakapapa.

120. The Ira Atua or creation stories include:

    (a) Maui, who is described as a Demigod and a navigator from across the Pacific. The South Island or Te Waipounamu is often referred to as Te Waka a Maui, or Maui's canoe, which he stood on while fishing up the North Island, Te Ika a Maui (Maui's fish).

    (b) Te Taurapa o te Waka – the sternpost of the waka – Southern Te Waipounamu.

    (c) Te Puka a Maui – Rakiura (Stewart Island) is often referred to as the anchor stone of Maui's canoe.

121. Te Ara a Kiwa is the name for Foveaux Strait.

    (a) Kiwa is a whale that traversed the Pacific Ocean (Te Moananui a Kiwa) connecting all peoples to this place.

[16] The sketch was prepared by Isthmus in response to the landscape values and stories shared by TAMI.

(b) When Kiwa came down through these waters, he bit his way through the land, separating Rakiura from the mainland, creating Foveaux Strait.

122. Ira Tangata – the people stories include:

(a) Rakitauneke is the eponymous ancestor.

(b) Motu Pohue – Bluff Hill where Rakitauneke was buried to look out over Te Ara a Kiwa – 'Kia pai ai tāku titiro ki Te Ara a Kiwa'.

(c) Murihiku Marae. The wharenui is named after Rakitauneke.

(d) Arowhenua. Bush clad area to the east of Invercargill (Waihopai) named by Rakitauneke.

(e) Hokonui Hills. One of the resting places of Matamata, Rakitauneke taniwha.

(f) Taiari Plains. Carved out by Matamata when Rakitauneke ventured south.

(g) Saddle Hill / Matamata. Another resting place of Matamata.

123. Te Puoho Raid. In 1836 a northern iwi came down the west coast, crossed at 'The Neck' and followed the rivers down to Tuturau. They were defeated by a southern iwi who came from Ruapuke Island and surrounding area, as far as Otakou.

(a) Ruapuke Island. The southern stronghold after the sacking of Kaiapoipā. The home of Tuhawaiki, Paramount Chief.

(b) Toetoe Bay. The landing place of the taua war party.

(c) Mata-ura / Mokoreta confluence. The place that the taua rested before advancing onto Tuturau. Where tohunga Rakitauheke recited the karakia 'Pakihaumanu'.

(d) Tuturau. Site of the last intertribal battle. It was set aside as a Native Reserve in the 1853 Murihiku land sale.

124. I understand that there is an important 'invisible sightline' relationship between landscape features in Murihiku, including the resting place of Rakitauneke, Motu Pohue – Bluff Hill and the Hokonui Hills and the

hills around Mokoreta. This relationship is illustrated in the sketch in **Figure 1** in the **Graphic Attachments**.

125. The purpose of recording these important places and events under the headings offered in Āpiti Hono Tātai Hono is not to attempt to express the cultural values and places of Murihiku as they relate to Ngāi Tahu ki Murihiku, but to understand the relationships between some of those commonly understood places, names and events that are illustrated in the sketch on **Figure 1** in the **Graphic Attachments**. These places, events and descriptions are used to inform an understanding of the cultural importance of the wider Murihiku area. The CIA provides its own interpretation of those cultural or associative values.

126. As recorded above, it is understood from the CIA that the entire area of Murihiku is an important cultural landscape.

127. The SWF site is part of the wider landscape as described above and as illustrated in **Figure 1** in the **Graphic Attachments**. Tuturau is close to the project site, however none of the named areas or features above are within the Project site.

128. In relation to the Slopedown-Mokoreta/Pukemimihau landform, the CIA records:[17]

> *Ngāi Tahu has a long association with the Murihiku Region including the Pawakataka / Slope Downhill, Mataura, Mokoreta and the Mimihau. Ngāi Tahu led a seasonal lifestyle, following resources throughout the region. Generally, the use of the areas was extensive rather than intensive; however, this area is thick with Iwi stories, traditions, and cultural practices.*
>
> *These areas form part of a significant cultural landscape both historically and contemporarily for Ngāi Tahu Whānui. Intimacy with, and knowledge of the terrain and water, was built up over generations and passed from one generation to the next.*

[17] Page 4 of the CIA – Executive Summary.

129. The effects of the proposal on the cultural landscape values of the site are further considered in the effects section.

Settlement and land-use patterns

130. The wider landscape setting of the area surrounding the Project site (central and eastern Southland) is largely a regionally typical rural landscape, with open pastoral areas with bush clad gullies and hill country, and more regular paddock and shelter belt formations in lower flatter areas, typical of the wider Southland Plains agricultural landscape. There are also areas of steeper hill country with indigenous forest and vegetation, much of which is within the Catlins Forest Park and/or in DoC stewardship.

131. Agricultural land-uses in the surrounding hill areas include sheep and beef farming and a small portion of dairy support farming, while the lower slopes and surrounding valley flats are predominantly used for dairy farming and cropping. Exotic pine plantations are also present within the area, typically on steeper slopes, including the Matariki forest on the SWF site.

132. Both the Mimihau Stream, to the north of the Project site, and the Mokoreta River, to the south, are serpentine in form. They flow into the Mataura River, to the north and south, respectively, of Wyndham. They cross pastoral farmland, with open grassed banks, interspersed with pockets of vegetation and riparian plantings. This vegetation includes areas of both indigenous and exotic species.

133. The serpentine form of these waterways follows the base of the rolling hills. This contrasts with the linear forms of shelterbelts typical of the lower hill slopes and flatter valley floors.

134. The area around the SWF site is sparsely populated, with a low density of dwellings present across the rural landscape (see dwelling inventory section below). There are no townships in the immediate area around the SWF site[18], but rather a collection of 'districts' including Redan, Mimihau, Oware, Mokoreta, Venlaw, Ferndale, Otaraia and Slopedown. The dwellings present in these districts are primarily located on properties used for agricultural farming purposes.

[18] Within 10km of a turbine.

135. Approximately 12km to the west of the Project site is the town of Wyndham, with a population of 579 people.[19] This is the closest town to the SWF site. Edendale, with a population of 591 people,[20] is located 17km to the west of the Project site, 5km to the west of Wyndham. Edendale is a rural service town which is based around the Edendale Fonterra Dairy factory.[21]

136. Invercargill (Waihopai) is 50km to the west of the Project site. Invercargill is the largest urban centre in the Southland region, with a population of 54,204.[22]

137. 18km to the north-west of the SWF site is Mataura, with a population of 1,629 people.[23] Gore (Maruawai) is located approximately 25km to the north-northwest of the Project site.

138. The population and dwellings in the immediate surrounds of the SWF, are spread relatively sparsely throughout the landscape (see the dwelling inventory in **Appendix D**). These properties and dwellings are accessed by a roading network consisting of rural chipseal and unsealed metal roads. There are a range of private farm access roads and tracks of various formation and composition.

139. The wider landscape is used for recreational purposes. The Catlins hill country is extensive and includes several tracks on the Rata Range, Beresford Range, MacLennan Range, Forest Range and Mt Darby. Tracks are concentrated on the eastern/coastal side of the Catlins area. Two huts are located at the eastern end of the Beresford Range and MacLennan Range (one on each).[24] Tracks in the Catlins Hills country tend to be short spur tracks leading to and from huts or high points from road access points. However, there are few public access tracks at the western end of the Catlins Conservation Park – the Beresford Range, MacLennan Range - and no public access walking tracks indicated on the Slopedown escarpment. There is a road and forestry access roads at the lower slope and a public access easement within the SWF site itself.

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19 2018 Census- Statistics New Zealand.
20 Ibid.
21 Edendale is New Zealands' longest running dairy manufacturing site, established in 1881. 140 years on and still going strong.
22 2018 Census- Statistics New Zealand.
23 Ibid.
24 As indicated on the herengaanuku.govt and topomap web sites.

140. A request to DoC for hunting permit numbers for the Catlins Hunting block (the wider Catlins Conservation Park) indicates that for the 2022 and 2023 seasons, 250-700 hunting permits were issued each month.[25] Given the extensive areas of the conservation park including the Beresford Range and MacLennan Range there is no indication how many hunters may have accessed the Slopedown escarpment area or Mount Herbert. These areas do not have hut or track systems to support hunting activities.

141. Tracks and huts in the wider Catlins Conservation Park are utilised for tramping and hunting. Requests to DoC and Matariki Forests indicate that no requests have been made to use the public or cultural practice easements in the SWF site to access the Mokoreta-Pukemimihau escarpment or ridgeline. The easements provide legal access for potential future recreational use. No mountain bike tracks or other recreational access tracks are known in the area.

142. Highpoints at the northwest end of the Beresford Range, including Catlins Cone (698m), Mt Pye (720m) and Bleak Hill (718m), are prominent in the landscape and would have views of the Mokoreta-Pukemimihau escarpment and the site. There are no tracks or huts close to these landforms.

143. The Mataura River, the Mokoreta River and the South branch of the Mimihau Stream are accessed for freshwater fishing.[26] The larger and more accessible Mataura and Mokoreta Rivers attract larger numbers of anglers. The Mokoreta River attracted 308 (+/- 152) anglers and the Mimihau Stream attracted 145 (+/- 73) anglers in the 2021/2022 fishing season.[27] The statistical variance due to the low response numbers limits the accuracy of the data; for comparison, the Mataura River (below Gore) attracted 10,813 (+/-2105) anglers in the same season.

144. The broader landscape setting around the site has four areas or contexts with distinct landscape character. The character areas are illustrated on **Figures 1-8** and **40-41** in **Appendix A**, and are described below.

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25 Request for hunting permit numbers made to the Department on 18 September 2024.
26 herengaanuku.govt web site.
27 NIWA anglers survey for the 2021/2022 season for Fish and Game.

Upper Waipahi River / Upper Mokoreta Basin

145. This area is characterised by rolling and sometimes steep topography rolling off the northwest end of the Wisp and Beresford Range southland incline hill country. The river valley and basin are enclosed by the steeper elevated hill country to the east and the south and the Mokoreta escarpment to the west. The landscape is broken up into relatively small visual and hydrological catchments which are accessed largely by Slopedown, Dodds and Cairn Roads.

146. Landuses include extensive pastoral farming with exotic plantation pockets and the broader elevated conservation land as described above. Dispersed residential dwellings and farm buildings along Slopedown Road (in particular) support the largely farmed land in the valley and basin.

Upper Mokoreta Valley (sub units Redan and Mokoreta Stream valleys)

147. This area is characterised by the broad flat to rolling topography of the Mokoreta River valley. The Slopedown escarpment and Mount Herbert provide enclosure to the north and the Forest Range to the south. The escarpment is prominent from the roadside, particularly around Redan with a contiguous cover of largely indigenous vegetation. Plantation forest is more prominent at the transition to the Upper Waipahi / Upper Mokoreta basin character area.

148. Pastoral farming with largely exotic shelter and farm tree plantings are evident from the Wyndham Mokoreta Road corridor. The working pastoral valley floor character is a counterpoint (both topography and landcover) to the view of the indigenous vegetation on the Mokoreta escarpment and the Forest Range hills. Waterway corridors contain limited remnant indigenous vegetation within the farmed areas. The west end of the character area widens out into the lower Mataura River valley and the broader Southland plains. Limited residential and farm buildings line the Wyndham Mokoreta Road. Small groups of residences are at the intersections at Mokoreta and Redan.

East of Mataura River

149. This area is characterised by the lower Mataura Valley flatlands climbing into the western foothills and dip slope of the Mokoreta cuesta landform. Rolling hill country surrounds Waiarikihi, Waikana

and Ferndale. The broken topography limits views towards the site and creates a series of small parallel ridges and skylines.

150. Landuses are largely pastoral farming and plantation forests with some small pockets of remnant indigenous vegetation. Dispersed residential and farm buildings line the roads and small groups can be found at Mimihau, Oware, Tuturau, Waiarikihi, Waikana and Ferndale. The main settlement east of the river is Wyndham (see descriptions above and below). The edge of Wyndham is approximately 12km from the closest proposed turbine. Mataura is north of the character area.

West of Mataura River to Woodlands

151. This area is characterised by the broad expanse of the Southland Plains, contained to the north by the Hokonui Hills. To the south and the west the lower river valley and plains converge with other rivers and the Awarua plains and wetlands to the south towards the coast.

152. The character of extensive pastoral farming is supported by several rural farming communities and settlements, including Edendale, Woodlands and Brydone. The experience from the SH1 corridor is through a large flat valley floor / plain, framed by the broader hill backdrop of the Catlins (including the Slopedown landform and the SWF site) and the Hokonui Hills.

153. Mana whenua relationships and connections to the whenua and taiao are considered as part of the existing environment of SWF site above.

154. Visual simulations, of the proposed SWF, have been developed (refer to **Appendix A – Graphic Attachment**) from viewpoints around the roading network.

155. The Project site and its local setting are illustrated on **Figures 1-8 and 40-41** within **Appendix A.**

Dwelling inventory

156. The dwelling inventory provides a description of the dwellings in proximity to the SWF site at a local scale. Dwellings within a 10km radius have been recorded in the inventory. The pattern of settlement surrounding the Project site is described in the ‘Settlement and land-

use patterns' section above. 164 dwellings have been identified within 10km of the project (within 10km of a proposed turbine location). The dwelling inventory is in **Appendix D**.

157. The inventory was prepared initially as a desktop exercise, utilising available mapping and property information software.

158. While all possible attempts have been made to ensure the validity and accuracy of the data provided, there may be instances where the data is incomplete or inaccurate.

159. The distances from turbines were measured using mapping software and were rounded to the closest 100m. As a result, there may be some relatively minor variances.[28] The distances indicated in the dwelling inventory are to the closest wind turbine irrespective of visibility. In some cases turbines will not be visible from the identified residence.

160. No dwellings are identified within a 2km distance of the proposed wind turbines. The closest identified dwelling is approximately 2.3km from the nearest turbine[29].

161. The dwelling inventory identifies the following:

(a) 8 identified dwellings within a 3km distance of the nearest proposed wind turbine;

(b) 25 identified dwellings (including the 8 above – all numbers below are likewise inclusive) located within a 4km distance of the nearest turbine;

(c) 40 identified dwellings located within a 5km distance of the nearest wind turbine;

(d) 103 identified dwellings within a 7.5km distance of the nearest wind turbine; and

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28 'Rounding half-down' method is applied, e.g. 4.55km rounds to 4.5km, whilst 4.56km rounds to 4.6km.

29 For context, the Turitea wind farm on the Tararua Ranges south of the Pahiatua Track/Road includes 60 wind turbines 125m to the blade tip with turbines that are as close as 830m to the nearest dwellings, 120m from the closest public road and 4-5km from the closest residential settlements at Turitea and Fitzherbert on the outskirts of Palmerston North. The suburban edge of Palmerston North is approximately 8km from the closest turbine.

(e) 164 identified dwellings within a 10km distance of the nearest wind turbine.

162. The location of all identified dwellings within a 10km radius of the Project site are shown on the **Dwelling Location Map in Figure 7 in Appendix A**.

163. **Table 1** below includes the groupings of dwellings by distance category from the proposed SWF.

Table 1 - Number of Dwellings, by distance, from the proposed SWF

	0 - 2.0km	2.1 - 3.0km	3.1 - 4.0km	4.1 - 5.0km	5.1 - 7.5km	7.6 - 10.0km
Number of Dwellings	0	8	17	15	63	62

164. The dwelling inventory is the basis for the assessment of visual effects on dwellings in the Assessment of Effects section below.

165. In addition to the above identified dwellings, the Mokoreta Cemetery (117 Mokoreta-Tahakopa Road), although no longer open to new burials, is 7.4km from the nearest turbine (to the south of the site). The Mokoreta-Redan Centennial Hall, a community facility, is located 4.8km from the closest turbine. The Wyndham cemetery, just outside of the 10km radius, is located at 373 Mimihau School Road and is 10.2km from the closest turbine (west of the site).

Kaiwera Downs Wind Farm

166. The Kaiwera Downs Wind Farm, owned by Mercury NZ Limited, is located to the north of the proposed SWF site (refer to **Appendix A – Viewpoint Location Map**).

167. Stage 1 of the Kaiwera Downs Wind Farm was completed in November 2023 and consists of ten wind turbines 145m in height. Construction of Stage 2 commenced in June 2024 and is consented to comprise up to an additional 36 wind turbines, 165m in height.[30]

168. Stage 1 of the Kaiwera Downs Wind Farm is located approximately 10km to the north of the SWF site, while Stage 2 of the Kaiwera

[30] A total of 56 additional turbines is consented. 20 additional turbines (beyond stage 2) are provided for in the consent, but it is understood that these turbines are currently not being considered by Mercury.

Downs Wind Farm would be, at its closest point, approximately 4km to the north of the nearest SWF turbines.

169. Given this proximity, the visual simulations for the proposed SWF (refer Viewpoints 1-16 - **Appendix A**), include visual simulations of the Kaiwera Downs Wind Farm, including both Stage 1 and Stage 2.[31]

170. The Kaiwera Downs Wind Farm is located on a similar landscape to the SWF, being amongst broken hill country, with hills characterised by south- facing scarps, and shallower dip slopes to the north (i.e. a cuesta landform). The Kaiwera Downs site and the Slopedown / Mokoreta-Pukemimihau landforms are part of the Southland Syncline, with similar south facing scarps, albeit that Kaiwera Downs is less broad and less visually prominent, with (unnamed) high points at 370m – 525m asl, compared with the named high points on Slopedown / Mokoreta-Pukemimihau at the Cairn (658m asl), Puke Mimihau (664m asl) and Mokoreta (713m asl).

171. At a local scale Slopedown / Mokoreta-Pukemimihau is a larger, higher and more bold landscape, however at a broader sub-regional scale it is part of the same landscape structure as Kaiwera Downs – part of the broken hill country sequence of the Southland syncline. The breadth and height of Slopedown / Mokoreta-Pukemimihau make it more visually prominent but also give it a presence and scale that can accommodate visual and physical change, especially on the gentler dip-slope of the landform.

172. Given the broken landscape, there are relatively few times when the two wind farms would be visible as one collection of turbines in the landscape. Therefore, separation of the wind farms is evident in most views, and/or only parts of each wind farm are visible. The difference in scale between the SWF and the Kaiwera Downs wind turbines would be unlikely to be discernible, given the distance between the two projects and the intervening broken landforms.

173. The cumulative effects of the Kaiwera Downs Wind Farm and the proposed SWF on landscape and visual amenity values are discussed in the Assessment of Effects section below.

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[31] The maximum number of consented KDWF turbines are illustrated in the combined visual simulations and maps in the Graphic Attachments.

Description of the Project site and its immediate setting

174. The Project site is located across privately owned land which primarily forms part of Jedburgh Station, a sheep and beef farm; and a pine plantation owned by Matariki Forests (refer to **Figure 2- Appendix A** - Indicative Site Layout and **Figure 1** above). A third property, Glencoe Station, is also part of the SWF site. As such, the SWF site is approximately half comprised of pastoral farmland, including some areas of native vegetation (including wetlands) and scrub, and half plantation forestry.

175. The SWF site is located in an area that is geologically part of the Southland Syncline (see Geomorphology section above). While the northern limb of the syncline (toward the Lumsden area) has a strong pattern of parallel ridges, the southern limb (from the Hokonui Hills to the Catlins) is broken up by faults and folds into a blocky pattern of cuesta landforms. The SWF site sits to the south and south-west of the main visible Syncline features.

176. The SWF site is amongst broken hill country, on the back slope of a cuesta landform. A cuesta is a hill or ridge with a gentle slope (backslope or dip slope) on one side, and a steep slope (frontslope or scarp) on the other. In this case the dip slope has been dissected by the northern and southern branches of the Mimihau Stream, creating a complex, eroded backslope to the landform. The southern scarp has a sharp skyline, see **Figure 2** below. This rises to between 400-500m from the toe of the scarp, with typical slopes of 2H:1V.

177. Such bush-clad scarps and farmed and forested backslopes are a characteristic pattern of the area. For example, there are scarps above the Mimihau Stream northern and southern branches, to the north to the SWF site.

Figure 2: SWF site, Southland - bush clad scarp (the scarp is outside of the SWF site) (helicopter view)

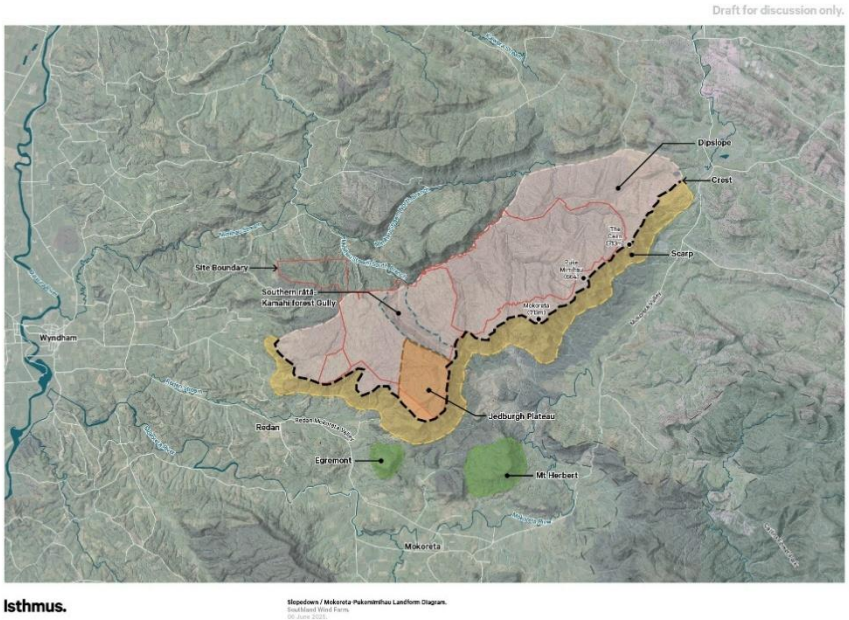


Figure 3: Slopedown-Mokoreta/Pukemimihau Landform diagram and surrounding landforms and features.

178. Named features along the ridgeline to the south and south-east of the Project site include the highest peak, Mokoreta (713m), and two distinctive knolls further to the east, Puke Mimihau (664m) and The Cairn (658m) (refer to **Figure 3** above and **2** – **Appendix A**). An additional highpoint at 634m asl on the Jedburgh plateau is understood to be the location referred to as Pawakataka in the TAMI CIA. The nearest wind turbine will be set back 2km and at 100m lower elevation from the Mokoreta Peak. The wind turbines are set back

from the section of skyline between Mokoreta and the other named peaks (Puke Mimihau and The Cairn).

179. The scarp is bush clad and mostly comprised of indigenous bush and forest, while some of the lower slopes consist of exotic pine plantation. The scarp is located in two Conservation Areas administered by DoC. The area to the eastern end of the scarp is part of the Catlins Conservation Park. The western end of the scarp is in the Conservation Area – Slopedown (see the above description of the wider context/area above).

180. The streams located on the scarp are tributaries of the Mokoreta River. Within and close to the SWF site the main hydrological features are the Mokoreta River draining to the west to the lower Mataura River and the Mimihau Stream (north branch and south branch) draining to the west to the lower Mataura River. The lower reaches of the Mokoreta and Mataura Rivers flow through farmed valleys and plains with very limited remnant indigenous vegetation patterns. Natural character values in the lower Mokoreta and Mataura Rivers are low, due to the extensive farming in the lower catchments.

181. The south branch of the Mimihau Stream is the only section of stream or river within the SWF project site. The existing freshwater ecology values in the SWF are generally high, however increasing phosphorus levels in the stream indicates sediment inputs are likely increasing through time. The natural character values of the south branch of the Mimihau Stream are moderate-high. Fen and bog wetlands (and potential wetlands) have also been surveyed and assessed within the SWF site, as illustrated and described below.

182. There is also an arc of smaller hills (eroded remnants of a former cuesta ridge that are distinctive peaks) to the south of the Project site which filter views to the main scarp. These include Egremont, Mt Herbert, and other unnamed hills (refer to **Figure 2 - Appendix A**).

183. The nearest wind turbines will be to the scarp is at the southern end of the SWF site, where there is a headland plateau. That plateau is 100m lower in elevation than the more distinctive section of the scarp further east, including the named highpoints. Views to this plateau from the south and the southeast are filtered by the outlier peaks to the south (Egremont and Mt Herbert). See **Figure 2** in **Appendix A**.

184. The north-facing dip slope, where the wind turbines will be located, has a relatively broad surface, see **Figure 4**. It has mixed landcover, comprising fingers of pasture on the spurs, patches of bush mainly in the gullies, a pine plantation pine forest, areas of regenerating scrubland and areas of wild grassland along parts of the ridge.

185. The north facing dip slope landform is a characteristic landscape feature of the wider area and is a working landscape, with a relatively broad surface, albeit dissected by streams.

186. Exotic vegetation species, such as, but not limited to, gorse (Ulex europaeus) and Scotch broom (Cytisus scoparius) are present within some of the gullies and fringes of spurs.

Figure 4: Part of the SWF site including the north facing dip slope on Jedburgh Station (helicopter view)

187. The Detailed descriptions of the ecology and natural values of the Project site are provided in the Wildlands and Ryder Assessments. Specific and detailed assessments of the existing wetlands and waterways and surrounds have been completed. Those descriptions and assessments are referenced below and closely inform the natural character analysis.

188. The Wildlands Assessment provides further information on the extent of bog and fen habitats located on the 'Jedburgh Plateau' and also some in the Matariki Forest site which are the identified areas of wetland within the SWF site. Wildlands notes both 'actual' (ground-truthed) bog or fen areas and 'likely' (mapped from aerial imagery)

bog and fen areas. The total extent for each wetland type on the 'plateau' is summarised from the Wildlands Assessment:

"*The total extent of fen and bog at Jedburgh Station is 102.26 hectares and 28.70 hectares respectively, while 0.73 hectares of copper tussock/rautahi marsh and 1.67 hectares of mānuka-inaka/copper tussock marsh are present at Matariki Forest*".

189. **Figures 5** and **6** below, illustrate the mapped ecological values in the wind farm footprint. The SWF layout has been configured to minimise effects on ecological values, resulting in low effects, which are offset through wetland and other ecological offsite compensation and onsite enhancement as described in the Wildlands, Ryder, and MacGibbon Assessments, resulting in net gain / no-net-loss of value.

190. Effects on ecological and natural values of the Project site and the measures proposed to avoid and mitigate those effects, or otherwise to offset or compensate for those effects through the restoration package are described in the Wildlands, Ryder, and MacGibbon Assessments. Those measures are central to the assessment of the natural character effects of the SWF, with the potential for ongoing positive effects in the long term.

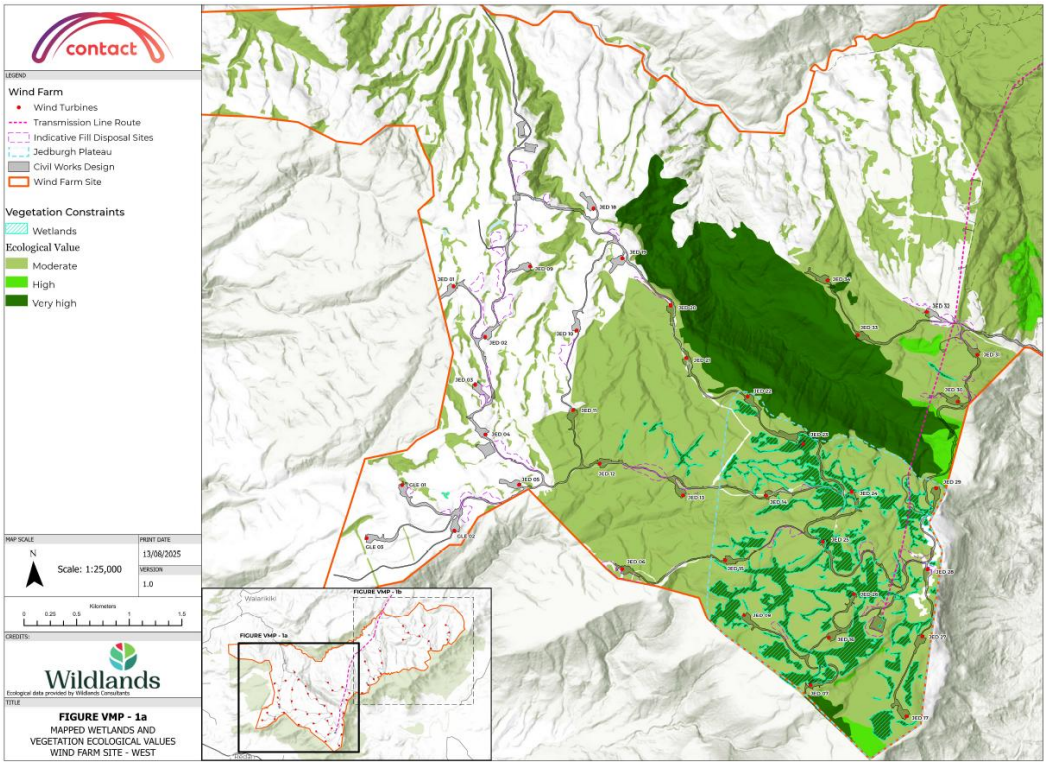


Figure 5: Ecological Values Map 1 (Figure VMP – 1a, in Part G of Contact's application).

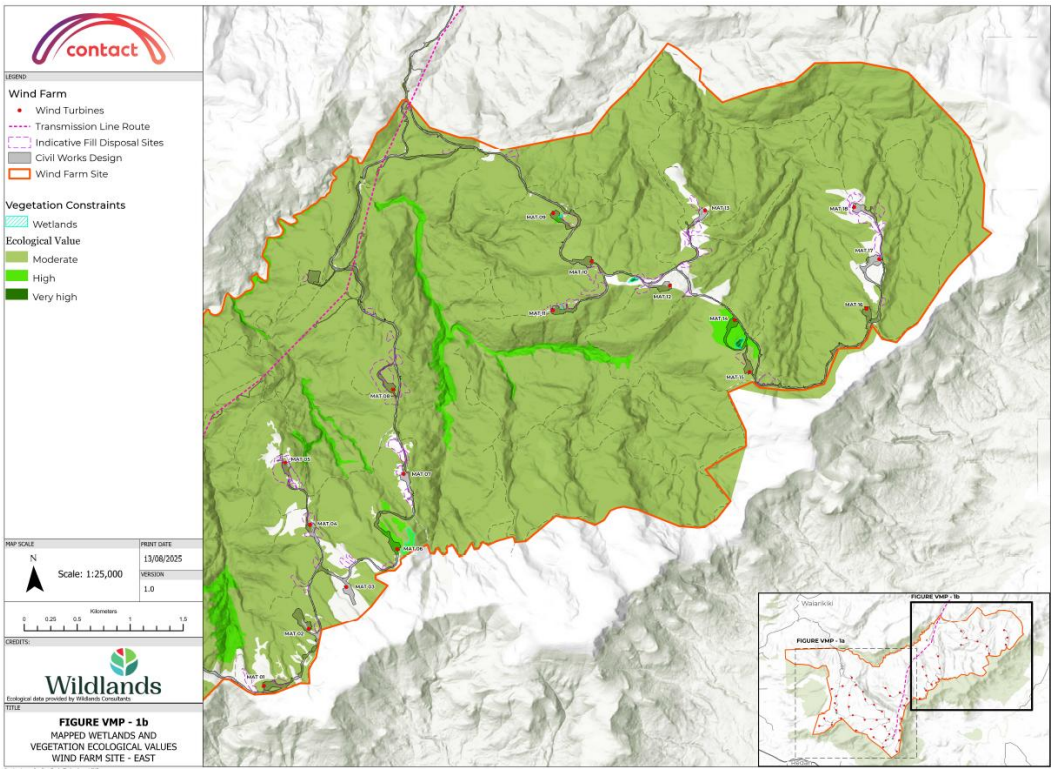


Figure 6: Ecological Values Map 2 (Figure VMP – 1b, Part G).

191. The main central area of very high ecological values is a block of indigenous vegetation in a gully. The more broken areas of very high ecological values at the south end of the Jedburgh plateau (also mapped in **Figure 5**) are the areas of wetland with elevated ecological and natural character values.

192. **Figures 5 and 6** illustrate that the complex pattern of very high natural character values associated with the plateau wetlands has been largely avoided by the roading patterns and the placement of turbines, and the SWF substation as far as is practical. Where avoidance has not been possible, mitigation of those unavoidable effects, or otherwise offsetting or compensation is provided through the restoration package as described in the Wildlands, Ryder, and MacGibbon Assessments. Mitigation and off-setting measures are described below in relation to landscape values.

Vegetation and habitats

193. The detailed description of the vegetation on the site is contained in the Wildlands Assessment:

> *"Vegetation types within the Project site include exotic conifer plantation forestry, pasture, and indigenous vegetation.*

Thirty-six vegetation types were identified at the proposed Wind Farm Site, most of which are successional vegetation types. Approximately 62% of the Wind Farm Site consists of exotic-dominant vegetation, including exotic conifer plantation forest (2,289 hectares), primarily located at Matariki Forest; managed and unmanaged exotic grassland (1,100 hectares), and gorse scrub (291 hectares), which are both primarily located at Jedburgh Station and Glencoe Station (both of which are working farms). At lower altitudes, beyond the areas of exotic conifer plantation forest, the surrounding land is largely defined by rolling pasture, exotic hedgerows, and narrow gullies which include pasture, gorse, exotic conifers, and mānuka.

Indigenous vegetation is mostly confined to Jedburgh Station, where the largest vegetation types comprise manuka forest and scrub (689 hectares), southern rātā-kāmahi forest (339 hectares), and [Mānuka]/tauhinu-inaka-Vernonica odora scrub and shrubland (249 hectares), the latter of which occurs on the Jedburgh Plateau (c.530 hectares).

The Jedburgh Plateau is located on a landform known as a 'cuesta', characterised by a steep slope (scarp) on one side and a gentler slope on the other, formed by erosion of tilted sedimentary layers. It features a network of naturally occurring and induced wetlands, the latter formed following deforestation of former pāhautea (Libocedrus bidwillii) cloud forest. The wetlands on the Jedburgh Plateau are ecologically similar to upland wetlands in the Catlins, such as Ajax Bog and those in the McLennan Range, which share gentle topography, broad ridges, and high humidity. While pāhautea cloud forest remains intact in these areas, it has largely disappeared from the Jedburgh Plateau due to historic fires and grazing, except for a small remnant connected to conservation land.

Wetlands on the Jedburgh Plateau include ridge-top bogs and gully fens, while induced bogs on ridges often dry out in summer. They are interspersed amongst larger areas of short-stature manuka scrub and mānuka and inaka dominated vegetation. The unpalatable indigenous species and mānuka scrub that are present reflect arrested succession caused by browsing from domestic stock and feral red deer. The wetlands are generally in good condition, although locally affected by browsing and animal tracks. Loss of cloud forest has also diminished the ecological context of these wetlands. Exotic grasses are common throughout the mosaic of shrubland on the Jedburgh Plateau, while gorse is scattered through shrubland areas on the north side of the Plateau."

194. The description of the vegetation on site from the Wildlands Assessment is relied on here to ensure consistency; it accords with my observations of the site from my visits to it.

195. The streams located on the north facing back slope are tributaries of the Mimihau Stream.

196. As noted, above, recreational values within the SWF site and in the surrounding area are very limited. The scarp below the SWF site has a forestry access road (Egremont Road) through the lower slopes. There are no mapped tracks or walkways through the scarp. There are DoC references to limited animals[32] in the area which could be a source for hunting. There is an access easement through the Matariki Forest block for maintenance access to the scarp in favour of DoC. There is also a public access easement through the SWF site and there is an encumbrance in favour of Ngāi Tahu whānui, for a period of 10,000 years, allowing access for traditional purposes. Neither DoC nor Matariki Forests have any record of these easements or encumbrance being used for access. The recreational access numbers for hunting and fishing in the broader Catlins area are provided above.

197. That said, while the existing public and cultural access easements do not appear to have been used for their purpose within the site (or used a limited amount), they do provide legal access for potential future recreational and other public and cultural access.

Cultural / built features

198. The SWF site comprises two pastoral working stations (Jedburgh Station and Glencoe Station) and the Matariki plantation forest site. A broad pattern of roads and tracks provides access to all three of the SWF properties. Typical rural post and batten wire fencing subdivides Jedburgh and Glencoe Stations into working rural paddocks and blocks. Some boundaries are not fenced.

199. A small collection of rural buildings (sheds, etc) and a farmhouse service the lower reaches of the Jedburgh Station, adjacent to Venlaw Road. Similarly Glencoe Station includes a small collection of rural buildings and a farmhouse below the elevated farmland and the plateau. The Matariki Forest block includes a small group of huts and structures. Stream crossings generally have small bridges and culverts throughout the SWF site. The Matariki Forest block also has typical drainage works (small trenches and drainage tables) to drain the forest access roads.

[32] Mainly deer and pigs as target hunting animals.

200. There is a radio mast on the highpoint at Mokoreta (713m asl, outside of the SWF site).

201. Consistent with the large scale of the land holdings and the farming and plantation forestry operations, the three properties that make up the SWF site are sparsely developed with limited buildings, structures and man-made features.

202. No structures or features (other than forest access roads on the lower slopes) are known in the adjacent Mokoreta escarpment. Broader patterns of road access and settlements in the area are described above.

Natural character values

203. Natural character has specific application in Aotearoa New Zealand because s6(a) of the RMA provides, as a matter of national importance, for decision-makers to recognise and provide for[33];

> *the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use and development.*

204. TTatM adopts the interpretation that:

> *Natural character is an area's distinctive combination of natural characteristics and qualities, including degree of naturalness. Natural character and naturalness is not the same thing.*

205. Further guidance is given in the NZCPS 2010 in relation to the matters that should be taken into consideration in the identification of the natural character of the coastal environment.

206. In the context of the SWF site and the surrounding area, the consideration of natural character envisaged by s6(a) of the RMA is specific to the headwaters of the north and south branches of the upper Mimihau Stream and the wetlands that have been identified and mapped within the project site on the Jedburgh Plateau (although

[33] TTaTM, page 205.

I comment below more broadly on the natural character of the site, and the Project's effects on that character). The headwaters of the branches of the Mimihau Stream and the identified wetlands are within the Project site, however there are no rivers or lakes within the SWF site and it is outside of the coastal environment.

207. The physical characteristics and attributes of the site and the surrounding area are described above. The detailed ecological and natural values of the SWF site and the surrounding areas are described in the Wildlands and Ryder Assessments.

208. The Wildlands and Ryder Assessments describe areas of good quality wetland habitats, including wetland habitats that are regionally threatened, high quality stream habitat in the Mimihau catchment, extensive indigenous habitat for avifauna, lizards and invertebrates, threatened and at-risk bat, bird, lizard, terrestrial invertebrate, fish and aquatic invertebrate taxa. Freshwater ecological values in the site and the catchment are high.

209. In the context of the SWF Project, natural character is identified and assessed at two scales:

    (a) The specific wetlands and streams within the SWF Project site: and

    (b) The broader patterns of streams and rivers surrounding the site, including the Mimihau Stream North of the site), the Mokoreta River (east and south of the site) and the Redan Stream (south of the site and is a tributary to the Mokoreta River). **See Figure 2 in Appendix A**.

210. The characteristics and qualities of natural character are generally identified as being abiotic (landform and water, hydrological processes, geomorphology, climate) and biotic aspects (flora and fauna, ecology).

211. The specific combination of the abiotic and biotic characteristics and qualities that contribute to the natural character of the SWF site include:

(a) The tilted dip slope of the cuesta landform and its sharp crest at the top of the scarp, where this is within or partially within the SWF site;

(b) The eroded valleys, including the southern rātā-kamahi forest gully and the valleys of upper reaches of the branches of the Mimihau Stream;

(c) The streams and their erosive power on the landform, cutting valleys into the otherwise intact dip slope of the cuesta;

(d) The condition of the streams themselves and their water quality;

(e) The wetlands on the Jedburgh plateau and their ecological condition and value;

(f) The effect of weather on the site and at times the ability to visually interpret the site and its features;

(g) The interruptions to those natural patterns, including earthworks for roads and structures such as fences and buildings, which are small scale in relation to the patterns of vegetation and landforms;

(h) The mosaic of vegetation across the SWF site, including the pine dominated areas, the grazed and managed vegetation on the Jedburgh Plateau and the mixture of vegetation on the dip slope; and

(i) The specific patterns of indigenous flora and fauna habitat, as identified by the project ecologists as described and mapped in Figures 5 and 6 above.

212. The specific combination of the abiotic and biotic characteristics and qualities that contribute to the natural character of the area surrounding the SWF site (as described above) include:

(a) The broader extent of the Slopedown / Mokoreta-Pukemimihau landform including the scarp to the east and the lower dipslope to the north, see **Figure 3** above;

(b) The Mokoreta and Mokoreta-Redan Valley landforms;

(c) The Mimihau Stream below the headwaters within the site;

(d) The Mokoreta River;

(e) The pattern of surrounding indigenous vegetation-dominated conservation estate land including the scarp within the Catlins Conservation Forest; and

(f) The wider mosaic pattern of managed vegetation, including pasture and pine forest, with remnant indigenous vegetation interspersed.

213. Changes or earthworks on the landform of the SWF site are relatively subtle in comparison with the scale of the landform. Such changes are not readily apparent.

214. Specific areas of very high and high value habitats are identified within parts of the SWF site. These areas have the highest natural values.

215. Based on the description above and the ecological and natural values of the terrestrial, wetland and freshwater stream values of the site in the Wildlands and Ryder Assessments, the natural character values of parts of the SWF site are **high**. Some specific areas of the site have very high natural character values, as mapped in **Figure 6**, above. These areas include wetlands and streams.

216. As described and mapped by Wildlands above, there are parts of the plateau and dip slope section of the SWF site that are exotic forest and grassland habitat that are managed and, in some cases, are grazed. Areas of exotic vegetation habitat have reduced ecological and natural character values and are distinct from those areas that have predominantly indigenous vegetation habitat values. The natural

character of the exotic vegetation dominated and grazed areas of the site are **moderate** (outside of the wetlands).

217. The natural character values of the area surrounding the SWF site (as described above) are generally **moderate** where productive pastoral and forestry land uses dominate. Where indigenous vegetation dominates and within and on the margins of the Mokoreta River and the Mimihau Stream the natural character values are **moderate high**[34].

STATUTORY CONSIDERATIONS

Fast-track Approvals Act 2024

218. This report has been prepared to support Contact's application for approvals for the Project under the FTAA. Under the FTAA, Contact is seeking (among other approvals) resource consents to construct the wind farm, transmission, and other infrastructure associated with the Project, which would normally be granted under the RMA. While I understand that the FTAA differs from the RMA, including in terms of its purpose, I confirm that I have undertaken my assessment as I normally would under the RMA.

The RMA and related legislative, planning and policy instruments

Introduction

219. This section of the report highlights other planning provisions most relevant to landscape and visual matters. A full planning assessment of the Project is not set out in this document; refer to the AEE for that full assessment. A summary of the planning context is provided below, with more detail provided in **Appendix C**.

220. The provisions relevant to the transmission line route and GIP are discussed in a separate section below (refer to section titled Transmission Infrastructure).

[34] The description and assessment of the natural character values of the surrounding area is necessarily high level given the scale of the area, the diversity of land uses and cover and the less direct physical and spatial connection that the landscape context has to the SWF site itself.

Resource Management Act 1991

221. There are specific provisions in Part 2 of the RMA that are relevant to assessing the landscape and visual amenity effects of the SWF, namely the provisions that seek to:

(a) Preserve the natural character of wetlands, lakes and rivers and their margins (section 6(a));

(b) Protect outstanding natural features and landscape from inappropriate development (section 6(b));

(c) Maintain and enhance amenity values (section 7(c)); and

(d) Maintain and enhance the quality of the environment (section 7(f)).

National Policy Statement for Renewable Electricity Generation (2011) (NPS-REG)

222. The NPS-REG sets out the objectives and policies to enable the sustainable management of renewable electricity generation under the RMA.

223. The NPS-REG recognises the national significance of renewable electricity generation and acknowledges the practical constraints associated with the development and operation of renewable electricity generation activities. The NPS-REG also includes policy direction to have regard to offsetting or compensation measures when considering any residual environmental effects of renewable electricity activities that cannot be avoided, remedied, or mitigated.

Southland Regional Policy Statement (2017)

224. Chapter 10 of the RPS provides a description of the Southland landscape and how management and acceptable limits might be applied to ensure associated values are not compromised. Electricity generation activities are specifically addressed, in Chapter 10 of the RPS. The RPS also includes provisions to identify, assess and protect outstanding natural features and landscapes, and identify and manage locally distinctive and valued features and landscapes, and landscapes of cultural significant to Tāngata whenua, from inappropriate subdivision, use and development.

225. Chapter 16 of the RPS, with objectives ENG.3 and ENG.4, provides further specific policy guidance for renewable energy generation, seeking to increase the development of renewable energy resources, while ensuring the adverse effects on the environment (including communities) are avoided, remedied, mitigated, and where required, any adverse effects are offset or compensated for.

Southland Regional Landscape Assessment (1997)

226. As discussed above in the context of ONFs/ONLs, the 1997 Landscape Assessment is used by the Southland District Council to identify and broadly classify landscapes within the district.

227. The 1997 Landscape Assessment identifies two ONLs in the region, Te Waipounamu World Heritage Area (Fiordland) and Rakiura Stewart Island.

228. The 1997 Landscape Assessment notes the inland Catlins, as a Characteristic Landscape, containing a number of forest reserves, and the hills themselves providing backdrop to the eastern Southland Plains. The site is outside of the Catlins landscape character area. The 1997 Landscape Assessment is reviewed in further detail above.

Southland District Plan (2018)

229. The Southland District Plan (**SDP**) is the primary planning instrument of the Southland District Council (**SDC**). The Project site is primarily located within the Southland District.

230. The SDP uses the 1997 Landscape Assessment as one of the foundation documents for identifying landscape features and overlays.

231. The proposed SWF is located in the Rural Zone (and has no overlays) in the SDP, refer Figure 5 – Appendix A – Southland District. As discussed above, there are no ONLs or ONFs within, or near, the Project site, currently identified in the SDP.

232. The provisions relevant to landscape and amenity values are included in the Rural Zone chapter of the SDP and primarily seek to manage land use and development to maintain or enhance amenity values, including rural character and landscapes. This includes promoting development that retains the productive values of the landscape and

seeks to avoid and mitigate any impacts of developments and/or associated earthworks. A policy distinction is drawn in the SDP between formally identified ONFs (and ONLs), on the one hand, and natural features and landscapes that have not been assessed by Council for landscape values.[35]

233. Further, the provisions of the Energy chapter seek to enable the development and operation of renewable electricity generation activities, including recognising the need to locate these activities where the renewable electricity resource is available, while appropriately managing any effects generated.

Gore District Plan (2006)

234. The GIP and part of the proposed transmission line infrastructure will be located in the Gore District. The selected transmission route and detail is described and assessed below. The provisions of the Gore District Plan are relevant to the assessment of the effects of the transmission line infrastructure and are detailed in Appendix C, and in the transmission infrastructure description, provisions, and effects section below.

Āpiti Hono Tātai Hono: Ngā Whenua o Ngāi Tahu ki Murihiku (2022)

235. Contact engaged TAMI, as part of the assessment process, to prepare a CIA, which includes an assessment of the cultural values associated with the landscape of the Project site and surrounding area. I acknowledge that it is for tāngata whenua to identify the values they associate with whenua in their rohe.

236. A summary of the relevant provisions of Āpiti Hono Tātai Hono: Ngā Whenua o Ngāi Tahu ki Murihiku, is provided as context in **Appendix C**. Āpiti Hono Tātai Hono: Ngā Whenua o Ngāi Tahu ki Murihiku is a cultural landscape assessment method that has been developed by Ngāi Tahu for Ngāi Tahu. It provides an outline of a method for understanding the cultural aspects of landscape assessment and would lead to more detailed assessment of cultural landscapes and the effects on them in the future. A description of how the site and the

[35] Policy NFL-P1 is to "Avoid inappropriate subdivision, land use and development within areas identified as Outstanding Natural Features and Landscapes." Policy NFL-P3 is to "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."

wider landscape of Murihiku as it relates to the concepts outlined in Āpiti Hono Tātai Hono is also set out above.

237. Cultural landscape effects are further assessed as part of the Assessment of Effects below.

ASSESSMENT OF EFFECTS – WIND TURBINES AND SITE DEVELOPMENT

Introduction

238. Given the scale and visibility of wind turbines, any new wind farm will change the landscape. This assessment of potential effects on landscape values includes consideration of matters such as appropriateness of the location, the scale relationship of the wind turbines with the landscape, aesthetic coherence, effects on rural character and amenity values, and cultural landscape effects. Cumulative effects of the SWF siting in proximity to the Kaiwera Downs Wind Farm are assessed. These matters overlap but are addressed under respective headings below.

239. Each of these elements contribute to the dominance of wind turbines within the landscape. Dominance is an objective consideration that balances the scale of the structures in relation to the landform, the number and density of structures, the distance from the viewer and the overall scale and character of the landscape context. The degree of dominance is also a factor of personal and/or aesthetic opinion; for example, people that have an appreciation of renewable electricity generation, may see some aspects of the wind farm (the visibility of turbines in the landscape) as positive or benign in nature.

240. This section addresses the effects of the main SWF site. The effects of the proposed transmission infrastructure are addressed separately later in this report.

Appropriateness of location for a wind farm

241. The dip slope which the SWF will be located on is an accommodating location and physical landform for a wind farm. It is part of a typical rural landscape comprised of farmland and forestry activities and is accessed by existing farm and forestry roads. As described above, the Catlins Conservation Park occupies land to the east, south and

west of the site. That land is a relatively small part of the Catlins Conservation Park, which is to the east and south of the site and stretches towards the Catlins coastline.

242. The cuesta landform on which the SWF is proposed has a broad surface (albeit dissected by streams), and the proposed wind turbine layout responds to the form of the broad backslope surface, avoiding steeper and recessed landforms, where possible, which contributes to aesthetic coherence. Landscape advice has been provided on the layout of the wind farm to assist in mitigating effects on the landscape, ensuring appropriate setbacks from landscape features and minimising visual amenity effects.

243. The Project site has a relatively even (albeit tilted) landform surface, which will reduce potential effects on landscape and visual amenity values associated with the earthwork activities required for the construction of the SWF.

244. The existing land use of the SWF site, pastoral farming and plantation forestry activities will continue throughout the construction and operation of the SWF.

245. The site supports areas of wetland, including fen and bog wetlands. These are identified, defined, located, and assessed in the Ecology Assessment including the flora and fauna present and are included in the maps and descriptions above.

246. The layout of the SWF requires clearance of vegetation, including indigenous vegetation and will also encroach on identified inland wetlands. However, overall, the SWF site is a highly modified environment (dominated by farm and forestry activities) and Contact will ensure any effects on these environments are appropriately addressed, as discussed in the Ecology Assessment prepared by Wildlands Consultants and by Roger MacGibbon in his reporting.

247. Mitigation planting and other fencing and pest control measures to enhance the biodiversity of the waterways and wetlands is recommended in addition to minimising impacts on these areas. That additional indigenous planting and protection is recommended in the terrestrial and wetland and freshwater ecology reports (much of the planting is classed as offsetting in ecology terms). Indigenous

planting, protection and restoration recommendations also provide appropriate mitigation for landscape effects (see the Natural Character effects section).

248. There will be some potential visual effects generated from the SWF on the scarp skyline, which has higher landscape values than the backslope. Viewed from the south and the east, the wind turbines will be prominent behind the skyline ridge and will diminish the naturalness of the skyline. However, to put this in context:

    (a) The significance of the scarp skyline is restricted to a limited locality; that is because, when viewed from a greater distance, the skyline is less prominent;

    (b) The scarp skyline is one feature within the wider context of a working rural landscape, surrounded by a mix of farmland, plantation forestry and other indigenous forested hillscapes; and

    (c) The extent of the effect will be reduced by the setback of the wind turbines from the highest parts of the ridgeline, which will result in the wind turbines being perceived as part of the backslope beyond the highest scarp (i.e. they will give the highpoints on the ridge ‘room to breathe’).

249. The effects of the turbines on the skyline are assessed in the Visual Amenity effects section below. I acknowledge that the COVID-19 Fast Track Panel (at [639]) considered there to be *"significant adverse effects on the skyline, not only observed locally but from views further afield"*.

250. The photographs and visual simulations in the Graphic Attachments from viewpoints 1 to 16 illustrate the site in its landscape context. From the majority of viewpoints (1 to 4 and 11 to 16) assessed, the following observations are made in relation to the skyline:

    (a) The landform on the skyline is bold and broad and has a mixed landcover of indigenous forest, pasture and pine plantation.

    (b) Parts of the landform on the skyline are obscured by foreground elements such as electricity lines and poles, sheds and rural structures, trees and shelterbelts.

(c) The skyline includes other foreground structures and elements including electricity lines and poles, roads, sheds, houses, fences, signs, pasture, exotic trees and shelterbelts and other features that are typically found in a rural environment.

251. The skyline of the site and the surrounding landscape is a combination of various rural land uses and land covers and structures when viewed from these locations, including the views from the broader landscape context of the Southland plains.

252. When viewed from viewpoints 5 to 10, the site itself is not generally visible and the skyline is formed by the ridgeline of the Mokoreta-Pukemimihau scarp. These viewpoints are to the south and east of the site around Redan, Mokoreta and in the Mokoreta Valley. See Figure 8 Viewpoint Location Map in the **Graphic Attachments**. These locations are sparsely populated with limited use roads, including a short section of Wyndham-Mokoreta Road, Wyndham Station Road and Slopedown Road.

253. With respect to the COVID-19 Fast Track Panel's observations above in relation to the adverse effects on the skyline, for the most part (viewpoints 1-4 and 11-16), visibility of the skyline of the site and its surrounding landscape context already includes a mosaic of rural landcovers and structures. The skyline is not particularly natural when viewed from those locations.

254. From limited areas to the south and the east the skyline is natural with a contiguous cover of indigenous vegetation on the skyline within the Mokoreta-Pukemimihau scarp (DoC land). Each of these locations (viewpoints 5 to 10) is within a rural environment and includes a foreground of working rural landscape, including pasture, exotic trees and shelterbelts, fences, roads, sheds, houses and structures. While the skyline of the scarp may be relatively natural, the landscape and the view itself is not.

255. Further detail assessing the effect on each of the viewpoints is contained in the Visual Amenity Effects section.

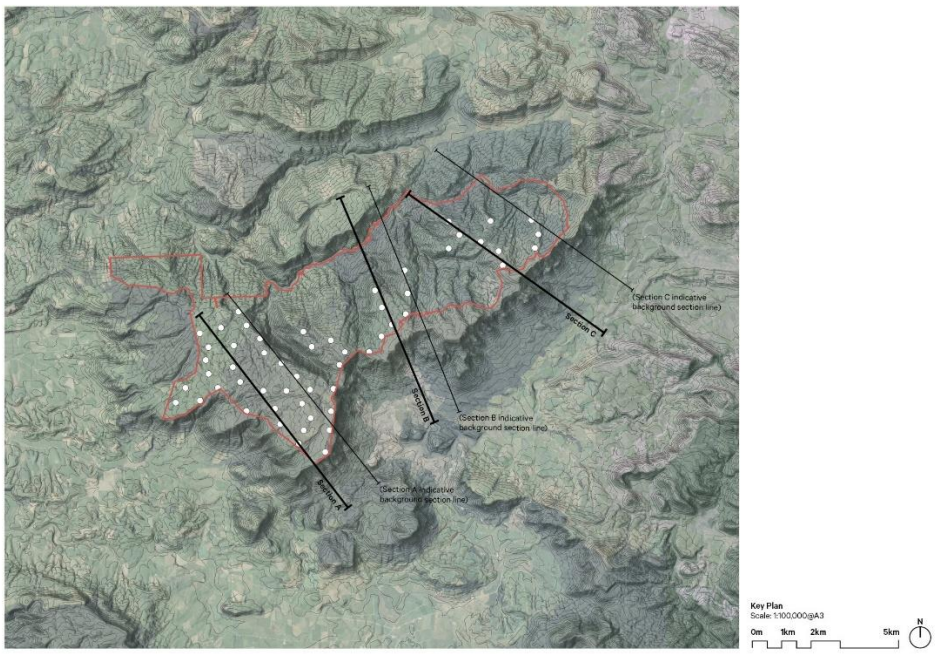
Scale relationship with landscape

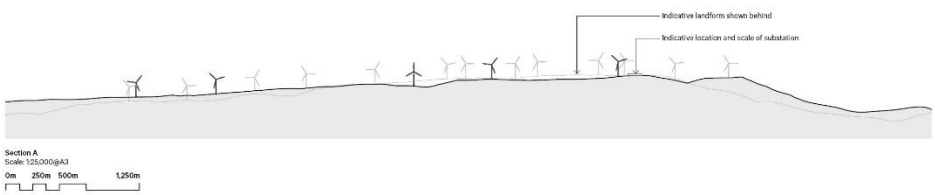
256. Wind turbines are of a different order of scale compared to other vertical elements that are present in the rural landscape, such as

dwellings, electricity pylons and poles, trees, and vegetation. The size of the turbines is difficult to gauge without a reference of scale. The scale relationship of wind turbines with the whole landscape entails both vertical and horizontal landscape dimensions. These factors determine the scale relationship between the proposed turbines and the surrounding landscape and are considered below.

257. The cuesta landform and steep, bush-clad scarp to the south-east of the Project site is a sizable and bold landform; both vertically, with named ridgeline features comprising of the highest peak, Mokoreta (713m), and distinctive knolls further east, Puke Mimihau (664) and The Cairn (658m); and horizontally, with a clear length of ridgeline present. The broad scale of the cuesta landform backslope measures approximately 9km (southwest to northeast) by 4km (northwest to southeast) and rises some 400 to 500m above the surrounding valley floors and the base of the scarp.

258. Scaled cross sections have been prepared to illustrate the horizontal and vertical scale of the landform as a plinth for the turbines.





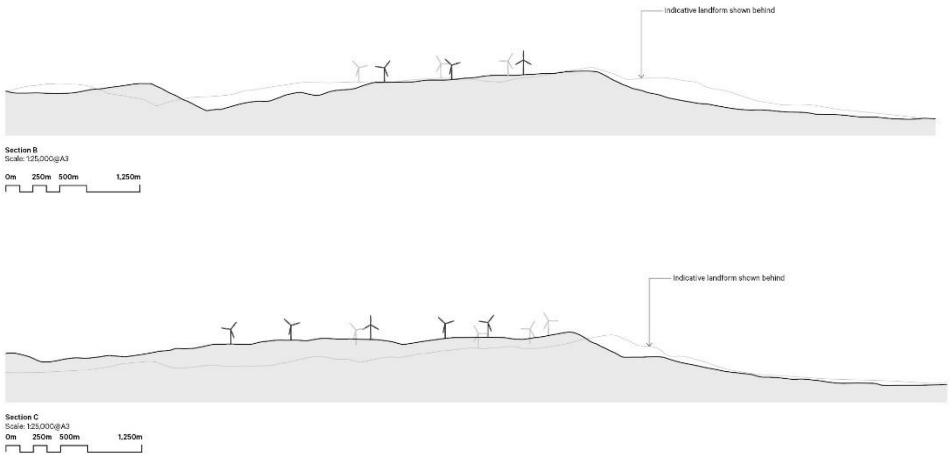


Figure 7: Cross sections of the landform and the turbine scale and locations.

259. In the context of the broad scale of the landscape illustrated above, both horizontally and vertically, the wind turbines will be sited within the cuesta landform dip slope with a sense of scale relativity. The proposed layout of the SWF assists in the way that the turbines relate to the surrounding landform, including by providing distance to most prominent and distinctive forms, such as the highest ridgelines and features. This includes:

(a) The nearest turbine to Mokoreta Peak is set back 2km, and at an elevation 100m lower than the peak of Mokoreta;

(b) The wind turbines are set back from the section of skyline between Mokoreta Peak and the other named peaks (Puke Mimihau and The Cairn); and

(c) The nearest the wind turbines will be to the ridgeline is at the southern end of the Project site where there is a plateau. This plateau is 100m lower in elevation than the highest section of the scarp further east. Views to this part of the plateau for the south and the southeast are filtered by the outlier hills to the south (Egremont and Mt Herbert). In this area, the wind turbines are set back from the bush skyline.

260. In its decision, the previous Panel considered that the Project would not avoid the named peaks and high points on the scarp; in my view, that is incorrect for the above reasons.

261. Further, the broad backslope of the cuesta landform provides a sizable and relatively uniform platform for the placement of the SWF. The mixed landcover of the backslope, including pasture on the spurs, fingers of bush mainly in the gullies, pine plantation forests, areas of regenerating scrubland, and areas of rough grassland, is patterned in a manner that would enable the turbines to be coherently located within this landscape, that is, the design follows the pattern of the broad spurs of the backslope.

262. The previous Panel appeared to rely on one ecologist, Mr Harding, to support a finding that the ecological values on the 'Jedburgh Plateau' part of the backslope are essentially irreplaceable, which flowed through into its conclusions on landscape matters. That finding has been refuted (in some detail) in the Wildlands and MacGibbon Assessments.

263. Overall, the cuesta on which the SWF is proposed is a large-scale landform which can accommodate the scale of the proposed SWF; that is, the large-scale landform provides a suitable platform for the grouping of large-scale turbines of the SWF.

264. The scale and relationship of the proposed SWF with the Kaiwera Downs Wind Farm is addressed in the cumulative effects section below.

Cumulative effects

265. I have considered the cumulative effects of the proposed SWF and the Kaiwera Downs Wind Farm, including both Stages 1 and 2 (refer to **Appendix A** – **Viewpoint Location Map**).

266. The SWF and the consented Kaiwera Downs Wind Farm are separated by approximately 4km. Both wind farms are on similar landform types – i.e. the Kaiwera Downs Wind Farm is also located on the backslope of a cuesta landform, the scarp of which rises above the Mimihau Stream North Branch.

267. The Kaiwera Downs Wind Farm is being developed in two stages. Stage 1 is operational and consists of 10 turbines, 145m in height. Stage 2 of Kaiwera Downs is consented and will be comprised of up to an additional 56 wind turbines, of 165m in height (although current

development plans indicate 36 additional turbines are being constructed).

268. The Kaiwera Downs Wind Farm was initially consented for a greater number of 145m high wind turbines (total of 83 turbines); and while 10 turbines in Stage 1 were built to this height, a variation of consent was sought by Mercury to provide for a smaller number of larger wind turbines (Stage 2).

269. To assess the potential cumulative landscape and visual amenity effects of the consented Kaiwera Downs Wind Farm and the proposed Southland Wind Farm, **Viewpoints 1 – 16** within **Appendix A** - Photo Simulations, include images of the consented Kaiwera Downs wind turbines. The potential cumulative effects from each viewpoint are described below.

270. The two wind farms will follow a consistent pattern on similar landform types, which will contribute to overall aesthetic coherence. The narrow intervening cuesta (along the Mimihau Stream South Branch) provides distance between the two projects, avoiding perceptions of wind turbines spreading across every hilltop from some viewpoints.

271. Despite the 4km separation, there will be views in which the Kaiwera Downs Wind Farm and the Southland Wind Farm will be seen in sequence across the top of the landscape.

272. The difference in the size of the wind turbines has been assessed in terms of its potential to contribute to visual clutter, however, these differences are unlikely to be discernible because the topography will obscure the base of the turbine towers beyond the crests of the hills and the two site are sufficiently separated. Further, the rotor diameter is not significantly different between the two wind farms.

273. The larger wind turbines ensure increased spacing between the turbines which in turn reduces the sense of visual clutter associated with the SWF.

274. Any cumulative views of both wind farms are from a distance that are beyond an immediate direct visual impact. In some locations, the broader views of both wind farms include various industrial processing plants, including Fonterra Edendale, Alliance Mataura, or the Daiken MDF plant, in the foreground. See the Visual Simulations from **View**

Point 1. These rural service developments sit within the broader working rural landscape.

275. There will be no significant adverse cumulative effects associated with the proposed SWF on landscape and visual amenity values.

276. That said, as noted above, the variance between the Kaiwera Downs Stage 1 and Stage 2 turbines and the SWF turbines has the potential to create visual clutter. The consistent pattern on similar landforms and spread of turbines across the landscape helps to counter this variance, creating a greater level of coherence between the two projects.

277. While any wind farm is going to have an aesthetic impact on the landscape, simply due to size and scale, the broad backslope of the SWF site assists in maintaining a similar pattern with respect to the landscape, as discussed above. The distance provided to the key landscape features contributes to the aesthetic coherence.

Nighttime visibility

278. The Civil Aviation Authority of New Zealand (**CAA**) has specific policies and procedures relating to the lighting and marking of wind turbines, with the purpose of ensuring consistent conditions and limitations are imposed.[36]

279. CAA determines that any structure that is 120m or higher is considered a hazard in navigable airspace and imposes conditions or limitations for the marking and lighting of these structures. The specific conditions and limitations from CAA are outlined in the planning context discussed in **Appendix C**.

280. As per the CAA rules and regulations, the SWF requires red flashing obstruction lights[37] (with a flashing frequency of between 20 and 60 times per minute) located on the top of the nacelle. The objective of the obstacle lighting is to ensure pilots will see them with sufficient time to avoid the object/s. CAA indicates that the minimum visible distance of the lights shall be 3NM (5.56km). The highest turbine,

[36] Civil Aviation Authority of New Zealand - Level 4 – Group Management Policies and Procedures – Lighting and Marking of Wind Turbines – 2 March 2020) - https://www.aviation.govt.nz/assets/airspace-and-aerodromes/airspace/wind-farm-turbines.pdf

[37] Lighting will be medium intensity, as defined by CAA Rule Part 77, Appendix B10, i.e. an effective intensity of not less than 1600 candela of red light.

those at the extremities and those around the perimeter of the site shall be lit according to CAA regulations. The spacing between lit turbines along the perimeter shall not exceed 900m. CAA notes that the flashing of lights shall be coordinated so that all lights flash simultaneously.

281. The recommendations from the CAA have resulted in the specific design of the night lighting for the SWF of sixteen turbines requiring aviation safety lighting. The sixteen new lights will be viewed from a distance as additions to the existing (and consented) aviation safety lighting of the Kaiwera Downs wind farm.

282. The obstacle lights on the nacelle will be visible in all directions but may be shielded below the horizontal plane. This mitigation measure would reduce impact on dwellings and viewpoints, depending on the viewpoint's location in relation to the horizontal plane.

283. An Assessment of Environmental Effects for Proposed Lighting of the Southland Wind Farm report has been prepared by Leading Design Professionals (**LDP**). The LDP identifies the residences where aviation warning lighting will be visible from. The LDP assessment considers effects in relation to sky glow, light spill, glare, amenity, health and distraction and also considers the potential effects on bats, birds and insects. The lighting effects of the aviation warning lights are concluded to be **low to moderate** and **no more than minor**.

284. I concur with this assessment. In particular:

(a) While I have not modelled visibility to identify specific locations from which the obstacle lights will be visible at night, it is clear that the obstacle lighting will be visible from surrounding areas – particularly elevated locations close to the horizontal plane (beneath which the lights will be shielded) – as identified by LDP.

(b) In my opinion it is fair to assume that the effect of the lighting will be adverse, in that flashing red lights tend to detract from views. That said, the level of adverse effect will be dependent on the viewpoint and if there are surrounding or intervening light sources such as townships, factories, industrial developments, etc. When the SWF obstacle lighting is viewed within a dark sky

setting, the adverse effects will be higher given the contrast between the dark sky and the flashing lights. The viewpoints where there is a lack of intervening lighting from other sources will result in higher levels of nighttime adverse visual effects due to increased sensitivity to the flashing function of the obstacle lighting.

Turbine colour

285. The wind turbines are proposed to be a light grey neutral colour. This neutrality of colour helps the turbines to blend more readily into the background, when set against sky and landforms. The matt paint on the blades assists in mitigation of the effects of reflectivity and glare, although certain lighting conditions may accentuate the light colour. Under low light conditions the light grey turbines will have minimal contrast with the predominant viewing conditions with a backdrop of clouds.

286. It is recommended that alternative colours are not considered, particularly in relation to the cumulative views of the Kaiwera Downs wind farm and SWF.

Construction-related effects and other civil works

287. Construction of the SWF includes the addition and or upgrade of the gravel road network to carry materials to and within the SWF site. That road network will be used for ongoing management and maintenance. Where possible existing farm and forestry roads will be used. These types of roads are commonplace within the working landscape. Cut and fill required from the roading network will be kept to a minimum, due to the relatively gentle slope of most of the site. Existing wetlands and waterways will be avoided where practicable, with crossings limited and planting used as a mitigation measure to assist in stormwater treatment, both during construction and in operation.

288. Aside from the roads, the construction works associated with erecting turbines are limited to the immediate area around each actual turbine site and the areas required for the foundations of the turbines. The excavated material from the foundations will be reused as part of the hardstand or used on site for roading. Excess material not suitable

for use in the hardstands or roading will be deposited at identified fill disposal areas as appropriate.

289. Visual amenity will be affected during the construction of the Project, including the coming and going of construction vehicles and materials, the presence of a concrete batching plant(s), cranes and other specialised construction structures and vehicles on site. The isolated nature of the backslope and the distance from the closest residences and public viewpoints will minimise the visual effects during the construction phase of the project.

290. During construction there may be times where night lighting may be required to extend the safe daily working hours on site. Two specific construction activities may require an extension of the working hours beyond the normal day light hours. When turbine foundation pads are being laid, the concrete batching plant may need to operate outside of the daylight hours – before sunrise on the morning and beyond the hours of darkness.

291. These lights would be focused on the concrete batching plant and would generally be oriented towards the plant and the ground surface to provide safe working conditions. As well as normal headlights and safety lights, etc, concrete trucks would also have rear facing lights to allow for safe backing of the trucks and placement of concrete. Small trailer mounted lights may also be required around the turbine foundation areas.

292. During turbine installation there may be times when construction may need to be undertaken during the hours of darkness. Lighting may be required at the base of the turbine, at the area where the construction activity is taking place (part way up a mast or where the blade is being installed). In all cases the lighting for construction activities will be focused on the area of work and will be sufficient light for safe construction and movement. Outward facing lights will not be required however the focused lighting will be visible from outside of the SWF site.

293. Construction lighting will be used only when necessary and during times where the normal daylight hours are insufficient to allow construction activities to be undertaken in a safe manner. Lighting is less likely to be required during the longer days of summer.

Construction lighting will be relatively temporary and will be focused on the areas of active construction.

Meteorological masts

294. The masts will be galvanised steel and hazard lighting on top of the mast may be required as per CAA requirements, similar to the lighting on the wind turbine nacelles. Meteorological mast lighting can be shielded from view below the vertical.

295. The masts will either be free standing with a broader base, with each leg affixed to a concrete base, or guyed, with steel ropes affixed at regular points up the tower and tethered to concrete pads around the mast.

296. The masts will have fencing surround them, to exclude stock. An anti-climb device or fence will also be fitted at the base of each mast.

297. The masts are narrower in form than the wind turbines and the lattice construction, which ensures that they are visually permeable. They are indicatively located in relatively prominent locations on the westerly extremities of the site. However, given their lattice form and lack of movement, in comparison to the wind turbines, the effect of the meteorological masts will be **Adverse** *Very Low.*

Rural character and amenity

298. The SWF site is part of a typical rural landscape, albeit close to more natural areas administered by DoC, as described in the existing environment section above.

299. The proposed layout of the SWF responds to the landscape patterns, following the natural lineal patterns on the cuesta backslope which contributes to aesthetic coherence. The wind turbines will be consistent within the broad backslope and finger spurs and will be appropriately setback from the highest and dominant landscape features, reducing potential modification to landforms.

300. The civil engineering works have been designed taking into consideration the existing landscape and the physical attributes of site that contribute to rural character. This includes utilising existing tracks within the Project site for much of the access roading and siting the

turbines on the broad spurs and plateau of the backslope, generally within areas of existing pasture or exotic forestry. To the greatest extent practicable, the location of the turbines and associated infrastructure have avoided streams, wetlands, and indigenous vegetation remnants with high ecological value. The topography of the Project site also limits broader views of civil works on the ground plane. Likewise, the topography of the Project site limits external visual effects arising from civil works during the construction phase.

301. Section 3.1 of the Southland District Plan outlines the provisions relating to the Rural Zone and notes that:

> *"…the Rural Zone predominantly supports farming related activities but also provides for a range of land uses, such as infrastructure and renewable electricity generation activities. The character of the rural area is one where there is a mix of activities that require a rural location."*

302. The SWF activity is consistent with section 3.1 of the Southland District Plan as wind farms allow for the continuation of farming and forestry on the land within and surrounding the Project site. The broader agricultural patterns of land use are largely unaffected by the Project. The full landscape related provisions relevant to the Project are contained in **Appendix C** and a full statutory assessment is contained in the AEE.

303. The broader expanses of the Catlins Conservation areas contrast with the working rural landscapes of the Southland Plains and the character areas described above. The remoteness and wilderness qualities of the Catlins Conservation and Forest Parks provide opportunities for people to visit natural areas away from urban areas and working rural landscapes. The majority of the Catlins Conservation area stretches away from the site to the east and south of the site providing separation from the wind farm. The areas of the Catlins Conservation Park closer to the wind farm, including the Mokoreta-Pukemimihau Escarpment and Mount Herbert do not have track or hut facilities to support hunting or tramping. The closest prominent landforms in the Conservation Park do not have any track or access facilities.

304. Views of the site and the SWF would undoubtedly affect the remoteness / wilderness values of the closest parts of the

Conservation Park within the context of the transition to the working rural landscape values of the upper Mokoreta River Valley landscape character area.

305. The working rural environment of the Jedburgh Station, Glencoe Station and Matariki Forest block that comprise the SWF site are subject to activities of a productive nature. The previous Panel gave weight to comments of some local residents noting the value they place in the quietness and tranquillity of this rural location. However, activities such as stock mustering and transport, fencing, pest control, forest maintenance, harvesting and re-establishment and earthworks are common in a rural environment, including this area. Such activities include the use of chainsaws, motorcycles, firearms, forest harvesting equipment, logging and stock transport trucks, excavators, bulldozers, helicopters and top-dressing planes. The sounds of productivity are common on pastoral stations and plantation forest blocks. The types of sounds, sight and activities are particular to working rural environments. Rural environments are not necessarily always particularly quiet.

306. Quiet and tranquillity are often more commonly associated with conservation and back blocks, however even these environments can be subject to sounds such as firearms and passing aircraft disturbing the quiet.

307. The SWF is within and is largely surrounded by working rural environments, however there are more distant conservation lands, particularly in the Catlins Forest Park, where rural quiet and tranquillity is likely to be more common. The construction and operation of the SWF will lead to sights and sounds in the rural environment that are anticipated. The quiet and tranquillity of the majority of the expansive Catlins Forest Park – which was an issue emphasised by Ms Steven in the previous consenting process – will not be affected by the SWF due to the separation of the SWF from the Catlins hill country.

308. Overall, in my view the SWF is consistent with what can be expected to be found in a productive rural landscape. The proposed location of the turbines, on finger ridges and spurs and the open backslope, is compatible with the landscape and will largely avoid key landscape

features including gullies and waterways. Further, the proposed turbines will be appropriately set back and provide 'breathing room' to key topographical features such as the highest points on the scarp. Therefore, any dominance effects will be avoided or mitigated to the greatest extent possible.

309. Overall, the effects of the SWF on the landscape character are **adverse *moderate-low***.

Cultural landscape effects

310. TTatM is clear on the roles of assessors in interpreting cultural and in particular tāngata whenua inputs to landscape assessment:

> *"A landscape architect would not normally speak for tāngata whenua unless delegated to do so. For example, they may have whakapapa and been granted the authority by tāngata whenua with respect to that whenua. However, while it is the prerogative of tāngata whenua to interpret their relationship to landscape, landscape assessors should acknowledge tāngata whenua perspectives and endeavour to integrate such information into a landscape assessment."*[38]

311. Through the process of preparing this assessment, I met with TAMI through face-to-face meetings in Invercargill, meetings and visits to marae and regular Project team meetings. Information was gathered and interpreted during those meetings. This included reading and understanding the Ngāi Tahu and Murihiku Rūnaka approach to understanding landscape through Āpiti Hono Tātai Hono as reviewed above and in **Appendix C**. Information was also provided to TAMI for the CIA including visiting and preparing visual simulations of views of the SWF from local marae specifically for consideration and use for the CIA.

312. As Ngāi Tahu and Murihiku Rūnaka have been closely engaged with the application and speak for themselves, I limit my commentary on the CIA to the brief observations set out below.

313. The CIA prepared by TAMI on behalf of Murihiku Rūnaka identifies cultural landscape effects associated with the SWF as a key issue for Ngāi Tahu and Murihiku Rūnaka:

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[38] TTatM 5.41. Page 119.

"Ngāi Tahu has a long association with the Murihiku Region including the Pawakataka / Slopedown hill, Mataura, Mokoreta and the Mimihau. Ngāi Tahu led a seasonal lifestyle, following resources throughout the region. Generally, the use of the areas was extensive rather than intensive; however, this area is thick with Iwi stories, traditions, and cultural practices.

These areas form part of a significant cultural landscape both historically and contemporarily for Ngāi Tahu Whānui. Intimacy with, and knowledge of the terrain and water, was built up over generations and passed from one generation to the next."[39]

314. The description and identification of Pawakataka[40] / Slopedown hill in this way is understandable given the connectedness of the whenua and te taiao to Ngāi Tahu ki Murihiku. Individual landscape features are recognised through their relationship and connection to other features in the area. The CIA also records:

"Ngāi Tahu used visual markers in the landscape to identify their trails. Peaks and hills were given names that remembered ancestors and events, which helped preserve stories and traditions down the generations.

*The area subject to the proposal is described by Ngāi Tahu as an **Ihu Whenua**, a prominent and revered part of the landscape where the interconnections between land, water, flora, fauna, atua and people are accentuated.*

Pawakataka is a landmark that looks across Te Awa a Kiwa, Te Rā a Takitimu (Southern Plains) to the inland mountains and headwaters. It has strong amenity and visual values to iwi and would be used as a pointer to the East, guiding access to the inland route up the Mokoreta Valley and onwards to Te Ākau Tai Tonga (the Southern Coast). Ngāi Tahu continues its long-held association with the Pawakataka (Slopedown Hill), Mataura, Mokoreta and the Mimihau. The land is thick with Iwi stories, traditions and cultural practices. Historically, Ngāi Tahu ki Murihiku lead a semi-nomadic lifestyle with an extensive and sustainable approach to settlement and resource use. They hold intergenerational knowledge and connection with the area.

Pawakataka was part of travel routes that crisscrossed between the inland and coastal nohoanga, kaika and mahinga kai. There are recorded archaeological sites nearby as well as oral maps and histories that reference the site. Contemporary whanau use of the area is still one of connection to the whenua and reliance

39 Page 4 of the CIA.

40 It is understood that Pawakataka refers to the 634m asl highpoint that is located on the Jedburgh plateau at the western end of the cuesta landform.

on her resources to sustain a way of life.

These associations are documented in the landscape as wāhi Ingoa, place names, sites, whakapapa and uses of the area."[41]

315. Though reference has not been found to Pawakataka in sources such as the Ngāi Tahu Cultural Atlas and the Hokonui place names web site, the CIA identified that Ngāi Tahu ki Murihiku have a strong cultural connection to Pawakataka, including its use as a landscape marker that aligns with other significant landmarks. The significance and reference to Pawakataka as a cultural landscape feature in the CIA are acknowledged. The Project provides an opportunity for Ngāi Tahu to regain access to the area and to provide guidance and assist with the ecological and landscape restoration of the site and its broader landscape context.[42]

316. A wind farm, by its nature, will introduce tall and prominent structures into the landscape. The well-spaced turbines and other features of the SWF will not mask or screen the landscape but will spread point features across its surface. The outline of the distinct Pawakataka landform will still be visible from the surrounding landscape, albeit with wind farm structures in place.

317. In relation to cultural landscape effects the CIA concludes:

*"The construction of the wind farm will have **significant effects on the cultural landscape** of Pawakataka and impacts the associated connections and relationship that Ngāi Tahu whānui have with the maunga and its surrounding area."*

318. The construction of the SWF project and use of the Pawakataka landform and area for cultural landscape practices by Ngāi Tahu ki Murihiku do not appear to be mutually exclusive. The various consent conditions and other opportunities through which Contact is seeking Ngāi Tahu involvement and guidance provide opportunities for Ngāi Tahu to reconnect with Slopedown / Mokoreta-Pukemimihau and could lead to improved associations with and access to the site. Without these opportunities various privately-owned parts of the site such as Jedburgh Station (noting that iwi have existing legal access

41 Page 15 of the CIA.
42 See Mana Whenua conditions TW1-TW11 in the proposed conditions.

over the Matariki Forests land) remain inaccessible, except by arrangement with the existing landowners.

319. The CIA reaches further conclusions around potential cultural impacts which have since been the subject of further kōrero about mitigations between Contact and mana whenua. I understand that Ngāi Tahu ki Murihiku and Contact have agreed to mana whenua specific consent conditions and have reached an agreement in relation to matters that cannot be mitigated by way of consent conditions such that, should the consent be granted, Ngāi Tahu ki Murihiku and Te Rūnaka o Ngāi Tahu consider that the cultural and te taiao effects relevant to them have been appropriately avoided, remedied, mitigated, offset and compensated.

320. I do not question this conclusion expressed by mana whenua, and on this basis I conclude that the Project's effects on the cultural landscape are acceptable, notwithstanding some initial reservations or concerns expressed in the CIA.

Potential effects on Slopedown / Mokoreta – Pukemimihau ONF candidate

321. As acknowledged and described above, the SMRLA report has identified the Slopedown / Mokoreta-Pukemimihau landform as a potential ONF candidate. I disagree with that categorisation, for the reasons explained above (which include that the candidate area is not a cohesive 'feature', and that the SMRLA overstates relevant values). Below I nonetheless discuss the potential effects on the ONF candidate area identified in the SMRLA, as if the SMRLA evaluation were correct.

322. As recorded in **Appendix E**, the SMRLA identified an area that covers part of the SWF site and adjacent areas, including the escarpment, the ridgeline, the upper reaches of the dip slope on Jedburgh station, including areas of indigenous bush and parts of the upper dip slope wetlands. The separate and disconnected landform of Mount Herbert is also part of the ONF candidate. The area is identified as Slopedown / Mokoreta–Pukemimihau ONF candidate. Further to the south is the Inland Catlins ONL candidate.

323. The SMRLA assesses the Slopedown / Mokoreta–Pukemimihau candidate as having **high** biophysical landscape values, **very high sensory values** and **moderate-high associative** values.

324. The SMRLA description of the **biophysical values** includes reference to the site being part of the geologically significant Southland Syncline, one of the last undisturbed areas of transitional vegetation between the regions predominant rimu-kamahi forest and the former mixed podocarp forest of the Southland plains, mountain cedar on the southern slopes (scarp), red tussock and peatlands on the plateau and altitudinal sequences of regenerating kamahi podocarp and mixed broadleaved forests on relatively flat to steep hill sides. The description acknowledges the two quite distinct sub-units (later referred to as the scarp and the plateau) – see **Appendix E**.

325. The **sensory values** recorded in the SMRLA include the distinctive plateau and sloping strike ridge, the dominant cover and sequence of indigenous forest which culminates upon the plateau, expressing naturalness, the combination of flattened ridgetop and distinctive sloping forested scarp forming a memorable feature and skyline viewed from the Southland Plains and a highly coherent sequence of native vegetation and sub-alpine tussock.

326. The **associative values** recorded in the SMRLA include the importance to Ngāi Tahu ki Murihiku (see cultural landscape effects above) and wider archaeological sites and connections, use as an outdoor education area and recognition as *“an important area”* for backcountry hunting and tramping opportunities. As discussed elsewhere in this report:

    (a) I acknowledge the importance of the area to mana whenua, and again note that the Project's effects on cultural values have been addressed; and

    (b) I have found no evidence that the Project site and adjoining DoC-administered land is in fact *"an important area"* for hunting and tramping. In fact the lack of access tracks and huts on adjoining DoC administered land would suggest that it has limited recreational value in comparison with the wider Catlins Conservation area.

327. As described above, the SMRLA study identifies two distinct sub-units within the ONF candidate – the scarp and the plateau. The scarp is largely in public ownership and is managed by DoC as part of the Catlins Conservation Park, whereas the plateau part of the ONF candidate is largely within the privately owned Jedburgh station and is part of a working rural station. The Glencoe Station and Matariki Forests parts of the SWF site are almost entirely outside of the ONF candidate boundary.

328. For the most part the descriptions of values in the SMRLA assessment sheet relate largely to the scarp sub-unit of the ONF candidate. References to the indigenous forest cover, vegetation sequences, the more expressive parts of the syncline and recreational values all relate to the scarp and its edges.

329. Specific references to red tussock and peatlands, and sub-alpine tussock describe the wetland areas on the plateau area. The SMRLA assessment sheet describes the red tussock and peatlands as being *"intact"*; again, that description from a desktop analysis is quite different from the on-the-ground observations by Wildlands and Mr MacGibbon, who describe areas significantly impacted by browsing pest animals (a point to which I return below).

330. Broader values, such as the associative values that relate to Ngāi Tahu, belong to the whole landform (both sub-units) and in particular the more elevated parts that are visible from around the Southland region.

331. The focus of the landscape values descriptions in the SMRLA on values that are associated with the scarp sub-unit suggest that its authors may agree with my view that the scarp has the highest and most recognisable landscape values of the two sub-units making up the whole of the cuesta landform. In terms of the quality vegetation and habitat and more distinctive expression of geological values, the scarp is subject to more detailed and specific values identification in the SMRLA.

332. The area mapped on the plateau is a broad area that includes a large part of the upper dip slope. The main landscape values identified on the plateau area relate to red tussock and peatland and sub-alpine tussock (as described in the SMRLA).

333. The more detailed vegetation and habitat description and mapping from the Wildland Consultants ecological assessment recorded above at **Figure 4** and then in the proceeding table, identifies large areas of gorse scrub, exotic unmanaged grassland and exotic grazed grassland, not acknowledged in the SMRLA. The more detailed mapping shows areas of fen and bog wetland and areas of likely fen and bog wetland. These wetland areas are the areas that are intended to be captured in the SMRLA with the red tussock, peatland and sub-alpine tussock habitat. **Figure 5** shows that the fen and bog wetlands (highest ecological values) occupy long narrow fingers on the plateau and are not across the entire plateau. As far as is possible, the fen and bog wetland (and likely wetland) areas have been avoided through the placement and design of the wind turbines and road system associated with the SWF.

334. The **sensory** landscape values associated with the Slopedown / Mokoreta-Pukemimihau landscape include the visible expression of the plateau, the flattened ridgetop and the broader sequence of vegetation patterns.

335. The earthworks required for the development of the SWF are largely changes to the surface of landform and once complete will not be visible from a long distance. The tall narrow turbines and transmission pylons will be visible from a distance as point features ‘on’ the landscape but will not cover or change the broad profile of the ridgeline. The broadly spaced tall narrow masts and turbines will not mask the distinctive profile of the ridge line, especially when viewed from distance.

336. Based on the descriptions of landscape values in **Appendix E** and the description above, in my view the scarp has the higher landscape values of the two sub-units.

337. The wind turbines, roading system, transmission lines and other features of the SWF project are all outside of the scarp. Furthermore, in some places, turbines and roads are a significant distance from the scarp. For instance, the closest turbines to the high point of the ridgeline of Mokoreta are almost 2km away and have been kept back from the ridge to provide sufficient breathing space to the highest parts of the ridgeline.

338. As discussed above, in my view the less obvious and lower landscape values of the plateau sub-unit are such that it should not be part of the ONF candidate.

339. That said, if the entire Slopedown / Mokoreta-Pukemimihau ONF candidate ***were*** to be confirmed via a formal plan change process to the SDP, then I consider the SWF still to be an appropriate Project in this landscape for the following reasons:

(a) The highest and most obvious landscape values of the Slopedown / Mokoreta-Pukemimihau ONF candidate are largely avoided by the location of the SWF away from the scarp.

(b) The higher vegetation and habitat values of the bog and fen wetlands on the plateau are largely avoided through the placement of the turbines, road system and other features of the SWF away from the mapped wetlands. Some wetland habitat loss is unavoidable and is mitigated and offset accordingly.

(c) A limited part of the plateau will be disturbed by the physical works required to construct the wind farm. Much broader areas, including wetland areas on the plateau and off-site wetland areas will benefit from the ecological and landscape offset package.

(d) The ecological and landscape offset package is detailed and specific to the restoration of values within and surrounding the site, including an option of deer fencing of 245ha indigenous vegetation block, pest eradication and establishing legal protection, enrichment planting of 20 plants per ha, pest animal control to enhance indigenous vegetation, restored wetland close to Kaiwera Downs Road and predator control and habitat enrichment for lizards and invertebrates.

(e) The underlying land uses, including pastoral farming on the plateau, can continue, with focused habitat improvement measures, ensuring that the land surface remains legible and expressive of the geological and ecological values of the site, leading to an overall improvement of biophysical values.

(f) Any existing recreational values within the site or the surrounding landscape will not be compromised.

(g) The Project is largely reversible, with the main structures and features of the SWF removable should technology or other improvements render the Project redundant. There is a requirement in the proposed conditions for decommissioning to occur at the end of its life.

(h) The nature of the wind farm development will not obscure the distinctive profile of the cuesta ridgeline landform. Indeedthe SWF will make the Project site more visible and distinctive in the local context setting.

(i) Kaitiakitanga in respect of the Project site can be enhanced for Ngāi Tahu ki Murihiku through the proposed tangata whenua conditions and agreements associated with the granting of consent for the Project.

(j) The provision of a community fund in the conditions of consent can potentially be used to enable the realisation of projects which enhance the access and use of the wider landscape (particularly and potentially the Catlins Conservation Park) and parts of the site itself.

Visual amenity

340. I undertook a site visit on 4 May 2023, with viewpoint photographs taken from within the immediate setting of the Project site. Additional photographs were also captured during other site visits. These are included as photographs from Viewpoints 1 – 16 within **Appendix A - Photo Simulations** and provide visual illustrations of the setting and context of the Project site. Identified residences are mapped in **Figure 7** in the **Graphic Attachments**.

341. The viewpoint locations were selected as being representative of a range of publicly accessible viewing distances and locations. All viewpoints are publicly accessible and are from roads, intersections, reserves or other such public locations where views represent local viewing audiences, for example passing traffic or a grouping of houses. Not all houses and residences in the area can be visited. Therefore the use of publicly access viewpoints is the normal starting point for visual assessment. Viewpoint locations also represent views from the four quarters of the compass (a range of viewing angles – where the

proposal could be visible) and a range of viewing distances, in this case from approximately 2.8km (viewpoint 5) out to approximately 21km (viewpoint 1).

342. Other viewing locations were also visited and tested and photographs were taken, for example from the Motupōhue Bluff Hill lookout, some 60km away from the closest turbine and from local marae to inform the CIA. The viewpoints were selected and agreed with TAMI as being representative of the main viewing locations of the site and the proposal in the area.

343. Ultimately there are an infinite number of potential viewing locations, both public and private, and more photographs and visual simulations could always be provided. The 16 photographs and 13 visual simulations cover the range of viewing angles and distances and are consistent in number with other wind farms' visual assessments, in respect of projects in which Isthmus has been involved.

344. Views from private residences are addressed later in this section and are assessed in detailed in the Dwelling Inventory table in **Appendix D**. **Appendix D** forms part of the visual effects assessment.

345. Potential public viewing audiences are identified using viewpoints 1 – 16 from the roading network within the immediate and wider setting of the Project site, including:

(a) Views from Edendale-Woodlands Highway (SH1), near the intersection with Scenic Reserve Road;

(b) Views from Cardigan Road, Wyndham;

(c) Views from Wyndham Valley Road, near intersection with Wyndham-Letterbox Road;

(d) Views from Wyndham-Mokoreta Road, near Rapid No. 642;

(e) Views from Wyndham-Mokoreta Road, near Rapid No. 1232;

(f) Views from Mokoreta-Tahakopa Road, near Rapid No. 51;

(g) Views from corner of Wyndham Station Road and Foster Road;

(h) Views from top of Morven Road;

(i) Views from Wyndham Station Road close to the intersection with Morven Road;

(j) Views from Slopedown Road, near Rapid No. 1382;

(k) Views from corner of Waiarikiki-Mimihau Road and Venlaw Road;

(l) Views from Waiarikiki-Mimihau Road, near Rapid No. 413;

(m) Views from Woods Road, near intersection with Oware Road;

(n) Views from corner of Forbes Road and Edendale-Woodlands Highway (SH1);

(o) Views from Crest of Scott Road; and

(p) Views from 1086 Crawford Road.

346. The visual effects on each of these viewpoints are addressed in turn below.

Views from Edendale-Woodlands Highway (SH1), near intersection with Scenic Reserve Road (Viewpoint 1)

347. Viewpoint 1 (refer to **Appendix A - Photo Simulations**) is looking east toward the SWF site from State Highway 1 (Edendale-Woodlands Highway). The viewpoint is at the top of the Edendale Hill near Scenic Reserve Road and adjacent to the Edendale Cemetery and represents the first clear full view, in relative proximity, of the proposed SWF when travelling north on SH1 from Invercargill. The closest turbine is 21km from the viewpoint, with the SWF becoming evident as the traveller reaches the Edendale Hill ridgeline, before descending into the valley.

348. This location includes clear views across the distant ridges of both the SWF site and the Kaiwera Downs Wind Farm site and is therefore a view where cumulative effects associated with these wind farms will be noticeable. The industrial Edendale Fonterra factory in the foreground contributes to the industrial rural narrative. Overall, the effect of the SWF would be **adverse** *low*.

Views from Cardigan Road, Wyndham (Viewpoint 2)

349. The Cardigan Road viewpoint is on the eastern edge of the Wyndham township, which is the closest town to the SWF site. The viewpoint is 12km from the closest turbine.

350. The view is toward the SWF in the east, with unobstructed views of the turbines located on the front ridge (western most turbines) of the SWF site. The views of the wind turbines are part of the background to foreground and midground working rural landscapes.

351. The Kaiwera Downs Wind Farm is obstructed by intervening topography and vegetation. Overall, the visual effect of the SWF would be **adverse** *low*.

Views from Wyndham Valley Road, near intersection with Wyndham-Letterbox Road (Viewpoint 3)

352. The SWF is approximately 11.5km northeast of Viewpoint 3, on Wyndham Valley Road. Views are across the valley and rolling hills, with views of the SWF turbines behind the scarp in the distance.

353. The SWF turbines and towers are clearly visible behind the scarp ridgeline, which assists in reducing any dominance, with some visual stacking of turbines.

354. The Kaiwera Downs Wind Farm is visible in the distance, with the eastern turbines more visible than those on the western portion of the wind farm, due to intervening topography. This provides a level of visual separation between the two wind farms, somewhat reducing the cumulative effects. Overall, the visual effect of the SWF is **adverse** *low*.

Views from Wyndham-Mokoreta Road, near Rapid No. 642 (Viewpoint 4)

355. Views of the SWF are to the east of Viewpoint 4, which is on the side of the Wyndham-Mokoreta Road, approximately 7km from the nearest turbine.

356. Turbines are visible behind the scarp ridgeline. With the setback behind the ridgeline resulting in the full towers not being visible, this allows them to sit more comfortably into the landscape. Intervening topography provides foreground perspective depth. The landscape

between the SWF and the viewpoint is a working rural landscape, with rolling hills, low density vegetation preceding the scarp and the SWF beyond. The visual effect of the SWF is adverse low.

357. The Kaiwera Downs Wind Farm is not visible from this viewpoint.

Views from Wyndham-Mokoreta Road, near Rapid No. 1232 (Viewpoint 5)

358. Viewpoint 5, from the Wyndham-Mokoreta Road, is approximately 2.8km from the closest turbine. Views of the bush clad scarp are clear and defined, with the turbines beyond. This is the closest public view to any of the turbines.

359. Most of the SWF is not visible form this viewpoint, with those closest turbines to the ridgeline most evident. A small number of turbine towers are clearly visible, while only the rotor blades of others are visible behind the ridge.

360. Intervening vegetation and topography provide some foreground perspective depth to the SWF beyond. The landscape between the viewpoint is working rural, with some exotic vegetation on the workable sections, before reaching the steep scarp covered in indigenous vegetation. The visual effect of the SWF is **adverse** *moderate.*

361. The Kaiwera Downs Wind Farm is not visible from this viewpoint.

Views from Mokoreta-Tahakopa Road, near Rapid No. 51 (Viewpoint 6)

362. The SWF is to the north of viewpoint 6 on the Mokoreta-Tahakopa Road. The closest turbine is approximately 6.7km from the viewpoint.

363. A small number of SWF turbines are visible behind the bush clad scarp, while only the rotor blades of some are visible behind the ridge.

364. Intervening hills, namely Egremont and Mount Herbert, assist in screening views and/or provide foreground perspective depth and focus. The intervening landscape includes working rural pasture, exotic forestry and the bush clad scarp. Overall, the visual effect of the SWF is **adverse** *low.*

365. The Kaiwera Downs Wind Farm is not visible from this viewpoint.

Views from corner of Wyndham Station Road and Foster Road (Viewpoint 7)

366. The view of the SWF is to the northwest of the corner of Wyndham Station Road and Foster Road at viewpoint 7. The closest turbine is approximately 6.5km from the viewpoint.

367. Distinctive bush clad landforms, including Mount Herbert and Egremont in the foreground provide perspective and screening of the SWF. Approximately 8 turbines, or turbine rotor blades, are visible through a saddle in the foreground topography, to the taller scarp ridgeline behind. Overall, the visual effect of the SWF on the corner of Wyndham Station Road and Foster Road is **adverse** *low*.

368. The Kaiwera Downs Wind Farm is not visible from this viewpoint.

Views from top of Morven Road (Viewpoint 8)

369. The top of Morven Road (Viewpoint 8) provides broad views, looking to the northwest of the scarp and the main features, with Mokoreta peak located in the centre of the ridgeline. The nearest turbine is approximately 9.5km from the viewpoint.

370. Several turbines are visible, some including the mast of the turbine and others just the rotors from behind the ridge. The turbines are well spaced on either side of the Mokoreta and Pukemimihau highpoints in the approximate centre of the view. Viewed from a considerable distance the turbines are subservient to the overall vertical and horizontal scale of the landform.

371. While intervening vegetation provides foreground perspective depth, the view of the ridgeline and therefore turbines behind are open, albeit in the distance. Overall, the visual effect of the SWF from this location is **adverse** *low.*

Views from Wyndham Station Road close to the intersection with Morven Road (Viewpoint 9)

372. Wyndham Station Road provides expansive views of the bush clad scarp and ridgeline, with Mokoreta peak and Pukemimihau, central within the view. Views of the SWF are to the northeast and northwest of the viewpoint, with turbines set back from, or obscured from view by Mokoreta peak directly to the north.

373. Turbines are visible behind the prominent ridgeline, except for the turbines located behind Mokoreta peak. The turbines are visible as individual elements, with limited stacking providing dispersal across the landscape. The closest turbine is approximately 6.1km from the viewpoint.

374. The ridgeline and scarp are bush-clad, with exotic forestry on some of the lower slopes, which then merges into a flat/low-rolling working rural pastoral landscape. Overall, the visual effect of the SWF on viewpoint 9, is **adverse** *low*.

375. The Kaiwera Downs Wind Farm is not visible from this viewpoint.

Views from Slopedown Road, near Rapid No. 1382 (Viewpoint 10)

376. Slopedown Road is largely parallel to the bush clad scarp of the cuesta landform. The view from Viewpoint 10 includes the distinctive landform of The Cairn to the north. Views toward the SWF are to the northwest.

377. Given the proximity to the scarp and the set back of the turbines from the ridgeline, visibility of the SWF turbines is very limited, with a minimal number of turbines and rotor blades visible to the north and the west. The closest turbine is approximately 3.1km from the viewpoint, however, the height of the scarp and set-back from the ridgeline of the turbines results in very limited views of this turbine. The scale of the visible turbine is subservient to the scale of the escarpment in the foreground. Overall, the visual effect is **adverse** *very low*.

378. The Kaiwera Downs Wind Farm is not visible from this viewpoint.

Views from corner of Waiarikiki-Mimihau Road and Venlaw Road (Viewpoint 11)

379. The SWF is visible in views to the south from the corner of Waiarikiki-Mimihau Road and Venlaw Road. The closest turbine is 5km to the south of this viewpoint.

380. Rising topography to the south and land use including a mixture of open pasture farmland, with some exotic trees and exotic forestry provide screening and integration of views of the SWF. The lower half of the visible turbine towers are largely obscured meaning views of

the SWF tend to be of the nacelle and/or rotor blades. Approximately 12 turbines are visible. Foreground landscape features, such as trees and rising topography, are considerably larger than the turbines. Overall, the visual effect of the SWF is **adverse** *low*.

381. The Kaiwera Downs Wind Farm is located to the north of the viewpoint. Some of the turbines may be visible, however, intervening topography is likely to obscure any expansive views.

Views from Waiarikiki-Mimihau Road, near Rapid No. 413 (Viewpoint 12)

382. Views from Waiarikiki-Mimihau Road are elevated, with the SWF located approximately 6.1km to the east and southeast of this viewpoint. The elevated view of both the turbines on the western ridge (closest to Wyndham) and turbines beyond, results in views of stacked turbines, providing a more cluttered view of the SWF than other viewpoints.

383. Intervening remnant indigenous forest pockets and the rolling landscape provide some patterning which reduces the effect of the turbines on the ridge behind. The elevated viewing platform ensures the rural landscapes and patterns in the valley between the viewpoint and the SWF have little visual impact on views of the SWF.

384. The Kaiwera Downs Wind Farm is located to the north of the viewpoint and given Viewpoint 12 is on the southern side of a finger ridge, the Kaiwera Downs Wind Farm is unlikely to be visible from this location.

385. Overall, the effect of the SWF is **adverse** *moderate-low*.

Views from Woods Road, near intersection with Oware Road (Viewpoint 13)

386. Woods Road is on a flat terraced area to the east of Wyndham. The SWF is located on the hills rising from the terrace further to the east. The hills include a mixture of gullies, typically bush clad, with finger ridges and spurs of pasture.

387. The SWF is visible behind the ridgeline, with some stacking of the turbines in view. The closest turbine is 6.7km from the viewpoint, however, the intervening flat terrace landscape provides little intervention to the views. The Kaiwera Downs Wind Farm is located to

the northeast of the viewpoint; however, intervening topography mean it is unlikely to be visible.

388. Overall, the visual effect of the SWF is **adverse** *low.*

Views from corner of Forbes Road and Edendale-Woodlands Highway (SH1) (Viewpoint 14)

389. Viewpoint 14 is on State Highway 1, between Invercargill and Edendale, close to Woodlands. The topography is flat before reaching the brow of the Edendale Hill (see viewpoint 1). This results in the views toward the SWF site being limited due to the pattern of the surrounding rural landscape, which is primarily comprised of paddocks with trees and tall shelterbelt vegetation.

390. Viewpoint 14 shown in Appendix A, does not include a visual simulation and is a context photograph only. The closest SWF turbine is approximately 33km from the corner of Forbes Road and the Edendale-Woodlands Highway (SH1).

391. The distance and intervening vegetation results in the SWF having low visibility under typical conditions. Some visibility will occur under optimal viewing conditions (i.e. a clear, sunny blue-sky day), but even in these circumstances, the distance from the viewpoint is significant enough that any visual effects would remain **neutral**.

Views from Crest of Scott Road (Viewpoint 15)

392. The view from the crest of Scott Road (Viewpoint 15) provides views toward the SWF and is located approximately 5.6km to the southwest of the SWF. It is on an elevated landform, although is lower than the top of the scarp, and would provide a view of several turbines.

393. Viewpoint 15 shown in Appendix A, does not include a visual simulation and is a context photograph only. Viewpoints 4 and 5 are in proximity to this location and provide an indication and reference for the views of the SWF.

394. The rolling hills between Viewpoint 15 and the SWF are open pasture, with limited vegetation and provide some perspective depth. The bush clad scarp and parts of the upper platform are clearly visible. Some

stacking of turbines will occur in this view. Overall, the visual effect is **adverse** *moderate-low*.

Views from 1086 Crawford Road (Viewpoint 16)

395. The Crawford Road viewpoint is approximately 12km to the north of the SWF site and is within a valley with hills parallel on both the north and south of the viewpoint, as is the case with the wider valleys of the Southland Syncline.

396. Viewpoint 16 shown in **Appendix A**, does not include a visual simulation and is a context photograph only. The intervening topography means that the viewpoint has no view of the SWF. As a result, the overall visual effect of the SWF is **neutral**.

Dwellings' views

397. The effect of the proposed SWF on views from nearby dwellings is assessed for each of the dwellings identified in the Dwelling Inventory (see section above).

398. This assessment is undertaken using maps, aerial photographs, site observations and desktop analysis.

399. The level of effect on nearby dwellings is summarised below in Table 1. The complete assessment of the effect on each dwelling is included in **Appendix D**.

Table 1 - Effects of the SWF on Dwelling Views

Adverse Moderate-High	**Adverse** Moderate	**Adverse** Moderate-Low	**Adverse** Low	**Adverse** Very Low	**Neutral**
10	5	23	46	32	48

400. Overall, it is considered the level of effect of the SWF on dwelling views will vary between Neutral (no adverse effect) to Adverse Moderate-High.

401. My assessment is of **potential** effects; as discussed above, the extent of **actual** visual effects is influenced by a range of factors. The most significant contributor to the level of visual effect is distance from the proposed turbines, however, there are a number of other factors that can either reduce or increase the level of the effect.

402. Factors other than distance from the Project site that can reduce visual amenity effects include:

(a) Orientation of the house either in the direction of or away from the Project site. The main indoor and outdoor living areas are more sensitive to views of the wind farm than ancillary areas, such as car parking;

403. Screening vegetation around the dwelling or close to the wind farm site. Shelter planting, in particular, tends to be on the south side of dwelling curtilages. Where vegetation is planted to provide shelter from winds, etc, it is not relied upon for screening, however patterns of vegetation will likely remain, even if they change;

(a) Foreground or middle-ground elements (such as topography, vegetation, buildings) that increase perspective depth and/or screen parts of the wind farm; and

(b) Number of turbines that are likely to be visible based on the factors above. More turbines can be more expansive, or a small number of turbines closers to the viewer could be more prominent.

404. Factors that can increase effects on visual amenity include:

(a) Lack of perspective depth (open ground views of the wind farm);

(b) Relative elevation (especially at nearer distances);

(c) Location of turbines on the edge of a scarp or on localised features; and

(d) Stacking (wind turbines one behind the other in close proximity).

405. Moreover, the actual effect on the amenity values of views from each property will be a function of an individual's perception towards wind farms, including the value a person places on the generation of renewable electricity, and the value a person places on the area’s existing landscape character and amenity values.

406. Mitigation measures already incorporated into the wind farm layout and design include avoidance of wetlands and streams, where possible, setbacks behind the highest part of the main ridge and

scarps on the backslope, layout to avoid turbine stacking (where possible) and distance from dwellings.

407. Further to the layout and design considerations discussed above, I recommended that for the 15 dwellings identified in Table 2 above and detailed in **Appendix D** that would experience either Moderate-high or Moderate adverse visual effects as a result of the SWF, an offer should be made to incorporate planting into the relevant properties that could screen or integrate views of the turbines into the landscape. This recommendation was accepted by Contact and a consent condition has been proposed accordingly.

408. Such planting could include foreground garden planting, shelter belt or tall screen planting, rural scale trees or other functional planting that would contribute to the amenity of the property. Because screen planting could potentially screen views to the escarpment (or the landscape generally), it is likely that some landowners will consider screen planting would have an overall detrimental impact; Planting cannot be compelled on a landowner, therefore only an offer to undertake or pay for planting on off-site properties can be made. As such, the relevant condition allows for a broader discussion regarding landscaping of value to the landowner, not just screen planting.

Natural character effects

409. Based on the description of the landscape and natural character values above and the detailed description of the ecological and natural values of the Project site in the Wildlands and Ryder Assessments, the natural character values are assessed at **high** across the entire Project site and **very high** in some areas. There are **no areas** of **outstanding natural character** identified. The natural character values of the landscape context surrounding the site are **moderate**, with areas of **moderate high** natural character values where areas are dominated by indigenous forest and in rivers and streams.

410. Generally speaking, while earthworks volumes and areas are relatively large, the scale of the landform is sufficiently bold to ensure that the construction of roads, turbine pads, the substation platform

and the placement of earthworks will not adversely affect the overall scale and form of the SWF site.

411. The SWF Project has been reconfigured through the assessment phase to avoid as far as reasonably practicable all 'Very high' and 'High' value habitats. Further pre-construction fauna surveys may lead to further avoidance of high and very high value habitats.

412. Vegetation and habitat clearance protocols have been adopted and appropriate fill deposit sites are identified for the placement of fill. Appropriate selection of transmission pylon sites and ancillary infrastructure has also formed part of the Project design. In particular, the proposed conditions of consent require that no fill be disposed of and no transmission towers be located within natural wetlands or intermittent / permanent streams.

413. As noted above, it is the specific identification and assessment of effects on the natural character of the streams and wetlands within the site and its context that are required by s6(a) of the RMA.

414. Works in and near streams and wetlands, and their effects on natural character values, will be carefully managed through the adoption of a Construction Environmental Management Plan (**CEMP**) during construction of the Project. That will ensure the risk of contaminant discharge and pest introduction to water courses is minimised and appropriately provide for erosion and sediment controls and related measures to manage potential effects of earthworks (through the Earthworks Management Plan, which is part of the CEMP).

415. As some residual ecological and natural character effects cannot be avoided, a habitat and restoration package has been developed to compensate for / offset any residual effects. The habitat and restoration package includes the following measures:

    (a) Rehabilitation and (predominantly indigenous) revegetation of sites cleared or disturbed by earthworks for temporary construction activities or for fill deposition.

    (b) Deer fencing and legal protection of a 245ha block of indigenous forest to eradicate feral deer and pigs (including potential deer fencing and indigenous enrichment planting).

(c) Offset the loss of significant Copper Tussock grassland through the protection of alternative areas.

(d) Wetland recreation and restoration to achieve a net gain outcome for wetland extent.

(e) Long term aerial and ground-based control of mammalian pests across indigenous terrestrial and wetland habitats.

(f) Enhancement of habitats of indigenous lizards and invertebrates.

416. Further, the Wildlands Report concludes that "*The proposed **offsite** habitat and restoration package for wetlands (i.e., compensation) will result in* positive *ecological benefits that outweigh residual adverse effects in alignment with statutory requirements set out in the NPS-FM and the Southland RPS*."[43]

417. The Ryder Assessment concludes that "*Overall, the proposed riparian offsetting will help to protect and enhance other local watercourses to address the loss of stream habitat associated with the construction of water crossings and culverts required for the Project. Ultimately, this Project is likely to enhance local water quality in the medium to long term*."[44]

418. The perceptual aspects of natural character within the site and the surrounding areas, including large parts of the Catlins Conservation Park, will benefit from an overall long-term improvement in the ecological health and function of the indigenous values of the area. Bird and animal life will improve due to the extensive pest control measures and the protection of specific areas with fencing, stock exclusion and enrichment planting. The broader patterns of vegetation and habitat within the site and the surrounding area are unlikely to change to a large degree, however the health and vitality of the functioning aspects of the landscape will improve over time with successful implementation of the proposed conditions of consent.

419. The perception of wind turbines, roads, turbines pads, and additional transmission infrastructure in the landscape cannot be avoided due to the scale and location of the project and its structures and the need to connect the national grid. The visual aspects of the project will be part

43 Wildlands Assessment. Executive Summary.
44 Ryder Assessment. Executive Summary.

of the landscape, however ecological health and integrity of the site and a much broader area will benefit from the suite of ecological and landscape mitigation and offset measures proposed, as described above and below.

420. The site is on the edge of a working rural landscape as it transitions to a more natural landscape associated with the Catlins Forest Park. The working rural nature of the pastoral stations and plantation blocks are compatible with a wind farm. The more remote and wild aspects and locations of the Catlins Forest Park are protected and potentially enhanced through physical separation from the SWF site. The DoC estate in Southland more generally will benefit from the ecological offset package.

421. Ultimately the project is largely reversible from a natural character effects perspective with the removal or turbines and structures and the rehabilitation of the site.

422. Based on the description of the landscape and the natural character values of the site above and contained in the Wildlands and Ryder Assessments, the **high and very high natural character values** of the stream headwaters and the wetlands will be largely avoided or protected by the SWF project and some ecological and natural character values will be enhanced through the habitat and restoration package. Overall **natural character effects** of the SWF are **very low** with potential for ongoing positive effects in the long term.

423. The previous Panel considered that the Project would have unacceptable adverse effects on natural character; its findings focused on the 'naturalness' of the scarp as viewed from some local residences and more distant viewpoints (rather than natural character in an RMA s6(a) sense). I have commented above on those matters as part of my assessment of the Project's effects on landscape values. As explained above, I acknowledge that there will be some adverse effects in this regard; however, in context, I do not consider that those effects are unacceptable.

Assessment of effects summary – wind farm

424. In my view the Project will result in a range of effects from **neutral** to **moderate adverse effects** on landscape character and visual

amenity from public viewpoints. A summary of these effects is included in **Table 3** below.

425. The Project will have a range of potential effects on visual amenity from dwellings, depending on locality. These are outlined in the visual impact on dwellings' views section above. The effect ranges from **neutral** to **moderate-high adverse**. Landscape mitigation planting can be used to reduce visual effects on private dwellings and is an accepted and proven technique for the management of visual effects for similar projects.

426. Given the nature of wind farms, they will inevitably have an impact on the landscape in which they sit. This is due to their size and the often elevated and exposed locations where the wind resource is. The SWF has been designed to avoid and mitigate these effects, including by the proposed layout, which is responsive to the landform on which it sits, i.e. a backslope cuesta landform; and ensuring the turbines are appropriately set back from highest parts of the ridgelines and peaks. This assists in ensuring the SWF sits comfortably into the landscape, whilst acknowledging that there will be effects.

Table 2: Summary of Effects

		Level of Effect
	Landscape Character Effects	**Adverse** *moderate-low*
	Natural Character Effects	**Adverse** Very low
Visual Amenity Effects	Viewpoint 1 – from Edendale-Woodlands Highway (SH1), near intersection with Scenic Reserve Road	**Adverse** *low*
	Viewpoint 2 – from Cardigan Road, Wyndham	**Adverse** *low*
	Viewpoint 3 – Wyndham Valley Road, near intersection with Wyndham-Letterbox Road	**Adverse** *low*
	Viewpoint 4 – Wyndham-Mokoreta Road, near Rapid No. 642	**Adverse** *low*
	Viewpoint 5 – Wyndham Road, near Rapid No. 1232	**Adverse** *moderate*
	Viewpoint 6 – Mokoreta-Tahakopa Road, near Rapid No. 51	**Adverse** *low*
	Viewpoint 7 – Top of Morven Road	**Adverse** *low*
	Viewpoint 8 – Corner of Wyndham Station Road and Foster Road	**Adverse** *low*
	Viewpoint 9 – Wyndham Station Road close to intersection with Morven Road	**Adverse** *low*
	Viewpoint 10 – Slopedown Road, near Rapid No. 1382	**Adverse** very *low*

		Level of Effect
	Viewpoint 11 – Corner of Waiarikiki-Mimihau Road and Venlaw Road	**Adverse** *low*
	Viewpoint 12 – Waiarikiki-Mimihau Road, near Rapid No. 413	**Adverse** *moderate-low*
	Viewpoint 13 – Woods Road, near intersection with Oware Road	**Adverse** *low*
	Viewpoint 14 – Corner of Forbes Road and Edendale-Woodlands Highway (SH1)	**Neutral**
	Viewpoint 15 – Crest of Scott Road	**Adverse** *moderate-low*
	Viewpoint 16 – 1086 Crawford Road	**Neutral**
	Effects on identified dwellings	**Adverse** *neutral to moderate-high*

EVALUATION OF TRANSMISSION INFRASTRUCTURE

Overall description

427. An overhead double circuit 220kV transmission line will connect the wind farm substation, located on the Project site, to a Grid Injection Point (**GIP**) to connect the SWF to the Transpower National Grid. The GIP will be located to the north of the Project site, adjacent to the existing North Makarewa to Three Mile Hill A 220kV circuit. This section of the report considers and assesses the effects of this transmission infrastructure. The transmission connection is assessed separately as it has specific effects which extend beyond the SWF site proper (ie where the turbines are proposed) to a wider area (defined as the Project Site).

Wind farm substation – description

428. The wind farm substation will include transformers, enabling the voltage to be 'stepped-up' to 220kV to allow connection to the National Grid. The substation will include typical substation structures, including circuit breakers, switchgear, transformers, and protection equipment. The substation will be in the southern part of the SWF site, approximately 450m from the site boundary at its closest point. The substation will occupy a footprint of approximately up to 18,000m^2 (1.8 ha) and be rectangular in shape i.e. 145mx130m (or similar).

429. The substation will be enclosed with a lockable security fence and in addition to typical electrical substation equipment, the area may include a water storage tank, on-site wastewater treatment, small

storage facilities and car parking. The surface of the switchyard will generally consist of a 150mm layer of crushed rock aggregate with approximately 500mm of basecourse and sub-base material. Switchyard equipment will be mounted on concrete foundations.

430. The wind farm substation will also include two 33/220kV (or 66/220kV) 270 MVA transformers, which contain oil. These will have bunded foundations.

431. Two A-Frame or steel pole gantry structures, approximately 18m high with lightning spikes mounted on top, will connect to the 220kV transmission lines that terminate at the GIP.

Transmission lines – description

432. The transmission line route and GIP are illustrated in **Figure 1: The Southland Wind Farm Project Site Design**[45]. The transmission line will be supported by towers (likely steel lattice), which will typically be 40m in height, although in more undulating or hilly terrain taller towers (up to 55m tall) may be required.

433. The selected transmission line route is in the Southland and Gore Districts and the and GIP is located in the Gore District.

434. The proposed transmission line route will be approximately 16km in length, refer to **Figure 3 - Appendix A**, and **Figure 1** above.

435. Given the length of the proposed route there are likely to be up to 50 towers/poles/structures linking the overhead transmission lines. The selected route will consist of double circuit 220kV towers. The towers used are lattice suspension or strain towers.

Grid Injection Point (GIP) – switching station – description

436. The GIP (switching station) connects the wind farm into Transpower's National Grid at the 220kV NMA-TMH-A line. The location of the GIP is illustrated in **Figure 3 - Appendix A** and **Figure 1** above. The GIP will be approximately 1ha in area and will be located within the GIP Envelope Area.

[45] Initially, four transmission line options were identified by BECA for Contact's consideration, but Options B, C and D were subsequently discarded following review.

437. The GIP Envelope Area is approximately 6.1ha in size, and is located on private pastoral farmland, south of SH93. The site is accessible via Davidson Road East from the south or via private road, accessed from Jeff Farm Road, from the north (see **Figure 8** below). The GIP location is over 1km from the closest section of Davidson Road East.

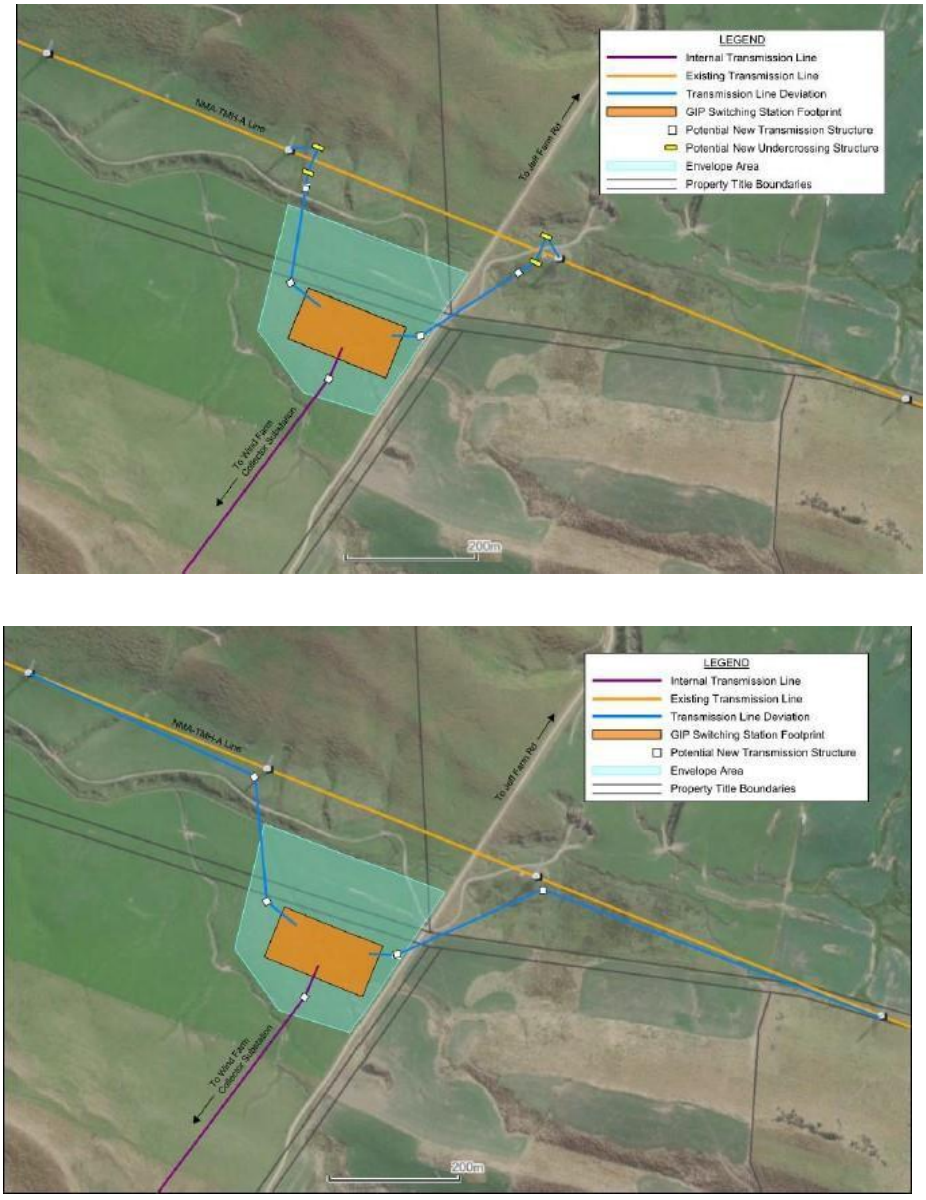

Figure 8: GIP Location and connection options (source: BECA)

438. The GIP within the envelope area is indicatively 1ha in size with dimensions approximately 140m x 70m. The final location of the GIP within the envelope area will be determined during detailed design.

439. The GIP includes two connection options, one on the near side of the GIP to the closest circuit and the other arrangement to the circuit on the far side of the transmission line, as illustrated in **Figure 8** above.

440. The first arrangement connects to the near side circuit will require up to four new transmission line structures. This includes two new structures on the existing NMA-TMH-A line to allow diversion to the new GIP and two on either side of the GIP.

441. The second arrangement is to connect to the far side circuit. This will require an undercrossing, whereby the far circuit is diverted onto lower structures to come under the nearest circuit. I n addition to the four new structures required for the first arrangement, four new undercrossing structures would also be required. In each case the new diversion structures for the first and second arrangements are similar or smaller in scale than the existing transmission line structures. The undercrossing structures are shorter gantry structures (to get the required clearance under the transmission line circuit).

442. The GIP will house typical gear, including circuit breakers, switchgear, and protection equipment. Within the GIP will be two single-level control buildings (approximately 10m x 20m), a water storage tank, on-site wastewater treatment, small storage facility and car parking. The perimeter of the facility will be enclosed with a security fence and stock fencing. The surface will consist of a 150mm layer of crushed rock aggregate with approximately 500mm of base course and sub-base material below. No transformers are expected to be installed at the GIP, and therefore no oil storage and/oil bunded areas for oil containment will be required.

443. A-Frame or steel pole gantry structures, approximately 18m high with lightning spikes mounted on top, will connect to the 220kV transmission line which comes from the wind farm.

444. As described above, transmission line structures outside of the GIP perimeter may be required. This would include two new structures on the existing NMA-TMH-A line to allow diversion of the line toward the GIP, two on either side (east and west) of the GIP to divert the existing transmission line to the switching station and one on the southern side for the transmission line from the wind farm. These structures will typically be up to 45m tall and be similar in appearance to the existing towers on the NMA- TMH-A line, i.e. a lattice suspension tower. The under-crossing structures would be less visible (shorter) than the

transmission line structures, but would add more visual bulk to the area around the GIP.

Relevant planning provisions

445. The proposed transmission line infrastructure and GIP will be located in the Southland and the Gore District. Therefore, in addition to the DP provisions above, the provisions of the Gore District Plan are relevant to the assessment of the effects of the transmission line infrastructure.

446. The Gore District Plan includes provisions relating to electricity generation activities, including new transmission line infrastructure and aims to ensure the environmental effects associated with these activities, including on landscape values, are appropriately managed.

Effects of transmission infrastructure

Introduction

447. The transmission line route traverses working rural landscapes with low population density.

448. The proposed substation will be within the SWF site, with the transmission line route heading northwards from the SWF site to connect to the existing Transpower National Grid. The lineal valleys and ridges are oriented broadly east to west, as part of the Southland Syncline geological formation orientation. This topography results in relatively limited views of the transmission lines and towers. The proposed route also limits the potential impact on landscape and visual amenity values form nearby dwellings. The transmission line route is within the Southland District until it reaches the Mimihau Stream North Branch (within the Port Blakely Forest), which demarcates the boundary between the Southland and Gore Districts. Between the Mimihau Stream North Branch and the GIP the transmission line is within the Gore District.

449. The effects of the wind farm substation, proposed transmission line routes and GIP are outlined below.

Effects of wind farm substation

450. The wind farm substation location within the SWF site is subject to future detail design, but it will be located within a group of wind turbines on the Jedburgh plateau in the south-east section of Jedburgh Station, as illustrated in **Figure 3 - Appendix A** and **Figure 1** above. The detailed location and the layout of the substation is illustrated in the project description included in the AEE.

451. The wind farm substation requires excavation and construction of a hardfill base for the substation which will measure approximately 145m x 130m or 1.9ha. The substation will be constructed in an area of manuka dominated indigenous scrub. The size is consistent with the typical size of a collection of agricultural utility farm buildings found on surrounding farms, however is of a utilitarian electricity transmission character, associated with electricity transmission in the rural environment. The substation will be considerable distance from other buildings and structures, other than the turbines.

452. The wind farm substation, in addition to typical substation equipment, will include 18m high structures, plus lightning spikes mounted on top, which will connect the double-circuit 220 kV transmission lines to the substation.

453. Infrastructure associated with the substation, tends to be grey, either galvanised steel, concrete, or painted. After an initial period of weathering, galvanised steel and concrete fades to a flat mid-grey tone. This is a neutral colour is common to electricity transmission infrastructure development within a rural landscape.

454. Construction of the wind farm substation will be relatively small in relation to the footprint of the wind farm, the scale of the turbines and associated turbine pads and roads. Any material excavated during construction to enable foundations, subbase placement, etc will, where possible, be utilised on the site for road construction or will be put into the nominated fill disposal sites.

455. Visibility of the wind farm substation will be limited to the immediate surrounds and will not be visible from public viewpoints, other than potentially from highpoints at the west end of the Beresford Range, including Catlins Cone (698m asl), Athlone Hill (510m asl) and Mt Pye

(720m asl), where views are available (noting that these locations are all more than 15km away). None of the elevated locations include tracked access or are close to any tracks, huts, trigs or other access infrastructure and they are generally covered in bush or forest (other than Catlins Cone).

456. The overall effects of the wind farm substation would be **adverse** *Low.*

Effects of transmission line

457. This section assesses the transmission structures, lines and infrastructure as illustrated in **Figure 1** above. The selected route is oriented to the northeast from the wind farm substation to the GIP. The transmission line is approximately 16km in length.

458. The selected route traverses low stature indigenous scrub, plantation forestry and pasture through to the GIP. Approximately half of the 16km is through exotic plantation forestry within the Matariki and Port Blakely properties. In these sections, the large vegetation 30m either side of the transmission line would be removed. This would result in the clearance of up to 480,000m2, or 48ha (approximately) of exotic plantation forest.

459. These cleared corridors will be within and confined to the forest blocks and are common in rural areas where transmission lines traverse plantation forests. Small and medium-sized vegetation such as Mānuka will be retained.

460. The mid-grey colour of the transmission line structures is familiar in the wider rural landscape, particularly associated with transmission lines and grid connections. The neutral tone assists with mitigating visual impacts.

461. The physical landscape disturbance is largely limited to the immediate area around the transmission line structures and/or roading that maybe required to access the structures. Several new access tracks will be required to be built to access the new structures. The access tracks will revert to grassed metal tracks once established.

462. There are various QEII covenants in the Mimihau Stream catchment, which includes the selected route. The corridor avoids these areas.

463. The selected route is oriented to the northeast from the wind farm substation to the GIP. The transmission line is approximately 16km in length.

464. Given the height and nature of the transmission structures and lines, they will be visible from some locations in the context of the much taller and more numerous turbines and the plantation forests.

465. Transmission line structures and conductors are common in the rural environment, through both open pastoral and forested areas and this spur connection will connect the SWF to the national grid, linking generation activities and transmission at either end.

466. The closest dwellings are those located on the east end of Davidson Road East. 57 Davidson Road East is approximately 500m from the indicative transmission line route while 16 Davidson Road East is approximately 900m from the indicative transmission line route. These two dwellings at the end of Davidson Road East either have shelter and screen vegetation blocking views towards the transmission line and the GIP or are oriented away from the structures and the line.

467. The indicative transmission line crosses several waterbodies including wetlands and streams. The location of the towers avoids effects on instream values (including during construction) by avoiding water bodies and their banks.

468. While the transmission line requires clearance of a substantial area of exotic forestry (48ha), the clearance is inside the plantation forest and will not generally be visible from outside of the plantation. Visual effects of the corridor are limited to visibility on the Jedburgh Plateau and the upper dip slope, in conjunction with the larger and more numerous wind turbines and to dwellings on Davidson Road East at the GIP end. Mitigation and avoidance measures are applied to waterways. The plantation forest that is left on either side of the corridor will provide screening of the transmission lines and structures within the forested areas. Overall, the effects of the transmission line and corridor will be **adverse** *very low.*

Effects of GIP

469. The GIP is broadly described above. The effects are outlined below.

470. Any material removed during the construction will be utilised on site or will be deposited in the fill deposition sites.

GIP location

471. The GIP will be located within a 6.1 ha area of pastoral land approximately 1.5km to the northeast of the closest dwelling at 57 Davidson Road East. The size of the GIP within that envelope area will be approximately 1ha and have dimensions of approximately 140m x 70m. See **Figure 6** above.

472. The location is in immediate proximity to the existing 220kV NMA-THA-A transmission line.

473. The GIP sits within a valley and will not be visible from public viewpoints.

474. The size of the hardstand required for the GIP is consistent with a collection of agricultural utility structures such as sheds, workshops, yards, etc in the surrounding farms. For example, the dwelling, associated sheds and curtilage area of 57 Davidson Road East occupies approximately 1.1 ha. The new GIP and transmission line connections will be consistent with the existing character of the 220kV NMA-THA-A transmission line route.

475. The height of the structures that connect the GIP to the existing transmission line and the wind farm transmission line are of the same or similar colour, size, and typology to the existing transmission structures. The height of the under-crossing structures would be shorter and less visible but would add more visual bulk adjacent to the GIP.

476. The neutral mid-grey colour of the structures assists in integrating the new GIP into the receiving environment. Overall, the effects of the switching station at the GIP are **adverse** *very low*.

Transmission and GIP options summary

477. The transmission line, substation and GIP have been located and designed to provide the most efficient and least intrusive connections to the national grid.

478. From the commencement of the Project, various options have been investigated to avoid the most prominent parts of the site and connections to the national grid. Minimisation of transmission line structures and straight-lining within the landscape provides the most efficient and cleanest options for connection, avoiding cluttering and effects on open spaces. The GIP location is sited in a discrete location and has been placed to avoid, as far as possible, prominent views from houses and road corridors.

479. Co-siting of GIPs to the grid with the Kaiwera Downs wind farm has been investigated, however such an approach would require longer transmission line connections and a dog-leg arrangement which would be more physically prominent and less efficient in landscape and visual terms. Connection to the Kaiwera Downs GIP would require a much larger GIP at this location, which may not be feasible.

STATUTORY PLANNING ASSESSMENT

480. A full assessment of the SWF proposal against the Statutory Planning framework is provided in the AEE accompanying the application.

481. The statutory planning documents and provisions that are relevant to the consideration of the landscape and natural character effects of renewable energy projects, such as wind farms, at Slopedown / Mokoreta are set out in Appendix C. The statutory documents reviewed and taken into account include the Fast-track Approvals Act 2024, the RMA, the NPS for Renewable Energy Generation, the Environment Southland RPS, the 1997 Landscape Assessment, the Southland District Plan (2018), the Gore District Plan and Āpiti Hono Tātai Hono.

482. The RMA requires the protection of outstanding natural features and landscapes and outstanding natural character from inappropriate subdivision use and development and for the maintenance and enhancement of amenity values and the quality of the environment.

483. As described above, until part-way through the last consenting process the site of the SWF was not identified as being part of or close to an ONF. A technical landscape study was then made available that has identified Mokoreta / Slopedown hill as a potential ONF candidate and therefore this assessment has been updated to

consider the landscape values that have been identified for the site. I have concluded that an ONF classification is not warranted for the SWF site, with the nearby scarp being the most likely candidate, and that effects on any outstanding natural feature values have been largely avoided. Where residual effects on landscape values more generally have been unavoidable, they have been appropriately mitigated or offset.

484. The NPS for Renewable Energy Generation recognises the national significance of renewable energy generation and requires that where effects cannot be avoided, remedied, or mitigated that regard should be had to offsetting measures or environmental compensation. As far as is practical the highest landscape and ecological values within the site are avoided, remedied or mitigated. A comprehensive and detailed ecological offsetting package has been developed for the management of any residual effects, which will lead to the enhancement of landscape values in some areas outside of the site.

485. The Environment Southland RPS and Southland District Plan (2018) balance the requirement to provide for appropriate renewable energy generation projects while also protecting outstanding landscape and natural character values. Where protection from or avoidance or mitigation of effects cannot be achieved, then offsetting or environmental compensation are encouraged.

486. Policy LNF.4 of the RPS sets out the matters which should be had regard to when considering development in ONFs:

(a) Whether the adverse effects of inappropriate activities on ONF and landscapes are avoided;

(b) The extent to which the ONF would be modified or damaged including duration, frequency, magnitude or scale of any effect;

(c) Irreversibility;

(d) Resilience of the ONF to change;

(e) Opportunities to remedy or mitigate;

(f) Cumulative effects; and

(g) Relationship of the landscape to the environment.

487. The assessment of the effects of the SWF on the potential ONF values is undertaken above in the section referring to the ONF candidate and effects on ONF values. The scarp is avoided and the limited ONF values on the plateau within the SWF site are largely avoided and where appropriate are offset.

488. The bold form and scale of the landform will be subject to earthworks and fill deposition will be required on site. While earthworks volumes are relatively large they are easily accommodated into the much larger scale of the landform and the residual land where earthworks take place will be replanted and returned to its current vegetation cover, including the working rural land use that is characteristic of the site. Effects on indigenous vegetation will be mitigated and offset where avoidance is impossible.

489. Most of the site will still be used for farming and forestry during the operation of the wind farm, including the benefit of improved access that the new and improved roads that the SWF will provide.

490. Should technology and the energy market allow and the SWF is eventually retired, the turbines are required by the proposed conditions of consent to be decommissioned and removed. Concrete for turbine foundations, etc can be covered over and pasture re-established to allow a return to farming and forestry use. Some residual disturbances and effects will be irreversible, for example the excavation cut and fill. The ecological offset package is also expected to have ongoing positive ecological (and landscape effects) after the life of the wind farm.

491. The large scale and bold landform of the site is resilient to change, provided that the broad scale vegetation patterns are kept intact. The ecological offset package is designed to protect and enhance these vegetation patterns and habitats and have an associated positive impact on landscape values.

492. Opportunities to remedy and mitigate have been thoroughly explored throughout the development, consultation and consenting process associated with the SWF. Significant offset and compensation, cultural impact mitigation, community funding and visual screening packages have been developed and form part of the proposal.

493. Cumulative effects, including those in conjunction with the adjacent Kaiwera Downs wind farm have been assessed.

494. A full description and assessment of the landscape in relation to the local and regional environment has been undertaken.

495. The objectives and policies of the RPS and the District plans seek a balance between the provision of renewable energy development and the appropriate management of effects.

496. Southland Regional Landscape Assessment (1997) does not identify Slopedown / Mokoreta-Pukemimihau as an outstanding natural feature or landscape, however the SMRLA does and while the Southland District Plan has not yet been through a plan change process to test and implement the recommended ONF and ONL candidates, an assessment has been carried out as if it were recognised in the District Plan as an ONF.

497. The approach set out in Āpiti Hono Tātai Hono has been reviewed and a landscape assessment considering the cultural landscape values of the site and the potential effects of the proposal on those values has been undertaken. This expert assessment process does not pretend to speak for tāngata whenua in relation to the cultural landscape values of the site or the potential effects on them.

498. Wind farms by their nature are required to be where the energy source is. They have a functional requirement to be where wind energy is available. In an Aotearoa New Zealand context this requirement means wind farms are located on elevated locations (normally on hills) or on the coastal edge. Where such places are identified there is also an imperative to avoid heavily populated locations (effects on a greater number of people) and highly natural environments (effects on very high ecological and landscape values – generally dominated by indigenous flora and fauna habitat values).

499. The ‘middle ground’ for the location of wind farms, tends to be in sparsely populated managed or working rural environments, avoiding large population settlements and highly natural values. The SWF site is in such a sparsely populated rural environment. In terms of the effects of a wind farm on elevated ecological and landscape values

and on large numbers of people, the SWF site is well suited to a wind farm.

LANDSCAPE AND ECOLOGICAL MITIGATION AND OFFSET MEASURES

500. I note that the following landscape and ecological mitigation and offset measures are built into the proposed conditions of the SWF Project. They will lead to the minimisation of adverse effects and the improvement of landscape and ecological values in other locations where they cannot be completely avoided within the SWF site. The effect of these has been considered in the assessment of the landscape effects of the SWF.

(a) The establishment of a Community Benefit Fund with initial financial contributions, annual contributions and additional electricity generation-based contributions which subject to applications for funding from the local community can be distributed to locally directed projects;

(b) The offer of off-site planting within private properties to residents to reduce visual effects of the SWF, where appropriate and acceptable to the residents;

(c) Construction management plans – to minimise the effects of construction on the landscape and local streams during construction;

(d) Environmental management plans – to minimise the effects on the local environment, indigenous vegetation, ecological values, and indigenous flora and fauna;

(e) Earthworks management plans – to minimise the effects of earthworks during construction;

(f) Vegetation management plans – to minimise effects on indigenous vegetation;

(g) Ecological management plans - to minimise the ecological effects of construction and operation of the SWF;

(h) Ecological offset plans – to provide improvements in ecological values in areas both within and, where effects on ecology have

been impossible to avoid within the SWF site, outside of it. This includes permanent deer fencing and stock exclusion from approximately 245ha of bush at Jedburgh Station (including enrichment planting of 5,000 plants – the 'Jedburgh Station Ecological Enhancement Area'), permanent deer fencing of 8ha of degraded copper tussock vegetation (including pest control and enrichment planting – the 'Copper Tussock Enhancement and Skink Protection Area'), creation / restoration and enhancement of wetland (totalling approximately 11.8ha) at the Davidson Road Wetland Restoration Site, large scale aerial and land based pest control across approximately 1,400ha at Jedburgh Station (the 'Jedburgh Station Pest Control Area'), targeted intensive ground based predator control at a 55-hectare Plateau Fauna Enhancement Area on the Jedburgh Plateau, the establishment of relocation site(s) for salvaged lizards, pest control over a separate 10,000ha area focussed on long tail bat roosts in the Catlins Forest Park, specific funding towards research on invertebrates, specific funding towards research of cryptic skinks or Tautuku gecko, and restoration of existing riparian habitat to offset for the loss of stream habitat associated with culverts. These plans will have wide reaching benefits on the surrounding landscapes and indigenous habitats of conservation land in the area.

501. The location and extent of the ecological offset package described above are illustrated in **Figures 9-11** below.

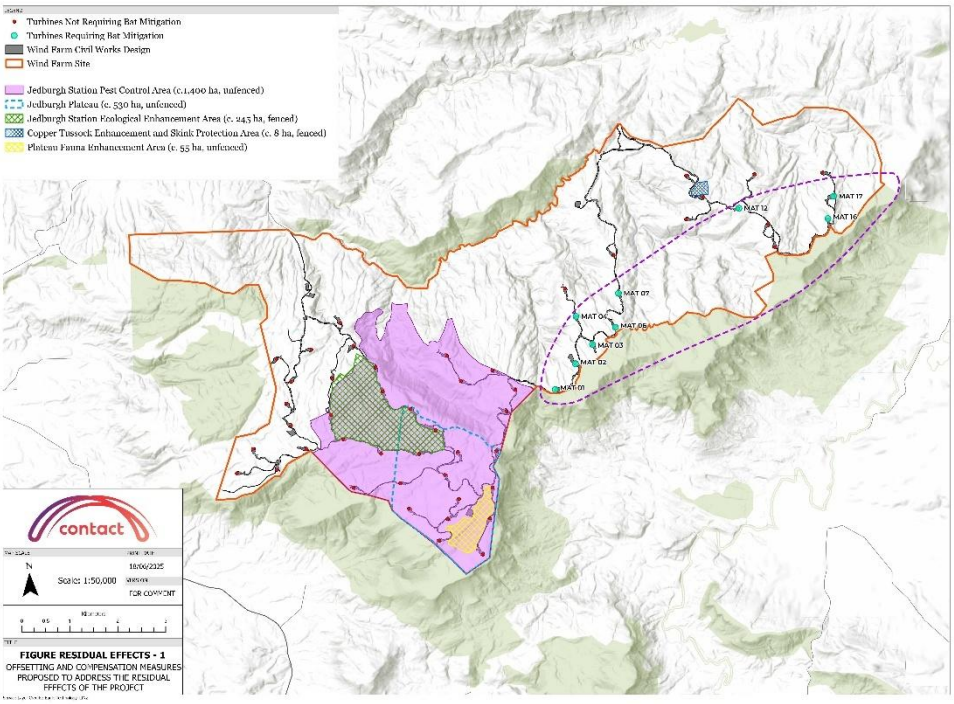

Figure 9: Residual Effects 1 (Part G)

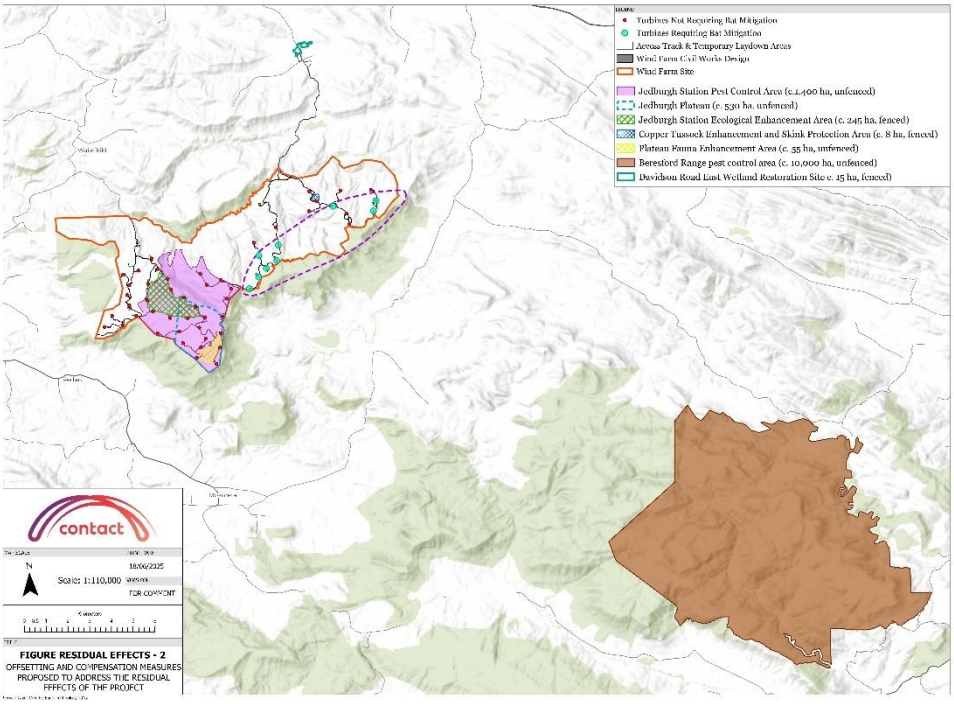

Figure 10: Residual Effects 2 (Part G)

Figure 11: Figure Terrestrial Ecology – 3d (Part G)

CONCLUSIONS

502. The proposed SWF site is located on a cuesta landform, with a steep, bush-clad scarp, to the southeast and a gentle backslope facing the northwest. This provides an accommodating platform for a wind farm, given that earthworks for the layout of the roading system and turbine pads minimises, as much as possible, alteration to the landform.

503. While wind turbines are necessarily prominent structures, the SWF will be in scale with the broader landscape and the rural character of the underlying farmland will be maintained through ongoing farming and forestry land uses.

504. The SWF will generate a range of levels of effects on visual amenity values for rural properties surrounding the Project site, particularly in the Redan-Mokoreta area, with the closest dwelling being approximately 2.3km from the nearest turbine. The area surrounding the Project site includes a low-density population, dispersed within the largely agricultural landscape, as is typical of a productive rural landscape. Therefore, there are relatively few dwellings within the immediate vicinity of the Project site.

505. The topography of the area and cuesta landform of the Project site results in variable views of the SWF, most of which will be screened to some extent by the ridgeline and surrounding rolling hills. The wind turbines will, however, be prominent in the outlook from a small number of rural properties. Site specific mitigation recommendations assist in avoiding or mitigating visual effects on rural properties.

506. There will be cumulative effects on a small number of viewpoints and locations where both the SWF and Kaiwera Downs Wind Farm turbines will be visible. However, most of the views where both wind farms will be visible are at a significant distance from the wind farms themselves will be in the background of the views.

507. The approximately 16m transmission line route that will connect the SWF to the national grid has been selected after a process of reducing the options from four. The selected transmission route has the least landscape and visual effects. The transmission route will connect to the north of the Project site and has been designed to limit the impact on nearby dwellings and the landscape, with the intervening topography assisting in limiting views of the transmission line.

508. The high and very high natural character values of the wetlands and streams within the site will be largely avoided or protected by the SWF project and ecological and natural character values of the wider landscape can be enhanced through the offsetting and compensation habitat and restoration package.

509. An assessment against the potential outstanding landscape values of the site has been completed and the Project can be accommodated within the site while protecting and in some cases enhancing those landscape values through an ecological and landscape offsetting and compensation package.

510. Therefore, in my opinion, the SWF project can be accommodated within the landscape of the site at Slopedown / Mokoreta-Pukemimihau and the surrounding context with limited and appropriate overall landscape and natural character effects on the receiving environment.

Brad Coombs

APPENDIX A - GRAPHIC ATTACHMENTS (REFER SEPARATE DOCUMENT)

APPENDIX B - ARCHAEOLOGICAL RECORDS

The maps and sites identified in 'The Cry of the People Te Tangi a Tauira – Ngāi Tahu ki Murihiku Natural Resource and Environmental Iwi Management Plan 2008', appear to have been drawn from the New Zealand Archaeological Association.

Archaeological sites identified in relative proximity to the proposed wind farm, below are shown in refer to **Figure 6 – Appendix A**).

Site ID	Description	Year	Local Body
F46/10	Findspot	1975	Southland District
F46/11	Oven/Artefacts	1976	Southland District
F46/15	Ovens	1977	Southland District
F46/24	Oven	1986	Southland District
F46/27	Pits (Ovens?)	1988	Southland District
F46/31	Adize Findspot	1992	Southland District
F46/32	Oven	1992	Gore District
G46/1	Oven	1975	Southland District
G46/2	Oven	1975	Southland District
G46/3	Oven	1975	Southland District
G46/4	Oven	1975	Clutha District
G46/12	Oven	1985	Southland District
G46/15	Adize Findspot	1995	Clutha District

APPENDIX C - PLANNING CONTEXT AND RELEVANT PROVISIONS

1. This section of the report highlights the provisions most relevant to landscape and visual matters. A full planning assessment of the Project has not been undertaken here as that is not within the scope of this report.

Resource Management Act 1991

2. With regard to Part 2 of the RMA, the relevant provisions are within sections 5: Purposes and Principles; 6: Matters of National Importance (specifically 6(b), 6(c) and 6€) and section 7: Other Matters (specifically 7(c) and 7(f)).

3. Section 5 sets out the Purposes and Principles of the RMA, which is to promote sustainable management of natural and physical resources and provides definition of sustainable management.

   Section 5: Purpose

   (1) The purpose of this Act is to promote the sustainable management of natural and physical resources.

   (2) In this Act, **sustainable management** *means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while—*

   a. sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and

   b. safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

   c. avoiding, remedying, or mitigating any adverse effects of activities on the environment.

4. Section 6 sets out matters of national importance. Those that are most relevant to the landscape and visual assessment include s6(b) which requires “the protection of outstanding natural features and landscape”; s6(c) which requires “the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna”; and s6(e) “relationships of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga”.

Section 6: Matters of national importance

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

b. the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:

c. the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

e. the relationship of Māori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:

5. Section 7 sets out other matters to which particular regard should be had. Specifically, those relevant to the landscape matters are s7(c) "the maintenance and enhancement of amenity values" and s7(f) "the maintenance and enhancement of the quality of the environment".

Section 7: Other matters

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to:

c. The maintenance and enhancement of amenity values.

f. Maintenance and enhancement of the quality of the environment.

National Policy Statement for Renewable Electricity Generation (2011)

6. The National Policy Statement (NPS REG-2011) sets out an objective and policies to enable the sustainable management of renewable electricity generation under the RMA. The NPS-2011 is operative until such a time that it is superseded by the drafted 2023 National Policy Statement.

7. The following relevant objective and policies have been considered (**emphasis** added):

- **Objective -** *To recognise the national significance of renewable electricity generation activities by providing for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation.*

- **Policy C2 -** *When considering any **residual environmental effects** of renewable electricity generation activities that cannot be **avoided**, **remedied** or **mitigated**, decision-makers shall have regard to offsetting measures or environmental compensation including measures or compensation which benefit the local environment and community affected.*

Environment Southland – Regional Policy Statement (2017)

8. The Southland Regional Policy Statement 2017 provides a description and definition of landscape, which has been adopted from Peart, R (2002). Environmental Defence Society: Community Guide to Coastal Development:

Chapter 10: Natural Features and Landscapes

> *"Landscape involves natural and physical resources, including land, water, air, plants, animals and structures, and various factors relating to the viewers and their perception of the resources.*
>
> *Landscape provides a linkage between individual natural and physical resources and the environment as a whole, through considering a group of such resources together, and emphasising that our attitudes to these resources are affected by social, economic, aesthetic and cultural conditions."*

9. Chapter 10 of the Southland Regional Policy recognises that consideration should be given to options for better management of increased development within the landscape and that establishing "acceptable limits" are important to ensure that landscape values and peoples "sense of belonging" are not compromised. It notes three key 'developments' that have the potential to adversely, and on occasion irreversibly, affect natural feature or landscape values. Energy and electricity generation is specifically noted as one of these three developments, specifically:

> "*electricity generation is associated with features such as wind farms, dams, and transmission lines that can for their lifespan permanently change landscapes. Future changes to the sources of power are very likely to result in increased development of Southland's energy resources, which may result in changes to Southland's existing landscapes."*

10. The Southland Regional Policy Statement, Chapter 10, also identifies and acknowledges the role and specific sections pertaining to landscape in the RMA, as we as acknowledging other national policy statements including National Policy Statement on Electricity Transmission 2008 and the New Zealand Coastal Policy Statement

2010.

11. The Southland Regional Policy Statement 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 Regional Policy Statement delegates such identification, assessment, and protection/management to other Plans.

12. The Southland Regional Policy Statement, Chapter 16: Energy, recognises resource management issues regarding energy within the region, and provide policy guidance for addressing those issues that are not addressed elsewhere in the RPS.

13. Below are the relevant objective and related policies, from Chapter 16: Energy, which are relevant and relate to the project:

    Objective ENG.2 *– Use and development of energy resources Use, development, transmission and distribution of local and regional energy resources is undertaken where the adverse effects on the environment (including communities) are avoided, remedied, mitigated, or where appropriate, and such measures are volunteered by the resource user, offset or compensated for.*

    Policy ENG.6 *– Offsetting and/or environmental compensation When considering any residual environmental effects (including social effects) arising from the use and development of new energy resources that cannot be avoided, remedied or mitigated, decisionmakers shall have regard to offsetting measures or environmental compensation where appropriate, and such measures are volunteered by the resource user, including measures or compensation which benefit the local environment and community affected, including tangata whenua.*

    Policy ENG.7 *– Effects on local communities Ensure any potential adverse effects on local communities from the ongoing operation and subsequent closure of energy facilities are: (a) appropriately addressed as part of associated resource consent processes; and (b) avoided, remedied, mitigated, or where appropriate, and such measures are volunteered by the resource user, offset or compensated for.*

    Objective ENG.3 *– Generation and use of renewable energy generation and use of renewable energy resources is increased.*

    Policy ENG.2 *– Benefits of renewable energy Recognise and make provision for the development of renewable energy activities, and their benefits, which include:*

    - *maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;*

- *maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;*

- *using renewable natural resources rather than finite resources;*
- *the reversibility of the adverse effects on the environment of some renewable electricity generation technologies;*

- *avoiding reliance on imported fuels for the purposes of generating electricity; while appropriately addressing adverse effects.*

Policy ENG.4 *– Potential sites and sources for renewable electricity generation Make provision for activities associated with the investigation, identification, and assessment of potential sites and energy sources for renewable electricity generation by existing and prospective generators.*

Objective ENG.4 *– National significance Recognise and make provision for the national significance of renewable electricity generation activities.*

Policy ENG.2 - *(details above)*

Policy ENG.4 *– (details above)*

14. The methods section of the RPS relating to Chapter 16, notes the key partners and the roles that they play in the policy, including the delegation, in some instances, to various agencies and authorities.

15. The RPS also notes the collaborative and collective role that Southland Energy Strategy will (it has been completed post the publication of the RPS – see section below) plays in the identification of appropriate sites and advocacy associated with energy and in particular renewable energy projects.

Southland Regional Landscape Assessment (1997)

16. The 1997 Landscape Assessment is one of five regional assessments used by the Southland District Council (see below for Southland District Plan) to identify and broadly classify landscapes within the region. The 1997 Landscape Assessment is used to specifically identify Te Wahipounamu World Heritage Area (Fiordland) and Rakiura Stewart Island as ONLs. It identified other Inland Mountains and the entire Southland Coast as 'additional' (potential) ONLs.

17. The study also identified 'characteristic landscapes'. It 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."

18. The study noted four specific 'characteristic landscapes' that appeared to be repeatedly mentioned throughout the consultation period and/or through assessment forms. The site sits on the northern boundary of the inland Catlins, which is referenced in the 1997 Landscape Assessment as the following:

> *"The Catlins appear to be thought of as occurring largely in Otago. They were not referred to frequently in public meetings or indeed in assessment sheet returns. Nonetheless their unique combination of vegetation, landform and sweeping pasture was recognised as highly characteristic by some. Their skyline features viewed from the Southland Plains were also highly valued."*

19. The Characteristic Landscape of the Inland Catlins is more specifically described in Appendix 4 of the 1997 Landscape Assessment:

> *"**Inland Catlins** – The Catlins contain a number of forest reserves e.g. Venlaw, Slopedown and Waipapa Point. The Pukerau Red Tussock Scientific Reserve is nearby. The hills themselves provide a backdrop to the eastern Southland Plains.*
>
> *Suggested boundaries: likely to relate closely to the vegetation boundaries in the case of tussock and bush remnants. Boundaries problematic for landforms"*

Southland District Plan (2018)

20. The Southland District Plan (SDP) enables the Southland District Council (SDC) to carry out its functions under the RMA. The proposed wind farm project sits entirely within the Southland District Council boundaries.

21. The SDP uses the above 1997 Landscape Assessment as one of the foundation documents for landscape features and overlays.

22. The proposed wind farm is in the Rural Zone and has no overlays. It is not an outstanding natural landscape – with two ONLs in SDC being Te Wahipounamu World Heritage Area (Fiordland) and Rakiura Stewart

Island.

23. Section 2.3 of the SDP deals with Natural Features and Landscapes. Relevant objectives and policies (and explanation) include:

Objective NFL.1 *– Outstanding Natural Features and Landscapes are protected from inappropriate subdivision, land use and development.*

Objective NFL.2 *– Within Visual Amenity Landscapes, subdivision, land use and development is undertaken in a manner that maintains amenity values and visual qualities.*

Policy NFL.2 *– Ensure that subdivision, land use and development located within a Visual Amenity Landscapes achieves appropriate integration with that landscape.*

Policy NFL.3 *– Avoid, remedy or mitigate adverse effects of subdivision, land use and development on the District's natural features and landscapes that have not been assess by Council for landscape values.*

Explanation: *Policies NFL.1 and NFL.2 provide specific direction for Outstanding Natural Features and Landscapes and Visual Amenity Landscapes. However there are a range of natural features and landscapes within the District that have not been assessed to determine their landscape values. These landscapes are the Inland Mountains (Takitimu, Livingstone, Eyre, Garvie and Umbrella Ranges), the Southland Hills (Longwoods, Taringaturas, Hokonuis and Inland Catlins), the Southland Valleys and Plains (Lower Waiau Valley, Waimea Plains, Southland Plains). As landscape assessments of these areas are undertaken Council, through the plan change process, may identify and protect additional Outstanding Natural Features and Landscapes and Visual Amenity Landscapes.*

24. Section 2.9 of the SDP deals with Energy, Minerals and Infrastructure. This section acknowledges the strategic importance and the value of a coordinated approach to energy, minerals and infrastructure. Reference and recognition is given to the National Policy Statement for Renewable Electricity Generation 2011, National Environmental Standard for Electricity Transmission Activities and National Policy Statement on Electricity Transmission 2008, among others. Relevant objectives and policies include:

Objective ENGM.1 *– Energy and mineral resources are developed an electricity is generated, in a manner that avoids, remedies or mitigates the adverse effects on the environment.*

Objective ENGM.2 *– To recognise that energy and mineral resources are important to the current and foreseeable needs of Southland and New Zealand.*

Policy ENGM.1 *– Provide for the investigation and development of renewable electricity and energy resources and non-renewable energy*

and mineral resources whilst avoiding, remedying or mitigating adverse effects on the environment.

Policy ENGM.2 *– To enable the operation, maintenance, repowering, upgrade and development of existing renewable electricity generation activities.*

Policy ENGM.3 *– Recognise the local, regional and national benefits associated with the development of energy and mineral resources and the generation of electricity.*

Policy ENGM.4 *– Recognise that development of energy and mineral resources and the generation of electricity can have a functional, technical or operational requirement to be sited at a particular location.*

Policy ENGM.5 *– Protect the development of energy and mineral resources and the generation of electricity, including renewable energy, from the reverse sensitivity effects of incompatible subdivision, land use and development.*

Policy ENGM.6 *– Recognise and provide for the development, operation, maintenance, repowering and upgrading of new and existing renewable electricity generation activities, in a matter that:*

1. *Recognises the need to locate renewable electricity generation activities where the renewable electricity resources are available.*
2. *Recognises logistical and technical practicalities associated with developing, upgrading, operating and maintaining renewable electricity generation activities.*
3. *Encourages, facilitates and provides for research and exploratory-scale investigations into existing and emerging renewable electricity generation technologies and methods.*

Policy ENGM.8 *– Provide for offsetting measures or environmental compensation where any residual environmental effects of renewable electricity generation activities cannot be avoided, remedied or mitigated.*

25. The proposed wind farm site is entirely within the Rural Zone, as defined by the SDP see appendix for map. Section 3.1 of the SDP deals with Rural Zone and notes that:

> *"…the Rural Zone predominantly supports farming related activities but also provides for a range of land uses, such as infrastructure and renewable electricity generation activities. The character of the rural area is one where there is a mix of activities that require a rural location."*

26. Relevant objectives and policies from the section 3.1 Rural Zone of the SDP include:

Objective RURAL.1 *– Subdivision, land use and development in the Rural Zone shall be undertaken in a manner that maintains the life*

supporting capacity and productive value of the land resource.

Objective RURAL.2 *– Maintain amenity values, including rural character.*

Policy RURAL.1 *– Recognise the benefits of subdivision, land use and development in providing for growth and development of the District, whilst avoiding, remedying or mitigating adverse effects on the environment.*

Policy RURAL.2 *– Manage subdivision, land use and development in a manner that maintains or enhances amenity values, including rural character and landscapes.*

Policy RURAL.3 *– Avoid, remedy or mitigate reverse sensitivity effects.*

Policy RURAL.4 *– Subdivision, land use and development shall be undertaken in a manner that:*

1. *Promotes sustainable land use and soil management practices.*
2. *Maintains the life supporting capacity and productive value of the land resource.*
3. *Avoids or mitigates erosion, sedimentation and instability of soils, particularly on hill country land.*

Policy RURAL.8 *– Avoid, remedy or mitigate the adverse effects of earthworks.*

Policy RURAL.9 *– Avoid, remedy or mitigate reverse sensitivity effects on infrastructure and network utility operations.*

27. Section 5.9 of the Southland District Plan records 'Significant Geological Sites and Landforms'. The information is compiled from the New Zealand Geological Society's 'New Zealand Geopreservation Inventory', see section below.

28. Section 5.9 notes that the 'Significant Geological Sites and Landforms' captured does not include lands administered by the DoC as they are subject to a decision-making and concession process controlled and administered by the Department, rather than the Southland District Council.

New Zealand Geopreservation Inventory

29. There are no features identified by the New Zealand Geopreservation Inventory on the site or in the vicinity of the site of the proposed wind farm.

30. Of note, the Southland District Plan (2018) has a Geological features

section, Section 5.9 Significant Geological Sites and Landforms, which uses the New Zealand Geopreservation Inventory as basis for defining Significant Geological Sites and Landforms. To this end, the SDP does not note any significant features on or near the proposed wind farm.

Āpiti Hono Tātai Hono: Ngā Whenua o Ngāi Tahu ki Murihiku (2022)

31. Contact has engaged Te Ao Mārama, as part of the assessment process to provide a cultural landscape report. We acknowledge that it is for tangata whenua to identify the values they associate with whenua in their rohe. It is relevant for this section, to acknowledge some the planning and provisions, which includes Āpiti Hono Tātai Hono: Ngā Whenua o Ngāi Tahu ki Murihiku.

32. Āpiti Hono Tātai Hono is also relevant as a cultural landscape assessment method for Murihiku by Ngāi Tahu ki Murihiku. It was prepared by Te Ao Mārama Inc. It says asking the significance of a landscape is a redundant question (all landscape is significant), the more meaningful question is "what is held within a landscape".

33. Rather than using physical, associative, and perceptual layers (dimensions) that are commonly used in professional landscape assessment[46], Āpiti Hono Tātai Hono promotes Ira Atua Ira Tangata which comprise six layers of whakapapa connecting people and whenua. The layers connect metaphysical through to human experience and are conceived of as tuakana/teina – Ira Atua informing Ira Tangata, but with duality or reciprocity. We understand that certain considerations (which might inform resource management matters) relate to each layer.

Layer	*Interpretation*	*Considerations*
Ira Atua: **Waiatatanga**	Creation narratives, cosmology, life energy and essence	• Understanding of creation and the interrelated steps • Seniority and mana of elements • Whakapapa between elements • Duality in landscape • Continuum of time.

[46] As described in Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines, Tuia Pito Ora New Zealand Institute of Landscape Architects, July 2022

Layer	*Interpretation*	*Considerations*
Ira Atua: **Atuatanga**	Worlds of the Gods – physical and human archetypes – including Tangaroa, Ranginui and Papatūānuku, Tāne, Tāwhiri-mātea	• Domains and whakapapa of atua • Mauri, wairua and hauora • Mana atua, mana tūpuna, mana whenua, mana tangata • Reverence and utu • Ritual • Tikanga, correct conduct • Parables - understanding how the world works and how to act • Climate and natural state • Biodiversity and ecology • Evolution and change.
Ira Atua: **Ngā Tipua**	Worlds of ancestors and human precursors. This layer includes narratives relating to specific landscape features, places, names.	• Connections forged with atua, Te Waipounamu, Te Ika a Māui and Hawaiki • How/why the landform was shaped • Geology and geomorphology • Topography and hydrology • Characteristics of natural features • Mahinga kai resources • Aesthetic qualities • Pepeha and whakatauakī • Wayfinding and landmarks • Modification of landscape
Ira Tangata: **Ngā Kākano**	the traditional lifeways and experience prior to Pākehā arrival	• Occupation, settlement and travel patterns, including those without physical evidence • Evolution of Ngāi Tahu ki Murihiku society from its Pacific origins • Maramataka • Cultural practices, uses and associations • Connections with Te Waipounamu, Te Ika a Māui and Hawaiki

Layer	*Interpretation*	*Considerations*
		• Knowledge systems and tikanga associated with human use of the landscape • Social structures and control mechanisms such as manawhenua, rangatiratanga, rāhui and tapu • Tangible evidence of human occupation, e.g. archaeological sites, urupā, tauranga waka, rock art • Intangible evidence of human occupation, e.g. place names, cultural narratives, personification of landscape.
Ira Tangata: **Te Kerēme**	the experience of colonisation until the Treaty Claim which was signed 1997	• Occupation and travel patterns • Relocation and reordering of settlements and civic structures • Social and cultural shifts • Human impacts on the environment, including cumulative effects and land use change • Presence, absence and loss of species • Māori and SILNA lands • International connections through trade, travel, intermarriage and population relocation • Legislation, social norms and attitudes. • Social structures and control mechanisms • Land use change and alienation • Evidence of human occupation.

Layer	*Interpretation*	*Considerations*
Ira Tangata: **Te Ao Marama**	the current and future experience, including acknowledging the past, reconnection, and revitalisation	• Cultural and economic redress from Treaty Settlement • Legislation, social norms, and attitudes • Occupation and travel patterns • Modern settlements and civic structures • Human impacts on the environment, including ki uta ki tai, cumulative effects and restoration • Climate change adaptation responses • Presence, absence, and loss of species • Restoration and revitalisation of environment, culture, and society • Future social, cultural, and economic aspirations • Ahi kā and the return of whānau and whenua.

34. Āpiti Hono Tātai Hono expands on each of these layers. It lists data sources. It includes background to cultural landscape assessment and overarching principles. The layers are set out in a template to help organise assessments of specific landscapes and effects on landscape values.

35. Āpiti Hono Tātai Hono Stage 1 looks ahead to a Stage 2 which will address management of the Murihiku cultural landscape such as through District Plan provisions (it proposes a Cultural landscapes Chapter), responses to proposals, collating spatial data, and development of assessment skills.

36. Āpiti Hono Tātai Hono has parallels and overlaps with professional (Western-based) landscape assessment but is separate and complementary. Professional landscape assessment has regard to tāngata whenua matters but does not substitute for such cultural landscape assessment.

APPENDIX D – DWELLING INVENTORY AND EFFECTS ON DWELLING ASSESSMENT – DATA

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
1	1403 Wyndham-Mokoreta Road, Redan 9892	2.3	**Adverse** Moderate - High	House is elevated and set back from road. Appears orientated north toward wind farm looking up toward scarp. The nearest turbines are those behind the scarp with a likely view of turbines towers, with base obscured by scarp and some views of blades only. Photo simulation (Viewpoint 5) is approximately 1.8km to the west.	1292812.295	4857283.656
2	1281 Wyndham-Mokoreta Road, Redan 9892	2.4	**Adverse** Moderate - High	House is elevated and appears orientated north toward wind farm looking up toward scarp. The nearest turbines are those behind the scarp with a likely view of turbines towers, with base obscured by scarp and some views of blades only. Photo simulation (Viewpoint 5) is approximately 300m to the southwest.	1291257.389	4857697.56
3	1282 Wyndham-Mokoreta Road, Redan 9892	2.6	**Adverse** Moderate - High	Set back on the south side of the road the dwelling appears orientated north toward wind farm looking up toward scarp however intervening vegetation will provide partial screen and perspective depth. The nearest turbines are those behind the scarp with a likely view of turbines towers, with base obscured by scarp and some views of blades only. Photo simulation (Viewpoint 5) is approximately 700m to the northwest.	1291758	4857133
4	1380 Slopedown Road, Clinton 9583	2.7	**Adverse** Low	Dwelling is located toward the base of the scarp and appears orientated to the north. Vegetation around the dwelling is dense and combined with proximity to scarp will result in wind farm, located to the west of the dwelling being largely screened with partial views behind the scarp of a limited numbers of turbines. Photo simulation (Viewpoint 10) is approximately 900m to the south.	1307601	4863775
5	267 Venlaw Road, Oware 9892	2.8	**Adverse** Moderate-Low	Dwelling orientation north, with wind farm located to the south. Property is located in small valley with hill behind providing some screening of wind farm. Photo simulation (Viewpoint 11) 2.9km to the northwest	1294161.243	4865503.705

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
6	1382 Slopedown Road, Clinton 9583	2.8	**Adverse** Moderate-Low	Dwelling is located toward the base of the scarp and appears orientated to the north. Vegetation around the dwelling is to the south and west of the dwelling. Proximity to scarp will result in wind farm, located to the west of the dwelling being largely screened with partial views behind the scarp of a limited numbers of turbines. Photo simulation (Viewpoint 10) is approximately 600m to the south.	1307494.361	4863409.257
7	1205 Wyndham-Mokoreta Road, Redan 9892	3.0	**Adverse** Moderate - High	Dwelling appears orientated north toward western end of wind farm looking up toward scarp however intervening vegetation will provide partial screen and perspective of depth to views to the east. The nearest turbines are those behind the scarp with a likely view of turbine towers, with base obscured by scarp and some views of blades only. Photo simulation (Viewpoint 5) is approximately 200m to the east.	1290847.935	4857330.841
8	1206 Wyndham-Mokoreta Road, Redan 9892	3.0	**Adverse** Moderate - High	Dwelling appears orientated north toward western end of wind farm looking up toward scarp. Intervening vegetation (north) will provide partial screen and perspective of depth. Vegetation appears low on the east providing little screening of views. The nearest turbines are those behind the scarp with a likely view of turbine towers, with base obscured by scarp and some views of blades only. Photo simulation (Viewpoint 5) is approximately 200m to the east.	1290879.285	4857234.551
9	1288 Slopedown Road, Clinton 9583	3.1	**Adverse** Moderate-Low	Dwelling appears orientated north and north northeast with the wind farm located to the west. The dwelling appears to be elevated. The topography and proximity to the scarp results in partial views of a small number of turbines. Photo simulation (Viewpoint 10) is approximately 2km to the south.	1308244.779	4864776.375
10	1200 Wyndham-Mokoreta Road, Redan 9892	3.1	**Adverse** Moderate - High	Dwelling appears orientated northeast toward western end of wind farm looking up toward scarp. Intervening vegetation (north) will provide partial screen and perspective of depth. The nearest turbines are those behind the scarp with a likely view of turbines towers, with base obscured by scarp and some views of blades only. Photo simulation (Viewpoint 5) is approximately 400m to the east.	1290787.633	4857218.716

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
11	248 Venlaw Road, Oware 9892	3.2	**Adverse** Moderate-Low	Dwelling orientation north, with wind farm located to the south and east. Established garden vegetation and topography assist in screening wind farm. Photo simulation (Viewpoint 11) 2.3km to the northwest.	1293406.113	4865545.772
12	676 Woods Road, Oware 9892	3.2	**Adverse** Moderate - High	Dwelling appears orientated to the north, with closest turbine to the east. Vegetation around dwelling provides some screened views and perspective. Turbines would be in eastern periphery of the view. Photo simulation (Viewpoint 13) 3.8km to the northwest is the most representative of the views, while photo simulation (Viewpoint 5) is 2.3km to the south.	1289609.273	4859134.77
13	1528 Wyndham-Mokoreta Road, Redan 9892	3.3	**Adverse** Moderate - High	Dwelling appears orientated north toward western end of wind farm looking up toward scarp and east toward the road and Egremont. Limited vegetation although intervening vegetation (shelter belts) will provide partial screen and perspective of depth. The nearest turbines are those behind the scarp with a likely view of turbines towers, with base obscured by scarp and some views of blades only. Photo simulation (Viewpoint 5) is approximately 2.7m to the northwest.	1293650.759	4856318.031
14	1099 Wyndham-Mokoreta Road, Redan 9892	3.4	**Adverse** Moderate - High	Dwelling is elevated and appears orientated north. Views of the western end of wind farm and along scarp to the east. Intervening vegetation and topography will provide partial screen and perspective of depth. The nearest turbines are those on the western end of the wind farm in the eastern periphery of the view. Photo simulation (Viewpoint 5) is approximately 1.2km to the east	1289936.451	4857801.884
15	1561 Slopedown Road, Clinton 9583	3.5	**Adverse** Low	Dwellings (potentially two) orientated to the northeast with established vegetation surrounding property, including tree lined driveway. Wind farm is located to the west of the property, with topography of the scarp and intervening vegetation limiting views. Photo Simulation (Viewpoint 10) is approximately 900m to the north.	1307105.608	4862056.998

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
16	1542 Wyndham-Mokoreta Road, Redan 9892	3.5	**Adverse** Moderate - High	Dwelling appears orientated north and east toward western end of wind farm looking up toward scarp. The dwelling has a small amount of elevation. Vegetation to the east provides some screening. The nearest turbines are those behind the scarp with a likely view of turbine towers, with base obscured by scarp and some views of blades only. Photo simulation (Viewpoint 5) is approximately 2.8m to the northwest.	1293700.983	4856124.49
17	1408 Wyndham-Mokoreta Road, Redan 9892	3.5	**Adverse** Moderate	Dwelling orientated to the north with views of western end of wind farm. Some tall vegetation around dwelling and in landscape will partially screen views and provide perspective. Photo simulation (Viewpoint 5) is 2.2km to northwest.	1292813.53	4856109.724
18	1610 Slopedown Road, Clinton 9583	3.6	**Adverse** Low	Dwelling is orientated to the northeast with established garden and shelter vegetation surrounding dwelling. Wind farm is located to the west of the property, with topography of the scarp and intervening vegetation limiting views of the wind farm with some blades visible over scarp. Photo simulation (Viewpoint 10) is approximately 1.4km to the north.	1306705.731	4861705.825
19	1511 Slopedown Road, Clinton 9583	3.6	**Adverse** Low	Dwelling is orientated to the north with established garden and shelter vegetation surrounding dwelling, including tree lined driveway and other intervening vegetation. Wind farm is located to the west of the property, with topography of the scarp and intervening vegetation limiting views of the wind farm. Photo simulation (Viewpoint 10) is approximately 600m to the north.	1307490.931	4862204.393
20	1561B Slopedown Road, Clinton 9583	3.6	**Adverse** Low	Dwelling is orientated to the northeast with established garden and shelter vegetation surrounding dwelling, including tree lined driveway. Wind farm is located to the west of the property, with topography of the scarp and intervening vegetation limiting views. Photo simulation (Viewpoint 10) is approximately 900km to the north.	1307133.823	4861945.833
21	215 Venlaw Road, Oware 9892	3.6	**Adverse** Low	Dwelling orientation to northeast, with wind farm located to the south and east. Vegetation and topography on the east and south side of the dwelling assist in minimising wind farm views. Photo simulation (Viewpoint 11) 1.9km to the northwest	1293131.637	4865835.603

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
22	68 McDonald Road, Redan 9892	3.8	**Adverse** Moderate	Dwelling has orientation to the northeast - with clear views to the wind farm and scarp. Intervening topography limits some views on the eastern edges of scarp. Photo simulation (Viewpoint 5) is 500m to the north	1290656.495	4856419.446
23	232 Campbell Road, Oware 9892	3.8		Dwelling 23 is within Glencoe Station (part of the SWF site) so has not been assessed for effects.	1289510.494	4861648.114
24	1048 Slopedown Road, Clinton 9583	4.0	**Adverse** Low	Dwelling slightly elevated from road. Orientated to the north. Closest turbine is directly to the west. Vegetation to the south (running east to west) breaks views to south and west. Limited views of turbines, with partial views of blade tips possible behind scarp. Photo simulation (Viewpoint 10) is 3.6km to the south	1309128.996	4866217.003
25	170 Venlaw Road, Oware 9892	4.0	**Adverse** Low	Dwelling orientation to northeast, with wind farm located to the south and east. Vegetation and topography assist in minimising effect of wind farm. Photo simulation (Viewpoint 11) 1.5km to the northwest	1292729.277	4866016.504
26	1623 Wyndham-Mokoreta Road, Redan 9892	4.1	**Adverse** Moderate	Orientated north with views towards scarp. Garden and shelter vegetation in immediate vicinity of dwelling. Intervening topography restricts some views. Photo simulation (Viewpoint 5) is 3.7km to the northwest.	1294139.569	4855314.817
27	24 Irwin Road, Oware 9892	4.1	**Adverse** Moderate	Dwelling has outlook and orientation to the north. Is located directly west of the nearest turbine. Vegetation surrounding dwelling. Stacking of turbines. Photo simulation (Viewpoint 13) is 2.9km to the west.	1288957.417	4861166.925
28	1000 Wyndham-Mokoreta Road, Redan 9892	4.2	**Adverse** Moderate	Dwelling on south side of road and is orientated northeast with clear views. Closest turbine is to the northeast. Views of the most western turbines in the eastern periphery of the view. Photo simulation (Viewpoint 5) is 2.1km to the east and Photo (Viewpoint 15) is 2km to the south.	1288919.1	4857901.7

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
29	972B Slopedown Road, Clinton 9583	4.3	**Adverse** Low	Dwelling is oriented north. Dwelling is surrounded by established garden and shelter vegetation, including tall shelter belts to the south and the west. Closest turbine is directly to the west. Views of turbines unlikely from the dwelling. Potential views from surrounding garden and curtilage. Photo simulation (Viewpoint 10) is 4.3km to the southwest	1309367.033	4866515.004
30	1071 Slopedown Road, Clinton 9583	4.3	**Adverse** Low	Dwelling orientated to the north. Closest turbine is directly to the west. Vegetation to the south of dwelling and intervening vegetation breaks views to south and west. Limited views of turbines, with partial views of blade tips possible behind scarp. Photo simulation (Viewpoint 10) is 3.9km to the southwest.	1309489.06	4866257.076
31	48 Rodgers Road, Mokoreta 9892	4.4	**Adverse** Moderate-low	Orientated north on elevated site. Topography of a foreground hill (west) and Mt Herbert (east) provides immediate views. Turbines located directly north. Photo Simulations (Viewpoints 6 and 7) are 2.7km and 2.1km to the southwest and southeast respectively.	1299330.703	4853649.566
32	972 Slopedown Road, Clinton 9583	4.5	**Adverse** Low	Dwelling slightly elevated from road. Orientated to the north. Significant well-established vegetation around dwelling (to south, west, and north) Closest turbine is directly to the west. Limited views of turbines, with partial views of blade tips possible behind scarp. Photo simulation (Viewpoint 10) is 4.4km to the southwest.	1309478.324	4866983.253
33	1667 Wyndham-Mokoreta Road, Redan 9892	4.7	**Adverse** Moderate-Low	Orientated north, with views of western end of wind farm. Topography to the east (Egremont) frames views of the scarp. Photo simulation (Viewpoint 5) is 3.7km to northwest	1293816.788	4854857.277
34	1710 Wyndham-Mokoreta Road, Redan 9892	4.8	**Adverse** Moderate-Low	Orientation toward the east. Directly on Road - might be hall/unused? View of western end of wind farm. Topography to east (Egremont) frames views of scarp. Photo simulation (Viewpoint 5) is 3.9km to northwest	1293842.14	4854563.207
35	26 Scott Road, Wyndham 9892	4.9	**Adverse** Moderate-Low	Orientation to the north and the est. Closest turbines to the east. Immediate vegetation around dwelling provides some framing and perspective. Photo simulation (Viewpoint 5) is 2.8km to the east.	1288200.885	4857742.849

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
36	934 Waiarikiki-Mimihau Road, Oware 9892	4.9	**Adverse** Low	Dwelling orientation to the north, with turbines located to the south. Topography to the south of dwelling is rising up the back slope and will provide some views of western end of wind farm site. Turbine blades visible on horizon or potentially screened. Photo simulation (Viewpoint 11) is 600m to the northeast	1290942.226	4866107.2
37	13 Story Road, Oware 9892	4.9	**Adverse** Low	Dwelling orientation to the north, with turbines located to the south. Topography to the south of dwelling is rising up the back slope and will provide some views of western end of wind farm with bases of turbines largely obscured and blades visible on southern horizon. Photo simulation (Viewpoint 11) is 150m to the north.	1291431.117	4866406.629
38	1989 Wyndham-Mokoreta Road, Redan 9892	5.0	**Adverse** Moderate-Low	Established garden setting provides perspective and foreground to the wind farm, dwelling orientated north and west. Potential view of three turbines behind ridge to the north. Intervening topography mask some turbines. Photo simulation (Viewpoint 6) is 2.3km to southeast.	1296164.071	4853117.808
39	99 Campbell Road, Oware 9892	5.0	**Adverse** Moderate-Low	Located to the west of the turbines. Dwelling has north orientation, with limited vegetation around dwelling (south, west, and small amounts east). Views of turbines behind ridge to the east. Photo simulation (Viewpoint 13) is 2.2km to the west and is the most representative view. Photo simulation (Viewpoint 12) is 1.8km to the north.	1288154.038	4861607.615
40	96 Campbell Road, Oware 9892	5.0	**Adverse** Moderate-Low	Located to the west of the turbines. Dwelling has north orientation, with no vegetation around dwelling. Views of turbines behind ridge to the east. Photo simulation (Viewpoint 13) is 2.2km to the west and is the most representative view. Photo simulation (Viewpoint 12) is 1.9km to the north.	1288180.337	4861530.745
41	1964 Wyndham-Mokoreta Road, Redan 9892	5.1	**Adverse** Moderate-Low	Dwelling orientated north and west. Located to south of road. Limited immediate planting around dwelling. Views of turbines behind ridge. Intervening topography mask some turbines. Photo simulation (Viewpoint 6) is 2.6km to southeast.	1295812.3	4853209.6

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
42	414 Woods Road, Oware 9892	5.1	**Adverse** Moderate-Low	Located to the west of the wind farm. Orientation to the north, west and east. Views of turbines behind ridge, clear. Photo simulation (Viewpoint 13) is 1.6km to the west.	1287775.913	4860767.392
43	156 Waiarikiki-Mimihau Road, Oware 9892	5.1	**Adverse** Very Low	Dwelling located on south side of road, with orientation to the north. Vegetation to the south of property but open to the north. Wind farm located to the east. Topography immediately to the east of dwelling will screen wind farm. Photo simulation (Viewpoint 13) is 1.3km to the south.	1285622.946	4861903.281
44	836 Waiarikiki-Mimihau Road, Oware 9892	5.1	**Adverse** Low	Dwelling orientation to the north. Sits in Valley floor with wind farm located to the south. Rising topography to the south results in partial views of wind turbines without seeing base. Turbines potentially screened by foreground vegetation and topography. Photo simulation (viewpoint 11) is 1.4km to the east	1290170.303	4865756.227
45	1850 Wyndham-Mokoreta Road, Redan 9892	5.2	**Adverse** Moderate-Low	Located to south of road, orientated to the north. Intervening landscape vegetation and shelterbelt/s and topography provide some screening/scale to wind farm to north. Photo simulation (Viewpoint 6) is 3.6km to southeast	1294736.667	4853533.361
46	403 Woods Road, Oware 9892	5.2	**Adverse** Moderate-Low	Located to the west of the wind farm. Orientation to the north. Some immediate vegetation to the east of dwelling provides some screening) Views of turbines behind ridge. Stacking of turbines. Photo simulation (Viewpoint 13) is 1.6km to the west.	1287696.512	4860893.074
47	165 Davidson Road West, Otaraia 9772	5.3	**Adverse** Very Low	Dwelling faces north overlooking large semi-circle entrance road and sits on elevated site. Wind turbines are located directly to the south. Large established vegetation to the south. Rising topography to the south, provides some intervention of views. Visual simulations in this area are limited with the closest (viewpoint 11) 10km to the southwest.	1300619.43	4870945.083

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
48	12 Lawrence Road, Oware 9892	5.3	**Adverse** Moderate-Low	Dwelling orientated to the north. Vegetation on the southwest corner. Wind turbines located directly east of the property. Dwelling sits up on small, terraced area. Clear views of wind farm to the east on and behind ridgeline. Stacking of turbines. Photo simulations in proximity include viewpoints 13 which is 1.5km to the northwest and viewpoint 4 which is 1.8km to southwest and shows elevated terrace the dwelling sits on.	1287415.703	4859696.839
49	135 Davidson Road West, Otaraia 9772	5.3	**Adverse** Very Low	Dwelling faces north with limited vegetation surrounding. Dwelling is situated on slight elevation. Wind turbines are located directly to the south. Rising topography to the south, provides some intervention of views. Visual simulations in this area are limited with the closest (viewpoint 11) 10km to the southwest.	1300357.119	4870888.291
50	1979 Slopedown Road, Clinton 9583	5.4	**Adverse** Moderate-Low	Dwelling orientated to the northeast. Looking up the scarp to the eastern end of the wind farm. Property has garden vegetation and hedging to the west and a small block of exotic forest plantation between dwelling and road. Photo simulation (viewpoint 9) is 700m to the south.	1305278.167	4859049.356
51	39 Campbell Road, Oware 9892	5.4	**Adverse** Moderate-Low	Located to the west of the wind farm. Orientation to the north and east. Relatively open views with small vegetation around dwelling. Clear views of turbines on and behind ridge to the east. Photo simulation (Viewpoint 13) is 1.7km to the west.	1287667.146	4861299.069
52	634 Waiarikiki-Mimihau Road, Oware 9892	5.5	**Neutral**	Located to the north of the wind farm, orientated to the north overlooking the Mimihau valley. Dwelling is enclosed on west, south and eastern sides with vegetation with views only to the north. Photo simulation (viewpoint 12) is 1.8km to southwest.	1288711.514	4864601.59
53	176 Davidson Road West, Otaraia 9772	5.6	**Adverse** Very Low	Dwelling faces northeast with limited vegetation surrounding. Wind turbines are located directly to the south. Rising topography to the south, provides some intervention of views. Visual simulations in this area are limited with the closest (viewpoint 10) 10km to the southwest.	1300317.691	4871156.676

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
54	1995 Slopedown Road, Clinton 9583	5.7	**Adverse** Moderate-Low	Dwelling orientated to the east and north. Surrounded by both a well-established gardens and exotic forest to the west and south, between dwelling and road provides screen of wind farm. Photo simulation (viewpoint 9) is 400m to the south.	1305256.093	4858731.374
55	820 Wyndham-Mokoreta Road, Wyndham 9892	5.7	**Adverse** Moderate-Low	Dwelling is on elevated site - set back off the road, orientation is to the north with an outdoor space to the east which appears to be surrounded and enclosed by hedging. Wind farm is located to the east. Visibility to the east (immediate vegetation will have some framing effect), with tops of turbines visible above spur ridge line. Photo simulation (viewpoint 4) is 1.7km to the northwest. Orientation of view is different to dwelling.	1287276.677	4857980.943
56	506 Waiarikiki-Mimihau Road, Oware 9892	5.7	**Neutral**	Dwelling sits on spur, orientated to the north. Has established gardens surrounding the property on east, south and western sides. Wind farm is to the southeast. Surrounding vegetation will screen wind farm. Photo simulation (viewpoint 12) is 900m to the west of the dwelling.	1288163.955	4863833.975
57	810 Wyndham-Mokoreta Road, Wyndham 9892	5.8	**Adverse** Moderate-Low	Dwelling is orientated to the northeast. With hedging vegetation close to the dwelling to the north and additional larger established vegetation to the northeast. The wind farm is located to the east of the property. The intervening vegetation will provide screening from views of the turbines. Photo simulation (viewpoint 4) is 1.5km to the west.	1287144.974	4858214.97
58	247 Scott Road, Wyndham 9892	5.8	**Adverse** Low	Dwelling faces north and sits in valley behind small topographic feature. The intervening topography as well as siting of turbines behind ridgeline means that the wind farm will not be visible directly in front. Will be visible in distance past intervening topography to the east Photo (viewpoint 15) is 500m to the north.	1288516.672	4855685.884
59	58 Tinker Road, Ferndale 8992	5.9	**Neutral**	Dwelling is orientated to the north. Large edging on the west, south and east sides, combined with some intervening topography means the wind farm, located to the south is screened. Photo simulation (viewpoint 11) is 1.5km to the southwest.	1291984.132	4867917.482

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
60	1366 Wyndham Valley Road, Redan 9892	5.9	**Adverse** Moderate-Low	Dwelling orientation to the north and east in river valley floor. Has some vegetation to the east providing some screening of views. Views up to the scarp with turbines behind the ridge. Photo simulation (viewpoint 6) 4.4km to the southeast and viewpoint 5 4.6km to the northwest.	1293726.724	4853660.313
61	16 Davidson Road East, Otaraia 9772	6.0	**Adverse** Very Low	Dwelling orientated north with vegetation in immediate vicinity of dwelling. Wind turbines are located directly to the south. Rising topography to the south, provides some intervention of views. Visual simulations in this area are limited with the closest (viewpoint 11) 11.8km to the southwest.	1302027	4871779
62	57 Davidson Road East, Otaraia 9772	6.0	**Neutral**	Dwelling orientated northeast with establish park-like vegetation in immediate vicinity of dwelling provided large level of enclosure. Wind turbines are located directly to the south. Rising topography to the south and vegetation, provides some intervention of views. Visual simulations in this area are limited with the closest (viewpoint 11) 12.2km to the southwest.	1302435	4871884
63	548 Dodds Road, Slopedown 9583	6.0	**Adverse** Very Low	Established gardens and surrounding shelter vegetation. Dwelling is orientated to the north, east and west. Wind farm is located to the southwest. Topography provides some limitation of views. Viewpoint 10 is 7km to south.	1309671.545	4869606.771
64	2231 Wyndham-Mokoreta Road, Mokoreta 9892	6.0	**Adverse** Low	Dwelling is orientated to the north, looking over western end of wind farm, with visibility of turbines behind ridgeline. Vegetation to the immediate view to the northwest of the dwelling will limit views. Viewpoint 6 is 900m to the southwest.	1298081.965	4851796.052
65	785 Wyndham-Mokoreta Road, Wyndham 9892	6.0	**Adverse** Moderate-Low	Dwelling is orientated to the north and west. Limited vegetation between dwelling and wind farm (to the east). Clear views to the east of turbines. Photo simulation (viewpoint 4) is 1.2km to the west.	1286905.144	4858427.616
66	550 Dodds Road, Slopedown 9583	6.1	**Adverse** Very Low	Dwelling is orientated to the northeast and northwest. Wind farm is located to the southwest. Topography provides some limitation of views with some intervening vegetation. Viewpoint 10 is 7.3km to south.	1309626.438	4869842.379

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
67	181B Waiarikiki Road, Ferndale 9892	6.2	**Neutral**	Dwelling has established vegetation surrounding. Dwelling is orientated to the north. Large hedging to the southwest screens the wind farm, to the south. Intervening topography also limits views of turbines. Viewpoint 11 is 1.2km to the south.	1291100.658	4867677.441
68	471 Waiarikiki-Mimihau Road, Oware 9892	6.2	**Adverse** Very Low	Dwelling sits on the northern slope of spur, orientated to the north and west. The intervening topography and some of the shelter vegetation provides some screening of the wind farm which is located to the southeast. Photo simulation (viewpoint 12) is 1km to the southwest of the dwelling.	1287794.947	4864159.955
69	751 Wyndham Station Road, Wyndham 9892	6.3	**Adverse** Low	Dwelling orientated to the north, with wind farm to the northwest and north. Vegetation to the north and west of the dwelling as well as intervening topography will limit views of turbines. Viewpoint 7 is 4km to the southwest.	1303253.825	4854581.441
70	1292 Wyndham Valley Road, Redan 9892	6.3	**Adverse** Low	Dwelling orientated to the north with wind farm located to the north. Some intervening topography provides some intervention of views. Viewpoint 6 is 5km to the east and is the most representative view.	1292745.853	4853247.347
71	820 Wyndham Valley Road, Redan 9892	6.3	**Neutral**	Dwelling orientation to the north. Wind farm located to the northeast. Large established vegetation to the east and intervening topography will provide screening of turbines. Viewpoint 15 is 2.2km to the northwest	1289511.289	4854278.782
72	751A Wyndham Station Road, Wyndham 9892	6.4	**Adverse** Low	Dwelling orientated to the northwest, with wind farm to the northwest and north. Vegetation, exotic forest, west of the dwelling as well as intervening topography will limit views of turbines. Viewpoint 7 is 4km to the southwest	1303342.758	4854424.369
73	86 Morven Road, Slopedown 9583	6.4	**Adverse** Low	Dwelling is orientated to the north. Intervening vegetation in the immediate landscape provides some foreground to the wind farm. Photo simulation (Viewpoint 9) is 750m to the west.	1305807.285	4858169.785
74	122 Klondyke Road, Mokoreta 9892	6.4	**Adverse** Low	Dwelling is orientated to the north toward western end of wind farm. Intervening topography provides views of small number of turbines. Viewpoint 6 is 1km to the west.	1296502.927	4851648.257

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
75	181A Waiarikiki Road, Ferndale 9892	6.5	**Neutral**	Dwelling is orientated to the northwest and northeast. Established vegetation surrounding property. Intervening topography also limits views of turbines. Viewpoint 11 is 1.5km to the south.	1291149.283	4868044.369
76	16 Mokoreta-Tahakopa Road, Mokoreta 9892	6.5	**Adverse** Low	Dwelling orientated to the north with clear views of the western end of wind farm. Some intervening vegetation provides foreground perspective. Western end of wind farm visible behind ridgeline. Viewpoint 6 is 200m to southwest	1297579.958	4851304.922
77	413 Waiarikiki-Mimihau Road, Oware 9892	6.5	**Adverse** Low	Dwelling sits on the end of spur on knob and is orientated to the northeast. The wind farm which is located to the southeast will be visible on the ridgeline. Photo simulation (viewpoint 12) is 250m to the southwest of the dwelling.	1287272.352	4863381.58
78	321 Wyndham Station Road, Wyndham 9892	6.5	**Adverse** Low	Dwelling appears to have orientation to the east and north, with little vegetation surrounding. Intervening topography reduces views of wind farm in entirety and frames views of turbines providing perspective. Closest viewpoint in viewpoint 7 which is 700m to the west	1300852.644	4852119.812
79	6 Mokoreta-Tahakopa Road, Mokoreta 9892	6.5	**Adverse** Low	Dwelling orientated to the north with clear views of the western end of wind farm. Some intervening vegetation provides foreground perspective and some screening. Western end of wind farm visible behind ridgeline. Viewpoint 6 is 350m to southwest	1297667.097	4851359.546
80	318 Wyndham Station Road, Wyndham 9892	6.6	**Adverse** Low	Dwelling appears to have orientation to the west, east and north, with little established vegetation surrounding. Intervening topography reduces views of wind farm in entirety and frames views of turbines providing perspective. Closest viewpoint is viewpoint 7 which is 700m to the west	1300906.542	4851935.21
81	59B Oware Road, Oware 9892	6.6	**Adverse** Low	Dwelling is orientated to the north and east, with the wind farm located to the east. Views of wind farm behind ridgeline. Photo simulation (viewpoint 13) is 700m to the south.	1286431.58	4861381.582

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
82	110c Foster Road, Mokoreta 9892	6.6	**Adverse** Low	Dwelling appears to have orientation to the north, with little established vegetation surrounding. Intervening topography reduces views of wind farm in entirety and frames views of turbines providing perspective. Closest viewpoint in viewpoint 7 which is 200m to the north	1300168.505	4851621.424
83	103 Klondyke Road, Mokoreta 9892	6.6	**Adverse** Low	Dwelling is orientated to the north toward western end of wind farm. Intervening topography and some vegetation provide views of small number of turbines. Viewpoint 6 is 700m to the west.	1296734.093	4851367.838
84	500 Kaiwera Downs Road, Gore 9772	6.7	**Neutral**	Dwelling has little vegetation surrounding and is orientated to the north. Wind farm is located to the south. Intervening topography provides limited viewpoints of wind farm. There are no viewpoints in immediate vicinity - with viewpoint 11 11.4km to the southwest	1301049.434	4872503.631
85	130 Murray Road, Mokoreta 9892	6.7	**Adverse** Low	Dwelling appears to have orientation to the northeast, with little established vegetation surrounding. Intervening topography reduces views of wind farm in entirety and frames views of turbines providing perspective. Closest viewpoint in viewpoint 7 which is 1.2m to the northeast	1299140.202	4851284.848
86	712 Wyndham-Mokoreta Road, Wyndham 9892	6.7	**Adverse** Low	Dwelling is orientation to the north. Wind farm is located to the east. Established vegetation to the west is in immediate proximity providing some screening. Viewpoint 4 is 500m to the northwest	1286104.705	4858436.202
87	2124 Slopedown Road, Clinton 9583	6.7	**Adverse** Low	Dwelling has established vegetation surrounding with dwelling orientation to the north and east. Wind farm is located to the west and north. Wind farm is visible along ridgeline. Viewpoint 9 is 550m to the north.	1304938.575	4857508.02
88	117 Morven Road, Slopedown 9583	6.9	**Adverse** Low	Dwelling orientated to the northeast and northwest. Vegetation/hedging to the southwest provides some screening of wind farm. Viewpoint 9 is 1.3km to the west. Viewpoint 8 is 2km to the south.	1306328	4857826

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
89	420 Wyndham Station Road, Wyndham 9892	6.9	**Adverse** Low	Dwelling is orientated to the north with vegetation immediately to the west. Topography provides some screening of wind farm and perspective to wind farm behind. Viewpoint 7 is 1.7km to the west	1301835.378	4852268.388
90	51 Mokoreta-Tahakopa Road, Mokoreta 9892	6.9	**Adverse** Low	Dwelling orientated to the north and west. Vegetation on the northwest corner of the property provides some screening of the wind farm which is to the north. Viewpoint 6 is 150m to the north	1297353.485	4851039.399
91	281 Klondyke Road, Mokoreta 9892	6.9	**Adverse** Very Low	Dwelling is orientated to the north with views toward topography that exclude major views of the wind farm. Viewpoint 6 is 2.5km to the east	1294922.967	4851592.727
92	623 Slopedown Road, Clinton 9583	7.0	**Neutral**	Dwelling is on elevated platform, with orientation to the north and northeast. Limited vegetation in surrounds, but topography limits views of wind farm to the southwest. Viewpoint 10 is 6.9km to the south	1311473.714	4868456.403
93	59A Oware Road, Oware 9892	7.0	**Adverse** Low	Dwelling is orientated to the north, with the wind farm located to the east. Views of wind farm with multiple turbines visible placed behind ridgeline. Photo simulation (viewpoint 13) is 700m to the south.	1285956.519	4861398.945
94	384 Dodds Road, Slopedown 9583	7.1	**Adverse** Very Low	Dwelling is orientated to the north. Wind farm is located to the southwest. Established garden vegetation and shelter vegetation provides some screening. Intervening topography also provides some limitation of views. Viewpoint 10 is 8.5km to south.	1309923.628	4871002.825
95	448 Wyndham Station Road, Wyndham 9892	7.1	**Adverse** Low	Dwelling has established vegetation on the western, southern, and eastern edges. Providing significant screening and shelter. Dwelling is orientated to the north. Intervening topography and location of turbines behind ridge limit views of wind farm. Viewpoint 7 is 2km to the west.	1302250.931	4852219.123
96	206 Waiarikiki-Mimihau Road, Oware 9892	7.1	**Adverse** Very Low	Dwelling has orientation to the north and east. Wind farm is located to the east. Intervening topography will screen wind farm. Photo simulation (viewpoint 13) is located 1.5km to the south.	1286118.819	4862140.732

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
97	209 Klondyke Road, Mokoreta 9892	7.1	**Adverse** Low	Dwelling orientated to north toward wind farm. Some vegetation in immediate vicinity provides screening. Topography in wider setting limits views of wind farm. Viewpoint 6 is 1.7km to the east	1295700.81	4851127.948
98	642 Wyndham-Mokoreta Road, Wyndham 9892	7.2	**Adverse** Low	Dwelling is orientated to the west, north and east. Little vegetation surrounding provides clear views to wind farm to the east. Photo simulation (viewpoint 4) is 200m to the east	1285536.347	4858854.57
99	54 Murray Road, Mokoreta 9892	7.2	**Adverse** Low	Dwelling set back off road, faces to the north, with wind farm located to the north. Has limited intervening vegetation, however topography limits views. Viewpoint 6 is 1km to the northwest	1298133.812	4850648.962
100	732 Wyndham Station Road, Wyndham 9892	7.3	**Adverse** Low	Dwelling orientated to the west, north and east, with wind farm to the northwest and north. Vegetation to the west of the dwelling as well as intervening topography will limit views of turbines. Viewpoint 7 is 4.4km to the southwest	1304111.803	4854013.135
101	594 Wyndham Valley Road, Redan 9892	7.3	**Neutral**	Dwelling faces north. Intervening topography results in limited/no views of wind farm. Closest viewpoint, 15, is 1.8km to the north	1287370.183	4854646.814
102	84 Mokoreta-Tahakopa Road, Mokoreta 9892	7.3	**Adverse** Low	Set back off road. Dwelling orientated to the north. Limited vegetation in immediate vicinity. Intervening topography limits views and provides depth to view. Viewpoint 6 is 700m to northeast	1296896.381	4850675.814
103	40 Matheson Road, Mokoreta 9892	7.4	**Neutral**	Dwelling has individual trees and shrubs surrounding. Orientation to the north. Intervening topography limits views of wind farm significantly. Nearest viewpoint (6) is 3.4km to east	1294007.198	4851541.066
104	587 Slopedown Road, Clinton 9583	7.6	**Neutral**	Dwelling is surrounded by vegetation. House is orientated to the north and east. Wind farm is located to the southwest. Intervening topography limit views of turbines. Viewpoint 10 is 7.5km to the southwest	1312022.506	4868830.689
105	473 Wyndham Valley Road, Redan 9892	7.6	**Neutral**	Dwelling faces north. Intervening topography results in limited/no views of wind farm. Closest viewpoint, 15, is 2.1km to the northeast	1286441.943	4855266.097

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
106	151 Waiarikiki-Mimihau Road, Oware 9892	7.6	**Adverse** Low	Dwelling is orientated to the north and east with the wind farm located to the southeast. Dwelling sits next to topographic feature, rolling hill to terrace (to the east) which will provide some screening. Viewpoint 13 is 1.5km to the south	1285600.503	4862058.208
107	109 Matheson Road, Mokoreta 9892	7.6	**Adverse** Very Low	Dwelling has little vegetation in immediate vicinity, is orientated to the north and east, with the wind farm located to the north. Intervening topography will provide significant screening and foreground perspective. Viewpoint 6 is 3km to the east	1294322.508	4851110.313
108	187 Morven Road, Slopedown 9583	7.7	**Adverse** Low	Dwelling orientated to the northwest, north and west. Vegetation around dwelling is well established and provides screening of views. Additional hedging to the west provides additional screening of wind farm. Viewpoint 9 is 1.9km to the northwest and viewpoint 8 is 1.4km to the southeast.	1306780.653	4857136.748
109	132 Waiarikiki-Mimihau Road, Oware 9892	7.7	**Adverse** Low	Dwelling has orientation to the north with open views. Wind farm is located to the east. Dwelling sits on elevated site. Views of wind farm on/behind ridge to the east Photo simulation (viewpoint 13) is located 1.5km to the south.	1285434.59	4861752.108
110	582 Wyndham-Mokoreta Road, Wyndham 9892	7.8	**Adverse** Low	Dwelling is orientated to the north, with wind farm located to the east. Dwelling is situated on elevated landform and has established large vegetation in immediate vicinity will provide some screening. Nearest photo simulation is viewpoint 4 and is 800m to the east	1284982.453	4858970.371
111	564 Wyndham-Mokoreta Road, Wyndham 9892	7.9	**Adverse** Very Low	Dwelling has well established vegetation surrounding providing significant levels of enclosure. Dwelling is elevated and orientated to the north with the wind farm located to the east and largely screened by said vegetation. Viewpoint 4 is 900m to the east.	1284914.288	4859013.789
112	448 Wyndham Valley Road, Redan 9892	7.9	**Neutral**	Dwelling faces north. Intervening topography and intermittent vegetation results in limited/no views of wind farm. Closest viewpoint, 15, is 2.4km to the northeast	1286118.135	4855227.45

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
113	238A Murray Road, Mokoreta 9892	8.1	**Adverse** Very Low	Dwelling sits nestled at base of hill orientated to the north. Established vegetation to the northwest property and intervening topography provides perspective and screening of the narrow views of the wind farm. Viewpoint 7 is 1.7km to the northwest	1301477.088	4850596.579
114	238B Murray Road, Mokoreta 9892	8.2	**Adverse** Very Low	Dwelling sits at base of hill. Dwelling is orientated north. Some intervening vegetation and topography limit views of the wind farm. Closest viewpoint, 7, is 1.8km to the northwest	1301558.983	4850543.475
115	2658 Old Coach Road, Slopedown 9772	8.3	**Neutral**	Dwelling is surrounded by significant established vegetation. Dwelling is orientated to the north, with the wind farm to the south-southwest. The large trees surrounding the dwelling and intervening topography block any potential views of wind turbines. No viewpoints are in close proximity; viewpoint 10 is over 11km to the south.	1307918.245	4873693.806
116	495 Slopedown Road, Clinton 9583	8.4	**Neutral**	Dwelling is surrounded by established vegetation, both garden and small forestry block. House appears orientated to the north. Wind farm is located to the southwest. Intervening topography limit views of turbines. Viewpoint 10 is 8.1km to the southwest	1312848.334	4868929.858
117	226 Mokoreta-Tahakopa Road, Mokoreta 9892	8.4	**Neutral**	Dwelling sits in valley with close topographical features limiting views. Dwelling is orientated to the north and west with vegetation on the western, southern, and eastern edges. Viewpoint 6 is 1.8km to the north	1298035.703	4849449.207
118	2658A Old Coach Road, Slopedown 9772	8.4	**Neutral**	Dwelling is orientated to the north. Shelter belt vegetation to the south and west coupled with intervening topography blocks any potential views of the wind farm. No viewpoints are in close proximity, viewpoint 10 is over 11km to the south	1307479.694	4873926.505
119	33 Hurst Road, Otaraia 9772	8.5	**Neutral**	Dwelling is orientated to the north and west, and has some screening vegetation to the west and east. The wind farm is approximately 8.5km to the south-southwest. There is potential for the tops of some of the wind turbines to be visible but intervening topography limits potential views. No viewpoints are in close proximity,	1306123	4874266

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
				viewpoint 10 is 11.6km to the south.		
120	7 Hurst Road, Otaraia 9772	8.6	**Neutral**	Dwelling is orientated to the north and west and is mostly surrounded by established vegetation. The wind farm is approximately 8.6km to the south-southwest. There is the potential for the tops of some of the wind turbines to be visible, but intervening topography and vegetation helps to limits potential views. The Kaiwera Downs wind farm is closer and located to the southwest. No viewpoints in proximity, viewpoint 10 is 11.8km to the south	1306216	4874381
121	478 Wyndham-Mokoreta Road, Wyndham 9892	8.6	**Adverse** Very Low	Dwelling sits on slight elevation. Orientation to the north overlooking road. Limited vegetation in surrounds. View of wind farm to the east. Closest viewpoint (4) is 1.7km to the east	1284144.656	4859225.936
122	40 Wood Road, Wyndham 9892	8.6	**Adverse** Very Low	Dwelling is orientated to the north, east and west with some established garden surrounding, although appears relatively low in form. Dwelling sits on flat plateau area with views to the east of the wind farm on or behind ridgeline. Little intervening topography or vegetation. Viewpoint 13 is 1.9km to the east	1284244.956	4860742.181
123	25 Woods Road, Wyndham 9892	8.7	**Adverse** Very Low	Dwelling is orientated to the north and east with limited vegetation surrounding. Dwelling sits on flat plateau area with views to the east of the wind farm on or behind ridgeline. Little intervening topography or vegetation. Viewpoint 13 is 2km to the east	1284103.742	4860781.577
124	87 McMillian Road, Mimihau 9892	8.8	**Adverse** Very Low	Dwelling is orientated to the north. There appear to be little vegetation in the immediate surrounds. Wind farm is located to the southeast. View in distance of turbines on or behind ridgeline. No viewpoints in immediate vicinity/angle however viewpoint 13 is 2.6km to the southeast	1284575.139	4862785.455

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
125	40 Mimihau School Road, Mimihau 9892	8.8	**Adverse** Very Low	Established garden to the west and northwest of property. Dwelling faces north, west, and east. More open views across the plateau to the east toward wind farm. Viewpoint 13 is 2.2km to the east.	1284034.024	4861016.095
126	19 Frazer Road, Tuturau 9774	8.8	**Neutral**	Dwelling is orientated toward the northeast and northwest overlooking established garden/vegetation. Dwelling is located on the northern slopes of the Mimihau valley. Intervening topography provides obstruction to potential views of turbines to the south. Viewpoint 11 is 4.4km to the southeast.	1287807.307	4869066.4
127	218 Matheson Road, Mokoreta 9892	8.8	**Adverse** Very Low	Dwelling orientated with views to the north. Some intervening topography limits views of turbines with are behind ridgeline line in distant views. Viewpoint 6 is 3.2km to the northeast.	1294521.974	4849732.558
128	58 Jeff Farm Road, Kaiwera 9772	8.9	**Neutral**	On elevated face the northern facing dwelling has topography immediately to the south, which limits any views of the wind farm. No viewpoints in proximity or that have related views	1302780	4874746
129	122 Mimihau School Road, Mimihau 9892	8.9	**Neutral**	Dwelling set-in well-established garden with substantial vegetation providing screening of wind farm to the southeast. Dwelling's views are orientated to the north and west. Viewpoint 13 is 2.4km to the southeast	1284107.52	4861820.44
130	516 Davidson Road, Tuturau 9774	8.9	**Neutral**	On the north side of the Mimihau Valley, the dwelling views orientate to the north some vegetation to the south. Intervening topography screens the wind farm. Viewpoint 12 is 4km to the south and viewpoint 11 is 5km to the west	1286325.92	4867157.309
131	365 Wyndham-Mokoreta Road, Wyndham 9892	9.0	**Adverse** Very Low	Limited vegetation surrounding dwelling which has views orientated to the north and west. Views of wind farm to the east. Viewpoint 13 is the most relevant and is 2.8km to the east.	1283747.723	4860170.783
132	521 Davidson Road, Tuturau 9774	9.0	**Neutral**	On the north side of the Mimihau Valley, the dwelling views orientate to the north limited vegetation immediately around the dwelling. Intervening topography and vegetation screens the wind farm to the south. Viewpoint 12 is 4km to the south and viewpoint 11 is 5km to the west	1286311.107	4867281.687

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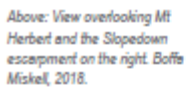
133	57 Jeff Farm Road, Kaiwera 9772	9.0	**Neutral**	On elevated face the northern facing dwelling has topography immediately to the south, which limits any views of the wind farm. No viewpoints in proximity or that have related views	1302868.805	4874805.543
134	57A Jeff Farm Road, Kaiwera 9772	9.0	**Neutral**	On elevated face the northern facing dwelling has topography immediately to the south, which limits any views of the wind farm. No viewpoints in proximity or that have related views	1302845.429	4874819.021
135	314 Mokoreta-Tahakopa Road, Mokoreta 9892	9.0	**Neutral**	Dwelling has views orientated to the northeast. Intervening Vegetation and topography prevent potential views of the wind farm Viewpoint 6 is 2.6km to the north	1298572.444	4848863.316
136	339 Matheson Road, Mokoreta 9892	9.0	**Adverse** Very Low	Dwelling's views to the north and west, with no vegetation surrounding. Intervening topography provides brake and perspective in forms to wind farm. Viewpoint 6 is 2.9km to the northeast	1295255.988	4849249.41
137	2579 Old Coach Road, Slopedown 9772	9.0	**Neutral**	Dwelling is surrounded by significant screening vegetation to the south. Dwellings views are orientated to the north, east and west. Topography will limit any potential views of wind farm. No relevant viewpoints with the closest (Viewpoint 10) 11.8km to the south	1307205.613	4874568.294
138	2579B Old Coach Road, Slopedown 9772	9.0	**Neutral**	Dwelling's views are orientated to the northeast. Intervening topography means any potential views are limited. No relevant viewpoints. Closest is viewpoint 10 which is 11.9km to the south	1306943.727	4874595.062
139	59 Jeff Farm Road, Kaiwera 9772	9.1	**Neutral**	On elevated face the northern facing dwelling has topography immediately to the south, which limits any views of the wind farm. No viewpoints in proximity or that have related views	1302761	4874875
140	216 Leonard Road, Glenham 9892	9.1	**Adverse** Very Low	Dwelling has vegetation in immediate surrounds. Views orientated to the north and east. Wind farm located to the northeast. Distant views of wind farm along and behind ridgeline. Viewpoint 3 is 2.5km to the southwest	1284208.073	4856378.04

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
141	145 Mimihau School Road, Wyndham 9892	9.1	**Neutral**	Dwelling has access from the east and views to the north. Wind farm is located to the southeast with intervening vegetation in the wider landscape restricting views. Nearest viewpoint is 13 and is 2.5km to the southeast	1284029	4862063
142	30 Frazer Road, Tuturau 9774	9.1	**Neutral**	Dwelling is orientated toward the northeast on small plateau on the northern slopes of the Mimihau valley. Intervening topography provides obstruction to potential views of turbines to the south. Viewpoint 11 is 4.3km to the southeast.	1288153.224	4868925.713
143	582 Davidson Road, Tuturau 9774	9.1	**Neutral**	Located on raised 'knob' on northern side of Mimihau Valley. Views are orientated to the north. Intervening Topography will limit views. Viewpoint 11 is 5km to the southeast	1286435.621	4867628.254
144	25B Jeff Farm Road, Kaiwera 9772	9.1	**Neutral**	On elevated face the northern facing dwelling has topography immediately to the south, which limits any views of the wind farm. No viewpoints in proximity or that have related views.	1303629.807	4874784.385
145	25 Jeff Farm Road, Kaiwera 9772	9.2	**Neutral**	On elevated face the northern facing dwelling has topography immediately to the south, which limits any views of the wind farm. No viewpoints in proximity or that have related views	1303079	4874979
146	3 Doctors Road, Wyndham 9892	9.2	**Adverse** Very Low	Dwelling has vegetation in immediate surrounds. Views orientated to the north and east. Wind farm located to the northeast. Distant views of wind farm along and behind ridgeline. Viewpoint 4 is 2.5km to the southeast	1283582.286	4859650.055
147	470 Davidson Road, Tuturau 9774	9.2	**Neutral**	On the north side of the Mimihau Valley, the dwelling views orientate to the north limited vegetation immediately around the dwelling. Intervening topography screens the wind farm to the south. Viewpoint 11 is 5.5km to the west while viewpoint 12 is 4.2km across the valley to the south.	1285850.746	4866956.442
148	186 Kaiwera Downs Road, Gore 9772	9.3	**Neutral**	Dwelling's views are orientated to the north and west. Intervening topography limits view of wind farm. No viewpoint in immediate vicinity, however viewpoint 16 is 11.5km to the west	1299268.377	4874670.178

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
149	148 Knowsley Park Road, Ferndale 9772	9.4	**Neutral**	Dwelling is surrounded to the south, east and west with shelter vegetation. Views are orientated to the north. Wind farm to the southeast. Intervening topography limits potential views of the wind farm. Viewpoint 16 is 3km to the west	1290749.632	4871286.932
150	17 McMillian Road, Mimihau 9892	9.4	**Adverse** Very Low	Dwelling is orientated to the north with views toward established vegetation in garden. Wind farm is located to the southeast. View in distance of turbines on or behind ridgeline. No viewpoints in immediate vicinity/angle however viewpoint 13 is 2.8km to the southeast and viewpoint 12 is 3.5km to the east	1283973.975	4863002.808
151	376 Wyndham-Mokoreta Road, Wyndham 9892	9.4	**Adverse** Very Low	Limited vegetation surrounding dwelling which has views orientated to the north and west. Views of wind farm to the east. Viewpoint 13 is the most relevant and is 2.8km to the east.	1283350.633	4860127.092
152	283 Wyndham-Mokoreta Road, Wyndham 9892	9.4	**Neutral**	Dwelling is surrounded by vegetation providing enclosure. Dwelling is orientated with views to the northeast. Intervening vegetation, both around dwelling and wider landscape prevents views of the wind farm. Located between viewpoint 13 2.7km to the east and viewpoint 2, 2.7km to the west	1283473.211	4860735.148
153	71 McDougall Road, Tuturau 9774	9.4	**Neutral**	Dwellings is in Mimihau valley, on northern side with views orientated to the northeast. No vegetation intervening however intervening topography provides screening of wind farm. Viewpoints are not representative, viewpoint 12 is 3.6km to the southeast	1284984.682	4865891.786
154	115 Mimihau School Road, Wyndham 9892	9.4	**Adverse** Very Low	Dwelling is set back off road to the west. Levels of vegetation, around dwelling and wider landscape provides some screening of views of wind farm to the east. Location viewpoint 2 is 2.6km to the west and viewpoint 13 is 2.7km to the east	1283546.444	4861694.723
155	380 Matheson Road, Mokoreta 9892	9.4	**Adverse** Very Low	Dwelling has views orientated to the north. Vegetation surrounding dwelling, provides screening of wind farm to the north. Intervening topography provides some screening. Viewpoint 6 is 3km to the northeast	1295584.992	4848764.761
156	189 Leonard Road, Glenham 9892	9.5	**Adverse** Very Low	Dwelling has views to the north and northeast. Wind farm is located to the east. Viewpoint 3 is 2.5km to the southwest	1283851.683	4856454.237

House ID	Address	Distance (km)	Degree of Effect	Comment nature of effect	Easting	Northing
157	264 Wyndham-Mokoreta Road, Wyndham 9892	9.5	**Neutral**	Dwelling is surrounded by vegetation with views orientated to the northwest and east. Intervening vegetation in addition to localised vegetation helps screen views of wind farm. Viewpoint 2 is 2.5km to the west and viewpoint 13 2.8km to the east.	1283307.041	4860633.621
158	134 Kaiwera Downs Road, Gore 9772	9.6	Neutral	Dwelling's views are orientated to the northwest. Intervening topography limits view of wind farm. No viewpoint in immediate vicinity, however viewpoint 16 is 11.5km to the west	1298886.502	4874823.253
159	384 Mokoreta-Tahakopa Road, Mokoreta 9892	9.6	**Neutral**	Dwelling sites in narrow valley. Immediate topography limits any views of wind farm to the north. Viewpoint 6 is 3.3km to the north	1299039.185	4848358.061
160	82 Calder Road, Glenham 9892	9.8	**Adverse** Very Low	Wind farm located to the east. Dwelling's views are orientated to the north and west. Some intervening vegetation, although limited. Viewpoint 3 is 1.9km to the southwest	1283589.71	4856050.665
161	2858 Old Coach Road, Slopedown 9772	9.8	**Neutral**	Dwelling surrounding to large well-established vegetation and garden and exotic forestry to the south. This with topography results in screening of wind farm to the southwest. No relevant photo simulations, however viewpoint 10 11.9km to the southwest	1309564.727	4874503.864
162	178 Wyndham Valley Road, Redan 9892	9.9	**Adverse** Very Low	Dwelling (?) appears to have views to the north, east and west, with limited intervening vegetation. Viewpoint 3 is 1.5km to the west	1283815.002	4855280.029
163	420 Mokoreta-Tahakopa Road, Mokoreta 9892	9.9	**Neutral**	Dwelling sites in narrow valley. Immediate topography limits any views of wind farm to the north. Viewpoint 6 is 3.5km to the north	1299253.178	4848157.709
164	29 Diack Road, Mimihau 9892	10.0	**Neutral**	Dwelling surrounded by shelter vegetation to south and west, providing screening of views of wind farm to the southeast. Viewpoint 2 is 3.8km to southwest	1283649.746	4863807.942
165	2 McDougall Road, Tuturau 9774	10.0	**Neutral**	Dwelling on northern face of Mimihau Valley. Views orientated to the northeast. Intervening topography limits views of wind farm to the south. No viewpoint with relevant views, however viewpoint 12 is 4.3km to the south	1284722.162	4866493.522

APPENDIX E – SOUTHLAND MURIHIKU REGIONAL LANDSCAPE ASSESSMENT EXTRACT



Above: View overlooking Mt Herbert and the Slopedown escarpment on the right. Boffa Miskell, 2018.

SLOPEDOWN / MOKORETA – PUKEMIMIHAU ONF

Slopedown forms a striking part of the Southland Syncline and contains an impressive altitudinal sequence of indigenous vegetation providing recreation opportunities.

SLOPEDOWN / MOKORETA – PUKEMIMIHAU ONF

LANDSCAPE ATTRIBUTES	EVALUATION	RATING
BIOPHYSICAL	• Part of the geologically significant Southland Syncline which incorporates a series of striking ridges and valleys from western Southland through to the Catlins/Te Ākau Tai Toka. • This unit is divided into two sub-units. Although the whole unit is part of the wider area known as the Catlins and is part of the Southland Syncline, the physical characteristics of the two sub-units are quite distinct. • The Catlins area is characterised by the parallel low hills, escarpments and valleys of the Southland Syncline (Department of Conservation, 2000). • One of the last largely undisturbed examples of the transitional vegetation between the region's predominant rimu-kamahi- forest and the former mixed podocarp forest of the Southland/Murihiku plains and peripheral hill country (Sandercock, 1987). • Slopedown Hill has some mountain cedar (Libocedrus bidwillii) on the southern slopes, while the tops have a significant amount of intact red tussock and peatlands (Department of Conservation, 2000). • The Slopedown Ecological Area contains altitudinal sequences of regenerating kamahi, podocarp and mixed broadleaved forest on relatively flat to steep hill sides (Department of Conservation, 2016).	HIGH
SENSORY	• Distinctive plateau and sloping strike ridge remains highly legible and expressive of the Southland Syncline through this area. • The dominant cover and sequence of indigenous forest which culminates along grassland and scrub upon the plateau establishes an overt sense of naturalness. • Combination of flattened ridgetop and distinctive sloping forested scarp forms a memorable feature and skyline observed from the Southland Plains. • Highly coherent sequence of native vegetation and sub-alpine tussock which expresses a notable altitude sequence in harmony with the landform.	VERY HIGH
ASSOCIATIVE	• The Mimihau Stream is important to Ngāi Tahu and the wider area includes a number of archaeological sites of Māori origin highlighting traditional use and occupation. • Slopedown Forest has been used as an outdoor education area (Department of Conservation, 2000). • Recognised important backcountry hunting and tramping opportunities.	MODERATE-HIGH

OVERALL LANDSCAPE VALUE	OUTSTANDING

Mapped Extent:

Refer to Figure 36. The Slopedown/Mokoreta - Pukemimihau ONF has primarily been mapped according to the extent of native vegetation. This encompasses the full extent of the vegetated scarp slope and extends onto the plateau top where existing vegetation predominantly remains intact. It also includes the adjacent vegetated form of Mount Herbert. Exotic plantation forestry has been excluded from the ONF and typically forms the boundary along which the extent of the ONF has been defined.

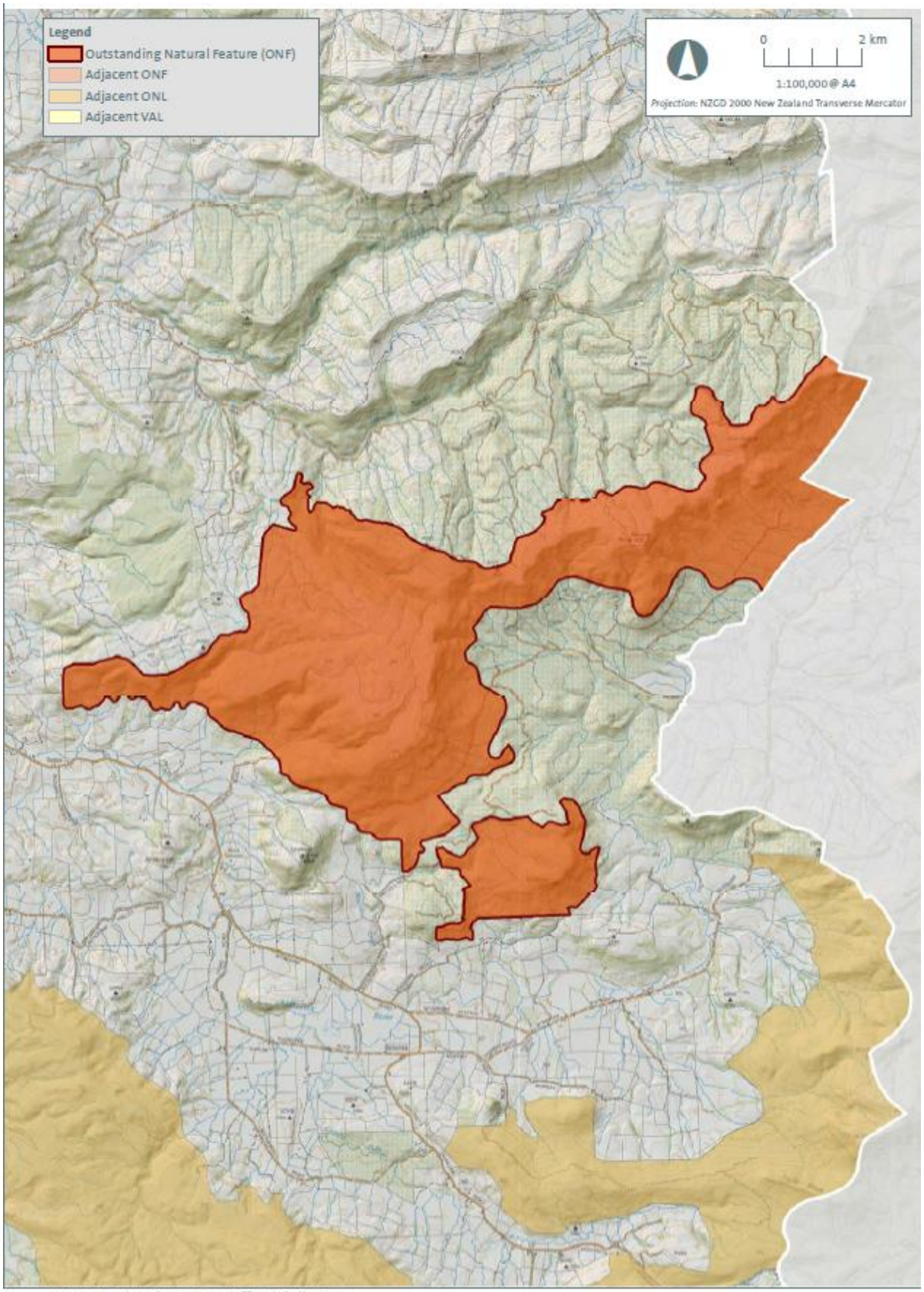


Figure 36: Slopedown ONF. Boffa Miskell, 2018.