evidence of this. The invertebrate and fish species found within these streams are all able to cope with periods of silt-laden run-off, so that any additional silt run-off as a consequence of the wind farm's construction would be unlikely to cause any adverse effects on existing in-stream biota over and above that which would occur during any major flood event. Hence the species present are already adapted to cope with periods of silt-laden water and silt-depositions.

• The progressive staged approach to earthworks described by Mr Tony Keyte, would limit the amount of silt run-off at any one time, which in turn would ensue that the risk of large pulses of silt discharging into the receiving waters would be lessened. Mr Kessels concluded that provided standard good practice silt control techniques are implemented during construction, effects on in-stream biota would be no more than minor.

# **Findings**

- 247. In our assessment, the evidence of Mr Kessels provides a reliable basis for concluding that the terrestrial and aquatic ecological effects associated with the project are able to be appropriately addressed. The MoU with DoC and modified conditions of consent recommended to us, provide an acceptable outcome in terms of the protection of birds, including the New Zealand Falcon, as well as Long-Tailed Bats.
- 248. Effects on aquatic life are able to be minimised by employing the techniques described to us by Mr Keyte and Mr Kessels. We noted that this matter is also addressed fully in the EW decision granting the consents required from that Council.

#### **Health Effects**

Dr David Black, a Senior Lecturer in the Department of Medicine of the Faculty of Medical and Health Sciences at the University of Auckland, was engaged by the applicant to give evidence on health related effects. Dr Black has been involved in the application project since late 2005 and provided

evidence on both visual and auditory effects, air quality, electromagnetic and electrical safety, and specific concerns raised by the public including vibroacoustic disease ("VAD"), subsonic noise and "Wind Turbine Syndrome".

250. Dr Black's overall conclusion was that

"...although all of these are reasonable issues to raise, none of them have characteristics or are of a magnitude which will have any significant impact on the local community." (3.4)

251. Of particular relevance to the commissioners from Dr Black's evidence were the following matters:

### Visual flicker

Dr Black acknowledged that this is an accepted cause of epilepsy, particularly in children. He noted that the precondition for this effect is that

"... the light falling on a substantial part of their vision, at least a quarter of the visual field, is interrupted in a regular pulsating fashion at a particular rate. The effect is also greater at certain colours, generally red".

- 253. He noted that none of these characteristics are present in viewing the wind farm at any angle and that:
  - "... the possibility of epileptogenic flicker effect can be confidently excluded." (5.10).
- His reasons for reaching his conclusion include, most importantly, viewing distances from the community and related to this the small part of the viewing field that would be occupied by the turbines; the fact that most views to the wind farm will be from the north; the variable blade velocity along their length; the low and diffuse contrast between blade and sky and the absence of intense red light energy (analogous to that associated with epilepsy).

255. There is also the related issue of general annoyance from blade flicker. HTC prepared a report, a copy of which was provided to us in the course of the hearing. That report concludes that the maximum shadow flicker at residences will be within the acceptable limits adopted in both Germany and Australia, there being no New Zealand standard. A peer review of that work was obtained by Council from PB Power, who also conclude that the potential for shadow flicker is within the limits of international best practice and is unlikely to be problematic in this case.

### Vibro-Acoustic Disease (VAD)

### 256. Dr Black advised that VAD is:

"... a multi-systemic entity caused by occupational or chronic exposure to large pressure amplitude low frequency (LPALF) noise (greater than 90dB SPL at frequencies under 500 Hz).

- 257. In relation to low frequency noise and air vibration, Dr Black relied on the evidence of Mr Hegley in quantifying the magnitude of the energy, and based his opinion on Mr Hegley's assessment.
- 258. Mr Hegley concluded that significant subsonic vibration from the wind turbine generators was unlikely to occur. Dr Black advised that VAD has been observed in some workers in industrial settings at levels of pressure hundreds of thousands of times greater than those which arise from modern wind turbines.
- 259. He rejected the prospect of VAD occurring as a consequence of this proposed development, primarily because the magnitude of energy pulse required for either ground vibration or air vibration is simply too great and could find no relevant medical literature to the contrary.

# Electromagnetic Effects

Dr Black noted that the wind farm turbines and associated electrical equipment will be (and will be required to be) designed to comply with the public exposure reference levels in the appropriate national guidelines and that these guidelines are designed to eliminate any adverse biological or health effect.

# Electrical Safety

Dr Black noted that the wind farm would be designed to comply with the required New Zealand Electrical Code of Practice for Electrical Safe Distances.

# Occupational Health

- The main occupational health issue discussed by Dr Black was that of Radio Frequency Safety. He noted that during construction, and particularly in the area adjacent to the large microwave relay station co-located on the site, highly specialized techniques with associated safety procedures would be required. These would be necessary because of the operator's requirement for continued, uninterrupted operation of the station.
- Dr Black advised that the relevant standard is the New Zealand Standard for Radio Frequency Safety NZS2772.1 (1999). Dr Black noted the resource consent draft condition proposed with respect to this particular hazard and gave his opinion that this would be adequate to ensure that any hazard is properly dealt with. He also observed that by design none of the turbines would be located directly in line with microwave paths from the telecommunication towers.

### Submitter Issues

Dr Black also reviewed issues raised in submissions and by submitters, in particular noise, vibro-acoustic disease, visual issues, subsonic noise, and general health effects. While noting the potential for some nuisance effects, such as blade glint, he concluded that:

" ... there are no issues raised which are not adequately dealt with by optimisation of design and implementation to current best practice". (7.13)

- 265. In response to criticism from submitters, particularly Mr Cox, Dr Bolden and Ms Penfold, Dr Black tabled a further statement of evidence. He gave particular attention to Dr Bolden's submissions.
- Dr Black acknowledged Dr Bolden's qualifications in general practice and the fact that she cares for some 4000 patients in the relevant area. However he noted that Dr Bolden had no expressed expert qualifications in public health or psychiatry. While Dr Black acknowledged the fact that mental disorders do have a high prevalence in the New Zealand population, he was not persuaded that the concerns that Dr Bolden articulated in that regard would arise directly from wind farm activity rather than from patient sensitivity or hypersensitivity to the probability of their occurrence. That is he expressed the opinion that, with respect to this proposal, such sensitivity was more likely to be a psychological/perceptual phenomenon than an actual one. That is not to say that Dr Black dismissed that effect as a relevant consideration. Rather he was critical of the way in which this concern was being treated. He raised this concern as follows.

"Thus, a paramount consideration in managing or addressing concerns of the nature raised by Dr Bolden is ensuring that those of us, such as public health and general practitioners on whom a community relies for medical advice and warnings of potential threats to health, give accurate and evidence based information and that the people we care for are not misled into misunderstandings causing them to expect

likely effects. If this does happen, doctors and other health professionals trusted by communities can become part of, or even the cause of, the problem rather than the solution". (3.15)

- 267. Mr McNatty of Tui G, an incorporated society and submitter in opposition to the proposal, referenced a number of articles and abstracts from international meetings and elsewhere, where infrasound, low frequency noise and other topics were considered. Ms Nora Van de Noorden also provided us with material written by Dr Nina Pierpont, an American researcher and scientist.
- While we have read the extensive material provided, it is difficult for us to give it weight in the context of this hearing. This is because:
  - (i) while it raises issues relevant to wind farms in a general sense, it is not possible to draw conclusions from the material, in relation to the proposal before us;
  - (ii) the authors of the various papers and reports clearly could not be available to us in this hearing. Neither was the material the subject of expert analysis in our hearing;
  - (iii) much of the material was incomplete (for example, the Extracts from the International Meeting on Wind Turbine Noise at Lyon in 2007), or offered no conclusions.
- 269. In the result, we must form our conclusions on the basis of the submissions and evidence given at this hearing.

### **Findings**

270. The commissioners accept that the mere prospect of a wind farm will be sufficient to cause a psychological reaction in some people. In that regard it accepts the genuineness of Dr Bolden's submission on the potential additional effect this proposal will have and is having on some of her patients. However, we did not receive sufficiently strong empirical or

medical evidence for the likelihood of occurrence of any of the physical public health matters discussed in evidence by Dr Black – noting however the particular concern he raised relating to the potential construction and operational occupational health effects arising from radiofrequency exposure.

While the matter of health effects, both physical and psychological, are relevant considerations under section 104 of the RMA, we do not find them to be sufficiently established to accord much weight to them in our overall determination.

### 272. We have concluded that:

- (i) no adverse health effects may be expected from the operation of the wind farm as a result of subsonic noise, vibration or shadow flicker;
- (ii) any flicker effect will be within international best practice and not result in unacceptable adverse effects on amenities.

#### **Tourism Effects**

- 273. Mr Gordon Campell, CEO and Strategic Business Consultant with Campbell Consulting, gave evidence for the Applicant. Campbell Consulting has been retained by WEL Networks since September 2007.
- 274. Mr Campbell acknowledged that his evidence was based on an analysis of secondary research, with the addition of an online survey conducted with Raglan's main visitors. The overall conclusion of Campbell Consulting's research was that there will be:

"... a moderate positive short-term effect on Raglan's tourism, as a result of a wind farm near Te Uku. Our research highlighted that Raglan should expect an 11% increase in domestic tourism as a result of a wind farm located near Te Uku".

- 275. For comparative purposes Campbell Consulting included the results of research on tourism-related businesses in close proximity to Manawatu's wind farms. He noted that 63% of businesses surveyed there had opened or changed hands following construction of the wind farms and that 81% thought that the wind farms had either had a slight or very positive effect on their businesses.
- 276. From his Raglan tourism-related business research the main finding was that almost all accommodation providers face towards Raglan's main attraction its sea or harbour. Mr Campbell noted:

"Of the few accommodation providers who would face the proposed wind farm all research pointed towards their businesses standing to prosper as a result of a wind farm near Te Uku".

277. Mr Campell noted that in the mid term, a term he defined as:

"... being a time when all locals would have seen the Te Uku wind farm and all repeat visitors to Raglan would have seen the Te Uku wind farm."

that conservatively Raglan's tourism would see a potential increase of 7% to visitation.

- 278. Longer term Mr Campbell acknowledged that wind farms would become "commonplace", becoming a part of New Zealand's backdrop, and would, therefore, have no significant effect.
- With respect to the one accommodation provider closest to the WTGs, that is Hidden Valley Luxury Retreat, Mr Campbell noted that the planned observation viewing platform near Te Uku is very close to Hidden Valley and would likely bring additional business for Hidden Valley. Furthermore he gave his opinion that as one of the best views of a Raglan wind turbine would be from Hidden Valley, this in itself creates a "marketing opportunity" for Hidden Valley.

- 280. In Mr Campbell's second statement of evidence he provided further background on the validity and status of the research cited, concluding that whilst many of the studies referred to are 3 to 5 years old they are the only research available for the Raglan area and therefore the use of these studies is appropriate. Furthermore he confirmed that whilst with one exception every accommodation tourism and hospitality provider was visited and viewed by Campbell Consulting, not all owners or occupiers of these premises were physically spoken to. That particularly was the case with respect to the owner/operator of Hidden Valley.
- 281. In that second statement of evidence Mr Campbell agreed that the 11% visitation by domestic tourist increase figure was "a bold statement", and noted that the 11% figure predicted was not an 11% per annum (as some submitters had assumed) but should be averaged over 3 5 years, a period defined by him as the short term period, representing an increase of up to 3.67% per annum.
- 282. Mr Campbell also provided evidence in rebuttal to the evidence of Mr Gallagher. We return to this statement of evidence following a discussion of Mr Gallagher's evidence below.
- 283. Mr Rodger Gallagher, an engineer and econometric consultant, originally gave evidence to the hearing on engineering and power generation-related matters. However in his second statement of evidence he included an assessment of impact on tourism. Mr Gallagher noted that in the past 18 years he had specialised in strategic business consulting, cost-benefit studies and marketing research and modeling, and considered himself an expert in establishing causal relationships between research data and market behaviour. Mr Gallagher was critical of the methodology employed by Campbell Consulting and elaborated a number of errors and inaccuracies in the Campbell Consulting report as a basis for concluding that the accommodation analysis undertaken could not be construed as having used random sampling as stated. He drew a similar conclusion from the online internet panel survey branded as "Smile City" provided by TNS CONVERSA.

- 284. In passing, Mr Gallagher refers to Campbell Consulting's conclusions with respect to the Hidden Valley Luxury Retreat. Mr Gallagher disputed Mr Campbell's assertion of any benefit to Hidden Valley suggesting that its:
  - "... ability to deliver on its value proposition would be compromised and guest numbers would decline".
- 285. Mr Gallagher's company, Customer Value Management New Zealand Ltd (CVM) was engaged by Tui G Incorporated Society, a submitter to this hearing, to undertake a tourism survey of Raglan to ascertain the views of visiting tourists on the importance of unspoilt landscape to the experience.
- 286. Mr Gallagher described the Net Promoter Score ("NPS") methodology underpinning that survey, noting that interviews were undertaken during January and February 2008 with respondents selected at random in the streets of Raglan. A total of 85 people were interviewed. Mr Gallagher's conclusion drawn from that survey was that:
  - "... the trend of increasing visitor numbers experienced over recent years would be reversed and Raglan would go into decline as a tourist destination".
- In a brief supplementary statement to the Hearing the owner operators of Hidden Valley Luxury Retreat, Mr and Mrs Bellerby, gave their opinion on Mr Campbell's conclusions with respect to the tourism potential of their property in the event that the wind farm became operative. In summary they noted that the wind farm would materially affect the way in which the existing business is marketed, based as it is on the elements of seclusion, the focus on the pastoral hill landscape, and its general peace and quiet with self-contained outdoor-orientated living.
- 288. In his second supplementary statement of evidence, Mr Campbell addressed the criticisms made by Mr Gallagher. Mr Campbell criticized the methodology used by Mr Gallagher noting that the NPS survey design is:

"... widely seen as being controversial within academic and market research circles".

289. Mr Campbell noted that the wording of the question(s) used biased participant responses and the conclusions drawn therefore could not be claimed to have been made on the basis of sound research. Mr Campbell then proceeded to detail specific matters of disagreement that he had with Mr Gallagher's evidence.

### **Findings**

- 290. Commissioners are in no doubt as to whether the potential or actual effects of the proposed wind farm on tourism in Raglan or in the general area is a relevant matter under the RMA. Clearly if a new activity has an effect on existing activities sufficient to create significant adverse effects then that is a matter that should be taken into account under Section 104.
- We note from Mr Campbell's evidence that very little research has been conducted on the effects on tourism arising from wind farms. This is true internationally as well as domestically and we congratulate the applicant on attempting to generate valid research findings in this area.
- However, as a result, we can place little weight on Mr Campbell's prediction of an 11% increase in tourism over what he terms the short-term, or 7% over what he terms the mid-term. That is not to say that we do not believe Mr Campbell or that we accept Mr Gallagher's criticisms of Campbell Consulting methodology. It is simply our finding that that conclusion, while based on Mr Campbell's expertise, must remain conjectural in the context of the absence of a strong body of confirming, post-development, research.
- At the same time we are not persuaded by Mr Gallagher to accept the extent of the adverse effect contended from his own research. We accept Mr Campbell's opinion that the questions asked contained a pronounced element of bias that subsequently invalidates the responses.

We therefore find that while some effect on tourism is reasonably likely, we are unable to ascribe any convincing quantum or direction to that effect. The commissioners do accept however that the effect in one instance, that on the Hidden Valley Luxury Retreat, is likely to be adverse and unlikely to be consistent with the style and objective of the activity currently being developed by its owner / operator.

# Archaeological/ Heritage Effects

### Archaeology

- WEL commissioned an Assessment of Archaeological Issues to establish whether there were any potential archaeological sites within the project area. The assessment identified two sites that had significant heritage values and which should be preserved without modification. These are:
  - (a) Te Tihi-o-Tonganui Pa. Pre-European Maori sites are generally rare in locations over 200 metres above sea level and Ngati Mahanga has a clear and continuing association with the power site.
  - (b) Remains of the original Van Houtte homestead. This site is related to the last phase of pioneering settlement in New Zealand and may hold sub-surface archaeological remains. The Van Houtte family wish to ensure that the site of the original homestead remains unaffected by development.
- 296. Neither of these sites will be directly affected by any of the development associated with the proposed wind farm. However, turbine 5 is near to the Pa site and parts of the secondary internal access road will be passing within the remains of the original Van Houtte homestead. WEL proposes that these sites be protected as follows:
  - (a) Establishing "no-go" zones around both sites as indicated in the application documents. In the case of the Pa site, this includes preserving parts of the adjacent original road formation alongside the Pa.

- (b) Placement of warning signs to emphasise the location of these features.
- (c) Include the above procedures to ensure that these sites are preserved in the Construction Management Plan.
- (d) Include procedures on how to attend to accidental discovery (for the whole site) in the Construction Management Plan.

# Cultural Heritage

- We were advised that WEL consulted with Ngati Mahunga in relation to the wind farm proposal on the basis that Ngati Mahunga are considered Tangata Whenua for the area. There is no dispute as to that status.
- WEL commissioned Nga Uri a Mahunga Trust (NAUM) to prepare a Cultural Heritage Assessment Report (CHAR) covering the area known as "Wharauroa Te Uku" (Raglan). The Trust represents the affiliated Marae within the Ngati Mahunga region. A copy of the CHAR was included with the application documents. It recommends a number of conditions which are in turn reflected in the conditions that have been recommended to commissioners. At the first hearing session and in the absence of Ngati Mahunga, commissioners queried whether these conditions remained sufficient to address any Iwi concerns. In the second session, Mr Berry produced an affidavit sworn by Mr Sunnah Thompson, Kaumatua for Ngati Mahunga confirming that:
  - (a) Ngati Mahunga have Tangata Whenua status for the Wharauroa Plateau;
  - (b) The conditions proposed by WEL satisfy the concerns identified in the CHAR; and
  - (c) Ngati Mahunga maintains its position on the wind park project as set out in the CHAR.

299. The recommended conditions require appropriate fencing and signage of the "no-go" zones, which are important features to Iwi, and provide for Tangata Whenua representatives to be on site during earthworks. Mr Berry confirmed that WEL intends to fully comply with those requirements.

# Air Traffic Safety Effects

- 300. We have referred to the aircraft navigation lights to be fitted to the top of the nacelles of seven turbines, in the description of the proposal. The applicant sought input from the CAA which conducted an aeronautical study to consider the potential effects of the wind farm on the safe and efficient use of airspace by aircraft and on the safety of persons and property on the ground. The CAA concluded that the wind farm will constitute a hazard to navigable airspace but issued a "Navigable Airspace Determination" which contains the following:
  - (a) turbines 1, 3, 8, 13, 21, 24, 27 and 29 must be fitted with medium intensity obstruction lights;
  - (b) CAA is to be notified 90 days prior to erection of the first turbine to enable aircraft operator notification and charting of the location of the wind farm.
- 301. It is understood that the determinations also address matters raised by Airways Corporation of NZ and are accordingly reflected in recommended conditions.
- WEL also consulted with other parties about local airstrips (land owner, top dressing businesses SuperAir) and the Hamilton International Airport. As a result, the land owner of the existing airstrip near turbine 9 has agreed to surrender it (because there is an alternative airstrip to use) and no other submitters have raised concerns about navigational safety for aircraft. Hamilton International Airport is more than 30 kilometres from the project site and representatives of the airport have raised no concerns.

303. Several submitters have raised concerns about the visual effect of the navigation lights required on seven of the turbines. However the visual assessment undertaken by the Applicant concludes that lights will be visible but only on land at elevations above 399 metres. No permanent dwellings or occupied buildings appear to be located in a position where they could be affected by the lights.

# Radio Frequency Interference Effects

- WEL has assessed the effects of the wind farm on various communication matters being television reception, microwave links, air navigation services, and radio communication services.
- 305. Several submitters referred to the already limited **television reception** in parts of the Te Uku area and expressed concern that the wind farm would interfere with television reception. WEL's assessment concluded that turbines can interfere with the signals to analogue televisions which is experienced as "ghosting" of TV images. Potentially 55 residences may be affected, depending on their location and the type of antennae used. There will be no effect on reception from satellite providers.
- 306. WEL has proposed to rectify poor TV reception for residences where that results from the operation of the wind farm. This may involve providing new television sets and/or reception equipment to affected households.
- 307. The existing telecommunication tower situated on the Wharauroa Plateau carries a range of high and low frequency fixed **microwave links**. The application identifies that fixed microwave links could be affected by turbines impinging on the ray paths between the transmitter and receiver, particularly if turbines were located so they obstructed microwave paths. However a submission received by Telecom New Zealand was subsequently withdrawn. The commissioners have therefore assumed that the applicant and the submitter have resolved any issues between them.

- A submission by Airways Corporation of NZ supports the application but raises concern about the interference of wind turbines with airways frequencies required for air navigation. Certain conditions of consent are sought by Airways Corporation in the event of consent being granted. While the applicant maintains that there are no aeronautical radar services in the right area that will be affected by the wind farm, it is understood that WEL accepts the conditions sought by Airways Corporation of NZ.
- 309. Several submitters have also expressed concern that the wind farm will have adverse effects on radio reception, particularly in the Te Uku area which already has limited reception. The assessment undertaken by WEL concluded that the radio communication services at Te Uku should be sufficiently protected from the proposed wind turbines, but a single service at Wharauroa (operated by Works Infrastructure) could potentially suffer scattering interference. WEL has proposed further investigation of the matter in consultation with the service providers and suggested a condition (the same as for microwave links), in the event of consent being granted.

# Findings

- 310. Commissioners are satisfied that any effects of the wind farm on air traffic safety and communications (TV and radio) are able to be appropriately avoided or mitigated through the measures proposed in the conditions recommended to us and proposed by submitters. Such conditions address:
  - (a) compliance with the CAA determination (lights on turbines);
  - (b) shielding of lights from ground;
  - (c) as-built plans of turbine locations to be provided to Airways Corporation of New Zealand to update its aviation obstacle database;
  - (d) remedial action if effects on fixed linking or wide area coverage services;
  - (e) mitigation measures if effects cause poor TV reception;

- (f) worker safety with minimum safe distances from each radiating antennae at the Te Uku telecommunications mast;
- (g) investigations on frequency interference or electro-magnetic compatibility issues with navigational aids in the area.

# **Impact on Property Values**

- 311. Several submitters expressed concerns that the establishment of the wind farm would have an adverse impact on the value of their properties. Those concerns expressed were in some instances supported by reference to different property valuations commissioned by WEL for individual submitters, as compared with the valuations for rating purposes for those properties. Other concerns related to the saleability of properties because of the presence of a large scale infrastructure project. Counsel for WEL referred us to the decision of the Environment Court in *H & L R Giles v Christchurch City Council and C & S Bout* (A. 92/2000) where the Court said that it was required to have regard directly to the likely effects on the environment of allowing the activity. A valuer's appraisal of the way those effects might impact on market value would duplicate the consent authority's function in an indirect way. The Court therefore preferred to rely on the evidence of qualified resource management planners about the effects themselves.
- As pointed out by Ms d'Aubert in her report, while the RMA appears to treat 312. such effects as relevant (because section 5 includes provision for the "economic ... wellbeing of people") the Environment Court has regarded only economic effects at a "macro" level (i.e. effects on the economic-wellbeing of the district or regional communities) that have relevance under the RMA. That is our understanding of the general approach that is taken to this problem. However as counsel for WEL acknowledged, there will be cases where the market has reacted to the proposal in a manner which may be recognised as an adverse effect - such as occurred in the Hampton Downs case. Accordingly WEL acknowledges that this issue should be considered and that is why it evidence from valuation obtained valuations and presented

Mr Saunders, a qualified valuer. Mr Saunders considered that while there might be some change to usual market activity during the planning and construction phases, that would not be a lasting effect. He also noted that there was no market evidence "from the local market, Manawatu locality or from international studies that would suggest that the development of a wind farm will impact on property values of the locality".

## <u>Findings</u>

On the basis of the evidence available to us, we are not able to conclude that there would be any lasting impact of the wind farm on property values.

Neither does the RMA confer power on the Council or commissioners to award compensation to persons who consider they may be affected by the wind farm.

## **Statutory Planning Documents**

# Regional Policy Statement and Plans

- 314. It was common ground between the Applicant and both councils that there was little in the Regional Policy Statement or relevant Regional Plans affecting the land use consent applications other than some generally encouraging energy policies. These were stated in both the evidence of Mr Ashby (section 9) and the report of Ms d'Aubert (section 10.2). Other matters of relevance apply to the earthworks, diversion and discharge consents sought from Environment Waikato and are discussed under that Decision.
- 315. No submitters stated any contrary view.
- 316. The commissioners accept this as an accurate appraisal of those documents.

## Statutory District Plans

317. This application was lodged with Waikato District Council on the 19<sup>th</sup> March 2007.

- 318. The background to the existing relevant district plans was given by Ms AnaMaria d'Aubert. Ms d'Aubert was engaged by Council to provide their section 42A report. In that report Ms d'Aubert outlines the two relevant district plans, the Operative District Plan ("the ODP") and the more recent Proposed District Plan ("the PDP").
- 319. The ODP was notified in 1995, became partly operative in 1997 and fully operative in 2002.
- 320. The PDP was notified in 2004, the Decisions Version in November 2006, and the Appeals Version in January 2007. A number of appeals remain to be heard or disposed. Ms d'Aubert advised that it is the Appeals Version of the PDP that is relevant to this Hearing because its notification preceded lodgement of the application. The commissioners agree with that conclusion.

# The Operative District Plan

321. Ms d'Aubert advised two ODP planning policy areas of particular note: the Landscape Policy Areas ("the LPAs"), which state the controls regulating outstanding natural features and landscapes, and the Ridgeline Protection Policy Areas ("the RPAs"), which state the controls regulating significant ridgelines throughout the District. Maps designating these areas accompany the planning policies.

### Section 20 - Landscape Policy Area

Ms d'Aubert noted that while the LPAs are not precisely articulated on the ODP maps, a small area of LPA appears to intrude into the southern boundary of the proposed site. She also noted extensive areas of LPA to the south and east of the proposed site, covering Mt Pirongia, and Mt Karioi to the west. Ms d'Aubert noted in her Section 42A report that while the subject site is not identified as an outstanding feature or landscape, Mt Pirongia immediately adjacent to the site, is so identified.

# Section 21 - Ridgeline Protection Policy Area

- 323. Ms d'Aubert advised that the ODP does not provide a formal definition of the RPA but that the planning maps show these ridgelines across the District, including a significant part of the subject site within the 150m radius turbine contingency zones. Furthermore, she noted that the RPA applies to all of the main ridgeline features on the Wharauroa Plateau, and that most of the turbines and secondary access roads linking the turbines are within this RPA.
- Ms d'Aubert drew our attention to Objective 21.1.1 and its associated Policies 21.2.1 and 21.2.2. She observed that the purpose of this suite of controls was designed to maintain the natural appearance of significant ridgelines and to ensure that development does not detract from their natural character or become a major focal point on the ridgeline.
- 325. Having reviewed the proposal in the light of these objectives and policies Ms d'Aubert concluded that, in relation to the RPA, the proposal "will be inconsistent with" these particular objectives and policies of the ODP.

### The Proposed District Plan

- With respect to the PDP, Ms d'Aubert noted that the LPA is more clearly defined in this later plan, and she drew our attention particularly to *Chapter 3 Natural Features and Landscapes*. She advised that while this Chapter makes explicit reference to "prominent ridgelines" within Policy 3.2.4, as a result of appeals, Council was in the process of clarifying that the ridgelines referred to by Policy 3.2.4 are intended as a reference only to ridgelines within LPA's. That is, Council intended this policy to be quite specific to LPA's, not to prominent ridgelines generically. She then referred us to the treatment of RPA's under the PDP.
- 327. Ms d'Aubert noted that the PDP provides a definition of RPA under Appendix P. Ridgeline Protection Area is defined as:

- "... the land shown on the planning maps, being land within 20 metres horizontally of the line of a prominent ridgeline within the mapped area".
- 328. She advised that the RPA within the PDP planning maps are identical to those mapped in the ODP. Ms d'Aubert also confirmed that the RPA covers the proposed site to the same extent under both plans.
- 329. In turning her attention to the relevant RPA objectives and policies under the PDP, Ms d'Aubert referred specifically to *Chapter 3 Natural Features and Landscapes, Issue 3.4 Landscape and Visual Amenity Values.* She noted that Objective 3.4.1 seeks to:
  - "... ensure that landscapes and visual amenity values as <u>viewed</u> from public places are retained and enhanced." (underline added).
- 330. She also advised that supporting Policy 3.4.2 requires
  - "... the protection of matters <u>including prominent ridgelines</u>, from inappropriate use and development." (underline added).
- 331. In her Section 42A report analysis of this matter Ms d'Aubert noted that the prominent ridgelines outside of any LPA are amenity elements. That is, they are section 7(c) etc matters under the RMA, not a section 6(b) Matter of National Importance. This is a matter to which we return later in this Decision.
- Overall, Ms d'Aubert concluded that the proposal in relation to the RPA will be inconsistent with Objective 3.4.1 and Policy 3.4.2 of the PDP.

### Visual Amenity and Rural Character

333. Ms d'Aubert then turned her mind to the question of visual amenity and rural character.

- 334. She noted under the ODP that the relevant objectives and policies on this matter are set out in Section 9 Rural Zone. Specifically, Objective 9.1.6 has the aim of ensuring rural visual character and amenity values are maintained or enhanced, and Policy 9.2.9 requires that the visual and physical effects of tall or large buildings on the landscape should be avoided, remedied or mitigated.
- 335. The comparable objectives and policies in the PDP are set out in *Chapter 13 Amenity Values*.
- 336. Ms d'Aubert noted that the overall intent of these provisions are to ensure that any effects are appropriately managed so as to maintain or enhance rural amenity values and to be sympathetic to and reflect the natural and physical qualities of an area.
- 337. Ms d'Aubert concluded that the proposal is inconsistent with the requirements for visual amenity and rural character under both the ODP and the PDP.
- Ms d'Aubert's overall conclusion in her section 42A report was, however, that despite these inconsistencies the proposal would not be *contrary* (a term she changed from that of being "not ... consistent with" in her Response) to the objectives and policies of the plans as a whole.
- This overall conclusion was the focus of considerable attention throughout the Hearing.

# The Applicant

- The Applicant's main planning evidence on the matter of plan interpretation was given by Mr Mark Ashby, a Senior Planner with Connell Wagner Ltd.
- Mr Ashby agreed with Ms d'Aubert that the proposed wind farm is non-complying under the ODP. Mr Ashby took the view that the primary reason for this proposal being non-complying under the ODP was that this plan simply did not anticipate wind energy development rather than there being any express intention to restrict such development (Paragraph 5.4 and 11.1 of

Mr Ashby's primary evidence). Mr Ashby sought to justify this view on a number of grounds, one of which related to the existence of significant provisions for coal mining as a discretionary activity throughout the Rural Zone. Furthermore, Mr Ashby opined that because the ODP decisions version was notified in 1995 at a time when there were no significant wind farms in existence, this provides a sufficient reason for his opinion. Mr Ashby provided no evidence in support of his assertions, either from existing Council employees or from those who may have been involved in the development of the Operative District Plan. Accordingly, the commissioners give no weight to this observation.

- Mr Ashby agreed with Ms d'Aubert's conclusion with respect to the Landscape Policy Area provisions of the ODP. Mr Ashby also noted (Paragraph 11.19) that whether the LPA extends marginally into the site is not entirely relevant as the turbines are generally located to avoid any indigenous native vegetation and are sited at least 100 metres from any such bush edge.
- Mr Ashby drew a different conclusion to that reached by Ms d'Aubert with respect to the RPAs under the ODP. He expressed the opinion that while the wind farm is non-complying with the RPA provisions of the ODP, by reference to discretionary activity assessment criteria, which contemplates development within an RPA provided there is good reason why it cannot be located elsewhere, that this provides a clue as to how to deal with the issue of non-compliance. Mr Ashby concluded that the non-compliance can be waived provided there is a functional need for that location (Paragraph 11.29). He then noted that wind farms by their very nature require exposed areas and these are typically on ridgelines.
- Mr Ashby then turned his attention to the apparent inconsistency with respect to the rural character and amenity provisions of the ODP. He drew the conclusion that notwithstanding the changes that would occur from development of the wind farm, the essential rural character of the area would remain unchanged (Paragraph 11.34). He derived support for his conclusion from the observation that the particular objective and policy on point are only

two of the 19 objectives and 23 policies that relate to the Rural Zone. He gave the opinion that an assessment on this matter should be made in the round rather than on the specifics of any objective or policy. Mr Ashby's overall assessment (Paragraph 11.37) was that because the wind farm is not contrary the LPA provisions, and as the LPA provisions "govern the most visually sensitive parts of the district", then this lack of conflict should weigh positively in the minds of those forming an overall opinion with regard to the threshold test of Section 104D.

- Turning to the PDP, Mr Ashby generally agreed with the findings of Ms d'Aubert in her Section 42A report. Mr Ashby drew attention to the significant introduction of objectives and policies on renewable energy, and then moved to a consideration of *Chapter 3 Natural Features and Landscape* of the PDP. He expressed the opinion that the primary intention of this section is to protect outstanding features and landscapes from "irreversible change" (Paragraph 12.34). He concluded that the proposal is not inconsistent with these provisions for three reasons:
  - (1) The proposal will not have irreversible effects;
  - (2) Renewable energy generation and in particular wind farms are clearly signalled as appropriate uses and developments;
  - (3) The provisions are only concerned with the views from public places.
- On the matter of landscape and visual amenity values, Mr Ashby agreed with Ms d'Aubert that these are in effect treated as RMA section 7 matters. He argued (Paragraph 12.45) that because the RPAs are the same as they were in the planning maps of the ODP, they have simply been "rolled over" from the ODP to the PDP without further detailed assessment, and therefore should be given little weight. From this Mr Ashby concluded that the RPAs are effectively very blunt instruments that do not identify ridgelines with high amenity values which must be protected at all costs. He appeared to derive further support from the structure of the PDP which broadly establishes permitted activity thresholds beyond which activities are generally discretionary.

- We note that no evidence was led that supported the view that convenience rather than intent lay behind the transference of the RPAs from one document to the other. In the absence of such evidence, and with no contrary opinion from Council witnesses, the commissioners see no good reason to accept Mr Ashby's argument, preferring instead the view that such transference of planning intention was deliberate, not accidental. Furthermore we note that the public at large are entitled to rely upon provisions so clearly stated previously and carried forward especially when this goes to matters of protection about which they may reasonably have been expected to submit had any significant policy shift been signalled.
- On the matter of rural character, Mr Ashby disagreed with Ms d'Aubert's conclusions. He considered that the proposal would be consistent with the objective and policy in that a very high ratio of open space to buildings is maintained; open spaces of pasture and indigenous vegetation etc are maintained; the number of farm animals and wildlife is unlikely to change; and rural character in relation to noise, smells, sights etc will be unaffected.
- 349. Mr Ashby's overall conclusion was that the wind farm is:

"... effectively neutral with regard to the majority of the ODP provisions". (Paragraph 13.5).

- 350. Mr Ashby formed a similar view with respect to the PDP, indeed found even stronger congruence with the provisions of that Plan not surprisingly since under that Plan alone the proposed activity is a discretionary activity.
- 351. Mr Chris Dawson, a Senior Planner with Bloxam Burnett and Olliver, also gave evidence for the Applicant. In his supplementary statement of evidence, Mr Dawson advised the Hearing with regard to the progress of appeals on the PDP taken by the Applicant. He advised the hearing that a consent order had been filed with the court regarding a number of changes sought to the PDP. These changes included a new definition of "wind energy facilities" and additional new rules that provide better for such facilities. Under the amended provisions a wind energy facility would be a discretionary activity in a number of zones including the rural zone. Mr Dawson also advised that none of the

- outstanding subsequent appeals sought a more restrictive status than discretionary activity status for these activities in the rural zone.
- 352. The Hearing was helpfully supplied with a copy of the consent order signed by Judge Whiting and dated 20 November 2007. Crucially, Policy 3.4.2 (b) is amended by the insertion of the word "significant" so that it reads:

"Natural features and landscapes, including locally distinctive landforms and prominent ridgelines, and general visual amenity values should be protected from inappropriate subdivision, use and development, in particular by:

b) ensuring that the visual effects of buildings can be absorbed without <u>significant</u> adverse effects on the landscape."

# Council Response

- 353. In her response to evidence heard during the hearing, Ms d'Aubert confirmed the conclusions she had drawn in her section 42A report. She did however take the opportunity to correct some editorial errors in that report.
- Ms d'Aubert updated us on the appeals in train noting that one of those appeals (Greenhill Holdings Ltd) relates to the entire PDP and remained unresolved at the date of presentation. At her Paragraph 4.17 she confirmed that she did not agree with the interpretations made by Mr Ashby of the policy directions in the Operative Proposed District Plans. Ms d'Aubert noted that the entire Landscape Policy Area provisions of the PDP were under appeal by the Applicant and that the issues remained unresolved.
- On the matter of the RPA under both Operative and PDP's, she confirmed her opinion that the proposal was inconsistent with the objectives and policies for RPAs under both Plans. Ms d'Aubert gave her opinion that the RPA provisions of Section 21 of the ODP were not Section 6 RMA matters.

She noted in passing that these matters were confined to the LPA Provisions of Section 20 of the ODP, noting that the explanation for the objective and policies is specifically to give effect to section 6 (b) and section 6 (c) of the RMA. When discussing the PDP, Ms d'Aubert advised us that that plan continued the section 6 distinction.

- Ms d'Aubert also provided us with a Consent Memorandum (unsigned but dated February 2008) that had been agreed with the Applicant and that clarified the wording of policies relating to Objective 3.2.1 on outstanding natural features and landscapes and policy 3.2.4 in particular.
- 357. Policy 3.2.4 currently states:

"Subdivision, use, development, roads and tracks should avoid adverse effects on outstanding natural features and landscapes, including prominent ridgelines."

The change sought under the Consent Memorandum clarifies that the ridgelines referred to are those within areas defined as outstanding. The revision states:

"Subdivision, use and development (including roads and tracks) should avoid adverse effects on outstanding natural features and landscapes (including ridgelines within those landscapes).

- 359. A consequential amendment to the explanation (3.3.4) and the anticipated environmental result (3.10(a)) is also sought that confirms that clarification.
- 360. The effect of that Consent Memorandum would be that the PDP gives a different and higher protection status to ridgeline areas that fall under the protection of outstanding natural features and landscapes than to other significant ridgeline.
- 361. Ms d'Aubert confirmed her opinion that the policies that refer to ridgelines under Section 3.2 relate solely to ridgelines within LPAs.

362. In turning to a review of the discussion throughout the hearing on the sections relating to RPAs, Ms d'Aubert noted that the continuation of the mapping of both LPAs and RPAs from the Operative Plan to the PDP

"illustrates a clear policy intent..."

- 363. She concluded that the significance of RPAs within the subject site is a Section 7(c) rather than a Section 6(b) matter. Ms d'Aubert also advised us that not all matters covering the Applicant's appeal relating to RPAs have yet been resolved.
- A final matter on this question that Ms d'Aubert drew our attention to relates to the interpretation of the relevant rules for the RPA under the PDP. She noted that the measurement of the 20 metre vertical and horizontal distances are to be taken from the ridgeline itself irrespective of what is shown on the mapped areas; that the mapping was simply intended to draw attention to the ridges, but that the rules themselves specify the exact control (4.49).

### Discussion

## The Operative District Plan

- While the conclusions regarding the planning provisions of the ODP are at variance between Council's planner Ms d'Aubert and the Applicant's planners Mr Ashby and Mr Dawson, their overall assessment is the same. Both parties at the Hearing argued that in the overall balance of objectives and policies the proposal was deemed not to be contrary.
- 366. In the commissioners' view, in order to be able to reach that conclusion properly it is necessary to interrogate the ODP to establish whether or not there are implied or explicit hierarchies of priority within the various sections of the plan. We turn to that matter next a matter not explicitly addressed by any of the planning (or other) witnesses.

367. While Section 1 - Resources and Issues is a balanced discussion of key elements of the plan, it is evident from Section 1.12 Visual Quality of the Rural Areas, that this attribute is not simply one among equals. That section notes:

"... the visual quality of the rural areas contributes to the amenity values of the District. The visual quality is not just an issue of the Landscape and Coastal Policy Areas, but is also a matter to be conscious of in the management of effects from new development".

368. Furthermore at Section 2.5 Strategy for the Enhancement and Protection of Amenity Values, the Plan notes at 2.5.2 Appearance:

"... the appearance of the District is another significant component of amenity. It is not only through the Landscape Ridgeline Protection, and Coastal Policy Areas that the appearance of the District will have some protection."

- 369. Again in 2.7 Conflicting Objectives, it is noted that:
  - 2.7.1 "While the priority accorded to the policies, objectives and intentions of the District Plan, are for the most part, contained within a Section of the document, there will be occasions when an interpretation will be required if any of these conflict with any other Sections.
- 370. The Plan then provides additional guidance to its priorities in those circumstances under 7 distinct policy areas. Two of these 7 policy areas concern landscape and ridgeline protection. Furthermore at section 2.7.2 the plan notes:

"The effect of the policy areas ... is to place some limitations on activities so that the objectives and polices of these policy areas are achieved. These policy areas have a priority over the zones and activity provisions". (underline added)

- On the face of it the above references make a strong argument against treating all matters as having equal priority under the plan and thereby bring into question the interpretation placed on that point by the expert planners at this hearing. Indeed if we turn to Section 3.6 Policy Areas of the implementation section of the ODP then this is again clearly stated as follows:
  - "3.6.1 The effect of a Policy Area overlying a Zone is to impose restrictions or rules at that area of a Zone in order that the policy is achieved. The rules of a Policy Area have priority over the rules for a Zone". (underline added)
- 372. Accordingly we do not find that all matters are to be treated as equivalent or as simply having summative value under the ODP.
- 373. Under Section 3.11 Reasons for certain rules, and particularly 3.11.3 Maximum Height of Buildings, the following is noted:
  - "(f) protection of the appearance of ridgelines and the coast within the landscape ridgeline protection and coastal policy areas: Tall buildings or structures can detract from these Policy Areas and reduce or nullify the effect of other rules which are used to ensure the continued attractiveness of these areas. The structures may be public works and utilities.
- 374. Further, in a note to the same explanation, the following:
  - "Note 2: Protection of private views is not a policy in this plan apart from public views of landscape, and Ridgeline Protection Policy Areas..."
- While we are mindful of the advice given regarding the way in which the Plan has been interpreted, in this instance we consider it appropriate to have regard to the plan as written. This is particularly because this plan has been

in evidence at least in its decisions version, since 1995, becoming fully operative from September 2002. The fact that the landscape and ridgeline protection provisions of the ODP have been imported largely unchanged to the PDP despite the amendments brought through by Consent Order, demonstrate to us a clear intent on the part of the District to continue with its priority on landscape and ridgeline policies. We will return later in this Decision to a consideration to be given to the amendments found within the PDP.

- 376. It was generally agreed by the planning witnesses that the Landscape Policy Area provisions of the ODP do not apply to the site of the proposed wind farm, but their relevance, rather, is to views of the surrounding LPAs through the wind farm. In the final analysis, as outlined earlier in this Decision, we find there to be no significant adverse effect on those LPAs and therefore there is no need for further consideration under Section 20 Landscape Policy Area.
- 377. The key consideration for this proposal under the ODP is Section 21 Ridgeline Protection Policy Area. The objective of this policy area is clear. It is:
  - "21.1.1 To maintain the natural appearance of significant ridgelines"
- 378. The associated policies are equally clear as to their intent:

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- "21.2.1 To ensure that any development does not detract from the natural character of significant ridgelines.
- 21.2.2 To ensure that development does not result in a major focal point on a significant ridgeline".
- 379. It follows that if a development alters the natural appearance of a significant ridgeline; detracts in any other than a minor way from that natural character; or is a major focal point in its own right on a significant ridgeline; then it is

inconsistent with, contrary to, contravenes the objective and its policies. It is the case, as made by Mr Ashby, that discretionary activity criteria are provided for those situations where structures exceed the 20 vertical metres from the ridgeline rules. However the significant point here is that this activity is not a discretionary activity, it is by common ground, a non-complying activity. As such all reference to the criteria for any other activity status is redundant. It should also be noted that *Section 21.5 Rules* states:

"Where there is conflict between provisions of another Section and this Section, the provisions of this Section shall prevail".

(underline added)

380. If we then turn to the environmental outcome sought by this policy, section 21.6 states:

"The natural appearance of significant ridgelines will be retained or will be changed to a minimal degree." (underline added)

- 381. The only remaining question to determine with respect to this policy is as to whether the ridgelines in question are *significant*. There is no doubt that they are accorded that status by definition through the planning maps, which show most of the ridgelines on which the proposal is sited as falling under this policy.
- Finally, for this part of our Decision, it should be noted that under Section 51 Public Works and Utilities Objective 51.1.2 states:

"to ensure that public works and utilities are provided in a manner which is sensitive to the amenity values of the District and avoids and/or mitigates any adverse effects on the natural and physical environment:"

383. Furthermore, its associated policy 51.2.2 notes:

"to ensure that, where practicable, public works and utilities are placed under ground ("practicable" here means technically and economically feasible).

While obviously a wind farm cannot be placed underground, and is not by definition a public utility, it is clear that this policy relates to visual amenity considerations for comparable structures.

# The Proposed District Plan

- The structure of the PDP differs in some significant respects from that of the ODP.
- Unlike the ODP, there is no explicit or implied hierarchy within or between the 14 defined issue / objective / policy areas and while, for example, Chapter 3: Natural Features and Landscape matters are treated in terms of their respective section 6 or section 7 RMA status, this does not appear to imply any superior status to, for example, Chapter 7: Energy or Chapter 13: Amenity Values matters. In that regard we might characterise the PDP as "even-handed" between the value propositions contained in Chapters 2 15.
- When we consider the relevant Rule provisions for the Chapter 25: Rural Zone (within which the subject site is wholly located), the same value "neutrality" applies. In the main the use of the higher threshold activity status of non-complying or prohibited applies to aspects of subdivision; certain classified activities such as prisons, landfills in an LPA, or activities with elevated radioactivity; certain building setbacks and platforms; and buildings in higher flood risk areas. The general rule structure is for activities in the Rural Zone to be subject to consideration as a discretionary or more permissive status activity.
- 388. In essence, then, the present application falls to be assessed under the PDP as a discretionary activity but for the fact that under the ODP it is a non-complying activity. This was common ground between the expert planning witnesses.

- 389. The one "exception" to this general proposition that we particularly note is the way in which ridgelines are treated in the PDP. There are, in effect, three levels of ridgeline "management":
  - (1) Ridgelines within Landscape Protection Areas;
  - (2) Ridgelines within Ridgeline Protection Areas;
  - (3) Other ridgelines.
- 390. It is clear in the PDP that this management structure is hierarchical in terms of the importance accorded them under the PDP and the degrees of protection required. Ridgelines within the application site fall into the second "category" and thereby have a lesser level of plan protection than if they fell within the first or LPAs.
- The principal constraint under the PDP for the proposed application activity is its relationship with the landscape / amenity provisions. In that regard the status of the appeals on these provisions, and the Consent Order and Consent Memorandum, becomes very important.
- As discussed above, a Consent Order has been issued for section 3.4.2(b) that puts beyond doubt the fact that this objective and its associated policy applies to this application only to the extent that its visual effects create significant adverse effects on the landscape. Earlier in this Decision we have found that this is the case.
- This leaves the matter of section 3.2 which relates to outstanding natural features and landscapes, on which an appeal remains live subject to negotiations with various section 274 parties (a Consent Memorandum having been signed between Council and Mighty River Power, the principal appellant).
- 394. A key purpose of this appeal is to clarify that the reference within policy 3.2.4 to "ridgelines" means only those ridgelines that lie within scheduled outstanding natural features and landscapes.

- 395. Objective 3.2.1 states:
  - 3.2.1 Outstanding natural features and landscapes are recognised and protected."
- 396. Policy 3.2.4 currently states:

"Subdivision, use, development, roads and tracks should avoid adverse effects on outstanding natural features and landscapes, including prominent ridges."

397. Among other things the Consent Memorandum signed with Mighty River Power seeks to restate policy 3.2.4 as follows:

"Subdivision, use, and development (including roads and tracks) should avoid adverse effects on outstanding natural features and landscapes (including ridges within those landscapes)."

- 398. Consequential amendments are also sought to the explanation (3.3.4) and anticipated environmental results (3.10(a)) sections clarifying that the reference to ridgelines applies only to those within LPAs.
- While the appeal has not yet been resolved with all parties, Council has clearly signalled through the Consent Memorandum its intended meaning and we must take that into consideration.
- 400. Ms d'Aubert also clarified that the locations of the proposed WTGs and associated tracks / roads are outside any LPA and advised accordingly that this provision (i.e. policy 3.2.4) does not apply to the present application.
- The commissioners find that this is a correct interpretation of the position with respect to Objective 3.2.1 and its associated policies.
- 402. A second relevant policy line arises from Chapter 13: Amenity Values; in particular section 13.6 relating to rural character.

403. Objective 13.6.1 states:

"Rural character is preserved."

404. The associated policy 13.6.2 states:

"Rural subdivision and development should be of a density, scale, intensity and location consistent with the existing rural character of the locality and should retain or enhance the relevant components of that character, including ..."

and proceeds to identify 9 inclusive characteristics.

- We have found earlier in this Decision that this application fails to reserve the rural character of this location in the manner intended by policy 13.6.2.
- 406. Turning to Chapter 25: Rural Zone Rules, we note two sets of rules in particular relating to buildings (acknowledging also that this section contains an explicit rule provision relating to wind turbine noise 25.20).
- 407. Rule 25.26.1 relates to the Ridgeline Policy Area provision and states:

"Any activity is a permitted activity if ... earthworks and formation of tracks and accesses in a Ridgeline Policy Area are at least 20m vertically below the level of a ridge, measured at the nearest point of the ridgeline."

- 408. Rule 25.26.2 makes any non-compliance with rule 25.26.1 a restricted discretionary activity, with discretion restricted to:
  - Effects on landscape and amenity values
  - Effects on skylines and ridgelines
  - Effects on views
  - Revegetation of bare earth."

409. Rule 25.49.1(f) relating to building height states:

"Construction or alteration of a building or structure is a permitted activity if:

(f) the highest part of the building is at least 20m vertically and horizontally from the ridge in a Ridgeline Policy Area ..."

and rule 25.49.2 makes any non-compliance with rule 25.49.1 a discretionary activity.

- 410. The WTGs and associated tracks / roads will not comply with the permitted activity standard set under these rules.
- 411. In addition, and as discussed earlier in this Decision, the PDP makes more directive provision for energy-related activities, and wind farm development specifically, than the ODP, and contains a number of objectives and polices that encourage the development of the District's renewable energy resources.

### **Findings**

- 412. We find that:
  - 1. The application is contrary key objective and policies of the ODP.
  - 2. The Ridgeline Protection Area provisions were intentionally carried through to the PDP, albeit in a slightly modified context.
  - 3. The key provisions against which the effects of this application must be assessed under the PDP are:
    - (a) Section 3.4 in terms of the policy requirement to protect prominent ridgelines and general visual amenity from any significant adverse effects of the WTGs on the landscape as viewed from public places;

- (b) Section 13.6 in terms of its adverse effect on the preservation of rural character;
- (c) Rule 25.26 relating to the 20m vertical setback of earthworks and tracks and rule 25.49 relating to the 20m vertical and horizontal setback of buildings from any ridge within a Ridgeline Policy Area; and
- (d) Section 7.4 relating to the promotion of increases in the generation and use of renewable energy resources.

#### Part 2 of the RMA and Exercise of Discretion

- 413. As indicated in the *Awhitu* decision quoted at paragraph 58, in weighing and evaluating the evidence and exercising our discretion, the cardinal and pivotal matter for us to bear in mind is the Act's single purpose as set out in section 5.
- We have found that granting consent to this proposal would have a number of positive effects associated with renewable energy, as summarised in paragraph 127 above.
- We also have found that granting consent would not result in adverse effects on health. Neither would there be unacceptable adverse effects on ecology, or in terms of noise, traffic, archaeology/heritage, air traffic safety, or radio frequency interference, provided the activity is regulated by appropriate consent conditions.
- 416. The quantum of any effects on tourism (whether positive or negative) is difficult to ascribe, although we tend to agree with Mr and Mrs Bellerby, owners of Hidden Valley, that the proposal is not consistent with the nature and style of their operation and therefore may have some adverse effect.
- 417. The turbines will be highly visible on the ridgeline of the Wharauroa Plateau and the effects on amenity values would be significant for close views 0-5 km, although those effects would diminish beyond that distance. There would be a significant change in the present rural character of the ridgeline.

These effects cannot be absorbed or mitigated, and diminish only with distance and/or viewing location.

- 418. The wind turbines would be visible from parts of the coast and in that sense may affect that environment. However, those effects are clearly tempered by the distance from the site to the coastal environment and the intervening ridgelines and topography, to the point where any effects are minor only. We do not consider that any effects are such that they can be described as inappropriate in terms of section 6(a) of the Act.
- 419. Mt Pirongia Forest Park and Mt Kariori are outstanding natural features and landscapes in terms of section 6(b) of the Act. The turbines are not proposed to be constructed within these outstanding landscapes. We have concluded that the effect of the wind farm on these outstanding landscapes would not be significant, primarily because many views from closer visual catchments will not see the wind farm in conjunction with these important landscapes. For those that do see it in conjunction, the distance of the viewer and the separation between the wind farm and the outstanding natural landscape is sufficient to minimise any adverse effect. Again we do not consider that any effect of the wind farm constitutes inappropriate development in terms of section 6(b) of the Act.
- We have earlier noted the principle established by the High Court in New Zealand Rail, to the effect that the requirement of section 6(a) to preserve the coastal environment (and by implication section 6(b) in relation to outstanding natural features and landscapes), is subordinate to the primary purpose of the promotion of sustainable management. It is not an end or an objective on its own but is accessory to the principal purpose.
- We are also required to have particular regard to the matters specified in section 7, in achieving the purpose of the Act. The following section 7 matters are of direct relevance:
  - Paragraph (a) "Kaitiakitanga".

Commissioners are satisfied that the consultation with Ngati Mahunga and subsequent CHAR give effect to section 7(a) and section 8 of the Act.

• Paragraph (b) – "The efficient use and development of natural and physical resources".

The evidence is that the wind resources of the upper North Island are not extensive in comparison with those of the lower North Island and the South Island. WEL has investigated a number of sites and consider that this site is the best one for a combination of reasons including the available wind resource; distance to the national grid; accessibility for construction purposes; and availability of aggregate nearby, or on site, for construction purposes.

Wind generation is specifically identified in the PDP as an appropriate energy source and provision is made for it in the plan as a discretionary activity. The evidence demonstrates that the proposal has the ability to make efficient use of the wind resource of the Wharauroa Plateau.

Paragraph (c) – "The maintenance and enhancement of amenity values".

The size of the turbines on the Plateau means that the wind farm will detract from amenity values appreciated by many members of the community, particularly those that live within five km of the site. The extent of that detraction naturally varies with distance, orientation and the number of turbines in view, but will be significant in respect of those closer views, as we have earlier described. In reality, there is little if anything that can be done in terms of mitigation, even allowing for the restrictions on colour and signage.

While personal responses to the wind farm differed (and we acknowledge some submitters are comfortable with views of the turbines), we consider the proposal does not maintain and enhance amenity values, particularly in respect of close views.

• Paragraph (f) – "Maintenance and enhancement of the quality of the environment".

The definition of "environment" states:

#### "Environment includes -

- (a) Ecosystems and their constituent parts, including people and communities; and
- (b) All natural and physical resources; and
- (c) Amenity values; and
- (d) The social, economic, aesthetic, and cultural conditions which affect the matters stated in paragraphs (a) to (c) of this definition or which are affected by those matters:"

We have commented above on the adverse impact on amenity values, being one component of the definition of "environment".

Natural and physical resources is defined to include land, water, air, soil, minerals, and energy, all forms of plants and animals (whether native to New Zealand or introduced), and all structures. Commissioners have addressed many of the pertinent matters in the section of this decision concerned with Ecological Effects and concluded that such effects are appropriately addressed by the proposal. In large part this analysis and conclusion is relevant to "ecosystems", as part of the definition of "environment".

- Paragraphs (i) and (j) "The effects of climate change"
  - "The benefits to be derived from the use and development of renewable energy".

The RMA was amended to include these paragraphs with effect from 4 March 2004. As stated in the *Awhitu* decision, this is a clear recognition by Parliament of both the importance of the use and

development of renewable energy and the need to address climate change.

We have earlier referred to the Energy Section in the PDP which supports increased generation and use of renewable energy resources. It also requires the benefits of renewable generation to be taken into account when considering potential impacts on other resources, such as landscapes. We regard these provisions as an important practical application of the requirements of section 7(i) and (j) of the Act.

The benefits of the WEL proposal have been considered in detail in the section of this decision concerned with positive effects of the proposal. Commissioners consider that those positive effects are significant in this case.

422. It is commissioners' conclusion that the proposal meets the sustainable management purpose of the Act and that consent should be granted. Even though there will be adverse effects on the Wharauroa ridgeline, and associated amenity impacts in particular, commissioners find that the benefits of the proposal in a national and regional context, outweigh these adverse effects.

#### **Conditions of Resource Consent**

A comprehensive set of conditions was included as part of Ms d'Aubert's report and recommendation to us. Various changes to those conditions were debated and suggested to commissioners as the hearing progressed. In substance, most of the conditions now reflect our conclusions in relation to the effects of the proposal and are considered appropriate. We therefore focus our comments on the following conditions, being matters where either agreement was not reached, or where commissioners have decided that a different condition is appropriate.

#### Term of Consent

WEL sought a 10 year term, being double the five year term that would otherwise automatically apply under the RMA. A number of submitters

- expressed unease and concern at the length of term proposed, seeking a greater degree of certainty as to when, or whether, the project may proceed.
- 425. Although the reasons given by WEL do indicate justification for a term longer than five years, commissioners consider that 10 years is excessive and not warranted. We consider seven years to be a sufficient term of consent. It gives additional flexibility in terms of WEL's continuing planning for the implementation of this large project, while giving some finality for local residents.

#### Commencement of Consent

- WEL seeks to be able to commence work in terms of the consent without restriction. The recommendation to us from Council is that no physical work be allowed to start until WEL receives all necessary approvals or consents in respect of the substation and lines upgrade to serve the wind farm.
- 427. Commissioners have expressed the view that nothing in this decision should be taken as indicating either support or otherwise for the necessary designation and/or consents for the lines and substation. WEL has elected not to progress those matters as yet, and accepts the potential risks and delays inherent in those processes.
- However, commissioners do not see any resource management reason to prevent WEL from exercising the consent. As a prudent business operator, WEL will no doubt appreciate that it is in its own interests to secure a designation or consents for the lines incurring a major expenditure in respect of the purchase and construction of the wind turbines themselves. The term of consent is now restricted to seven years and that is another reason to expect that WEL will proceed expeditiously to advance the process required in order to authorise the lines and substation.

#### Public Access to the Site

429. It was initially suggested by Council staff and advisers that public access to the site should be required, utilising the proposed access routes on private land.

The principal justification for this was that access to the public paper roads

may be impeded in places by gates and fences associated with the wind farm access roads. WEL in response says it does not have the legal ability to achieve that access beyond chainage 3200 as it does not own the land, and the relevant land owner has reservations in that regard because the property will continue to be farmed.

- As a consequence, an amended condition has been proposed which we are advised is agreed as between Council representatives and WEL. It in effect requires that above chainage 3200, that WEL either secure access on the new road (as identified on Drawing 135250/SK7), or if that cannot be achieved, provides safe physical access for pedestrians and cyclists on the identified paper road route.
- 431. Commissioners agree with that approach and a new condition has been included accordingly.

# Community Liaison Group

WEL agrees and has proposed a condition establishing a Community Liaison Group (CLG). The essence of this is to identify a list of parties with whom WEL must consult in establishing the CLG, including both the district and regional Councils and community representatives. The condition provides for administrative support including an independent chairperson and establishes a minimum frequency for meetings. The stated purpose of the CLG is to be a body which provides a forum for the Consent Holder to provide information on the operation and environmental effects authorised by the consents from both Councils; to facilitate ongoing communication between the Consent Holder and the local community and interested parties in relation to both construction and operation of the wind farm; and to identify and discuss appropriate measures to address issues raised by any party.

#### **Determination**

433. For the reasons set out in this decision consent is granted, subject to the conditions attached as Schedule One.

# Dated this 26<sup>th</sup> day of May 2008

Michael Savage

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David Hill

John Hudson

#### **SCHEDULE 1**

#### **Conditions of Resource Consent**

### 1.0 GENERAL

- The wind farm development shall be in general accordance with information provided in the WEL Wind Park (Te Hauhiko o Wharauroa) resource consent application (LUC0252/06) received by Waikato District Council on the 14 July 2007, except as amended at the Hearing or by the conditions of this consent, and including, but not limited to, the following plans:
  - a) Engineering Site Plan, Drawing No 135250/SK0, Rev C, date 29/06/07;
  - b) Proposed Roading Layout Sheet 1, Drawing No 135250/SK1, Rev D, date 14/02/07;
  - c) Proposed Roading Layout Sheet 2, Drawing No 135250/SK2, Rev D, date 14/02/07;
  - d) Proposed Roading Layout Sheet 3, Drawing No 135250/SK3, Rev C, date 14/02/07;
  - e) Proposed Roading Layout Sheet 4, Drawing No 135250/SK4, Rev D, date 14/02/07;
  - f) Proposed Roading Layout Sheet 5, Drawing No 135250/SK5, Rev D, date 14/02/07;
  - g) Proposed Roading Layout Sheet 6, Drawing No 135250/SK6, Rev D, date 14/02/07;
  - h) Proposed Roading Layout Sheet 7, Drawing No 135250/SK7, Rev E, date 14/02/07;
  - i) Proposed Roading Layout, Drawing No 135250/SK46, Rev A, date 22/11/07;
  - j) Proposed Roading Layout, Drawing No 135250/SK47, Rev A date 21/11/07.
  - 1.2 The wind farm development shall be in relation to land legally described as follows:

Legal Description: Certificate of Title:

Sec 5 Blk XI Karioi SD SA324/221 Sec 2 Blk XI Karioi SD SA34A/993

Pt Sec 1 Blk VII Karioi SD SA430/284

Sec 6 Blk XI Karioi SD SA34A/992

Allot 134 Parish of Whaingaroa SA935/43

Sec 114 Parish of Whaingaroa SA27/145

Sec 23 Blk X Karioi SD	SA50B/369
Sec 12 Blk XI Karioi SD	SA50B/369
Sec 13 Blk X Karioi SD	SA50B/369
Lot 5 DPS 90684	SA71/348
Lot 4 DPS 90684	SA71/349
Lot 3 DPS 90684	SA71/350
Lot 3 DP 309860	SA38984
Sec 26 Blk X Karioi SD	SA32B/741
Sec 19 Blk X Karioi SD	SA32B/741
Sec 22 Blk X Karioi SD	SA49C/537

Pursuant to section 125(1) Resource Management Act 1991, this consent will lapse if not given effect to within 7 years of the date of it being granted.

# 2.0 WIND FARM AND TURBINE CHARACTERISTICS

- 2.1 The consent holder shall not install more than twenty-eight (28) wind turbine generators ("turbines") on the site and all such turbines shall be subject to the following:
  - a) The maximum turbine height (to the vertically extended blade tip) shall be 137 metres;
  - b) The maximum turbine tower height shall be 90 metres;
  - c) The maximum rotor diameter shall be 100 metres;
  - d) All turbines used within the wind farm shall be of similar size and type and have three blades;
  - e) Lattice style pylon towers shall not be used for the wind turbine structures;
  - f) All turbines and turbine blades used within the wind farm shall be finished with the same industry standard low reflectivity finishes and off-white colour;
  - g) Each turbine may be located anywhere within an individual turbine contingency zone of no greater than 150 metre radius from the turbine locations specified by the application, including those with modified turbine contingency zones adjacent to site boundaries, bush areas, and the Te Tihi-o-Tonganui Pa;
  - h) Notwithstanding the turbine contingency zones specified in clause g), final turbine locations shall not be located:

- i) Within 100m of native bush areas on or off site, unless in all cases the written approval of the landowner or Department of Conservation is first obtained for a revised turbine location or locations;
- ii) Within the ecologically significant area, a regionally significant seepage wetland (sedge/toetoe wetland remnant), shown on Seepage Area Map A, or the "no go" seepage areas identified on Seepage Area Maps B and C, as required by condition 6.1;
- iii) Where there would be an adverse effect on fixed linking or wide area coverage radio-communication services;
- iv) Within the "no-go" zone identified for the Te Tihi-o-Tonganui Pa site, as required by condition 10.1.
- 2.2 The consent holder shall not install more than three (3) meteorological masts on the site and the maximum meteorological mast height shall be 80 metres.

Advisory Note:

This consent replaces the land use consent issued by Waikato District Council for the two existing meteorological masts on the site (LUC0271/05).

2.3 The Operation and Maintenance Building shall be located on the site in the location identified on Drawing No 135250/SK2 Rev D, shall be no greater than a maximum height of 10 metres, and clad in colour steel.

Advisory Note:

This consent authorises earthworks at the location of the operation and maintenance building for the construction of the operation and maintenance building and the sealed parking and set down area, but also sufficient for these facilities to be contiguous with an on-site substation (an area illustrated in Appendix L(1) of the application). This consent does not authorise the on-site substation.

- 2.4 Within 3 months of construction being complete, the consent holder shall provide the Waikato District Council with as-built plan(s) of the final locations of all facilities and infrastructure including:
  - a) All turbines and their turbine platform and foundation areas;
  - b) All meteorological masts;
  - c) All roading, including the primary access road and secondary internal site access roads;
  - d) All fill disposal sites;
  - e) The operations and maintenance building and associated on-site water and wastewater systems; and
  - f) The layout of parking and details of signage at the end of formed Plateau Road.

# 3.0 ENVIRONMENTAL MANAGEMENT PLAN

- 3.1 The consent holder shall prepare an Environmental Management Plan (EMP) for the project and submit it to the Waikato District Council Environmental Services Group Manager for review and approval. The EMP shall comprise the following two parts the details of which shall include but not be limited to items listed in conditions 3.2 and 3.3:
  - a) Part I: Management of Construction Issues. Part I shall be submitted to Waikato District Council 3 months prior to construction commencing; and
  - b) Part 2: Management of Operational Issues. Part 2 shall be submitted to Waikato District Council 3 months prior to the commissioning of the first turbine.
- 3.2 Part 1 of the EMP Management of Construction Issues shall detail the measures to minimise site disturbance and to avoid, remedy or mitigate adverse environmental effects and include, but not be limited to, the following:
  - a) Roles, responsibilities and contact details for the principal persons responsible for management during the construction period (including the establishment of a Sediment Control Team);
  - b) Arrangements and conduct of a pre-construction site meeting(s) between all relevant parties and relevant local authorities, prior to any works commencing on the site;
  - c) The Earthworks Design and Management Plan as required by condition 4.1:
  - d) The Construction Noise Management Plan as required by condition 52;
  - e) The Ecological Management Plan as required by condition 6.1;
  - f) The Pakoka River Tributary Management Plan as required by the Waikato Regional Council Resource Consent 116242;
  - g) A Spill Prevention and Response Plan as required in accordance with Schedule One to the Waikato Regional Council Resource Consents 116241, 116242, 116689 and 116690.
  - h) The Traffic Management Plans as required by condition 7.1.
  - i) A description of the manner in which the consent holder will comply with:
    - i) Conditions 10.1- 10.3 relating to cultural heritage.
    - ii) Condition 10.3 relating to any archaeological discovery.
    - iii) Condition 9.2 relating to worker safety.
    - iv) Conditions 11.1 11.2 relating to complaints.
    - v) Condition 12.1 relating to decommissioning and site rehabilitation.
  - j) A description of the manner in which the consent holder will:
    - i) Manage effects associated with the concrete batching plant;
    - ii) Control the storage or mixing of fuels associated with the site construction; and

- iii) Avoid or limit the introduction of weeds via construction equipment and materials.
- 3.3 Part 2 of the EMP Management of Operational Issues shall detail the measures to avoid, remedy or mitigate adverse environmental effects and include, but not be limited to, the following:
  - a) Roles, responsibilities and contact details for the principal persons responsible for ongoing management of the wind farm operation;
  - b) A description of the manner in which the consent holder will comply on an ongoing basis with:
    - i) Conditions 6.3 6.6 relating to NZ falcon and long-tailed bats;
    - ii) Condition 5.3 5.8 relating to noise;
    - iii) Condition 11.1 11.2 relating to complaints;
    - iv) Condition 9.2 relating to worker safety; and
    - v) Condition 10.1 relating to protection of cultural heritage.
- 3.4 The consent holder shall ensure that compliance with the conditions of this consent is a contractual obligation in every contract with any operator or contractor undertaking works authorised by this consent, prior to the works commencing.
- 3.5 There shall be no disposal of waste construction materials or waste refuse on the site.

#### 4.0 EARTHWORKS AND CONSTRUCTION

- 4.1 The consent holder shall prepare an Earthworks Design and Management Plan and submit this to the Waikato District Council Environmental Services Group Manager for approval no later than 3 months prior to the commencement of earthworks on the site. This plan shall include but not be limited to:
  - a) The staging of works planned and the description of earthworks in each stage including general site plans;
  - b) Outline the engineering controls, supervision and certification that will be applied to each stage;
  - c) Outline the site specific design parameters and performance standards that will be applied to each stage, considering both static and seismic conditions;
  - d) Outline stability analysis design procedures that will be used for each stage, including the method of determining turbine setback zones and stability of existing natural slopes loaded by the works;
  - e) Outline engineering and management procedures for material sources, use, disposal and treatment, stockpiling, fill placement and disposal of unsuitable materials;

- f) Detail measures for groundwater control, including details of subsoil drainage, within disposal areas.
- g) Confirm volumes of cut, fill and unsuitable material (based on available information at the time);
- h) Detail measures for dealing with situations that do not conform at the time of construction with the design assumptions;
- i) Outline the methods of site assessment by suitably qualified persons that will be used to determine the need for the installation of sub soil drainage systems to all earthworks activities that will be required during construction;
- j) Such other procedures that will be employed to ensure land stability is not compromised by construction works, and,
- k) Format of Producer Statements to be adopted for Design (PS1), Design Review (PS2), Construction (PS3) and Construction Review (PS4).
- 4.2 Within 10 working days of the Earthworks Design and Management Plan being lodged with Waikato District Council, a process for review leading to approval shall be agreed between the consent holder and Waikato District Council.

Advisory Notes:

- a) The Earthworks Design and Management Plan is required to be submitted to the Waikato Regional Council (in accordance with Schedule One to the Waikato Regional Council Resource Consents 116241, 116242, 116689 and 116690) and to the Waikato District Council. In order to avoid duplication of process, it is anticipated that the Councils will engage a common reviewer to the EMP to make recommendations to the Councils.
- b) The purpose of establishing a review process is to ensure that WEL and the Waikato District Council expedite the work leading to approval of the proposed Earthworks Design and Management Plan. A target date of approximately 1 month before commencement of site earthworks will be set for approval of the Plan based upon its submission at least 3 months prior to earthworks commencement. This is necessary to allow WEL adequate time to finalise pre-construction management issues arising from approval of the Plan. WEL will use its best endeavours to lodge a Plan earlier than 3 months prior to earthworks commencement. Waikato District Council will use its best endeavours to provide the appropriate staff and internal process to facilitate approval.
- 4.3 The consent holder shall engage Chartered Professional Engineers with geotechnical and civil engineering experience to direct and supervise appropriate site investigations, and undertake design, peer review, supervision and certify the construction of all works in accordance with the procedures set out in the **Earthworks Design and Management Plan**. The peer review resources engaged by the consent holder shall be agreed in writing by the Waikato District Council Environmental Services Group Manager.

- 4.4 Producer Statements for Design and Design Review shall be submitted to the Waikato District Council Environmental Services Group Manager no later than 10 days prior to subject works commencing. Producer Statements are not required for minor works in terms of condition 4.5.
- 4.5 The consent holder shall notify the Waikato District Council 5 working days prior to undertaking minor works such as are required to carry out site investigations for the purposes of design, including the formation of minor access for tractors and small trucks.
- 4.6 All earthworks activities on site, including for the formation of the primary access road, shall be undertaken in accordance with the Erosion and Sediment Control Plan required by Schedule One to the Waikato Regional Council Resource Consents 116241, 116242, 116689 and 116690, and shall be incorporated in the Environmental Management Plan required by condition 3.1.
- 4.7 The consent holder shall employ dust control methodologies that ensure construction activities comply with Schedule One to the Waikato Regional Council Resource Consents 116241, 116242, 116689 and 116690.
- The consent holder shall ensure that all cut and fill batters associated with access roads, borrow areas, and turbine platforms and pads (and associated hard stand) shall be re-contoured to visually reintegrate into the natural landform, and within 3 months of earthworks being completed in each of these areas shall be revegetated to visually integrate with surrounding vegetation patterns. This recontouring and re-vegetation shall occur in a progressive manner on the site as earthworks have been completed.

#### Advisory Note:

Except where the access road passes through areas of bush, it is expected that the majority of the site will be returned to pasture following any earthworks or disturbance.

- 4.9 Following construction, the formed width of all 10 metre access roads shall be reduced to no more than 5 metres, with the remainder being planted, sown or hydro-seeded to the satisfaction of the Waikato District Council within 3 months of the access road being reduced in width.
- 4.10 Within 3 months of completion of earthworks in each stage the consent holder shall provide to the Waikato District Council Environmental Services Group Manager certified as built drawings and related documents that include:
  - a) Construction Review Producer Statements;
  - b) Engineering survey plans and sections of major works; and
  - c) Details of the as built subsoil drainage systems in cut and fill slopes, supported with a summary of how the drainage systems will be monitored and maintained.

#### 5.0 NOISE

#### **Construction Noise**

- Noise from all construction and decommissioning work shall be designed and carried out to comply with NZ Standard NZS6803:1999 "Acoustics Construction Noise", and shall be measured and assessed in accordance with the noise limits set out in this standard.
- 5.2. A Construction Noise Management Plan shall be prepared and implemented prior to commencement of and implemented throughout construction. This shall be generally in accordance with section 8 and Annex E of NZ Standard NZS6803:1999 "Acoustics Construction Noise", which details the types of construction and procedures that will be carried out to ensure compliance with the Standard. The Construction Noise Management Plan shall be prepared by an appropriately qualified acoustic consultant, and submitted to the Waikato District Council Environmental Services Group Manager for approval, prior to relevant construction stages commencing, or decommissioning work being undertaken.

# **Operational Noise (Turbines)**

- 5.3 The wind turbines shall be designed, constructed, operated and maintained so that within the notional boundary of any rural dwelling existing at the date of issue of consent, the sound level from the wind turbine generators shall not exceed the background sound level L<sub>95</sub> by more than 5 dBA, or a level of 40 dBA L<sub>95</sub>, whichever is the greater.
- 5.4 The measurement and assessment of noise effects from the wind turbines is to be conducted in accordance with NZ Standard NZS6808:1998 "Acoustics The Assessment and Measurement of Sound from Wind Turbine Generators".

## **Pre Instalment Assessment**

5.5 A Pre Instalment Noise Assessment shall be prepared demonstrating that the intended numbers, layout and type of wind turbine generators to be utilised for the wind farm will result in the noise limits specified in condition 3 above being met. The Pre Instalment Noise Assessment shall be prepared by an appropriately qualified acoustic consultant, and submitted to the Waikato District Council Environmental Services Group Manager for approval, prior to installation of any wind turbine generator.

# **Post Installation Testing**

Post installation noise compliance testing of the wind farm operation shall be conducted within 3 months of all wind turbine generators being installed and commissioned, or as soon as practicable. Where practical, noise compliance testing measurements shall be undertaken at the same locations as the background noise measurements undertaken for the Noise Assessment in the Application (Figure 2, Appendix B). The noise compliance testing shall be undertaken by an appropriately qualified acoustic specialist in accordance with

NZS6808:1998 "Acoustics – The Assessment and Measurement of Sound from Wind Turbine Generators", and results submitted to the Waikato District Council Environmental Services Group Manager for approval, within 10 working days after completion of the testing.

Waikato District Council may reasonably direct additional post installation noise compliance testing to take place at any location and nothing in these conditions shall prevent compliance monitoring of wind farm noise from being undertaken at any wind speed and direction, or time of day. This may be as a result of what Council considers to be substantiated complaints regarding increased levels of noise from the wind farm or any change in the character of the noise emanating form the wind turbine generators. Compliance testing is to be undertaken in accordance with NZS6808:1998 "Acoustics – The Assessment and Measurement of Sound from Wind Turbine Generators", and results submitted to the Waikato District Council Environmental Services Group Manager for approval, within 10 working days after completion of the testing.

# Noise Management Plan

- Prior to commencement of operation of the wind farm the consent holder shall prepare and implement a Noise Management Plan to manage the potential effects of noise from the wind turbine generators. The Noise Management Plan shall be prepared by an appropriately qualified acoustic consultant and submitted to the Waikato District Council Environmental Services Group Manager for approval. The Noise Management Plan shall include, but not be limited to:
  - a) An assessment of the contribution to the overall sound levels from individual wind turbine generators;
  - b) Procedures for ensuring compliance with the noise conditions of this consent, including noise compliance testing, methods for addressing non-compliance; and
  - c) Procedures for addressing wind turbine malfunctions that cause noise beyond typical operational noise.

# Non Compliance

5.9 In the event of non-compliance with the noise conditions, the consent holder shall manage the operation of the wind farm to achieve compliance within 3 weeks of the non-compliance being identified. The consent holder shall undertake further post installation noise compliance testing after measures have been adopted to achieve compliance, to demonstrate that compliance has been achieved. The consent holder shall advise Council of the non-compliance, the measure(s) undertaken to achieve compliance, and results of the noise compliance testing.

Advisory Note:

Measures to achieve compliance, in the event of non-compliance, may include operating at a reduced rate, de-rating or decommissioning turbines, or any other means of achieving compliant outcomes for affected dwellings.

#### 6.0 ECOLOGY

- Within 6 months of the commencement of the consent, the consent holder shall prepare and submit to the Waikato District Council Environmental Services Group Manager for approval, an Ecological Management Plan. The Ecological Management Plan shall consist of, but not be limited to, the following components, details of which are outlined in subsequent conditions:
  - a) Population monitoring programmes for Long-Tailed Bats (Chalinolobus tuberculata North Island) and New Zealand Falcon (Falco novaeseelandiae Bush);
  - b) Strike monitoring programmes for Long-Tailed Bats (*Chalinolobus tuberculata North Island*), New Zealand Falcon (*Falco novaeseelandiae Bush*), and other indigenous birds;
  - c) Management procedures for the prevention and control of weed invasion on the site during construction, and for a minimum of three years post construction, in accordance with Environment Waikato's Regional Pest Management Strategy;
  - d) Assessment of potential fill sites which contain seepage areas, as required by Schedule One to the Waikato Regional Council Resource Consents 116241, 116242, 116689 and 116690;
  - e) Measures to protect and enhance the ecologically significant area (regionally significant seepage wetland) shown on Seepage Area Map A, and to ensure retention of seepage areas identified on Seepage Area Maps B and C, as required by Schedule One to the Waikato Regional Council Resource Consents 116241, 116242, 116689 and 116690;
  - f) Mitigation of effects on waterways and fish to include, but not be limited to, the following:
    - i) Sediment control in accordance with the "Erosion and Sediment Control Guidelines for Soil Disturbing Activities" as required by Waikato Regional Council Resource Consent 1164241; and
    - ii) Installation of fish passage in culverts in the tributaries of the Pokaka River and Pakihi Stream, specifically in culverts 3-7 for climbing fish species, and in culverts 5-7 for swimming fish species.
  - 6.2 The population and strike monitoring programmes shall commence and be undertaken as follows:
    - a) In respect of long-tailed bats and NZ Falcon shall involve:
      - i) Population monitoring prior to and during construction of the wind farm, and for the first three years from the wind farm being operational. This monitoring shall commence no less than twelve months prior to construction commencing, or no less than six months prior to construction commencing if the monitoring undertaken prior to construction includes at least a three month period between the months of October and March (inclusive);

- ii) Any monitoring of bat populations carried out prior to the development of the EMP to a methodology agreed with the Department of Conservation shall be included in meeting the time requirements of condition 6.2.(a)(i), and
- iii) Strike monitoring for the first three years from the wind farm being operational.
- b) In respect of indigenous birds other than the NZ Falcon shall involve:
  - i) Strike monitoring for the first three years from the wind farm being operational.
- c) Notwithstanding condition 6.2 a) i), above, if the population monitoring results for long tailed bats demonstrate to the satisfaction of Waikato District Council, in consultation with the Department of Conservation, that long-tailed bats are not present in sufficient numbers to warrant mark and recapture monitoring, then ongoing population monitoring for long-tailed bats will be based on presence and absence monitoring.
- d) If, after three years, the population and strike monitoring carried out on the effects of the wind farm on Long-Tailed Bats, NZ Falcon or other indigenous birds indicate that the wind farm has had, or is likely to have had, an adverse effect on Long-Tailed Bats, NZ Falcon, or other indigenous birds, the monitoring programmes shall continue for a further three years, or as otherwise agreed with the Waikato District Council, in consultation with the Department of Conservation.
- e) If, after three years from the commencement of the wind farm's operations, or earlier as determined by outcomes of population monitoring for Long Tailed Bats, the monitoring programmes demonstrate that the wind farm has had or is likely to have had adverse effects on the Long-Tailed Bats, NZ Falcon, or other indigenous birds, further mitigation measures shall be undertaken as required by the Waikato District Council, in consultation with the consent holder and the Department of Conservation.
- Any trees to be removed shall first be inspected by a suitably qualified person to determine whether they hold active Bat roosts (nests). No trees with active Bat roosts (nests) shall be removed until nests are confirmed vacant by the suitably qualified person.
- 6.4 The monitoring programmes required under condition 6.2 shall be designed, and implementation supervised by, a suitably qualified ecological expert to include, but not be limited to, the following:
  - a) In respect of long-tailed bats, the monitoring programmes shall:
    - i) Determine the use of the site by long-tailed bats in order to assess potential effects of the wind farm on population;
    - ii) Record and document long-tailed bat fatalities caused by turbine strike as identified under the strike monitoring programme;
    - iii) Assess the effects on the long-tailed bat population from construction and operation of the wind farm; and

- iv) Investigate and recommend mitigation measures should it be found that the construction and operation of the wind farm has had, or is having, an adverse effect on long-tailed bats.
- b) In respect of NZ Falcon, the monitoring programme shall:
  - i) Determine the use of the area of the proposed wind farm by NZ Falcon in order to assess potential effects of the wind farm on population;
  - ii) Record and document NZ Falcon fatalities caused by turbine strike as identified under the strike monitoring programme;
  - iii) Assess the changes to NZ Falcon population in the vicinity of the wind farm before, during and after construction of the wind farm, and before and during operation of the wind farm;
  - iv) Investigate and recommend mitigation measures should it be found that the construction and operation of the wind farm has had, or is having, an adverse effect on NZ Falcon.
- c) The population monitoring programmes for long-tailed bats and NZ Falcon shall be approved by Waikato District Council, in consultation with the Department of Conservation, prior to their implementation.

Advisory Note:

Should new population monitoring technology and methodologies arise following the approval of the Ecological Management Plan as required by condition 6.1, the monitoring programmes for Long-Tailed Bats and New Zealand Falcons may be revised with the approval of Waikato District Council, in consultation with the Department of Conservation.

- 6.5 The strike monitoring programmes shall be designed, and implementation supervised by, a suitably qualified ecological expert to include, but not be limited to, the following:
  - a) Procedures for determining the frequency and cause of fatalities for:
    - i) Long-Tailed Bats
    - ii) NZ Falcon
    - iii) Other indigenous birds.
  - b) Investigating and recommending mitigation measures should it be found that the operation of the wind farm has had, or is having, an adverse effect on indigenous birds other than the NZ Falcon.
  - c) The strike monitoring programmes for long-tailed bats, NZ Falcon and other indigenous birds shall be approved by Waikato District Council, in consultation with the Department of Conservation, prior to their implementation.
- During the first twelve months after the commencement of any monitoring required by condition 6.2(a)(i), the consent holder shall prepare and submit to the Waikato District Council Environmental Services Group Manager a bimonthly report setting out:

- a) The monitoring tasks completed for the previous two months;
- b) The specific outcomes of the monitoring completed; and
- c) A summary of the monitoring tasks proposed for the following two months.

At the end of the first twelve months of monitoring the reporting frequency may be reduced to no less than six monthly for the remaining period of the required monitoring with the approval of the Waikato District Council, in consultation with the Department of Conservation.

- During the third month after the commencement of any monitoring required by condition 6.2 a) iii) and 6.2 b), and quarterly thereafter for three years from the wind farm being operational, the consent holder shall prepare and submit to the Waikato District Council Environmental Services Group Manager a report setting out:
  - a) The monitoring records for the previous three months;
  - b) The specific outcomes of the monitoring completed; and
  - c) A summary of the monitoring tasks proposed for the following three months.

#### 7.0 TRAFFIC

# Traffic Management and Road Conditions

- 7.1 The consent holder shall prepare Traffic Management Plans in accordance with the Code of Practice for Temporary Traffic Management and best practice, and in consultation with Transit New Zealand and Waikato District Council, and submit them to the Transit New Zealand Network Manager and the Waikato District Council Roading Group Manager for approval, three months prior to construction commencing. The Traffic Management Plans are to include, but not be limited to, the following matters:
  - a) To set out the nature and timing of any physical improvement works to state highways or district roads, required by the respective road controlling authorities as a necessary adjunct to the wind farm project;
  - b) To define the proposed signs to be erected on State Highway 23 and local improvements proposed in conjunction with a wind farm viewing platform referred to in conditions 7.20 7.26;
  - c) To detail the intended traffic arrangements (including times of traffic movements) and provisions for temporary road closures during the delivery of over-weight and over-dimensioned major components to the site. The arrangements for the delivery of over-weight and over-dimensioned major components to the site should avoid peak periods of traffic on the network and minimise as far as practicable disruption and disturbance to the residents.

- d) To manage construction traffic (other than component delivery) during the construction phase, including amongst other things details for special traffic management arrangements at the following locations:
  - i) Te Uku;
  - ii) SH23 / Te Mata Road intersection;
  - iii) Te Mata urban area and school;
  - iv) Te Mata Rd / Kawhia Road intersection;
  - v) In the vicinity of Bridal Veil Falls;
  - vi) Plateau Road (local access, tie in management and parking/manoeuvring at closure points, pedestrians and cyclists);
  - vii) Te Mata quarry/site entrance;
  - viii) ensuring sufficient plant and staff parking on site.
- c) To provide affected residents, local authorities, Transit New Zealand, police and emergency services with prior notice of traffic arrangements and possible road closures.
- d) To minimise contractor vehicle movements to and from the site, by adopting car or van pooling initiatives, or other vehicle number minimisation techniques.
- 7.2 At all times during the construction period, the consent holder shall comply with the approved Traffic Management Plans referred to in condition 7.1.
- 7.3 The consent holder shall prepare and submit to Waikato District Council Roading Group Manager for approval the following matters:
  - a) Design standards to be used for measures affecting formed public roads and temporary or permanent mitigation, three months prior to commencing construction;
  - b) Detailed design for any temporary or permanent mitigation measures affecting public roads. Detailed design for any works shall include the proposed permanent arrangements and how these will be achieved, 20 working days prior to commencing construction. No construction work may take place on public roads without the written approval of the Roading Manager, Waikato District Council, of the detailed design, specification and temporary traffic management plans.
- 7.4 The consent holder shall have a suitably qualified person undertake the following pre-construction inspections four weeks prior to construction commencing and submit the results of the assessments to the Waikato District Council Roading Group Manager:
  - a) An inspection, including by video, of Te Mata Road, Kawhia Road and Plateau Road (unsealed) to establish and record the condition of the pavement and unsealed sections of these roads;

- b) An inspection of any bridges and structures on the Te Mata Road, Kawhia Road and Plateau Road (unsealed) to establish and record their capacity for taking heavy loads.
- 7.5 The consent holder shall monitor, on a weekly basis:
  - a) The effectiveness of the temporary traffic management measures on the affected parts of SH23, Te Mata Road, Kawhia Road and Plateau Road; and
  - b) The road conditions on the affected parts of Te Mata Road, Kawhia Road and Plateau Road.

The consent holder shall report on a monthly basis to the Waikato District Council Roading Group Manager for the duration of the construction period, or as otherwise requested by the Waikato District Council Roading Group Manager, on any deficiencies, concerns, improvements or alterations proposed. Any maintenance works identified as being necessary as a result of the effects of construction traffic shall be carried out by the consent holder or at the consent holders cost, or as otherwise agreed with the Waikato District Council Roading Group Manager.

7.6 Following the completion of construction, the consent holder shall be responsible for returning the pavement surface and unsealed surface conditions of Te Mata Road, Kawhia Road and Plateau Road (unsealed) to at least the established and recorded pre-construction condition, and in respect of the Plateau Road (upgraded) section of road to at least the standard of the road surface following the upgrade prior to construction.

Advisory Note:

The consent holder remains responsible for any sub-surface damage resulting from significant increases in heavy traffic movements as required in Condition 7.11.

- 7.7 The movement of over-dimension and over-weight loads on State Highways and local roads shall generally be programmed to avoid peak periods of public use and minimise as far as practicable disruption and disturbance to the residents.
- 7.8 The consent holder shall communicate with the Te Uku School and Te Mata School to ensure that conflict is minimised between programmed normal school events, school bus movements, and traffic movements associated with the wind farm construction. The consent holder shall ensure that the contractor(s) shall programme construction activities to avoid heavy commercial vehicle movements generated by the site travelling along Te Mata Road or Kawhia Road during the normal time periods in which school busses carrying or collecting pupils are present.
- 7.9 During the construction period, access shall continue to be provided to and from individual properties, and for traffic travelling along the route through the Waikato District to the site, to a temporary standard acceptable to Waikato District Council Roading Group Manager and Transit New Zealand.

Advisory Note:

The purpose of this condition is to ensure that construction traffic does not adversely impact on accessibility of local access provisions. It does not commit any party to upgrading of existing access provisions other than as specifically required by other conditions of this consent.

- 7.10 There shall be no trucking of supplies on Te Mata Road or Kawhia Road to the site on Sundays or public holidays.
- 7.11 The consent holder shall maintain records of all project-related heavy vehicle movements along Te Mata Road and Kawhia Road during the construction period and submit records on a monthly basis to the Waikato District Council Roading Group Manager. No materials over 15% in excess of the quantity estimated to be transported by road in the application (section 4, Appendix D Engineering) is to be transported via local roads, other than Plateau Road, without prior written approval of the Waikato District Council Roading Group Manager.

Advisory Note:

The underlying assumption of the application is that all aggregate for construction use is to be sourced from the Te Mata Quarry. A heavy vehicle impact fee may be required if circumstances change and the impacts on the roading infrastructure are greater than anticipated.

- 7.11A The consent holder shall ensure as far as practicable that all aggregate used for roading basecourse and concrete works are sourced from within:
  - a) The Te Mata Quarry, located on the adjacent property legally described as;
    - i) Lot 1, 2 & 4 DPS 90684, comprised in Certificate of Title: SA71B/348 and SA71B/349;
    - ii) Lot 1 DPS 84283, comprised in Certificate of Title: SA67A/410;
    - iii) Crown Land, Survey Office Plan 37272, Reserved under Sec. 58 of the Land Act 1948; or
  - b) The borrow areas or possible greywacke source, indicated on plan submitted with the application (Appendix D Engineering plans 135250/SK 2 Rev D sheet 2, 135250/SK4 Rev D sheet 4, 135250/SK6 Rev D sheet 6).

Advisory Note:

The purpose of this condition is to ensure that the effects of construction and traffic associated with the transportation of aggregate are contained within the application site

# Road Works / Improvements

7.12 The following entrances shall be upgraded to accord with diagram TSG-E1, as set out in the Waikato District Plan, but only one shall remain open during the construction phase:

- a) The entrance to the Te Mata Quarry from Kawhia Road.
- b) The primary road site access from Kawhia Road.

Advisory Note:

The application proposes an entrance to the site and primary access road from Kawhia Road. Only one entrance should be permitted for the construction period. The preferred arrangement is for an entranceway to the site from the primary access road and for the existing Te Mata Quarry access to be closed (with suitable barriers) for the duration of the construction. The primary road site access can be opened once construction is complete and it is only required to serve operational traffic.

7.13 Widening of the unsealed pavement area on the inside curve of the intersection of Te Mata Road and Kawhia Road shall be undertaken to ensure that over dimensioned vehicles can successfully negotiate the intersection.

Advisory Note:

The detailed design and proposed configuration of the intersection should ensure that the intersection can safely operate.

- 7.14 Vegetation within the legal road reserve near the intersection of State Highway 23 and Te Mata Road shall be monitored for the duration of the construction and promptly managed where necessary to ensure that minimum sight distances are maintained.
- 7.15 The project's primary access road generally following the alignment of the largely unsealed section of Plateau Road, approximately between Chainage 1700 and 3200 (Drawing 135250/SK5, Rev D) shall be upgraded in accordance with the Waikato District's Code of Practice for unsealed roads to the satisfaction of the Waikato District Council Roading Group Manager. This section of Plateau Road shall be deemed a "Construction Zone" within the provisions of the Code of Practice for Temporary Traffic Management, for the duration of the contract works. During construction, where public vehicular access may be controlled by the Construction Zone at approximately Chainage 1700, the upgrade shall include vehicle turning (sufficient for a 90%ile truck as described in the District Plan), manoeuvring and parking areas, and the consent holder will provide appropriate information and temporary traffic management to manage safe access for authorised vehicles, pedestrians and cyclists beyond Chainage 1700 to Chainage 3200.
- 7.16 The publicly accessible and upgraded (unsealed) section of Plateau Road, approximately between Chainage 1700 and 3200 (Drawing 135250/SK5, Rev D), shall be maintained by the consent holder during the construction period, and regraded at the completion of the construction period to a condition which is no worse than that which existed immediately following the completed upgrade required under condition 7.15 and to the satisfaction of the Waikato District Council Roading Group Manager.

7.17 At the completion of construction Plateau Road, approximately above Chainage 3200 (Drawing 135250/SK5, Rev D), shall be modified to prevent access for motorised transport, other than by vehicles associated with wind farm operation and maintenance, farm management, or as otherwise authorised by the wind farm landowners or Waikato District Council. The consent holder shall construct a cul-de-sac turning head and a parking area at the termination of the formed unsealed section of Plateau Road in accordance with Waikato District Council's Code of Practice.

# Advisory Note:

Waikato District Council's acceptance of restricted access to normal vehicular traffic is based on the condition and nature of the unformed paper road being unsafe for normal vehicular traffic.

- 7.17A Following completion of construction, the consent holder shall:
  - a) Place, grade and compact a metal overlay on the lower section of Plateau Road from Kawhia Road to the tie in to the primary access road at approximately Chainage 1700.
  - b) Realign and clearly demarcate the through nature of Plateau Road following construction, ensuring that the primary access road up to the tie in at Chainage 1700 is clearly an entranceway, including advanced warning signs, to the satisfaction of the Roading Manager, Waikato District Council.
- 7.18 The consent holder shall construct a stock-proof gate accessible for pedestrians and cycles adjacent to the cul-de-sac turning head required by condition 7.17, for the purposes of recreational access. The consent holder shall also construct a metalled track from the gate for 50 metres along the legal paper road which shall be 1.5 meters wide and suitable for walking and mountain biking and linked to the access road to the plateau servicing the wind turbines. The consent holder shall provide information and warning signs, subject to the approval of the Roading Manager, Waikato District Council, to inform the public of the restricted access and the standards and nature of the paper road beyond the culde-sac turning head.

Advisory Note:

The intent of condition 7.18 is to provide recreational cyclists and pedestrians with access to the former paper road access on the farm. The primary access road crosses and re-crosses the paper road in a number of locations. The condition reflects the consent holder's and landowners' acceptance that the primary access road to Chainage 7000 will be available to cyclists and pedestrians, even though it is only in part over paper road reserve.

- 7.18A The consent holder shall use is best endeavours to secure public access for cyclists and pedestrians along the formed access road as follows and as shown on the annotated plan 135250/SK7 Rev E, attached to this consent:
  - a) Along the access road from position "A" on plan 135250/SK7 north-eastwards to position "B" as shown on plan 135250/SK7; and

b) Along the access road from position "B" eastwards to the boundary of the Pirongia Forest Park shown as position "C" on plan 135250/SK7.

In the event that public access to those access roads is not able to be secured, the consent holder shall provide to the satisfaction of Waikato District Council safe physical access for cyclists and pedestrians along the unformed paper road (as it generally follows the same route as identified above), including clearly identifying the paper road route where it crosses and re-crosses onto the access road.

#### Advisory Note:

The intent of Condition 7.18A is to require the consent holder to continue to provide public access along the access road to the pa site and land owned by DoC subject to obtaining the consent of the landowner but, in the event the landowner's consent is not forthcoming, alternative physical access shall be made available along the unformed paper road (in recognition of the fact that neither the consent holder nor landowner can deny the public access to public/paper roads, and that the formation of the access road over parts of the paper road has the potential to cause confusion for the public about the location of the paper road).

7.19 Within one year of construction being complete the consent holder shall at its cost survey and have altered the designation of the portion of Plateau Rd upgraded by the works between approximately Chainages 1700 and 3200 to the satisfaction of Waikato District Council's Roading Manager. Altering the designation involves amending the existing road boundaries to accommodate the alignment of the upgraded road.

# Mitigation Works - Viewing Platform

- 7.20 Prior to the erection of the first turbine tower visible from the State Highway network, the consent holder shall construct a public viewing platform facility at the site of the Te Uku Community Hall, or at another site approved by Transit New Zealand.
- 7.21 In the event that the viewing platform is not located at the site of the Te Uku Community Hall, and at another site approved by Transit New Zealand under condition 7.20, the consent holder shall undertake any necessary traffic mitigation works as required by Transit New Zealand and to the satisfaction of Waikato District Council.
- 7.22 In the event that the viewing platform is located at the site of the Te Uku Community Hall, the consent holder shall undertake traffic mitigation works generally in accordance with the Te Uku Community Hall Concept Plan A, dated 28 February 2007, Project 26073, unless otherwise agreed with Transit New Zealand, and all to the satisfaction of the Waikato District Council.

- 7.23 The traffic mitigation works noted above in condition 7.22 affecting the State Highway 23 shall be subject to detailed design approved by Transit New Zealand, and all to the satisfaction of Waikato District Council. The traffic mitigation works shall include:
  - a) A viewing platform;
  - b) A carpark for no less than 10 cars with an entrance located as far as practicable from the Matakotea Road, State Highway 23 intersection including perimeter fencing as per the approved plan. The car park shall be formed, sealed and marked out in accordance with the engineering standards set out in Appendix A and B of the Waikato Proposed District Plan:
  - c) Sealing of Matakotea Road to a point immediately past the entrance to Lot 2 DPS 79902 comprised in Certificate of Title 64A/525, including provision for a widening berm to facilitate a bus turnaround and parking area:
  - d) Threshold treatments, flush medians, localised widening and right turn bays for the Okete Road and Matakotea Road intersections.
- 7.24 An advanced warning sign with supplementary plates shall be erected at a location on State Highway 23 near the summit of the deviation, to be agreed with Transit New Zealand, to inform west-bound road users of the distance to the viewing platform.
- 7.25 A tourist information sign shall be erected at a location to be agreed with Transit New Zealand near Te Uku, to informing road users of the wind farm viewing platform.
- 7.26 Six months after the wind farm viewing platform facility is complete, the consent holder shall monitor visitor numbers to the viewing platform facility by undertaking traffic counts for at least one week's duration every three months for a year, to ensure there are sufficient car parks provided at the viewing platform facility. The consent holder shall submit details of the visitor numbers recorded to the Waikato District Council Roading Group Manager on an annual basis until the monitoring is complete.

## Site Access

7.27 Six months after the wind farm is fully operational, the consent holder shall monitor visitor numbers at the cul-de-sac end of Plateau Road and the end of Van Houtte Road, by undertaking traffic counts for at least one week's duration every three months for a year. The consent holder shall submit details of the visitor numbers recorded to the Waikato District Council Roading Group Manager on an annual basis until the monitoring is complete.

7.28 Following construction, the consent holder shall provide for or limit visitor access according to the appropriateness of the use or location. Access shall be managed through the use of signage or physical works, to the satisfaction of the Waikato District Council Roading Manager, and in the following locations and ways (as shown in drawing no 135250/SK46 Rev A, date 22/11/07 and drawing no 135250/SK47 Rev A, date 21/11/07):

# a) Kawhia Road / Plateau Road

Signage shall be used to warn the public of vehicles associated with the wind farm's operation and maintenance, and of the limits to access from Plateau Road.

# b) Plateau Road public vehicle access

The end of the publicly accessible part of Plateau Road (at approximately chainage 3200) shall be developed to:

- (i) Warn the public there is no vehicle access beyond that point;
- (ii) Warn the public of vehicles associated with the wind farm's operation and maintenance;
- (iii) Provide for vehicle turning;
- (iv) Provide for parking;
- (v) Indicate the existence of pedestrian and cycle access beyond that point.

# c) Plateau Road pedestrian / cyclist link

Access limited to and suitable for pedestrians and cyclists, outside the existing legal bounds of Plateau Road, shall be provided between approximately chainage 3200 and chainage 3350.

## d) Van Houtte Road

Public access along Van Houtte Road shall be discouraged through the use of signage and turning areas where appropriate.

## e) Viewing platform

Public access to the viewing platform shall be indicated through the use of signage.

7.29 During construction, the consent holder shall ensure that the publicly accessible section of Plateau Road (from Kawhia Road to approximately chainage 3200 on Plateau Road) is safe for access.

## 8.0 AIR TRAFFIC SAFETY

8.1 The consent holder shall comply with the conditions of the Civil Aviation Authority Navigable Airspace Determination issued on 13 June 2007.

- 8.2 Following construction, the consent holder shall provide as-built survey drawings and details of the turbines to Airways Corporation of New Zealand Ltd to enable Airways Corporation of New Zealand Ltd to update its obstacles database.
- 8.3 All navigational lights required on the turbines or meteorological masts by the Civil Aviation Authority shall be shielded or otherwise contained to screen downward light spill.

# 9.0 COMMUNICATION SERVICES

- 9.1 If, within 6 months of the wind farm becoming fully operational, adverse effects on fixed linking or wide area coverage services are demonstrated to have occurred (and which relate to any network operating within the wind farm project area, at the date consent was granted to the wind farm), the consent holder shall undertake remedial actions to the satisfaction of the Waikato District Council. In exercising its judgement on the remedial actions, the Waikato District Council may consult with the affected network operator.
- 9.2 To ensure worker safety during construction and ongoing operations and maintenance, minimum safe distances from each radiating antenna at the Te Uku and Wharauroa telecommunications facilities considering each radio antenna shall be established and documented. The safe distances, and all work on the wind farm, shall comply with the maximum permissible general public exposure limits recommended in the New Zealand Standard for Radiofrequency Safety NZS 2772.2.
- 9.3 The consent holder shall submit/undertake an independent assessment of TV reception at any dwelling which existed at the date of the commencement of this consent located within the intended coverage area, if it receives any complaints from occupants of that dwelling that post-construction TV reception is impaired. If the TV reception quality is found to be impaired as a result of the wind farm operation, the consent holder shall take the best practicable measures to provide TV reception comparable to pre-construction quality.

## 10.0 ARCHAEOLOGY AND CULTURAL HERITAGE

- 10.1 Prior to construction works commencing, the consent holder shall ensure that fencing and signage is appropriately placed and maintained on site to avoid the risk of impacts on the following features during construction and operation of the wind farm generally in accordance with the "no-go" zones identified around these features as illustrated on the plan, page 8, Appendix A of the application, and such measures shall be included in the Environmental Management Plan for the project:
  - a) the identified pa site Te Tihi-o-Tonganui;
  - b) the original Vanhoutte homestead;

- c) the currently fenced section of the old Plateau Road formation, in the vicinity of pa site Te Tihi-o-Tonganui.
- 10.2 The consent holder shall ensure that a representative approved by tangata whenua shall be given 10 working days notice of the opportunity to be present on site during earthworks:
  - a) for the primary and secondary access roads;
  - b) in the vicinity of pa site Te Tihi-o-Tonganui;
  - c) at any borrow pit(s) on site.
- 10.3 The consent holder shall ensure that in the event of a suspected archaeological discovery, or human remains be exposed while undertaking works to give effect to the conditions of this consent, the works in that area will cease immediately. The New Zealand Historic Places Trust, tangata whenua, and in the case of human remains, the Police, shall be informed of the discovery as soon as possible. Work shall not recommence in the affected area until any necessary statutory authorisations or consents have been obtained. The accidental discovery protocol recommended in Appendix 3 of the Nga Uri a Mahanga Trust report, dated, December 2006, shall be included in the Environmental Management Plan for the project.

#### 11.0 COMMUNITY

#### Contact and Complaints Procedure

- 11.1 The consent holder shall establish and publicise a local telephone number so that members of the public have a specified and known point of contact to raise any of the matters that may arise during construction and operation of the wind farm.
- 11.2 The consent holder shall maintain and keep a complaints register for any complaints about construction activities and operation of the wind farm received by the consent holder in relation to traffic, noise, dust, TV reception, or other environmental effects of the activity. The register shall record, where this information is available, the following:
  - a) The date, time and duration of the incident that has resulted in a complaint;
  - b) The location of the complainant when the incident was detected;
  - c) The possible cause of the incident; and
  - d) Any corrective action taken by the consent holder in response to the complaint, including timing of that corrective action.

The complaints register shall be available to the consent holder and the community liaison group at all reasonable times upon request. Complaints received by the consent holder that may infer non-compliance with the conditions of this consent shall be forwarded to the Waikato District Council Environmental Services Group Manager within 48 hours of the complaint being received.

### Community Liaison

- 11.3 The consent holder shall consult with representatives of the communities in Te Uku, Raglan and Aotea Harbour which may be affected by activities associated with the Te Uku Wind Park project authorised by this consent and the related consents granted by Waikato Regional Council, including but not limited to representatives of:
  - a) Nga Uri a Mahanga Trust (for Mahanga);
  - b) Waikato Regional Council;
  - c) Waikato District Council;
  - d) Representatives of environmental groups, including Te Uku Interest Group;
  - e) Te Mata School Committee;
  - f) Waitetuna School Committee;
  - g) Te Uku School Committee;
  - h) Te Uku Hall Committee;
  - i) Raglan Residents and Ratepayers Association;
  - j) Raglan Community Board;
  - k) Whaingaroa Harbour Care;

to facilitate the establishment and maintenance of a Community Liaison Group.

- 11.4 The purpose of the Community Liaison Group is to be a body which provides a forum:
  - a) For the consent holder to provide information on the operation and environmental effects of the activities authorised by this consent and those granted by Waikato Regional Council (including new information and studies relevant to such effects).
  - b) To facilitate ongoing communication between the consent holder, the local community and interested parties in relation to the construction or operation of the Te Uku Wind Park, including its effects on the environment and any concerns expressed in relation to human health and safety.
  - c) To identify and discuss appropriate measures to address issues raised, including the provision of further information.
- 11.5 The consent holder shall provide reasonable administrative and logistical support to facilitate the functions of the Community Liaison Group including provision of an independent facilitator to chair Community Liaison Group meetings. The extent of the support to be provided is to be determined by the consent holder in consultation with the Waikato District Council and Waikato Regional Council.

- 11.6 The consent holder shall use its best endeavours to ensure that meetings of the Community Liaison Group are held for the duration of the consent from the commencement of the consent:
  - a) At least once every six months during the construction period; and
  - b) At least annually pre and post the construction period (unless the Community Liaison Group determines that meetings should be held less frequently or are no longer required and advises the consent holder and Waikato District Council and Waikato Regional Council accordingly).
- 11.7 The consent holder shall inform the Waikato Regional Council and the Waikato District Council of any meeting of the Community Liaison Group a minimum of ten working days in advance of that meeting.
- 11.8 The consent holder shall ensure that the minutes of the Community Liaison Group meetings are forwarded to the Waikato Regional Council and the Waikato District Council within two weeks of any meeting being held.
- 11.9 The consent holder shall assist the Community Liaison Group to fulfil its purpose by, among other things:
  - a) Arranging an appropriate venue in the local area for the meetings of the Community Liaison Group.
  - b) Appointing one of the consent holder's senior officers to represent it on the Community Liaison Group and ensuring at least one of its representatives attends all of the formal meetings of the Community Liaison Group (unless the Community Liaison Group determines that the consent holder should not be represented on the Group or does not need to attend a specific meeting and advises the consent holder and Waikato District Council and Waikato Regional Council accordingly).
  - c) Providing information to the Community Liaison Group about progress in relation to the project, including the environmental effects of the project and compliance with consent conditions.
  - d) Being prepared to discuss the environmental effects of the Te Uku Project, any concerns in relation to human health and safety, and any complaints from the local community, including provision of further information and identification of appropriate measures to address issues raised.

## Advisory note:

The Community Liaison Group shall have the objectives of:

- a) Facilitating information flow between the consent holder and the community;
- b) Operating in good faith;
- c) Identifying any issues of concern that arise during the construction period; and
- d) Making recommendations to the consent holder in relation to any issues identified in terms of c) above.

#### 12.0 DE-COMMISSIONING

- 12.1 If the wind farm (including any individual wind turbine generator) ceases operation for a continuous period of 18 months, or for any other reason determined by the consent holder, the wind farm (or the individual wind turbine generator as the case may be) shall be decommissioned. The consent holder shall provide written notice to the Waikato District Council of the intent to decommission the site and shall prepare and submit a Decommissioning Management Plan to Waikato District Council Environmental Services Group Manager for approval three months prior to any decommissioning work. The plan is to include, but not be limited to, details of the following:
  - a) procedures for dismantlement and removal of turbine structures;
  - b) methodology for earthwork site rehabilitation and revegetation;
  - c) traffic management for any overweight and over-dimension vehicles;
  - d) other matters relating to facilities and signage for public viewing and access.

This condition does not require the removal of sub-surface components, or the removal of roads. The consent holder shall provide written notice to the Waikato District Council within 3 months of completion that all decommissioning works has been completed.

#### 13.0 OTHER

- Pursuant to sections 128 to 131 of the Resource Management Act 1991, the Waikato District Council may one year after the commencement of this consent, and at one yearly intervals thereafter, serve notice on the consent holder of its intention to review any or all of the conditions of this consent for any of the following purposes:
  - a) To review the effectiveness of the conditions of this resource consent in avoiding, remedying, or mitigating, any adverse effect on the environment that may arise from the exercise of this resource consent (in particular the potential adverse environmental effects in relation to noise, vegetation removal, earthworks, traffic and roading, visual, landscape and amenity effects), and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions;

#### Advisory Note:

The results of monitoring visitor numbers may require consideration of the following matters:

- a) Signage and access arrangements;
- b) Local road and intersection upgrades;
- c) Any other matter agreed between Council and the consent holder.

- b) To address any adverse effects on the environment which has arisen as a result of the exercise of this consent that were not anticipated at the time of granting this consent, including addressing any issues arising out of complaints;
- To review the adequacy of, and necessity for, any of the monitoring programmes or management plans that are part of the conditions of this consent; and
- d) To require the consent holder, if necessary and appropriate, to adopt the best practicable option(s) to avoid, remedy or mitigate any adverse effects on the surrounding environment.

The Council will undertake the review in consultation with the consent holder and the consent holder shall pay the actual and reasonable costs of the review.

- 13.2 Unless otherwise specified in the conditions of this consent, compliance with any monitoring requirement imposed by this consent shall be at the consent holder's expense.
- 13.3 The consent holder shall pay to the Waikato District Council all required administration charges fixed by the Waikato District Council pursuant to section 36 of the Resource Management Act 1991 in relation to:
  - a) Administration, monitoring and inspection relating to this consent; and
  - b) Charges authorised by regulations.
- 13.4 Upon completion of the wind farm, the consent holder shall advise the Waikato District Council Environmental Services Group Manager that all conditions of this consent have been adhered to.

