## BEFORE THE ENVIRONMENT COURT

Decision No. [2017] NZEnvC 150

IN THE MATTER

of the Resource Management Act 1991

AND

of an appeal pursuant to s 120 of the Act

**BETWEEN** 

**BLUESKIN ENERGY LIMITED** 

(ENV-2016-CHC-047)

Appellant

AND

**DUNEDIN CITY COUNCIL** 

Respondent

Court:

Environment Judge J E Borthwick

Environment Commissioner W R Howie Environment Commissioner D J Bunting

Hearing

at Dunedin on 27, 28, 29 and 30 June 2017 and

18, 19 and 20 July 2017

(Site visits carried out 26 June 2017 and 20 July 2017)

Further submissions received 18 August 2017

Appearances:

W Anglin, B Irving and C Hodgson for appellant

M Garbett for Dunedin City Council

K Price and S Mutch for J Ashby, K Clayton, L Clayton, J Mursa

and S Ryan (s 274 parties)

A Barratt in person and for Blueskin Amenity and Landscape

Society Inc (s 274 parties)

A Morrison, M Brown, D Albert, P Clarke, T Atkinson, D Struthers and R Ozanne in person (s 274 parties)

Date of Decision:

11 September 2017

Date of Issue:

11 September 2017

## **DECISION OF THE ENVIRONMENT COURT**



A: The appeal is <u>declined</u>.

B: Any application for costs is to be made by 5 October 2017 and any replies by 19 October 2017.

BLUESKIN ENERGY v DCC - DECISION

# **Table of Contents**

| Introduction                           | 2  |
|--|----|
| Preliminary legal matters              | 8  |
| The receiving environment              | 22 |
| Overview of the planning context       | 25 |
| The proposal's benefits                | 35 |
| Landscape, rural character and amenity | 41 |
| Noise                                  | 59 |
| Spring fed water supplies              | 72 |
| Avifauna                               | 74 |
| Turbine transport                      | 80 |
| Evaluation of the proposal             | 83 |
| Outcome                                | 92 |

# **REASONS**

# Introduction

- [1] The people of Blueskin Bay, Dunedin are remarkable for their engagement with the question of how they may live with imminent climate change. This application to generate renewable electricity from a wind turbine is but one initiative from the residents who have organised into communities of interest in order to respond to climate change.
- [2] It is no longer a question of whether renewable electricity generation is an appropriate response; regardless of scale, the contribution of renewable electricity generation towards addressing the effects of climate change plays a vital role in the wellbeing of New Zealand, its people and the environment.<sup>1</sup> Indeed, the need to develop renewable electricity generation activities and the benefits this brings are matters of national significance.<sup>2</sup>



National Policy Statement for Renewable Electricity Generation 2011, Preamble.

<sup>&</sup>lt;sup>2</sup> National Policy Statement for Renewable Electricity Generation 2011, Matters of National Significance at 4.

[3] Having said that, Dunedin City Council declined the original application for resource consent to construct and operate three wind turbines on Porteous Hill, Blueskin Bay. The applicant, Blueskin Energy Ltd, appealed the decision of the Dunedin City Council and substantially modified the proposal which is now for a single, taller wind turbine. Even so, the City Council supports its decision to decline consent; a position shared by 19 other parties.<sup>3</sup>

# Background to the application being lodged

- [4] Severe flooding in Waitati in 2006 was the catalyst for a conversation within Blueskin Bay concerning their vulnerability to extreme weather events and also longer term challenges, including those brought about by climate change. Out of this emerged an initiative to develop local electricity production.
- [5] Blueskin Resilient Communities Trust (the "Trust") was set up in 2008 to carry forward the conversation. The Trust is the sole shareholder of Blueskin Energy Ltd, a company incorporated in 2013 and the appellant in this proceeding. Its application for resource consent is the culmination of a substantial body of work by the Trust in collaboration with the University of Otago and others and with the support of an "army" of unpaid volunteers. It is one of many initiatives to meet the Trust's vision to "facilitate a positive, healthy, secure and resilient future for Blueskin Bay and linked communities and promote sustainable resource use".<sup>4</sup>
- [6] The Trust identified four criteria for selecting the location of its "community turbine". These are: <sup>5</sup>
  - choosing a site with maximum wind and minimum requirement for preparation effort;
  - creating a symbolic visual reminder of how the community is meeting its consumption needs;
  - proximity to the local grid; and
  - an adequate sound perimeter around the turbine or turbine cluster.



<sup>&</sup>lt;sup>3</sup> D Struthers, A Stewart, T O'Brien and H Timms indicated they would not participate in the hearing but did not formally withdraw. R Williams' interests were represented by the Blueskin Landscape and Amenity Society.

<sup>&</sup>lt;sup>4</sup> Willis, EiC at [23].

<sup>&</sup>lt;sup>5</sup> Willis, EiC at [57].

[7] It is worth reflecting further on the conceptualisation of a "community turbine" because it informs the decision-making process leading to the selection of the Porteous Hill site. In a report prepared by the Trust for the Energy Efficiency and Conservation Authority, the report authors identify as a key consideration the change to the landscape and the values derived from the landscape, but they assumed the community would prefer a visual reference to any community owned turbine.<sup>6</sup> While that assumption had not been tested through community consultation, it was felt this preference would form an important component of any eventual resource consent application.<sup>7</sup> It was desirable therefore that the turbine be a constant visual reminder of how the community is meeting its consumption needs and this lead the Trust to pursue sites that would be visible from within Blueskin Bay.<sup>8</sup>

[8] Five sites in Blueskin Bay were considered for local energy production, of these the Trust determined Porteous Hill was the most suitable site because of good road access; close proximity to the 33kV local network; wind quality and because of its impact on the landscape.<sup>9</sup>

[9] What was meant by "impact on the landscape" is not explained; although we think the "impact" almost certainly is mediated by the values of the turbine's promoters. The trustees do not regard the change to the landscape as necessarily giving rise to an adverse effect. They value the change the turbine would bring about emblematically; a turbine would be a symbol of the community's commitment to a low-carbon future, <sup>10</sup> embracing community rather than individual gain. <sup>11</sup> A turbine would positively inspire; it is empowering for a community to know where electricity is coming from. <sup>12</sup>

[10] There are, however, other values and there are also the public policy considerations set out in the District Plans, which we return to shortly.

<sup>&</sup>lt;sup>12</sup> Ruru, EiC at [19] and [21].



<sup>&</sup>lt;sup>6</sup> Willis, EiC Appendix 5, "Final Report to EECA Distributed Generation Fund re Blueskin Power Cooperative Wind Project" dated April 2010 at 18.

<sup>&</sup>lt;sup>7</sup> Willis, EiC Appendix 5, "Final Report to EECA Distributed Generation Fund re Blueskin Power Cooperative Wind Project" dated April 2010 at 18.

<sup>&</sup>lt;sup>8</sup> Willis, EiC Appendix 5, "Final Report to EECA Distributed Generation Fund re Blueskin Power Cooperative Wind Project" dated April 2010 at 13.

<sup>&</sup>lt;sup>9</sup> Willis, EiC at [62].

<sup>10</sup> Stephenson, EiC at [92].

<sup>&</sup>lt;sup>|11</sup> Ruru, EiC at [24].

# Description of the amended application

[11] The amended application is to construct and operate a wind turbine at 147 Church Rd, Merton (the "property").

[12] If approved, the wind turbine will be located within 30m of GPS S 45.691392 and E 170.582624.<sup>13</sup> The key features of the wind turbine as advised by the appellant are as follows:<sup>14</sup>

| Project attribute  | Appeal proposal  |
|--|--|
| Manufacturer and turbine type                                    | Enercon GmbgH E-82 E4, or turbine with a lesser noise rating   |
| Nominal power  | 3,000 kW   |
| Total nominal power  | 3,000 kW   |
| Hub height   | 68.91 m  |
| Rotor diameter   | 82 m   |
| Total height   | 110 m  |
| International Electrotechnical<br>Commission Standard wind class | IIA and IA   |
| Rotor blade length   | 38.8 m   |
| Swept area   | 5281 m <sup>2</sup>  |
| Pitch control  | One independent electrical pitch system per rotor blade with dedicated emergency power supply                  |
| Total energy yield   | 7,440 MWh annually   |
| Noise limit  | A range between 37 to 40 dB <sub>lago</sub> (10 mn) measured at the notional boundary of 3 specified dwellings |
| Special audible characteristics                                  | No special audible characteristics penalisable under NZS 6808  |
| Foundation   | Flat foundation without buoyancy<br>Concrete volume 416 m <sup>3</sup>   |
| Transmission Lines   | Underground  |
| Colour   | Off-white Matte RAL 7035   |
| Ground-screened night lights                                     | Yes, medium intensity red light with minimum luminous intensity of 1,600 candela                               |
| Earthworks   | Track formation, laydown area (20x40 m) and foundations for one platform                                       |
| Consent lapse period   | Five years   |

[13] It is convenient to set out next the legal framework against which this application will be considered.



<sup>&</sup>lt;sup>13</sup> Proposed conditions 13 July 2017 at [10].

<sup>&</sup>lt;sup>14</sup> Statement of agreed facts – acoustics 16 May 2017, as modified by proposed conditions of consent.

#### The law

[14] The proposal is a non-complying activity under the operative Dunedin City District Plan. Section 104D applies and provides a consent authority may grant a resource consent for a non-complying activity only if it is satisfied that either—

- (a) the adverse effects of the activity on the environment (other than any effect to which section 104(3)(a)(ii) applies)<sup>15</sup> will be minor; or
- (b) the application is for an activity that will not be contrary to the objectives and policies of the relevant plan.

[15] Blueskin Energy agrees the effects of the activity will be more than minor and so the first threshold test is not met.<sup>16</sup> It says the proposal is not contrary to the objectives and policies of the operative or proposed District Plan and that being the case may be considered under s 104 of the Act. Assuming that is correct, when considering the application for resource consent and any submissions received the court must, subject to Part 2, have regard (relevantly) to—

- any actual and potential effects on the environment of allowing the activity;
- any relevant provisions of the National Policy Statement for Renewable Electricity Generation; the operative and proposed Otago Regional Policy Statements; and the operative and proposed Dunedin City District Plans; and
- any other matter the consent authority considers relevant and reasonably necessary to determine the application.

[16] We have not had regard to the New Zealand Coastal Policy Statement as we do not consider the site is within the coastal environment.

## Permitted baseline

[17] We have not applied the permitted baseline to disregard the potential adverse effects of the activities.<sup>17</sup> Potentially earthworks within the subject site and works within the road reserve are permitted but the evidence is sufficient to satisfy us of compliance



<sup>&</sup>lt;sup>15</sup> Persons who have given their approval are R C Ireland, C S Ireland, D and C Robertson and E Dowden.

<sup>&</sup>lt;sup>16</sup> Irving, opening submissions at [22].

<sup>&</sup>lt;sup>17</sup> See s 104(2) RMA.

with the relevant rules.18

# The City Council's decision

[18] As required under s 290A of the Act we have carefully considered the decision which is the subject of the appeal. While all parties prayed in aid of its findings, given the amendments made to the application we were not materially assisted by the decision.

#### Structure of the decision

[19] We have structured the decision so that the evidence is grouped under broad topics and then evaluated. The key issues for determination for each topic are noted at the commencement of the relevant section. The topics are:

- preliminary legal issues;
- the receiving environment;
- overview of the planning context;
- the proposal's benefits;
- landscape, rural character and amenity values;
- noise;
- spring fed water supplies;
- avifauna;
- turbine transport; and
- evaluation of the proposal.



<sup>&</sup>lt;sup>18</sup> Sycamore, 1<sup>st</sup> supplementary.

# Preliminary legal matters

# Our approach to decision making under ss 104, 104B and 104D of the Act

[20] In January 2017 the High Court, in *R J Davidson Family Trust v Marlborough District Council*, <sup>19</sup> affirmed the partial extension of *King Salmon* to the consideration of resource consent applications. Justice Cull, rejecting the appellant's submission that the plain language of s 104 requires the decision-maker to have regard to the matters in Part 2, held the reasoning in *King Salmon* applied also to s 104(1). Cull J makes three key findings:<sup>20</sup>

- (a) section 5 should not be treated as the primary operative decision making provision;
- (b) the application of the "overall judgment approach" to decision making on resource consent applications is rejected; and
- (c) the relevant provisions of the planning documents give substance to the principles in Part 2. There may be resort to Part 2, however, where there is invalidity, incomplete coverage or uncertainty of meaning within the planning documents.

[21] Leave has been granted to appeal *R J Davidson Family Trust* to the Court of Appeal. Prior to the commencement of the hearing we set out the court's understanding of the application of *R J Davidson* to this case and invited the parties to respond. We are grateful for their submissions.

## Case context – R J Davidson Family Trust v Marlborough District Council

[22] R J Davidson Family Trust v Marlborough District Council concerns an application for consent to establish and operate a mussel farm in Beatrix Bay. The application was for a non-complying activity and the Environment Court found the application met the threshold tests under s 104D, and so went on to consider the application under s 104.

[23] The Environment Court upheld the District Council's decision to decline consent. In the decision, Judge Jackson sets out what his division of the court considered to be the correct way of applying s 104(1)(b) in the context of s 104 as a whole. When

<sup>&</sup>lt;sup>20</sup> R J Davidson Family Trust v Marlborough District Council (HC) at [74]-[76].



<sup>&</sup>lt;sup>19</sup> R J Davidson Family Trust v Marlborough District Council [2017] NZHC 52.

considering the application and submissions under s 104(1)(b) the court asks – does the proposal "achieve the purpose of the Act as particularised in the objectives and policies of the district/regional plan?" The Judge then poses a series of ancillary questions at paragraph [262] of the decision to elucidate the answer.<sup>21</sup>

[24] The Environment Court's decision was appealed on a number of grounds, the relevant one for our purposes being whether the court erred by failing to apply Part 2 of the Act when considering the application for resource consent under s 104. The appellant argued the Environment Court wrongly interpreted "subject to Part 2" as meaning Part 2 takes a "back seat" when considering the factors listed in s 104, despite the factors themselves being "subject to Part 2".<sup>22</sup>

[25] The approach adopted by Judge Jackson, framing s 104(1)(b) as a question to be answered through a structured inquiry, <sup>23</sup> is not commented upon in the High Court's decision.

# Key decision-making steps under ss 104, 104B and 104D

[26] The High Court decision of *R J Davidson* is binding on us and in response our approach to decision making on this appeal follows:

- (a) decide whether the proposal passes one or both of the threshold tests in s 104D;
- (b) if it passes, consider the application and submissions, subject to Part 2, having regard to s 104(1):
  - the actual and potential effects of the activity on the environment;
  - any relevant plan; and
  - any other relevant consideration
- (c) decide the weight that should be given to the matters in subsections 104(1)(a), (b) and (c); and
- (d) having regard to effects in the context of properly weighted objectives and policies under s 104(1) and any other relevant consideration, arrive at a judgment whether the proposal promotes the sustainable management of natural and physical resources and decide to grant or decline consent accordingly (s 104B).

<sup>&</sup>lt;sup>23</sup> R J Davidson Family Trust v Marlborough District Council (EC) at [262].



<sup>&</sup>lt;sup>21</sup> R J Davidson Family Trust v Marlborough District Council [2016] NZEnvC 81; Erratum [2016] NZEnvC 148.

<sup>&</sup>lt;sup>22</sup> R J Davidson Family Trust v Marlborough District Council (HC) at [65].

[27] We have kept separate the decision-making process under ss 104 and 104D. While the content of the sections are similar, quite different considerations apply.<sup>24</sup>

[28] We do not suggest this approach should be applied as a formula to decision making; the facts of the case may lend itself to a different structure. Other provisions of the Act may apply and will also need to be taken into account.

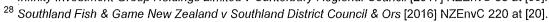
# "Subject to Part 2"

[29] It appears, following the High Court decision of *R J Davidson*, that s 104(1) provides for the consideration of Part 2 in a particular way. The consent authority may have recourse to Part 2 when considering the application and submissions under s 104(1); but not afterwards as a separate exercise as per the "overall judgment approach". We suggest inherent risk under the overall judgment approach is that the decision-maker may take into account an irrelevant matter – or more likely fail to take into account a relevant matter – including in particular the weighted findings under s 104(1)(a), (b) and (c).

[30] The circumstances where there may be recourse to Part 2 is where there is invalidity, incomplete coverage or uncertainty of meaning within the planning instruments. There is no need for recourse under Part 2 directly where that policy direction is provided in the higher order instruments; following *Southland Fish & Game New Zealand v Southland District Council & Ors*<sup>26</sup> and *Infinity Investment Group Holdings Ltd v Canterbury Regional Council.*<sup>27</sup>

[31] The exercise of any decision-making discretion is to be undertaken in a principled manner and for the purpose the discretion was conferred. Unless the context clearly indicates otherwise, under the RMA this will be for the purpose of promoting the sustainable management of natural and physical resources; per *Southland Fish & Game New Zealand v Southland District Council & Ors.*<sup>28</sup>

<sup>&</sup>lt;sup>27</sup> Infinity Investment Group Holdings Limited v Canterbury Regional Council [2017] NZEnvC 36 at [35].





<sup>&</sup>lt;sup>24</sup> For example, the positive effects of the proposal are not considered under s 104D RMA.

<sup>&</sup>lt;sup>25</sup> R J Davidson Family Trust v Marlborough District Council (HC) at [76].

<sup>&</sup>lt;sup>26</sup> Southland Fish & Game New Zealand v Southland District Council & Ors at [2016] NZEnvC 220 at [24]- [25].

[32] Assuming the application for a non-complying activity passes one of the threshold tests under s 104D, the decision whether or not to grant consent is made under s 104B, taking into consideration the matters in s 104(1)(a), (b) and (c). Like s 104(1), s 104B does not draw any distinction between an application for a discretionary activity and an application for a non-complying activity.<sup>29</sup> The decision whether to exercise discretion and grant (or refuse) consent necessarily entails a judgment that is informed having regard to the matters under s 104.<sup>30</sup>

# The weighting exercise

[33] The weighting of findings is critical to the determination of this appeal. The High Court in *Stirling v Christchurch City Council* made the following observation regarding weighting of findings under s 104(1):

... s 104(1) adopts an open-ended approach to the weight that is to be attached to the relevant matters. All that is required is that the decision-maker "shall have regard" to each of them. There is no statutory threshold or requirement for the provisions of a plan that are relevant to be approached in a particular way.<sup>31</sup>

[34] Stirling v Christchurch City Council precedes the High Court decision of R J Davidson<sup>32</sup> and the interpretation of "have regard to" in s 104 is now more nuanced. The direction "must, subject to Part 2, have regard to" includes having regard to any indication of the weight given to the relevant consideration in the planning instrument. Where there is no coverage of the relevant effect<sup>33</sup> under any plan or policy statement then Part 2 may provide guidance on the weight. We consider this approach is consistent with Stirling where the High Court held an effect may be proven but receives little weight if that is justified by policy considerations.<sup>34</sup>

# Weight given to facts and effects and any other considerations

[35] We will determine the facts, including making predictions about the future effects of the proposal. How much weight is given to this evidence depends on a variety of factors including any policy direction on the fact or effect in issue and the materiality of them to the determination of the case.

<sup>&</sup>lt;sup>34</sup> Stirling v Christchurch City Council (HC) at [52]-[58].



<sup>&</sup>lt;sup>29</sup> Stirling v Christchurch City Council (2011) 16 ELRNZ 798 (HC) at [53].

<sup>&</sup>lt;sup>30</sup> Stirling v Christchurch City Council (HC) at [53].

<sup>&</sup>lt;sup>31</sup> Stirling v Christchurch City Council (HC) at [60].

 $<sup>angle^{32}</sup>$  R J Davidson Family Trust v Marlborough District Council (HC).

 $<sup>^{</sup>m 33}$  Alternatively, the instrument or its provisions are uncertain or invalid.

[36] Regional and District Plans are concerned with the establishment, implementation, and review of objectives, policies, and methods to achieve integrated management of the natural and physical resources (ss 30 and 31).<sup>35</sup> Careful attention must be paid to the way objectives and policies are expressed.<sup>36</sup> The meaning of words and phrases are to be interpreted and applied in their context; this is especially important when considering the integrated management of natural and physical resources. The weight given to the evaluation of the facts and effects under the provisions of the planning instruments must be transparent with supporting reasons given.

[37] Occasionally there may be conflict between different provisions within a plan or as between different policy statements or plans – but before the court will come to this conclusion there must be a "thoroughgoing attempt to find a way to reconcile them"; per *King Salmon*<sup>37</sup> at [131].

# The weight given to different plans and policy statements

[38] We need also to consider the weight to be given to the various planning instruments.

[39] On the one hand we have the operative Otago Regional Policy Statement ("RPS") and the operative Dunedin District Plan, both of which pre-date and do not give effect to the NPS.<sup>38</sup>

[40] On the other hand, the proposed RPS and the proposed Dunedin District Plan (referred to as "2GP") post-date the NPS and we were told give it partial effect. But because of their stage in the planning process there may yet be change in their policy direction.<sup>39</sup>

[41] The planning witnesses, Messrs Farrell and Sycamore, are of the view that there are provisions in the 2GP and in the proposed RPS which may frustrate the

<sup>&</sup>lt;sup>39</sup> The City Council is yet to release its decisions on the 2GP. There are appeals to the Environment Court on the proposed RPS.



<sup>&</sup>lt;sup>35</sup> Section 31 provides more particularised direction to territorial authorities that it is the effects of the use, development, or protection of land and associated natural and physical resources.

<sup>&</sup>lt;sup>36</sup> Southland Fish & Game New Zealand v Southland District Council & Ors at [23].

<sup>&</sup>lt;sup>37</sup> Environmental Defence Society Incorporated v New Zealand King Salmon Company Limited [2014] NZSC 38.

<sup>&</sup>lt;sup>38</sup> As now required under sections 67(3) and 75(3) RMA.

NPS.<sup>40</sup> While energy resilience provisions were mentioned their concerns were more directed towards key policies relevant to this appeal including proposed RPS Chapter 3: Objective 3.2 and Policy 3.2.6 and 2GP's Chapter 10: Natural Environment, Policies 10.2.5.7 and 10.2.5.15. They gave these provisions little weight because the public had made submissions on the 2GP and there are appeals outstanding on the proposed RPS.<sup>41</sup> No reason was given by them to support their opinion that the proposed RPS policy frustrates the NPS.

[42] We bear in mind that the proposed RPS provisions may change; indeed one appellant seeks the deletion of a key RPS policy (policy 3.2.6) and this appeal is pending before the Environment Court. The resolution of the RPS appeals may impact upon the policy direction under the 2GP but it does not follow from this that the proposed RPS or 2GP provisions are invalid or uncertain as the planners suggest.<sup>42</sup>

[43] We are acutely aware of the potential for any resource consent application to become "the battle ground for policy-level debate" particularly when the court is considering planning documents that are not yet operative.<sup>43</sup> There was certainly a flavour of this in the planning evidence. That said, the application cannot be decided under the NPS alone.

[44] To the extent that the proposed instruments do not give effect to the NPS it appears to be because the 2GP does not expressly recognise the benefits of renewable electricity generation (NPS Policy A) and does not recognise constraints on development addressed under NPS Policies B-C1. We will consider those matters together with the provisions in the District Plans, as Ms Irving urged us to do,<sup>44</sup> while giving the District Plans equal weight which we consider warranted because of their consistent policy direction for this landscape.<sup>45</sup> Where none of the planning documents have given full effect to the NPS, their relative weight is immaterial to the outcome of the appeal.

<sup>&</sup>lt;sup>45</sup> Mr Garbett in his opening at [22] submitted the District Plans should be given equal weight, we agree. Ms Price in her opening and closing submitted whatever approach is taken to weighting, it should be approached on a principled basis, not preferring policies advantageous to the appellant. We also agree. See Price, opening at [4.23]-[4.26] and closing at [4.14]-[4.15].



<sup>&</sup>lt;sup>40</sup> Proposed RPS objective 3.2 and policy 3.2.6; 2GP objective 2.4.4 and policies 5.2.1.2, 5.2.1.7, 5.2.1.11, 10.2.5.15, 16.2.3.1.

<sup>&</sup>lt;sup>41</sup> Planning' JWS at [13].

<sup>&</sup>lt;sup>42</sup> Planning JWS at [13(a), (l)] and [15(b)].

<sup>&</sup>lt;sup>43</sup> James Baines "Lessons from New Zealand: Case study of the social impact assessment of a wind farm proposal" (paper presented at the 3<sup>rd</sup> International Forum for Environmental Assessment, South Korea, October 2012).

<sup>&</sup>lt;sup>44</sup> Irving, closing at [57](b).

# Application of the NPS

[45] In her closing submissions Ms Irving argued the Environment Court must allow the appeal and confirm the consent subject to conditions.

[46] Going further she submitted the NPS Objective and Policy A requires the court, as a decision-maker, to "recognise and provide for" renewable generation activities. Elaborating:

The directive character of that obligation does not permit a contrary decision to be made (i.e. one that does not "provide for") at the behest of a policy in an inferior statutory document.<sup>46</sup>

[47] The fact this is a proposal for a single turbine, as opposed to a windfarm, is material to the argument.<sup>47</sup> The only way to "recognise and provide" for a single turbine is by granting consent. In the case of a windfarm the national significance of these activities may still be recognised and provided for even when the farm is scaled back because of its effects.

[48] Praying in aid of *King Salmon*<sup>48</sup> and *Infinity*<sup>49</sup> Ms Irving argued not all planning instruments are created equal and that in the event of a conflict between instruments, the higher order instrument must be allowed to "prevail". A decision to decline consent is not available in this case because there is no instrument on the same or superior level to the NPS that directs this outcome.<sup>50</sup> While Ms Irving does not formally equate the matters of national importance (s 6 RMA) with matters of national significance (s 45), the effect of her submission is that they have the same footing. She gives two reasons. First, "importance" and "significance" have the same dictionary meaning. Second, both are concerned with matters that a decision-maker must have "particular regard to" (s 6 RMA and Policy A, NPS).<sup>51</sup>

<sup>&</sup>lt;sup>51</sup> Irving, further submissions dated 21 July 2017 at [28], [33]-[39].



<sup>&</sup>lt;sup>46</sup> Irving, memorandum dated 24 July 2017 at [5]. Ms Irving originally argued that the NPS "places a necessity or obligation on decision-makers to facilitate the development of renewable electricity generation". See closing at [30].

<sup>&</sup>lt;sup>47</sup> Transcript at 779; Irving, memorandum dated 21 July 2017 at [6].

<sup>&</sup>lt;sup>48</sup> Environmental Defence Society Incorporated v New Zealand King Salmon Company Limited [2014] NZSC 38.

<sup>49</sup> Infinity Investment Group Holdings Limited v Canterbury Regional Council [2017] NZEnvC 36.

<sup>&</sup>lt;sup>50</sup> Irving, closing at [27]-[40]; memorandum dated 21 July 2017 at [4].

- [49] Her submission advances a number of propositions:
  - the NPS is "superior" to the Regional Policy Statement or District Plan;
  - the NPS's directive provisions will prevail over any countervailing policy considerations (other than policies pertaining to matters of national importance); therefore
  - the court cannot decline this application for resource consent.

[50] The parties were allowed further time at the end of the hearing to reply. We received a joint submission of the Dunedin City Council and Porteous Hill Residents and a submission from Ms Atkinson.

#### Relevant sections of the RMA

[51] The purpose of national policy statements is to state objectives and policies for matters of national significance that are relevant to achieving the purpose of this Act (s 45).

[52] In accordance with s 55 of the Act local authorities must amend their documents if directed to do so by the national policy statement. Regional policy statements,<sup>52</sup> regional plans<sup>53</sup> and district plans<sup>54</sup> are to each give effect to national policy statements.

# The issue

[53] The issue at hand is how to interpret the phrase "providing for" and "recognise and provide for" in the context of the of the NPS Objective and Policy A respectively.

# The National Policy Statement

[54] The NPS is prepared under s 46A RMA and sets out the objective and policies to enable the sustainable management of renewable electricity generation under the RMA.

[55] Section 5 of the Interpretation Act 1999 provides that the meaning of an enactment must be ascertained from its text and in the light of its purpose. This principle has been applied and expanded on in relation to the interpretation of district

<sup>&</sup>lt;sup>54</sup> Section 75(3) RMA.



<sup>52</sup> Section 62(3) RMA.

<sup>53</sup> Section 67(3) RMA.

plans (*Powell v Dunedin City Council*)<sup>55</sup> and we adopt the same approach in our interpretation of the NPS.

[56] There are two matters of national significance that are relevant to achieving the purpose of the Act:

- the need to develop, operate, maintain and upgrade renewable electricity generation activities throughout New Zealand; and
- the benefits of renewable electricity generation.

# [57] The scheme of the NPS is contained in a single broad 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.

# [58] The objective is achieved by eight policies. In summary those policies<sup>56</sup> are:

| Policy A | recognising the benefits of renewable electricity generation activities   |  |
|----------|---|--|
| Policy B | acknowledging the practical implications of achieving New Zealand's target for electricity generation from renewable resources  |  |
| Policy C | acknowledging the practical constraints associated with the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities |  |
| Policy D | managing reverse sensitivity effects on renewable electricity generation activities   |  |
| Policy E | incorporating provisions for renewable electricity generation activities into regional policy statements and regional and district plans                                      |  |
| Policy F | incorporating provisions for small and community-scale renewable electricity generation activities into regional policy statements and regional and district plans            |  |
| Policy G | enabling identification of renewable electricity generation possibilities   |  |
| Policy H | time within which implementation is required  |  |



<sup>&</sup>lt;sup>55</sup> Powell v Dunedin City Council [2004] NZRMA 49 (HC).

<sup>&</sup>lt;sup>56</sup> Adopting the NPS headings to the policies.

# Discussion

[59] The NPS is concerned with the effects of climate change (s 7(i) RMA) and the benefits to be derived from the use and development of renewable energy (s 7(j) RMA). These are matters which, together with the maintenance and enhancement of amenity values (s 7(c) RMA) and of the quality of the environment (s 7(f) RMA) we, as the decision-makers, are to have particular regard.

[60] The NPS has a single objective. The objective is to increase the proportion of electricity generated from renewable sources to a level that the New Zealand Government's national target for renewable electricity generation is met or exceeded. The increase in electricity generation requires first the recognition of the "national significance" of existing renewable electricity generation activities. This means (relevantly) recognising the need to develop new and existing renewable electricity generation activities and recognising the benefits of electricity generation from renewable energy sources.<sup>57</sup> This recognition is obtained "by providing for the development... of new activities".

[61] The Objective is implemented by the eight policies. In each instance the policies are directed towards "decision-makers", meaning "all persons exercising functions and powers under the Act". A decision-maker includes the consent authority considering an application for resource consent.

[62] Not all policies are relevant to the consideration of an application for resource consent and are therefore not matters which a decision-maker must have regard to under s 104. In particular, policies E-H address how the NPS is to be given effect to by the local authorities under their planning instruments and these policies are not relevant.

- [63] The interpretation of the phrase "by providing for the development...of new activities" in the Objective is therefore sensitive to context. Two groups of policies articulate how the Objective is to be achieved, by:
  - (a) requiring local authorities to provide for the development of these activities in the provisions of the regional policy statements, regional plans or district



<sup>&</sup>lt;sup>57</sup> The objective is capable of being read in two ways. Either renewable electricity generation activities are nationally significant (the appellant's interpretation) or the matters of national significance are those matters identified in the NPS at 4.

- plans "to the extent applicable to the region or district";58 and
- (b) requiring decision-makers (which includes persons making decisions on an application for resource consent) to consider and (we interpret) providing for those matters in their deliberations by giving them appropriate weight.<sup>59</sup>
- [64] Together with the other policies the Objective is to be achieved by Policy A which states:

Decision-makers shall recognise and provide for the national significance of renewable electricity generation activities, including the national, regional and local benefits relevant to renewable electricity generation activities. These benefits include, but are not limited to:

- maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;
- b) maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;
- c) using renewable natural resources rather than finite resources;
- the reversibility of the adverse effects on the environment of some renewable electricity generation technologies;
- e) avoiding reliance on imported fuels for the purposes of generating electricity.

# [65] The policy has two parts:

- (a) an introductory part; and
- (b) examples of benefits.
- [66] Having regard to the policy's text, the introductory part states "Decision-makers shall recognise and provide for the national significance of renewable electricity generation activities...".
- [67] The subject matter of the introduction is "national significance"; the predicate (or action) is "recognise and provide for" and the object is "renewable electricity generation activities". Thus, what is to be recognised and provided is the national significance of certain activities, and not the activities *per se*. We do not accept the appellant's submission to the contrary.<sup>60</sup>

<sup>&</sup>lt;sup>60</sup> Irving, further submissions, 21 July 2017 at [52]-[54].



<sup>&</sup>lt;sup>58</sup> Policies E-G, and Policy D as reverse sensitivity effects is a matter capable of being managed under the objectives, policies and rules of a District Plan.

<sup>&</sup>lt;sup>59</sup> Policies A-C and, where applicable, Policy D.

[68] Considered by itself the introductory part does not advance the Objective beyond a simple statement that the matters of national significance shall be recognised and provided for.<sup>61</sup> The purpose of the policy is made clear in the discussion of the benefits of renewable electricity generation addressing benefits in two ways:

- (a) the scale of benefit which may be national, regional and local; and
- (b) the type of benefits.

In furtherance of the Objective, under Policy A the national significance of the benefits of renewable electricity generation is provided for by their recognition and appropriate weighting.

[69] We digress to record that the relevant policies (Policies A-D) use different phrases to convey their relative importance or weight. Policy A is "to recognise and provide for", Policies B and C are to "have particular regard" and Policy D is to "shall, to the extent reasonably possible". Each of these phrases is to be interpreted and applied within the context that they appear, with particular reference to the Objective which they are to achieve.

[70] In the absence of any policy in a District or Regional Plan, on an application for resource consent the direction that the benefits of renewable electricity generation are "recognised and provided for" is an indication as to the weight to be attributed to those benefits under s 104(1)(a). It does not follow from this that the benefits must be given more weight than the other matters addressed in s 7; the statutory planning documents will indicate the weight given to those matters. Again, we do not accept the appellant's submission to the contrary.<sup>62</sup>

[71] Ms Irving stepped back somewhat from her original submission that the phrases "providing for the development" and "recognise and provide for" in the Objective and

Ms Irving's submission is supported by reference to the Report and Recommendation of the Board of Inquiry into the Proposed National Policy Statement for Renewable Electricity Generation. In particular, the Board's view that when s 6 RMA matters are not in play, greater weight should be given to benefits than the adverse effects on surrounding amenity values. In line with this view the Board recommended a policy (Policy A.2) which was not adopted by Government. The implications of the Government not adopting the recommended policy are not addressed in counsel's submissions. See Irving, further submissions, 21 July 2017 at [32] and [44].



<sup>&</sup>lt;sup>61</sup> Section 45(1) RMA provides "[t]he purpose of national policy statements is to state objectives and policies for matters of national significance that are relevant to achieving the purpose of this Act".

Policy A respectively, effectively mandate the grant of consent.<sup>63</sup> We consider she is right to do so. Her final submission being that every application must be considered on its merits in the context of the policy framework.<sup>64</sup> If the NPS does mandate the grant of consent there would be no need for a decision-maker to recognise the benefits of the activity (Policy A, NPS) or to have particular regard to matters addressed in Policies B and C1.<sup>65</sup> This interpretation would be very strained and effectively render the policies otiose.

[72] If the Objective and Policy A do not mandate a grant then, in circumstances where the NPS has not been given effect in the local authorities' documents, the NPS may provide countervailing policy and factual considerations and these considerations, where they arise, are to be given the weight indicated by the NPS policies. For example, in this case the requirement to have particular regard to the need to locate a renewable electricity generation activity where the resource is available (NPS Policy C1(a)) is to be considered under s 104(1)(a) alongside the District Plan's objective and policies (s 104(1)(b)).

[73] The wider context lends support to the court's interpretation. Inconsistent with the thrust of the appellant's original submission that an application for a single turbine cannot be declined, is the preamble to the NPS, which recognises the benefits of renewable electricity generation may compete with matters of national importance (s 6) and matters to which the decision-makers are to have particular regard (s 7). Wider still, the legal context against which the Board of Inquiry made its recommendations to Government is relevant. Their understanding being that an effect of the NPS is that decision-makers give the appropriate weight to the benefits of renewable electricity generation activities. They affirmed the NPS does not substitute for, or prevail over, the Act's statutory purpose or the statutory tests.<sup>66</sup>

[74] To conclude, we do not interpret the phrase "by providing for the development...of new...activities" in the Objective and the phrase "recognise and provide for" in Policy A as necessarily providing for the activity by a grant of consent in the absence of any s 6 matters of national importance. Rather, the court must have

<sup>&</sup>lt;sup>66</sup> Report and Recommendations of the Board of Inquiry into the Proposed National Policy Statement for Renewable Electricity Generation, March 2010 at [52].



<sup>&</sup>lt;sup>63</sup> We say "somewhat" because Ms Irving maintains at [51]-[54] the benefits cannot be realised unless the project is developed.

<sup>&</sup>lt;sup>64</sup> Irving, further submissions 21 July 2017 at [40] and [47].

<sup>&</sup>lt;sup>65</sup> On the appellant's interpretation there would remain a need to consider Policies C2 and D as these matters, where they arise, may be dealt with through the conditions of consent.

regard to the NPS objective and relevant policies, weighting appropriately the matters which they address.

#### Other matters

[75] The fact that the activity which is the subject of the consent application is a single turbine and not a windfarm is immaterial to the interpretation of the NPS provisions.

[76] King Salmon and Infinity do not support the proposition that the NPS is "superior" to a RPS or District Plan, with its provisions to be given greater weight than those in a lower order document (e.g a District Plan). It is common parlance that a national policy statement is a higher order or superior instrument, but this denotes the relative position of a plan in the legislative framework. The Supreme Court put it this way:

As we have said, the RMA envisages the formulation and promulgation of a cascade of planning documents, each intended, ultimately, to give effect to s 5, and to pt 2 more generally. These documents form an integral part of the legislative framework of the RMA and give substance to its purpose by identifying objectives, policies, methods and rules with increasing particularity both as to substantive content and locality... <sup>67</sup>

[77] In every case the decision-maker will need to satisfy themselves whether the Regional or District Plans have given effect to the higher order instruments.



<sup>&</sup>lt;sup>67</sup> Environmental Defence Society Incorporated v New Zealand King Salmon Company Limited [2014] NZSC 38 at [30].

# The receiving environment

[78] Located within Blueskin Bay, Porteous Hill lies seaward of the Kilmog (State Highway 1, Dunedin) some 2.5 km east of the coast. The geographical area of Blueskin Bay is broadly described and includes the settlements of Evansdale, Merton, Seacliffs, Warrington, Waitati, Doctors Point, Purakaunui. There are approximately 1,000 households in the area.

[79] We draw from the evidence of the four landscape experts to describe the receiving environment, in particular Mr S Brown and Ms D Lucas.

# The landscape

[80] Porteous Hill is a feature within a coastal landscape, the backbone of which comprises three volcanic knolls. The hill, which is one of the three volcanic knolls, protrudes through a raised peneplain composed predominantly of schist overlain with sandstone.

[81] Ridges extend from the summit of the volcanic knolls towards the coast forming embayments. These knolls and ridges are part of the outer features of the Dunedin crater basin that encircles Otago Harbour. The rolling farmland on these ridges and knolls visually define and encloses the coastal landscape of Blueskin Bay.<sup>68</sup>

[82] The inland extent of this coastal landscape was not delineated.

# The hill feature

[83] Porteous Hill is a distinct legible feature within this landscape. The summit of Porteous Hill is approximately 400 masl.<sup>69</sup> The hill's form is aptly described as a basalt dome; its shape being a product of erosion. Active slumping is occurring at various places on the hillside. Loess-covered basalt rocks lie on the hill surface and are much in evidence at the summit and also upon its flanks.

[84] At viewing points within Blueskin Bay, Porteous Hill has a gentle rolling silhouette with an obvious summit. The summit is located on a prominent ridgeline in a

<sup>&</sup>lt;sup>69</sup> Masl means metres above sea level.



<sup>&</sup>lt;sup>68</sup> S Brown, EiC at [16].

visually sensitive location being part of the skyline which frames Blueskin Bay.<sup>70</sup> The hill falls steeply away from the summit, particularly to the north and the west.

[85] The settlement of Warrington is located on the hill's south-eastern skirts and in this area the hill has a comparatively more domesticated appearance. Shelterbelts and garden landscaping are evident well beyond the village continuing on west towards the state highway. In the foreground of the settlement and located at the base of Porteous Hill is a well-defined distal spit which reaches out into the waters of Blueskin Bay towards Doctors Point on the opposite shore.

[86] On the east face of the hill the Coast Rd connects Warrington with Seacliff and beyond. While the sequence of coves, headlands and rock shelves are not visible for much of the Coast Rd, the volcanic origin of the hill is evidenced by the increasingly convoluted landform north of Warrington. The hill's eastern flank terminates at many local ridgelines which fall away to the coast. Rising steeply above the Coast Rd, Porteous Hill is a backstop to the ocean.

[87] On the west face the State Highway passes closely to the base of the volcanic knolls. While pastoral farming takes place across Porteous Hill, land cover varies; on the hill's western flank both forestry and regenerating native bush extend from the base approaching the ridgeline. This is in contrast with the other sides of the hill which are comparatively more open in appearance featuring pasture punctuated by trees, shelterbelts and pockets of native bush. Apart from fences there are no structures on the summit; covered in pasture, it also has an open appearance.

[88] When viewed from Blueskin Bay, on the slopes west of Warrington there is a scattering of dwellings and farm buildings below the main ridgeline. Otherwise the occasional farm house, other farm buildings and accoutrements,<sup>71</sup> while noticeable, are not noteworthy features on the hill. Likewise, the quarry located on Pryde Rd is not a noteworthy feature. The quarry's landscape planting is now well established and for the most part this screens bench cuttings where rock has been extracted.<sup>72</sup>

Rural character of the area

[89] Pastoral farming is the predominant activity taking place in the area and this



<sup>&</sup>lt;sup>70</sup> Moore, EiC at [12] and [15].

<sup>&</sup>lt;sup>71</sup> Fences, yards, troughs and the like.

<sup>&</sup>lt;sup>72</sup> The court viewed the quarry from 90 Pryde Rd.

activity sustains the rural character of Porteous Hill and wider hill landscape.

[90] While pastoral farming has modified the land cover, the landscape and hill feature retains a moderate to high level of naturalness. When viewed from any aspect, there is a dominance of natural over built elements which extend from the summit to the mid-flanks of Porteous Hill.<sup>73</sup> Notwithstanding, the overlying landcover has been modified by farming activities, the hill landform is recognisably volcanic in origin.

[91] No witness suggested that the working character of the landscape and the hill feature is either wholly unnatural or unappealing. While the context for the turbine is neither an outstanding natural landscape nor an outstanding natural feature, nevertheless Porteous Hill contributes to and is an important component of the attractive rural setting of Blueskin Bay<sup>74</sup> and also to the more natural and, in parts, rugged coast line.

[92] We turn next to address what the District Plans have to say about the integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of this area.



<sup>&</sup>lt;sup>73</sup> Moore, EiC at [10]. Our findings are context sensitive, for example on the western and eastern flanks are not insignificant areas where indigenous vegetation is regenerating.

<sup>74</sup> Moore, EiC at [10]; S Brown, EiC at [15].

# Overview of the planning context

#### Introduction

[93] The issues of plan interpretation and application were extensively canvassed during the hearing and so we commence by setting out our approach to these matters.

[94] We consider it best practice to start with an understanding of the whole of the planning context. The application of plan provisions discretely, and out of context, carries the real risk that integrated management of natural and physical resources will not be achieved.

[95] The purpose of an overview is to understand the relationship between the different provisions within the plans and whether these provisions align with and support each other in order to achieve the integrated management of natural and physical resources.<sup>75</sup> In common with many District Plans, we found the supporting policies of Dunedin's District Plans present different but overlapping ways to achieve the objectives and, when read as an integrated whole, the objectives and policies inform and build upon and sometimes constrain each other.

[96] Both the operative and the proposed District Plan contain strategic objectives or directions. The strategic objectives/directions are achieved through the detailed plan provisions. We have borne these in mind when interpreting and applying the detailed provisions and so we commence our overview with them.

[97] We address the provisions of the NPS separately when evaluating the proposal.

# Operative District Plan Strategic objectives

[98] The significant resource management issues for the District are addressed in a few succinct provisions with the detail being expanded upon in the remaining chapters of the Plan. These strategic objectives are to:

- (a) enhance the amenity values of Dunedin (objective 4.2.1 & policy 4.3.1);<sup>76</sup>
- (b) ensure that significant natural and physical resources are appropriately

<sup>&</sup>lt;sup>76</sup> Policy 4.3.1 more particularly talks about the need to "maintain and enhance" amenity values.



<sup>&</sup>lt;sup>75</sup> Section 31 RMA.

protected (objective 4.2.4):

- (i) to a level commensurate with their local, regional and national significance;<sup>77</sup>
- (ii) by adopting a holistic approach when assessing the effects of their use and development;<sup>78</sup> and
- (iii) providing access to resources.<sup>79</sup>
- (c) sustainably manage infrastructure.80

#### Rural Zone

The issues

[99] The above resource management issues are expanded upon within the context of the Rural Zone, where it is proposed to situate the turbine.<sup>81</sup> Of particular moment to this appeal is that certain activities have the potential to adversely affect the character and amenity of the rural area. The rural area has many qualities which contribute to its character and amenity; qualities that are valued by people who live, work and visit the area.<sup>82</sup>

# Objective and policies

[100] The key objectives for the Rural Zone are to maintain the ability of the land resource to meet the needs of future generations (objective 6.2.1);<sup>83</sup> maintain and enhance the amenity values associated with the character of the rural area (objective 6.2.2.); ensure development in the rural area takes place in a way which provides for sustainable management of roading and other public infrastructure (objective 6.2.4) and avoid or minimise conflict between different land use activities in rural areas (objective 6.2.5).

[101] In respect of these objective and policies, the proposal directly engages with the provisions concerning the effect on rural character, which we discuss next.

<sup>&</sup>lt;sup>83</sup> This objective is to be achieved by sustaining the productive capacity of the rural zone by controlling adverse effects of activities (Policy 6.3.2).



<sup>&</sup>lt;sup>77</sup> Policy 4.3.4.

<sup>&</sup>lt;sup>78</sup> Policy 4.3.10.

<sup>&</sup>lt;sup>79</sup> Policy 4.3.6.

<sup>&</sup>lt;sup>80</sup> Objective 4.2.3.

<sup>&</sup>lt;sup>81</sup> In the operative District Plan there is a single Rural Zone.

<sup>&</sup>lt;sup>82</sup> Chapter 6, issue 6.1.4 and Explanation.

[102] Objective 6.2.2 is tolerant of adverse effects if the amenity values associated with the character of the rural area are maintained and enhanced. This objective is achieved by three policies (6.3.5, 6.3.6 and 6.3.11) which each build upon the other. We have interpreted and applied the policies in light of objective 6.2.2 and ultimately the strategic objective (objective 4.2.1) which they are to achieve.

[103] For amenity values to be maintained and enhanced the rural character of the environment must first be recognised. Helpfully some of the elements common to an environment with rural character are listed in policy 6.3.5. The policy is then implemented by requiring activities to be of a nature, scale, intensity and location consistent with maintaining the character of the rural area and undertaken in a manner that "avoids, remedies or mitigates" the adverse effects on the same (policy 6.3.5). Adverse effects on the amenity of adjoining properties are also to be "avoided, remedied and mitigated" (policy 6.3.6). Finally, policy 6.3.11 is enabling of activities that are appropriate in the Rural Zone if their adverse effects can be "avoided, remedied or mitigated".<sup>84</sup>

[104] The applicant's planning witness, Mr Farrell, gave evidence that policy 6.3.6 should not be interpreted as being concerned with a narrow inquiry into the adjoining properties residential amenity but with the amenity derived from the area's rural character. Where he encounters the phrase "avoid, remedy or mitigate" in a policy he interprets this as conferring a general discretion upon the decision-maker to decide the appropriate response to adverse effects. In his opinion the word "maintain" in objective 6.2.2 is not directive and its attainment need not be given much weight. We disagree.

[105] When recited like a mantra in a planning instrument the phrase "avoid, remedy or mitigate" often generates policy debate as to the outcomes for resources, as we have seen in this case. We agree that policy 6.3.6 is not to be read down so as to be confined to the effect on residential amenity. That said, the effect on the amenity enjoyed at the adjoining properties, including their dwellings, is an important consideration in this case. Policy 6.3.6 does not confer a general discretion on this court to decide how to respond to adverse effects. Under the policy suite amenity values are regarded in two ways; general amenity associated with the character of the area and the particular amenity of adjoining properties. The amenity values associated

<sup>&</sup>lt;sup>86</sup> The dwellings are referred to later as the Porteous Hill Residents.



<sup>&</sup>lt;sup>84</sup> We do not discuss further as this policy is enabling of the proposal where the objective is achieved.

<sup>&</sup>lt;sup>85</sup> Transcript at 684-688.

with the character of the rural area (objective 6.2.2.) will be maintained and enhanced if the character of rural area is maintained (policy 6.3.5) **and** the effects on adjoining properties are avoided, remedied or mitigated (policy 6.3.6). To achieve the objective, for adjoining properties where mitigation does not maintain amenity, unless remedied, the effect on amenity is to be avoided. Importantly, counsel for the Dunedin City Council confirmed this is how the policy suite is interpreted and applied.

[106] It follows from this we do not accept Mr Farrell's view that the objective is not directive in its outcome and therefore to be given little weight. The word "maintain" in objective 6.2.2 is to be considered in context. In context, the objective is to both "maintain and enhance" amenity values associated with the character of the rural area. To place little or no weight on the direction to "maintain" is to rob the objective of any force and meaning.

# Landscape

[107] The eastern part of the property, but not the platform site, is located in the North Coast Coastal Landscape Preservation Area. The North Coast Coastal Landscape Preservation Area is described, and the plan notes certain features and characteristics that are "to be protected".<sup>87</sup> While specific policy pertaining to this overlay does not apply, all landscape experts agreed these attributes extend over the turbine site and most address the attributes in their evidence.

[108] That said, the planners appeared to have overlooked other provisions which do apply generally to landscapes. Implementing the strategic objectives is an objective to "ensure" that land use and development do not adversely affect the quality of the landscape (objective 14.2.3) by encouraging development which integrates with the character of the landscape and enhances landscape quality (policy 14.3.4).

[109] The explanation to the objective and policies makes clear these provisions overlap with the outcomes for the Rural Zone as they are concerned with landscape values and character.

## Quality of the environment

[110] Two key objectives implement the strategic objective that particular amenity values are enhanced (objective 4.2.1). The applicant is to "ensure" noise does not

<sup>&</sup>lt;sup>87</sup> Chapter 14: Landscape, 14.5.2 Coastal Landscape Preservation Areas at 14:18.



affect public health and amenities (objective 21.2.2) and to "ensure" that the shielding of light sources avoids, remedies or mitigates nuisance glare (objective 21.2.3). The supporting policy is to "protect" people and communities from noise and glare which impact on their health, safety and amenity (policy 21.3.3).

[111] The introduction to these particular provisions is noteworthy for its recognition that noise may be a nuisance even where there is compliance with the District Plan rules.<sup>88</sup>

# The Proposed District Plan (2GP) Strategic directions

[112] Going forward a key strategic direction for Dunedin is that it is well equipped to manage and adapt to changes that might result from volatile energy markets and diminishing energy resources by having increased local energy production (objective 2.2.2(a)). This is to be achieved under policies and rules which enable renewable onsite energy generation and support the development of small scale renewable energy generation at "appropriate locations" (policy 2.2.2.3).

[113] The turbine site is zoned Coastal Rural and is also within a "Significant Natural Landscape".<sup>89</sup> And so we have also looked for guidance whether this site is an appropriate location for the wind turbine relative to the outcomes for the rural and landscape resources.

[114] We bear in mind land that is important for economic and social prosperity, including productive rural land, is protected from less productive competing uses or incompatible uses (objective 2.3.1). The 2GP gives effect to this through methods (rules and zoning) which maintain or enhance the productivity of farming and other activities that support the rural economy (policy 2.3.1.2). It is also a strategic direction that the character and visual amenity of the rural environment is maintained or enhanced (objective 2.4.6) by maintaining the identified values within the different rural environments (policy 2.4.6.2).



<sup>88</sup> Chapter 21: Environmental Issues, Introduction, at 21:1-2.

<sup>&</sup>lt;sup>89</sup> The Significant Natural Landscape is an overlay across the planning maps and in some policies, is referred to as an "overlay zone".

[115] Within this district, landscapes that fall under the category of Significant Natural Landscapes are protected (objective 2.4.4). This is achieved by classifying and mapping landscapes with values of high significance (policy 2.4.4.2) and second, protecting landscape values through a variety of means including managing land use activities and restricting the scale and design of development (policy 2.4.4.3).

[116] This then is the overarching policy context under which this proposal is evaluated. We turn next to the guidance given in the objectives and policies which implement these directions.

# Renewable energy generation activities

[117] To achieve the strategic direction for energy resilience (objective 2.2.2(a)), renewable energy generation activities are to operate efficiently and effectively while minimising, "as far as practicable", any adverse effects on the amenity and character of the zone and, in this case, while meeting the objectives and policies for the Seacliff Significant Natural Landscape overlay zone (objective 5.2.1). The use and development of renewable energy generation is encouraged (policy 5.2.1.1), but the encouragement is constrained by the requirement that these activities<sup>90</sup> be of a scale, size, design and location that enables their provision while minimising (again) "as far as practicable", the adverse effects on the amenity and character of the zone (policy 5.2.1.5(a)). In a separate overlapping policy (5.2.1.11) community scale energy generation is "only" allowed: 91

- ... where the activity is designed and located to avoid any significant adverse effects and minimise adverse effects, as far as practicable, including:
- a. effects on visual amenity and the character of the zone in which the activity is located; and
- b. effects on the amenity of any surrounding residential activities.

[118] Mr Garbett, for the City Council, submitted the phrase "as far as practicable" in the above objective and policies, requires an applicant to demonstrate that it has taken all steps that are reasonably within its power to achieve the outcome of minimising effects and whether an applicant has done so is to be assessed objectively.<sup>92</sup> With one qualification, we agree with him. While the wording of policy 5.2.1.11 is a little clumsy,

<sup>92</sup> Transcript at 38-39.



<sup>&</sup>lt;sup>90</sup> We note that the 2GP had a number of definitions which would include this single turbine. We do not refer to them as there is no issue as to the application of the relevant provisions to this proposal.

<sup>&</sup>lt;sup>91</sup> Policy 5.2.1.11.

the policy makes an important distinction between significant adverse effects (which are to be avoided) and adverse effects (which are to be minimised). We interpret "as far as practicable" as pertaining to effects that are not "significant adverse effects" as these effects are to be avoided. This interpretation sits comfortably with the construction of the sentence and second, would implement related objectives for the rural zone, 93 for the Significant Natural Landscapes; 94 the strategic direction for these resources 95 and ultimately the related provision under the proposed RPS. 96

[119] There is a second constraint on the policy to encourage development of renewable energy generation, insofar as these activities are to ensure that any risk to health and safety is no more than minor (policy 5.2.1.7). The planners interpret health risks as those pertaining to noise. In Chapter 9: Public Health and Safety has a separate objective expressed in positive language — development is to maintain or enhance people's health (objective 9.2.2) and is to be achieved by requiring that activities be designed and operated to avoid adverse effects from noise and from light spill or where avoidance is not possible then to ensure any adverse effects are insignificant (policy 9.2.2.1 and 9.2.2.4 respectively).

## The Rural Coastal Zone

[120] The turbine site is located in the Rural Coastal Zone. This is one of several rural zones for which a series of generic objectives apply. We learn that the rural zones are "reserved" for productive rural activities and "the protection and enhancement of the natural environment" (objective 16.2.1). The potential for conflict between activities within the rural zones is minimised through measures that ensure a "reasonable" level of amenity for residential activities (objective 16.2.2(c)). And finally, that the rural character values and amenity are "maintained or enhanced" (objective 16.2.3). This last objective describes the elements which makeup character and amenity including specifically the factors that pertain to the Rural Coastal Zone set out in Appendix 7 (objective 16.2.3(g)). Thus, what is to be maintained or enhanced includes the following factors (relevantly):97



<sup>93</sup> Objectives 16.2.2(c) and 16.2.3.

<sup>94</sup> Objective 10.2.5.

<sup>&</sup>lt;sup>95</sup> Objectives 2.4.4 and 2.4.6.

<sup>&</sup>lt;sup>96</sup> Objective 3.2 and policy 3.2.6.

<sup>&</sup>lt;sup>97</sup> Objective 16.2.3(g) and Appendix A7.6.

- (a) the general visual dominance of natural elements such as natural landforms, streams and remnant indigenous vegetation over human landscape elements e.g. buildings or shelter plantings; and
- (b) the generally limited visual influence of any large scale structures or exotic planting to diminish the impact of the natural landscape forms and features.

[121] Policy 16.2.3.1 gives effect to this objective by requiring network utilities be set back from boundaries and identified ridgelines, and to be of a height that "maintains" the rural character values and visual amenity values of the zones (policy 16.2.3.1). We record that it is proposed to situate the turbine on or close by an identified ridgeline.

#### The natural environment

[122] As noted the site is within the Seacliff Significant Natural Landscape ("SNL"). 98 Under the 2GP, SNLs are to be protected from inappropriate development and their values are to be maintained or enhanced (objective 10.2.5). 99 Thus SNLs are not protected from all development but from inappropriate development. In context, a development that does not maintain or enhance the values of the SNL is inappropriate development.

[123] To achieve this objective community scale wind generators are to avoid SNLs. The direction "avoid" is not categorical. SNLs are to be avoided only where the activity will have a material effect on landscape values (policy 10.2.5.15). What is meant by "material" is to be interpreted in light of the objective which the policy gives effect to — an effect that is material and to be avoided is one that does not maintain or enhance the values of the SNL. In an overlapping policy, such activities are "only" allowed in an SNL were the adverse effects on landscape values will be "avoided" or if "avoidance is not possible, be no more than minor" (policy 10.2.5.7). "Only" is a relatively strong directive but it does not mean there must be no adverse effects. Rather, adverse effects of the activity are only allowed if the SNL's values will be maintained or enhanced (objective 10.2.5).



<sup>98</sup> Statement of Agreed Facts – Landscape at [10].

<sup>&</sup>lt;sup>99</sup> We set out the values that are to be protected in the Seacliff SNL when we address the landscape and visual effects and the effect on amenity of the proposal.

[124] Finally, within the SNL new structures are to have an exterior colour that avoids, or if avoidance is not possible, then minimise adverse visual effects caused by reflectivity (policy 10.2.5.8).

# Other provisions not mentioned

[125] While we have considered them, we have not referred to all of the relevant provisions in the District Plans; in particular, the objectives and policies for transportation and mana whenua. These provisions are not material to the determination of the appeal.

# **Summary of key District Plan provisions**

[126] Addressing the provisions which are central to this appeal, and without derogating from their actual wording, key outcomes under the operative District Plan that must be considered together with the NPS provisions are that:

- the amenity values associated with the character of the rural area, including the particular amenity of adjoining properties, are maintained and enhanced;
- integrating with the character of the landscape the activity does not adversely affect the quality of the landscape;
- if amenity values are maintained and enhanced and the quality of the landscape is not adversely affected then the activity may be established within the Rural Zone; and finally
- people and communities are to be protected from noise and glare which may impact on their health, safety and amenity.

[127] Likewise, the use and development of renewable energy generation is encouraged under the 2GP in appropriate locations. An appropriate location for a wind turbine is one which:

- will avoid significant adverse effects on the visual amenity and character of the zone in which the activity is located and avoid significant adverse effects on the amenity of surrounding residential activities;
- when located within an SNL, the development will not have a material effect on the landscape's values and will maintain or enhance the landscape's values;



- when located within the Rural Coastal Zone, the development will maintain or enhance the rural character values and amenity of this Zone;
- maintain or enhance the relationship between mana whenua and the natural environment; and
- maintain the safety and efficiency of the transport network.



# The proposal's benefits

#### The issues

[128] The following issues arise with respect to the proposal's benefits:

- (a) what is the quantity of electricity to be generated from the wind resource?
- (b) what level of confidence does the court have around the payment of a dividend to the Trust? and
- (c) what is the quantity of carbon dioxide discharge avoided?

# Confidentiality order

[129] During the preparation of this decision, we sought confirmation from the appellant on the extent of the coverage being sought under the confidentiality order which had been put in place prior to the hearing.<sup>100</sup> In particular, did the appellant propose the court's analysis of wind data be redacted from the published decision.<sup>101</sup> The appellant responded that it was <u>not</u> seeking this.<sup>102</sup>

[130] The decision, including this section on project benefits, has been prepared with this in mind.

## **Project description**

[131] The proposal is for a single 3 MW wind generator to be installed on Porteous Hill. Hub height is to be 68.9 m and the maximum blade tip height is to be 110 m, at an elevation of 401 m. Annual gross generation is predicted to be 7,440 MWh, with a net annual generation into the grid of 7,068 MWh.

[132] We have examined the applicant's financial model to determine the robustness of one of the key benefits of the proposal claimed by the appellant, an average annual dividend over the 20 year life of the turbine of \$100,000 to the Blueskin Resilient Communities Trust (the Trust). Realisation of this benefit naturally depends upon the financial success of the project.



<sup>100</sup> Court Minute 11 August 2017.

<sup>&</sup>lt;sup>101</sup> The analysis of the wind data draws on Freear, EiC Appendices 1 and 2. This evidence is a subject-matter of the orders.

<sup>&</sup>lt;sup>102</sup> Memoranda of counsel dated 18 and 28 August 2017.

[133] In this respect we heard from Mr Freear, who is a mechanical engineer and a director of Blueskin Energy Limited. He is experienced in the development of wind farms having been a former CEO of NZ Windfarms Ltd and a director of NZ Wind Energy Association. He provided evidence covering:

- (a) the wind data collected by the wind monitoring station installed on the application site. The wind summary report prepared by DNV-GL was attached in an appendix to his evidence;
- (b) a Wind Energy Yield report prepared by Enercon, also attached as an appendix to his evidence;
- (c) the estimated development costs including turbine cost, construction cost, transmission infrastructure cost, distribution connection cost, roading cost and transportation cost;
- (d) the operation and maintenance costs;
- (e) a range of capital funding models; and
- (f) the sale price for the electricity generated.

[134] In the context of the confidentiality order, we are unable to include specific details of any of the information contained in paragraphs (c) to (f).

# The quantity of electricity to be generated from the wind resource

[135] The gross production of 7,440 MWh pa is based on a turbine with a rated power of 3 MW and an annual average wind speed (P50) of 7.3 m/s at the hub height of 68.9 m. This wind resource allows the turbine to operate at a capacity factor of 28%. The cut-in wind speed for the turbine is 2.00 m/s (7.2 kph) but significant generation does not start until around a wind speed of 5 m/s. The cut-out wind speed is 25 m/s (90 kph).<sup>103</sup> Mr Freear said the wind resource at this site was therefore good by international standards but second tier in the New Zealand context.<sup>104</sup>

# Dividend payable to the Trust

[136] A major element for the proposal, and a matter which the Trust would have the court place significant weight, is the payment of the dividend by the appellant to the Trust. The dividend would provide the Trust with a revenue stream enabling it to fund

<sup>&</sup>lt;sup>104</sup> Freear, EiC at [16].



<sup>&</sup>lt;sup>103</sup> Freear, EiC Appendix 2 at CF-029 and CF-031.

projects in line with its strategy including leveraging funding from other sources. 105

[137] The weight to be given to this dividend was a matter of some controversy as the dividend was not initially secured through a condition of consent and its realisation is contingent upon the correctness of a number of assumptions made by the appellant in its business case.

[138] During the hearing the appellant called evidence from Mr Wilson, a Director of Blueskin Energy Ltd, on the topic of how the payment of the dividend to the Trust would be secured. Mr Wilson is a business consultant practising as Pellucid Consulting Ltd. He proposed the dividend be calculated as 20% of the revenue less operating and maintenance costs (20% of EBITDA)<sup>106</sup> less the appellant's related reporting and operating expenses. Payment of the dividend under Mr Wilson's formula would be secured by a condition of consent.

[139] Provided the Trust dividend has first call on EBITDA (as opposed to the investor dividend having first call) and the appellant's company expenses are limited to the fixed amount proposed by Mr Wilson, then a significant proportion of the EBITDA will be paid to the Trust.

[140] We are satisfied that the formula would ensure certainty of a dividend being paid to the Trust although it does not guarantee a specific amount to be paid year-on-year. The annual payment will depend on a number of variables not the least being the availability of the wind resource in any year and the price secured for the sale of the electricity generated by the turbine. If follows there can be no guarantee that the average dividend over the 20-year life of the turbine would be \$100,000 pa.

#### Financial model

[141] The cost inputs for the appellant's business case have been provided from a number of sources. Estimates for the full range of costs have yet to be made and funding and supply agreements are still to be negotiated. Although he did not provide any details, Mr Freear said that he had taken expert advice on electricity price forecasting, power purchase agreements, hedging options, operation and maintenance costs, the business model, capital raising and contractual arrangements.

<sup>&</sup>lt;sup>106</sup> EBITDA stands for Earnings (or operating profit) Before Interest, Tax Depreciation and Amortisation.



<sup>&</sup>lt;sup>105</sup> Ruru, EiC at [27]-[31] and [37].

[142] The business case was tested in the evidence of Mr J Brown who was called on behalf of the Society.

[143] Mr J Brown holds a Masters of Engineering with Distinction from the University of Canterbury majoring in Chemical and Process Engineering. He has a broad range of experience of energy technologies including wind generation with industrial experience in many countries. He is a trained Mega Project Manager. Currently he is a project director and shareholder in Broadreach Capital, an investment company that develops, owns and operates renewable energy projects including wind generation. Mr J Brown is the son of Mr M Brown, a s 274 party, and we have borne this in mind when considering his evidence.

[144] Mr J Brown had based his initial analysis on the appellant's earlier proposal for three 800 kW wind turbines on Porteous Hill but in his evidence he had revised that analysis for the single 3 MW turbine now proposed. The focus of his evidence was on the key inputs for assessing the financial viability of the appellant's proposal which he identified as being the wind resource, the capital and operating and maintenance costs, debt serving and investor returns, electricity price, the robustness of the financial model and from all of this the security of the dividend to the Trust.

[145] He considered that the wind resource had been over-estimated, pointing out that the data set provided by the appellant did not include periods of low wind speed or a period over a full year. He also considered the conversion of mean wind speed of 6.3 m/s at 30 m height, where the wind measurements were made, to the mean wind speed of 7.3 m/s at the proposed hub height of 68.9 m over-estimated the wind resource by 10-15%. It follows that the annual generation was more likely to be 6,300 MWh - 6,700 MWh rather than the 7,440 MWh adopted by Mr Freear.

[146] Mr Brown also criticised the assumed power price which he considered to be over-priced.

[147] In 2014, Dunedin City consumed 903 GWh (down from 964.24 GWh in 2009). About 32% of this supply came from the Waipori hydro station and the Mahinerangi wind-farm and the remaining 68% from the national grid.<sup>107</sup> Based on Mr Freear's assumptions, the Blueskin proposal would contribute about 0.8% of this consumption.



<sup>&</sup>lt;sup>107</sup> The Dunedin Energy Baseline Study Otago University Sept 2015 at 13.

[148] At a national scale, where the electricity consumption in 2016 is said to have been about 36,000 GWh, <sup>108</sup> the contribution from this proposal would be about 0.02%.

[149] Mr Gaskell, the Chief Executive of the New Zealand Wind Energy Association provided broad context about the development of wind generation in New Zealand. The Association's mission is to promote the uptake of wind and policy advocacy<sup>109</sup> and this qualifies Mr Gaskell's independence as an expert witness.

[150] He told us that New Zealand's overall wind energy will vary little on a long-term basis, generating electricity for up to 90% of the time, and, with its diversified sources and synergy with hydro-electric generation, currently, wind energy makes an important overall contribution of 6% to the New Zealand electricity supply. There is 700 MW of installed wind generation capacity at present and there are existing unimplemented resource consents for a further 2,200 MW. Projections of future wind generation show a possibility of 2,300 MW capacity being installed by 2040.<sup>110</sup> None of this was disputed.

[151] Mr Gaskell also said that the Porteous Hill proposal of 7 GWh/yr would assist in a small way to avoid some greenhouse gas emissions and the attainment of the Government's target for renewable electricity generation, although he agreed with Mr Garbett in cross-examination that it was not just a simple substitution for thermal generation.<sup>111</sup>

[152] He considers small scale community based wind generation projects such as that proposed at Porteous Hill are important for providing renewable energy and reducing the use of fossil fuels. In 2013 carbon dioxide emissions from thermal electricity generation in New Zealand amounted to 5,043 kt and electricity generation from coal emitted 1,003 t of carbon dioxide per GWh. If all of the generation from this turbine replaced coal fired generation then the emission of 7,089 t of carbon dioxide would be avoided. Carbon dioxide emissions from New Zealand's energy sector in 2013 were 31,659 kt, so electricity generation from this wind turbine would reduce that

<sup>115</sup> Gaskell, EiC at [14].



<sup>&</sup>lt;sup>108</sup> Gaskell, EiC Appendix B at 7 (deduced from his graph).

<sup>109</sup> Gaskell, EiC at [8].

<sup>&</sup>lt;sup>110</sup> Gaskell, EiC at [12]-[16].

<sup>111</sup> Transcript at 136.

<sup>&</sup>lt;sup>112</sup> Gaskell, EiC at [25].

<sup>&</sup>lt;sup>113</sup> We understand "kt" to stand for kilo-tonnes. 1 kilo-tonne is the same as 1,000 tonnes.

<sup>&</sup>lt;sup>114</sup> We understand "t" to stand for tonnes.

total by about 0.02%.116

# Discussion on project benefits

[153] Our highest level of uncertainty about the proposal rests with the wind resource analysis and the level of generation that can be achieved, especially noting the reservation of DNV GL, the firm that undertook the wind data analysis, that "DNV GL does not recommend that this data is relied on for further analysis as uncertainty in the analysis is high."<sup>117</sup>

[154] The dividend to the Trust will be reduced not only if the size of the wind resource has been overestimated but also if the adopted electricity price is too high or the costs underestimated. Whether the proposal is financially sound, however, is a matter for the appellant's board to determine rather than this court but, having said this, we do have doubts about whether the level of the dividend benefit anticipated by the Trust will be achieved.

[155] If the appellant's modelling is proven to be correct, we accept that the positive environmental benefits of the proposal should be the generation of 7,068 MWh pa of renewable electricity and the avoidance of an annual emission of 7,089 t of carbon dioxide. In the national context, these benefits would be 0.02% of the national generation and 0.02% of the energy sector's annual carbon dioxide emissions.

[156] We return later as part of our overall evaluation of the proposal to consider the weight to be given to these benefits.



<sup>&</sup>lt;sup>116</sup> Gaskell, EiC Appendix A at 3.

<sup>&</sup>lt;sup>117</sup> Chiles, supplementary dated 12 May 2017 at [2.1.5] of Appendix A of Appendix A.

## Landscape, rural character and amenity

#### Introduction

[157] A key issue in this case is whether the turbine will maintain or enhance the landscape, rural character and the amenity values of the area. These effects are interrelated.

[158] When considering amenity values, in particular, our usual approach is to start with the residents' views. 118 We regard their views on their existing amenity as subjective as they may be influenced by personal feelings or opinions, including the strength of their attachment to this place. Second, we look to what the District Plans have to say about the area's amenity values; subject to any submissions or appeals on a proposed plan, the court is usually able to regard this as an objective record. 119 Third, having ascertained the values we would expect them to be objectively tested by landscape experts who will advise whether the basis for those values are reasonably held and then assess whether the proposal gives rise to landscape and visual effects. If it does, the next step is to consider whether there are any consequential effects on the existing amenity values. Finally, we would assess the landscape and visual effects and the effects on amenity values in light of the outcomes for the relevant resources and values under the District Plans. We note that a similar approach was taken in Scholfield v Auckland Council 20 and Port Gore Marine Farms v Marlborough District Council. 21

#### Joint witness conference

[159] We heard evidence from four landscape architects; Mr M Moore (applicant), Ms D Lucas (applicant), Mr B Knox (City Council) and Mr S Brown (Porteous Hill Residents).

[160] Prior to the hearing commencing the experts attended an expert witness conference. The outcome of the conference was that they agreed upon the methodology for assessment, but nevertheless were divided on the significance of the turbine's effects in Blueskin Bay and the coastal landscape and second, the nature and



<sup>&</sup>lt;sup>118</sup> Specifically; the submitters and s 274 parties.

<sup>&</sup>lt;sup>119</sup> Note that there may be other records of amenity values other than a District Plan.

<sup>&</sup>lt;sup>120</sup> [2012] NZEnvC 68 at [42] and [51].

<sup>&</sup>lt;sup>121</sup> [2012] NZEnvC 72 at [213]-[217]ff.

magnitude of effects on properties located at Pryde Rd and Porteous Rd.<sup>122</sup> That is to say, they held widely differing opinions on two key issues for determination. The reasons for their disagreement warranted careful exploration at the conference, but unfortunately this did not happen.<sup>123</sup>

[161] Cross-examination elicited that one key difference lay in their identification and subsequent evaluation of amenity values. At the completion of their evidence the court empaneled the four landscape experts and sought their views on:

- the definition of key terms used in evidence;
- the methodology used to identify existing amenity values; and
- the factors brought to bear when assessing effects.

[162] Because it provides a useful framework for our analysis, we set out next the definitions agreed upon by the landscape witnesses. In doing so we expect that the terms may be defined differently in different contexts, our object is simply to apply a common set of terms in this case.

#### Key definitions

"Landscape effect" is the change to the physical landscape. This change may lead to change in the landscape's attributes, character and values. 124

A "visual effect" is the change to the composition of views. 125

"Amenity values" means those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes (s 2 RMA).

"Visual amenity" concerns the visual attributes of the landscape that contribute to people's appreciation of the area's pleasantness, coherence and aesthetic coherence. 126

<sup>126</sup> Transcript at 587-589.



<sup>122</sup> Landscape JWS at [21].

<sup>&</sup>lt;sup>123</sup> In the JWS the witnesses recited, without more, their different opinions: Practice Note 2014: Appendix 3 General Directions on Conferencing at [7](j)(iv) addressing the general directions on conferencing requires reasons to be given for the witnesses' disagreement.

<sup>&</sup>lt;sup>124</sup> Transcript at 585 and 595.

<sup>&</sup>lt;sup>125</sup> Transcript at 587.

"Aesthetic coherence" – referred to in the RMA's definition of "amenity values" – is the sense of positive harmony that arises from the elements and patterns in a landscape. "Patterns" means the composition of the landscape including landform, vegetative land-cover and anthropocentric elements (e.g. buildings and structures). While "aesthetic" is usually understood to be concerned with beauty, 127 a harmonious landscape may have aesthetic coherence without imparting beauty. 128

[163] With those definitions in mind we turn to amenity values held by the residents and submitters.

## Structure of the court's analysis

[164] For the balance of this topic we have structured the decision as follows:

- (a) describe -
  - the Blueskin Bay Residents' existing amenity values; and
  - the Porteous Hill Residents' existing amenity values.
- (b) identify the existing amenity values recognised in the District Plans.
- (c) evaluate the experts' opinion on the existing amenity values and decide whether these values are reasonably held for:
  - the Porteous Hill Residents and environs;
  - Blueskin Bay; and
  - the inland coastal landscape.
- (d) decide whether the turbine will maintain or enhance the amenity values for the above locations; and
- (e) evaluate the effects in light of the objectives and policies of the District Plan. [Which we do at the end of the decision.]

# The Blueskin Bay Residents' existing amenity values

[165] The activity of pastoral farming was cited by many residents as giving rise to a landscape with an overall visual coherence which they valued, describing it in terms as



<sup>&</sup>lt;sup>127</sup> See, for example, the Oxford Online Dictionary definition of "aesthetic": being concerned with beauty or the appreciation of beauty.

<sup>&</sup>lt;sup>128</sup> Transcript at 589-590.

"beautiful", 129 "most pleasant place imaginable" 130 or "stunning" 131 and also in more understated language such as "pleasant" 132 and "agreeable." 133

[166] These adjectives express the residents' attachment to this place. Knowing their concerns about what will change or be lost if the turbine is constructed reveals those attributes and characteristics of the landscape that are of value to them.

[167] The residents' overriding concern is that, given the turbine's height relative to that of the summit, the turbine and not Porteous Hill will become the focal point in the landscape. This kinetic structure will be a visually incongruent element on the summit and the dominating feature within the landscape.<sup>134</sup>

[168] Rather than enumerate the attributes of the landscape which they value, their evidence tended to focus on the landscape's character – being the combination of attributes that give the area its identity. The scale of the landscape and the expansive views from within and in particular from Porteous Hill towards the coast and the Silver Peaks range led many to comment on the landscape's open spacious expression. Allied to this is the residents' appreciation of the area's peace and quiet high — which does not mean an absence of noise but rather how residents value a soundscape which is a product of pastoral activities and also of its wildlife. The settlements around Blueskin Bay do not detract from this amenity but are of a scale (population density) that reinforces this sense of relative spaciousness. By way of illustration some residents commented on the lights shining from dwelling houses which frame Blueskin Bay in the otherwise dark landscape.

[169] Philip Clarke's description of a "harmonious" and "pleasant" landscape with its built elements being "in scale and proportion" talks to the landscape's aesthetic

<sup>&</sup>lt;sup>140</sup> Transcript at 451-452; Transcript at 478-479.



<sup>129</sup> Transcript at 444.

<sup>130</sup> Transcript at 452.

<sup>&</sup>lt;sup>131</sup> Transcript at 451.

<sup>&</sup>lt;sup>132</sup> Transcript at 478.

<sup>133</sup> Transcript at 460.

<sup>&</sup>lt;sup>134</sup> Albert, EiC at [18]; Morrison, EiC at [7]; M Brown, EiC at [15]; Clarke EiC at [7]; Ozanne, EiC at [12]; Atkinson EiC at [5].

<sup>&</sup>lt;sup>135</sup> See NZLA Best Practice Note: Landscape Assessment and Sustainable Management 10.1, definition of "landscape character".

<sup>&</sup>lt;sup>136</sup> Transcript at 407.

<sup>&</sup>lt;sup>137</sup> For example, Transcript at 444 and 451.

<sup>138</sup> Ozanne, EiC at [7].

<sup>&</sup>lt;sup>139</sup> Birds in particular were mentioned by several witnesses.

cohesion.141

# The Porteous Hill Residents' existing amenity values

[170] It is proposed to locate the turbine near three dwellings, the owners of which are referred to in this decision as the "Porteous Hill Residents". 142

[171] The existing amenity values are set out comprehensively in the evidence of Mr S Brown and are based on his clients' views (the Porteous Hill Residents) which he assessed as being reasonably held. During the course of the hearing the other landscape experts each agreed with his assessment of the amenity values enjoyed by the Porteous Hill Residents. The amenity values are more nuanced than those enjoyed around Blueskin Bay more generally and are based on: 145

- the landscape's characteristic sense of relative isolation, peace and quiet;
- the foreground attribute of the open crest of two volcanoes which frame their surroundings, together with the complex layering of shelterbelts, amenity planting, pine woodlots, rock outcrops and pasture; and
- the background seascape attribute of the Pacific Ocean with its margins extending from Potato Point towards Seacliff.<sup>146</sup>

#### Amenity values recognised in the District Plans

[172] The District Plans expressly recognise certain landscapes that are valued within the District. The turbine would be located in a coastal landscape delineated in the District Plans overlay maps for its important attributes and character. The southern boundary of the landscape is recorded at different locations in the overlay maps, which we come to next.

#### Operative District Plan - North Coast Coastal Landscape Preservation Area

[173] The first of these valued landscapes is described in the operative District Plan.

<sup>&</sup>lt;sup>146</sup> From 110 Porteous Rd and 90 Pryde Rd.



<sup>&</sup>lt;sup>141</sup> Transcript at 460.

<sup>&</sup>lt;sup>142</sup> We note that the turbine would be visible also to a number of properties, some of which have dwellings, within 1.5 kms.

 $<sup>^{143}</sup>$  Mr S Brown also gave comprehensive evidence concerning the landscape values around Blueskin Bay and along the Coast Rd.

<sup>&</sup>lt;sup>144</sup> Transcript at 521, 622 and 626.

<sup>&</sup>lt;sup>145</sup> S Brown, EiC at [21].

By way of introduction the District Plan notes that land included in a Landscape Preservation Area is characterised by a dominance of natural landscape elements over cultural elements. Where land is located further away from the coast this is characterised by an open rural landscape, and the landform is generally the most dominant element.<sup>147</sup>

[174] The actual site of the turbine platform is not within the North Coast Coastal Landscape Preservation Area, it is very close to the boundaries of this area. While the operative District Plan's policy for Landscape Preservation Areas does not apply, the landscape experts agreed that the features and characteristics recognised in the operative District Plan extend to the platform.

## [175] The features and characteristics recognised include:

- the general visual dominance of the natural landscape elements e.g. natural landform over human landscape elements such as buildings or shelter plantings;
- the integrity, extent, coherence and natural character of the landform, streams and remaining areas of indigenous vegetation; and
- the generally limited visual influence of any large-scale structures or exotic plants to diminish the impact of the natural landscape form and features.

[176] The principal threats to the visual quality of this area are structures inappropriately sited or of a design, scale, density and finish such that they become visually dominant from public viewpoints and second, forestry blocks.<sup>149</sup>

#### 2GP – Seacliff Significant Natural Landscape overlay

[177] Under the 2GP the site, including the platform, has been included in the "Seacliff Significant Natural Landscape" overlay. Towards the north, the overlay appears largely coextensive with the North Coast Coastal Preservation Area in the operative district plan. In the south, the overlay now encompasses much of the southern face of Porteous Hill, including the entirety of its summit.



<sup>&</sup>lt;sup>147</sup> ODP, Chapter 14, cl 14.5.2 Coastal Landscape Preservation Areas.

<sup>&</sup>lt;sup>148</sup> Part of the turbine site, but not the turbine platform, is within the North Coast Coastal Landscape Preservation Area.

<sup>&</sup>lt;sup>149</sup> ODP, Chapter 14, cl 14.5.2(iii) Coastal Landscape Preservation Areas.

[178] The 2GP identifies certain features and characteristics as being important to "protect". Starting with the landscape's natural science attributes:

- natural landform being the general visual dominance of the natural landform and other natural elements over cultural or human-made landscape elements; and
- natural character in particular the contribution of the area's rural amenity
   values to the natural character of the wider coastal environment.

#### [179] Cultural and historic values:

 the Coast Rd and railway are recognised as valuable scenic routes in this area. The Waikouaiti coast and hills represent a strategic transport gateway into Dunedin City from the north.

#### [180] Certain characteristics of the landscape are also recognised:

- backdrop and coastal views the landscape is viewed from a number of viewpoints, including the Coast Rd which is recognised as a scenic route for its magnificent coastal views; and
- aesthetic coherence while a modified rural landscape, nevertheless its level of naturalness and also its aesthetic coherence is high due to the generally coherent landform and vegetation. It is an attractive rural foreground to the Coast Rd.

[181] Ridgeline and waahi tupuna notations apply across the property but not at the platform site.<sup>150</sup>

[182] The list of principal threats has been extended, but includes the same matters identified for the North Coast Coastal Preservation Area.

#### 2GP's Rural Coastal Zone

[183] The site is located in the Rural Coastal Zone. The 2GP identifies the values attributed to this area including (relevantly):



<sup>&</sup>lt;sup>150</sup> Statement of agreed facts – landscape, dated 21 April 2017 at [10].

- (a) the general visual dominance of natural elements such as natural landforms, streams and remnant indigenous vegetation over human landscape elements (buildings or shelter plantings); and
- (b) the generally limited visual influence of any large-scale structures or exotic planting to diminish the impact of the natural landscape forms and features.<sup>151</sup>

# Evaluation of expert opinion as to existing landscape values, including amenity values and whether these are reasonably held

#### Preliminary matters

[184] In Mr S Brown's opinion there would be significant adverse visual effects and effects on amenity within the wider coastal landscape. His opinion was not shared by the other landscape witnesses and their differences are probably accounted for in their treatment of:

- the identification of the landscape's values; and
- the sensitivity of the viewer to change.

We will address these differences in turn.

#### Identification of the landscape values

[185] The differences between the experts are two-fold and arise from:

- (a) their opinion as to the landscape's aesthetic coherence; and
- (b) methodology used to identify the landscape's values.

#### Aesthetic coherence

[186] The coastal landscape, including the hill backdrop, extends from Purakanui to Seacliffs. Co-extensive with this landscape is an area that has been included in the North Coast Coastal Landscape Preservation Area and Seacliff Significant Natural Landscape overlay. Whether these overlays contain a landscape in its own right is immaterial to this decision.



<sup>151 2</sup>GP, Appendix A at 7.6, Coastal Rural Zone.

<sup>&</sup>lt;sup>152</sup> While the District Plan identifies this as a "landscape", we tend to regard it as part of a wider landscape which is more highly valued.

[187] The key differences between Mr S Brown and the other landscape experts appears<sup>153</sup> to be whether Porteous Hill is valued as a memorable, distinct feature within the wider coastal landscape and second, valued as part of a landscape with a high level of aesthetic coherence. For their part Ms Lucas and Mr Moore, even though they acknowledged Porteous Hill was a focal point within the landscape, said it was not valued as such<sup>154</sup> and that the aesthetic coherence of the landscape is low.<sup>155</sup>

[188] Ms Lucas described the appearance of the landscape as "a mosaic of plantings, regeneration, farm and residential activity" which "jostle for attention and dominance". Ms Lucas is describing here the southern face of Porteous Hill, an extensive part of which is contained in the District Plans' landscape overlays. While she does not do so directly, she is challenging the values attributed to area in the District Plans. At least in respect of the 2GP, if there is no reasonable basis for these values it is open to Ms Lucas as an expert to do so.

[189] On the other hand, Mr S Brown was of the opinion that Blueskin Bay has a high level of aesthetic coherence and affirmed its particular application to the landscape overlays. The enclosed waters of the embayment are an important attribution and is integral with the landscape. The rising backdrop of hills and small volcanic cones enclose and visually define most of the local coastal landscape and environment. Overall there is a harmonious balance in the landform, land cover and pattern of settlement, which results in a landscape with real cohesion and pleasantness.

[190] In arriving at their different opinions, it seems tolerably clear that Mr S Brown and Ms Lucas differed on the weight to be given to the seascape. A second possible difference lies in the focal point of their respective assessments. Mr S Brown while

<sup>&</sup>lt;sup>161</sup> While all witnesses mention the embayment and coastal area, only Mr S Brown seems to attach any weight to its attributes when assessing the overall character of the landscape.



<sup>&</sup>lt;sup>153</sup> We say "appears" because we had difficulty correlating their evidence.

<sup>&</sup>lt;sup>154</sup> Lucas, EiC at [51]-[57]; Lucas Appendix A at 7. During cross-examination Ms Lucas said she relied on research conducted by the applicant to say the Hill was not valued as a landmark. This research is not referenced in her evidence and whether this view is reasonably held was not able to be tested (Transcript at 563-564); Moore, EiC at [10].

Lucas, EiC at [48]. While Mr Moore affirms the values attributed to the Seacliff Significant Natural Landscape overlay, which recognises the area's high level of aesthetic coherence, (EiC at [87]) his conclusions as to the effect on amenity values seem in tension with this (EiC at [89]-[92]).

<sup>&</sup>lt;sup>156</sup> Lucas, EiC Appendix A at 14 and elsewhere particularly at references concerning the landscape's complexity.

<sup>&</sup>lt;sup>157</sup> Lucas, EiC at [17].

<sup>&</sup>lt;sup>158</sup> While this was also Mr Moore's opinion, we struggled to see how this assessment was then applied by him to assess the change in amenity values derived from the attributes and character of the landscape, we come back to this later in the decision.

<sup>&</sup>lt;sup>159</sup> S Brown, EiC at [16].

<sup>&</sup>lt;sup>160</sup> Transcript at 619-622.

acknowledging the variability of land cover and pastoral activities, describes the attributes and character of the landscape holistically. Ms Lucas, in contrast, placed greater weight on certain discordant elements within the landscape which in her view reduces the aesthetic coherence of the landscape in general – such as the intrusion of the long shelterbelt into the summit skyline and the presence of forestry blocks.

#### Findings on aesthetic coherence

[191] The level of aesthetic coherence is an important factor when considering the visual effect and effect on visual amenity. It informs our understanding of whether there is a reasonable basis for the visual amenity values ascribed to this landscape or is it, as the appellant contends, mere personal opinion and preference.<sup>162</sup>

[192] The assessment of aesthetic coherence is sensitive to context. The seascape is an integral part of the landscape when viewed from Blueskin Bay and within properties located on Porteous Hill. The land and sea interact with and inform the perception of the other's naturalness and the overall character of the landscape.

[193] We returned for a second site visit to consider specifically aesthetic coherence. While the composition of the view alters with the viewing point, we do not agree with Ms Lucas that the landscape's "mosaic of plantings, regeneration, farm and residential activity...jostle for attention and dominance" as might occur if there was a low level of aesthetic coherence.

[194] The coastal landscape has a high level of aesthetic coherence; the areas with the highest level are included in the District Plan overlays.

[195] For the most part, the patterning of introduced and indigenous vegetation aligns with the prevailing winds from the south-west. Shelterbelts are extensive and appear to follow minor ridges which fall towards the coast. This is also the case for the large area of shelterbelt to the right of the summit. On one view this shelterbelt does cut across the face of the hill but on another view the shelterbelt is following a largely horizontal ridgeline.

[196] Mr Brown's assessment of amenity values accords with the views of the residents and the values described in the District Plan, and we accept there is a



<sup>&</sup>lt;sup>162</sup> Farrell, EiC at [135].

reasonable basis for holding this view. We find there to be a strong relationship between the pastoral activities, landform and environment. The level of aesthetic coherence may vary depending on the scale of the view and thus the composition of the view, <sup>163</sup> however when considered as a whole, we find the coastal landscape has a high level of aesthetic coherence.

Methodology used to identify the landscape's values

[197] The second point of difference between the experts concerns the methodology used to identify landscape's values, including its usual amenity value.

[198] Ms Lucas did not refer to the landscape values held by residents or submitters. While she agreed with the other landscape experts that the proposal was to be considered in relation to the operative District Plan's North Coast Coastal Landscape Preservation Area and 2GP's Seacliff Significant Natural Landscape, the values attributed to these landscapes were not directly assessed.

[199] For evidence on this topic to be persuasive the witnesses needed to have assessed the effects on the **existing** landscape values, including its visual amenity values. Although she may have had these values in mind, Ms Lucas does not identify the qualities and characteristics that contribute to people's appreciation of the area's pleasantness, coherence and aesthetic coherence.

[200] This presents us with three difficulties. First, save in relation to the landscape's aesthetic coherence (which is highly valued by the residents and recognised in the Seacliff SNL) the evidence does not transparently identify and then test the reasonableness of the values held by residents or identified in the District Plans. Second, we were unable to correlate her assessment of visual effects and effect on visual amenity with that of Messrs S Brown and Moore. Finally, we cannot discount the possibility that Ms Lucas' opinion may be based on her personal view of landscape and amenity values, and these views may not be shared by the district. Having given the matter careful attention, other than on the topic of aesthetic coherence, we were unassisted by Ms Lucas' opinions as to existing amenity values.



<sup>&</sup>lt;sup>163</sup> That is to say discrete forestry blocks and individual shelterbelts become more or less prominent depending on the viewing place.

## The sensitivity of the viewer to change

[201] A second major point of difference arises in the experts' treatment of the sensitivity of the viewer to change.

[202] The proposal engendered a range of responses along a continuum of positive to negative, notably this included responses from the appellant's landscape experts. Mr Moore and Ms Lucas advised the turbine would be viewed as a "community installation... [and would] ... likely be seen with pride";164 it would have a "meaningful appearance on the summit of the hill".165 These are also the benefits of the proposal which the appellant asks the court to give weight. We wondered whether or to what extent Mr Moore's and Ms Lucas' opinion as to the change in visual amenity was informed or influenced by their personal values.

[203] Mr S Brown, in contrast, said an expert's personal values need to be set to one side as they are not relevant to whether there will be a landscape or visual effect, or an effect on amenity. We agree. If the turbine is constructed, new landscape values may emerge as Dr Stephenson described in her evidence. This prospect, however, is not relevant to the inquiry into the landscape's existing values and the effect of change. Rather, it concerns how people may come to interpret and make sense of the altered landscape. Given this, we have approached the evidence of the appellant's landscape experts cautiously, bearing in mind their overall assessment of effects may have been influenced by their personal values. 167

[204] For his part, Mr Brown regarded the sensitivity of the viewer to change as being encapsulated within values they attach to the landscape. If there was no or very little value attached to the existing environment, there is the potential for change to be regarded positively.<sup>168</sup> In the context of the particular values that are in issue, we also agree with this.

[205] While Mr S Brown avoids language used by Mr Moore and Ms Lucas when

<sup>&</sup>lt;sup>167</sup> Further to this, Dr Stephenson made a submission on the application for resource consent strongly in support of the grant of consent. The submission was produced under cross-examination (Exhibit 1). When an expert appears to take the position of an advocate this compromises the evidence they give. Given the strength of her views in the submission we are unable to give Dr Stephenson's evidence much weight, and this is so despite her assurances that her views did not taint the opinions expressed in evidence.





<sup>&</sup>lt;sup>164</sup> Lucas, EiC Appendix A at 11.

<sup>&</sup>lt;sup>165</sup> Moore, EiC at [102].

<sup>&</sup>lt;sup>166</sup> S Brown, EiC at [8]-[9]; Transcript at 639-640.

describing the turbine (such as "aerodynamic and sculptural, and movement of turbines sf this scale has a measured, majestic quality" and "tall, elegant"), we have less of a concern with their use of language. This description is relevant to the visual effect, and in particular the congruence of the turbine structure with the existing rural character of the landscape. Mr Moore confirmed this was how he intended his evidence to be read. 171

[206] With these qualifications in mind we turn to the evidence concerning the landscape and visual effects and effects on visual amenity beyond the adjacent properties.

# Landscape values, landscape and visual effects and effects on amenity values within Blueskin Bay

# Findings on the landscape's values, including amenity values

[207] The coastal landscape is framed and contextualised by the sequence of inland hills. The hill's profile and open summit contrasts with the more consolidated development around it, and for the most part there is a clear demarcation between 'town and country' within the confines of Blueskin Bay and its margins. We agree that there is a sense of place imparted by hill country and coastline around Porteous Hill and Blueskin; 172 this was clearly the view of the residents.

[208] In his evidence Mr S Brown identifies key attributes and characteristics of the landscape from which amenity values are derived. These include: 173

- the rural-natural areas of pasture, remnant bush, shelterbelts and amenity planting around Warrington and along the Coast Road;
- the volcanic profile of Porteous and Hammond Hills which is relatively unadulterated by buildings and structures;
- the hill backdrop to Warrington and the spit; and
- the more natural, and in places remote, qualities of the coastal landscape north of Warrington.



<sup>&</sup>lt;sup>169</sup> Moore, EiC at [22].

<sup>&</sup>lt;sup>170</sup> Lucas, EiC at [45].

<sup>&</sup>lt;sup>171</sup> Transcript at 637-638.

<sup>&</sup>lt;sup>172</sup> S Brown, EiC at [54].

<sup>&</sup>lt;sup>173</sup> S Brown, EiC at [66].

[209] His assessment of amenity values accords with the views of the residents and the values described in the District Plan, and we accept there is a reasonable basis for holding this view.

# Findings on whether the turbine will maintain and/or enhance the landscape values, including amenity values of Blueskin Bay

[210] Where the seascape is in the foreground view, the adverse effect on landscape and amenity values will be significant. Because of its height relative to the hill summit, the turbine will become the focal point in the landscape. Even the appellant's landscape experts acknowledge this will be the case, Ms Lucas saying it will become a "landmark".<sup>174</sup>

[211] It is the view of Ms Lucas and Mr Moore that the turbine will not dominate the landform. It is true the turbine will not obscure the volcanic knoll, but it will alter the perception of the knoll and the wider coastal environment and, we find, will visually dominate the landform. Being a kinetic structure it will call attention to itself and appear an incongruent element within the skyline that frames this coastal landscape. Because of its height above the summit, this visual effect will not be ameliorated by pastoral activities also occurring at the summit. The turbine will reduce the perceived naturalness of Porteous Hill and the contribution this makes to the wider coastal landscape. The amenity values derived from this landscape, particularly its aesthetic coherence, will be considerably lessened.

[212] The effect of the turbine lessens when the seascape is not in view. We have no doubt the residents of Evansdale and Warrington are deeply attached to this place. While the composition of the view will change, at these locations the visual amenity will be maintained. Bearing in mind that only a partial view of the landscape is gained from these two settlements, given the dominance of cultural or man-made elements over natural elements at these locations, the turbine will be easily interpreted and not appear an incongruent or unexpected feature within the view.



<sup>&</sup>lt;sup>174</sup> Moore, EiC at [18(c)], [21] and [24]; Lucas, EiC at [60] and [61].

Landscape values and landscape and visual effects and effects on amenity values of Porteous Hill Residents and environs

# Findings on the landscape's values, including amenity values

[213] We have previously noted the agreement of the landscape experts on the amenity values held by Porteous Hill Residents. We accept their evidence.

## Expert opinion on the effect of change

[214] Mr S Brown assessed the change to the landscape and amenity values enjoyed by the Porteous Hill residents. The turbine will be visible and a dominant feature within the views from the indoor/outdoor living areas of 22 Pryde Rd and 110 Porteous Rd and visible across much of their property and the surrounding properties. <sup>175</sup> Screened by vegetation, the turbine will not be visible from the dwelling of 90 Pryde Rd, but will be visible beyond the dwelling.

[215] Mr S Brown assessed the change to the composition of their views and second, the effect on existing amenity values, concluding the turbine would result in significant adverse effects. Specifically, the turbine will:

- change the introductory views to each property (road approach and driveways);
- alter the frame and wider context of views to the coast and the hill country landscape are framed;
- reduce the sense of isolation imparted by the landscape;
- reduce the rural character of the landscape as a whole;
- reduce the quality of the outdoor living amenity;
- reduce the quality of the soundscape;
- reduce the wider landscape's aesthetic character and coherence; and
- reduce the sense of relative solitude and rural character of the night-time landscape through the installation of the LED light at the summit.

Much of this evidence was also not challenged.



<sup>&</sup>lt;sup>175</sup> S Brown, EiC at [47]. Sycamore 1<sup>st</sup> and 2<sup>nd</sup> supplementary evidence. On several properties dwellings are permitted, subject to compliance with the standards in the District Plans.

Findings on whether the turbine will maintain and/or enhance the landscape values, including amenity values of Porteous Hill Residents

[216] The turbine is a kinetic object, its blades rotating and shifting with the prevailing winds. Regardless of compliance with the noise limits in the District Plans, the turbine's aerodynamic "swishing or whooshing" noise<sup>176</sup> will likely be audible at times at these properties. The turbine noise and movement will draw attention to the turbine as a consequence.

[217] We keep in mind that the turbine noise is predicted to be audible relatively infrequently. While the turbine may not change the physical attributes of the landscape, it will change how those attributes are perceived<sup>177</sup> and, more particularly, change the values imparted by the landscape.<sup>178</sup> It was noteworthy that both Mr S Brown and Mr Moore said the turbine would have a pervasive presence.<sup>179</sup>

[218] Mr S Brown's opinion as to the effects of the proposal was not tempered by the proposed landscape planting at 22 Pryde Rd and 110 Porteous Rd. The planting would not screen the turbine for at least ten years and would generate other adverse effects, notably the reduction and alteration of the existing natural character and for 110 Porteous Rd the potential shading of the dwelling.<sup>180</sup>

[219] We do not dwell on Mr Moore's evidence but simply record that he too considered there would be a significant adverse visual effect and associated effect on visual amenity values, enjoyed by the residents at 22 Pryde Rd and 110 Porteous Rd. He acknowledged the proposed landscape planting, while in time screening the turbine, would alter the open character of the landscape (an existing amenity which the residents greatly value). He assessed the adverse effect at 90 and 139 Pryde Rd and at 2197 Waikouaiti Rd would be moderate-significant and at 58 Reservoir Rd it would be minor-moderate. For all properties, the turbine would introduce into the existing view a major new, dynamic element into the landscape and this element would be seen as a focal point. It would modify the naturalness of the landscape (we understood him to mean reduce the landscape's perceived naturalness).



<sup>&</sup>lt;sup>176</sup> Chiles, EiC at [9]-[11]; S Brown, EiC at [40].

<sup>&</sup>lt;sup>177</sup> Transcript at 580-581.

<sup>&</sup>lt;sup>178</sup> Transcript at 581.

<sup>&</sup>lt;sup>179</sup> S Brown EiC at [42]; Transcript at 511.

<sup>&</sup>lt;sup>180</sup> S Brown, EiC at [30] and [60].

<sup>&</sup>lt;sup>181</sup> Moore, EiC at [60]; rebuttal at [8].

[220] Ms Lucas was instructed by her client not to assess the landscape and visual effects and effect on amenity enjoyed at the dwellings of the Porteous Hill Residents. Excluding these residences, she considered the effect on the amenity values enjoyed at eight unidentified properties to be moderate. We assume this is a moderate adverse effect given the applicant's concession that the effects of the proposal are more than minor.

[221] Mr Knox's evidence is essentially a peer review of the visual effects evidence given by Mr Moore and Ms Lucas. For the most part, he accepts and/or elaborates on their assessment of the visual effects and the effect on visual amenity. Mr Knox agrees with Mr Moore that the adverse effects on two of the Porteous Hill Residents is significant, although for 90 Pryde Rd this assessment is confined to effects beyond the dwelling and curtilage which are otherwise screened from the turbine by vegetation. 184

[222] In summary, the uncontested evidence was that the turbine would have visual effects and effects on amenity that are adverse. At the dwellings of two properties, the effects will be significant. The visual effects could, to some extent, be mitigated by landscape planting on the owners' properties. However, the owners would experience these effects in and around the curtilage of their dwellings for up to ten years until the plants were of a height sufficient to screen the turbine. The mitigation planting would reduce existing visual amenity enjoyed by those residents, and if not carefully managed may introduce other adverse amenity effects.

[223] For other properties located within 1.5 km of the turbine site adverse visual effects will be experienced within the properties but not at any dwelling. While these are lesser effects, they range between minor to significant.

[224] We accept for two of the Porteous Hill Residents the adverse visual and amenity effects of turbine, as proposed to be mitigated, will be significant. For all other properties within 1.5 km radius where the turbine where the turbine is visible there will be a moderate adverse effect.

<sup>186 22</sup> Pryde Rd and 110 Porteous Rd.



<sup>&</sup>lt;sup>182</sup> Lucas, EiC at [24]-[39].

<sup>&</sup>lt;sup>183</sup> Both he and Mr Moore tended to use these terms interchangeably and at times it was unclear whether they were talking about a change to the composition of the view or change in amenity values. It does not necessarily follow that a differently composed view will give rise to an adverse effect on existing visual amenity values.

<sup>&</sup>lt;sup>184</sup> Knox, EiC at [16]-[17] and [29]-[40].

<sup>&</sup>lt;sup>185</sup> We comment in more detail on the effects of the turbine on aural amenity in our section on acoustics.

Landscape values, landscape and visual effects and effects on amenity values for the inland coastal landscape

## Findings on values and effects

[225] The greatest level of visual effect and effect on visual amenity will be experienced within the coastal landscape centered on Blueskin Bay, being the composite land and seascape. These effects extend into the valued landscapes in the operative District Plan's North Coast Coastal Preservation Area and the 2GP's Seacliff Significant Natural Landscape.

[226] While the turbine will be visible up to a distance of 13 km or more it does not follow the turbine will have an adverse effect on visual amenity at this distance.

[227] Even though the turbine will be clearly visible and the composition of the view will change for the inland coastal landscape (western and northern faces of Porteous Hill) the turbine will not change the existing rural character of the landscape nor diminish markedly the perception of natural character or diminish the landscape's visual amenity. We accept Mr Moore's evidence that the turbine will integrate acceptably within this landscape context.



#### Noise

#### **Background**

[228] Acoustic evidence was provided by two experts, Dr S Chiles for the appellant and Mr M Hunt for the Council. In addition, the experts met on three occasions (one being by telephone) and produced three joint witness statements.

[229] Dr Chiles said that his noise assessment had been based on a desk top study using data, assumptions, modelling and results from his 2013 assessment for the earlier three turbine proposal<sup>187</sup> and the updated acoustics and shadow swept path predictions which had been prepared by Enercon.<sup>188</sup>

#### The issues

- the adequacy of the wind data used by the noise experts in their evaluations;
- the effect on sleep disturbance;
- the effect on existing aural amenity;
- the need for a respite condition; and
- the noise limit(s) to apply at the three closest properties.

#### **Operative District Plan's Rules**

[230] The operative District Plan makes no reference to wind farms.

[231] Dr Chiles advised that in the absence of wind farm noise limits in the plan, the limits at the neighbours nearest to the wind turbine would be 50 dB<sub>LA10</sub> during the day and 40 dB<sub>LA10</sub> at night. Also, the plan adopts a non-standard definition of notional boundary for assessments of noise which is 50 m from houses as opposed to the 20 m defined in NZS 6802, <sup>189</sup> NZS 6808 <sup>190</sup> and many other district plans.

[232] The L<sub>A10</sub> parameter used in the plan is the sound level exceeded for 10% of the measurement time which correlates with the peaks of sound. When it is windy, this measure is generally determined by the sound of vegetation moving or other transient

<sup>&</sup>lt;sup>190</sup> NZS 6808:2010: Acoustics-Wind farm noise.



<sup>&</sup>lt;sup>187</sup> Chiles, EiC, Appendix A: Blueskin Wind Cluster-Acoustic assessment dated 13 September 2013.

Chiles, EiC, Appendix B: Enercon, Decibel-Main Result (E01-1xEnercon E-82 (69 m hh)) dated 13 September 2016.

<sup>&</sup>lt;sup>189</sup> NZS 6802:2008: Acoustics-Environmental noise.

sound. This measurement does not correlate well with steady sound from wind turbines. Further, as Rule 21.5.1 in the ODP does not allow for measurement in significant wind, the plan's noise limits cannot be applied to the proposed wind turbine.

[233] Dr Chiles has therefore undertaken his assessment based on the specific methods and recommended limits in NZS 6808 which is the same standard provided for in the 2GP,<sup>191</sup> including this standard's definition of the location of the notional boundary. While disputing the noise limit which should apply, Mr Hunt agrees with Dr Chiles that NZS 6808 is the appropriate standard for assessing the effects of noise levels from the proposed turbine.

#### The New Zealand Standard NZS 6808

[234] NZS 6808 recommends that the noise level for wind turbines at all wind speeds at the notional boundaries<sup>192</sup> on the adjoining properties should not exceed the background sound level by 5 dB or 40 dB L A90(10min), whichever is the greater. This is to provide an internationally accepted sound level of 30 dB LAeq for protection against sleep disturbance based on a reduction of noise from outdoors to indoors of around 15 dB with windows partially open for ventilation.<sup>193</sup>

[235] The same noise limit outdoors is also recommended to protect the health and amenity of residents for most noise sensitive activities although where a plan promotes a higher degree of protection of amenity, a lower noise limit might be appropriate.<sup>194</sup>

## **Turbine operation**

[236] The noise predictions for the turbine have been based on an Enercon 3 Megawatt E-82 model with a hub height of 68.9 m.<sup>195</sup> At a height of 10 m above ground level, its sound power level<sup>196</sup> at a wind speed of 5 m/s would be 8 dB less than at a wind speed of 10 m/s and this same reduction would apply to the predicted noise levels at the receiving locations.<sup>197</sup> The predicted noise levels at the receiving locations have

<sup>&</sup>lt;sup>197</sup> Chiles, supplementary, Appendix A at [7]. Dr Chiles noted that the equivalent wind speeds at hub height would be 7 m/s and 11 m/s; Transcript at 355.



<sup>&</sup>lt;sup>191</sup> 2GP Rule 9.3.6.6 (j).

<sup>&</sup>lt;sup>192</sup> NZS 6808 defines the notional boundary as being the legal boundary or a line 20 m from the side of a noise sensitive dwelling (such as a residential house).

<sup>&</sup>lt;sup>193</sup> NZS 6808 at 5.1.2.

<sup>&</sup>lt;sup>194</sup> NZS 6808 at 5.1.3.

<sup>&</sup>lt;sup>195</sup> This is the turbine proposed to be installed on the site if consent is granted.

<sup>&</sup>lt;sup>196</sup> The sound power level is the level of the decibels emitted from the turbine.

been based on the maximum sound power level of 106 dB(A) plus a 1 dB margin of error.

# Turbine location and height

[237] Dr Chiles said that moving the location of the turbine by 50 m to 100 m would make negligible difference to the noise predictions. This was much more than the 30 m margin provided for in the draft conditions. Also, there would be negligible differences in the noise predictions for turbines with hub heights of 50 m and 69 m provided the sound power level remained the same for both.

#### **Acoustic environment**

[238] Dr Chiles described the acoustic environment in the vicinity of the proposed turbine. Each of the three nearest properties is located in a working rural area subject to sounds associated with farming. There will be occasional noise from quarrying, including blasting, and haulage trucks associated with the quarry on Pryde Rd. Road noise from SH1 will be a significant component of the ambient sound at 22 Pryde Rd and to a lesser extent at 90 Pryde Rd and 110 Porteous Rd. As 110 Porteous Rd is not connected to the grid, its electricity is (or was) supplied through solar power supplemented by a small diesel generator. There is vegetation in the vicinity of each of the three properties which, depending on the density and proximity of the vegetation to the receptor, to a greater or lesser extent will generate sound in windy conditions. Taken overall, noise from the quarry, the State Highway, the small generator and farming distinguish each of these three properties as being free from anthropogenic sounds.

#### The adequacy of the wind data and background sound levels

[239] Background sound level monitoring was undertaken in March and April 2017 at the three nearest properties, 22 and 90 Pryde Rd and 110 Porteous Rd, each for a two week period.

[240] A 30 m high tubular mast had been installed on the Porteous Hill site in February 2013. This mast had anemometers installed at heights of 15 m, 20 m and 30 m above the ground. Wind vanes were also installed at 15 m and 30 m above the ground.



<sup>198</sup> Transcript at 374.

[241] The anemometer at the 15 m height was vandalised prior to the start of the background monitoring. The remaining two anemometers were vandalised and the wind mast cut down and destroyed on 31 March 2017. This meant that valid wind data from the Porteous Hill site was unavailable from the end of March 2017 to the end of the monitoring period.<sup>199</sup>

[242] Dr Chiles advised that the first period of monitoring extending over the first week or so had been based on wind data recorded at the site. For the subsequent three weeks, in lieu of the availability of on-site wind data, he had used wind data which had been synthesised by DNV GL<sup>200</sup> from wind data recorded at the Swampy Summit Met Service monitoring station which is some 15 km distant from Porteous Hill.<sup>201</sup>

[243] In its report on the preparation of the synthesised data, DNV GL made the following qualification:<sup>202</sup>

Note that DNV GL has strong reservations about the accuracy of wind data synthesised from the Swampy Summit meteorological station. The quality of the correlation to the Porteous Hill measurement mast is poor, and DNV GL does not recommend that this data is relied on for further analysis as uncertainty in the analysis is high.

[244] When he was asked whether two weeks was normally sufficient for undertaking background sound level monitoring, Dr Chiles said that this was consistent with the ten day period recommended in NZS 6808. Notwithstanding, during the monitoring, there had been an insufficient range of representative wind directions to accurately correlate the background sound levels with the wind data.

[245] Dr Chiles said that the need to use synthesised wind data, the limited directional data and difficulties with correlating the noise levels with the wind conditions at the hub height meant that the achievable accuracy of the acoustic analysis was constrained. His assessment of background sound levels had been based on average levels as there were insufficient data points to separate the measurements into daytime and night-time levels.<sup>203</sup> If consent was granted, there would be the need for more robust



<sup>&</sup>lt;sup>199</sup> Chiles, supplementary, Appendix A at [6].

<sup>&</sup>lt;sup>200</sup> DNV-GL was the company engaged by BRCT to undertake the wind measurements.

<sup>&</sup>lt;sup>201</sup> Chiles, supplementary, Appendix A of Appendix A at [2.1.5].

<sup>&</sup>lt;sup>202</sup> Chiles, supplementary, Appendix A of Appendix A at [2.1.5].

<sup>&</sup>lt;sup>203</sup> Transcript at 358.

background sound level measurements for compliance assessment.<sup>204</sup> Notwithstanding, he said that in his opinion the background wind data set which had been developed so far contained sufficient information to assess effects.<sup>205</sup>

[246] In discussing the correlation between the wind data and the measurement of the background sound levels, Mr Hunt said that his focus had been on the latter and that he was satisfied that the measurements had been "absolutely first class right up to the standards no problems". He acknowledged the deficiencies in obtaining enough accurate wind data but said that this would have had no effect on how loud or quiet the background sound levels were. Overall, he was reasonably comfortable with the veracity of the data adding that he did not want to be responsible for delaying the consenting process "by months" for additional data to be collected. 207

## Discussion and finding on adequacy of wind data

[247] DNV GL provided a very strong qualification on using the synthesised wind data for further analysis "as the uncertainty is high". Dr Chiles said that while he accepts the need for more robust background sound level measurements, he considered that he had sufficient information (including the data that had been collected from the BEL mast) to assess effects. But there were insufficient measurements to differentiate between daytime and night-time background sound levels and Dr Chiles did not provide any indication as to what these differences might be.

[248] Mr Hunt did not say why he was satisfied with the measurements taken. His evidence to this effect appears to be a change in opinion as in his written brief he was somewhat equivocal about the quality of the wind data and his evidence does not specifically address the daytime/night-time differences in the background sound levels.

[249] A primary purpose for establishing background sound levels is to enable the separation of the turbine sound component from the combined turbine plus background sound component when compliance monitoring is undertaken. Reliable data on actual background sound levels is also important when assessing the effects of turbine noise on the daytime/night-time aural amenity of the local community. Better quality wind



<sup>&</sup>lt;sup>204</sup> Chiles, supplementary, Appendix A at [7].

<sup>&</sup>lt;sup>205</sup> Transcript at 338.

<sup>&</sup>lt;sup>206</sup> Transcript at 401.

<sup>&</sup>lt;sup>207</sup> Transcript at 401.

data would have enabled the differences in the daytime and night-time levels to be assessed rather than having to rely on overall averages.

[250] In his supplementary evidence Dr Chiles provided graphs plotting hub-height wind speeds against background sound levels for two wind directions (north-east and south-west) at the three nearest residences.<sup>208</sup> From the data presented in these graphs, and the table in the 13 June 2017 Joint Witness Statement, we have prepared the following table comparing the average background sound levels and the range of the measured sound levels for low and high wind speeds and for each wind direction.

| Address                 | Low Wind Speed (7 m/s)        |                        |                        | High Wind Speed (11 m/s)  |                        |                        |
|-------------------------|-------------------------------|------------------------|------------------------|---------------------------|------------------------|------------------------|
|                         | Predicted Turbine Noise Level | Background Sound Level |                        | Predicted                 | Background Sound Level |                        |
|                         |                               | Average                | Range                  | Turbine<br>Noise<br>Level | Average                | Range                  |
| 22 Pryde<br>Road        | 27 dB                         | 37 dB                  | 20 dB – 51 dB<br>(N-E) | 35 dB                     | 38 dB                  | No Record (N-E)        |
|                         |                               |                        | 28 dB – 51 dB<br>(S-W) |                           |                        | 32 dB - 42 dB<br>(S-W) |
|                         |                               |                        |                        |                           |                        |                        |
| 90 Pryde<br>Road        | 29 dB                         | 29 dB                  | 20 dB – 48 dB<br>(N-E) | 37 dB                     | 33 dB                  | No Record (N-E)        |
|                         |                               |                        | 20 dB – 41 dB<br>(S-W) |                           |                        | 22 dB – 47 dB<br>(S-W) |
|                         |                               |                        |                        |                           |                        |                        |
| 110<br>Porteous<br>Road | 30 dB                         | 33 dB                  | 21 dB – 38 dB<br>(N-E) | 38 dB                     | 38 dB                  | No Record N-E)         |
|                         |                               |                        | 25 dB - 38 dB<br>(S-W) |                           |                        | 38 dB – 38 dB<br>(S-W) |



 $<sup>^{208}</sup>$  Chiles, supplementary: Appendix A: at SSGC-014–SSGC-016.

#### The effects of turbine noise

# Effect on sleep at low and at high wind speeds

[251] On the basis of the predicted turbine noise levels in Table 1 which we accept, with a 15 dB noise attention from the outside to the inside of the dwellings with windows left open for ventilation, the potential for sleep patterns to be affected by noise is highly unlikely.

#### Effect on amenity

[252] The amenity derived from the existing soundscape may be adversely affected by turbine noise where:

- (a) the noise is loud i.e. the noise exceeds the limit for permitted activities in a District Plan; or
- (b) the noise has amplitude modulation or tonal characteristics which, even if below the levels which would attract a penalty as a special audible characteristic under NZS 6808 may not be masked by the background sound; or
- (c) the level of the noise exceeds the background sound level.

[253] Peoples' responses to turbine noise can be impacted by the unpredictability of the noise, particularly if the noise is not experienced constantly.<sup>209</sup> When the turbine noise is louder than the background sound level, people may be irritated to some degree. Whether the noise is unreasonable depends on its level of audibility, the frequency of exposure and the time of the day. That said, Dr Chiles advised that he does not know of anywhere in New Zealand where audibility on its own has determined the acceptable level of anthropogenic noise.

[254] Because he considers 40 dB an acceptable or reasonable level of noise Dr Chiles did not make any further enquiry to understand the character of the existing soundscape or the effect of noise on the aural amenity within this soundscape.<sup>210</sup>

[255] Mr Hunt was somewhat critical of this because, amongst other reasons, he said that without a full understanding of the existing soundscape the consent authority (or



<sup>&</sup>lt;sup>209</sup> Transcript at 391.

<sup>&</sup>lt;sup>210</sup> Transcript at 372.

this court on appeal) cannot determine the full scale of effects. <sup>211</sup> Mr Hunt does not presume the effects of sub-40 dB noise on amenity are always reasonable and this was a key point of difference between the two experts. Although the method was not developed in his evidence he is presently considering whether controls could be introduced in addition to the limits recommended in NZS 6808 to protect the amenity at dwellings located near turbines where the existing sound environment is comparatively quiet. <sup>212</sup>

[256] The amount by which turbine noise is audible above the background sound level can also be amplified at certain times of the year. Mr Hunt explained that when the wind starts to blow and the turbine starts to generate and emit noise, there can be a time lag before the background sound level at receptor locations starts to build up. From the data he had seen this may occur at the equinoxial times of spring and autumn for a limited period maybe once a day. In calmer periods during winter, it could also occur maybe twice a day when the turbine started to generate noise. This enhanced audibility could be noticeable for about an hour on each occasion.<sup>213</sup>

[257] He did not provide any indication of what the difference would be between the turbine noise level and the associated background sound level in these situations, although the times when this occurs would be at lower wind speeds when the turbine sound power level was below its maximum.

#### Daytime amenity

[258] Porteous Hill and its environs are in a rural zone where the daytime soundscape will be impacted by noise from typical farming activities and noise from the nearby state highway. The farming activities at least could be expected to reduce by late afternoon and to have stopped by evening.

[259] On the basis of the turbine noise predictions in Table 1 which we accept, with the actual daytime sound levels being higher than the average, and with the presence of other anthropogenic noise from faming activities, the potential for annoyingly audible turbine noise during the day at the three nearest properties would be minimal.



<sup>&</sup>lt;sup>211</sup> Transcript at 392.

<sup>&</sup>lt;sup>212</sup> Transcript at 393.

<sup>&</sup>lt;sup>213</sup> Transcript at 389.

# Evening/Night-time amenity

[260] During the warmer months, the evenings are likely to be times when the Porteous Hill residents may wish to sit outside to enjoy the ambience of their rural living and it is during these times that they are likely to be most annoyed if turbine noise is clearly audible above the background sound.

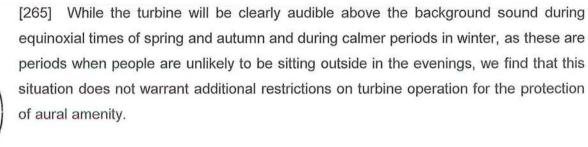
[261] The average background sound levels include periods of relatively low sound levels (Table 1). At these times there is the potential for the turbine noise to be clearly audible above the background sound level. Whether there is an adverse effect will depend on the level of the audibility, its frequency and duration. The difficulty we face in evaluating the effects of the turbine noise on the evening aural amenity is that the level of the actual background sound levels will not be known until comprehensive background measurements have been completed.

[262] In the absence of reliable information on the differences, we have concluded that the turbine should be shut down in the evenings at least in the warmer months to ensure that the aural amenity of the residents at the three nearest properties is protected.

# Respite condition

[263] Having decided that there should be shut down periods, we considered what the extent of these shut downs should be.

[264] If consent was to have been granted we would have found in favour of a combination two respite clauses proposed by the applicant and the Porteous Hill Residents. First, the shutdown periods should be restricted to the months of December to the end of March as these are the warmer months when people are most likely to sit outside in the evenings. Second, shut downs during these months should not be restricted to only Friday, Saturday and Sunday evenings, but instead should apply on all evenings of the week.





# Overall findings on the effects of turbine noise

[266] In summary, we make the following findings on the overall effects of turbine noise:

- the potential for sleep patterns to be disturbed by turbine noise is highly unlikely at the three nearest residences at both low and high wind speeds;
- when audible, turbine noise will have an adverse effect on the area's existing aural amenity by introducing a noise that is uncharacteristic of the existing environment;
- with the presence of other anthropogenic noise from farming activities and the nearby state highway during the daytime, turbine noise if audible during the daytime will be at an acceptable level;
- as comprehensive background sound measurements have yet to be undertaken, the available background sound data is restricted to a single daytime/night-time average at each of the nearest residences;
- this data shows a wide range between the highest measured sound level and the lowest measured sound level at each residence;
- the maximum difference between the lowest measured sound level and the predicted turbine sound level is about 9 dB at low wind speeds (at 90 Pryde Rd and 110 Porteous Rd) and about 15 dB at high wind speeds (90 Pryde Rd);
- given the level of uncertainty in these differences and the potential for adverse effects from audible turbine noise on the aural amenity of the nearest residents in the evenings, as a condition of consent, the turbine is to be shut down from 7pm to 10pm each evening over the summer months;
- during start-ups of the turbine, at times during the equinoxes and in calm
  days in winter, turbine noise will be amplified above the background sound
  levels because of a lag in the build up of the background sound; and
- because of the times of the year when this might occur, restrictions on turbine operation at these times is not warranted to protect aural amenity.

# The turbine noise limit(s)

[267] The key difference between the two experts is the limit(s) which should apply to turbine noise at the three closest properties.



[268] Dr Chiles' proposed condition in his evidence was that the noise limit at the notional boundaries of all dwellings existing at the date the consent is approved should be the greater of the background sound level plus 5 dB or 40 dB LA90(10min). He gave a number of reasons for justifying this noise limit. The recommended 40 dB noise limit is to address uncertainty in noise predictions for this turbine. The background sound level plus 5 dB limit is to address uncertainty in compliance measurements when turbine noise may be hard to extrapolate from background sound at or approaching 40 dB.<sup>214</sup> The conditions are not to be interpreted as allowing actual turbine noise in excess of 40 dB, and in Dr Chiles' view a competent noise engineer would not apply the NZS 6808 to this effect.<sup>215</sup>

[269] To this Dr Chiles added that it would be unrealistic to require actual noise levels to exactly match the predicted levels as the predictions are always subject to some degree of uncertainty.<sup>216</sup> For example, if the actual turbine noise level at 110 Porteous Rd turned out to 39 dB as opposed to the predicted 38 dB and the limit had been set at 38 dB in the conditions, this would be a breach of the conditions. A control system would then need to be introduced on the turbine to reduce the sound power level even though the effects between sound levels of 38 dB and 39 dB are indiscernible.<sup>217</sup>

[270] In his view the effect (both on sleep and aural amenity) would be appropriately controlled with a limit of 40 dB at each of the dwellings of the Porteous Hill Residents because this limit provides protection against sleep disturbance and maintains amenity, particularly for 22 Pryde Rd which has the highest background sound.<sup>218</sup>

[271] At higher wind speeds, where the average background sound levels are similar to the predicted sound levels, the background plus 5 dB component of the noise limit avoids the prospect of litigation because of arguments over the assessment of the turbine noise component within the overall noise level.<sup>219</sup>

[272] Mr Hunt's proposed condition was that the noise limits at the notional boundary of any dwelling at the date of consent should be the predicted noise limits of 35 dB  $L_{A90(10 \text{ min})}$  at 22 Pryde Rd, 37 dB  $L_{A90(10 \text{ min})}$  at 90 Pryde Rd and 38 dB  $L_{A90(10 \text{ min})}$  at 110

<sup>&</sup>lt;sup>219</sup> Transcript at 324.



<sup>&</sup>lt;sup>214</sup> Transcript at 362-364.

<sup>&</sup>lt;sup>215</sup> Transcript at 364.

<sup>&</sup>lt;sup>216</sup> Acoustics JWS 6 June 2017 at [28].

<sup>&</sup>lt;sup>217</sup> Transcript at 325 and 326.

<sup>&</sup>lt;sup>218</sup> Transcript at 328.

Porteous Rd. He did not support Dr Chiles' recommendation of a standard noise limit at all locations in order to provide certainty in the predicted levels and certainty in the compliance measurements.<sup>220</sup> In his opinion, conservatism was already built into the noise predictions<sup>221</sup> and it was not necessary to add one or two decibels to the predicted levels when setting the noise limits. Nor did he support a condition for an additional 5 dB to be added to the background sound levels allowing, in effect, a margin of error in the compliance measurements. If the turbine noise is at or above the noise limits, compliance may be verified by undertaking additional noise measurements. Approached this way there should be no bias and hence no uncertainty in the compliance measurements.<sup>222</sup>

[273] Mr Hunt added that setting a noise limit in the conditions higher than the predicted level also had the potential for the audibility of the turbine noise to be slightly higher each time the turbine started to generate electricity, <sup>223</sup> as would (we add) the background plus 5 dB noise limit.

[274] As the appellant's proposed limits were different from the limits which he had recommended in his evidence, Dr Chiles was requested to advise the court whether he supported the appellant's limits. He advised that he supported the appellant's limits as being practical to allow for the project to proceed as proposed even though he did not consider noise limits below 40 dB L<sub>A90(10 min)</sub> were necessary to control adverse noise effects. He also restated his earlier evidence that the inclusion of the "background plus 5 dB" component of the noise limit would avoid future disagreements during compliance assessment.

[275] Having said that, he went on to say that a suitably qualified and experienced assessor would be able to infer compliance with the noise limits even when the absolute turbine sound level could not be reliably established. On this basis, he accepted that the project could proceed without the inclusion of the "background plus 5 dB" component of the noise limits.<sup>226</sup>

<sup>&</sup>lt;sup>226</sup> Chiles, second supplementary at [14].



<sup>&</sup>lt;sup>220</sup> Transcript at 398.

<sup>&</sup>lt;sup>221</sup> Chiles, supplementary, Appendix A, at 10 "The predicted sound levels for the Blueskin Wind Turbine have been based on the highest measured sound power level plus a 1 dB safety margin".

<sup>&</sup>lt;sup>222</sup> Transcript at 399.

<sup>&</sup>lt;sup>223</sup> Transcript at 382 and 383.

<sup>&</sup>lt;sup>224</sup> Court Minute dated 14 July 2017 at [10] and [11].

<sup>&</sup>lt;sup>225</sup> Chiles, second supplementary at [7].

## Findings on turbine noise limit

[276] Our findings on the noise limits which would apply if consent were to be granted are as follows:

- we do not accept that a single noise limit should apply at each of the three neighbouring properties based on the maximum predicted noise limit for one of these properties, even if this means that compliance monitoring will need to be undertaken at each of the properties;
- the predicted noise levels already include a margin for error which mitigates against adding a further margin when setting the noise limits as recommended by Dr Chiles and subsequently proposed by the appellant in the parties' revised condition set;
- we were not convinced by Dr Chiles' argument that a "background plus 5
  dB" component needed to be included in the noise limits to avoid the
  prospect of litigation because of the potential for arguments over the
  assessment of the turbine noise during compliance monitoring;
- we accept Dr Chiles' later concession that this project could proceed without the inclusion of this "background plus 5 dB" component in the noise limits; and
- the noise limits to apply should be those recommended by Mr Hunt and proposed by the Council and the Porteous Hill Neighbours in the revised condition set.



## Spring fed water supplies

[277] Some of the s 274 parties expressed concern that the construction of the wind turbine on the top of Porteous Hill might alter the ground water flows on the flanks of the hill and so disturb spring flows that are relied on by the farms on and around Porteous Hill.<sup>227</sup>

[278] In response, we heard from Mr Walrond who provided evidence on the geology of Porteous Hill and the ground water system. He is a Senior Engineering Geologist with GeoSolve Ltd.

[279] He described Porteous Hill as a Miocene volcanic centre that has been fed by volcanic vents rather than being the result of a capping lava flow. The volcanic rock overlays sedimentary rock.<sup>228</sup> The upper metre has boulders in clay being residual material from advanced weathering of the volcanic rock. Below a metre there is highly fractured rock with weathering materials in the cracks. An excavator could not dig deeper than 2.8 m where stronger rock was encountered.<sup>229</sup> The foundation for the turbine is to be a circular reinforced concrete block with a diameter of 17.4 m and a thickness of up to 2.7 m.<sup>230</sup> A neighbouring laydown area of 20 m by 40 m is also to be constructed.<sup>231</sup>

[280] Mr Walrond explained the ground water system as an un-confined aquifer at considerable depth below the crest. Infiltration of rainwater to the aquifer occurs over the top and upper slopes of Porteous Hill and the turbine foundation will be within the infiltration zone.<sup>232</sup> Ground water emerges as springs on the flanks of Porteous Hill where impermeable soil layers are encountered. Rainfall on the impermeable concrete foundation will run off and continue to infiltrate into the ground water. He considers the volume of spring flows is very unlikely to be affected by this single turbine development.<sup>233</sup>

<sup>233</sup> Walrond, EiC at [27].



<sup>&</sup>lt;sup>227</sup> Ozanne, EiC at [40]-[43] and [48]; Blueskin Amenity and Landscape Society, EiC at [52]; Thom, EiC at [9] and Ryan, EiC at [8.2].

<sup>&</sup>lt;sup>228</sup> Walrond, EiC at [6].

<sup>&</sup>lt;sup>229</sup> Walrond, EiC at [8] and [10].

<sup>230</sup> Walrond, EiC at [7].

<sup>231</sup> Willis, EiC at [76].

<sup>&</sup>lt;sup>232</sup> Walrond, EiC at [26] and Appendix 1 GeoSolve Preliminary Geotechnical Report April 2016 Section 4.3 at [3] and [4].

[281] We agree. We were not shown any convincing evidence to the contrary and we are not aware of any mechanism that might cause a change to the spring flows from the development. In saying that the applicant had not actioned Mr Walrond's recommendation that a condition be imposed on the consent to manage the risk of contaminated water from the development entering the ground water.<sup>234</sup>



#### **Avifauna**

## Background

[282] We heard from two ornithologists regarding the potential effects of the turbine on avifauna; namely Dr J Craig for the appellant and Mr D Onley for the Society.

[283] Mr Onley, who would ordinarily be regarded as an expert in the field of ornithology, lodged a submission opposing the turbine and we have borne this qualification in mind when considering his evidence.<sup>235</sup>

#### The Issues

[284] The primary points of difference between the witnesses concerned the requirement for:

- (a) a pre-construction "standard practice" approach involving data collection and risk modelling; and
- (b) post-construction monitoring.

#### Bird species present in Blueskin Bay

[285] Mr Onley provided us with a map centred on the turbine site and covering an area extending some 24 km in a north-south direction and about 20 km in an east-west direction. On this he had marked a series of features which he said were bird habitats each of these being more or less at sea level. There are tidal estuarine habitats extending from about 2.5 km south of the Porteous Hill to similar habitats about 5 km distant at Purakaunui and 7 km further away at Aramoana. There is the 300 hectare area of predator fenced bush in the Orakanui eco-sanctuary 8 km to the south. To the north, the Waikouaiti estuary is some 8 km away and the Hawkesbury Lagoon 11 km away. 131 different species have been observed in these areas comprising 38 species which are primarily oceanic, 21 introduced species, 45 native shorebird species (26 of which occur very infrequently) and 24 native terrestrial species.

[286] He is concerned that no data collection or assessments have been undertaken to establish whether any of these species fly up and over Porteous Hill. There has

<sup>&</sup>lt;sup>237</sup> Onley, EiC at [8.2.2].



<sup>&</sup>lt;sup>235</sup> Onley, EiC at [6]. <sup>236</sup> Onley, EiC at [8.1.2].

been little in the way of structured monitoring of avifauna.<sup>238</sup> While he had not undertaken any data collection or assessments of his own, he contended that:

- usage of the site by indigenous birds is unknown;
- birds could fly over the Porteous Hill site;
- it is possible that birds could move well within and around the 2 km distance of Porteous Hill from the coast, including bar-tailed godwits; and
- it is not untenable that [variable and pied oystercatchers, red and blackbilled gulls] could feed on the paddocks around the Porteous Hill site.<sup>239</sup>

[287] The two experts agreed that species classified as being "At Risk" or "Threatened" in the Blueskin Bay area are the Pied Oystercatcher, Banded Dotterel, Bar-tailed Godwit, Black-billed Gull, Red-Bill Gull, Sooty Shearwater and New Zealand Falcon.<sup>240</sup>

[288] Common species are also present including introduced open country birds such as goldfinches, chaffinches, redpolls, starlings, blackbirds, thrushes, sparrows and magpies. These species are not unique to New Zealand and they are not protected. When considering likely movements of these birds across Porteous Hill, apart from magpies and finches which make use of the local pasture for feeding, the remaining birds are likely to fly along the valleys around the hill to save energy.<sup>241</sup>

[289] Tui and Kereru are present, but we understand these birds are endemic and neither of them are classified as being "At Risk" or "Threatened".<sup>242</sup>

#### Pre-construction data collection and risk modelling

[290] Mr Onley proposed that pre-construction monitoring should be undertaken to assess bird occurrence on Porteous Hill,<sup>243</sup> for a minimum of at least one year.<sup>244</sup> Even though it was for one turbine only, in his opinion monitoring would assist in gathering sound information on bird/turbine interaction which would be useful if similar small scale

<sup>244</sup> Onley, EiC at [9.3,24].



<sup>&</sup>lt;sup>238</sup> Transcript at 307.

<sup>&</sup>lt;sup>239</sup> Onley, EiC at [9.3.2]-[9.3.11].

<sup>&</sup>lt;sup>240</sup> Avifauna JWS at [13].

<sup>&</sup>lt;sup>241</sup> Craig, EiC at [40].

<sup>&</sup>lt;sup>242</sup> Information from the DOC website.

<sup>&</sup>lt;sup>243</sup> Onley, EiC at [9.3.17].

projects were undertaken on other sites.<sup>245</sup> Separately, if post-construction monitoring is not undertaken an opportunity will also have been missed to gather information which could be used to assess the cumulative effect of future wind turbine projects.<sup>246</sup>

[291] Dr Craig set out details of what he described as "standard practice" for determining the effects of windfarms on avifauna. This starts with a data collection programme to record at least monthly the numbers of different species present and their flying heights at the site of the proposed turbine. The results from this are then entered into a collision risk model to estimate the likely kill rate. The risk model takes account of the proportion of flights likely to occur in the zone of the turning blades, flying speed of the birds, the probability of the birds avoiding the windfarm, a turbine or the blade and body size.<sup>247</sup>

[292] Dr Craig said that he had helped design bird collection data at four consented and two other windfarms in New Zealand<sup>248</sup> and that consent conditions for many windfarms require post installation monitoring for recording the actual kill rates to verify the veracity of the risk modelling predictions.

[293] Wind turbines will very occasionally kill birds.<sup>249</sup> Based on reported data collected prior to 2007, the observed bird death rate on other New Zealand windfarms was approximately 0.02 per turbine per year or at the lower end of the range for turbine deaths worldwide.<sup>250</sup> While he was not aware if more recent data was available, Dr Craig had not been alerted by his colleagues to changes in these numbers which would be of concern.<sup>251</sup>

[294] While falcons are considered a group which is especially at risk in some other countries, the risk is extremely low for faster flying species such as the Eastern Falcon which is known to be present in Blueskin Bay. Dr Craig added that there is no known recorded collision of an Eastern Falcon with a turbine in New Zealand. Collision risk modelling at the Puketoi windfarm predicted that 52 turbines would need to operate for at least 100 years before there would be one falcon death. Even if the Eastern Falcon was breeding near to the Porteous Hill turbine (which Dr Craig said was not the case)

<sup>&</sup>lt;sup>251</sup> Transcript at 291.



<sup>&</sup>lt;sup>245</sup> Onley, EiC at [15].

<sup>&</sup>lt;sup>246</sup> Onley, EiC at [15].

<sup>&</sup>lt;sup>247</sup> Craig, EiC at [38].

<sup>&</sup>lt;sup>248</sup> Craig, rebuttal at [4].

<sup>&</sup>lt;sup>249</sup> Craig, EiC at [48].

<sup>&</sup>lt;sup>250</sup> Craig, EiC at [28].

modelling predicted a death rate of falcon bird every 5,000 years of turbine operation for one falcon death.<sup>252</sup>

[295] Responding to Mr Onley's evidence that migratory shorebirds may fly over Porteous Hill, Dr Craig's evidence was that even if they did, the number of resulting deaths would be minimal and would have no effect on either the local or national populations. Drawing on the findings for the modelling undertaken for the HMR 168 turbine windfarm, for a single turbine at Porteous Hill Dr Craig estimated the likely deaths for Godwit and Oystercatcher migrating along the Otago coast from breeding grounds in the south to be less than one bird every three decades. And for Black-billed Gulls he predicted a death rate of 0.002 birds per year (based on there being 700 gulls at Blueskin Bay) or 0.02 birds per year (if there were 7,000 gulls as Dr McClennan claimed at the earlier Council hearing). Description of the production of the product

[296] Taken overall, based on the observed death rates at other New Zealand windfarms, Dr Craig estimated the likely death rate for <u>all</u> bird species from collisions with a single turbine at Porteous Hill to be in the range of 0.05 to 0.02 birds per year or one bird killed every 20-50 years.<sup>256</sup>

#### Pre-and post-construction monitoring conditions

[297] Given this, Dr Craig did not support either pre-or post-construction monitoring conditions.

[298] He pointed out that Mr Onley's evidence was based on the presence of species spread over a very wide area along the coast and that he had provided no evidence to support his contention that these species migrated over land including over Porteous Hill. The approach widely accepted internationally and in New Zealand was to assess the numerical likelihood of bird deaths and to evaluate this against the conservation status of the species.<sup>257</sup> Even if all of the birds seen in Blueskin Bay were to fly over Porteous Hill, the number of resulting deaths would be minimal and would have no

<sup>&</sup>lt;sup>257</sup> Craig, rebuttal at [10].



<sup>&</sup>lt;sup>252</sup> Craig, EiC at [43].

<sup>&</sup>lt;sup>253</sup> Craig, rebuttal at [13].

We understand the HMR windfarm referred to by Dr Craig is the Hauauru mā raki wind farm located along an extended length of coastline from south of Port Waikato to the north of Raglan. This windfarm was consented in 2011. The consents were surrendered in 2013.

<sup>&</sup>lt;sup>255</sup> Craig, EiC at [46].

<sup>&</sup>lt;sup>256</sup> Craig, EiC at [47].

effect on either the local or national populations.<sup>258</sup> Dr Craig concluded that undertaking a detailed pre-construction monitoring programme at Porteous Hill would be, in his words "...a trivial exercise".<sup>259</sup>

[299] While the parties' final proposed condition set includes alternative wording for post-construction bird strike monitoring, <sup>260</sup> Dr Craig does not support the condition. He said that with the low densities of birds, it is unlikely that carcasses would be found during most monitoring visits, and therefore translating the findings from the monitoring to population effects would be minimal and in his opinion unproductive. <sup>261</sup>

[300] In his opinion as predation is the largest factor impacting on New Zealand bird populations, reducing predation was the most positive way of maintaining these populations. If there was to be any mitigation from the effects of the turbine on avifauna, Dr Craig suggested that this might take the form of an annual contribution to existing pest control programmes in the Blueskin Bay area.

[301] Picking up on Dr Craig's suggestion,<sup>262</sup> the appellant offered a condition under which it would make an annual payment of \$5,000 to a nominated pest control programme within Blueskin Bay. This condition was offered as an alternative to its post-construction monitoring condition.<sup>263</sup>

[302] Given the absence of baseline data concerning the use and occupancy of Porteous Hill by bird species of interest the better question may be to ask whether it is likely the threat classification status of the bird species of interest will change if the predicted deaths occur or what is the effect on the target bird population if the predicted deaths occur?

[303] We were provided with no evidence on this; we presume because the death rates predicted by Dr Craig for "At Risk" or "Threatened" birds are so low (one in 30 years for Godwit and Oystercatchers, one in 50 years for Black-billed Gulls and one in 5,000 years for Eastern Falcon), that at these rates, the death of a bird would have no statistical effect on the local and national population levels of the species.

<sup>&</sup>lt;sup>263</sup> Proposed conditions 13 July 2017 comment at condition 58.



<sup>&</sup>lt;sup>258</sup> Craig, rebuttal at [13].

<sup>&</sup>lt;sup>259</sup> Craig, rebuttal at [16].

<sup>&</sup>lt;sup>260</sup> Proposed conditions 51-58, dated 13 July 2017.

<sup>&</sup>lt;sup>261</sup> Craig, rebuttal at [17].

<sup>&</sup>lt;sup>262</sup> Craig, rebuttal at [18] states predation is the largest single negative factor in the life history of most New Zealand birds.

#### **Findings**

[304] In respect of conditions, if consent were to be granted, we find as follows:

- we accept Dr Craig's estimate of the likely death rates for the key "At Risk" or "Threatened species" in the Blueskin Bay area to be one death every 5,000 years for the Eastern Falcon, one death every 50 years for Black-billed Gulls and one death every 30 years for Godwit and Oystercatchers;
- this estimate is based on information provided to Dr Craig by operators of five New Zealand windfarms. There is nothing to suggest the population and occupancy of Porteous Hill by "At Risk" or "Threatened" bird species is greater than the incidences for those farms. Even if the rates have been under-reported by an order of magnitude, the birds which have been killed at these other windfarms have been almost exclusively introduced species;
- the likely death rate for <u>all</u> bird species from collisions with the turbine is one bird killed every 20-50 years;
- there was no conflicting evidence of these estimates which are so low that undertaking a "standard practice" pre-construction data collection and risk assessment programme at Porteous Hill would not be justified;
- we accept the evidence of Dr Craig that, with the estimated death rates being so low, there would be very little if any benefit from undertaking post construction bird strike monitoring at Porteous Hill;
- we find therefore against including either of the parties' alternatives for post construction monitoring in the 13 July 2017 condition set (conditions 51-57);
- we accept the evidence of Dr Craig that the funding which would have been required for post construction monitoring would be better directed to an established predator control programme; and
- we find therefore in favour of condition 58 under which the appellant has offered to make annual payments of \$5,000 to a nominated pest control programme within Blueskin Bay.



#### **Turbine transport**

#### Introduction

[305] Mr M McNeilly, Heavy Haulage Manager for Fulton Hogan, gave evidence on behalf of the appellant concerning the feasibility of transporting the turbine components from the state highway along Porteous Hill Rd to the Porteous Hill turbine site.

[306] Apart from the first 500 m length from its intersection with the state highway, the Porteous Hill road reserve is 10 m wide. In some locations, including at three tightly curved bends, the road formation is outside of the legal boundary of the road.

[307] In the section of the road leading up to the turbine site access point, the road formation and the legal road become increasingly divergent with the legal road being almost entirely within an adjoining privately owned forestry block. Mr McNeilly said that while it would be possible to form a new road formation within the legal boundary of the road, this would be within an established forestry block.<sup>264</sup>

[308] To facilitate the transport of the turbine components, a number of trees within the legal boundary of Porteous Rd will need to be either removed or trimmed back, short lengths of road batters trimmed, some edge sections of the existing road formation strengthened and a culvert extended.

#### Issues for determination

[309] Two issues arise:

- (a) whether the turbine may be transported within the legal road reserve; and
- (b) the potential effects on the environment arising from the road formation to enable the transportation of the turbine.

#### Transportation within the Road Reserve

[310] As we have signalled in the Introduction, the existing road formation deviates from the road reserve. To transport the turbine, some sections of the existing formation will need to be strengthened, and a culvert extended.



<sup>264</sup> McNeilly, EiC at [17].

[311] Mr McNeilly identified two possible transport configurations. In a conventional configuration, the blade would lie flat supported at one end on the deck of the transporter truck unit and at the other end on the deck of the trailer unit. Under a second or optional configuration, the blade would slope upwards from a support at the deck level of the trailer unit to a height of about 22 m above ground level over the cab of the truck unit. The forward end of the blade would be propped up by a custom-built steel frame supported at its lower end of the deck of the truck unit. This optional configuration would shorten the overall length of the transporter by about 8 m and facilitate tighter turning paths at the bends along Porteous Rd.

[312] His firm had yet to transport turbines with this optional configuration, but we were told it was a configuration which was quite commonly used in other countries and that his firm had experience of transporting other types of loads in a similar way.<sup>265</sup>

[313] While the swept path of the truck and trailer units would not remain within the legal road boundary at some locations, the path would always remain within the outer extent of the existing road formation where this had been formed outside of the legal boundary. In no location would the swept path of the truck and trailer extend onto neighbouring land outside of these limits.

[314] Under the first configuration, at some bends the turbine blades would extend over the legal boundary.

[315] Overall, with only relatively minor upgrade works being required, Mr McNeilly said that there were no technical constraints preventing the turbine components from being transported to the site using Porteous Rd.

[316] Any legal issue that may arise concerning the status of the road formation (whether it is on private land or something else) and whether parts of the turbine blades might extend aerially over the neighbouring land during their transport is a civil matter and beyond the jurisdiction of the Environment Court.



<sup>&</sup>lt;sup>265</sup> Transcript at 236.

#### Effects on the environment

[317] Three potential effects arise from the road works required to facilitate the transport of the turbine components. These are the potential effects from sediment runoff from the earthworks entering water courses outside of the road reserve; visual effects and effects on heritage values with the trimming or removing trees along Porteous Rd.

[318] Earthworks in the road corridor may be a permitted activity.<sup>266</sup> Mr McNeilly was unsure whether the earthworks required in some locations would extend over existing watercourses alongside the road although the scale of any such works would be small. We accept that the scale of such works would be low and determine that the details of any measures required to control sediment releases can be left for resolution between the appellant and the Council at the time the works are undertaken.

[319] We were provided with no expert evidence, particularly under the topic of landscape and heritage values, arising from the need to trim or remove trees along Porteous Rd.

[320] The Society said in its opening submission that it understood that 12 trees were to be removed and that these had been planted by the first European settlers probably as a hedge to mark the boundary of the road reserve. No evidence was produced that would satisfy us as to the significance of the tree plantings and the planning witnesses did not identify any consents or permits that would be required to trim or remove the trees.

[321] We would have been prepared to consider the effects of these works as being incidental to other activities for which consent is sought. Without an assessment of landscape effects or evidence concerning heritage values, we have no evidence to decide whether an adverse effect would arise from trimming or removing the trees.



<sup>&</sup>lt;sup>266</sup> Sycamore, supplementary at [9].

## Evaluation of the proposal

National Policy Statement for Renewable Electricity Generation and evaluation of the benefits of the wind turbine

[322] The Board of Inquiry for the NPS REG said of the benefits of renewable electricity generation that they ought to be given greater weight than local environmental values and recommended a policy in line with this (Policy A.2).<sup>267</sup> While the Government did not follow this recommendation, nevertheless the appellant interprets the NPS as requiring the benefits of the proposal be given greater weight over any adverse effect on the local environment – indeed, those benefits must be provided for.<sup>268</sup>

[323] It is worth repeating that the NPS addresses s 7(i) and (j) of the RMA through Policies A and B. Policy A directs decision-makers to "recognise and provide for" the benefits of renewable generation activities and (when not given effect to in the Regional or District Plans) addresses the weight to attach to each of them. It does not follow from this that the benefits are necessarily given greater weight than the matters addressed in the balance of s 7; the statutory planning documents will indicate the weight given to those matters.

[324] The importance of the contribution of renewable electricity generation, regardless of scale, is recorded in the preamble to the NPS as it addresses the effects of climate change and plays a vital role in the wellbeing of New Zealand, its people and the environment. This is reiterated in Policy B(c) and we have borne in mind the direction that decision-makers have particular regard to the fact that meeting or exceeding the New Zealand Government's national target for the generation of electricity from renewable resources will require the significant development of renewable electricity generation activities.

[325] In furtherance of the Government's national target for renewable electricity generation, we recognise that the proposal will increase the proportion of New Zealand's electricity generated from renewable energy resources and for this reason we give the benefits of the proposal significant weight; while they are small, the benefits will nevertheless make a positive contribution (Policy A). The benefits include:<sup>269</sup>



<sup>&</sup>lt;sup>267</sup> At [51], [91] and elsewhere.

<sup>&</sup>lt;sup>268</sup> Irving closing at [81]-[82]. Irving further submissions, 21 July 2017 at [32], [44].

<sup>&</sup>lt;sup>269</sup> Where we have not commented on a matter under Policy A it is because we accept in principle this is a benefit of the proposal albeit that we did not receive any direct evidence on the same.

- (a) maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions
  - the proposal avoids the emission of 7,089 tonnes of carbon dioxide in New Zealand. This is an annual reduction of carbon dioxide emissions of 0.02% of the total carbon dioxide emissions in 2013 in New Zealand's energy sector.
- (b) maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation
  - while wind generation requires other backup generation we recognise:
    - national annual consumption of electricity is 36,000 GWh. Annually the proposal will generate 7,068 MWh. This proposal has the potential to contribute up to 0.02% of the overall national demand;
    - in 2014 Dunedin City consumed 903 GWh of which 32% was generated locally from Mahinerangi (hydro and wind). The proposal has the potential to contribute up to 0.8% of Dunedin's annual consumption;<sup>270</sup>
    - b to this extent, the turbine will increase the diversity of electricity supply to Dunedin. The reliability (both wind and operational) of this additional electricity supply is less than other potential sources of supply:
    - in common with windfarms generally, there is no guaranteed continuity of supply. If the turbine is not operating (insufficient wind) there may need to be an alternative supply arrangement;
    - overall there is a small positive contribution to the security and diversity of electricity supply to Dunedin and improvement in energy resilience.



 $<sup>^{\</sup>rm 270}\,\rm We$  assume annual consumption has not increased from 2014.

- (c) using renewable natural resources rather than finite resources
- (d) the reversibility of the adverse effects on the environment
  - once removed (and we are satisfied that the turbine could be removed) the adverse effects would cease.
- (e) avoiding reliance on imported fuels for the purposes of generating electricity

[326] Pursuant to s 104(1)(a) we accept the proposal will have wider benefits. We regard these benefits as positive effects as they are generally enabling of people and communities to provide for their social and economic wellbeing. The benefits which we have had regard to are:

- (a) the unquantified income stream for the owner of the property on which the turbine is to be sited (the appellant has leased the site of the turbine);
- (b) the community dividend payable by the appellant for the objects and purposes of the Trust; and
- (c) an annual donation of \$5,000 to a predator control programme.

[327] We give these benefits a small amount of weight and comment further on the community dividend.

[328] Although we are uncertain as to the quantum, we have assumed the project will be profitable and that there will be a dividend paid to the Trust. The question remains as to how we should evaluate this dividend as a benefit.

[329] The dividend is a distribution of the profits earned by the appellant to the Trust to assist the Trust in meeting the vision, mission and objectives set out in the Deed of Trust.<sup>271</sup> The vision being "to facilitate a positive, healthy, secure and resilient future for Blueskin Bay and linked communities and promote sustainable resource use."

[330] To the extent that the dividend may be used to enable renewable energy generation projects we were told about the Trust's desire to fund the installation of solar



<sup>&</sup>lt;sup>271</sup> Professor Ruru told us that around 10% of the dividend would be set aside for an independent community board to decide how this amount should be spent. (Transcript at 85). Willis, EiC at Appendix 3 attaches what we assume is the Deed of Trust.

panels in local schools.<sup>272</sup> We do not know the building owners' views on this and, as far as we know, the intent is not secured in any way. Otherwise on the evidence before us we found it difficult to reconcile the objectives and purposes of the Trust with these benefits as being directly relevant to the achievement of the NPS' Objective.<sup>273</sup> The intentions of the Trust are laudable and we would regard the dividend benefit as providing for the social and economic wellbeing of the beneficiaries. While not recognised as a benefit under Policy A, NPS, nevertheless we recognise and give weight to the dividend under s 104(1)(a).

# [331] Pursuant to Policy C1 we have had particular regard to -

- (a) the need to locate the renewable electricity generation activity where the renewable energy resource is available
  - located on a prominent ridgeline the wind resource is sub-optimal when compared to other consented windfarms locally and elsewhere in New Zealand. The turbine has a capacity factor of 28%. This contrasts with "good" sites which have capacity factors of around 44%;
  - within Blueskin Bay there are other sites where wind is available outside of the valued landscape, including White Rd, Mopanui Ridge, Mt Kettle, Double Hill Rd and Double Hill.<sup>274</sup>
- (b) logistical or technical practicalities associated with developing, upgrading, operating or maintaining the renewable electricity generation activity; and
- (c) the location of existing structures and infrastructure including, but not limited to, roads, navigation and telecommunication structures and facilities, the distribution network and the national grid in relation to this proposed renewable electricity generation activity, and the need to connect renewable electricity generation activity to the national grid



<sup>&</sup>lt;sup>272</sup> Ruru, EiC at [37].

<sup>&</sup>lt;sup>273</sup> Ruru, EiC at [15] and Attachment "Strategy 2016-2025". For example, the funding would enable the Trust to continue in its advocacy role; provide affordable firewood and home insulation and also assistance to local food production amongst other projects.

<sup>&</sup>lt;sup>274</sup> Willis, EiC at [61] and Appendix 6.

- logistical and technical practicalities are important considerations, as are the location of existing structures and infrastructure. The benefits of supplying directly into the local network are that:
  - grid efficiency can be achieved when generation is supplied close to where electricity demand is needed; and
  - grid losses are reduced where generation is embedded in a local network.<sup>275</sup>
- Porteous Hill is located near the electricity grid and has potentially good road access to the site;
- four out of the five alternative sites within Blueskin Bay are also located in proximity to the electricity grid and two of the four have road access;<sup>276</sup>
- we do not know on what basis the alternative sites were disregarded. The controlling factors for site selection appear to be site visibility and the provision of an adequate sound perimeter.<sup>277</sup> On site visibility specifically, while the Trust had identified as early as 2010 that the consent authority would consider landscape and visual effects and the effects on amenity, it assumed there would be a community preference for the turbine's visual reference.<sup>278</sup> That assumption, as the Trust knew, was contestable.

[332] Coming back to the matters under Policy C1 which we are to have particular regard, given the existence of alternative sites within Blueskin Bay we give these matters low-moderate weight.

# The District Plans and the evaluation of the adverse effects of the activity Key findings on effects

[333] We commence with a summary of the key findings on effects.

<sup>&</sup>lt;sup>278</sup> Willis, EiC at [57] and Appendix 5 at [18] ff.



<sup>&</sup>lt;sup>275</sup> Willis, EiC at [77]-[78].

<sup>&</sup>lt;sup>276</sup> Willis, EiC at [61] and Appendix 6. Mr Farrell EiC at [99](g) gave evidence on behalf of the appellant that, compared with the alternative sites, Porteous Hill was better situated to major roads and the distribution network and that this is a significant factor in the overall feasibility of the project. We could find no evidence that would substantiate this statement.

<sup>&</sup>lt;sup>277</sup> Willis, EiC at [57]. "Sound perimeter" is not defined, but we assume means the relevant noise standard in the operative District Plan or guideline limits in NZS 6808. We were not told whether those other sites were discounted because a sound perimeter could not be established (if this information is available it was not brought to the court's attention).

[334] When viewed as a whole, there is a positive harmony between landform, landcover and the small settlements around Blueskin Bay. The coast is framed and contextualised by the sequence of inland hills; the rural character of this hill country makes an important contribution to the wider coastal setting. There is presently limited visual influence of any large-scale structures within this landscape, and the summit of Porteous Hill, a focal point in the landscape, is devoid of any structure.

[335] Albeit this is a modified landscape, this does not detract from its aesthetic coherence; any existing individual discordant element does not undermine the naturalness of the surrounds.

[336] From a narrow perspective, the turbine will not affect the surrounding pastoral farming and forestry activities and the actual level of natural character will not be altered. This, however, is the narrow perspective. What is altered is the perception of the landscape (including the seascape) and the values the landscape sustains.

[337] Within this landscape natural elements visually dominate anthropogenic elements. By becoming the dominant feature in the sky-line the turbine will disrupt the landscape, lessening legibility of the landform and considerably reducing the area's aesthetic cohesiveness. This change will adversely affect the quality of the coastal landscape and will not maintain (or enhance) the amenity values associated with the character of the rural area for the Porteous Hill Residents specifically or coastal landscape generally. These are significant adverse landscape and visual effects and effects on existing amenity values.

[338] While it is not an outstanding natural landscape, nevertheless this is an important landscape within the district. The values of the coastal landscape are recognised in both District Plans. The landscape context for the Coast Rd is recognised in superlative terms under the 2GP as having "magnificent" coastal views, and it is proposed that the turbine will be placed in the immediate foreground of a route that is said to be "highly memorable".<sup>279</sup>

## Evaluation of the effects under the District Plan's provisions

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[339] The operative District Plan directs decision-makers to "ensure" land use and development does not adversely affect the quality of the landscape (objective 14.2.3,

<sup>&</sup>lt;sup>279</sup> 2GP Appendix 3, cl 3.3.7.

operative District Plan); this we cannot do. This policy is carried through to the 2GP which requires decision-makers to protect SNLs from inappropriate development. An inappropriate development is one that does not maintain or enhance the values of the SNL (objective 10.2.5, 2GP). These objectives are not achieved by a grant of consent.

[340] The valued landscape is found within a rural zone, and this zone has objectives related to the underlying landscape character. In particular, the amenity values associated with the character of the rural area are to be maintained and/or enhanced (objective 6.2.2, operative District Plan and objective 16.2.3(g), 2GP). While expressed in less imperative terms than the associated landscape provisions, nevertheless the provisions contain a strong direction for the outcomes for the resources within this rural zone. The effects on amenity are not mitigated, and we find the objectives will not be achieved by a grant of consent.

[341] The proposal is in considerable tension with the 2GP's strategic direction for energy resilience (objective 2.2.2) which is given effect to by an integrated suite of objectives and policies which, amongst other matters, take cognisance of values of Significant Natural Landscapes and would avoid significant adverse effects on the local environment (objective 5.2.1, policy 5.2.1.11 and objective 10.2.5, 2GP).

[342] We attach significant weight to these findings given the strength and consistency of direction in relation to the outcomes for this landscape.

[343] Finally, aural amenity. Immediately prior to the hearing the appellant endeavoured to undertake comprehensive measurements of background sound levels. It could not complete measurements for a number of reasons including vandalisation of the anemometers and insufficient time to obtain an adequate wind record. uncertainty as to the effect on aural amenity which stems from the lack of reliable wind data which, as we have said, would have enabled the actual daytime and night-time background sound levels to be assessed rather than having to rely on overall Because of that, were consent to be granted we would have imposed a respite clause as proposed by the residents restricted to the warmer months of the year. On this basis, we would be satisfied that subject to appropriate conditions of consent, public health and amenity would not be affected. We are also satisfied that health and amenity effects are suitably addressed in the proposed conditions of consent and that it is unlikely any adverse effect will arise from the turbine light and shadow flicker (objective 21.2.2 and policy 21.3.3, operative District Plan and objective 9.2.2 and policies 9.2.2.1 and 9.2.2.4, 2GP).



[344] As we have noted elsewhere, while we have not referred to all the relevant provisions in the District Plans we have considered them; we refer particularly to the objectives and policies for transportation and mana whenua.

#### Decision

#### Section 104D - Threshold tests

[345] Setting aside the benefits of the proposal, we are satisfied the application is not contrary to the relevant plans when each of them are considered as a whole. We make two comments.

[346] Save in relation to landscape and the values which derive from the landscape, the proposal is not contrary to the operative District Plan which takes an effects based approach to achieving integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district.

[347] The proposal is on the cusp of being considered as contrary to the 2GP as a whole. The 2GP appears to have taken an effects-based and an activities-based approach. Some objectives on their face appeared directly relevant to this proposal, but the turbine is not included in the policies' prescribed activities – being activities that are encouraged or discouraged or managed in a particular way. The proposal appears in tension with them. Noting their relevance, the planners did not guide us on how the objectives are to be applied. Given that the 2GP may further change in response to the NPS and given also our uncertainty how to apply all the objectives, we are not prepared to find the proposal contrary to the 2GP.

#### Sections 104 and 104B

[348] The proposal can be considered on its merits under s 104 RMA. In the preceding sections we brought together all the matters that are of consequence to the determination of the appeal and have given weight to those findings as we consider appropriate. We now consider whether the proposal promotes the purpose of the Act.

[349] This decision has proved difficult because we are considering the effects of a renewable electricity generation proposal on a site located in a valued landscape in circumstances where neither the Regional nor District Council have given effect to the



<sup>280</sup> For example, objectives 16.2.1 and 16.2.2.

NPS in their operative documents and, submits the appellant, are yet to fully give effect to the NPS in the proposed planning documents. Insofar as the 2GP does not recognise and provide for the benefits of renewable electricity generation and (arguably) for the practical constraints on development of this type of activity we have considered and weighted these matters directly under s 104(1)(a).<sup>281</sup> It seems the Council officers, responding to submissions on the 2GP, are prepared to support a change to the policy for renewable electricity generation activities in an SNL where there are no practicable alternative locations and the effect on landscape values are adequately mitigated.<sup>282</sup>

[350] The absence of guidance on these important policy matters is regrettable, to say the least.

[351] The turbine will yield a positive benefit avoiding carbon dioxide emissions and a positive contribution to the security and diversity of Dunedin electricity supply and therefore energy resilience. Regardless of scale those benefits are significant as they respond to the risk of climate change by reducing greenhouse gas emissions through generating electricity from a renewable source of energy. On the other hand, the turbine will also have significant adverse landscape and visual effects and significant adverse effects on amenity values. These are not local effects in the sense that they are borne only by the surrounding neighbours, but will be experienced generally within the coastal landscape.

[352] Were this not a valued landscape, with the effects confined to the Porteous Hill residents alone, then subject to appropriately worded conditions, it could be arguable, the effects notwithstanding, that the proposal promotes the purpose of the Act. For three neighbours in respect of whom the appellant is unable to internalise the effects, it has responsibly in our view offered to mitigate the effects through landscape planting and/or payment of an annual sum of \$3,000.<sup>283</sup>

[353] However, this is a valued landscape and we are troubled that the appellant's site selection criteria included visibility and the creation of a visual reminder of how the



<sup>&</sup>lt;sup>281</sup> We say "arguably" because objective 5.2.1, 2GP talks about renewable energy generation activities operating efficiently and effectively which may be a nod to Policy C1, NPS.

As an aside, we wondered what would be expected in order to establish 'no practical alternative'. See Planning JWS, dated 26 May 2017, Attachment: Extract from DCC s 42A Report on the 2GP, at 15.

<sup>&</sup>lt;sup>283</sup> This is not a suitable case to decide – as the appellant urged, whether, under Policy C2, these are off-setting measures or environmental compensation and nor is this a matter which is material to the outcome.

community is meeting its consumption needs.<sup>284</sup> We do not know at what stage during its investigation the appellant sought advice on the landscape's attributes, character and values but we are also troubled that this advice – while accepting of the fact that people are strongly attached to the landscape – may not have involved an independent inquiry into the attributes that neighbouring residents and the community valued. By giving weight to the visibility and symbolism of this *community turbine*, it is our impression that the appellant politicised the landscape.

[354] While the appellant is entitled to advance the application on its terms, the wind resource at this site is sub-optimal and there would appear to be other suitable alternative sites within Blueskin Bay — but, importantly, not within this sensitive landscape. On the evidence before us we are not satisfied that the landscape's values should stand aside for the benefits of the proposal. It is our judgment overall that the granting of this consent would not promote the purpose of the Act.

#### Outcome

[355] The appeal is declined.

[356] Any application for costs is to be made by 5 October 2017 and any replies by 19 October 2017.

ENT COURT OF

For the court:

J E Borthwick

Environment Judge

<sup>284</sup> Willis, EiC at [57].