

TABLE OF CONTENTS

	Page
1.0 INTRODUCTION	1
Overview	1
Matters Raised during Hearing Irrelevant to Consideration	2
Issues Approach in Decision	4
2.0 THE PROPOSAL	4
Application Description	4
Construction Timeframe & Traffic Movements	7
Turbine Contingency Zone	8
3.0 SITE LOCALITY AND DESCRIPTION	8
The Application Site	8
The Surrounding Area	9
Proximity to Grid Infrastructure	10
4.0 CONSULTATION AND NOTIFICATION	10
Consultation	10
Notification and Submissions	11
5.0 THE HEARING	13
6.0 STATUTORY CONTEXT	14
Resource Management Act 1991	14
List of Planning Instruments and Relevant Documents	16
7.0 ISSUES	19
Context	19
Positive Effects	19
Landscape/Visual/Amenity Effects	23
Cultural/Iwi/Tangata Whenua Issues	34
Noise Emissions	40
Traffic Issues	49
Ecological Issues	56
Other Effects	60
8.0 SUMMARY OF COMMISSIONERS' FINDINGS/OVERALL EVALUATION	64
Part 2 Consideration	64
Overall Evaluation and Conclusion	66
9.0 DECISIONS	68
INDEX OF APPENDICES	
Appendix 1 – List of Appearances	70
Appendix 2 – Palmerston North City Council Land Use Consent Conditions	76
Appendix 3 – Horowhenua District Council Land Use Consent Conditions	94
Appendix 4 – Manuwatu-Wanganui (Horizons) Regional Council Consent Conditions	102

1.0 INTRODUCTION

Overview

- 1.1 Pursuant to Section 88 of the Resource Management Act 1991 (the Act) Motorimu Wind Farm Limited (MWFL) applied for resource consents from Palmerston North City Council (PNCC), Horowhenua District Council (HDC) and Horizons Regional Council (HRC) to construct, operate and maintain 127 wind turbines located on the Tararua Range, south-east of Palmerston North.
- 1.2 The applications were heard by three Independent Commissioners. Each of the Commissioners was appointed by and had delegated authority from the three Councils to hear and jointly determine the applications.
- 1.3 The hearing commenced on Thursday 8 March 2007 and continued over various dates for a number of weeks, with MWFL's right of reply being delivered on Thursday 29 March 2007.
- 1.4 During the course of the hearing the Commissioners heard evidence both in support of and in opposition to the proposal. The Commissioners also reviewed all written submissions received. Evidence was presented by the applicant and their expert advisors from Thursday 8 March to Monday 12 March. Supplementary evidence was also presented by the applicant's experts in relation to roading construction and earthworks, noise and technical aspects of the application on Tuesday 27 March.
- 1.5 Evidence was also presented by Council officers from Palmerston North City Council and Horizons Regional Council and experts engaged by Palmerston North City Council.
- 1.6 Several iterations of the proposed conditions were produced during the course of the hearing by both the applicant and Council officers.
- 1.7 The hearing was adjourned on Thursday 29 March and was placed into public exclusion. The hearing was advised that adjournment was necessary in order to enable the Commissioners to conduct further site visits and to determine the necessity for any additional information required for their deliberations prior to the official closure of the hearing. In the course of the adjournment the Commissioners identified an area of further information that they required relating to the issue of noise. In particular, the Commissioners required advice from the three noise experts (Mr Thorne - on behalf of the Tararua Aokautere Guardians Inc. Society (TAG), Mr Malcolm Hunt - on behalf of the Applicant and Mr Nigel Lloyd - on behalf of PNCC) regarding a proposed 'sub-NZS6808' Operational Noise condition.
- 1.8 The Commissioners requested that the three experts provide comment on the proposed sub-6808 condition in the PNCC draft conditions, being Condition 11 (presented by the Applicant during the right of reply), and condition 10B (which was deleted by the applicant and replaced with Condition 11 in the right of reply document).
- 1.9 Each expert was asked to advise which of the two conditions they preferred from an acoustic perspective. The Commissioners requested that, in giving their response, the experts confine their responses to their areas of expertise and address issues of workability (whether the condition is practical, reasonable and allows measurement to take place) and what the condition would achieve in practice. Each expert was also asked to comment on the appropriate timing (10pm to 5am or 10pm to 7am) that the condition should apply to and provide reasons why the preferred condition selected should be adopted.

- 1.10 Subsequent to receiving and reviewing this additional information from the noise experts the Commissioners formerly closed the hearing on the 27th April 2007 at 5pm.
- 1.11 In addition to the evidence provided at the hearing and oral submissions, the Commissioners took into account all of the documentation provided with the application, and the comprehensive summary of the written submissions prepared by Council officers.
- 1.12 The Commissioners also made a site visit to the wind farm site situated on part of the Tararua Range east of Linton and Tokomaru and the surrounding area over three days, two days prior to the hearing commencing, on the 6 and 7th March and one day following adjournment of the hearing on 29 March. The initial site visit concentrated on the site itself, and Commissioners were accompanied by Ms Virginia Shaw – Principal Planner PNCC and Mr Voll – MWFL Representative. The second two days of the site visit focused on assessing the views of the wind farm site from the surrounding roads and from various points on the Manawatu Plains.
- 1.13 During the course of the hearing the Commissioners read and heard evidence from a large number of submitters and questioned most of those who presented oral submissions. Visual aids such as photomontages that were tabled at the hearing were also taken into account by the Commissioners when making a decision on the applications.

Matters Raised during Hearing Irrelevant to Consideration

- 1.14 During the course of the hearing, there were several issues raised by submitters (and in some instances by the reporting officers) that the Commissioners consider are not entirely relevant to their statutory consideration of the applications before them. So that these matters are known by all parties the Commissioners have described these issues below and outlined what weight, if any, has been placed on those issues by them in their deliberations.

Lack of National Guidance in relation to wind farms/Moratorium on new Wind Farms

- 1.15 A matter that was consistently raised throughout the hearing by submitters was the lack of national guidance/direction in relation to wind farms in New Zealand, and in particular lack of guidance around the assessment and location of wind farms. Several submitters stated this had resulted in excessive development of wind farms in some regions of New Zealand, notably Manawatu and Hawkes Bay. Some submitters, including TAG, expressed the view that a moratorium should be imposed on all wind farm development, including the Motorimu application, until national standards/strategies for energy conservation and generation requirements are promulgated.
- 1.16 As part of this call for a moratorium, the Commissioners were asked by several submitters to defer decisions on this application by MWFL until such time as guidelines are produced and adopted. While the absence of national guidelines is acknowledged by the Commissioners, they note that it is not legally possible to delay making a decision on these grounds. The Commissioners are required to assess the applications under the statutory and planning framework that exists now. The Commissioners do acknowledge that the Parliamentary Commissioner for the Environment report entitled '*Wind Power, People and Place*' provides Commissioners with some assistance on the siting of turbines and that this is one of the "*other matters*" that the Commissioners can consider under section 104(1)(c) of the Act.
- 1.17 Additionally, submissions made by EECA and the MED provide evidence of government support for renewable energy. The Commissioners also note that further national guidance is provided by way of the by the 2004 amendments to section 7 of

the RMA to specifically include “*the effects of climate change*” and “*the benefits to be derived from the use and development of renewable energy*”.

Name change of Applicant

- 1.18 Some submitters made a point about the name change of the Applicant. The Commissioners wish to clarify that the name change by the Applicant from Energreen New Zealand to Motorimu Wind Farm Limited (MWFL) is irrelevant to their deliberations. Additionally, issues such as the integrity of the applicant in relation to their track record in building wind farms and the viability of this proposal, as raised by TAG, are not relevant matters for Commissioners’ considerations. The Commissioners have taken the proposal and evidence presented by the Applicant at face value. The Commissioners recognise that MWFL is an established commercial entity represented by professional and competent witnesses.

PNCC/Mighty River Power proposed Turitea windfarm,

- 1.19 It was mentioned many times by submitters during the hearing that PNCC, in partnership with Mighty River Power (MRP), are proposing to erect a wind farm within the Turitea Water Catchment Reserve and neighbouring privately owned properties. The area within which turbine site locations are being investigated begins approximately 2km northeast (at ‘Brown’s Flat’) of the northern most turbine on the Motorimu site (#129). The turbine investigation area extends from Brown’s Flat for a distance of approximately 9km to land near the Pahiatua Track. A proposed change to the Turitea Reserve Management Plan to include a new purpose to allow “renewable power generation” in part of the reserve is currently subject to judicial proceedings, and therefore the likelihood of this project going ahead is uncertain. Furthermore, the Commissioners record that a resource consent approval under the PNCC District Plan would also be required before that wind farm could proceed.
- 1.20 Many submitters considered that the Turitea proposal was a reason why the MWFL proposal should not proceed. The Commissioners wish to emphasise that the possibility of the development of another wind farm adjacent to the Motorimu proposal (Turitea) has had no bearing on their assessment or decision. This is because it is not part of the consented or permitted environmental baseline that they may have regard to. Furthermore, there is no certainty whatsoever as to whether that development will proceed or not. On that basis it would be completely inappropriate to give that proposal any statutory weight whatsoever.

Property values and other wind farms

- 1.21 Many submitters also raised the issue of adverse effects on their property values, should the MWFL wind farm proceed. Perceived impacts on property values have not been factored into the Commissioners deliberations. The Commissioners have focused on effects, mitigation and the broad balancing exercise under Part 2 RMA as directed by the Environment Court.
- 1.22 Much evidence was also presented during the hearing by the Tararua-Aokautere Guardians Inc (TAG) relating to other wind farms and their effects, including survey results from a self-selecting survey of Ashhurst residents relating to the effects of the Te Apiti wind farm, evidence from discussions with residents at Gebbies Pass, Banks Peninsula, wind farm noise recordings and a video prepared in relation to a wind farm at Toora, Victoria, Australia. Commissioners have placed little weight on this material in their considerations. Commissioners agree with the Applicant’s legal counsel that the multitude of variables which are relevant to the existence or nature of effects from other wind farm developments are such that it is not possible to draw any conclusions in relation to this proposal from what may or may not have occurred in other circumstances.

Horizons Regional Council Proposed One Plan

- 1.23 The Horizons Regional Council One Plan was publicly notified on 31 May 2007. The Commissioners wish to record that they heard no evidence on the provisions of this plan and in fact their primary deliberations were completed prior to the One Plan being notified. Also, Section 88A(2) of the RMA provides for an application to continue to be processed, considered and decided as an application for the type of activity that it was for, at the time the application was first lodged.. The existing HRC regional plan objectives, policies and rules are considered to prevail. For the record, all the discharge activities (apart from the discharge to air from the proposed concrete batching plant which is a permitted activity) would still require consent under the Proposed One Plan, ranging from restricted discretionary to discretionary.

Submission by the Tararua-Aokautere Guardians Inc (TAG)

- 1.24 The Commissioners wish to acknowledge the extremely well presented and very comprehensive submission made by Tararua-Aokautere Guardians Inc (TAG). The Commissioners were very impressed with the well researched and wide-ranging submission presented to the hearing and the standard of representation by both lay people and the experts engaged by TAG, notably in the fields of landscape and noise.
- 1.25 The Commissioners have treated the TAG submission as being representative of the concerns of the majority of submitters who opposed the application, particularly given that TAG represents in excess of 60 families living or owning property nearby to the proposed site as well as residents of the wider Manawatu and Horowhenua region. To this end, the Commissioners have quoted from the TAG submission on several occasions to encapsulate the particular issues raised by submitters. This should not be interpreted as belittling submissions from other individuals. Where individual submitters raised additional points that reinforce or elaborate on the TAG position this is acknowledged in the decision.

Issues approach in Decision

- 1.26 The Commissioners have adopted an issues approach in making this decision. Each issue raised by submitters has been assessed in terms of the following framework: its statutory context (i.e. plan rules and policies and objectives), the particular matters raised with respect to that issue and an evaluation of the issue.
- 1.27 This is a joint decision of the Commissioners.

2.0 THE PROPOSAL

Application Description

- 2.1 Palmerston North City Council (PNCC) and Horowhenua District Council (HDC) each received a land use consent application from Motorimu Wind Farms Limited (MWFL) to establish and operate a 129-turbine wind farm along part of the Tararua Ranges behind Linton and Tokomaru. Of these 129 turbines, 124 are proposed within PNCC boundaries and 5 turbines are proposed within HDC boundaries. The proposed development also includes the construction of associated buildings, a concrete batching plant, and the creation of access tracks.
- 2.2 At the hearing the applicant advised that the proposal had been formerly amended, removing two turbines (# 108 & 109). The application before the Commissioners is therefore for the establishment and operation of a wind farm consisting of 127 turbines of 850kW size, giving the project a projected total capacity of 107.95MW.

- 2.3 Each wind turbine generator comprises a tubular support pylon 55m high above ground level, a 'nacelle' (the hub) atop the support pylon and a three blade rotor which spans 52m from tip to tip. The maximum height of a turbine is 81m (55m support + half the width of the rotor $52\text{m}/2 = 26\text{m}$). The turbines would either be a VESTA V52 850kW unit or the slightly smaller ENERCON E48 or E49 800kW unit. MWFL also seek permission for a variation of up to 30m in the exact siting of the turbines for construction reasons. All 127 turbines will be connected by 33kV underground cables to a central switching station located in the southern valley behind Mt Kaihinu. The switching station will be connected via a number of 33kV underground cables to the substation near the 220kV transmission line next to an existing Vodafone telecommunication tower. At that point the voltage will be stepped up to 220kV and the energy fed into the national grid via a short (~ 200m) overhead line connection to a nearby Transpower transmission tower.
- 2.4 A second smaller connection will be provided at the proposed maintenance building (maximum 1.5MW) to supply the local 11kV Powerco Network. This small connection will also be used for supplying power to the wind farm when necessary, for operational uses including starting turbines, providing a secondary supply to maximize reliability, and supplying the maintenance and operation building for periods when the wind turbines are not operating.
- 2.5 Each turbine is proposed to be painted an off-white colour with a matt finish to avoid reflection issues. .
- 2.6 The land use consents also include proposals for the following works which are directly associated with the operation of the wind farm. These are summarised as follows:
- A site office, 2000m² substation building and yard, 600m² maintenance shed and 400m² switching station;
 - Associated cable trenching will be created within the site to direct electricity generated by the turbines through 33 kV cables to the transformer within the substation. A 220kV overhead transmission line connecting the wind farm to the existing 220kV national grid transmission network. The substation is located approximately 350m north of turbine #51 within the HDC district. The connection line between the substation and transmission line will be approximately 165m in length;
 - A temporary concrete batching plant including the creation of a water detention pond located on Scotts Road;
 - The erection of 3 new 55m high wind monitoring towers;
 - The creation of a number of internal access tracks with associated earthworks to create the necessary turbine, building and batching plant platforms.
 - Lighting of certain wind turbines, as required by the Civil Aviation Authority (CAA), for aircraft safety reasons. Approximately 8 turbines will have medium density lights installed on top of their nacelles.
 - Eventual decommissioning of the project (or partial decommissioning should a turbine require replacement).
- 2.7 The specific consenting requirements under the PNCC District Plan are:
- Wind Farms within the Rural Zone are identified as a Discretionary Activity (Unrestricted) under rule 9.9.2.
 - Sight distances to the proposed construction yard on Scotts Road do not comply with the Transport Section 20 rule 20.3.9.1(c)(iv) and is a Discretionary Activity (Restricted) under rule 20.3.10.1.

- The proposed transmission line is double the permitted voltage of 110kV under rule 23.7.1(i), and is a Discretionary Activity (Unrestricted) under rule 23.10.1(i).
- 2.8 The specific consenting requirements under the HDC District Plan are:
- Wind Farms within the Rural Zone are by default a Discretionary Activity under Rule 19.6 as the activity is not listed as a permitted, controlled or limited discretionary activity in the Rural zone.
 - The proposed haul road running from Williams Road is approximately 5km long and is therefore considered a Limited Discretionary Activity under Rule 21.1.1(v).
 - The proposed electricity line exceeds the permitted voltage of 100kV of rule 22.1.2 and the proposed substation building has a floor area in excess of 50m² as provided for under rule 22.1.7 and is therefore considered a Limited Discretionary Activity under these rules.
- 2.9 Overall, the applications under both Plans are assessed as Discretionary Activities (unrestricted).
- 2.10 In addition to the district land use applications, Horizons Regional Council (HRC) received resource consent applications on 17 October 2006 from MWFL to undertake activities in watercourses, namely two unnamed tributaries of the Tokomaru River, and to allow the concrete required in the construction of the wind turbine foundations to be mixed on site.
- 2.11 On 19 February 2007 the Applicant modified its application to abstract water from a dam in an unnamed stream. After discussions with the HRC's Water Quantity Scientists the application was amended to remove the proposed dam and to modify the abstraction. The abstraction is now proposed to occur via an intake pipe that will pump water from the Stream and into an adjacent storage pond. This amendment has therefore resulted in a modification of application 103865.
- 2.12 On 21 February 2007 the Regional Council received a further amendment to the application. This amendment was to redirect the proposed discharge of sediment in stormwater to the artificial watercourse being the water storage ponds rather than discharged to the unnamed stream. This amendment has therefore resulted in a modification of application 103866 as the amended proposal results in the settling of stormwater in a settling pond and then its discharge to the water storage pond where it will be recycled.
- 2.13 Specifically the consents now sought from HRC are:
- 103684** This application is for a Water Permit to abstract up to a maximum of 70 cubic metres per day (70m³/day) of surface water when the flow in the stream exceed 10 litres per second, from a storage pond for use in the concrete batching plant.
- 103865** This application is for a Water Permit to excavate and disturb the beds of two unnamed tributaries of the Tokomaru River, to place and install structures and associated works, to divert, through a 90 metre long open trench and 8 metre long culvert, the diverted flow of the stream on the western side of the concrete batching plant and merge with the second unnamed tributary, from which the water abstraction will occur after the culverting under the roadway.
- 103866** This application is for a Discharge Permit to discharge sediment in stormwater from the concrete batching platform and roadway, to a

settling pond and then to a water storage pond where the water will be recycled to supply water for a concrete batching plant.

103894 This application is for a Discharge Permit to discharge contaminants to air associated with the operation of a concrete batching plant, to mix concrete for use in the construction of 127 wind turbines as part of the proposed Motorimu Wind Farm Limited. It is proposed to batch approximately 30,000 cubic metres (30,000m³) of concrete over a period of not less than 30 weeks.

2.14 Each regional resource consent is sought for a term of 10 years. All of the regional consent applications are assessed as Discretionary Activities (unrestricted).

Construction Timeframe & Traffic Movements

2.15 The Motorimu wind farm is proposed to be constructed over a two year period. The inception date for construction is dependent upon when, or if, the necessary consents are granted as well as weather and contract variables. A workforce of up to 150 people is estimated to be involved in the construction process reducing to 3-4 permanent staff for maintenance and monitoring once the wind farm is fully operational. The project will be completed in stages so that power may be generated from groups of turbines as they are finished.

2.16 In MWFL's Traffic Impact Assessment, prepared by Barclay Traffic Planning, the following key wind farm construction information is stated:

- Turbine components: towers, blades, nacelles 600 truck trips
- Basecourse and gravel for roading (100,00m³) 6000 truck trips
- Concrete (26,000m³) 5000 truck trips
- Reinforced steel (26,000 tonnes) 200 truck trips
- Cables (50km) 100 truck trips
- Substation equipment 20 truck trips

2.17 Approximately 12,000 truck trips to the site or approximately 24,000 two-way movements are anticipated.

2.18 The turbine foundations will either be 'rock anchor' type or 'gravity' type. The total amount of concrete poured for either option is approximately 200m³ per foundation. Soil which is excavated from the foundation pads which is not usable elsewhere within the project will be removed from the site and trucked to three designated dump sites.

2.19 It is proposed to access the wind farm site from two roads - Scotts Road, which lies within the PNCC boundary, and Williams Road, which lies within the HDC district. Within the site itself a number of existing and new tracks will be used to gain access to the turbine locations. Upon full operation some tracks will be left permanently for maintenance access and for use by land owners and others will be created and then removed at the end of the construction phase.

2.20 Williams Road will be the preferred route for large vehicles, particularly those which are over-size and over-weight. For example, the large turbine tower components, which are 27.50m long will be transported by 32m-long truck and trailer combinations and the 90 tonne transformer to be housed in the substation will be transported by a specialist low-load trailer. In terms of traffic movements on Williams Road, it is estimated there will be 100 movements per day with a peak flow of 10-20 movements

per hour. Not all movements will be by heavy vehicles as approximately 30% will be made by staff vehicles. It is noted that nearby Konini Street may be used for occasional deliveries as alternative access to Williams Road.

- 2.21 The proposed main haul route for these large turbine components and the substation materials and transformer is along an existing farm track, which runs within the Squire property at the end of Williams Road. The track is currently used for farm maintenance purposes and by Vodafone for maintenance of their cell phone tower. While most of the track is of a suitable grade and sufficiently wide enough to accommodate the large trucks there are certain places where widening earthworks will need to take place. The track will also be metalled and sealed in some places to aid traction in all weather conditions.
- 2.22 Much of the light traffic will use Scotts Road but some larger vehicles, up to the size of a semi-trailer, will also use the route. It is estimated that there will be approximately 400 movements per day on the unsealed 4.2km hill section of the road, consisting of personnel transport for 150 workers, plant movements and contractor vehicles and existing users (Woodpecker Holdings forestry vehicles, farming and recreational).
- 2.23 In general terms, MWFL have advised that traffic movement will be managed in the following way on Scotts Road:
- There will be radio phones at the top and bottom of the hill section to check the road is clear;
 - Temporary traffic control will apply in peak traffic times either by one-way convoys over the whole length or signal control over shorter lengths;
 - Heavy vehicles will not operate during school bus times – most wind farm workers will be on site by 8am each day to keep conflict with school transport to a minimum.

Turbine Contingency Zone

- 2.24 The Applicant has requested that turbine contingency zones of up to 30 metres radius from the identified turbine sites be provided. This is to allow micro-siting of the turbines to reflect small scale technical and environmental issues. MWFL has agreed with the Department of Conservation not to use the turbine contingency zone to move turbines closer to the native bush land at Mt Kaihinu. Consideration was also given to the resulting height of turbines should they need to be relocated within the turbine contingency zone, and a condition of consent is recommended that requires the vertical height increase of the turbine change by no more than 3m.

3.0 SITE LOCALITY AND DESCRIPTION

The Application Site

- 3.1 The site is comprised of the following rural allotments:
- 3.2 Section 18, DP 426 (WN58/127); Pt Sec 387, Town of Fitzherbert (WN59A/814); Section 19 Block V Arawaru Survey District DP 426 (WN112/219); Section 326 Town of Fitzherbert DP 314 (WNE1/786); Section 320 Town of Fitzherbert (WNE4/597); Section 325 DP 314 (WN15C/998); Section 324 DP 316 (WN15C/999); Lot 1 DP 43216 (WN15C/1436); Section 322-323 DP 316 (WN20B/885); Lot 2 DP 50212 and Pt Sec 354 Town of Fitzherbert (WN20C/510); Section 333 Town of Fitzherbert (WN27A/513); Part Sec 385 Town of Fitzherbert (WN41D/794); Section 321 Survey Office Plan 12360 (WN46B/793); Section 359 Survey Office Plan 12360 (WN46B/794); Pt Lot 2 DP 43216 (WN46D/27); Pt Sec 319 Town of Fitzherbert (WN52D/871).

- 3.3 The application site covers a large area of approximately nine square kilometres held in 16 Certificates of Title by four separate landowners. The site extends across approximately a 6.5km long stretch of the Tararua Ranges located beyond the ends of Kendalls Line, Millricks Line and Scotts Road within the PNCC boundaries and Williams Road and Tokomaru East Road within the HDC boundaries.
- 3.4 MWFL does not own any of the land but has entered into arrangements with landowners to site turbines on their properties.
- 3.5 The land is currently used for mixed grazing, beef and sheep production, as well as some fodder cropping, and includes some forestry plantations. Its contour ranges from gentle sloping hillside at the lower level of the ranges to steep hillside at higher levels. A distinct basin is evident at the top of Scotts Road.
- 3.6 The majority of the proposed 127 turbines will be sited at an altitude of between 450m and 550m above sea level. MWFL's Visual Assessment Report, prepared by Environments by Design Ltd, notes that of the original 129 turbines, 67 turbines are proposed on top of ridgelines, lower hilltops and spurs with the balance (62 turbines) within the upper basin, which lies behind the Te Mata ridgeline and the ridgeline leading to the Kaihinu Trig. There is an average spacing of 169m between turbines with a minimum of 113m and maximum of 238m.
- 3.7 Research undertaken by MWFL identified that the dominant wind in this area is north-north-west to west-north-west and mean wind speeds average between 8.5 and 10m/s with a maximum wind speed of approximately 35m/s.
- 3.8 As mentioned earlier, the site is zoned Rural in the PNCC District Plan and is also included in the Aokautere Rural-Residential overlay for subdivision purposes. The effect of the overlay is that, unlike in the remainder of the rural zone, dwellings are permitted to establish on small land holdings (i.e. minimum allotment size of 3,500m²). Effectively this overlay transforms the rural zone into a rural residential zone in this locality. This is reasonably significant in the context of the section 7(c) effects and the Commissioners return to this matter in section 7 (Landscape/ Amenity Effects) of this decision. The relatively small portion of the wind farm located within the Horowhenua District is also contained within land zoned Rural in the HDC District Plan. The main access roads, which are Scotts Road and Williams Road, are categorised as 'Local Roads' in the Roding Hierarchies of both PNCC and HDC. Both of these roads are accessed from State Highway 57 (SH57), which is operated and controlled by Transit New Zealand.

The Surrounding Area

- 3.9 The area to the north west of the wind farm site in the foothills of the Tararua Ranges is used for a mixture of rural and rural-residential purposes. At Millricks Line and Scotts Road the larger land holdings have been subdivided into smaller four hectare and smaller blocks most of which have dwellings on them with the balance used for grazing. This is a reflection of the effect of the Aokautere Rural-Residential overlay previously alluded to. Further north-west, closer to SH57, larger land holdings still remain and these are used for farming activities although the majority of these parcels do also contain dwellings. To the south of the site is the Tararua Ranges. In the Horowhenua District of particular note is a large proposed rural-residential subdivision development, known as Strathmore Park, which is located about halfway up Williams Road. The lots there are currently for sale.
- 3.10 In terms of other wind farms in the wider area, there are three that are currently operating and/or under construction. These are summarised below in order of proximity to the Motorimu Wind Farm.
- **Te Rere Hau Wind Farm** – Consent has been granted for 97 'two blade' turbines. The first five turbines have been constructed and are currently

operational. There is a distance of approximately 12km from the northern-most turbine proposed on the Motorimu site (#129) to the southern-most Te Rere Hau turbine;

- **Tararua Wind Farm** – This was the first wind farm in the region with 103 ‘lattice tower’ turbines erected in 1999/2000 (T1 and T2) and a further 40 ‘tubular tower’ turbines are currently under construction as part of the ‘T3’ proposal. There is a distance of approximately 13km from the northern-most turbine proposed on the Motorimu site (#129) to the southern-most T3 turbine;
- **Te Apiti Wind Farm** – This contains 55 ‘tubular tower’ turbines constructed in 2004, and is located north of the Manawatu Gorge in the southern part of the Ruahine Ranges behind Ashhurst. There is a distance of approximately 22km from the northern-most turbine proposed on the Motorimu site (#129) to the eastern-most Te Apiti turbine. This wind farm is located within the Tararua District Council boundaries.

Proximity to Grid Infrastructure

- 3.11 The Motorimu site is crossed by the 220kV Transpower transmission line from Bunnythorpe to Wilton with sufficient capacity for the proposed size of the wind farm, and therefore there is no need to construct a lengthy grid connection.
- 3.12 MWFL has been in contact with Transpower New Zealand Limited with regard to connecting the project to the Transpower network. Transpower have confirmed that a connection to the 220kV Bunnythorpe-Wilton A line is possible subject to technical details (final connection method) being resolved. Notwithstanding some concerns being raised by submitters in respect to national grid connection matters, the Commissioners accepted the written assurances given by the Applicant and Transpower on the ability to connect to the national grid and transmit the electricity generated and accordingly have not explored this issue any further.

4.0 CONSULTATION AND NOTIFICATION

Consultation

- 4.1 The AEE details the results of consultation undertaken prior to the lodgement of the resource consent application with PNCC and HDC. Specifically an information display was organised (6 May 2006) and local residents were invited to attend. In addition, a three-day public display was held at ‘The Plaza’ shopping mall in Palmerston North from 3-5 November 2006. A project website was also launched contemporaneously with the lodging of the resource consent applications.
- 4.2 There was no specific pre-lodgement consultation undertaken with neighbours in relation to the consents lodged with the HRC. The Department of Conservation (DOC) and Fish and Game were consulted in relation to all consents.
- 4.3 The Commissioners were advised that consultation with DOC has resulted in a documented agreement on a range of measures to avoid or mitigate impacts on a population of currently unprotected, threatened endemic giant land snails, including the funding of an ongoing research programme to control predators and assess effects of migration for five years.
- 4.4 The Applicant also advised of consultation and discussions undertaken with infrastructure providers including Transit New Zealand, PNCC and HDC (as road owners and managers), Telecom NZ, Transpower and Powerco.
- 4.5 Telecom New Zealand confirmed in writing (letter dated 12 January 2007) that following discussions with the applicant, their concerns have been appropriately addressed, and they withdrew their submission.

- 4.6 Similarly, consultation with Transit led to agreement (embodied in a Memorandum of Understanding between Transit and MWFL) on the nature and extent of desirable modifications to State Highway 57, at the intersection of Scotts Road, to accommodate the proposal. This was confirmed in writing in a letter dated 13 February 2007 to PNCC.
- 4.7 The Applicant also undertook direct consultation with a number of parties including surrounding landowners post lodgement of the applications.
- 4.8 Consultation was also undertaken with the following iwi prior to the lodgement of the consent applications with HDC and PNCC:
- i. Tanenuiarangi Manawatu Incorporated;
 - ii. Ngati Hineaute Hapu Authority;
 - iii. Te Rangimarie Marae Committee;
 - iv. Te Runanga o Raukawa Inc;
 - v. Muaupoko Tribal Authority
- 4.9 Further post lodgement consultation was undertaken with Tanenuiarangi Manawatu Incorporated (TMI) which resulted in a Cultural Impact Assessment Report being prepared (as detailed below). All iwi groups within Palmerston North and Horowhenua, identified and recognised as mandated iwi by the Councils have been consulted.

Tanenuiarangi Manawatu Incorporated (TMI) – Memorandum of Collaboration

- 4.10 MWFL has consulted with Tanenuiarangi Manawatu Incorporated (TMI), the mandated iwi authority for Rangitane O Manawatu over resource consent matters in respect of the Motorimu wind farm site between Te Mata Peak in the north and Mount Kaihinu in the south. As a result of this consultation a Memorandum of Collaboration was negotiated and signed by TMI and MWFL during the hearing (dated 14 March 2007) for the following purposes:
- *Promote cooperation in high quality environmental research and management which is of mutual benefit to TMI and MWFL in respect of the site.*
 - *Provide a forum for consultation to ensure the needs of both partners are met in respect of environmental management of the site and in particular the impact of the project development on the Tararua Range*
 - *To enhance knowledge and understanding of both partners of social, cultural and environmental management and matters pertaining to proposed joint project work undertaken at the site.*
 - *To consult with TMI in relation to any resource management issues in respect of the site.*
- 4.11 The Commissioners note that under the MoC, MWFL has committed to meet with TMI once per month in order to discuss the construction process and any issues arising with respect to the cultural impact and environmental performance and report to TMI on a monthly basis during its construction phase regarding any non-compliance with any consent conditions
- 4.12 MWFL have also agreed to report once per year during the operation of the wind farm and to meet once per year in order to discuss how the site performed environmentally for the previous season.

Notification and Submissions

Palmerston North City Council and Horowhenua District Council

- 4.13 In accordance with Section 93 of the Act, MWFL applications were publicly notified by newspaper advertisements, site notices, Council website notes, and letters sent to affected parties and key stakeholders. The start of the notification period was

Saturday 21 October 2006 with the closing date for submissions was initially given as 4pm on Friday 24 November 2006.

- 4.14 The Form 12 advertisement was published in the following newspapers:
- The Dominion Post (Saturday 21 October 2006)
 - The Horowhenua-Kapiti (Levin) Chronicle (Saturday 21 October 2006)
 - The Horowhenua Weekly News (Wednesday 25 October 2006)
 - The Guardian (Thursday 26 October 2006)
- 4.15 It is noted that although there were differing publication dates for the newspapers, and the notification letters were sent out the following week, the statutory requirement under section 97 of the RMA of 20 working days from the day of public notification was met in all cases.
- 4.16 On Tuesday 24 October 2006 175 notification letters were sent to the identified directly affected parties and 28 letters were also sent to key stakeholders. Five site notices were placed on sites near the start of Kendalls Line, Millricks Line, Scotts Road, Williams Road and Tokomaru East Road on Saturday 21 October 2006.
- 4.17 Subsequent to notification, some concerns were raised by local residents and potential submitters regarding the notification period, particularly in relation to the length of the standard statutory notification period, availability of application information and that some properties on Kahuterawa Road were not directly notified and considered that they were affected parties. As a result of the concerns raised, PNCC (in consultation with the Commissioners) agreed to extend the submission period by an extra 10 working days. On 15 November 2006 letters were sent out to all affected parties and stakeholders and advertisements placed in all of the newspapers listed above stating that the submission period had been extended to 4pm on Friday 8 December 2006.
- 4.18 Additionally it became apparent that two property owners in relatively close proximity to the site had been inadvertently omitted from the list of parties personally notified as part of the original notification on 24 October 2006. Letters were sent to these property owners on 22 November 2006 advising that submissions could be made until 22 December 2006.
- 4.19 Nine submissions were received past the closing time, four submissions late on the closing day, two submissions on the next working day and three submissions the following working day. The applicant's counsel, Chapman Tripp, confirmed the MWFL had no objection to these late submissions being formally received by the Council and those submitters who wished to do so being heard at the hearing.
- 4.20 The extensions to the submission period described above were formally extended pursuant to Section 37(1) RMA on 18 December 2006 under delegated authority by PNCC Principal Planner and HDC Environment and Regulatory Services Manager.
- 4.21 In total, 220 submissions were received by PNCC/HDC - 41 in support and 165 in opposition - to the wind farm proposal, with 14 submitters who did not indicate either support or opposition. Of these, 91 of the submitters indicated that they wished to be heard in support of their submissions.
- 4.22 Two submissions were withdrawn prior to the hearing. These withdrawn submissions were from Telecom New Zealand and the New Zealand Historic Places Trust.
- 4.23 Additional information was also received from submitter #120 (Mr Mark McBride) which was tabled in the Hearing Order Papers (pgs. 4-5)
- 4.24 As alluded to in the introduction to this decision, a substantial submission in opposition to the applications was lodged by the Tararua Aokautere Guardians Inc (TAG) who represent in excess of 60 families. Over 100 submissions were made by

individuals and families located within about 5 km of the wind farm site, many of whom are also represented by TAG. TAG was also represented by a number of experts, being Mr Shannon Bray (Landscape Architect: visual assessment), Mr Robert Thorne (Noise consultant), Dr Robyn Phipps (Healthy Buildings expert, noise effects on health), Mr Dave Bennett (Energy/noise expert), Dr Peter Read (Energy expert and economist), Dr Ken Mosley (Engineer: wind turbine vibration), and Dr Ian Christensen (Iwi issues).

- 4.25 Submitters in support of the proposal, being 41 in total, included a range of government agencies and other key stakeholders, including the Ministry for Economic Development (MED), Energy Efficiency and Conservation Authority (EECA), and Department of Conservation (DoC). Other notable submitters in support included Mighty River Power (MRP, Powerco Limited, the Wellington Hang Gliding and Paragliding Club Inc., and the New Zealand Wind Energy Association (NZWEA), along with a diverse cross section of local residents and businesses.

Horizons Regional Council

- 4.26 These applications were publicly notified on 27 October 2006, with submissions closing on 24 November 2006. 30 submissions, all in opposition, were received during the submission period. 14 submitters indicated that they wished to be heard in support of their submission.

Issues of Concern

- 4.27 The issues raised in all submissions – District and regional - are addressed in Section 7 of this decision.

5.0 THE HEARING

- 5.1 The hearing commenced on Thursday 8 March and continued on 9 March, 12-16 March, 26 -29 March when the hearing went into public exclusion for further deliberation by Commissioners on 2 April and 26 April 2007. The hearing closed on Friday 27 April 2007 at 5pm.
- 5.2 Some 65 submitters were heard by Commissioners. Some submitters made a presentation on their own behalf, as well as representing organisations or groups (for example the Tararua-Aokautere Guardians Inc (TAG).
- 5.3 During the course of the hearing Woodpecker Holdings Limited withdrew its objection to the proposed wind farm development. The Hearing was advised (in a fax dated 29 March 2007) that MWFL and Woodpecker Holdings Ltd had signed a Memorandum of Agreement with respect to the use of Scotts Road, covering the issues related to uninterrupted access to the road for Woodpecker Holdings Ltd to carry out its commercial activities of forestry harvesting, as well as issues related to road maintenance.
- 5.4 A list of staff present, witnesses and submitters appearing at the hearing is enclosed as **Appendix 1**. Specific matters raised in the evidence are referred to as appropriate in the Issues/Evaluation section of this decision.
- 5.5 An extension to the time period for notification of the decision pursuant to Section 37(2)(b) of the Act was approved under delegated authority by Palmerston North City Council, Horowhenua District Council and Horizons Regional Council, with the approval of the Applicant. The time limit for notification of the decision was extended until 27 June 2007.

6.0 STATUTORY CONTEXT

6.1 This section sets out the legal framework that was taken into account by Commissioners when making their decision on the applications.

Resource Management Act 1991

6.2 Resource consents are required under the following Sections of the Act: sections 9, 12, 13, 14 and 15. A complete list of consents required from Palmerston North City Council, Horowhenua District Council and Horizons Regional Council is provided in Section 2 of this decision.

6.3 In giving consideration to the proposal, the Commissioners are bound by Section 104 of the Act: subsection (1) which states:

(1) When considering any application for a resource consent and any submissions received, the consent authority must, subject to Part II, have regard to the following relevant matters

- (a) any actual and potential effects on the environment of allowing the activity; and*
- (b) any relevant provisions of
 - i. a national policy statement;*
 - iii. a regional policy statement or proposed regional policy statement;*
 - iv. a plan or a proposed plan; and**
- (c) any other matter the consent authority considers relevant and reasonably necessary to determine the application;*

6.4 Section 104(2) states:

(2) When forming an opinion for the purposes of subsection (1)(a) a consent authority may disregard an adverse effect of the activity on the environment if the plan permits an activity with that effect.

6.5 And under clause 3 continues:

- (3) A consent authority must not –*
- (a) have regard to trade competition when considering an application:*
 - (b) when considering an application, have regard to any effect on a person who has given written approval to the application...*

6.6 Section 104(3) above, which sets out the matters a consent authority must not have regard to. These include *any effect on a person who has given written approval to the application*. This is a pertinent matter in this case where the land owners of the Motorimu wind farm site have supplied their written approval.

6.7 Section 104B of the RMA provides that:

After considering an application for resource consent for a discretionary activity or non complying activity, a consent authority –

- (a) may grant or refuse the application; and*
- (b) if it grants the application, impose conditions under Section 108*

6.8 Section 105(1) lists matters relevant to certain applications (e.g. discharge permit) that the consent authority must, in addition to section 104(1) have regard to.

- 6.9 Section 107 states restrictions on the grant of certain discharge permits.
- 6.10 Section 108 of the RMA defines the scope of matters that may be included in any conditions imposed on the grant of consent:
- 6.11 Part 2 (Sections 5, 6, 7 and 8) of the Act sets out the purposes and principles of the legislation.
- 6.12 Section 5 states:
- "(1) *The purpose of this Act is to promote the sustainable management of natural and physical resources.*
- (2) *In this Act, "sustainable management" means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while -*
- (a) *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
- (b) *Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
- (c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment."*
- 6.13 Section 6 – Matters of National Importance states:
- "In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development and protection of natural and physical resources, shall recognise and provide for the following matters of national importance –*
- (b) *The protection of outstanding natural features and landscapes from inappropriate subdivision, use and development.*
- (e) *The relationship of Maori and their culture and traditions with ancestral lands, water, sites, waahi tapu and other taonga.*
- 6.14 Section 7 - Other Matters, states:
- In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:*
- (a) *Kaitiakitanga*
- (b) *The efficient use and development of natural and physical resources.*
- (c) *The maintenance and enhancement of amenity values.*
- (d) *Intrinsic values of ecosystems.*
- (e) *Maintenance and enhancement of the quality of the environment*
- (i) *The effects of climate change.*
- (j) *The benefits to be derived from the use and development of renewable energy.*

- 6.15 Section 8 – Treaty of Waitangi, states:

In achieving the purpose of this Act, all persons exercising functions and duties under it, in relation to managing the use, development and protection of natural and physical resources shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

- 6.16 These provisions of the Act have been outlined in full given their importance in the overall evaluation of the Commissioners.

Permitted Activity Baseline

- 6.17 S 104(2) provides that when forming an opinion for the purposes of subsection 104(1)(a) – the actual or potential effects on the environment of allowing the activity, a consent authority may disregard an adverse effect of the activity on the environment if the plan permits an activity with that effect.
- 6.18 In terms of potential effects of this proposal, the Commissioners determined that the permitted baseline argument was not strong and therefore placed no weight on the permitted baseline as they are entitled to do so under section 104(2). The Commissioners considered that it would be fanciful to believe that the magnitude of the effects of a permitted forestry or farming operation, particularly the effects of noise and traffic would be considered to be comparable to the adverse effects emanating from the proposed wind farm.

List of Planning Instruments and Relevant Documents

- 6.19 In assessing the applications, the Commissioners had regard to the following instruments and documents which are considered to form part of the section 104(1) (b) and (c) statutory framework:

National

- Parliamentary Commissioner for the Environment Report – *Wind Power, People and Place*
- New Zealand Standards - *NZS6808:1998 Acoustics: The Assessment and Measurement of Sound from Wind Turbine Generators*, and *NZS6803:1999 Acoustics – Construction Noise*.

Regional

- Regional Policy Statement for the Manawatu-Wanganui Region
- Land and Water Regional Plan for the Manawatu-Wanganui Region
- Air Plan for the for the Manawatu-Wanganui Region
- Manawatu Catchment Water Quality Regional Plan

District

- Palmerston North City Council District Plan
- Horowhenua District Plan

Regional Planning Instruments

- 6.20 The Regional Policy Statement (RPS) and all Regional Plans for the Horizons Regional Council (formerly known as the Manawatu-Wanganui Regional Council) were operative (at the time of deliberations).

Regional Policy Statement

- 6.21 The Regional Policy Statement (RPS) is an overview document that provides the framework for managing resources in the Manawatu-Wanganui Region in a sustainable way. In the framework for resource management, the RPS lies beneath the central government instruments (national policy statements, national environmental standards). (For the record, the Commissioners note that aside from the national standard for noise from wind farms, there are no national standards in NZ for siting wind farms). It is also noted that District Plans are required to be consistent with both the RPS and regional plans.
- 6.22 The Commissioners acknowledge that there are two key sections of the Regional Policy Statement regarding the merits of the overall wind farm proposal. These are Chapter 22, regarding Natural and Cultural Features, and Chapter 29 regarding Energy. These are reproduced in full below because of their central importance to the proposal and their pivotal place in the overall evaluation under Part 2 of the Act.

Chapter 22 – Natural and Cultural Features

OBJECTIVE 8: *To protect natural features and landscapes which are outstanding and regionally significant from inappropriate subdivision, use and development.*

POLICY 8.3: *To protect, from inappropriate subdivision, use and development, the specified values associated with the following features, which are both outstanding and regionally significant:*

- p. the skyline of the Tararua Ranges, specifically;*
- i. its scenic qualities provided by its prominence throughout much of the Region and its backdrop vista in contrast to the Region's plains.*

Whereby 'skyline' is defined in the supporting explanation with the policy as '...the boundary between the land and sky at the crest of the highest points along the ridge'.

Chapter 29 – Energy

OBJECTIVE 28 *To promote the sustainable management of energy resources.*

POLICY 28.1: *To promote the sustainable supply and use of energy resources to meet the needs of the regional community.*

POLICY 28.2: *To promote the increased use and development of renewable energy sources where practicable.*

OBJECTIVE 29 *To avoid, remedy or mitigate the adverse effects of energy generation in the Region.*

POLICY 29.1 *To ensure the proposals for development of energy generation undertake full Environmental Impact Assessments in accordance with the requirements of Section 88(6)(a) and the Fourth Schedule of the Act prior to consideration by the relevant authorities.*

- 6.23 Regional Plans assist the Regional Council to fulfil the policies of the RPS. In this respect, the Commissioners noted that the four previously listed regional plans help implement the objective and policy framework of the RPS. As outlined earlier the proposed wind farm requires several consents under the provisions of those plans and as such the Commissioners return to these policies in respect to their

assessment of effects (particularly in terms of landscape) and again in their overall evaluation of the issues associated with those applications.

District Plan Provisions

Palmerston North City Council District Plan 2005

6.24 The application site falls within the Rural Zone of the PNCC District Plan. Whilst the applicable rules have been canvassed in section 2 of this decision, the Commissioners considered it useful to itemise the relevant district plan policies. This is because in determining whether or not to grant consent, and if granted, what conditions to impose, the following objectives and policies are of fundamental importance to this determination:

- a) *To avoid, remedy or mitigate adverse visual impacts of any proposed building, structure or storage areas for products and waste, on the surrounding rural environment, and on the landscape values of adjoining areas;*
- b) *To avoid, remedy or mitigate the effects of noise and other environmental disturbance, on the amenity of the surrounding area;*
- c) *To avoid, remedy or mitigate the risk of contamination posed by hazardous substance;*
- d) *To avoid, remedy or mitigate the adverse effects on the safe and efficient operation of the roading network from the traffic movements generated by activities;*
- e) *To ensure the provision of adequate on-site parking, loading, manoeuvring and access space to avoid this taking place on roads.*

Explanation:

... In the case of wind farms, the largely unknown effects of the activity mean that it is essential that it be examined on a case-by-case basis ...

Horowhenua District Plan 1999

6.25 The application site falls partially within the Rural Zone of the HDC District Plan and is therefore subject to the policies, objectives and provisions of the Rural section. The key policies and objectives of relevance are as follows:

OBJECTIVE 3: The management of the effects of activities in the rural environment in a way that maintains or enhances environmental amenity and to enable people in communities to provide for their social economic and cultural well being and for their health and safety.

POLICY 3.1: Enable the establishment and operation of activities which rely on a location in the rural environment provided they meet minimum environmental standards.

POLICY 3.3: Ensure that all activities within the rural environment dispose of wastes in a manner that avoids, remedies or mitigates adverse effects.

POLICY 3.4: Avoid, remedy or mitigate the impact of Buildings on the rural Landscape and maintain overall low building density and building height throughout the rural environment.

POLICY 3.8: Avoid, remedy or mitigate any adverse effects upon residential properties or road safety caused by lighting or glare from any source.

POLICY 3.11: Maintain overall day and night time noise conditions at levels compatible with the amenity and activity present in the rural environment.

POLICY 3.12: Ensure that effects of increased traffic or changed traffic type or change to road access do not compromise the safe and efficient operation of any road or adversely affect the safe and convenient movement of people on public Roads

7.0 ISSUES

Context

- 7.1 The Commissioners note that wind farms in rural settings are provided for as discretionary activities in both district plans (one intentionally and the other by a default provision) and therefore it can be assumed that such activities are generally considered to be an efficient use of resources and generally appropriate in the rural zone of both districts. By contrast, a wind farm is unlikely to be appropriate in an urban, wilderness or any other environment. Overall, the Commissioners consider that, in general terms, a wind farm is an appropriate development in the rural environment of the Manawatu, provided it does not have unacceptable adverse effects on the local environment.
- 7.2 In terms of the last point, the Commissioners believe that the generation of wind power does have the potential to create adverse effects and that consideration must be given to how these effects are borne. In other words, whilst wind energy is an environmentally responsible solution, it must also fit into the location in an environmentally responsible way. If it proceeds, the environmental costs of this wind farm will be imposed on the people of the Palmerston North and Horowhenua districts and on the wider population of the Manawatu region.
- 7.3 It is clear from the analysis of submissions that there is real potential that adverse effects will result from the construction and operation of the proposed wind farm at Motorimu. For example, the development could have an adverse effect on the visual amenity offered by this section of the Tararua Ranges and on the amenity of many residents in close proximity such as along Scotts and Williams Roads and Millricks and Kendalls Lines. The Commissioners judged the potential for adverse environmental effects to be significant due to the scale, nature and location of the proposal. The Commissioners therefore had to consider whether these potential effects could be offset by the positive benefits of the proposal and/or adequately avoided, remedied or mitigated.
- 7.4 Thus, returning to the point originally made at the beginning of this contextual setting, although a wind farm may be consistent with the provisions for the rural area, the Act still requires the effects on the environment of this proposal to be assessed. The following sections of this decision describe each of the potential adverse effects, as identified by the Commissioners. Then in section 8, an overall evaluation of these effects in terms of Part 2 of the Act is undertaken.

Positive Effects

Context

- 7.5 The Commissioners heard a tremendous amount of evidence during the hearing on the role of power generation in New Zealand and the positive contributions that various forms of renewable energy, such as wind, can play in that field. That evidence came not only from the applicant but also from submitters both in support of, and even those in opposition to, the current application. The latter group, whilst opposing the particular development (or aspects of it), were generally supportive of

renewable energy initiatives *per se* (and wind as a form of “clean and green” energy) to meet the country’s energy production targets. Representative submitters were ECCA, MED and NZWEA. Almost without exception, the message conveyed by those at the hearing was that additional power generation capacity is a necessity, and that it is highly desirable to use renewable energy sources. Appropriately, many submitters also advanced the need for energy conservation measures to work in tandem with renewable energy production.

- 7.6 The Commissioners were told that the Ministry of Economic Development’s *New Zealand Energy Outlook to 2025* predicts annualised energy demand growth of 1.2 per cent in the 2000-2025 period. Other forecasts estimate that current electricity demand growth is as much as 3 per cent annually. Having reliable and cost-effective access to electricity is fundamental to the ongoing progress of both New Zealand and its economy. There was also evidence that whilst energy demand is increasing, known reserves of many non-renewable fuels, such as natural gas, that are currently used to generate much of New Zealand’s electricity, are increasingly rare and expensive. Whilst the Commissioners heard that a substantial coal resource remains, they also were told that such a source of energy production is generally unacceptable using current technology due to high greenhouse gas emissions.
- 7.7 Despite the obvious need to increase energy production (in conjunction with energy efficiency initiatives), and despite the accepted desirability of having a greater proportion of energy supply being constituted by renewable energy sources such as wind, the Commissioners do acknowledge that significant environmental effects can be an inevitable part of energy generation. In terms of this opposition, the Commissioners particularly note the potential for significant effects on the residents of the Tokomaru/Linton area.
- 7.8 In this respect, the Commissioners in their overall evaluation under Part 2 of the Act are required to decide whether the proposal is environmentally responsible. In undertaking this exercise, the Commissioners are conscious that at a simplistic level this evaluation involves an overall comparative consideration of positive effects and benefits against adverse effects. Accordingly, before undertaking this overall assessment it is necessary to document and assess all effects, both positive and negative. In this respect, the Commissioners determined that it is useful to begin this exercise with the positive effects so as to establish a benchmark against which the negative effects can be compared. In other words, in an endeavour to be certain of the nature and extent of the positive benefits (in order to determine the ability to compensate for adverse environmental effects), the Commissioners were very careful to define with some precision what the benefits are. They undertook this at two distinct levels – national and local/regional as follows:

National Benefits

- 7.9 Wind energy provided from the development of wind farms, has been recognized both nationally and internationally as an environmentally friendly and economic method of energy generation. Benefits of renewable energy have been identified as security of supply, reduction in greenhouse gas emissions, reduction in dependence on the national grid, reduction in transmission losses; reliability, development benefits and contribution to the renewable energy target (refer *Genesis Power Ltd v Franklin District Council* [A148/2005]).
- 7.10 The applicant and supporters of the wind farm such as MED and ECCA, particularly focused on three key benefits – security of supply, renewable energy targets, and reduced carbon dioxide production and its effect on climate change as follows:

Wind Energy Contribution to Security of Supply

- 7.11 The Commissioners heard and accept that wind energy has matured as a new technology over the past 25 years and is now a mainstream option for electricity generation. They were advised that wind is a relatively reliable source of energy in

New Zealand, with a typical annual wind variation of 10%, half that of rainfall. Evidence presented at the hearing by the applicant and other parties (such as the New Zealand Wind Energy Association) commented on the magnitude of potential contribution from Motorimu.

- 7.12 In this respect the Commissioners heard from the applicant that the Motorimu Wind Farm (if fully consented for the proposed 127 turbines) has the potential to generate enough electricity annually to power approximately 47,000 homes on the basis of an average household power consumption of 8,500kWH per year. The Energy Efficiency and Conservation Authority (EECA) estimated that the wind farm has the potential to generate approximately 408 gigawatt hours annually, which is enough electricity to supply 51,000 households per annum. Based on this range of predicted generation, the wind farm will contribute about 1% towards New Zealand's annual electricity production. This figure was not challenged in any significant manner.
- 7.13 The Commissioners therefore accept that wind energy is an environmentally responsible solution to the nation's energy and security of supply requirements.

Renewable Energy

- 7.14 Renewable energy is defined in Section 2 of the Act to mean "*energy produced from solar, wind, hydro, geothermal, biomass, tidal, wave, and ocean current sources*". Hydro and geothermal power generation are used extensively in New Zealand. Biomass (e.g. landfill gas) is used in small amounts. There are a number of small to medium sized wind power generation schemes in operation around the country.
- 7.15 The Commissioners heard from ECCA and MED how the use of renewable energy sources is encouraged by central government eg. Energy Policy Framework (2000), Sustainable Development Programme of Action (2003), National Energy Efficiency and Conservation Strategy (2001, Government Policy Statement on Electricity Governance (2004), Resource Management (Energy And Climate Change) Amendment Act (2004), and the NZ Energy Strategy (currently in draft form).
- 7.16 Furthermore, the Commissioners were advised that in October 2002, the Government set the following Renewable Energy Target - that by 2012 renewable energy sources will generate an additional 30 petajoules compared to 2000 levels. The contribution of the Motorimu wind farm proposal to this target has been estimated by ECCA to be 1.5PJ (petajoules) per annum towards the renewable energy target (of 30 PJ); which by itself amounts to a significant contribution to that goal.
- 7.17 The Commissioners therefore accept that wind does have a central role to play in the country's renewable energy strategy and that every contribution helps.

Climate change

- 7.18 It is a given that many types of electricity generation, including coal and natural-gas fired plants, result in high greenhouse gas (particularly CO₂) discharges which may promote climate change. The Commissioners were advised that New Zealand has ratified the Kyoto Protocol, which came into force on 16 February 2005. New Zealand's current target under the Kyoto Protocol is to reduce greenhouse gas emissions to 1990 levels during the first commitment period of 2008 – 2012.
- 7.19 The use of oil and coal for energy generation is likely to have significant additional costs in the form of carbon charges. The contribution of Motorimu to greenhouse gas reduction was discussed by many submitters with considerable disagreement over the accuracy of figures. In this respect the Commissioners heard from the applicant that the scheme could result in avoided carbon dioxide emissions of approximately 260,000 tonnes CO_{2eq} per year or 6.5 million tonnes over the lifetime of the project

7.20 The Commissioners also heard from, and tended to favour the official advice of, EECA who advised that the proposal itself will not emit any greenhouse gases other than the small amount during construction. Accordingly, the proposal will avoid approximately 380,000 tonnes and 150,000 tonnes of carbon dioxide (CO₂) per annum respectively (depending on whether coal or gas generation is replaced). To put this into context, approximately 566,000 trees would need to be planted to displace this amount of CO₂ emitted by equivalent coal generation.

Benefits to the Manawatu-Wanganui Region

7.21 In addition to the positive global and national effects associated with renewable energy production and CO₂ emission reductions outlined above, the Commissioners also noted that there is the potential for some regional and local benefits to occur as a result of the Motorimu Wind Farm.

7.22 At the regional level these include some short term economic benefits associated with the construction period. The Applicant estimates that the project will generate up to 150 construction jobs for 18 months, provide 4 permanent jobs during operation, allow farmers to continue working on otherwise marginal farmland and result in a substantial investment of more than NZ\$200 million with a large proportion of that (up to NZ\$100 million) being spent in the region.

7.23 Local benefits, as identified by Mr Voll, include:

- *Provision for funding for protection of natural habitat for the Giant Tararua Land Snail (Powelliphanta Tararuensis);*
- *Provision for funding for research on the behaviour of the NZ Falcon;*
- *Protection of native bush by fencing off a substantial area and protecting it from stock intrusion;*
- *Improved access and provision of real-time meteorological data for the NZ Hang Gliding Association for their launch site near the Vodafone Transmission Tower;*
- *Protection of Historical sites within the wind farm area;*
- *Funding of environmental energy research at Massey University including supply of data for research projects;*
- *Additional provision of jobs due to locating the NZ Headquarters of Allco Wind Energy in Palmerston North (Massey University);*
- *Funding of school projects and support of local schools in Tokomaru, Linton and Opiki;*
- *Support of the Te Araroa Walking Trust;*
- *Improvement of supply security for the local 11kV distribution network between the site and Linton substation including direct energy supply;*
- *Permanent improvements to the intersections of Scotts Road with State Highway 57, by creating a separate turn-off lane coming from Palmerston North.*

7.24 The Commissioners commend MWFL for the local benefits that would arise from the development of this wind farm.

Summary of all Positive Effects/Benefits

7.25 In summary, the Commissioners consider that positive effects will occur primarily at a national level and as such are primarily embodied in three areas; namely, contribution to New Zealand's renewable energy targets, providing security of electricity supply and contributing towards a reduction in greenhouse gas emissions resulting from renewable energy generation (instead of oil or coal electricity generation).

7.26 There would also be some secondary regional/local benefits in the form of employment, predominantly over the construction period along with some specific funding and research opportunities offered by the Applicant.

Landscape/Visual/Amenity Effects

Context

- 7.27 In assessing this application against landscape, visual and amenity issues, the Commissioners had particular regard to the following national, regional and district statutory instruments.
- 7.28 Starting with the Resource Management Act 1991, the following two sections, to which regard must be had, were considered to be relevant:
- Section 6(b) *'The protection of outstanding natural features and landscapes from inappropriate subdivision, use and development.'*
 - Section 7(c) *'The maintenance and enhancement of amenity values.'*
- 7.29 At the regional level, those values attaching to the landscape of the Tararua Ranges are recognised in the Regional Policy Statement (RPS), Chapter 22 – Natural and Cultural Features. Objective 8 states:
- 'To protect natural features and landscapes which are outstanding and regionally significant from inappropriate subdivision and development.'*
- 7.30 Policy 8.3 states;
- 'To protect, from inappropriate subdivision, use and development, the specified values associated with the following features, which are both outstanding and regionally significant:*
- p) the skyline of the Tararua Ranges, specifically;*
- i) its scenic qualities provided by its prominence throughout much of the Region and its backdrop vista in contrast to the Region's plains.'*
- 'Skyline'* is defined in the supporting explanation with the policy as *'...the boundary between the land and sky at the crest of the highest points along the ridge.'*
- 7.31 At the district level, the provisions of the Palmerston North City District Plan and the Horowhenua District Plan are both relevant in terms of landscape issues. As discussed in section 6 of this decision, the land use applications are considered as an unrestricted discretionary activity in both district plans. Accordingly, under both district plans the Commissioners have unlimited right to consider any effects that may be raised. Also, it is significant that both district plans raise landscape and visual issues as important considerations.
- 7.32 In particular, the Commissioners note that the PNCC District Plan specifically lists wind farms in the category of discretionary activity (Rule 9.9.2) which is unusual for a plan first notified over 7 years ago. This may be explained by the acknowledgement in the Plan that *'... In the case of wind farms, the largely unknown effects of the activity mean that it is essential that it be examined on a case by case basis.'* Furthermore, the Commissioners acknowledge that the PNCC Plan makes it clear that in determining whether or not to grant consent, and if so, what conditions to impose, decision makers should have regard to a host of policies not the least being the following policy:
- f) To avoid, remedy or mitigate adverse visual impacts of any proposed building, structure or storage areas for products and waste, on the surrounding rural environment, and on the landscape values of adjoining areas; (Rule 9.9.2)*
- 7.33 Overall, the above statutory context provided the Commissioners with clear direction on the landscape and visual impact issue. In essence, this distilled down to two key questions as follows:

- Firstly, and based on the combination of sections 6(b) of the RMA and the provisions of the RPS, does that part of the Tararuas on which the wind farm is proposed to be located represent an outstanding natural landscape and if so does the wind farm as proposed constitute inappropriate use and development?
- Secondly, and from a wider section 7(c) amenity issue, can the potential visual effects of the proposal be avoided remedied or mitigated such that consent can be granted?

Matters raised with respect to these issues

7.34 Virtually all submissions in opposition to the proposal made some reference to the issues of landscape and visual impact. The range of issues brought to the Commissioners' attention included the following matters:

- *The turbines will be highly visible on this prominent ridgeline and will therefore create a significant adverse visual impact;*
- *The turbines should be sited further back within the Tararua Ranges to reduce their visual impact.*
- *This wind farm proposal, along with the other wind farms existing and consented will create a significant adverse cumulative impact on the Tararua Ranges;*
- *The turbines will adversely affect an area of outstanding natural character.*
- *The turbines are too close to existing houses and will therefore have an overbearing appearance, which is out of character in the local area.*
- *The submitted MWFL visual simulations are not accurate;*
- *The earthworks involved in the project will leave a visual scar on the landscape.*
- *Turbines give the impression of being grave or tombstone crosses;*
- *The ad hoc approach to wind farm development has and will continue to adversely affect the skyline.*

7.35 During the hearing the Commissioners heard a range of evidence from submitters and witnesses on landscape and visual effects. Accordingly, the Commissioners recognise that landscape, visual and amenity effects are key issues, particularly as premium wind generating sites generally sit atop exposed ridgelines which may also have high scenic qualities.

7.36 The Commissioners also acknowledge that visual impact is subjective and is dependent on a person's predisposition to turbines and their reaction to them. For example, turbines can be perceived along a continuum of images ranging from sculptural elements to industrial machines and 'triffids' on the skyline. It is not the Commissioners' role to align with either view but to assess the visual impact using all relevant material available, including the photomontages, New Zealand and overseas studies (Boffa Miskell criteria and the Sinclair Thomas matrix), site visits and the range of presentations given by council, the applicant and submitters.

7.37 As a representative submission, the TAG presentation provided Commissioners with a comprehensive assessment of the effects on landscape and visual amenity as perceived by submitters in opposition to the wind farm. Some representative comments made within their submission include the following:

- *The Applicant's visual assessment concentrates almost exclusively on effects on landscape, and leans heavily on the assumption that 'a rural wind farm hillside character' is an accepted term to describe the wider Palmerston North landscape character. Further, it is stated that this development will serve to 'enhance' this 'character' and that any significant adverse visual effects are apparently lessened because of this accepted 'character'. We dispute strongly that this term accurately describes the character of the Manawatu hillside*

landscape and are concerned that there is an implied acceptance of the change, a change which we submit is both adverse and more than minor.

- *We believe that wind farm development in this region has already come at a high cost – to the Manawatu landscape overall and to the Tararua Ranges in particular in terms of landscape character, visual, scenic and aesthetic qualities, and amenity values*
- *Not only can turbines impact adversely on landscape character and visual amenity, but on people. The Applicant's visual assessment shows no indication that they have understood this concept at all when in fact the consequences for getting it wrong can have a fundamental and profound long-term effect on the well-being not just of affected parties, but of a much wider audience including future generations.*

7.38 In addition to TAG, and from an iwi perspective, Rosemary Adams, on behalf of Huatau Marae, submitted that there will be several turbines on the ridgeline that will be highly visible and intrusive to Huatau Marae. She raised concerns regarding the cumulative effect of commercial wind turbines to the east and south of Huatau Marae.

7.39 The Commissioners also heard from three landscape consultants, Richard Mayer, on behalf of MWFL, Clive Anstey, on behalf of PNCC, and Shannon Bray on behalf of the Tararua Aokautere Guardians Inc (TAG).

7.40 Mr Bray provided an assessment of the landscape and visibility effects of the proposed wind farm and concluded with the following comments:

- *Visible turbines (those predominantly located on the front ridgelines) would be, in my opinion grossly out of scale with the landform. At approximately 25 percent the height of the foothills themselves, the turbines would have a 'bearing down' effect on anyone east of State Highway 57. The shallow depth of landscape further exacerbates the effect – the dramatic rise of the foothills brings the skyline close to the viewer and screens much of the background Ranges.*
- *There can be little doubt that the proposed turbines will significantly change the landscape character of the site. Large, visually intrusive turbines are foreign to a landscape that is largely rural, peaceful and coherent (Mayer concedes this in his assessment, indicating that the landscape would become one with a 'rural windfarm hillside character').*
- *My conclusion is that the introduction of turbines into the Motorimu landscape would be a considerable imposition on the people who live in close proximity to the site. For these people there would be no escaping the dramatic change to their home space. In my view there is significant potential for landscape and visual effects when considering the micro-landscape.*
- *Further away from the site, the issue of cumulative effects becomes a significantly important consideration.*

7.41 Mr Bray grouped the turbines into 5 different groups, being:

- *Front Tier South – located south of Scotts Road in front of the ridgeline that traverses the peaks at 408m, 498m and Kaihinu (9 turbines).*
- *Front Tier North – Located north of Scotts Road in front of the ridgeline that traverses the peaks at 408m, 472m, 502m, 528m, 502m, 482m, and Te Mata (35 turbines)*
- *Second Tier – Located immediately behind the ridgelines defined above (24 turbines)*

- Basin – Located within the lower part of Motorimu basin (38 turbines)
 - Top Scotts – located in the upper Motorimu basin at the top of Scotts Road (16 turbines)
 - Kaihinu – located on the base of Kaihinu, above the 500m contour line (7 turbines)
- 7.42 Mr Bray recommends that only the Basin turbines (38 turbines) be approved due to the significant adverse landscape and visual effects the other turbines would have within the environment.
- 7.43 Mr Bray also provided additional comment (*dated 22 March 2007*) in response to questions asked by Commissioners with respect to potential visual effects resulting from access track/road construction, in particular the Williams Road access road.
- *'The main access road leading off Williams Road might have potential adverse effects.'*
 - *'The proposed access road is to be upgraded from an existing farm track that extends from Williams Road and zigzags up the foothills past the trig station at 379m, before settling into the Motorimu basin at the base of Kaihinu. This particular foothill is prominent in the landscape, in that it protrudes into the Plains further than other foothills to the north and to the south. It is the supporting foothill of Kaihinu, referred to as a visual 'comma' in the landform.'*
 - *'The access track is to be located on the top of the ridgelines. In my opinion this is potentially the worst location in terms of visibility and potential adverse effects. A more preferable solution would be to keep the track located low in the valleys, so that it is screened from most viewing locations. In its proposed location, the track will be a dominant feature in this landscape.'*
 - *'While roads are significantly less visible than the turbines themselves, scarring caused by earthworks is likely to visually diminish. However, when considering the main access road (Williams Road extension), consider the visual prominence of the landform on which it is located, and the location of the road on this landform. I believe that this road, from the 100 m contour line up to approximately 300m, where the land levels out somewhat and where less vertical cuts and batters would be required, would be significantly visible from numerous locations west of the proposal, particularly within 4km. The road is a strong lineal form that would significantly contrast to the more random folds and contours of the landscape. The extended width would increase its prominence, and would further define a contrast between land uses. The potential landscape and visual effects of the main access road would increase its prominence, and would further define a contrast between land uses.'*
- 7.44 The Commissioners were advised by the Applicant that the Williams Road access track was first constructed in 1976. In 1980 the track was upgraded in order to install the power pylons of the 220kV transmission line.
- 7.45 For the Applicant, Mr Mayer assessed and described the wider Tararua and Palmerston North/Horowhenua rural landscape character as *'Rural hillside wind farm landscape'*. He considered that the change from a *"rural hillside character"* to a *"rural wind farm hillside character"* is in keeping with Palmerston North's wider landscape character. His visual assessment concluded that:
- *'Allowing the proposed development will have noticeable effects on the landscape character of the area due to the visual impact of wind turbines in the landscape. The change in character is not considered to be adverse because the key natural and rural elements and characteristics of the existing rural landscape*

character is appropriate in the context of the wider rural landscape character of the area and the greater Wind Farm area.

- *The significance of the Tararua Ranges as the visual dominant landform and backdrop to nearby cities and towns is not adversely affected because the scale and mass of the Ranges has the capacity to absorb the visual impacts of the proposed development.*
- *The anticipated change in landscape character will enhance the wider 'rural wind farm hillside landscape character' that has emerged over the previous 10 years in the wider Palmerston North area.'*

7.46 The Tararua Ranges have been described by Mr Mayer, and endorsed by Mr Bray, as being three physically distinctive landscape units; those being the southern, central and northern sections of the ranges. The section most relevant to this application is the central section, from Levin through to the Pahiatua Track. The central section, while not as dramatic as the southern section, is visually distinctive from the northern section. The peaks of Te Mata and Kaihinu form a set of dominant foothills that stand out from the main ridgeline, separated from the northern section by the Kahuterawa Valley. From many viewing angles, the ridgeline of these foothills provides the skyline, screening from view the main ridges and peaks of the Tararua Ranges in this section. The Commissioners note at this point that the particular assessment by Mr Bray and Mr Mayer is consistent with Policy 8.3(p) in the RPS.

7.47 Having regard to the distinctive landscape units identified by Mr Mayer, Mr Anstey (the Council's Landscape Consultant) considered that the wind farm as proposed would have significant landscape and visual effects. Such effects would, in Mr Anstey's opinion, detract from its existing rural character and critical natural features in an outstanding landscape. In his assessment, Mr Anstey sorted the turbines into 5 groups which although not exactly mirroring Mr Bray's grouping did generally equate with the philosophy behind such a grouping (i.e. groups based on the turbines visibility as a result of elevation and morphology of the site). He concluded that turbines in groups 1, 3 and 4 would have significant adverse effects on the rural amenity and ambience of the surrounding areas. These effects would be particularly significant for those living along the local roads running towards the Motorimu site. In conclusion, Mr Anstey concluded that 45 of the 127 turbines (i.e. those in Groups 1, 3 and 4) will have significant adverse visual effects which will be more than minor and for these reasons he does not support their retention. This conclusion was adopted by Mr Jeff Baker, the PNCC/HDC reporting planner.

Evaluation

Context

7.48 Having considered all the evidence, the Commissioners recognise that there are many issues that need to be balanced in order to come to any conclusion regarding the visual, landscape and amenity effects of the wind farm proposal. The assessment of landscape values and effects on landscape can be subjective, as recognised in case law (refer *Unison Networks v Hastings District Council*, EnvCt, W085/2006, 17 July 2006, Thompson J).

7.49 However, in order to evaluate the visual, landscape and amenity effects the Commissioners consider that there are key questions which must be answered;

- Is the wind farm located within an Outstanding Natural Landscape (the Section 6b Assessment)?
- Is the wind farm an 'inappropriate development' having regard to both localised and cumulative visual effects?

- Will the wind farm assist in the maintenance and enhancement of amenity values in the locality?

Section 6B assessment – Protection of outstanding natural features and landscape

- 7.50 On the issue of whether the site encapsulated by the application is an Outstanding Natural Landscape (ONL), the Commissioners first canvassed the statutory documents. The RPS is the starting point and it provides some generic assistance in that it lists, under Policy 8.3, the specified values associated with features which are both outstanding and regionally significant. In this respect, the Commissioners noted that the skyline of the Tararua Ranges has been specifically identified as a feature “*which is both outstanding and regionally significant*”, due to ‘*its scenic qualities provided by its prominence throughout much of the Region and its backdrop vista in contrast to the Region’s plains.*’
- 7.51 Section 22.3.4 of the RPS provides reasons why the listed outstanding natural features and landscapes have been included in Policy 8.3. The skyline of the Tararua Ranges is defined as ‘*the land/sky boundary as viewed at a sufficient distance from the foothills so as to see the contrast between the solid nature of the land at the crest at the highest points along the range and the sky.*’
- 7.52 However the Commissioners acknowledge that the RPS doesn’t provide any detailed guidance on which specific parts of the Tararua Ranges meet this description. Generally, what the Commissioners interpret from this Policy is that at a regional level the RPS does provide some support for treating parts of the Tararua Ranges and associated foothills (especially the skyline) as constituting an ONL.
- 7.53 At the district level there is very little guidance. The PNCC District Plan does not list the Tararua Ranges as an Outstanding Natural Landscape. In fact, there are no Outstanding Natural Landscapes listed in the District Plan at all. Similarly whilst the HDC district plan does list some ONLs in Schedule 4, there is some uncertainty as to whether it includes this site. The Tokomaru Foothills are identified as an “*outstanding landscape*” in Schedule 4, Table 1, but the extent of the foothills is not shown on the Planning Maps (Maps 32 or 33). While it may have been the intention of Council to identify the Tokomaru Foothills as an ONL it is difficult to confirm that this is the case due to the fact that the area is not identified on the Planning Maps and therefore whether the five turbines proposed within the HDC region are located within an ONL or not. In any event, the Commissioners note that Rule 19.6(b) addresses only earthworks and new roading within outstanding landscapes and natural features as a discretionary activity.
- 7.54 So whilst the status of the wind farm under both District Plans is fully discretionary, the Commissioners have concluded that this status does not appear to be set due to either of those Plans recognising the land as being an ONL. Rather, this discretionary status is, as the PNCC District Plan explains, because ‘*In the case of wind farms, the largely unknown effects of the activity mean that it is essential that it be examined on a case by case basis.*’ These effects include visual impacts on the surrounding rural environment and on the landscape values of adjoining areas.
- 7.55 Notwithstanding the lack of definitive guidance in the statutory instruments (RPS and District Plans) the Commissioners have taken considerable guidance from the Courts rulings on ONL identification. In particular they note that the Courts have made it clear that recognition in a statutory plan is not the sole prerequisite for determining whether a landscape is an ONL or not (refer - *Wakatipu Environmental Society Inc v Queenstown Lakes District Council*, C180/99).
- 7.56 Essentially what the Commissioners have taken from this is that the Courts accept that a determination on section 6(b) matters can be made with respect to the merits of each case and they have helpfully offered a series of criteria to guide decision-makers (refer to *Pigeon Bay Aquaculture Ltd v Canterbury Regional Council*, C32/99

and *Wakatipu Environmental Society Inc v Queenstown Lakes District Council*, C180/99).

- 7.57 Having considered these criteria, questioned the landscape experts on the application and tested the applicability of the criteria to the site, the Commissioners conclude that there are elements of those criteria present in parts of the site particularly with respect to criteria such as topography and dynamic components of the landscape, legibility or expressiveness and aesthetic values. Also, the criteria dealing with meaning to people, such as whether the values are shared and recognised and its value to tangata whenua is acutely represented in this landscape. As the Commissioners discuss in the following section on cultural issues this criterion is of particular relevance to iwi.
- 7.58 On the above basis it is the view of the Commissioners that:
- Different parts of the Tararuas have different values. Mr Mayer describes the Tararua Ranges as having three physically distinctive landscape units, those being the southern, central and northern sections of the ranges. The Commissioners agree. The natural and scenic values generally change as one moves from north to south. The northern section from the Manawatu George to the Pahiatua Track (accommodating the existing wind farm developments) is largely characterised by gentle rolling foothills, highly modified by pastoral farming, commercial forestry and wind farm use; generally it represents a broad working landscape. The central section (in which the application site is located) running from the Pahiatua Track to Levin is more dominant and punctuated by the peaks of Te Mata and Kaihinu. The southern section, running from Levin to Upper Hutt is characterised by steep, ruggedly contoured and indigenous bush-clad landforms, much of which is Tararua Forest Park managed by DOC.
 - In terms of the central section, in which the proposed wind farm site is located, there are elements of ONL associated with major ridgelines and peaks. Clearly the Te Mata ridgeline and Kaihinu Peak fall into that category. Conversely there are parts of this section such as the interior basin which are gentler and less impressive landscapes that are dominated by cultural elements such as fencing, farm structures, tracks and plantation forestry, all of which are part of the working rural landscape.
- 7.59 In summary, the Commissioners determine that despite the absence of direct guidance in the RPS (and the absence of a Regional Council presentation on the application) and despite the silence of the District Plans on this matter, there are (based on the evidence presented) elements of section 6(b) Outstanding Natural Landscape present in the environment aligned to the application. In this respect, the Commissioners acknowledge the discrepancy between Mr Mayer's evidence on the one hand and that of Mr Anstey and Mr Bray on the other hand. The interpretation of the two latter experts is preferred.
- 7.60 The question for us now is whether the proposed wind farm constitutes *'inappropriate use and development'*. In this respect, the Commissioners note that Policy 8.2 of the RPS (of which there was considerable discussion) is useful in providing guidance on what is an inappropriate use and development. The Commissioners note that they are required to have regard to:
- a) *The degree to which the activities would adversely affect the values specified in policy 8.3 so far as those values provide a significant contribution to outstanding features and landscapes; and*
 - b) *The degree to which the activity provides for the social or economic wellbeing of people and communities (including providing essential services to the public); while ensuring that, in all cases, adverse effects of any activity on the features or landscapes are avoided, remedied or mitigated.*

- 7.61 Whilst the Commissioners note that item (b) above is largely something they are required to consider in the overall weighting of Part 2 of the Act, certainly the issues in item (a) above are extremely relevant to the current evaluation on landscape. In this respect the Commissioners turned their minds to assessing the appropriateness of the wind farm in respect of the visual/landscape/amenity effects, both localised and cumulative, of the proposal.

Appropriateness of the Development in Landscape and Amenity Terms

Preliminary Issues

- 7.62 Before addressing this matter, the Commissioners wish to make a preliminary observation. At the hearing MWFL provided a number of photomontages, representing the proposed turbines from a number of viewpoints, including submitters' properties. For the Commissioners, there were two particular issues with the visual imagery; firstly its quality and secondly the viewpoints selected.

Quality of Imagery

- 7.63 Mr Bernard Voll from MWFL outlined in his evidence the process under which photomontages were produced. The photomontages were generated using software known as 'Windfarmer'. Mr Voll, when questioned by Commissioners on whether the 'Windfarmer' computer programme had been used in New Zealand before to generate photomontages, stated that MWFL was not aware of 'Windfarmer' being used in relation to other projects in New Zealand. However, he advised that the programme had been used extensively overseas, including in the UK and Australia. On this basis, Commissioners accept that the software package used is reliable, but that the imagery is only representative of the effects.
- 7.64 The Commissioners also acknowledge issues raised by submitters and landscape experts regarding the resolution of photography and "flattening" of images. It is noted that the resolution of the photographs was, at best, mediocre. However, that may have been due to weather conditions.
- 7.65 Notwithstanding this, it is the duty of the applicant to produce evidence of high quality. Much of the photography did not meet the standard expected by the Commissioners and the Commissioners conclude that imagery at best is only representative of the effects and as such has been used as a guide only. The imagery has been supplemented by the site visits and the comparisons of potential visual impacts with other wind farms in the region.

Viewpoints Selected

- 7.66 Mr Mayer's visual effects assessment examined the proposed wind farm and its component parts from within several viewing zones or "zones of influence" and in particular chose the 0-2km and 2-7km zones as those where, based on local and international studies, significant views of the wind farm site were anticipated. As noted during the hearing, the Commissioners were concerned about the absence of imagery/photomontages in the critical 2-4km range and were disappointed that the zone has been blurred across two recognized zones (as identified in the Scottish study known as the Sinclair-Thomas matrix). The Commissioners were particularly concerned that there were few images presented by the Applicant of the wind farm in the 2-5km zone.
- 7.67 The Commissioners acknowledge that Mr Mayer did attempt to provide some rationale for the chosen viewing zones and why they were selected. Notwithstanding this, the Commissioners concerns regarding the assessed viewing zones remain and in the end Commissioners had to rely on site visits and the "live" imagery provided by

other wind farms in the region to gain a fuller appreciation of the potential visual effects of the wind farm proposal from the 2-5km zone.

- 7.68 Overall, given the above two shortcomings, being the quality of the imagery and the absence of certain montages from critical viewing zones, the Commissioners found the evidence of Mr Mayer not as helpful as it could have been.
- 7.69 The above deficiencies led Commissioners to put more weight on the consistency and robustness of the Anstey and Bray evidence, in particular their application of the Boffa Miskell criteria and the Sinclair Thomas matrix in their assessments.

Landscape and Amenity Effects

- 7.70 The Commissioners acknowledge from the outset that visual impact is subjective and often can depend on a person's predisposition to turbines and reaction to them. However, in undertaking the evaluation of visual effects, the Commissioners have assessed the visual impact using all relevant material available, including the simulations, the NZ and overseas studies (Boffa Miskell and Sinclair Thomas matrices), site visits and the range of presentations given by council, the applicant and submitters.
- 7.71 In doing so Commissioners consider that the key landscape and visual effects are split into two categories - localised visual effects and cumulative effects.

Localised Effects

- 7.72 In terms of localised effects, the Commissioners have made the following observations:

- Whilst the Commissioners acknowledge some of the Applicant's claims that the 0-2km impacts will be lessened due to screening by vegetation and intervening topography we accept this is less likely for Millricks Line than for Scotts Road. Millricks Line has considerably more open vistas with clearer views of the Te Mata ridgeline and along the front ridges and spurs. The main properties affected are 245, 346, 356, 374, 376 and 378 Millricks Line.
- The 2-7km zone is the key zone. Within that zone, the 2-4km band (the outer boundary of which equates to the State Highway 57 boundary which runs parallel to the Tararua Range) represents an area which is particularly sensitive to the visual impact from the wind farm. In this respect we draw on Mr Anstey's Table 2 of his evidence which indicates that there are approximately 230-240 dwellings within the 2-4km zone. These properties are particularly susceptible to visual amenity and landscape effects.
- The 7-10km visual zone of influence is still an important zone. As Mr Anstey describes, *'in this zone the view tends to narrow so that the landscape of the proposed wind farm is not always absorbed within the wider mass and scale of the Tararuas'*. Turbines at this viewing distance will still dominate the landscape.
- Visibility of the proposed wind farm at a viewing distance of greater than 10km on its own is not significant, although there are places where the whole of the northern Tararua Ranges and southern Ruahines are visible so that the cumulative effects of turbines became a potential issue. Te Mata ridgeline is a particular feature in this broader view.
- Overall in terms of localized effects, it is considered that this central part of the Tararuas has less ability to absorb the impact of vertical elements such as the turbines than it does in the more general rolling nature of the northern part of

the Tararuas, where existing wind farms have been constructed. The shape and steep topography and the strong linear ridgelines make it difficult if not impossible for the turbines not to be prominent on the skyline as a regimented row ('picket fence effect') and in the afternoon light assume a prominence that from their movement would attract attention. The exceptions to this are the turbines in the interior basins behind the main ridgeline. Much of that gently rolling and lower altitude land will assist in integrating the turbines in much the same way that has occurred with some Tararua I and Tararua II turbines.

- The localised effects are accentuated by the alignment of the four roads that run perpendicular to the ridgeline from SH 57 (Kendalls Line, Millricks Line, Scotts Road and Williams Road).

7.73 On the above basis, the suitability of the prominent ridgelines of Te Mata (and the entire front tier) along with the Kaihinu Peak grouping are called into question by the Commissioners.

7.74 With regard to the visual and landscape effects from tracking, particularly the widening of the existing Williams Road access track, the following conclusions are:

- Existing formed tracks are very visible, particularly on west-facing slopes.
- Any track which crosses a slope against the natural slope morphology becomes extremely visible.
- The wider the track (to accommodate large vehicles), the greater the depth of the tread into the hill slope and the higher the riser behind it.
- It is possible to remediate slope cuttings by hydroseeding, etc, but nothing disguises the cutting completely, particularly since seasonal wetting and drying will inevitably bring about changed growing conditions to these areas.

7.75 Having considered the evidence provided by Mr Bray regarding the effects of tracking (and earthworks generally) and that of the Applicant, the Commissioners have concluded that provided road and earthworks are undertaken with due care and that remediation occurs, the immediate scarring caused by earthworks will visually diminish over time. In this respect, the emphasis needs to be on conditions that firstly require revegetation and remediation and secondly that set up monitoring and review programmes to assess and enforce the effectiveness of such remediation.

7.76 The visual/landscape/amenity effects of turbines located on the upper slopes and ridges above Kahuterawa Road are considered to have very adverse effects on the character of the valley and the recreational experiences it currently affords.

Cumulative Effects

7.77 In terms of cumulative effects, the Commissioners acknowledge that this was a major issue for many submitters.

7.78 The applicant considers that the proposed Motorimu wind turbines will '*not easily fall within the field of vision of existing wind farms*' and there will be '*no cumulative effects as a result*' because '*there is a 12km area of the Tararuas between the proposed Motorimu project and the Te Rere Hau commercial wind farm that provides visual relief and a physical buffer*',

7.79 The Applicant in the Right of Reply (pg.33) acknowledges that the Parliamentary Commissioner for the Environment report 2006 - *Wind Power, People and Place*, recommends that cumulative impacts of wind farm development in regions should be assessed. However, the applicant stated that this report also identifies a set of criteria relevant to the assessment of the landscape effects that would suggest that

this proposal on the western side of the Tararua Ranges does not rate highly against the list of criteria for judging sensitivity of landscapes to wind farm developments, derived from international and New Zealand research and policy development.

7.80 The Commissioners have some concern with the above assessments as follows:

- The Commissioners note the submissions in the Right of Reply as to the appropriateness of comments by Mr Bray (refer paras 119 and 120 Right of Reply) and by Mr Anstey (refer Paras 121-125 Right of Reply) regarding the proposed Turitea wind farm. We put no weight on these comments by Mr Bray and Mr Anstey.
- The Commissioners acknowledge that consideration cannot be given to the wind farm's effect on proposals for which consent has not yet been granted. Any effects, including cumulative effects of the proposal on the proposed Turitea wind farm (a PNCC and Mighty River Power venture) are not a relevant consideration. It appears that Mr Anstey, when assessing cumulative visual effects, had explicitly factored in the presence of the Turitea wind farm proposal for which no application has been lodged or consent granted. That aspect of Mr Anstey's evidence has been disregarded by the Commissioners.
- The Commissioners do however acknowledge the positions of Mr Anstey and Mr Bray regarding cumulative effect in respect to the proposal and its relationship to the existing wind farms; principally the three types of cumulative effect referred to by Mr Bray that are potentially applicable, being combined cumulative visibility, successive cumulative visibility and sequential cumulative visibility. The '*Cumulative Zone of Visual Influence diagram*' that Mr Bray produced was also found to be useful.
- Mr Bray considered the 12km wide area between the proposed Motorimu wind farm and the Te Rere Hau wind farm to the north as a '*buffer strip*' with the potential to be challenged in the future. He considered whether the buffer strip between the existing and proposed wind farm is an acceptable mitigation measure against the potential adverse effects of the proposal. In his opinion, the 12km strip is not an adequate buffer, whether or not any future windfarm is consented in that part of the landscape.

7.81 Having regard to the above matters the Commissioners prefer the evidence of Mr Anstey and Mr Bray over Mr Mayer on cumulative effects. The distance between existing consented wind farms is a critical point for not only submitters but also for Mr Bray and Mr Anstey. Turbines on the Te Mata ridgeline and around Kaihinu Peak would significantly 'close the gap' and have the effect of extending the extent of development along the Tararuas. The Commissioners consider that this is a significant effect both physically and perceptively. They concluded that in order to mitigate this effect the only option is to recommend removing those turbines located on the Te Mata ridge and Kaihinu.

Summary of Localised and Cumulative effects

7.82 Overall, in terms of both localised and cumulative visual effects, we accept Mr Anstey's position in full, namely that the deletion of all turbines located on the front ridge line (Group 1 and Group 2 turbines) and Group 3 turbines associated with Kaihinu Peak will assist in mitigating adverse visual effects. Furthermore, we accept Mr Bray's position, in part, being the deletion of the turbines he identifies as 'Front Tier South', which includes all turbines located within the Horowhenua District (turbine numbers 26, 34, 39, 41, 51). However, we do not consider that the removal of the Basin turbines or the second-tier turbines at the Top of Scotts Road (refer Mr Bray's evidence - Appendix 1 – Turbine Groups) is warranted on visual/landscape/amenity grounds. It is concluded that those turbines in those latter

groups do not give rise to adverse effects that are more than minor; nor do they constitute inappropriate development in that part of the site.

- 7.83 The Commissioners consider that deleting the 52 turbines (exclusive of the 2 volunteered by the Applicant), thus leaving 75 turbines) will assist in mitigating adverse effects in terms of amenity, visual and cumulative effects, along with noise effects (which will be discussed separately).

Summary of Landscape/Visual/Amenity

- 7.84 Based on the guidance provided by the RPS and District Plans and on the evidence presented, the Commissioners accept that there are section 6(b) elements present over the site, and consider that parts of the Tararuas on which the wind farm is proposed to be located represents an Outstanding Natural Landscape.
- 7.85 Having weighed up all of the expert opinions concerning landscape/visual and amenity effects the Commissioners consider that the wind farm as currently proposed will result in significant visual/landscape and amenity effects.
- 7.86 The Commissioners note that potential mitigation and remediation of the visual impacts of the tracking associated with the project via the treatment of earthworks for access road creation purposes is able to be undertaken. Conversely, the visual effects of turbines per se cannot be mitigated and will adversely impact, not only on many local residents in Scotts Road, Millricks Line and Williams Road in particular, but also on residents in Kendalls Line, Linton, Kahuterawa Valley, the wider catchments of Tokomaru, Opiki and the Manawatu Plains and the outstanding landscape features of this part of the Tararua Range. In this respect, the Commissioners are of the firm view that the skyline turbines along the front ridgeline, particularly Te Mata ridgeline, and those associated with Kaihinu Peak do constitute *'inappropriate development in the outstanding landscape associated with the skyline of the Tararua Ranges, specifically its scenic qualities provided by its prominence throughout much of the Region and its backdrop vista in contrast to the Region's plains.'*
- 7.87 Accordingly, and therefore the only option left to us to contemplate is the removal of the 52 turbines that are considered to be adversely prominent, having regard to the unique landform and visual characteristics of this area of the Tararua Range. We return to this matter in our overall weighing and judgment under Part II of the Act later in this decision when we consider other effects including the positive benefits of the proposal in order to determine whether the proposal will promote the sustainable management purposes of the Act.

Cultural/Iwi/Tangata Whenua Issues

Context

- 7.88 Foremost in the minds of the Commissioners in assessing this application against cultural/ iwi/ tangata whenua issues, were the following sections of the RMA:
- Section 6(e) of the Act, which refers to *"The relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga."*
 - Section 7(a) and (aa) of the Act which respectively require the Commissioners to have regard to *Kaitiakitanga* and *the ethic of stewardship*; and
 - Section 8 RMA makes reference to the *principles of the Treaty of Waitangi*.
- 7.89 Included in the Applicant's supporting information accompanying the land use consent was a Cultural Impact Assessment (CIA) prepared by Tanenuiarangi

Manawatu Incorporated (TMI), the mandated iwi authority for Rangitaane O Manawatu. The CIA report set out to assess the cultural impacts in relation to the development of a wind farm in the northern area of the Tararua Ranges, the possible impacts the project might have and the concepts and guidelines Motorimu Wind Farm Limited (MWFL) should consider when determining how the project will affect the cultural values of Rangitaane O Manawatu as Tangata Whenua. The Assessment identified a number of sites of significance in and around the Motorimu site. Of note is the identification of Te Mata peak and Kaihinu Peak. Also ovens have been uncovered in the area. The CIA report also identifies that Rangitaane O Manawatu consider the Tararua Range and its mauri as being a taonga. Taniwha and spiritual beings inhabit the Tararua Range.

7.90 The Commissioners note that the CIA identifies the following concerns (refer pp. 38, 40, 43 CIA):

- Rangitaane O Manawatu feels that the area is being saturated with wind turbines which is creating a landscape aesthetically displeasing to iwi.
- A lack of engagement taken with Rangitaane O Manawatu by MWFL and also a lack of ongoing community involvement and responsibility that an international company should exhibit.
- The iwi is concerned that there is no real benefit to the local community or the iwi with this project.
- Concern regarding the construction of turbines on the ranges and the visual impact they have on the landscape by the way they dominate and detract from the natural environment.
- The impacts and disruption to everyday life that the local communities may experience during the construction and operation of the wind farm.
- The lack of community responsibility that MWFL may exhibit due to it being a non New Zealand based company.
- The increasing number of turbines and wind farms on the ranges are being viewed negatively by iwi and their guests. *'This negative view can be interpreted as developing a negative relationship with our mountains and the mauri gained from them. In general an overall effect that may occur is a loss of mana for the iwi'.*
- From a cultural perspective, the turbines may indicate for some that they are representations of pou (post or pole) arising from foreign ownership.

7.91 Despite these concerns, TMI presented a set of recommendations focussing on appropriate consultation, monitoring processes and the involvement of Rangitaane O Manawatu in all facets of resource management decision processes.

7.92 During the hearing MWFL stated that initial consultations took place at the pre-application stage with the following five iwi groups:

- Ngati Hineaute Hapu Authority
- Tanenuiarangi Manawatu Incorporated (TMI); and
- Te Rangimarie Marae Committee
- Ngati Raukawa
- Muaupoko Tribal Authority.

7.93 It is noted that apart from the CIA report prepared by TMI, no response was received by PNCC or Horizons during the submission period from any of the other four iwi groups.

7.94 During the course of the hearing a Memorandum of Collaboration (MoC) was concluded between the mandated Iwi authority, Tanenuiarangi Manawatu Incorporated (TMI) and MWFL. The purpose of this Memorandum is to enable implementation of the recommendations contained in the CIA. The MoC was submitted to Commissioners near the completion of the hearing and there was no discussion of significance of its content.

Matters raised with respect to this issue

7.95 Written submissions received during the submission period raised the following issues with respect to cultural impact:

- *Turbines on the Tararua Ranges are in breach of the protection of the taonga of the Rangitaane people;*
- *Impact of spiritual significance of Tararuas to Tangata Whenua*
- *The application fails to comply with Section 8 of the RMA as it does not take into account the principles of the Treaty of Waitangi and Section 7 (a) & (c) and Section 6 (b) and (e).*
- *There was no description provided in the application as to the outcome of discussions with five iwi with whom initial consultation took place.*
- *The sacredness of the Tararua Ranges is denigrated by claims that the wind farm identity has become a unique national point of difference for the wider Palmerston North Area.*
- *The wind farm will result in spiritual and emotional disempowerment to those with kaitiaki responsibilities. The wind farm will impact severely on the visual, cultural and social landscape that defines and shapes some of the histories of the Tangata Whenua of the Region. A skyline filled with wind mills will dramatically alter the mountain's essence. Wind mills will replace our ancient landscapes and will impact on the well-being of past, present and future generations for the people of the Manawatu.*

7.96 During the course of the hearing the Commissioners heard evidence from a number of submitters further expanding on the above concerns, especially in relation to the significance of the Tararuas to iwi, the need to protect the boundary between the earth (Papatuanuku – earth mother) and the sky (Ranginui – sky father) and the impact that placing turbines on hills and ridges has on Maori culture and beliefs. Representative submitters were: Manawatu Museum Services, Aronui Ltd, He Kupenga Hao i te Reo (Inc) and Huatau Marae.

7.97 Submitter Detlef Klein, director of Manawatu Museum Services, gave verbal evidence to the hearing. In his evidence he expressed the view that *'the unique landscapes of the Tararua Ranges, although modified in the past, represent the environmental cultural property and heritage of all who live in this region.'*

7.98 Frances Goulton on behalf of Aronui Ltd gave verbal evidence expressing to the hearing the view that the wind farm would disturb the mauri (life force) of the ranges and that the spiritual wellbeing of the horizon would be disturbed. She added that: *"Big poles [will be] plunged into the belly of papatuanuku; The Tararuas are a huapae – a place of the visual feast (skyline)"*

7.99 A bilingual presentation was given by He Kupenga Hao i te Reo (Inc) represented principally by Dr Ian Christensen and Professor Taiarahia Black.

7.100 Dr Christensen expressed the view that the wind turbines on the ridgeline represent the imposition of other cultural values and trample on the mana of the hapu. He stated that:

'The Tararua range is a significant treasure and is celebrated in the prestigious statement of identity "Tararua is the mountain, Manawatu is the river". This would belittle the mana of Rangitāne as Tangata Whenua, and would oppress Rangitāne and other people with a spiritual connection to this region. We contend that the Tararua range has reached saturation point in recent years with the proliferation of wind turbines – from north of the Manawatu Gorge to the Pahiatua Track. We find it extremely unpleasant to look out at the turbines covering the ranges, they are a scab on the landscape, oppressive to the human spirit, and sacrilegious to our female ancestor Papatūānuku ... If further turbines are erected on the backbone of the range, the mana of Rangitāne will be belittled and diminished.'

- 7.101 Following on from this, Professor Taiarahia Black described the concept of 'mauri' (life principle) as it applies to the Tararua mountain range 'Te Pae Maunga o Tararua'. He explained that to Maori, land is necessary for spiritual growth and economic survival.

'It contributes to sustenance, wealth, intellectual resource development, and promotes the nature, significance, social context and scholarship of oral traditions. Land strengthens whanau, hapu, iwi solidarity, and adds value to personal and tribal identity as well as the well-being of future generations.'

'In this sense land has abiding, enduring qualities which go far beyond utilitarian considerations to encompass existential dimensions and to give solidarity to the often abstract state as we are experiencing today of 'belonging'. A Maori identity is secured by land, land binds human relationships and in turn people learn to bond with the land. Loss of land is loss of life, or at least loss of that part of life which depends on the connections between past and the present and the present and the future.'

- 7.102 He also stated that *'We believe that the Tararua ridgeline has reached saturation point with the number of turbines already in operation or consented. Further desecration of the Tararua ridgeline with more turbines would result in the weakening of mauri to a point that the well-being of people would be in jeopardy.'*
- 7.103 Rosemary Adams, on behalf of Huatau Marae considered that: *'The imposition upon the land of a power generation facility of this magnitude will have a hugely negative effect on the life force, the mauri that binds the physical and spiritual elements of that land.'*
- 7.104 For the applicant, both Mr Rive and Ms Barton, addressed the issue raised by submitters around adequacy of consultation undertaken by the Applicant, and particularly why consultation had not been undertaken with all Rangitāne iwi. They noted that all iwi groups within Palmerston North and Horowhenua, identified and recognised as mandated iwi by the Councils, had been consulted. They also stated that subject to the implementation of recommended consent conditions regarding accidental discovery protocols, the applicant is *'satisfied that the potential cultural and historical effects will be minor'*.

Evaluation

- 7.105 It was clear to the Commissioners from the foregoing that there are some major procedural and substantive issues for iwi surrounding this application.

Procedural Issues

- 7.106 From a procedural viewpoint the main issue centred on the issue of consultation and in particular who should have been consulted with and when. In this respect the Commissioners noted the similar concerns of Aronui Ltd, He Kupenga Hao i te Reo (Inc) and Huatau Marae; namely that:

- *'A lack of engagement has taken place with Rangitaane O Manawatu by MWFL and also a lack of ongoing community involvement and responsibility that an international company should exhibit.*
- *There was no description provided in the application as to the outcome of discussions with five iwi with whom initial consultation took place.'*

7.107 In response to this, the Commissioners note and accept Mr Rives stance that there is no compulsion in the RMA for applicants to consult with anyone, tangata whenua or otherwise. Rather, there is a requirement to document whatever consultation does occur. Notwithstanding this and as explained by Mr Rive, the applicant through Environments by Design, did consult with TMI and those four iwi groups who are recognised and mandated by the two Councils. The Commissioners also note that this was documented in the CIA report, which formed part of the notified application. The Commissioners accept the response from the applicant that they were not aware that He Kupenga Hao i te Reo (Inc) and Huatau Marae had a particular interest in the proposal. The engagement of TMI in the production of the CIA is evidence of the applicant taking its iwi consultation responsibilities seriously and any consultation shortcomings in that document cannot be attributed to the applicant per se.

7.108 The Commissioners note the positive outcomes that should arise from the signing of the Memorandum of Collaboration between TMI, the mandated Iwi Authority, and MWFL. Furthermore, the Commissioners are pleased to receive the assurance from the applicant in its closing that it would welcome the opportunity to form a relationship with He Kupenga Hao i te Reo (Inc) and Huatau Marae similar to that which it has with TMI.

7.109 Notwithstanding the above commentary regarding the consultation with TMI by way of the CIA report and Memorandum of Collaboration, the Commissioners have a residual concern that TMI did not appear at the hearing in order to clarify the not unsubstantial concerns they raised in the CIA report and whether these concerns had been sufficiently addressed by the Applicant. The Commissioners also felt that the Memorandum of Collaboration was a very open ended, non-specific document. It is to these more substantive matters that the Commissioners now turn their attention.

Substantive Issues

7.110 The principle substantive issue here for the Commissioners relates to the actual and potential effects of the proposed turbines on the Tararua Ranges in terms of their values under sections 6(e), 7(a), (aa) and 8 of the RMA. In this respect the Commissioners record that the sacred and spiritual significance of the Tararua Ranges to Tangata Whenua was well documented not only in the CIA report but also that this was ratified during the hearing by iwi submitters and further this was not challenged at all by any party presenting. The question therefore is the extent to which those values will be denigrated by the proposal. From the viewpoint of those iwi who submitted in opposition to the proposal, the wind farm will:

- *result in spiritual and emotional disempowerment to those with kaitiaki responsibilities.*
- *impact severely on the visual, cultural and social landscape that defines and shape some of the histories of the Tangata Whenua of the Region.*
- *dramatically alter the mountain's essence.*
- *replace ancient landscapes, and*
- *impact on the well being of past, present and future generations for the people of the Manawatu.*

7.111 Clearly, and based upon the conclusions from the preceding section dealing with landscape and visual impacts, the Commissioners agree with the functional correlation between the visibility of the turbines and potential for cultural impact to occur. On this basis, there was some initial uncertainty as to why this basic principle of opposition had not been applied to any of the previous wind farm proposals that have been approved and erected (partially or fully) on the northern parts of the Tararuas (i.e. Tararua I, II and III, and Te Rere Hau). In response to a question from Commissioner McMahon to that effect, both Dr Christensen and Huatau Marae witness explained that the full impact of the turbines was not appreciated as long as five years ago when Tararua I was first consented. Since then there has not always been the opportunity to be involved formally (TII was non-notified) and it is only since the spread of TIII and Te Rere Hau that the cumulative impact has been fully appreciated by some iwi. Dr Christensen took this explanation further in two ways:

- Firstly, he indicated that the Tararua ranges have reached saturation point in recent years with the proliferation of wind turbines – which now extend from north of the Manawatu Gorge (Te Apiti on the Southern Ruahines) and south towards the Pahiatua Track.
- Secondly, whilst acknowledging that certain damage has already been inflicted on this resource (unpleasant view, oppressive to the human spirit, and sacrilegious to our female ancestor Papatūānuku) he contended that if further turbines are erected on the backbone of the range, the mana of Rangitāne will be belittled and diminished.

7.112 Essentially it seems to the Commissioners that what Dr Christensen was indicating was that in the view of He Kupenga Hao i te Reo (Inc) (and also Aronui Ltd and Huatau Marae), there is a potential cumulative impact of further wind farm development on the Tararuas and that the physical threshold has been reached already. For the incorporated society, the Pahiatua Track represents a demarcation point between that part of the Tararuas which are largely occupied by turbines and that part which is largely unspoilt.

7.113 The Commissioners also heard a moving address from Professor Tairahia Black to assist in understanding the substance and meaning of *mauri*. Huatau Marae, Aronui Limited and other Maori families in the area added to this message. There were common themes in much of what they said, but the most important messages were these:

- *'Enough is enough.'*
- *'The cultural, social and spiritual impact it will have on the people of the Manawatu, past, present and future, in particular Maori.'*
- *'Temples on the mana of Maori.'*

7.114 Having established the *raison d'etre* for the iwi submitters concerns and distinguished that issue from previous wind farms in the region, the Commissioners focused on the extent to which these concerns could be mitigated, remedied or even avoided through the deletion of certain turbines. In other words, the Commissioners attempted to determine whether the concerns of submitters could be met by anything other than the total refusal of the application as lodged. Significantly, and in response to a question from Commissioner Heerdegen regarding the possible removal of 45 of the most prominent turbines, Dr Ian Christensen replied, *'the more visible turbines do have far greater impact on the mauri of the people and how people derive their spiritual strength.'* This suggests to the Commissioners that there is a strong link between the visibility of turbines and their effects on concepts such as *Mauri*. Clearly this is particularly the case for the significant ridgeline of Te Mata and the peak of Kaihinu and in this respect it is significant that in the Commissioners view there is good visual impact rationale for removing turbines from these parts of the site. In terms of iwi concerns, it seems to the Commissioners that there also exists a cultural rationale for adopting the same approach.

7.115 For the Commissioners this position was revealing and was instrumental in matching the visual and cultural effects of the proposal.

Summary

7.116 In summary the Commissioners conclude that whilst it was probably not the intention of the applicant, the effect of the CIA has identified some major iwi issues with the proposal in this part of the Tararuas. Moreover the iwi who have submitted in opposition have endorsed and even personified these concerns with their informative and considered presentations, particularly in respect to the effects of further intrusions of turbines into the Tararua ranges. Furthermore, and in the absence of hearing from TMI at the hearing, Commissioners put greater weight on the submissions of other Maori.

7.117 For the above reasons, the Commissioners concluded that whilst not fundamentally at odds with section 8 of the Act, the notified proposal clearly does not sit comfortably with the relationship of Maori and their culture (section 6(e)) and the concept of stewardship that flows from such a relationship (section 7). In this respect, the Commissioners are of the view that approval for a less visible wind farm will not only have benefits from a landscape perspective but it will also go a good way towards addressing the very real concerns of iwi.

7.118 The above issues aside, the Commissioners made the following subsidiary observations

- The PNCC Planner and author of the assessment report did acknowledge that PNCC would be more proactive in consulting with iwi.
- The Commissioners also note that proposed Conditions 68-70 will ensure that the accidental discovery or archaeological / koiwi remains are correctly managed.
- The Commissioners also support the recommendation in consent conditions that iwi groups be represented on the proposed community liaison group.

Noise Emissions

Context

7.119 The relevant noise provisions under the PNCC and HDC District Plans are as follows:

7.120 In the PNCC Plan the following applies:

PNCC Rule 9.9.2(b) 'To avoid, remedy or mitigate the effects of noise and other environmental disturbance, on the amenity of the surrounding area'

7.121 The PNCC District Plan provides, under Rule 6.2.6.2(e), for assessment, prediction, measurement and control of noise from a wind farm, to be undertaken in accordance with NZS6808:1998 *Acoustics - The Assessment and Measurement of Sound from Wind Turbine Generators*.

7.122 Construction noise is to be assessed, predicted, measured, managed and controlled by reference to NZS6803:1999 *Acoustics – Construction Noise*

7.123 In the HDC District Plan, the rule regime is as follows:

HDC Rule 19.2.15 – Noise: When measured at the boundary noise shall not exceed the following levels on any day: 7am-10pm 55dBA(L₁₀), 10pm – 7am 40dBA(L₁₀) and 10pm – 7am 65dBA(A)(L_{max})

All noise shall be measured and assessed in accordance with NZS6801:1991 Methods of Measuring Sound and NZS6802:1991 Assessment of Environmental Sound.

All noise emitted in the course of any construction work shall comply with NZS6803:1984 - Measurement and Assessment of Noise from Construction, Maintenance and Demolition Work.

- 7.124 In addition to the above, the HDC District Plan states that notwithstanding the noise rules, Section 16 of the Act imposes a duty on every person to avoid unreasonable noise. There is no separate mention of controlling the noise of wind farms in the Horowhenua District Plan. However, it is accepted that the appropriate mechanism for dealing with wind farm noise is NZS6808:1998.
- 7.125 The Commissioners heard that NZS6808:1998 was specifically developed to provide guidance on the limits of acceptability for sound received at residential and noise sensitive locations. The criteria within the Standard is based on a limit of 40dBA L₉₅ or the background sound level plus 5dBA whichever is the greater at the specific location.
- 7.126 Construction-related noise is also required to comply with NZS6803:1999 *Acoustics – Construction Noise*. This is the up-to-date version that should now be referred to when managing construction noise.
- 7.127 Prior to the application being lodged the Applicant carried out ambient sound-level monitoring and wind farm sound-level predictions.

Matters raised with respect to this issue

- 7.128 The protection of people's amenity in terms of potential adverse effects caused by noise generated by wind turbines was a very significant issue raised by submitters and Council Officers. Over 100 submissions opposing the wind farm included reference to noise. Additionally, it was submitted that significant noise can also be generated during construction of the wind farm, in particular by construction traffic and earthmoving equipment.
- 7.129 In summary, the issues raised by submitters with respect to noise were;
- *The turbines will create adverse noise effects for local residents to the detriment of their health and well-being and rural lifestyle;*
 - *The turbines will give rise to an infrasound/vibration impact which will adversely affect humans and animals;*
 - *There is no low frequency noise assessment;*
 - *There is no noise monitoring on the down-wind Kahuterawa Valley side;*
 - *Some submitters commented that the noise report was inadequate and there was not enough noise monitoring done, nor from appropriate locations;*
 - *The noise report fails to address the requirement to avoid, remedy or mitigate adverse effects;*
 - *No noise management plan was supplied with the applications;*
 - *Insufficient information is provided to prove whether the construction noise activities will comply with NZS6803:1999;*
 - *Some submitters commented that the use of NZS6808:1998 which employs the 'notional boundary' as the site measurement as opposed to the 'legal boundary' in the PNCC District Plan, will underestimate the noise effects;*
 - *The turbines will give rise to low frequency noise which will adversely affect humans and animals;*

- *Noise from construction vehicles and operations will be disruptive to local residents;*
- *Inadequate assessment has been made of construction noise and construction traffic noise.*
- *Trucks should not be parked within earshot of local residents.*

7.130 It is considered that the key issues raised with respect to noise can be summarised as follows:

Operational Noise

- The adequacy of acoustical data and background noise recordings (equipment, duration, locations of monitoring sites)
- The adequacy of and compliance with NZS6808:1998 and the sub-6808 limits
- Infrasound/low frequency sound and vibration

Construction noise – noise associated with traffic, earthworks and general construction works.

7.131 The submission by the Tararua Aokautere Guardians Inc (TAG), and their noise expert, Mr Robert Thorne, and their other experts Dr Ken Mosley (vibration), Dave Bennett (noise/energy context), and Dr Robyn Phipps (healthy buildings) provided a very detailed and comprehensive assessment of noise issues that was considered by Commissioners to reflect the majority of concerns raised by submitters with regard to noise. Extensive reference is therefore made to their submissions in this section.

7.132 Evidence was also presented at the hearing by two other highly qualified noise experts, Mr Malcolm Hunt – on behalf of MWFL and Mr Nigel Lloyd, on behalf of PNCC/HDC. Both of these experts have developed expertise in assessing wind farm developments prior to this proposal.

Operational Noise

7.133 The TAG submission raised significant concerns over the effects of wind turbine noise and vibration, on the health of rural dwellers living near (within 900m) to the proposed wind farm site, and the impact that noise will have on rural character and amenity value of the rural area.

7.134 TAG engaged Mr Thorne to undertake an assessment of the potential noise from the Motorimu Wind Farm. Mr Thorne's assessment concluded that *'there is high probability of unreasonable noise at significant numbers of residential properties within 2000 metres of the wind farm. Noise effects may be audible outdoors under adverse operational and weather conditions to distances of 3000 to 5000 metres.'* In particular Mr Thorne did not consider that the Applicant had sufficiently addressed the following issues:

- *The impact on surrounding residential land uses due to potential noise nuisance effects from the cumulative effects of normal and abnormal operation of the turbines over their design life.*
- *The actual or potential effects of special audible characteristics (infrasound, tonal audibility, amplitude modulation effects) on the amenity of individuals or the community.*
- *Actual or potential adverse health effects or sleep disturbance on individuals.*

- *Actual or potential noise nuisance effects from varying meteorological conditions, in particular the influence of still, cold clear nights and mornings and temperature inversions.*
- *How noise emissions arising from the operation of the wind farm will be measured and controlled in compliance with NZS6808:1998.*

7.135 The Commissioners considered that the operational noise issue consists of a number of sub-issues, being:

- The adequacy of acoustical data and background noise recordings (equipment, duration, locations of monitoring sites)
- The adequacy of and compliance with NZS6808:1998 and the sub-6808 limits
- Infrasound, low frequency sound and vibration

These issues are addressed below.

Adequacy of acoustical data and background noise recordings

7.136 The TAG submission was particularly critical of the adequacy of acoustical data provided by the applicant and the lack of a noise management plan to achieve risk mitigation and compliance with NZS6808:1998. In particular the TAG submission stated that:

'The noise report does not address the actual or potential noise effects of special audible characteristics and the proximity to and effect on rural settlements and residential locations, which for the most part consists of a very quiet rural environment.

The noise report does not address potential noise nuisance effects, the extent to which the proposal will impact on surrounding land uses, the cumulative effects of the proposal or operational, or technical considerations relating to the turbines over their lifetime.'

7.137 The adequacy of the positioning of ambient noise assessment locations was also raised in the TAG submission. The TAG submission considered that the 'primary assessment points', recorded at two geographical locations, failed to comply with NZS6808:1998 in terms of being representative locations and that this therefore brought into question whether the monitoring was adequate to predict noise emissions from the proposal.

7.138 The TAG submission also raised concerns regarding the monitoring equipment used and its ability to record noise levels below 30dBA; being those times of low ambient noise levels. Additionally, the timeframe in which the ambient noise measurements were taken was raised; specifically, the short period of time that measurements were taken over (an 18-day monitoring period at 378 Millricks Line), the time of year measurements were recorded (e.g. measurements at 378 Millricks Line were taken from mid September to mid October, being peak lambing season) and the impact of surrounding activities (e.g. road formation works to Scotts Road) influencing the ambient noise measurements recorded.

Adequacy of and compliance with NZS6808:1998

7.139 The Commissioners heard from the applicant that NZS6808:1998 *Acoustics – The Assessment of Sound from Wind Turbine Generators* provides the best methodology currently available for assessing and controlling wind farm noise. However, as Mr Lloyd stated in his evidence;

'It has been accepted that NZS6808:1998 does not provide total protection against wind farm noise. The methodology used in the Standard is to monitor background sound levels over a period and to correlate those levels with the wind speeds at the wind farm. The resultant data pairs are plotted onto a chart and a regression curve is statistically arrived at. If the regression curve is based on measurements over a twenty four hour period then there will be a wider scatter to the results. In other words, there will be times when background sound levels are significantly greater than the regression curve, and at other times the background sound levels will be significantly less.'

7.140 The three noise experts, who appeared at the hearing, Mr Hunt (MWFL), Mr Thorne (TAG) and Mr Lloyd (PNCC/HDC), raised differing opinions with respect to the relevance, status and application of NZS6808. Messrs Lloyd and Thorne recommended a departure from the standard, taking a 'sub-6808' approach, whereas Mr Hunt maintained that no departure from the standard was necessary.

7.141 In Mr Hunt's noise assessment he noted, based on ambient sound level monitoring and wind farm sound level predictions, that all 127 turbines will comply at nearby residential properties. Mr Rive (Applicant's Legal Counsel) in the Right of Reply stated that *'an adequate safety margin had been built into the modelling undertaken on behalf of the Applicant that will ensure that the modelled results will not result in exceedence of the relevant limits'*.

7.142 Mr Nigel Lloyd (PNCC Noise expert) was of a differing opinion. In Mr Lloyd's consideration of the Applicant's noise assessment, along with the further information presented in Mr Hunt's letters of 31/01/07 and 20/02/07 and the matters raised by submitters he concluded that;

'the wind farm noise will only just comply with noise criteria and that there will often be times at night when noise will be clearly perceptible at dwellings.'

7.143 Mr Lloyd explained in his evidence that:

'The criteria in NZS6808:1998 are based on the premise that background sound levels increase with wind speed. This allows the wind turbine noise to be masked locally by the sounds generated by wind. However, this fails if it is shown, as in this case, that background sound levels remain low as the wind farm noise increases.'

The wind farm noise at between 35dBA and 40dBA will be significantly audible when background sound levels would otherwise have been 25dBA or less. The reason for this is that the perception of a sound is dependent on the background sound.'

The wind farm will become the dominant noise if the background sound level is ten decibels lower and at 35-40dBA it has the potential to cause an unacceptable impact to a significant number of residents in the Scotts Road and Millricks Line areas.'

7.144 Mr Lloyd therefore recommended the removal of 20 turbines between (and including) #90 and #114 (those on the front ridgeline behind Scotts Road and Millricks Line), where he considered the residents will receive direct sound propagation of the wind farm noise (without interruption by intervening terrain).

'The removal of these wind turbines by reason of cumulative visual and noise impacts would assist with ensuring that the Standards in NZS6808:1998 are more readily complied with and that noise impacts should not be an issue at times of low background levels.'

Sub-6808 limits

- 7.145 Concern was expressed in submissions regarding the adequacy of noise limits specified in NZS6808:1998 in protecting residents from adverse noise effects, particularly during the nighttime period (10pm to 7am). It is during this period that background noise levels are generally quieter.
- 7.146 Mr Lloyd recommended that a more stringent noise limit than that provided by NZS6808:1998 is adopted during these quieter ambient noise periods in order to ensure adequate protection is provided to residents. His recommendation was based on concerns that the wind farm would generate noise levels that would cause a significant impact when background sound levels are low and whether the wind farm can meet the 40dBA L₉₅ criterion when the background sound level is low enough for that limit to apply.

Infrasound, low frequency sound and vibration

- 7.147 Many submitters raised the issue of whether infrasound/low frequency sound and vibration would result in adverse effects to themselves and their animals, in some cases.
- 7.148 Mr Hunt, in his evidence concluded that *'modern horizontal axis 'upwind' turbines are not responsible for significant levels of low frequency sound or infra-sound...'*. In relation to ground-borne vibration effects he noted these may be detectable with sophisticated equipment but in any case emissions *'would not be a likely source of adverse effects beyond the wind farm boundary'*.

Construction Noise

- 7.149 The TAG submission also raised concerns over the failure of the applicant to provide details for the management of construction noise and traffic noise. The submission considered that significant adverse impacts on local residents would arise from trucks and light vehicles idling during waiting periods, truck engine braking and general vehicle noise, especially during the early morning and late evening, and particularly on Scotts Road.
- 7.150 Mr Hunt considered that construction noise would occur largely during daytime and would be temporary in nature and distributed around the site. Compliance with NZS6803:1999 *Acoustics – Construction Noise* provides appropriate noise limits for construction noise at residential locations. In this respect Mr Hunt stated that:
- 'Given the type of construction work planned, the location of activities, and their mobility on site, noise from construction activities (excluding the concrete batching plant) will be able to fully comply with the limits set out above. The concrete batching plant will be sited, designed and operated so that it will comply with the District Plan noise limits for permitted activities.'*
- 7.151 Mr Lloyd also acknowledged that construction works will take place at locations remote from the nearest residential dwellings and that this will ensure that noise levels are substantially below those that are provided for in the New Zealand Standard for construction noise. Mr Lloyd considered that daytime noise limits for construction activities on site will be met by the predicted construction works.
- 7.152 Mr Lloyd noted in his evidence that construction traffic noise cannot be controlled by reference to specific noise conditions. Road traffic noise still requires assessment, with one control option by way of a traffic management plan.
- 7.153 The Commissioners noted that no assessment of road traffic noise had been undertaken by the applicant.

Evaluation

Context

- 7.153 The Commissioners acknowledge that there is a great deal of public concern about wind farm noise. Moreover, the Commissioners were surprised to experience conflicting information and opinions regarding the potential impacts both of operational noise and any special audible characteristics that may be associated with the wind farm.
- 7.154 The Commissioners note that all noise effects do not need to be internalised (i.e. contained within site boundaries). The reason for this is that both of the District Plans anticipate that activities are likely to create noise that will be heard on neighbouring properties. Therefore the issue becomes one of determining the level of noise that is appropriate, and thereby acceptable.
- 7.155 Very detailed and extensive submissions were made by Drs Phipps and McCoard (TAG), in particular and expert evidence from Mr Thorne. The Commissioners acknowledge the points made in these submissions, in particular that some people do have an acute sensitivity to noise.
- 7.156 The Commissioner's evaluation of the above matters is as follows:

The adequacy of acoustical data and background noise recordings

- 7.157 The Commissioners acknowledge the concerns raised by submitters regarding the adequacy of the positioning of ambient noise assessment locations, the nature of the monitoring equipment used and the timeframe in which the ambient noise measurements were taken.
- 7.158 Based on Mr Hunt's detailed report (in the AEE) and his evidence, as well as the review of that material by Mr Lloyd, the Commissioners consider that the baseline noise monitoring undertaken by the applicant, and the acoustical data collected, is adequate to undertake adequate predictions and assessment of noise levels and associated effects. The Commissioners' finding is that the noise assessment meets the minimum requirements set out in the fourth schedule of the RMA. In any event, the Commissioners record that the Applicant must comply with any consent conditions which set out wind farm noise level limits. In this respect, the Commissioners note that the draft conditions presented by Mr Lloyd (and generally accepted by the applicant), if applied to any consent, will require extensive data collection on ambient noise levels from representative properties in the pre-construction and operation period. On this basis the issues perceived by the submitters to be associated with the pre-lodgement noise monitoring exercise are largely redundant in the view of the Commissioners.

Adequacy of NZS6808:1998

- 7.159 Evidence presented by Mr Lloyd identified potential noise issues with the proposed wind farm and concluded that the wind turbine generator noise at dwellings at the end of Millricks Line has the potential to generate significant adverse noise effects. As such, Mr Lloyd recommended that consent should not be granted to the nearest wind turbines to dwellings. Mr Lloyd also recommended noise conditions to control noise to limits set out in NZS6808:1998 and to also mitigate noise from the turbines at times when such noise may be significantly audible due either to low background sound levels or the generation of special audible characteristics, or both.
- 7.160 Whilst the application of NZS6808:1998 recommended criteria is considered to be generally appropriate, the Commissioners also consider that an additional sub-6808 condition is also appropriate, setting stricter limits to control noise for times when it may be windy enough at the wind farm site for the wind turbines to be operating but is relatively quiet at the residential dwellings.

Sub-6808 limits

- 7.161 During the hearing there was some technical debate about whether the base noise limit in NZS6808:1998 should be reduced from 40dBA L₉₅ to 35dBA L₉₅ or less. The Commissioners were interested to be advised that NZS6808:1998 does provide for the limit to be reduced (section 4.4.4 of the Standard) on a site-by-site basis citing a number of factors including amenity values. Ensuring that residential amenity is sufficiently protected during the nighttime period is certainly of great concern to Commissioners.
- 7.162 During the hearing the Commissioners heard evidence from the three noise experts on the appropriateness of adopting a condition that recognised the quiet background sound levels at night and recognised the sensitivities and vulnerabilities of the local community. The condition in question has been derived from the *Agreed Conditions* that were prepared during the expert caucusing which formed part of the Environment Court Hearing for the WestWind wind farm proposed for Makara.
- 7.163 Conditions were drafted by the Applicant's Noise Consultant (Mr Hunt) and by Council's Noise Expert (Mr Lloyd) that required a noise limit of 35dBA L₉₅ at certain times and/or in certain conditions. Such a condition requires a higher level of compliance than currently required under NZS6808:1998. Having been presented with a general agreement between the parties for a sub-NZS6808 condition, the issue for the Commissioners was how this should be set. In this respect considerable debate occurred between the noise experts over the appropriate wording of a 'sub NZS6808' condition, particularly regarding the nighttime baseline limit of 35dBA L₉₅ and the time period when this should be applied.
- 7.164 To aid their deliberations, and following adjournment of the hearing, the Commissioners sought further information from the three noise experts regarding the proposed sub-6808 Operational Noise Condition. The Commissioners requested that the three experts provide comment on the proposed sub-NZS6808 condition of the PNCC draft conditions, being Condition 11 (presented by the Applicant during the right of reply), and condition 10B (which was deleted by the applicant and replaced with Condition 11 in the right of reply document).
- 7.165 Each expert was asked to advise which of the two conditions they preferred from a noise perspective. In giving their response, it was requested the experts confine their responses to their areas of expertise (acoustics) and address issues of workability (whether the condition is practical, reasonable and allows measurement to take place) and what the condition would achieve in practice. Each expert was also requested to also comment on the appropriate timing (10pm to 5am or 10pm to 7am) and provide reasons why the preferred condition selected should be adopted.
- 7.166 Mr Lloyd recommended the adoption of a condition (condition 10B) that requires compliance with a nighttime baseline limit of 35dBA L₉₅ between the hours of 10pm and 7am, and considered this to be reasonable and appropriate for this location. Mr Hunt recommended adoption of a condition (Condition 11) that applies the 35dBA L₉₅ limit between 10pm and 5am when background sound conditions are at or below 25dBA and when the local wind speed is less than 1.5m/s. Mr Thorne supported Mr Lloyd's recommendation with amendments.
- 7.167 While both proposed conditions are similar in some respects, the Commissioners are concerned that the Applicant's proposed condition does not provide adequate protection to residents between 5am and 7am. This is considered to be an important sleep period for people. Advice received from Mr Lloyd also raised concerns over the workability of the Applicant's proposed condition and the relevance of the 1.5m/s limitation for when the condition would apply.
- 7.168 The Commissioners consider that on balance, the evidence presented supports the need to adopt a precautionary approach to ensure the noise level during the

nighttime period (10pm to 7am) is sufficiently restricted to ensure residential amenity is adequately protected. The Commissioners therefore favour the advice of Mr Lloyd in this regard.

- 7.169 The Commissioners wish to record that their departure from the maximum permitted noise emission standards in NZS6808 has been the subject of careful consideration and is based squarely on the amenity concerns raised by submitters living in close proximity to the proposed turbines. Those submitters argued that there will be undue noise effects during quiet evenings notwithstanding compliance with the NZ Standard. For the Commissioners, these concerns have been clearly supported by the evidence of both Mr Thorne and Mr Lloyd and is in fact an outcome anticipated in the Standard itself. This position that the Commissioners adopted is not any indictment on the evidence of Mr Hunt which the Commissioners found to be accurate and comprehensive. Rather, and as mentioned, the Commissioners' position is a precautionary one that in this instance is tailored to what the evidence indicated would be the presence of 'sub-NZS6808' conditions of sufficient frequency so as to warrant the departure described. It may be that in other localities, where low ambient noise levels at receptors' dwellings do not contrast to higher levels at the noise source, such a departure will not be warranted. Indeed, such discretion appears to be contemplated by the standard itself.

Infra-sound, low frequency sound and vibration

- 7.170 The Commissioners accept the findings of the noise experts that infra-sound, or low frequency sound emissions will be insignificant. The Commissioners note that the noise conditions recommended provide for the recognition of various phenomena (i.e. impulsiveness, tonality and/or an audible modulation) that could make wind turbine noise more intrusive and sets out to penalise these in the event that they are found to be present.

Construction Related Noise

- 7.171 The Commissioners are satisfied on the evidence of all three noise experts that given the type of on-site construction work planned and the location of the activities, noise likely to be generated by construction activities and construction works will be able to comply with the District Plan limits and the NZS6803:1999 *Construction Noise Standard*. Given that the works are temporary and will take place during the daytime, and that conditions can be imposed to ensure compliance, the Commissioners are confident that any adverse effects resulting from construction noise will be minor.
- 7.172 An assessment of traffic noise was not provided by the Applicant during the hearing, although the Commissioners do note that the Applicant has agreed that there should be no nighttime heavy truck movements. Given that construction traffic is predicted to be a significant effect for the two-year construction phase, the Commissioners consider that in light of the lack of evidence presented, it is appropriate to impose stringent conditions to manage traffic noise, via the Traffic Management Plan.

Summary

- 7.173 A range of technical noise evidence was presented at the hearing by three experienced acoustical consultants. While Commissioners do not have any concerns regarding the methodology adopted by the Applicant to undertake background noise readings and gather acoustical data, a difference of opinion between the Applicant's noise expert (Mr Hunt) and Mr Lloyd (PNCC noise expert) and Mr Thorne (TAG noise expert) was apparent.
- 7.174 The Commissioners have determined that it is appropriate to take a precautionary approach and therefore recommend a range of very strict and detailed conditions, in particular a condition to control wind farm noise at times of low background sound. Along with a rigorous monitoring programme to ensure compliance with standards and conditions, pre-construction monitoring will also provide an opportunity for further

information on ambient noise conditions to be obtained. Of particular importance is the requirement that a noise management plan is required to be prepared with the involvement of the local community.

- 7.175 It is the Commissioners view that regardless of whether turbines contemplated for deletion in section 7.27 dealing with landscape/visual/amenity effects are deleted or retained, a condition requiring compliance with the standards in NZS6808:1998 in conjunction with a sub-6808 noise condition will provide appropriate protection to residential amenity.

Traffic Issues

Context

- 7.176 The provisions of both the PNCC District Plan and the HDC District Plan are both relevant in terms of traffic issues. The applicable transportation objectives and policies under the PNCC District Plan are listed under Section 20 *Transportation*. Objective 2, policies 2.1, 2.2, 2.3 and Objective 3, Policies 3.1 and 3.2 provide guidance when considering works affecting the roading network:

- 7.177 Assessment policies of Rule 9.9.2(d) and (e) in the PNCC District Plan are relevant when considering traffic effects, specifically:

- *Rule 9.9.2(d) 'To avoid remedy or mitigate the adverse effects on the safe and efficient operation of the roading network from the traffic movements generated by activities;*
- *Rule 9.9.2(e) To ensure the provision of adequate on site parking, loading, manoeuvring and access space to avoid this taking place on roads.'*

- 7.178 The specific consenting matter under the PNCC District Plan is for the access to the construction yard on Scotts Road, as it does not comply with Rule 20.3.9.1(c)(iv) – a 250m sight distance requirement. This particular non-compliance is categorised as a Discretionary Activity (Restricted) under Rule 20.3.10.1.

- 7.179 Rule 20.3.10.1 of the PNCC District Plan contains matters over which Council has restricted its discretion as follows:

'The safe and efficient operation of the roading network and the following 'further policies:

- *To avoid, remedy or mitigate any adverse effects on the roading network of vehicle movements at any access or intersection.*
- *To take into account the availability of alternative legal access to any other road.*
- *To avoid, remedy or mitigate the adverse effects on the roading network of parking and the extent that off-street parking can be provided."*

- 7.180 Notwithstanding the above specific consenting issue, the status of the wind farm as an unrestricted discretionary activity in the PNCC District Plan allows the Commissioners to consider all potential traffic effects.

- 7.181 In the HDC District Plan, the relevant transportation objectives and policies are listed under Section 10, specifically Objective 17, policies 17.9, 17.10 and 17.11, Objective 18, policies 18.1, 18.2 and Objective 19, policies 19.1, 19.2 and 19.6.

- 7.182 The rule regime under the HDC District Plan is as follows:

- *Rule 19.6(b) 'All earthworks and new roading within outstanding landscapes and on natural features scheduled in this District Plan and identified on Maps 32 and 33 are a Discretionary Activity.'*

7.183 There was some doubt regarding whether this rule applied, due to the fact that the Tokomaru Foothills are listed in Schedule 4 as an outstanding natural landscape, the extent of the foothills is not shown on Maps 32 or 33. The Commissioners accept the interpretation of Ms Barton and Mr Rive that this rule is **not** triggered.

7.184 The relevant performance conditions in relation to transport are as follows:

- *Rule 19.2.11 – Vehicle access: Must be in accordance with Section 21.*
- *Rule 19.2.12 – Vehicle parking, manoeuvring and loading: Must comply with Section 21.*
- *Section 21 – Vehicle Access and Parking, Loading & Roading Hierarchy, Rule 21.1.1(v) – access design and formation allows a maximum permitted accessway of 3km.*

7.185 The haul road running from Williams Road through the Squire property to the wind farm site is approximately 5km long and therefore defaults to a Limited Discretionary Activity. However, and as with the PNCC Plan, the unrestricted discretionary activity status of the wind farm in the HDC Plan also allows the Commissioners to consider all traffic effects and not just those associated with the above performance standards.

7.183 Noise effects from traffic are addressed in the noise effects section (section 7.119) of this decision.

Matters raised with respect to this issue

7.186 The impact of the construction traffic required to build the wind farm was raised by many submitters, especially those who live on Scotts Road and Williams Road, which are the roads that will provide access to the site. These issues are heightened by the fact that both roads are relatively narrow and do not have heavy volumes of daily traffic at present.

7.187 The range of issues brought to the Commissioners attention included the following:

- *The high number of construction vehicles will result in dust, noise, and safety issues for local residents along with general disturbance and inconvenience;*
- *The detail provided in the Traffic Impact Assessment was not sufficient to understand the full range of effects and mitigation measures proposed;*
- *The rotating movement of the turbines will potentially create a flickering effect which could be a distraction to drivers;*
- *Construction of the wind farm will damage local roads;*
- *Construction traffic movements will restrict access for logging trucks and other users, including recreation users, of Scotts Road;*
- *Restrict construction vehicle movements to certain times of the day to reduce safety issues;*
- *Trucks on Williams Road should turn off earlier on to the Squire property to reduce disturbance to residents;*
- *There is no assessment on night time transport movements on Williams Road and the haulage route;*
- *The non-compliance with the PNCC sight distance requirement of 500m at the Scotts Road/SH57 (the actual distance is 130m) is dangerous for road users given high numbers of construction traffic.*

- *Construction traffic will result in disruption to locals wishing to access recreational areas off Scotts Road.*
- 7.188 The Tararua Aokautere Guardians (TAG) submission raised concerns regarding the impact of traffic, safety and the probable inconvenience that construction traffic would create. TAG also identified that they had no information on which to judge the merits of the Applicant's Traffic Management Plan (TMP).
- 7.189 A further matter that was raised related to the potential hazard created by the additional truck movements at the Scotts Road, State Highway 57 intersection, the effect on the existing traffic using Scotts Road and the use of this intersection as a school bus stop.
- 7.190 Submitters also commented that MWFL should have submitted a TMP at the outset of the application so they could properly consider specific effects on their properties.
- 7.191 In summary, it is considered that the main traffic issues are the effects of construction traffic, operational traffic and decommissioning traffic on:
- Efficient operation of the road network,
 - Road safety – particularly the SH 57 intersection with Scotts Road
 - The amenities of the area (e.g. dust and noise nuisance)
 - The daily lives of residents in terms of disruption to activities such as walking, riding, cycling.
- 7.192 In addition to hearing from submitters, the Commissioners received evidence/reports from Mr Bill Barclay, a traffic engineer engaged by MWFL and Mr Daniel Tate, the traffic engineer representing PNCC and HDC.

Evaluation

Context

- 7.193 The Commissioners acknowledge that main effects of the proposal in terms of traffic will be potentially generated during the construction stage, which is expected to take approximately 2 years. Over this period the level of activity and number of traffic movements will vary according to the particular operations being undertaken at any one time, and will create the greatest effect to the amenity of local residents and other road users.
- 7.194 The Applicant advised that at its peak there will be a workforce of up to 150 people based at the Motorimu wind farm. While the exact requirements for Motorimu have yet to be determined, the Applicant states that there will be a site office and maintenance building, and a construction yard. Adequate areas of flat ground are available on-site to accommodate parking, goods handling and storage.
- 7.195 The Applicant intends that Scotts Road will be the main route for transport of personnel and commercial vehicles to and from the site. While traffic volumes will vary according to the size of the workforce and the nature of activities occurring at the time, the Applicant estimates that flows of up to 400 vehicles per day on Scotts Road could occur, being a very substantial increase on present volumes.
- 7.196 Williams Road, and to a lesser extent Konini Street, is proposed to be used as the access route for hauling all oversize and overweight turbine components for the entire wind farm and by heavy vehicles (e.g. for delivery of metal and aggregate). The Applicant estimated that 12-15 oversized vehicle trips per day and between 20-30 other vehicles will access the site via Williams Road during the construction phase.
- 7.197 Additionally, an extensive network of internal access tracks will be developed, linking the haulage road to Scotts Road and enabling access to each individual turbine site.

These internal tracks will generally be 4.5 metres wide. The Commissioners accept that any traffic effects resulting from the use of these internal access roads will be internalised within the site.

- 7.198 For the Applicant, Mr Bill Barclay noted that the steep, narrow, winding 4.2km unsealed hill section on Scotts Road will require temporary traffic control at busy times. This is proposed to be achieved by use of a one-way convoy system. He also notes some upgrading works will be necessary in certain positions along the road.
- 7.199 The Commissioners recognise that it is important that the public roads remain open and safe to all traffic during the construction phase, and in order to accommodate construction traffic on Scotts Road robust traffic management controls along with the ability to upgrade the width and surface of the road in certain locations where necessary, will be required.

Safety at intersection with SH57

- 7.200 Safety at the intersections of Scotts Road and Williams Road with SH57 was raised by a number of submitters. Almost all traffic accessing the site is expected to pass through SH57 intersections with Scotts Road and Williams Road, although a small number of movements may choose to use Konini Street. Visibility at the SH57 and Scotts Road intersection toward the east (the Palmerston North direction) has been identified as very restricted, with a sight distance of only 130 metres, being much less than the 500m required by Table 20.3 of the PNCC District Plan. In addressing this, Mr Barclay concluded that;

'The existing sight line characteristics are marginal, and the intersection cannot be regarded as being fully satisfactory. Construction of the wind farm will substantially increase the number of turning movements, raising a concern that there could be a worsening in the accident record during the construction period.'

- 7.201 The Commissioners note that as a result of these concerns MWFL has had discussions with Transit New Zealand on whether remedial action is required. MWFL and Transit have agreed that a widened shoulder should be provided for left-turn traffic approaching from the Palmerston North direction. The widened roadway will provide deceleration space for left turning vehicles, thus providing an expected significant (and permanent) improvement in safety at this intersection. Transit and MWFL have signed a Memorandum of Understanding (MoU) which provides for the work to be carried out at MWFL's expense. The Commissioners note that a condition of consent is recommended by the applicant and officers to require this intersection upgrade to be carried out prior to any use of Scotts Road by heavy vehicles.
- 7.202 Mr Barclay advised that in his opinion the Williams Road/SH57 intersection does not require upgrading as sight distances are considered to be reasonably satisfactory (170 metres) and the Commissioners record that Transit have not asked for any intersection improvement work to be carried out at that intersection.

Dust effects on Scotts and Williams Road

- 7.203 Concerns relating to increased dust generation from the increasing volume of traffic were raised by submitters in respect to both of these roads. This was viewed as a particular problem for the unsealed section of Scotts Road.
- 7.204 The Commissioners accept that while increased dust generation is likely to occur it is noted that there are less homes on Scotts Road from above the point where the sealed section ends. Notwithstanding this the Commissioners acknowledge that consent conditions have been proposed by the applicant and endorsed by both Mr Tate and Mr Baker that require the Applicant to mitigate dust created by construction

Safety and efficiency of Williams and Scotts Road

- 7.205 Mr Daniel Tate (PNCC/HDC Traffic Engineer) acknowledged the concerns of many submitters regarding the potential safety and efficiency issues on these roads when he stated in his evidence:

'The inconvenience to other road users such as residential, recreational and forestry users has not been possible to accurately assess, as there is no detail on the TMP and TTMP.'

- 7.206 In considering these issues, Mr Tate concluded that the construction phase will have a more than minor effect on the amenities of local residents and potentially the roading infrastructure. Significantly however, he did not recommend the consent be refused on this basis; rather he recommended a number of conditions which, if strictly complied with, would in his expert opinion mitigate the effects of the construction phase to a satisfactory degree.

- 7.207 In this respect, the Commissioners note that an extensive range of conditions are recommended to ensure that the traffic construction effects associated with the two year construction period are mitigated wherever possible. These conditions include the following matters:

- Preparation of a detailed TMP,
- SH intersection upgrade,
- Dust management,
- Hours for traffic movements,
- Centre line marking,
- Road conditions survey and road maintenance.

- 7.208 Of the above matters, most of the attention of hearing participants was focused on the Traffic Management Plan (TMP). In order to ensure that additional traffic can be safely accommodated within the roading network, the recommended conditions would require the Applicant to prepare a TMP. The TMP requirement will allow the co-ordination of road use between the applicant, residents and other road users. Additionally, within the TMP condition there is a proposal requiring the applicant to prepare a Temporary Traffic Management Plan (TTMP) to address temporary traffic techniques that may need to be implemented in order to cover specific aspects of traffic operation. The Commissioners consider that the TMP (and the subsidiary TTMP) process is an appropriate methodology to use in order to address the range of traffic related issues that may eventuate and also to allow local community input in the process.

- 7.209 The Commissioners acknowledge that there was some criticism by submitters of the failure of the applicant to prepare a TMP in advance of the hearing. Whilst such an approach would be ideal, the Commissioners do accept the applicant's position that it is not unusual to defer the production of such a plan to the post-consent stage. Mr Tate appeared to accept this position also. In this case, the Commissioners accept that there is no fundamental issue associated with the use of Williams and Scotts roads for the transportation of materials, components and staff to the wind farm that would cast doubt on the ability to consent the wind farm on that basis alone. The facts are that both of these roads are public roads designed for a variety of transportation functions. In this respect the Commissioners record that the current transportation of logs associated with the harvesting of the Woodpecker Forestry operation is a case in point of that function occurring (along with its inherent potential impacts) and without the requirement for any RMA authorisation. In the case of the wind farm, the requirement for a resource consent does enable much closer scrutiny and control over the transportation effects (particularly amenity ones) than would otherwise be the case with a proposal such as the logging operation.

- 7.210 Overall, the Commissioners particularly record that they have no problem with the TMP condition framework and note that this process will also allow local community

input in the process. They particularly note that a condition was proposed by Mr Tate and Mr Baker (and endorsed by the applicant) to this effect.

- 7.211 The Commissioners also note that during the hearing an agreement (Memorandum of Understanding) was reached between Woodpecker Holdings and MWFL with respect to the uninterrupted use of Scotts Road by Woodpecker Holdings to carry out its forestry operation and road maintenance requirements. On the basis of this agreement, Woodpecker Holdings withdrew its submission in opposition to the wind farm proposal and with the backing of the MoU will also address its concerns through the TMP process.

Other construction traffic effects:

Use of Konini St

- 7.212 The Commissioners accept that there are advantages and disadvantages to using Konini Street. One positive is that traffic travelling from the south will not have to drive through the Tokomaru township and will avoid the need to use the Williams Road/SH57 intersection. However, Konini Street is a narrow road and has residential frontage that will result in dust and noise effects on these residents. On balance the Commissioners consider that the use of Konini Street should be addressed through the TMP.

Night time transport movements on Williams Road and the haulage route

- 7.213 There has been no assessment on nighttime transport movements on Williams Road and the haulage route. However the Commissioners note that the TMP requires times to be specified within which construction traffic would not be allowed to operate on Williams Road.

Damage to local roads

- 7.214 Consent conditions are recommended that require the roads to be maintained and at the end of the construction period reinstated to the standard prior to construction commencing. This is proposed to be achieved through the imposition of a road condition survey condition prior to any construction taking place on site in order to obtain an accurate baseline condition of the road.

Construction vehicle hours of operation

- 7.215 The TMP will require times to be specified within which construction traffic would not be allowed to operate on Scotts Road/Williams Road or Konini Street. The Commissioners are satisfied that the TMP will adequately control construction vehicle movements during certain times of the day to reduce any potential traffic safety or nuisance (noise, dust) issues;

Location of the start of the haulage route at the end of Williams Road

- 7.216 It was suggested by a submitter that access to the heavy haul road could be via the Squire property, thereby eliminating the need to use some of Williams Road. Mr Tate notes that the topography of this section of the Squire property may prevent the easy creation of an access road and would also result in the duplication of an existing road.

Summary of construction traffic effects

- 7.217 Overall, the Commissioners acknowledge that the construction phase will have the potential to be highly disruptive to local residents along Scotts and Williams Roads. However, the Commissioners accept the ability of the TMP with its constituent controls on localised widening (where necessary) and day-to-day management components, will allow the applicant to mitigate the adverse effects to a large extent. The construction period, although potentially two years long, represents a small part of the lifetime of the project where once operational, the traffic effects will be less than minor.

Operational Traffic

- 7.218 Once the wind farm site is operational there will be maintenance and operation staff traffic to ensure regular maintenance of the wind turbines. The volume of traffic is expected to be in the order of 10 traffic movements per day for regular maintenance checks, with only one round trip by staff accessing the site. Some access tracks, including the haulage road off Williams Road, will be maintained for permanent use, with others allowed to revert back to grass in the post construction period.
- 7.219 The Commissioners acknowledge that there will be adequate area available on site for vehicles to park and manoeuvre. Some heavy vehicle traffic may occur on Scotts Road and Williams Road for maintenance purposes. However, the Commissioners accept the advice provided by Mr Barclay and Mr Tate that the volume of traffic likely to be generated once the wind farm is operating will be close to that of the present rural environment and will be of a less than minor effect on the roading network.
- 7.220 With regard to the regrassing/revegetation of obsolete access tracks, this matter has been addressed in section 7.260 – Construction/Earthworks - of this decision. The Commissioners note that construction earthworks management conditions are recommended to ensure earthworked areas are remediated, grassed, hydroseeded or sealed. In addition, the conditions make provision for applicant reporting and Council monitoring/review of the revegetation and rehabilitation process.

Shadow Flicker Distraction

- 7.221 This matter was raised by submitters as a potential traffic hazard. Mr Daniel Tate advises that there is little discussion in the literature about shadow flicker with respect to traffic, but expects that this would be no worse than the flicker experienced from trees on the side of the road. Additionally, due to the location of the wind farm, shadow flicker would not affect the road except at the top of Scotts Road. The Commissioners accept this advice, and consider the issue of shadow flicker to be less than minor.

Decommissioning Traffic Effects

- 7.222 Turbine equipment is expected to have a life of approximately 25 years, after which the turbines are reconditioned, replaced or decommissioned. The Commissioners note that MWFL have not indicated if the wind farm will be decommissioned at this time as appropriate maintenance and new technology may prolong the lifetime of the wind farm.
- 7.223 The Barclay Traffic Planning report indicates that if decommissioning was to occur then the deconstruction process to a certain extent would work in reverse to the original construction process. Whilst it would be of a lesser scale as oversize components could be broken further and concrete foundations would be left in situ and re-grassed, it is anticipated that this would have the potential to cause disruption to local residents at that time. The Commissioners therefore consider that the requirement in conditions to prepare a De-commissioning Management Plan will address this potential eventuality, ensuring that Council can review the decommissioning works at that time and impose restrictions as they see fit and to ensure that all above ground structures are removed within 12 months of the wind farm ceasing to operate.

Summary

- 7.224 The Commissioners acknowledge that during the construction phase there will be noticeable increases in traffic on what at present are lightly trafficked rural roads, in particular Williams Road and Scotts Road. The construction phase of the wind farm will have effects on the roading network. As such, the proposed development will have to adopt appropriate traffic management practices to ensure that these effects

are mitigated. There will also be effects at the respective intersections with State Highway 57. Safety and usability (structural integrity, maintenance and the interruption to other traffic on the road) of the road for all traffic, including the applicant, is of paramount concern.

- 7.225 Despite these concerns, and on the advice of the two expert traffic engineers who presented at the hearing (Mr Tate and Mr Barclay), the Commissioners believe that traffic effects can be managed safely and efficiently by imposing a rigorous set of consent conditions.
- 7.226 While a Traffic Management Plan (TMP) was not provided by the Applicant, the Commissioners are confident that the proposed conditions of consent requiring a TMP and a Temporary Traffic Management Plan (TTMP) detailing how traffic will be controlled during construction work, will ensure that a safe and effective road will be maintained during the construction process.
- 7.227 Both Mr Daniel Tate, Traffic Engineer for PNCC and Mr Bill Barclay, Traffic Consultant for the Applicant agree that with the imposition of a requirement for a Traffic Management Plan (TMP) the roading network can accommodate the safe and efficient movement of traffic, particularly during the construction phase. The Commissioners accept this assessment.
- 7.228 The Commissioners consider that the wind farm proposal is not inconsistent with PNCC or HDC transportation policies and objectives.

Ecological Issues

Context

- 7.229 The Resource Management Act gives special prominence to:
- *'the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.'*; (Section 6(c))
 - *'intrinsic values of ecosystems'*; (section 7(d))
 - *'the protection of habitat of trout and salmon'* (section 7(h)); and
- 7.230 Objective 3 Policy 3.3 of the Palmerston North City Plan states the following:
- *Objective 3: To enhance the quality and natural character of the rural environment.*
 - *Policy 3.3 To control the adverse effects on the rural environment (including effects on rural dwellers) of activities that disturb the land surface, introduce buildings, remove and/or process natural material.*
- 7.231 The Commissioners have had regard to the above sections of the Act and the objective and policy in assessing the ecological issues associated with this wind farm proposal.
- 7.232 The main ecological values for the proposed site and surrounds identified by the Applicant in their Ecological Assessment, the Department of Conservation and submitters are:
- The giant land snail populations; a large population, currently unprotected, of threatened endemic *Powelliphanta* giant land snails (concentrated in kaihinu forest and the open shrubland/fernland fringes; and within 'small bush' which is central to the wind farm site.
 - Native birds (e.g New Zealand Falcon);

- The in-stream values of the Kahuterawa catchment streams; one of the most highly regarded freshwater fishery tributaries within the Manawatu River catchment.
- A large area of logged-over regenerating podocarp forest on Kaihinu predominantly in unprotected private ownership.

7.233 In terms of the above ecological values, the Commissioners heard evidence from Ms Isobel Gabites (Natural Textures) on behalf of the Applicant, which was largely unchallenged by submitters, and supported in evidence given by the Department of Conservation and by Dr Mike Joy (the Council's Ecologist).

Matters raised with respect to this issue

7.234 Submissions raised concern with respect to ecological issues generally relating to the loss and dislocation of bird life and ground-based wildlife, clearance of native vegetation, soil disturbance and the directly related effects of sedimentation and erosion. Representative submissions were those by DoC and TAG. Individual submitters also added to the ecological jigsaw.

7.235 Written submissions received during the submission period raised the following issues with respect to Ecological impact:

- *The wind farm will result in a loss of native bush and wild life habitat.*
- *Large concrete foundations may be left in the ground when the wind farm is decommissioned to the detriment of the environment.*
- *Insufficient ecological research has been undertaken.*
- *The application poses a significant and continuous risk to the New Zealand Bush Falcon/Karearea.*
- *Construction of the wind farm could give rise to increased erosion and sedimentation to the detriment of the natural environment.*
- *Fencing of Kaihinu Forest may attract more birds and heighten bird strike problem.*
- *Potential impact on giant land snail, native birds, fish species, native bat.*

7.236 The Department of Conservation's (DOC) submission highlighted the potential for the wind farm to have adverse effects on giant land snails, bats (if present), some native bird species and native fish species within the Kahuterwara Stream catchment. The Commissioners were advised that extensive discussions between the MWFL and DOC and field visits resulted in the formulation of a formal agreement on terms of reference between the parties (DOC, MWFL and the Funnell family (landowner)), which details measures to avoid or mitigate adverse effects on flora and fauna within the project site. At the time of the conclusion of the hearing a final Memorandum of Understanding was being prepared based upon these terms of agreement.

7.237 Mr Julian Watts, on behalf of the Director General Department of Conservation stated in evidence:

'Implementation of the agreement is likely to have an overall beneficial effect on nature conservation values on and in the vicinity of the wind farm site....provided that the matters raised in this evidence on behalf of the Director General are reflected in appropriate consent conditions, then the resource consent application for the Motorimu wind farm is supported.'

7.238 The Tararua-Aokautere Guardians Inc. (TAG) submission raised concerns that the application fails to meet section 6(c) RMA (i.e. fails to protect the significant habitats of indigenous fauna, notably the New Zealand falcon). Their submission on ecological effects raised the issue of the New Zealand falcon and the potential for them to be struck by turbine blades. They mention that fencing of the Kaihinu bush area would increase this problem.

- 7.239 Dr Mike Joy agrees that there is potential for falcon mortality from turbine strike, although he considers that the advantages achieved for all the other bird and invertebrate species from bush protection and predator control would far outweigh this risk.
- 7.240 The TAG submission endorsed the need for research into falcon behaviour, which has been recommended in the application and subsequently agreed to subsequently by MWFL.
- 7.241 Turbine spacing and the threat to safe bird passage was also raised by Horowhenua District Council and Mr John Adams. As Isobel Gabites described in her evidence, at a nominal spacing of between 200-240 metres, there is truly a safe passage of 116-120 metres between the *'motion smear danger zones'* in which rotors may become invisible. Whether this is adequate for New Zealand raptors has not been studied. However, anecdotal records of operating wind farms in New Zealand suggests that birds that are distracted in some way are more susceptible to collision. Magpies are known to distract and bully other birds, hence the recommendation that magpie control measures are written into the site management plan.
- 7.242 The only change to conditions suggested by Dr Joy was an increase in the distance between earthworks and bush areas to a minimum setback of 100m. In his evidence Dr Joy stated that this suggested change was an arbitrary distance which could not be backed up by any research. The applicant indicated that it preferred the distance suggested by Ms Gabites and unchallenged by DOC.

Evaluation

- 7.243 In general terms the Commissioners are of the view that ecological issues raised in the course of the hearing were well canvassed and comprehensive. In this respect, they found comfort that the findings and recommendations of Isobel Gabites were supported by the Council's ecological consultant, Dr Mike Joy.
- 7.244 The Commissioners found Ms Gabites' ecological assessment to be comprehensive. Ms Gabites assessed the local ecosystems and the potential effects the proposed wind farm may have on them. The Assessment concluded that overall the Motorimu wind farm site is *'ideally suited to wind farm development with minimal impacts on native ecosystems by virtue of the discrete landcover units and the relatively depauperate birdlife'*. Her report identified 14 recommendations to mitigate the effect of the proposal on the native ecosystem during and post construction.
- 7.245 Dr Mike Joy reviewed the Applicant's Ecological Assessment, submissions and 'Agreed Protocols' between the Department of Conservation and MWFL and concluded that *'there are no ecological effects that cannot be mitigated in this project as long as care is taken and consent conditions are robust and adhered to.'* Dr Joy notes that *'the ecological values of the site have been severely compromised by the removal of native vegetation and the planting and grazing of exotic grass monoculture.'*
- 7.246 The starting point for the Commissioners' evaluation of the evidence is that, in the main, the ecological values of the project site have been and continue to be heavily impacted by existing activities (principally farming and forestry) in the area. In this respect the Commissioners acknowledge that:
- The site area in question has been extensively modified;
 - The historic forest cover has been almost completely removed and replaced by introduced pasture species.
 - There is limited surviving native vegetation, mostly on the margins of the wind farm area,

- 7.247 Thus the Commissioners concluded that the ecological integrity of the site has already been severely compromised by the land use change from native forest to pasture and the ongoing grazing of the area. The ecological status quo is not pristine but is in a steady or in some cases accelerating decline.
- 7.248 Notwithstanding this generic finding, the Commissioners do recognise the importance of understanding and protecting remaining ecological values and features on the project site, particularly the effects on falcon population, predator control, stock removal, fencing and earthworks and sedimentation control. In this respect the Commissioners' position is summarised as follows:
- The Commissioners support the findings of Dr Mike Joy that *'while there would undoubtedly be some local ecological impacts during the wind farm construction stage, these would be offset by a net gain resulting from predator control, stock removal and fencing as well as finance for research as detailed in the agreement between the landowner (Funnell), DOC and the Applicant'*.
 - The Commissioners commend the agreement reached between MWFL and DOC and the initiatives proposed, specifically fencing to provide physical protection of regenerating podocarp forest and the funding of future research to control predators and assess the effects of mitigation of negative effects on the *Powelliphanta* population and to monitor bird utilisation across the site.
 - Many of the concerns expressed by submitters will be addressed through specific mitigation and monitoring consent conditions. For example the Commissioners consider that it is appropriate to impose a condition requiring that there be a minimum set-back 30 metres as recommended by Dr Joy from the bush edge to turbines, in order to ensure appropriate protection is provided to existing vegetation and bird life.
- 7.249 Of all the ecological effects, perhaps the area that attracted the most attention was the threat to in-stream ecological values that could arise from construction activities. In this respect, the Commissioners note that the Applicant has agreed to the imposition of conditions suggested by both the HRC and PNCC/HDC designed to protect freshwater ecology from the impacts of sediment, erosion and stormwater runoff. Specifically the Commissioners note that the applicant has agreed to the imposition of earthworks conditions on the City and District consents, despite consent not being required for earthworks under either the Regional or District Plans. It is also of import that Horizons Regional Council will take a 'hands on' monitoring role with respect to the consents for this proposal. The thorough nature of the conditions will ensure that effects on freshwater ecology are avoided, remedied or mitigated, as appropriate.
- 7.250 The Commissioners consider that provided stringent ecological conditions are imposed on the resource consents granted, the construction and operation of the wind farm will not result in significant ecological effects. In particular, and based on the advice of Dr Joy, the Commissioners accept that freshwater quality and habitat will suffer no more than minor adverse effects. Moreover, the following benefits will derive from the wind farm proposal:
- Monitoring of the operating wind farm on birdlife, bats and giant land snails.
 - Conservation of *Powelliphanta* will be assured during construction and population viability improved through ongoing conservation measures undertaken by the Applicant in collaboration with DOC and R. Funnell.

Summary

- 7.251 Overall, the Commissioners consider the issue of ecological impacts is not a major concern. Existing ecological values have been and continue to be heavily impacted

by existing activities (principally farming and forestry) in the area. The ecological status quo is not pristine but is in a steady or in some cases accelerating decline.

- 7.252 Evidence presented by the Applicant's Ecological Consultant was very thorough and comprehensive and was supported in evidence given by the Department of Conservation and by Dr Mike Joy (the Council's Ecologist).
- 7.253 The Commissioners are satisfied that any adverse effects on ecology are unlikely and that proposed conditions will mitigate any possible adverse effects. Additionally, agreement reached between the Department of Conservation and MWFL will ensure existing ecological values are protected and will provide measures that will avoid or mitigate impacts on *Powelliphanta* and provide ongoing assessment of effects.

Other Effects

Blade Glint, Shadow Flicker

- 7.254 The Commissioners heard evidence from Mr Bernard Voll of MWFL who addressed the issue of 'shadow flicker' and blade glint. Mr Voll analysed the shadow flicker effects on properties in the vicinity of the wind farm using the 'Windfarmer' software programme. Shadow flicker is caused by the shadow of moving blades which at particular times of day and year may fall within or near a house. Conversely, blade glint is caused by sunlight being reflected off rotating blades of a turbine causing flickering or flashing beams of light.
- 7.255 Mr Voll's conclusion was that only very limited shadow flicker effects could possibly occur at a few neighbouring residences. The maximum shadow flicker hours per year was estimated to be no more than 30 minutes per day at sunrise or sunset, even when assuming 365 sunshine days. The Commissioners also heard that MWFL intends to mitigate the potential effects of blade glint by turbines having a non-reflective finish. Overall, the Commissioners accept that the likelihood of adverse effects arising from Blade Glint and Shadow flicker are minor and more so if the wind turbine generators in close proximity to houses are not consented.

Air Quality

- 7.256 An application to discharge contaminants to air associated with the operation of the concrete batching plant has been received by Horizons Regional Council (Discharge Permit 103894). This discharge principally relates to dust sources, including cement powder and aggregate supplies, resulting from the transfer of those products from truck to silo or bin, vehicle movements and as a by-product of the use of the conveyor belt system at the plant.
- 7.257 Of all the activities on the site, the discharge to air has been the topic of least interest in the Hearing overall. It is considered that this is because of the isolated nature of the site where the concrete batching will occur. The advice given to the Commissioners by reporting officers was that there will be little opportunity for dust discharges to cause air contamination that is offensive or objectionable to the wider community.
- 7.258 The Commissioners accept the advice of Ms Gardner (Horizons Regional Council Consents Manager) that the likely impacts of the Applicant's proposed discharge to air will be minor especially in relation to the matters provided for in the Regional Air Plan objective which is:

'To maintain or enhance air quality in the Region, and have ambient air quality that does not adversely affect human health and well being, animal and plant health, amenity values and cultural values.'

- 7.259 Given the distance of the plant to property boundaries, the temporary nature of the discharge (approximately 30-month construction period) and the imposition of site management conditions, the Commissioners consider that the potential effects associated with the discharge to air can be mitigated and that the discharge is unlikely to have effects that are significant in respect of human health, well being or air quality.

Construction/Earthworks

- 7.260 The Commissioners heard evidence from Mr Kevin Judd, Construction Engineer, on behalf of MWFL. Mr Judd had analysed the probable construction effects and possible mitigation methodologies.
- 7.261 Construction work will consist of upgrading existing farm tracks and roads and construction of new tracks, construction of turbine site assembly platforms and turbine foundation areas, concrete batching plant and site maintenance yard, switching station and sub station building platforms.
- 7.262 Following Mr Judd's initial evidence in chief, the Commissioners indicated to the hearing that they required further information on a range of matters associated with the earthworks (cut and fill and disposal) associated with the construction of tracks and turbine platforms. In particular, the Commissioners requested details in respect of two matters; namely the remediation and rehabilitation of such earthworks and the methods to control sediment runoff from these works. The former matter has been discussed under the heading of tracking in the landscape section of this decision and the focus here is on the latter matters associated with potential sedimentation.
- 7.263 Mr Judd outlined in his supplementary evidence the construction methodology of the turbine foundations, site tracks, dump sites and decommissioning. With regard to turbine foundation construction, depending on the slope of the site, cut off drains and bunds will be used to divert surface water around the foundation work site, away from water courses and into the sediment ponds. Site access tracks will be constructed with cross falls, rock lined side water channels to collect surface water from the track and bank, sumps and catchpits at regular intervals along the side drain. All discharges will be via controlled outlets into suitable water courses.
- 7.264 Five large soil dump sites have been identified across the Motorimu site for surplus material and unsuitable earth material. Mr Judd advised that all dump sites will be at least 10 metres from any watercourse. Material in the dump sites will be rolled and compacted into layers, with the final slope of the dump site sympathetic with the surrounding landform. Topsoil and sowing with pasture grass seed would occur immediately on completion. Stormwater control measures (e.g sediment ponds, silt fences and bunding) would be placed around all extremities of dump sites.
- 7.265 Commissioners were advised by Sarah Gardner (Consents Manager Horizons Regional Council) that earthworks described by Mr Judd are permitted in Horizons Regional Council's Land and Water Plan (LM Rule 2: Permitted Vegetation Clearance, Soil Disturbance and Cultivation) subject to performance measures such as controlling works near waterways, runoff control measures, slips and scar rehabilitation and slopes for cut batters established by methods that prevent slumping. Ms Gardner advised that Horizons Regional Council would take an active role in monitoring earthworks on the site and ensure compliance consent conditions, including those imposed by the District Councils, and compliance with permitted activity criteria. This model has successfully been used for Te Apiti and Tararua 3.
- 7.266 Decommissioning works are proposed to be controlled by a Decommissioning Management Plan. Decommissioning works are almost the reverse of the construction process except that the concrete foundation of a turbine would be covered with 20cm of topsoil and revegetated. The concrete would remain in the ground. Mr Judd advises that earthworks involved in decommissioning would be significantly less than that required for construction.

- 7.267 Hydroseeding bare areas and batter slopes (where gradient allows) with grass to ensure these exposed surfaces will not produce significant sediment run off.
- 7.268 The Commissioners consider that with the implementation of appropriate sediment control measures, the earthworks required for construction of access tracks and turbine foundations will not result in any adverse effects to waterbodies.
- 7.269 Dr Mike Joy, Ecologist for PNCC recommends that
- 'sediment control measures in the vicinity of waterways in the Kahuterawa catchment must ensure that no erosion of material into streams occurs. That earthworks are set back at least 5m from all streams and other requirements for sediment control as required in the relevant regional council plans and that they are monitored regularly.'*
- 7.270 Joy also recommended that all land adjacent to waterways in the vicinity of construction areas are de-stocked at least 2 months prior to construction to allow rank grass growth.
- 7.271 In terms of the above, the Commissioners accept that construction/earthworks will result in temporary adverse effects, and accept the conclusion of Mr Judd that the effects can be mitigated to a less than minor level for the duration of the project. Appropriate conditions of consent are recommended (e.g. a Construction Earthworks Management Plan - CEMP) which will require detailed information to be submitted by the applicant on how potential effects of earthworks, including silt run-off and dust arising from the construction activities will be managed.
- 7.272 The Commissioners consider that the implementation of the CEMP will ensure any construction/earthworks effects will be appropriately addressed and/or mitigated. The CEMP requirement follows a well established practice implemented by many other Councils, in particular Wellington Regional Council's Erosion and Sediment Control Guidelines for the Wellington Region.

Archaeological Issues

- 7.273 The hearing was advised that an archaeological assessment had been prepared by Clough and Associates Limited, titled *'Motorimu Wind Farm, Scotts Road, Motorimu, Palmerston North: Archaeological Assessment (January 2007)'*. The assessment identified that no archaeological sites had previously been recorded within the boundaries of the Motorimu Wind Farm site. The conclusion of the study was that it was considered unlikely that any archaeological sites will be exposed during construction.
- 7.274 The report stated:
- 'The proposed wind farm will have no impacts on known archaeological sites, as the only potential site identified (Batchelor's homestead) will not be affected. It is considered unlikely (in view of the good surface visibility and results of subsurface testing) that any archaeological sites will be exposed during construction.'*
- 7.275 The Commissioners received a letter tabled by the Historic Places Trust (dated 19 February 2007) that it is satisfied that effects on historic heritage have been adequately considered, and withdraw opposition to the project, but remained a submitter to the proceedings. The Trust recommended that a number of conditions/advice notes be placed on the consent, particularly around having procedures in place during construction in the event that archaeological remains are uncovered

- 7.276 The Commissioners are satisfied that the effects on archaeological sites can be avoided or mitigated subject to appropriate conditions, such as the conditions recommended by the Trust.

Electromagnetic Effects

- 7.277 The Commissioners heard evidence from Mr Bernard Voll of MWFL who addressed the technical aspects of potential electromagnetic effects. Mr Voll considered that while wind farms contain large metallic structures that can interfere with electromagnetic signals such as microwave transmission and TV broadcasting there needs to be a direct line of site between two transmitter/receiver stations. He advised Motorimu is outside the line of sight of any major transmitter station and therefore electromagnetic effects not considered an issue.
- 7.278 The Commissioners note that the only submission raising this issue was from Telecom NZ and that Telecom withdrew its submission prior to the hearing.
- 7.279 In terms of the above, the Commissioners are satisfied that any electromagnetic effects can be avoided or mitigated subject to appropriate conditions.

Airways New Zealand – Radar Interference

- 7.280 Airways New Zealand raised some concerns about the potential effects on the Ballance Radar Station at North Range Road. The distance between this radar station is more than 12km and therefore in the opinion of Mr Voll is not expected to create any interference. Mr Voll also noted that the Te Rere Hau wind farm is significantly closer to this radar station, and so far no major issues have been reported. Mr Voll indicates that if any interference occurs, modern software programs can eliminate this clutter by filtering the specific pattern of wind turbine blades from the radar signal.
- 7.281 The Commissioners are satisfied that potential and actual effects on the radar station can be avoided, remedied or mitigated. A condition of consent is recommended to ensure the effects of the wind farm development on the operation of the Airways Ballance radar station and any other relevant navigational sites and facilities is fully assessed and voided, remedied or mitigated to ensure safe and efficient operation of the air transport network.
- 7.282 The Commissioners note that Airways New Zealand did not appear in support of their submission.

Recreational Activity

- 7.283 The Commissioners heard that the top of Scotts Road is used by a number of people for recreational purposes, including access to the recently established section of the Te Araroa Walking Track.
- 7.284 The New Zealand Hang Gliding and Paragliding Association (NZHGPA) has a launch site below the southern end of the wind farm. The NZHGPA is supportive of the wind farm proposal.
- 7.285 Whilst the Commissioners accept that there will be some limited impacts during construction due to the required traffic management at times of peak construction traffic, they are of the overall view that there will be no restrictions once the wind farm is operational.
- 7.286 With regard to users of the Kahuterawa Valley, it is not anticipated that there will be adverse effects for recreational users of the area associated with the proposed wind farm.

8.0 SUMMARY OF COMMISSIONERS' FINDINGS /OVERALL EVALUATION

Part 2 Consideration

- 8.1 In considering this application, the Commissioners have had regard to those matters identified in Part 2 of the Act. In particular, the Commissioners have had to consider whether the proposal achieves the purpose of the Act which is to promote the sustainable management of natural and physical resources (Section 5). The Commissioners have also carefully considered the matters in Sections 6 to 8.
- 8.2 In making their assessment the Commissioners had regard to section 5(2) of the Act, which defines the meaning of *'sustainable management'*, as follows:
- '...managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing and for their health and safety while—*
- (a) Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
 - (b) Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
 - (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment."*
- 8.3 The Commissioners consider that sections (b) and (e) of section 6 *Matters of National Importance* are relevant to this decision. These sections refer to *'the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development'* and *'the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga'* respectively as matters of national importance.
- 8.4 With regard to section 7 *Other Matters*, the Commissioners are of the opinion that the following sections are of some relevance to this application:
- (a) Kaitiakitanga and (aa) the ethic of stewardship;*
 - (b) the efficient use and development of natural and physical resources;*
 - (c) the maintenance and enhancement of amenity values;*
 - (d) intrinsic values of ecosystems*
 - (f) maintenance and enhancement of the quality of the environment;*
 - (g) any finite characteristics of natural and physical resources;*
 - (i) the effects of climate change; and*
 - (j) the benefits to be derived from the use and development of renewable energy.*
- 8.5 Section 8 RMA makes reference to the principles of the Treaty of Waitangi and is also of some relevance to this application.
- 8.6 The Commissioners have had regard to these above matters whilst making their assessment of the potential and actual environmental effects resulting from the proposal.
- 8.7 In terms of this statutory framework and the assessment of effects contained in Section 7 of this decision document, the Commissioners have made the following determinations:

Positive Effects

National benefits

- The Commissioners acknowledge that there are recognised and accepted positive benefits to be gained from wind farms. Despite some debate regarding the degree of greenhouse gas reduction attributable to the proposal, the evidence of the benefits was largely irrefutable. At the same time however, the Commissioners are aware that these benefits will largely accrue solely at the national level in terms of positive effects such as security of electricity supply, increased renewable energy contribution and reduction in greenhouse gas emissions. In this respect, the Commissioners endorse the view of the applicant and certain submitters that the proposal is consistent with government sustainable energy policies and strategies and international climate change commitments (and it follows is also therefore consistent with sections 7(i) and (j) of the Act).

Regional/local benefits

- The Commissioners also acknowledge that there will be some economic benefits to the Manawatu region that will accrue during the construction period as the project will create some employment. The project will also provide some local benefits to the area in terms of native bush protection, research funding, potential improvement in security of local electricity supply and permanent roading and intersection upgrades.

Adverse Effects

- As is clear from their analysis in section 7 of this report, the Commissioners consider that there are significant adverse effects associated with the proposal; particularly in relation to landscape/visual/amenity, cultural/iwi/tangata whenua, noise and traffic effects.

Landscape

- The effects of the proposal on outstanding natural features and landscapes is discussed in section 7.27 of this report. It is considered that these effects would be more than minor. There is undoubtedly potential for long term unmitigated and persistent landscape/cultural effects from the proposal as notified. The Motorimu site is considered to be a discrete/unique site in comparison with Northern Tararua. As such, the Commissioners consider that the skyline turbines along the front ridgeline, particularly the Te Mata ridgeline, and those associated with Kaihinu Peak do constitute inappropriate development in this outstanding landscape. In this respect the proposal in its proposed form does not win the support of section 6(b) of the Act nor is it consistent with the policies and objectives of the RPS relating to outstanding natural features and landscapes.

Traffic and noise

- The traffic and noise effects of the construction and operation of the wind farm respectively can be mitigated through the application of stringent conditions.

Cultural Values

- The effects of the proposal on Maori cultural values is discussed in section 7.88. The Commissioners acknowledge that the Applicant has signed a Memorandum of Understanding with TMI. Notwithstanding this, the Commissioners consider that the proposal does not sit comfortably with the relationship of Maori and their culture and the concept of stewardship that flows from such a relationship.
- There are two reasons for this. Firstly, the MoU is largely an unspecific document which did little to dispel the potential issues that the TMI outlined in the Cultural Impact Assessment prepared for the applicant. Secondly, those very issues outlined in the CIA were very clearly enunciated and given life by those iwi and hapu groups that did present at the hearing. In this respect, the message was clear to the Commissioners; namely that the magnitude and

location of turbines (on prominent ridgelines) tramples on the mana of Rangitane and seriously diminishes the mauri of this significant part of the Tararua Range and Kaihinu.

- In light of the above, the Commissioners are of the view that approval for a less visible wind farm will not only have benefits from a landscape perspective, but also will help to address the very real concerns of iwi and provide for their social and cultural wellbeing.

Visual/amenity

- The issue of inappropriate development in an ONL aside, the Commissioners have also assessed the amenity effects of the proposal and consider that the introduction of turbines into the Tokomaru landscape would be a considerable imposition on the people who live in close proximity to the site. For these people there would be no escaping the dramatic change to their home space. In this respect the proposal in its notified form does not accord with section 7(c) of the Act as the wind farm is unlikely to assist in the maintenance and enhancement of amenity values in the locality.
- The Commissioners have also determined that further away from the site, the issue of cumulative effects becomes a significantly important consideration.

Ecology

- It is considered that there will be minor effects associated with ecology, construction/earthworks and stormwater/hydrology/water supply matters. These effects will be temporary and only occur during the construction phase.

Other matters

- Additionally, there may be some minor adverse effects that are long-term but occasional, for example, blade glint, shadow flicker, turbine noise, but these effects will be lessened since no WTGs will be constructed along the front ridge.

Overall Evaluation and Conclusion

- 8.8 For this wind farm proposal, the benefits derived in terms of renewable energy and climate change are not of sufficient national importance, national value and benefit to claim sufficient sustainable management of natural and physical resources, such that the Commissioners can grant consent in its entirety. The benefits of the wind farm are important but are essentially national benefits and these do not simply override or justify the significant adverse effects associated with landscape and cultural issues. The proposed turbines to be deleted are considered to be too big and too close to residential locations. The Commissioners do not consider the proposal to be sustainable in its current form. Moreover those national benefits will largely occur regardless of the site selected for the wind farm. Put differently, and as Dr Read for TAG stated, the very same benefits are likely to accrue at the national level for a similar wind farm in a different location – a location where the local adverse effects on the environment are not as adverse as they would be here.
- 8.9 Having considered the information submitted by MWFL, the advice received from Council officers and experts, and the matters raised by submitters, and for the above reasons, the Commissioners conclude that the current proposal to build 127 wind turbines at this site does not promote the sustainable management of natural and physical resources in a way that enables people and communities to provide for their social, economic and cultural well-being, and for their health and safety.
- 8.10 On the above basis the Commissioners also accept that potential mitigation and remediation is virtually impossible, apart from the treatment of earthworks for access road creation purposes, and therefore the only option left to Commissioners is to decline approval of 52 turbines that are considered to be adversely prominent, having

regard to the unique landform and visual characteristics of this area of the Tararua Range. The remaining 75 turbines are considered to be located in positions that will achieve the principal purpose of the Act to *'promote sustainable management of natural and physical resources'* and in this location can be fitted into the local environment in an environmentally responsible manner.

- 8.11 Overall, and in terms of the Part 2 considerations, the Commissioners cannot support the proposal in its full scale and have resolved to **decline consent** for those turbines that give rise to the greatest adverse effect on landscape and cultural values; those being the front tier ridgeline turbines and the Kaihinu Peak turbines. The Commissioners recognised that many of these turbines will be the higher generating ones in the proposal and that, as the applicant reminded us, such deletions have the potential to significantly affect the generating capacity and ultimately the viability of the wind farm. Nevertheless, that cannot be the motivating factor for the Commissioners and is a decision to be made by the applicant. The Commissioners do note that the matters they must have regard to under sections 7(i) and (j) are not an *'at all costs to the environment'* doctrine and in this instance the twin fold advice of submitters such as the NZ Wind Energy Association and EECA is that *'every bit of renewable energy contribution and greenhouse gas reduction helps'* and that their support of the wind farm has not factored in the adverse environmental effects which have been pivotal in confirming the conclusions of the Commissioners.
- 8.12 For the Turbines that remain and are consented, the Commissioners have imposed conditions of consent in order to avoid, mitigate or remedy the adverse effects (e.g. noise, traffic, construction effects) of the reduced proposal (75 turbines) on the environment. A number of consent conditions require the preparation of Management Plans. Commissioners have no concerns with this approach, which has been endorsed by the Environment Court as an acceptable process.
- 8.13 The decision to delete 52 turbines whilst leaving 75 remaining, leaves the Applicant with options, thus striking a balance between the preservation of amenity and cultural values for a significant number of people, yet acknowledging the benefits of renewable energy.
- 8.14 Consequently, for the reasons stated above, the Commissioners have made the decision outlined in section 9 below.

9.0 DECISIONS

Pursuant to Part 2 and Sections 104, 104B, and 108 of the Resource Management Act, the Hearing Commissioners **grant** land use consent (details held on PNCC file: 202697) to Motorimu Wind Farm Limited to develop, construct, install, operate, maintain and decommission **75 wind turbines** at the site known as the 'Motorimu Wind Farm' to generate electricity and construct other associated ancillary activities, subject to the conditions listed in Appendix 2 (Palmerston North City Council Conditions) and Appendix 3 (Horowhenua District Council Conditions) of this decision.

The Commissioners grant consent for the following turbines:

Turbine Numbers: 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 27, 28, 29, 30, 31, 32, 33, 35, 36, 37, 38, 40, 43, 44, 45, 46, 47, 48, 49, 50, 52, 53, 54, 55, 56, 57, 58, 59, 61, 62, 63, 64, 65, 66, 67, 68, 70, 71, 72, 74, 75, 76, 77, 78, 79, 80, 82, 83, 84, 85, 86, 88, 89, 91, 92.

For the avoidance of any doubt the 52 turbines for which consent is declined are identified as follows:

Turbine Numbers: 1, 2, 3, 4, 5, 26, 34, 39, 41, 42, 51, 60, 69, 73, 81, 87, 90, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129.

Pursuant to Part 2 and Sections 104, 104B, and 108 of the Resource Management Act, the Hearings Commissioners **grant** the following permits to Motorimu Wind Farm Limited to abstract water, excavate and disturb the beds of two unnamed tributaries of the Tokomaru River, to discharge sediment in stormwater from the concrete batching plant, and to discharge contaminants to air associated with the operation of a concrete batching plant, at the site known as the 'Motorimu Wind Farm', subject to the conditions listed in Appendix 4 of this decision.

103684 Water Permit to abstract up to a maximum of 70 cubic metres per day (70m³/day) of surface water when the flow in the stream exceeds 10 litres per second, from a storage pond for use in the concrete batching plant.

103865 Water Permit to excavate and disturb the beds of two unnamed tributaries of the Tokomaru River, to place and install structures and associated works, to divert, through a 90-metre long open trench and 8 metre long culvert, the diverted flow of the stream on the western side of the concrete batching plant and merge with the second unnamed tributary, from which the water abstraction will occur after the culverting under the roadway.

103866 Discharge Permit to discharge sediment in stormwater from the concrete batching platform and roadway, to a settling pond and then to a water storage pond where the water will be recycled to supply water for a concrete batching plant.

103894 Discharge Permit to discharge contaminants to air associated with the operation of a concrete batching plant, to mix concrete for use in the construction of 75 wind turbines as part of the proposed Motorimu Wind Farm Limited.

Note: It is proposed to batch approximately 15,000 cubic metres (15,000m³) of concrete over a period of not less than 30 weeks.

These decisions are issued by the following Independent Commissioners acting under delegated authority from Palmerston North City Council, Horowhenua District Council and Manawatu-Wanganui Regional Council (Horizons Regional Council):

Dinah Williams (Chair)

Richard Heerdegen

David McMahon