

IN THE SUPREME COURT OF VICTORIA AT MELBOURNE
COMMON LAW DIVISION
JUDICIAL REVIEW AND APPEALS LIST

No. 0281 of 2010

BETWEEN

THE SISTERS WIND FARM PTY LTD
ACN 100 683 805

Plaintiff

and

MOYNE SHIRE COUNCIL & ORS

Defendants

CERTIFICATE IDENTIFYING EXHIBIT

Date sworn: 31 May 2010
Filed on behalf of: The Plaintiff
Prepared by:
Middletons
Level 25, Rialto South Tower
525 Collins Street
MELBOURNE VIC 3000

Solicitor's Code: 403
DX: 405 Melbourne
Tel: (613) 9205 2000
Fax: (613) 9205 2055
Ref: SGM.10012860
Attention: Stephen Meade
stephen.meade@middletons.com

This is the exhibit marked **JTGL-11** now produced and shown to Justin Thomas Greening Lethlean at the time of swearing his affidavit on 31 May 2010.

Before me:

Signature of person taking affidavit

MARK RUSSELL MCKINLEY

Middletons
525 Collins Street, Melbourne
An Australian Legal Practitioner
(within the meaning of the
Legal Profession Act 2004)

JTGL-11

**Victorian Civil and Administrative Tribunal
order and its reasons**

"JTGL-11"

VICTORIAN CIVIL AND ADMINISTRATIVE TRIBUNAL
ADMINISTRATIVE DIVISION

PLANNING AND ENVIRONMENT LIST

VCAT REFERENCE NO. P2107/2009
PERMIT APPLICATION NO. PL08/369

CATCHWORDS

APPLICANT The Sisters Wind Farm Pty Ltd c/- Wind Farm Developments Pty Ltd

RESPONSIBLE AUTHORITY Moyne Shire Council

RESPONDENT David McClaren and Others

SUBJECT LAND The Sisters, east of the intersection of Mortlake Framlingham Road and the intersection of the Sisters Noorat Road on land to the north and south of the intersection, south of Londringham Lane and west of Dairy Lane.

WHERE HELD Warrnambool and Melbourne

BEFORE J. A. Bennett, Presiding Member
S. Mainwaring, Member

HEARING TYPE Hearing

DATE OF HEARING 11, 12, 15 and 16 February 2010 and 12 April 2010

DATE OF ORDER 27 April 2010

CITATION

ORDER

The decision of the Responsible Authority is affirmed. In application No. PL08/369 no permit is granted.

J. A. Bennett
Presiding Member

S. Mainwaring
Member



APPEARANCES:

For Applicant

Mr Mark Donaldson of Middletons on days 1 and 2. Mr Justin Lethlean of Middletons on days 3, 4 and 5.

Mr Lethlean called evidence from the following expert witnesses:

- Robert Gratton, Ecology Consulting Services
- Greg Harrison, Technical Director Planning, AECOM
- Stephen Pelosi, Technical Director Traffic, AECOM
- Jonathan Cooper, Senior Acoustic Engineer, AECOM
- Warwick Keates, WAX Design

For Responsible Authority

Ms Maria Marshall, solicitor of Maddocks Lawyers.

For Respondents

Mr David McClaren on days 1 and 2.

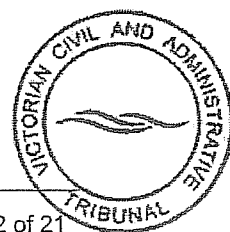
Mr Neil Blain, Mrs Dianne Attrill on days 1 and 2.

Ms Linda and Mr Danny Kenna.

Ms Teresa Conheady, Ms Jane Pike

Mr Bruce Pike on day 5.

Mr McClaren, Ms Pike and Ms Conheady are the children of Thomas and Beverley McClaren of 208 Sisters Noorat Road.



INFORMATION

Description of Proposal

The erection of 12 wind turbine generators and ancillary equipment capable of generating 29.99 megawatts of electricity. The turbines will be 90m above ground level with blades extending up to 55m giving an overall height from ground to the blade tip of 135m. The turbine locations as shown on the application map are located within a 100m radius circle to allow for some siting flexibility.

- a fenced switch yard some 28 x 11m incorporating an electrical sub-station and switching gear and 33/66 kilovolt transformer circuit breaker control terminal switch.
- the creation of access roadways and hard standing areas within the site to provide access to each of the turbines
- construction of a temporary concrete batching plant to provide the necessary concrete for the turbine foundations
- the erection of an 80m high wind monitoring mast and anemometers and
- a pull-in or viewing area to enable off-site inspection of the project with associated information boards and traffic signage for tourists.

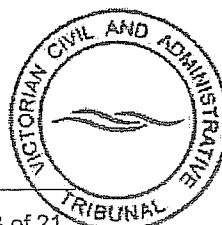
There will of necessity be some upgrading of the public road network to cater for the heavy vehicle movements during the construction phase.

Nature of Application

The application was for the review of a refusal to grant a permit by the Responsible Authority under Section 77 *Planning and Environment Act 1987*.

Zone and Overlays

The subject land is located within the Farming Zone. There are no overlays that apply to the subject land.



Reasons Permit Required

Pursuant to Clause 35.07-1 a permit is required within the Farming Zone for the use of land as a wind energy facility.

Pursuant to Clause 35.07-4 a permit is required to construct or carry out works associated with a Section 2 use within the Farming Zone.

Relevant Policies and Planning Scheme Provisions

State Planning Policy Framework

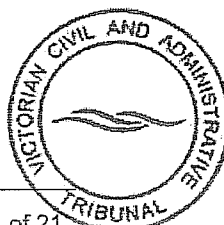
Clause 11.03-2 – Environment;
Clause 11.03-3 – Management of Resources;
Clause 15.05 – Noise Abatement;
Clause 15.11 – Heritage;
Clause 15.12 – Energy Efficiency;
Clause 15.14 – Renewable Energy

Local Planning Policy Framework

Clause 21.04 – Municipal Vision;
Clause 21.06 – Environment;
Clause 21.07 – Economic Development;
Clause 21.08 – Infrastructure and Particular Uses;
Clause 22.02-7 – Hill Top and Ridgeline Protection;
Clause 22.03-4 – Agricultural Production

Other Planning Provisions

Clause 52.32 – Energy Facility
Clause 65 – Decision Guidelines

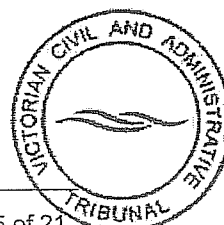


Land description

The land included in the permit application covers 680 hectares. The land is mainly bounded to the east by Dairy Lane, to the west by the Mortlake Framlingham Road and to the north by Londrigans Lane. The Sisters Noorat Road bisects the land from the east to the west. The land comprises a number of privately owned properties and is cleared and primarily used for cattle grazing.

The area that is the subject of the application incorporates two hills known as The Sisters. These hills are old volcanic cones that rise above the generally flat area to a height of 187m and 200m above sea level respectively. The land also includes a disused quarry. The land contains a number of wind breaks comprising exotic species and includes farm dams and some minor water courses. There are nine residences distributed throughout the site associated with the titles that make up the land as a whole.

The majority of the land lies to the west of Dairy Lane, there are however two incursions to the east. There is a single property to the west of Dairy Lane, the McClaren property, which is not part of the wind farm proposal although effectively surrounded by land that forms part of the application.



Surrounding Area

Land surrounding the site is primarily used for agricultural purposes and is devoid of vegetation. There are some 29 dwellings located within 3km of any one of the proposed turbines with the closest dwelling of a non participant to a turbine being 589m north of Turbine 10 on the northern side of The Sisters Noorat Road east of Dairy Lane and the closest stakeholder dwelling within 124m of Turbine 12. There is a small settlement to the west of the site on the Mortlake Framlingham Road comprising a community hall, tennis court and CFA station. There is a Pine tree adjacent to the hall grown from a Gallipoli Lone Pine seed, brought home by a local soldier.

There is a proposal for a wind farm to the north of the subject site containing a total of 97 turbines. The section of this project located closest to the subject site is known as Mortlake South. This proposal comprises 50 turbines with its southern boundary 1km to the north of the subject site. This proposal, as a facility which will generate more than 30 megawatts of electricity, comes under the authority of the Minister for Planning. The application is at present at the Planning Panel stage. The Mortlake proposal is a '*controlled action*' under the *Environment Protection and Bio-Diversity Conservation Act 1999* on the basis that it may have a significant impact on listed migratory bird species and listed threatened bird species and ecological amenity.

The two townships most proximate to the land are Terang 10km to the east and Mortlake 13km to the north. There is a significant volcanic cone at Mount Noorat to the east near the township of Terang.



The application was lodged with the Responsible Authority in December 2008. The Responsible Authority received confirmation from the Minister for Planning that an environmental effects statement was not required.

Council made a request for further information pursuant to Section 54 of the Act in January 2009 including a request for an assessment of the cumulative impacts associated with a wind farm proposal to the north (The Mortlake Wind Farm). Advertising was undertaken and six objections were received.

There were no Section 55 referral authorities for the purpose of the application, however a number of authorities were provided with notice of the application pursuant to Section 52 of the Act. Of these, Aboriginal Affairs, Telstra, Corrangamite Shire Council. and Glenelg Hopkins Catchment Management Authority did not respond.

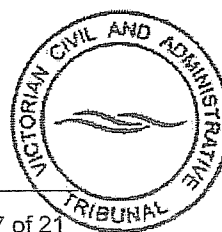
The CFA, EPA and VicRoads had no objection to the proposal subject to conditions.

The Department of Sustainability and Environment indicated some concerns with respect to the fauna assessment particularly regarding the Bent Wing Bat.

Internal referrals were made to the Council's Environment Health Department and Engineering Department. The former had no objections and the Engineering Department had a number of concerns regarding roads and access.

The Responsible Authority subsequently resolved, contrary to the officer's recommendation, to refuse a permit on the following grounds:

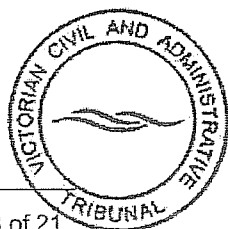
1. The traffic report does not provide adequate:
 - Detail to assess the safety of the proposed access points.



- Information on the existing conditions survey of public roads that may be used for access and designated construction transport vehicle routes in the vicinity of the wind energy facility, including details of the suitability, design, condition and construction standard of the roads.
- 2. The location of the temporary concrete batching plant is inappropriate.
- 3. The ecological studies for the proposed wind farm site are inadequate.
- 4. The proposal has an unacceptable impact on the character and appearance of The Sisters geological feature which is part of the Kanawinka Geological Park, and thereby on the landscape of the local area and on the local community.
- 5. The slope and curves in the existing road network and the potential impact to the surrounding area of large vehicle access/egress is considered to make the proposed site access and local traffic movements inappropriate without a major redesign.

Council subsequently indicated at a directions hearing at the Tribunal in November 2009 that it would add the following additional ground of refusal:

- 6. There is inadequate information to assess the cumulative effects of the proposal, including the cumulative visual effects and cumulative acoustic effects of the proposal, particularly with respect to the proposed Mortlake Wind Farm.



Cases referred to

Thackeray, Garito and Others v Shire of South Gippsland Corporation Limited, VCAT Reference 200/060214 and 2000/07469;

The Synergy Wind Pty Ltd v Wellington Shire Council, VCAT Reference P2691/2006;

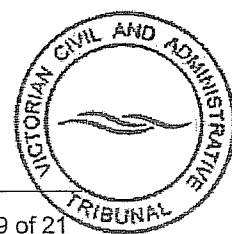
Acciona Energy Oceania Pty Ltd v Corrangamite Shire Council, VCAT Reference P391/2008;

Cathy Russell and Others v International Power (Australia Pty Ltd), VCAT Reference P2395/2008 and P2654/2008

The Tribunal was also referred to two Panel Reports *Woolsthorp Report* February 2008, and *Ryan Corner Report* March 2008.

Site Inspection

The Tribunal made an accompanied site inspection during the course of the first two days of hearing at Warrnambool.



PRELIMINARY MATTERS

- 1 The Tribunal after the first four hearing days issued an interim order which required, among other things, the provision of confirmation of the approval of a Culture Heritage Management Plan from Aboriginal Affairs Victoria as required by Clauses 51 and 52 of the *Aboriginal Heritage Act 2006*.
- 2 No such confirmation of approval was provided and indications were that such confirmation was at least one month away.
- 3 We find that no order could be issued by the Victorian Civil and Administrative Tribunal until such confirmation is provided, although in this case we have refused the application on other grounds.

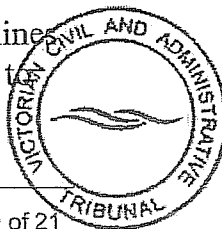
REASONS

- 1 Having considered submissions and evidence, and visited the appeal site, we found that the central issues in this matter are:
 - Policy
 - Cumulative impacts
 - Noise
 - Visual impact
 - The adequacy of ecological studies
 - Traffic and access
 - Health; and
 - Shadow flicker

POLICY

- 2 We find that there is strong support for wind farms in the Planning Scheme provisions. Starting with Clause 15.14 in the State Planning Policy Framework which seeks to promote renewable energy development in appropriate locations. The clause at 15.14-2 requires planning to:
 - Facilitate the consideration of wind energy development proposals.
 - Recognise that economically viable wind energy facilities are dependent on locations with consistently strong winds over the year and that such sites may be highly localised.

The clause requires account to be had of the Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria 2009 and regard to be had for the Renewable Energy Action Plan July 2006. The clause



contains the proviso that planning should consider the economic and environment benefits to the broader community of renewable energy generation and the effects on the local environment.

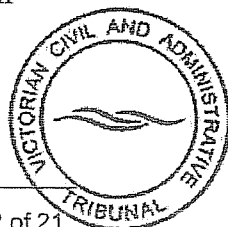
- 3 We find that the clause offers a strong level of support for wind generation facilities in appropriate locations and that one central locational requirement is the presence of strong winds.
- 4 Ms Marshall argued that the local community in Mortlake was being overburdened with wind facilities and there was not an acceptable balance between benefits to the broader communities and the amenity lost to the local community. In this regard she drew a parallel between the Latrobe Valley coal resources and the Mortlake wind resource arguing that there were other windy areas where wind farms could be established. The parallel between the Latrobe Valley and Mortlake is a reasonable one. The Mortlake area offers a resource, namely wind, which it is appropriate that use should be made of provided this can be done without unreasonable amenity, environmental or landscape impacts. The question that needs to be asked with respect to the present proposal is whether the impacts are unreasonable. In coming to this conclusion we accept that the wind resource like coal is limited and that not all windy locations are reasonably available.
- 5 Clause 52.32 in the Planning Scheme specifically deals with wind energy facilities and has as its purpose: *'to facilitate the establishment and expansion of wind energy facilities in appropriate locations, with minimal impact on the amenity of the area.'* The clause contains a test of application requirements with respect to wind farm proposals as well as a set of decision guidelines.
- 6 The application requirements include among other things accurate visual simulations illustrating the development and context of the surrounding area and from key public viewpoints, and a written report that includes:

An assessment of:

 - the visual impact of the proposal on the landscape.
 - the visual impact on abutting land that is subject to the *National Parks Act 1975*.
 - the impact of the proposal on any species (including birds and bats) listed under the *Flora and Fauna Guarantee Act 1988* or *Environment Protection and Biodiversity Conservation Act 1999*.
 - the noise impacts of the proposal on existing dwellings prepared in accordance with the New Zealand Standard NZ6808:1988, Acoustics – The Assessment and Measurement of Sound from Wind Turbine Generators.
 - the impacts upon Aboriginal or non-Aboriginal cultural heritage.
- 7 The decision guidelines require consideration of:



- The effect of the proposal on the surrounding area in terms of noise, blade glint, shadow flicker and electromagnetic interference.
 - The impact of the development on significant views, including visual corridors and sightlines.
 - The impact of the facility on the natural environment and natural systems.
 - The impact of the facility on cultural heritage.
 - The impact of the facility on aircraft safety.
 - The Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria, 2009.
- 8 The reference document Policy and Planning Guidelines for Development of Wind Energy Facilities sets out the application requirements in more detail and in particular requires regard to be had to the cumulative effects of the proposal, taking account of existing or proposed wind energy facilities in the area. The same requirement for a cumulative effects assessment was included in the initial Policy and Planning Guidelines for Development of Wind Energy Facilities which preceded the 2009 guideline and was current at the time The Sisters Wind Farm application was made. The failure of the applicant to consider the cumulative effects was a primary thrust of the Responsible Authority's assessment of the proposal.
- 9 The objectors' concerns mirrored those of the Responsible Authority but also encompassed: the heritage and landscape values of The Sisters and the potential health effects associated with noise or what was described as '*wind turbine syndrome*', the visual impact of the wind farms on the amenity of individual dwellings and on the historic values of The Sisters Hall specifically with respect to the Pine tree which was propagated from Lone Pine on the Gallipoli Peninsula.
- 10 Concerns were also expressed by the objectors in relation to the behaviour of the applicant, the lack of consultation with respect to the placement of measuring devices and in the case of Mr Blain, what he considered to be an incorrect location of the background noise monitor on his property. Mr Blain was also concerned about the applicant's assessment of the visual impact of the nearest turbine to his dwelling described by him as being as close as 480m. The Responsible Authority gave the separation distance as 580m. We suspect that discrepancy relates to whether the distance is measured to the turbine or the edge of the 100m radius circle provided around each turbine location to allow for minor changes in position. Mr Blain alleged that the impact of the proposal on his property would be greater than suggested by the applicant because a number of Cypress Trees that were located between his dwelling and the turbine had recently been removed.



CUMULATIVE IMPACTS

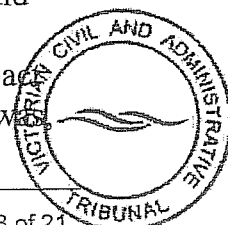
- 11 The Responsible Authority centred its discussion on noise and visual impacts under the failure of the applicant to consider cumulative effects of the proposal. We were of the view that it was both appropriate and possible for the applicant to assess the cumulated noise and visual impacts of the proposed Mortlake South wind farm facility finding that a reasonably close proximation of the location of the turbines on the proposed Mortlake South wind farm were available. We required the applicant to address this issue with respect to noise at the reconvened hearing on the 12 April. We indicated at the time that the additive visual impact of the Mortlake turbines on the public and private domain were not of major concern to us.
- 12 We also requested the applicant to address us with respect to the noise standard during the evening and night time hours given that the New Zealand standard for wind farm applied 24 hours a day and the draft Victorian EPA standard *Interim Guidelines for Control of Noise from Industry in Country Victoria* has a significantly reduced standard in the evening and night-time hours. We acknowledge that there will be no noise impact and minimal visual impact of the Mortlake South turbines on any of the objector's properties.

NOISE

- 13 The applicant called expert acoustic evidence from Jonathan Cooper of AECOM who managed the noise measurement and assessment project undertaken by other members of his firm. The noise evidence clearly showed that the noise standard contained in the 2009 *Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria* is met, namely that:

The sound level from the wind turbine generator (or wind farm) should not exceed at any residential site and at any of the nominated wind speeds the background sound level (L_{95}) by more than 5 dB(A) or a level of 40 dB(A) L_{95} whichever is the greater.

- 14 Wind turbines only operate when the wind speed reaches a certain level specifically above 4m per second. Noise levels associated with wind increase as wind speed increases and the noise standard applied allows for an increase of 5 dB(A) above the background noise level. The permit applicant undertook measurements of background noise levels at three residential locations. No measurements were undertaken at the dwellings of landowner participants (stakeholders) in the wind farm application although three of these are located significantly closer to the turbines than the objectors' dwellings, namely at 124m, 267m and 350m. Background levels were analysed against the predicted wind farm noise levels and at none of the three dwellings where the background noise levels were measured did the predicted noise impact exceed the standard although Houses A (McClaren dwelling) and B (Blain dwelling) had a predicted sound impact close to the 40 dB(A) minimum at around 6 to 7 metres per second. It was

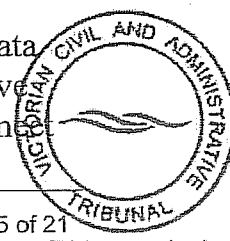


however, the applicant's contention that the predictions were conservative with no account being taken of potential sound attenuation from vegetation and the assumption that in all circumstances that the sensitive receptor was downwind from all turbines.

- 15 Predictions were also carried out for the remaining houses in the vicinity of the wind farm. These calculations were based on the lowest measured background noise levels which were at House B. The standard based on the acoustical calculations was not exceeded at any of the non-participating residents' dwellings. A number of exceedences were predicted at Dwellings L1, L2, L3 and X7. The exceedences being particularly significant for Dwelling L3 which is located 124m from the nearest turbine.
- 16 The New Zealand standard referenced in the Victorian Planning Guidelines for Wind Energy Facilities 2009 and in Clause 52.32-2 of the Planning Scheme was superseded on 1 March with standard 6808:2010. The new standard retains the limits contained in the 1998 Standard with the substitution of L90 percentile for the L95 in that standard as being more robust. The standard however does allow for, in quiet locations, '*the provision of a lower more stringent limit where a local authority has identified in its district plan the need to provide a higher degree of acoustic amenity*'. The standard recommends that the sound from a wind farm in such locations during the evening and night-time not exceed the background sound level by more than 5dB(A) or 35dB(A) L90 (10min) whichever is the greater. The question then arises as to whether we should have regard to this standard and if so whether the subject site warrants special consideration as a quiet location.
- 17 With respect to the appropriate standard to apply we accept Ms Marshall's submission that under the *Interpretation of Legislation Act* 1984 the reference to the 1998 New Zealand Standard in the Policy Guideline and the Planning Scheme should be read as a reference to the 2010 New Zealand Standard. The New Zealand Standard is the one referred to in the 2009 Guidelines. It is the adopted standard for the State of Victoria and we find the fact that it is adopted from New Zealand of no particular relevance. We further find that the area impacted by The Sisters proposal is a quiet location as evidenced by the background noise level measurements made by the applicant which were below 35dB(A) at wind speeds up to 6 m/sec.
- 18 In light of the above we find that the applicable standard will be exceeded at both dwellings A and B and that the exceedence will not fall within the margins of error of the predicted noise levels even when account is taken of the built in conservatism of those calculations. The failure will be even greater for the stakeholder dwellings L1, L2, L3 and X7 and although we agree less weight should be put on the impact on stakeholders we do find that the impact on them must be given some consideration because the dwellings will in all probability be occupied and not necessarily by the beneficiary of the contractual agreement with the wind farm operator.



- 19 Mr Blain was critical of the placement of the noise monitor at his dwelling identified as Dwelling B and the measurements which were used as the background level in the calculations for all of the dwellings in the vicinity aside from Dwellings A and C. It was Mr Blain's contention that the applicant failed to locate the wind monitor in accordance with the New Zealand standard in ZS6808/1998 which states:
- Locations selected for sound level measurements shall be more than 5m from any vertical noise reflecting surface or other structures or objects (such as trees, power lines etc).
- 20 It was his contention that the monitor on his property was placed within 5m of a large shrub and that consequently the measurements were not taken in accordance with the standard and should be discarded. This matter was addressed by Mr Cooper in his second report dated 27 January 2010.
- 21 It was the contention of Mr Blain that the monitor was 150mm closer to the shrub than permitted in the standard procedure. Mr Cooper's evidence was that the 150mm difference would not have any significant impact on the noise levels measured, the difference not being any greater than 0.5 dB(A) which is well within the calibration tolerance of the equipment used. It was also his contention that the L₉₅ noise level which is the noise level exceeded for 95% of the time is a robust measurement that is unlikely to be affected by small changes in noise emissions.
- 22 We accept the evidence of Mr Cooper. It is our view that the location of the wind monitor 15cm closer to a small shrub will have minimal affect on the values measured and no impact on the conclusions drawn.
- 23 The applicant called Mr Cooper on day 5 to respond to and be cross-examined on an expert report prepared by his colleague Rachel Crawford on the cumulative impact on dwellings potentially affected by both The Sisters proposal and Mortlake South. Ms Crawford's report identified four dwellings potentially affected by both wind farms. Three of these dwellings were identified as being stakeholders in the Mortlake South proposal.
- 24 The predicted sound levels met the 1998 New Zealand Standard for all dwellings except for one of the stakeholder dwellings. It was Mr Cooper's evidence that if the 2010 New Zealand Standard were to apply all, except one stakeholder dwelling, would fail to meet the standard.
- 25 Ms Marshall provided the Tribunal with the noise expert report prepared for the Mortlake proposal. This report by Christopher Delaire of Marshall Day also applied the 1998 New Zealand Standard. Mr Delaire's report identified five dwellings potentially affected by the combined noise output from the two wind farms. The dwellings identified included two additional dwellings located proximate to the most westerly and central dwelling cluster identified in the Crawford report and excluded the most easterly of the dwellings assessed in this report. Mr Delaire also used different input data which would have the effect of making his predictions more conservative. The reported results were that three of the affected dwellings failed to meet the standard.

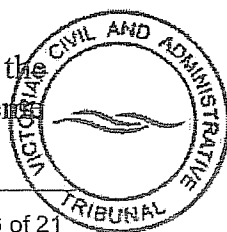


the 1998 Standard. All these dwellings are in the central cluster and include one non stakeholder dwelling.

- 26 Ms Conready also provided the Tribunal with a noise report from Dr Robert Thorne of Noise Measurement Services Pty Ltd. There was some discussion at the hearing as to the status to be granted to this report given its late receipt and that its potential provision was not foreshadowed in the Tribunal's interim order. We took the view that the report should be accepted as part of Ms Conready's submission rather than as an independent expert report and given our final decision there is no need to address its contents here.
- 27 A number of issues arise with respect to the cumulative impacts of the two wind farms including the failure of the applicant to identify two of the affected dwellings and the different predicted level of the impact. We find in this regard that the two dwellings failed to be identified by Ms Crawford will be impacted to an identical extent as the dwellings most proximate to them and that the difference in the extent of impact predicted in the two reports is a function of the different degree of conservatism in the model inputs. Overall we conclude that the 2010 New Zealand Standard should have been applied in assessing the cumulative impact and that if this had been done the five houses identified by Mr Delaire would fail to meet the Standard and the most easterly of the dwellings assessed by Ms Crawford would be below the limit.
- 28 We reiterate our previous remarks about stakeholder dwellings not being excluded in any assessment of wind farm impacts. It is our view the argument is stronger with respect to stakeholder dwellings when considering cumulative impacts as each individual stakeholder only has an interest in one of the wind farms impacting on them.
- 29 In light of the above assessment of noise impact on sensitive receptors we are of the view that The Sisters application should be refused on this ground alone. We therefore do not intend to address the remaining grounds put forward by the Council and objectors in detail.

VISUAL IMPACT

- 30 We are of the view that the visual impact of wind turbines is a very subjective one and accept that some people consider them to be a thing of beauty while others view them as a blight on the landscape. The visual impact of the wind farm development relates to its visibility from public spaces, its impact on private dwellings, its wider impact on the unique aspect of The Sisters geological formation and on the social and historic importance of the Lone Pine tree adjacent to the community hall.
- 31 We find with respect to The Sisters as a geological/cultural feature within the broader landscape that although mentioned in Clause 21.06 of the Planning Scheme as being with Mt Warrnambool the only high point in the eastern section of the shire, neither feature is listed in the Planning Scheme.



as a feature with landscape character, nor is there any Landscape Overlay covering the site. We also note that at Clause 22.02-7 with respect to hilltop and ridgeline protection under Policy Basis states the following:

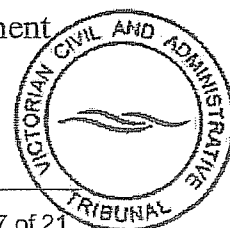
The MSS identifies the natural landscape of the municipality as an important asset that requires protection from inappropriate use and development. Hilltops and ridgelines are seen in the distance throughout the municipality. The visual and environmental implications of development along these natural features can destroy the attractiveness and environmental qualities of the area and is to be discouraged.

- 32 The clause further states among its objectives to limit development on prominent ridgelines and hilltops and to contribute to the protection of the environmental qualities of hilltops and ridgelines further stating it is policy that the environmental landscape and visual significance of hilltops and ridgelines should be considered in assessing applications for new uses and development.
- 33 The policy requirements of this clause have to be set alongside the positive encouragement for wind farms in locations which have suitable wind regimes such as the subject of this application. In this regard it has to be accepted that high winds are generally experienced at elevated locations and are therefore potentially in conflict with hilltop and ridgeline protection policy. In any event, any future application involving all or part of this land will have a different visual impact, and will require a new assessment to be carried out.

THE ADEQUACY OF ECOLOGICAL STUDIES

- 34 Council was critical of the ecological survey carried out by Robert Gration. Mr Gration carried out a desktop study. The study undertaken made use of the Thomson model which, in Mr Gration's view, is a best practice approach for undertaking terrestrial vertebrate fauna studies. The model requires a preliminary survey to determine whether a more intensive survey is needed. In Mr Gration's view this process ensures that the survey effort is commensurate to the degree of risk a proposed activity poses. The preliminary survey is a desktop study which included a literature review and two site inspections. Mr Gration was assisted by the flora and fauna reports provided for by the Mortlake Wind Farm assessment. These included the following:

- Brett Lane and Associates Pty Ltd (2007), Mortlake South and East Wind Farms Flora and Fauna Assessment;
- Brett Lane and Associates Pty Ltd (2008), Proposed Mortlake Wind Farms Brolga Breeding Season Study;
- Ecology Partners 2008, Brolga Mitigation Season Impact Assessment Mortlake Wind Farm Victoria.



- 35 The Responsible Authority was of the view that this was an inadequate approach to the risks to wildlife associated with the project. Council's view was supported by the Department of Sustainability and Environment which responded to the Responsible Authority by letter dated 4 May 2009 as follows:

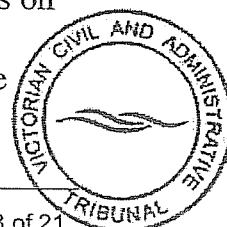
In reviewing the planning permit application, the department notes that there has been a lack of site specific survey effort allocated to this proposal. The majority of biodiversity information has been obtained from desktop database searches and reports for nearby wind farms; only two days were spent undertaking site surveys and no bat surveys have been completed for the wind farm site, despite Southern Bent-wing Bat (*Miniopterus schreibersii bassanii*; critically endangered under the *Environment Protection and Biodiversity Conservation Act 1999*) recently being detected nearby.

The letter went on to say

The decision guidelines for the Farming Zone, contained in Clause 35.07-6 of the Moyne Planning Scheme, require that the responsible authority consider: "The impact of the use or development on the flora and fauna of the site and its surrounds."

The department does not believe that adequate information has been provided to assess the potential biodiversity impacts of this application, or enable regulation of impacts that may result from the development and operation of the proposed wind energy facility.

- 36 We do however note that the letters from DSE expressed a view that failing further information being obtained from the applicant, certain conditions should be put on the permit.
- 37 We find after hearing the evidence that the approach undertaken by Mr Gration was appropriate in the circumstances. Specifically with respect to flora it was his view that there was no vegetation of any value on the site. He stated that the site is highly disturbed due to agricultural activities, contained no native vegetation, with all of the proposed turbine locations in open paddocks accessible by way of existing access tracks which were themselves devoid of vegetation. This evidence of Dr Gration was borne out on the Tribunal's inspection. We therefore have no concerns with respect to issues related to flora.
- 38 Mr Gration's assessment of the site with respect to fauna was based in part on the studies undertaken at Mortlake South Wind Farm which found that the presence of significant species was limited and in particular no threatened species were observed aside from the Southern Bent Wing Bat, evidence for its presence being associated with five potential bat calls. It was Mr Gration's evidence that wind turbines were a low risk for bats who have very good navigational skills. Further, there were no fauna species on site that would be attractive to the bat and the nearest bat breeding at Starlight Caves was some distance from the site. We also note that there

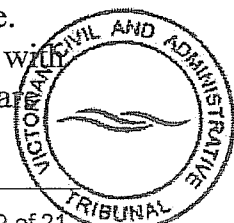


have been no documented Bent Wing Bat deaths attributed to wind turbine collisions.

- 39 We accept the evidence of Mr Gration with respect to the risk to the Bent Wing Bat and in particular, that no useful information would be obtained by carrying out a Bent Wing Bat survey on the site.
- 40 The other species considered to be potentially at risk is the Brolga. In determining the potential risk to Brolgas, Mr Gration made use of the Percival model. The model involves a six stage process:
- starting with baseline data collection followed by
 - the sensitivity of populations, conservation status
 - the magnitude of effects;
 - the likelihood of the risk;
 - the integration of sensitivity magnitude and risk into an overall assessment of effects; and
 - the reaching of conclusions on the basis of the above.
- 41 Mr Gration also made use of a Brolga collision risk model used by Brett Lane and Associates and Ecology Partners for the Mortlake South and Mortlake East wind farms. Two modes of assessment was undertaken for Mortlake South and The Sisters due to their close proximity. The outcome based on the number of turbines and 86 Brolga flights across the site was assessed as low for a potential collision impact. It should also be noted that surveys undertaken for Brolga at Mortlake South by Ecology Partners which also covered The Sisters Wind Farm area recorded no Brolga.
- 42 Mr Gration acknowledged that birds of prey were at risk. It was however also his assertion that they were a species that learnt to avoid wind turbine sites.
- 43 Broadly speaking we find that the site is a degraded one, in that there is no flora on it of any value. We further find that it is unlikely that native species will forage in this area and the risk to both Bat and Brolga is very small. We in particular find no inadequacies in the approach undertaken by Mr Gration in determining the risk to flora and fauna from the proposed 12 turbine farm.

TRAFFIC AND ACCESS

- 44 The applicant called evidence from Mr Steven Pelosi with respect to issues associated with traffic and access to the site. The issues with respect to traffic relate to the construction period. There is an element of uncertainty with respect to the routes to be taken to the site depending on whether the blades and towers come in from the Port of Portland or from Melbourne. We are satisfied that traffic issues, although important, need to be dealt with in respect to each individual application. It is our view that such issues are



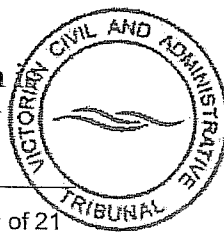
generally resolvable by way of a traffic management plan and note that the level of impact and nuisance is confined to the construction phase of any wind farm project.

HEALTH

- 45 Health impacts of wind turbines was a significant issue to the McClaren family. They provided the Tribunal with a significant amount of material, by way of: statements by individuals both in Australia and overseas, a DVD of an ABC Stateline story regarding the impact of the Waubra Wind Farm in the Ballarat region and a book by Nina Pierpont, *Wind Turbines*, describing and elaborating on a condition designated by her as 'Wind Turbine Syndrome'. Nina Pierpont recommended 1.25 miles or approximately 2.0 kilometres as an appropriate separation distance of a dwelling from a turbine if negative health effects were to be avoided. It was the McClaren family's contention that international authorities provided further support for set separation distances, including the French Academy of Medicine and the UK Lawyers Association, who recommended 1.5 kilometres from any dwelling. The McClaren property is effectively an island surrounded by participants in the wind farm application with eight of the turbine sites within 1.6 kilometres from their dwelling.
- 46 No witnesses were provided by any other party with respect to the potential impact of wind turbines on health. The applicants presented the Tribunal with a report prepared for the American Wind Energy Association and the Canadian Wind Industry Association dated 2009, *Wind Turbines, Sound and Health Effects*. The report was written by a number of authors, commissioned by the wind industry and concluded:
- There is no evidence that the audible sounds emitted by wind turbines have any direct adverse physiological effects.
 - The ground borne vibrations from wind turbines are too weak to be detected by or to affect humans.
 - The sounds emitted by wind turbines are not unique. There is no reason to believe based on the levels and frequencies of the sound, and the panel's experience with sound exposures and occupational settings, that the sounds from the wind turbines could possibly have direct actual adverse health consequences.
- 47 It is our view that actual adverse health effects aside from the annoyance aspects of noise impact remain unproven. We do however accept that certain individuals have a much higher sensitivity to noise than others, but the impact of noise from the turbines, which is a fluctuating rather than a steady noise, does cause significant distress even at a low noise level.

SHADOW FLICKER

- 48 Shadow flicker occurs east and west of individual turbines when the sun low on the horizon. The Victorian 2009 Guidelines provide that shadow



flicker experienced in any dwelling in the surrounding area of an energy facility must not exceed 30 hours per annum. We were informed flicker standards were relatively easy to comply with.

- 49 Electromagnetic impacts or interference was raised as an issue by objectors. The applicant contended that a study by the Australian Centre for Communication Interference research on this topic held that wind turbines are unlikely to cause significant interference to television or radio receptions when the turbines are located at least 500 metres from a transmission tower or receiver. There are no towers located within several kilometres of the turbines. There are however a number of dwellings belonging to participants in the wind farm that are located within 500 metres of the turbines. The question arises to what extent the impact of the turbines on participating residents should be a factor in determining whether or not a permit be granted.
- 50 Finally we find that there will be no impact of the wind farm on farming activity.
- 51 We do have a concern related to the obvious social disruption. Social division has been caused in this small community by the wind farm proposal. We feel that whatever our decision, the damage has already been done, and that relationships within the community may never be the same again.

CONCLUSION

- 52 Clause 11 of the Moyne Planning Scheme requires us to balance conflicting objectives in favour of net community benefit and sustainable development. In this case we are not convinced that the net community benefit is such that it outweighs the negative impacts.

J. A. Bennett
Presiding Member

S. Mainwaring
Member



