

VICTORIAN CIVIL AND ADMINISTRATIVE TRIBUNAL

ADMINISTRATIVE DIVISION

PLANNING AND ENVIRONMENT LIST

VCAT REFERENCE NO. P2910/2012
PERMIT APPLICATION NO. P306963/12

CATCHWORDS

Application under section 79 of the *Planning and Environment Act 1987* for review of the failure to grant a permit within the prescribed time. Wind energy facility. Visual impact. Impact on flora and fauna. Noise impact. Impact on health.

APPLICANT	Cherry Tree Wind Farm Pty Ltd
RESPONSIBLE AUTHORITY	Mitchell Shire Council
RESPONDENTS	Trawool Valley - Whiteheads Creek Landscape Guardians and Others
SUBJECT LAND	595 Homewood Road, Whiteheads Creek, 870 Kobyboyn Road, Whiteheads Creek and 900 Greenslopes Road, Trawool.
WHERE HELD	Melbourne
BEFORE	H. McM. Wright QC, Senior Member Anthony Liston, Senior Member
HEARING TYPE	Hearing
DATES OF HEARING	29, 30 and 31 January, 5, 6, 7, 8, 12, 14, 15, 18, 19, 21, 26, 27 and 28 February, 1, 4, 6, 13, 14 and 18 March 2013
DATE OF ORDER	4 April 2013
CITATION	

ORDERS

- 1 On 29 January 2013 Mr Robert Tomkins was granted leave to be joined as a Respondent.
- 2 On 29 January 2013 the Respondents, Colin and Mavis Smith were granted leave to withdraw from the proceeding.
- 3 On 6 February 2013 the Permit Applicant was granted leave to amend the application by substituting plans which had been circulated in accordance with the Tribunal's Practice note PNPE9 for the plans which accompanied the application for permit.

- 4 The application for review is adjourned to a date to be fixed not later than 4 October 2013.
- 5 The parties are given leave to adduce further evidence which correlates the incidence of health impacts alleged to be caused by wind turbines with the distance the person impacted lives from the wind turbine.
- 6 Any such evidence is to be in the form of a written report filed with the Tribunal and served upon the solicitors for the Responsible Authority, the Permit Applicant and the Trawool Valley – Whiteheads Creek Landscape Guardians. A copy of any report is to be posted on the Responsible Authority’s website.
- 7 Any report must be filed with the Tribunal and served as above on or before 4 September 2013.
- 8 There will be liberty to apply by requesting that the matter be listed for directions.

H. McM. Wright QC
Senior Member

A P Liston
Senior Member

APPEARANCES

For Applicant: Cherry Tree Wind Farm Pty Ltd	Mr Tim Power, Solicitor of Herbert Smith Freehills
	Witnesses: Mr Brett Lane, Ecology; Ms Debra Butcher, Town Planning; Mr David Fuller, Erosion & Salinity; Mr David Black, Health; Dr Kym Burgemeister, Acoustics; Mr Chris Turnbull, Acoustics; Mr David Moir, Landscape Assessment;
For Responsible Authority	Ms Maria Marshall, solicitor of Maddocks Solicitors;
	Witnesses: Mr Aaron Organ, Ecology; Mr Craig Czarny, Landscape Assessment;
For Referral Authority: Department of Sustainability and Environment.	Mr Robert Hutchinson, Program Manager, Regional Planning North-east Victoria.
For Respondent: Wollert Glen P/L.	Mr Chris Wren SC instructed by A.J. Macken and Co
	Witness: Mr Stuart Gilmour, Director of Wollert Glen P/L
For Respondent: Waubra Foundation.	Mr Peter Mitchell AM, chairman of the Waubra Foundation.
	Witness: Dr Sarah Laurie, CEO of the Waubra Foundation.

For Respondent
Trawool Valley Whiteheads
Creek Landscape Guardians

Mr Peter Quinn, barrister, instructed by
Herbert Geer Solicitors

Witnesses:

Dr Adam McCarthy;
Mr Andrew Forbes;
Mr David Mortimer,
Mr Jamie Bell;
Ms Maxine Coulson;
Mr Peter Hill;
Ms Rebecca Fagan;
Mr Richard Waugh;
Mr Roger Stephenson;
Mr Steven Cooper, Acoustics;
Mr Hamish Cumming;

For Respondents Colin and Mavis
Smith

Mr John Hannagan, solicitor, of Messrs
Harwood Andrews

Mr Hannagan sought and was granted leave
to withdraw on the first day.

For Respondent National Trust of
Australia (Victoria)

Mr Paul Roser.

Respondents appearing on own
behalf

Mr Gary Morris;
Mr Gary Belton,
Ms Anne Belton,
Ms Lola Puddy,
Ms Mary Davis,
Ms Jill Adams,
Mr Tim Brew,
Mr Clarence Cook
Mr William Kelly,
Mr Bernand Plieger,
Ms Ursula James,
Ms Sandra Clark,
Mr Stuart Clark,
Mr Russell Varcoe,
Mr Kevin Fagan,
Mr Gerhard Brown
Ms Patina Schneider

INFORMATION

Description of Proposal	The proposal is to use and develop the land for the purpose of a wind energy facility (16 off-white wind turbines with a power output of 3.5 MW) and for a minor utility installation (power transmission line) together with the associated removal of vegetation.
Nature of Proceeding	Application under section 79 of the <i>Planning and Environment Act 1987</i> for review of the failure to grant a permit within the prescribed time.
Zone and Overlays ¹	Farming Zone; Public Conservation & Resource Zone Environmental Significance Overlay (ESO3); Salinity Management Overlay (SMO); Floodway Overlay (FO); Erosion Management Overlay (EMO); and Bushfire Management Overlay (BMO).
Land Description	The subject land is a large irregular rural land holding in multiple ownerships. The land is located at Whiteheads Creek and Trawool in an area generally bounded by Kobyboyn Road to the north, Ghin Ghin Road to the east, Telegraph Road to the west and the Goulburn River to the south,. The land is currently used for cattle and sheep grazing. The land is located approximately 80km north-east of Melbourne and approximately 15km south-east of Seymour.

¹ The overlays listed only relate to parts of land affected by development or vegetation removal, principally the northern portion of Homewood Road.

REASONS

Introduction

- 1 The Trawool Valley winds through a pleasant rural landscape bordered by the Cherry Tree Ranges to the north-east and the Tallarook Ranges to the south-west. The valley is traversed by the Goulburn Valley Highway. The highway connects Seymour with Yea and other townships to the east. Land on either side of the highway is used for farming with some tourist facilities such as cafes, bed and breakfast accommodation, the Trawool Valley Resort and the Kerrisdale Railway Museum.

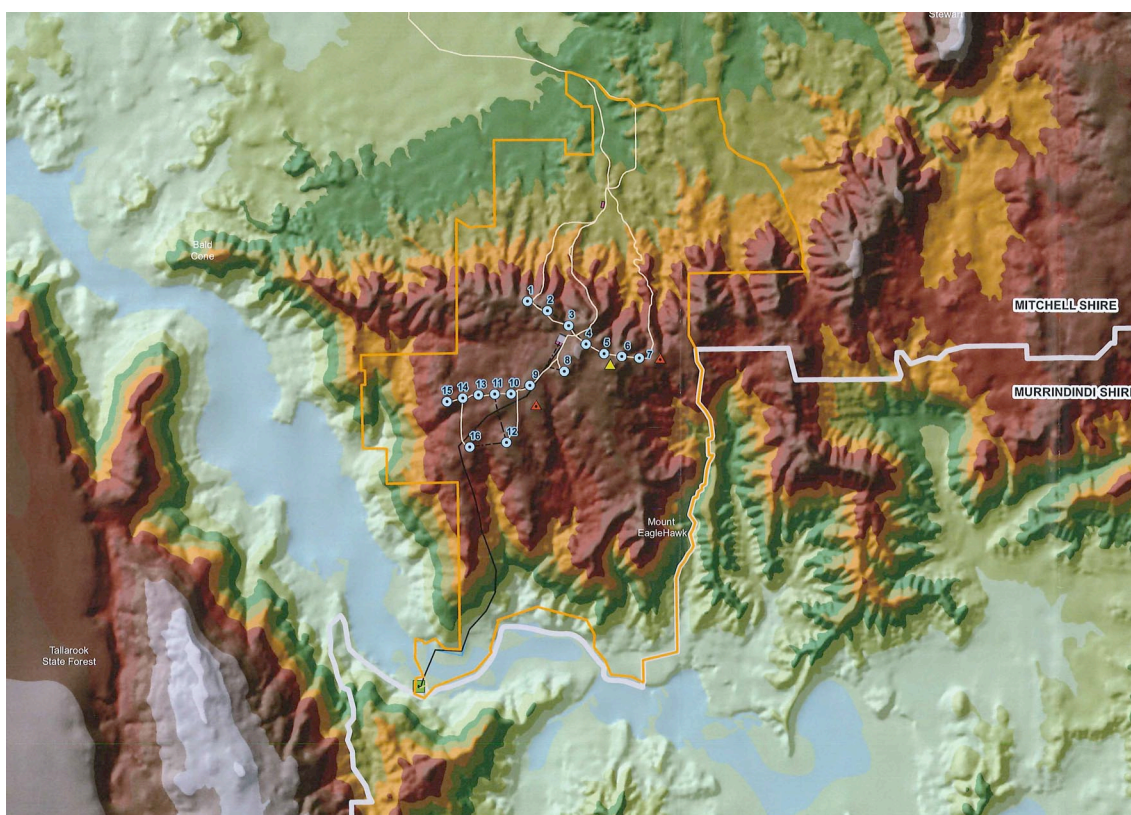


Figure 1 – Topographic image of locality showing proposed wind farm site

- 2 The Cherry Tree Wind Farm Pty Ltd proposes to develop a 16 turbine wind farm generally along the ridge of the Cherry Tree Range. The proposal is fiercely contested by the Mitchell Shire, a number of local residents who have formed the Trawool Valley and Whiteheads Creek Landscape Guardians (the Landscape Guardians), yet more residents with individual cases to present, and by the Waubra Foundation, which is an organisation whose main object is to investigate health problems experienced by people living in proximity to wind farms.
- 3 The permit applicant is seeking to review the failure of the Council to determine its permit application within the prescribed time. The proceeding

before the Tribunal has occupied 23 hearing days, all of which have been attended by substantial numbers of the public. The Tribunal has heard evidence from 11 expert witnesses and a number of lay witnesses. Over 100 exhibits were tendered by the parties. In addition the Tribunal received many thousands of pages of documentary material and scientific literature.

- 4 It is trite that wind farms have become a controversial land use. The controversy centres upon whether a wind farm has a deleterious effect on the health and wellbeing of persons living in proximity to the wind farm. This issue was at the forefront the cases presented by the respondents.
- 5 The responsible authority did not join this particular debate. It decided that had it not been for the application for review it would have refused permission for reasons set out in a resolution of council. Ms Marshall summarised the issues which arise from these reasons as follows.
 1. The impact of the proposal on the landscape and environmental values of the environmentally sensitive areas of the Trawool Valley and Whiteheads Creek environs;
 2. The impact of the proposal on the visual amenity of the Trawool Valley and Whiteheads Creek environs, including the hill tops and ridgelines of those environs;
 3. The impact of the proposal on biodiversity;
 4. The proposed loss of vegetation associated with the proposal; and
 5. Whether the proposal achieves compliance with clause 52.32 (Wind Energy Facility) of the Scheme.
- 6 At the commencement of the hearing Mr Power, who appeared for the permit applicant, pursued an application to amend the application for permit by the substitution of new plans as foreshadowed by notice given in accordance with the Tribunal's practice requirements. The application to amend raised a threshold legal question as to whether the proposed development is prohibited by the Mitchell Planning Scheme. After hearing argument from the legally represented parties the Tribunal ruled that the proposal is not prohibited. The application for permit was then amended as requested without objection from the other parties.
- 7 On 12 February 2013 the Tribunal carried out a comprehensive inspection of the subject site and the locality accompanied by the parties. The Tribunal also undertook an unaccompanied inspection of a newly commissioned wind farm and its environs at Macarthur in western Victoria with the consent of the parties.
- 8 From all this information and material the Tribunal has distilled the following issues.
 - Is the proposed development prohibited as a matter of law.

- How should the proposal be evaluated under the Mitchell Planning Scheme.
- Will the visual impact of the proposal be unacceptable.
- Will the proposal have an unacceptable impact upon the flora and fauna of the locality.
- Will the proposed development create unacceptable noise.
- Will the proposed development have an unacceptable impact on the health and wellbeing of persons living in proximity to the wind farm.
- Will the proposed development give rise to problems in relation to fire risk, salinity and erosion, and aviation.
- Can any undesirable impacts of the proposed development be avoided or ameliorated by permit conditions

The Tribunal has at this stage come to the following conclusions.

- The proposed development is not prohibited by the Mitchell Planning Scheme.
- The visual impact of the proposal will not be unacceptable. The development will to a large extent be screened from the public realm by the roadside vegetation along the Goulburn Valley Highway. Moreover from any viewing point the wind farm will occupy only a small part of the viewshed.
- The proposal will not have an unacceptable impact on local flora and fauna. The only real connection between the wind farm and local flora and fauna will be along Homewood Road, where some trees will need to be removed to enable the wind farm infrastructure to be brought on site. This will not materially affect wildlife habitat, and the removal of vegetation need not be permanent. Much of the vegetation will regrow in time.
- The acoustic modelling demonstrates that the proposed development will comply with the noise standard prescribed by the planning scheme as a decision guideline.
- The development will not give rise to problems relating to bushfire, salinity, erosion or aviation.

The unresolved question is the impact of the wind turbines on the health and wellbeing of people living in the general vicinity of the wind farm. This issue is dealt with below.

The subject land & locality

- 9 The subject land is a large irregular rural land holding in multiple ownerships. The land is located at Whiteheads Creek and Trawool in an area generally bounded by Kobyboyn Road to the north, Ghin Ghin Road to the east, Telegraph Road to the west and the Goulburn River to the south,.

The land is currently used for cattle and sheep grazing. The land is located approximately 80km north-east of Melbourne and approximately 15km south-east of Seymour.

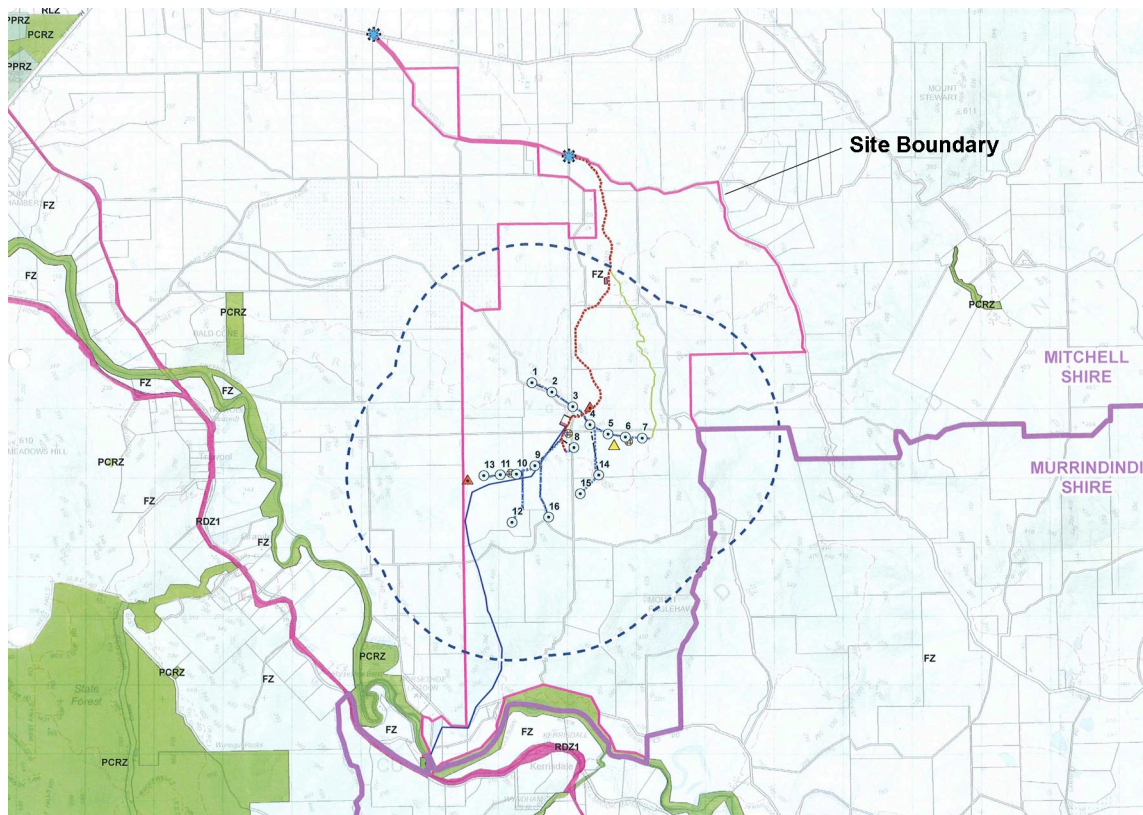


Figure 2 – Plan showing, Zones, Site boundary, Wind turbine layout and 2km buffer line.

- 10 The proposed wind turbines are to be located centrally within the landholding on a plateau within the Cherry Tree mountain range. At the southern edge of the plateau is Mount Eagle Hawk with a peak at 540 metres AHD. The steep south-west slopes of the Cherry Tree Range form the north-east escarpment of the Trawool Valley which is a National Trust landscape. The south-west escarpment is defined by the eastern slopes of the Tallarook Range which unlike the Cherry Tree Range falls largely within a Significant Landscape Overlay.
- 11 Entry to the subject land is to be via Homewood Road, an unsealed minor rural road which is accessed from Kobyboyn Road to the north.
- 12 The surrounding rural land is predominantly used for cattle and sheep grazing and plantation forestry. In Whitehead Creek and Trawool there are a number of properties used for rural residential purposes. Within the Trawool Valley in particular there are also tourism related facilities including the Trawool Resort, the Kerrisdale Railway Museum, the Goulburn River high country rail trail and a number of other smaller tourist venues.

- 13 The Goulburn River valley and the Trawool Valley are areas of scenic value.

The proposal

- 14 The proposal is to use and develop the land for the purpose of a wind energy facility and for a minor utility installation (power transmission line) together with the associated removal of vegetation.
- 15 The wind energy facility will comprise 16 off-white wind turbines each with a power output of 3.5 MW². The proposed siting of each of the turbines is defined by the amending plans³. The hub height of the proposed turbine towers will be 100 metres. The overall height will be 159 metres to the blade tip at the peak of its rotation. Infrastructure associated with the proposed wind energy facility includes:
- A kiosk transformer for each turbine;
 - An electrical substation connected to the turbines by underground cables;
 - An electricity transmission line connecting the substation to the Yea - Seymour transmission line adjacent to the Goulburn Valley Highway;
 - A site office and store with control room and maintenance facilities;
 - An access road extending from Homewood Road to the plateau and between turbines;
 - The widening of Homewood Road to 6 metres where necessary, including a new section of roadway at one point, to allow for site access by large vehicles.
- 16 The application includes the removal of vegetation, principally along Homewood Road. 5.66 hectares (1.80 habitat hectares) of native vegetation within habitat zones is to be removed including 16 large and very large old trees within habitat zones and 11 scattered trees. An additional 89 large trees and 27 scattered trees are deemed to be removed.

Basis of Decision

The Threshold Legal Question

- 17 The effect of the amendment sought by the permit applicant is to relocate the position of some of the wind turbines.
- 18 Mr Wren SC, who appeared for the objector Wollert Glen Pty Ltd, opposed the amendment on the ground that both the proposal and the amendment are

² The maximum overall power output is limited to 40 MW because of the capacity limitations of the Yea – Seymour transmission line.

³ Permits for wind energy facilities usually allow for the micro siting of turbines during construction. The application originally proposed micro siting of up to 250 metres in any direction a proposal reduced to 100 metres during the course of the hearing

prohibited by clause 52.32 of the Mitchell Planning Scheme. Clause 52.32 relevantly provides as follows.

Use and development of land

A permit is required to use and develop land for a Wind energy facility.

The use and development of land for a Wind energy facility is prohibited at a location listed in the table to this clause. This does not apply where the condition opposite the location specified in the table is met.

Table to Clause 52.32-2

Location	Condition
On land where any turbine that forms part of the facility is located within two kilometres of an existing dwelling. This does not apply to a Wind energy facility that is located on land in a residential zone, an industrial zone, a business zone or a special purpose zone.	Must meet the requirements of clause 52.32-3 as at the date of the relevant application being an application for permit, a request to amend a permit application or an application to amend a permit

- 19 Clause 52.32-3 provides inter alia that an application for permit which includes a wind turbine that is within two kilometres of an existing dwelling must be accompanied by evidence of the written consent of any owner of such dwelling.
- 20 Mr Wren SC submitted that the proposed wind farm is prohibited because at the date the amendment was sought, which he submitted was 29 January 2013 being the opening day of the hearing, some of the proposed wind turbines would be located within two kilometres of an existing dwelling, being a structure which was then under construction on his client’s land, and that his client’s consent in writing had not been obtained as required by clause 52.32-3.
- 21 Mr Wren was joined in this submission by Mr Quinn, who appeared on behalf of a number of local residents including the Landscape Guardians. His clients included Mr Richard Waugh, who owns property adjoining the subject land to the northwest. Mr Quinn’s objection is put on the same basis, namely, that some or all of the turbines are proposed to be located within two kilometres of a house then being constructed by his client, and that his client’s consent in writing has not been obtained.

- 22 These submissions raise a legal issue which has been determined by the chairman as the legally qualified member of the Tribunal. There is no material dispute as to the facts which can be summarised as follows.
- 23 An application for a permit for the wind farm was made on 30 April 2012. It was not accompanied by the written consent of the owners of existing properties within two kilometres as is required by clause 52.32-3. The application accordingly was defective. Insofar as the application sought a permit for use and development that is prohibited by the Table to clause 52.32-2 it was arguably a nullity.
- 24 The application for permit which is now before the Tribunal was made on 14 June 2012. This time the responsible authority was satisfied that the application was accompanied by the written consent of all owners of existing dwellings within two kilometres, although not with the written consent of either Wollert Glen Pty Ltd or Mr Waugh. The chairman rules that 14 June 2012 is the relevant date for the making of the application for permit for the purpose of the Table to clause 52.32-2.
- 25 As at 14 June 2012 both Wollert Glen Pty Ltd and Mr Waugh had obtained planning permits under the Mitchell Planning Scheme to construct a dwelling on their respective properties, but in neither case had construction commenced. The grant of both permits preceded the making of the abortive application for permit for the wind farm on 30 April 2012. Both Wollert Glen Pty Ltd and Mr Waugh have an existing house on their property, but in neither case is the dwelling within two kilometres of a proposed wind turbine.
- 26 The permit applicant subsequently applied to amend the application. Under clause 52.32 the requirements of the table must also be satisfied as at the date the application to amend is made.
- 27 There was debate as to the date on which the application to amend was made. The amendment was foreshadowed but not actually made at a directions hearing before the Tribunal on 14 November 2012. The form required by Practice Note PNPE9 was lodged with the Tribunal on 30 November 2012 and was served upon the parties at about that time. It is significant that the form recites that an application to amend has been made, and then describes the amendment or change of plans.
- 28 Then at the commencement of the hearing on 29 January 2013 Mr Power sought leave to amend the application, as is the usual practice of the Tribunal. The question is whether the application to amend was made on 30 November when Form PNPE9 was lodged, or at the commencement of the hearing on 29 January 2013 when leave was actually sought.
- 29 The chairman is inclined to the view that the amendment was made when the requisite form PNPE9 was lodged on 30 November 2012. That form clearly states that the application has been amended. However for the purpose of determining the threshold question of law the chairman has

adopted a conservative approach which treats the application to amend as having been made at the commencement of the hearing on 29 January 2013. If the application did not infringe the prohibition under clause 52.32 at that date it cannot have infringed the prohibition as at 30 November 2012, *a fortiori* as at 14 June 2012.

- 30 It is therefore necessary to look at the factual position as at 29 January 2013. In the case of Wollert Glen Pty Ltd a building permit was obtained on 3 December 2012 and construction commenced on 21 December. As at 29 January 2013 the structure had access to power supplied by a generator, and a small chemically serviced toilet facility. Mr Gilmore, a director of Wollert Glen Pty Ltd, who gave evidence on behalf of the company, accepted that the chemical unit would be inadequate for permanent residence, and that the conditions of the planning permit imposing access requirements prior to occupation of the house had not yet been complied with. A Certificate of Occupancy had not been issued by the Council.
- 31 Mr Gilmore also said that as at 29 January 2013 no one was residing at the structure, and that it was the owner's intention that when completed the house would be used as a country retreat rather than a permanent residence. In cross-examination he agreed with Mr Power that there is no intention to reside in the house on a full time basis.
- 32 In the case of Mr Waugh the factual position is set out in Mr Quinn's written submission on this issue. A building permit was obtained on 12 December 2012. As at 29 January 2013 construction had commenced. Stumps were put in place on 18 December 2012, and work resumed after the Christmas break on 20 January 2013, nine days before the commencement of the hearing. As at 29 January 2013 the premises were not connected to services other than water and were clearly not fit for habitation. This is confirmed by photographs taken as recently as 27 January 2013. Like the Wollert Glen Pty Ltd structure a Certificate of Occupancy has not been issued. However, unlike the Wollert Glen situation Mr Waugh stated that upon completion of the house it is his intention to reside there permanently with his family.
- 33 On the basis of these facts the chairman concludes that at the relevant date, 29 January 2013, there was not an existing dwelling within two kilometres of a proposed wind turbine on either the Wollert Glen or Waugh properties. In the first place the buildings under construction on that date simply do not answer the description of an existing dwelling, a phrase which is clear and unambiguous. The most that can accurately be said is that there was a dwelling in the course of construction on both properties. Secondly, at the relevant date neither structure contained all the facilities necessary to satisfy the planning scheme definition of "dwelling", being a kitchen sink, food preparation facilities, a bath or shower and a closet pan and wash basin.
- 34 The reference in the table to clause 52.32-2 is to "an existing dwelling". This is a reference to the state of development as at the relevant date. The

table does not refer to land being used for the purpose of a dwelling which might enable the statutory definition of “use” in the Planning and Environment Act 1987, which defines “use” to include a proposed use, to be called in aid. To construe the table in this way would be to read into it words that are simply not there.

- 35 Moreover, they are words that would defeat the purpose of clause 52.32 which is “to *facilitate* the establishment and expansion of wind energy facilities” (our emphasis). Such a construction would enable a proposed wind farm to be frustrated simply by the ventilation of a proposal to use land within two kilometres of a wind turbine for a dwelling. The mischief at which the table to clause 52.32-2 is aimed is harm to the amenity of existing residents within two kilometres of a proposed wind turbine.
- 36 Mr Quinn sought to re-agitate the issue in his final submissions. He argued that on closer analysis clause 52.32-2 operates prospectively so that a wind farm which is lawfully developed cannot lawfully be used if a dwelling is subsequently constructed within 2 kilometres of a turbine and the owners of that dwelling do not consent.
- 37 The submission that meets with the immediate difficulty that the prohibition imposed by clause 52.32-2 is conditional. It does not apply if the condition set out in the table to the sub-clause is satisfied. That condition specifies that certain requirements must be met at certain dates, being the date of the application for permit or the date of a request to amend the application for permit. As discussed above these requirements were met in the present case, and so the condition set out in the table is satisfied and the prohibition does not apply.
- 38 Moreover, the interpretation suggested by the Landscape Guardians would lead to a perverse result. A fully constructed wind farm could be prevented from operating, or further operating, by the subsequent construction of a house within the prescribed 2 kilometre distance from a turbine. Section 35(a) Interpretation of Legislation Act 1984 requires the interpretation of a subordinate instrument to promote the purpose of the legislation, which in this case is “to facilitate the establishment and expansion of wind energy facilities” (clause 52.32). The interpretation contended for would serve the antithesis of this purpose.
- 39 Accordingly the chairman rules that neither the application for permit nor the application to amend the application for permit were prohibited as at the relevant dates, being 14 June 2012 in the case of the application, and 29 January 2013 in the case of the application for amendment

The Relevant Planning Considerations

- 40 The Tribunal’s decision must be governed by the relevant provisions of the Mitchell Planning Scheme. It is appropriate to identify the main drivers of our decision.

41 We turn first to the policy settings. There is support for wind energy facilities in the State Planning Policy Framework (SPPF). Clause 19.01-1 of the planning scheme sets out as its objective “to promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met”. This objective is to be pursued by facilitating renewable energy development in appropriate locations. This is expanded upon as follows.

In considering proposals for renewable energy, consideration should be given to the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.

42 Clause 15.02-1, also part of the SPPF, has as its objective “to encourage land use and development that is consistent with the efficient use of energy and the minimisation of greenhouse gas emissions”. A strategy to achieve this is to “improve efficiency in energy use through greater use of renewable energy”.

43 Wind energy facilities, or wind farms, are specifically dealt with in clause 52.32. The purpose of that clause is:

To facilitate the establishment and expansion of wind energy facilities, in appropriate locations, with minimal impact on the amenity of the area.

This provision is specific to the proposal under consideration we take this to be our primary policy directive.

44 Given this policy setting it is not for the Tribunal to enquire into the environmental benefits of renewable energy, which were the subject of some, albeit limited, debate. The Tribunal’s deliberations must start with the proposition that renewable energy facilities, which include wind farms, are to be encouraged and promoted, and that the Tribunal’s task is to strike a balance that achieves “minimal impact on the amenity of the area”.

45 The Local Planning Policy Framework (LPPF) makes specific reference to buildings and works on significant hilltops and ridges. Clause 22.03-4 states as an objective “to limit development on prominent ridges and hilltops”. In implementing this policy “the siting of buildings on hilltops and ridgelines is discouraged”. The policy implementation also provides that “any building or structure erected on or near a hilltop or ridgeline should be designed so as to not adversely affect the visual significance of the hilltop or ridgeline”.

46 The subject land and its environs are located in the Farming Zone. “Wind Energy Facility” is a specified Section 2 use subject to compliance with clause 52.32. If this condition is not met the use is prohibited (clause 31.02). It should also be noted that in this zone “dwelling” is permitted as of right subject to a minimum lot size of 40 hectares, and is

subject to permit if this requirement is not met. The purpose of the zone is to promote the use of land for agricultural purposes, and “to ensure that non-agricultural uses, particularly dwellings, do not adversely affect the use of land for agriculture”.

- 47 Clause 52.32-4 sets out the matters that must be addressed in an application for permit for a wind farm. It provides that the design response must include:

The noise impacts of the proposal prepared in accordance with the New Zealand Standard NZS6808:2010, Acoustics – Wind farm Noise, including an assessment of whether a high amenity noise limit is applicable, as assessed under Section 5.3 of the Standard.

- 48 The decision guidelines set out in clause 52.32-5 must be the primary determinants of our decision. They are –

- The State Planning Policy Framework and the Local Planning Policy Framework including the Municipal Strategic Statement and local planning policies.
- 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.
- Policy and Planning Guidelines for Development of Wind Energy Facilities in Victoria (July 2012).
- The New Zealand Standard NZS6808:2010, Acoustics – Wind farm Noise.

- 49 In addition the general decision guidelines set out in clause 65 require the responsible authority to decide whether a proposal will produce an acceptable outcome. This is augmented by clause 11 which requires a responsible authority to:

...endeavour to integrate the range of policies relevant to the issues to be determined and balance conflicting objectives in favour of net community benefit and sustainable development.

- 50 Other provisions of relevance are clause 52.17 relating to native vegetation, which implements the Native Vegetation Framework, and the policy statements which underlie that provision.

- 51 The responsible authority raises the question of the weight that should be given to the Policy and Planning Guidelines for the Development of Wind Energy Facilities in Victoria (July 2012) (the Guidelines). The question was raised because the status of that document was changed by Amendment VC82 to the planning scheme from an incorporated document to a reference document. It was suggested that this downgraded the status of the document and that the Guidelines should be given lesser weight.
- 52 This question is not so much answered as sidestepped by the specific inclusion of the Guidelines as a decision guideline in clause 52.32-5. In our view this elevates the status of the Guidelines beyond that it would have as either an incorporated document or a reference document that is not specifically identified as a decision guideline.

Landscape & Visual Impacts

- 53 The permit application was accompanied by a visual impact assessment prepared by Mr Moir. This assessment was later amended as consequence of the amendment of the application and in response to the submissions received in respect of the initial application. Mr Moir acknowledges that wind farms inevitably have a significant effect on the landscape and it will always be the case that there are viewpoints from which a wind farm is a prominent new element in the existing landscape. Mr Moir has an approach to assessment that seeks to introduce elements of objectivity into what is fundamentally a subjective assessment. In reaching his conclusion that the wind farm would not unreasonably affect local landscape values Mr Moir gave greater weight to the visual impacts which would be experienced from within the public realm although he also assessed the impacts from the private realm to the extent possible without accessing private land.

The public realm

- 54 Mr Czarny was engaged by the council to undertake a peer review of Mr Moir's work. Mr Czarny broadly agreed with Mr Moir's approach and in particular agreed with the importance he placed on visual impact from within the public realm.
- 55 However, Mr Czarny was of the opinion that Mr Moir's assessment understated the landscape significance of the Trawool Valley, a significance enhanced by the cultural significance of the valley⁴ and because the valley is an important destination for tourists. It was Mr Czarny's conclusion that the landscape significance of the valley was such that wind turbines should not be visible from within the valley.
- 56 We agree with Mr Czarny that from the perspective of the public realm the impact of the proposed wind farm on the landscape values of the Trawool Valley is the most important issue. We are less convinced by Mr Czarny's

⁴ For example, Heidelberg School artists such as Tom Roberts, Frederick McCubbin and Arthur Streeton, stayed at the original Trawool hotel and painted in the area.

conclusion that the landscape of the valley is so significant that no turbines should be visible from within the valley.

- 57 That the visual qualities of the valley, although attractive, are not of particular significance is underscored by their treatment under the Mitchell Planning Scheme. In the first place, no part of the valley is subject to a Significant Landscape Overlay, unlike major portions of the Tallarook Ranges to the south-west. Although this is not determinative it does relegate the valley in the continuum of landscape value. It can be said that if the planning authority regarded the valley as being of landscape significance it would have been given the protection of a Significant Landscape Overlay.
- 58 Secondly, the Schedule to clause 52.32 of the planning scheme prohibits wind energy facilities on all land in the municipality west of the Hume Highway and the Goulburn Valley Highway. This leaves only a small part of the municipality, which happens to include the subject site, as potential locations for a wind farm. It is difficult to resist the inference that the planning authority regarded the prohibition of wind farms in this part of the shire to be unwarranted.
- 59 Our inspection of the subject land and the locality demonstrated that as one travels through the valley, views out of the valley, particularly to the wind farm site, are continuously disrupted by foreground vegetation and in some cases topography.
- 60 The Trawool Valley resort is an important public venue within the valley. From within the car park of the resort approximately half of the proposed turbines will be visible to some degree beyond the eastern ridge line of the valley escarpment. These turbines will be somewhat more prominent viewed from within the resort itself, which is at a slightly higher elevation. However, the turbines will not be visible from every east⁵ facing window within the resort. For example, the turbines will be visible from the northern third of the main dining room but elsewhere within the dining room will be screened by foreground vegetation.
- 61 Our tour of the Macarthur wind farm demonstrated to us the special character of wind turbines as objects within the landscape. The visual character of a wind turbine is very much in the eye of the beholder. On one hand it could be said that the turbines are sculptured testimony to Man's capacity to harness the forces of nature for his benefit. Conversely there are undoubtedly many who regard the turbines as ugly industrial intrusions into the rustic ambience of a rural scene.
- 62 A number of respondents sought to compare them to high-rise buildings of a similar height within metropolitan Melbourne. Looking at the matter objectively it can be said that wind turbines are in no way comparable to buildings. The turbine tower is a slender object, more slender than

⁵ The turbine site is in fact somewhat north of east viewed from the resort

traditional lighthouses for example, and the blades are ephemeral objects perhaps because they slowly rotate and are extremely slender viewed from the distances that are important in this case⁶.

- 63 It is our conclusion that from the perspective of the public realm within the Trawool Valley of the proposed will not unreasonably affect significant views, visual corridors or sightlines.
- 64 In respect of views from the public realm in Whiteheads Creek and elsewhere we accept the conclusion of Mr Moir and Mr Czarny that while the landscapes appreciated from these viewpoints are important they are of less significance than the landscapes of the Trawool Valley viewed from the public realm. Again, it was our experience as one travels along the public roads within Whiteheads Creek and elsewhere that views to the turbine site were constantly disrupted by roadside vegetation and in some cases topography. Our conclusion is that the proposal will not unreasonably affect significant views, visual corridors or sightlines, in or from the Trawool Valley.

The private realm

- 65 The respondent objectors argue that unlike people moving through the public realm their homes are fixed objects and the views they experience from their home are always with them. Therefore, it is argued that the visual impact of the proposed wind farm on nearby residents who have an outlook to the farm is unreasonable.
- 66 There are a number rural residential properties on the western side of the Trawool Valley. These properties are usually elevated above the Goulburn Valley Highway and enjoy outlooks across the valley towards the Cherry Tree Range. Some of these dwellings will have outlooks to the site of the proposed turbines. For example we inspected the home of Mr and Mrs Forbes. They have a regularly used side garden with a clear view of the Cherry Tree Range at an elevation which will enable them to see the turbines of the wind farm at a distance of 3.7 kilometres to the nearest turbine. However, assuming they can see all the turbines the wind farm will occupy only a 20 degree field of view.
- 67 We have already observed that there are potentially more open views of the wind farm from the Whiteheads Creek area to the north. There are a small number of dwellings which are within 2 to 3 km of the wind turbine site and a larger number of dwellings which are beyond 3 km of the site. On our inspection we visited two of the closest dwellings. The principal orientation of these dwellings was not towards the wind farm, which in our view significantly reduces the visual impact of the turbine on these properties and the amenity of the residents of these properties.
- 68 Wind farms by their nature cannot exist without having a significant effect on the landscape. The planning scheme nevertheless seeks to encourage the

⁶ Distances greater than 2 kilometres.

establishment of wind energy facilities in appropriate locations. An inevitable consequence of this is that for some nearby residents the views they have enjoyed from their homes will be changed. It cannot be the case that the mere presence of turbines within a view enjoyed by a resident can be a basis for rejection of the wind farm unless there is something uniquely different about the visual impact that will be experienced. Having been able to consider the visual impact of the Macarthur wind farm at the distances relevant to this debate and having been able to view the wind farm site from Whitehead's Creek and from within the Trawool Valley we cannot consider that there will be any unreasonable loss of amenity as a result of the presence of wind farm in the landscape.

The Moir technique.

- 69 In the Moir visual assessment, for each viewpoint there was a panoramic photo created from a series of photographs taken using a 50 mm equivalent lens. In most cases the panorama encompassed a field of view of approximately 180°. Accompanying the panorama was a cropped image, a close-up of the portion of the panorama affected by the wind farm. For some viewpoints a photomontage was then prepared and the visible wind turbines were superimposed upon both the panorama and cropped images.
- 70 The technique, in particular the panoramic image, was criticised on the basis that the human eye does not afford an individual a 180° field of view. In practice we found these images to be very helpful within the limits of the technology available. It is not relevant that the human eye does not have a 180° field of view. The panorama represents an entire segment of the viewshed from a particular viewpoint. The images are most helpful when viewed at the site from which the images were prepared, although an inspection is necessary to truly appreciate the scale of the landscape portrayed in the images and therefore the likely visual impacts of the wind turbines.

Errors.

- 71 In Mr Moir's visual assessment there are a very large number of assessments of visual impact on individual properties derived from aerial photography and topography with, for example, estimates of the number of visible turbines appearing in tables and graphical assessments. Under cross-examination Mr Moore had to accept that there were a number of errors in his report. There were differences in numbers of turbines thought to be visible, or partially visible, from a particular property specified a table compared with graphical assessment. Ultimately we are of the opinion that these errors do not undermine the basic thrust of Mr Moore's assessment.

Tourism.

- 72 In a similar vein to the arguments about the visual impact of the proposed wind turbines on the landscape values of the Trawool Valley viewed from the public realm it is argued that the imposition of wind turbines in the

landscape will adversely affect tourism. We have concluded that the landscape impacts of the wind farm viewed from the public realm within the Trawool Valley are not unreasonable. There is unlikely to be any significant effect on tourism. In any event, there is no evidence to suggest that wind farms in the Australian landscape have been detrimental to tourism.

The ridge line policy.

- 73 Clause 22.03-4, Hilltop and Ridge Line Protection, is a policy, which among other things, seeks to limit development on prominent ridges and hilltops. The first thing to be observed is that this policy must be applied in a context in which planning policy encourages wind farms in appropriate locations when it is inevitable that wind farms will occupy hilltops and ridge lines in anything other than flat topography.
- 74 On balance we consider that this particular local policy is reasonably satisfied because:
- the environmental, landscape and visual significance of hilltops and ridge lines was considered in the application process;
 - wind turbines are unlike conventional buildings in their visual presence within the landscape;
 - the siting of the proposed wind turbines does not require the removal of native vegetation on hilltops and ridge lines to any extent that would affect landscape values; and
 - the design of wind turbines does not in this case adversely affect the visual significance of the hilltop or ridge line.

Ecology

Introduction

- 75 The proposed wind farm has been subject to an extensive ecological assessment on behalf of the applicant by Brett Lane and Associates (BLA). This assessment has been subject to significant criticism in part through the peer review undertaken by Mr Organ for the Council and through the evidence and submissions of the Landscape Guardians and the submissions of many of the individual respondents. We briefly discuss the issues raised below.

Fauna Surveys

- 76 Mr Organ raised a number of criticisms in respect of the fauna surveys undertaken as part of the ecological assessment. In respect of these criticisms generally we make the following observations.
- We agree with Mr Organ that it is good practice to record in detail information pertinent to surveys undertaken in ecological assessment reports. The absence of such information can be readily overcome

during a protracted hearing like that in this case but the report should be readily assessable by the council and others involved in the application process.

- Mr Organ's criticisms of the survey techniques employed amount to a professional disagreement about the most appropriate protocol to be utilised in cases such as this. We note that DSE accepts the approach employed BLA.
- In circumstances where a fauna survey fails to find the target species present, we do not agree that it is necessary to undertake further surveys when the ecological assessment proceeds on the basis that the particular species is present based on the ecologists professional judgement, for example, in this case the squirrel glider and the brush tail phascogale are assumed to be present on Homewood Road;
- It is sometimes appropriate for additional surveys and various forms of monitoring to be undertaken after the grant of a permit as part of an environmental management plan.

Golden Sun Moth

- 77 The Golden Sun Moth is a listed species under the Commonwealth EPBC Act. It is known to be found in degraded habitat including pastures in the presence of Wallaby Grass. Wallaby Grass has been found in various locations on the site including in the ground cover along Homewood Road.
- 78 Mr Organ argues that there should be targeted surveys for the Golden Sun Moth to identify its presence or otherwise. Mr Lane in his assessment concluded that the Golden Sun Moth was very unlikely to be present and targeted surveys were unwarranted. Mr Lane's opinion was supported by DSE. It was Mr Hutchison's submission that the DSE's own surveys and work undertaken by the Arthur Rylah Institute had led to its conclusion that the Golden Sun Moth was not present in this area.
- 79 Mr Lane also observed when giving evidence that in Homewood Road it was unlikely that any significant clearing of the groundcover would be required and that therefore habitat for the Golden Sun Moth was unlikely to be significantly disturbed.

Bibron's Toadlet

- 80 Bibron's Toadlet is a highly cryptic species which was not found during BLA's surveys. Mr Organ argues that further survey work was required. The cross-examination of both Mr Organ and Mr Lane leads to a conclusion that if a permit is to be granted further surveys prior to construction and construction management techniques should be utilised to minimise impacts on habitat for this species.

Growling grass frog

- 81 Mr Organ observed that a wetland on an adjoining property close to the path of the proposed transmission line was potential habitat for the Growling Grass Frog. He therefore concluded that there should have been targeted surveys in respect of this wetland. However, the only actual impact is the installation of a single power pole in association with the transmission line. Under cross-examination, he agreed that impacts on the frog could be managed by a combination of an appropriate buffer and conventional construction management techniques.

Water birds

- 82 A number of local residents were critical of the number of birds identified in the ecological assessments. This criticism is correct in the sense that the assessment does not seek to particularly identify birds associated with the Goulburn River because BLA had formed the opinion that the project was unlikely to have any significant impact on the fauna of this habitat.
- 83 The only aspect of the works affecting the river is the construction of the power transmission line across the river above the Horseshoe Lagoon. The loss of vegetation within the river corridor has been minimised by the selection of the proposed route. BLA does recommend that the power cable be marked where it crosses the river to aid avoidance by birds associated with the river. This approach seems to be reasonable.

Wedge tail eagles

- 84 Wedge tail eagles are commonly seen in soaring above the Cherry Tree Range. Local residents were concerned that the surveys reported in the ecological assessment understated the presence of eagles that are seen on a daily basis by residents.
- 85 The survey technique used in this case does not seek to identify all the observable birds at any particular time. The technique is essentially statistical and counts the movements of birds through a fixed volume of air to enable an estimate to be made about the impact of bird strikes associated with the wind farm on local bird populations⁷.
- 86 The ecological assessment concluded that the risk to birds associated with this wind farm was within the range of risks associated with wind farms in Victoria generally, namely between two and four bird strike per turbine each year. Mr Organ during his cross-examination agreed that the proposed wind farm was not a high risk proposal for birds generally including the eagle.

⁷ The estimate in this case was somewhat compromised by using incorrect figures for the mast height and rotor diameter of the selected wind turbines, but not significantly compromised.

Homewood Road

- 87 An aspect of the amended application was the selection of Homewood Road as the preferred access route to bring plant and equipment onto the plateau for the construction of the wind farm. The proposed route generally follows the existing route of Homewood Road until a point where it reaches the subject land and strikes out on a new route up the northern face of the Cherry Tree Range. In Homewood Road itself the route follows the existing road alignment except at one point where it is necessary to realign the road to provide a curve suitable for the vehicles needed to transport the infrastructure.
- 88 Homewood Road has significant roadside vegetation that to the north is protected by the Vegetation Protection Overlay. There will be vegetation removal along Homewood Road as part of its utilisation as an access route.
- 89 Mr Lane in assessing the impact of the proposal on vegetation bordering Homewood Road worked on the advice of his clients that the various elements of machinery to travel along Homewood Road would fit within a cross-sectional space of 6 metres by 6 metres. Mr Lane then assumed vegetation within a space, 5 metres either side of the centre line of Homewood Road and six metres high, would be removed or pruned. The assessment also allowed for additional impacts at curves in the road alignment as consequence of the swept path of turbine blades as they are transported.
- 90 In our view this assumption, coupled with the conservative approach to the impact of the proposed route on trees that are outside the 10 metre wide impact zone but with tree protection zones falling within the 10 metre zone, provide a reasonably robust assessment of the likely impacts. Mr Lane accepts that actual impacts on vegetation would need to be audited as part of the construction process.
- 91 Mr Organ raised the possibility that vegetation along Homewood Road could be regarded as being of Very High Conservation Significance. Neither Mr Lane nor DSE agrees with this assessment. There is no evidence to support the contention that the vegetation along Homewood Road is the best or remaining 50 per cent of habitat for threatened species. We agree that this vegetation is unlikely to have this level of significance.
- 92 Mr Organ also submitted that hollow bearing trees along Homewood Road would need to be examined for resident fauna. Mr Lane agreed that during construction hollow bearing trees should be identified and examined and where necessary resident fauna relocated so that the tree can be removed when required without loss of these animals. These are matters which need to be addressed by an environmental management plan in the event that a permit issues.

Net gain generally

93 It is BLA's conclusion that in summary:

- 5.66 hectares (1.80 habitat hectares) of native vegetation within habitat zones is to be removed including 16 large and very large old trees within habitat zones and 11 scattered trees, and
- an additional 89 large trees and 27 scattered trees are deemed to be removed.

These figures can only be estimates at this stage and need to be subject to an audit process during and after construction. Nevertheless, we are satisfied that the process of estimation is acceptably robust. The estimate reveals that the loss of vegetation is relatively modest.

Noise Annoyance

94 Clause 52.32 of the planning scheme refers to the New Zealand Standard NZS6808-2010, Acoustic – Wind Farm Noise both as a matter to be assessed as part of the design response (cl.52.32-4) and as a decision guideline (cl.52.32-5).

95 The fact that a permit applicant is required to provide an assessment of acoustic impact in accordance with NZ standard and the specification of that standard as a decision guideline gives rise to an inference that the standard is to be regarded as the benchmark which identifies the acceptable level of noise from a wind farm measured at nearby residential properties. Compliance with the standard is an important but not necessarily determinative consideration. It does not ensure the grant of approval. On the other hand failure to comply with the standard would present a major hurdle in the quest for approval.

96 The purpose of the standard is set out in the foreword at page 7.

Wind Farm sound may be audible at times at noise sensitive locations, and this Standard does not set limits that provide absolute protection for residents from audible wind farm sounds. Guidance is provided on the noise limits that are considered reasonable for protecting sleep and amenity from wind farm sound received at noise sensitive locations

97 The standard identifies "noise"

...as a sound that serves little or no purpose for the exposed persons and is commonly described as "unwanted sound". If a person's attention is unwillingly attracted to the noise it can become a distracting and annoying, and if this persists it would provide a negative reaction. However, low or controlled levels of noise are not necessarily unreasonable.

(Section 2.2)

98 The balancing exercise which is inherent in applying land use controls generally is referred to in Section 4.1.2 on p.19.

Land-use planning controls relating to environmental sound attempt to provide a reasonable (not absolute) level of protection for the community's health, well-being, and amenity, and to avoid significant adverse noise effects.

99 Under the heading Noise Limits in section 5 paragraph 5.1.1 states:

Limits for wind farm sound are required to provide protection against sleep disturbance and maintain reasonable amenity at noise sensitive locations

100 The noise limit is set out in section 5.2.

As a guide to the limits of acceptability at a noise sensitive location, at any wind speed wind farm sound levels ($L_{A90(10min)}$) should not exceed the background sound level by more than 5dB, or a level of 40dB $L_{A90(10min)}$, whichever is the greater.

101 The rationale for the limit is explained in section 5.1.2 as follows:

This is based on an internationally accepted indoor sound level of 30dB L_{Aeq} to protect against sleep disturbance (refer to Berglund, Lindvall and Schwela). This assumes a reduction from outdoors to indoors of typically 15dB with windows partially open for ventilation. The typical reduction of 15dB would reduce an external level of 40dB L_{A90} to 25dB L_{A90} . Given that the internal target is 30dB L_{Aeq} this allows for the difference between LEQ and L90, and for variations in the outside to inside reduction.

102 Mr Stephen Cooper, an expert acoustician who gave evidence on behalf of the Landscape Guardians, criticised the standard on the basis that the use of the A weighted measurement gives insufficient weight to low and even infrasound frequencies, being frequencies below 20Hz considered to be outside the normal range of human hearing. In relation to infrasound frequencies Mr Cooper's position confronts the immediate logical obstacle that if noise cannot be heard it cannot be annoying. This is not to say that it may not have other effects which are discussed below under the heading Health and Wellbeing.

103 In any event the Tribunal must decline Mr Cooper's invitation to revisit the standard itself. The standard has effectively been set by the planning scheme and it is not open to the Tribunal to go behind that imprimatur to consider whether some other standard may be more appropriate, or whether a different method of measuring sound is preferable.

104 The situation is similar to that considered by a division of the Tribunal chaired by the then President, Kellam J., in *Hyett v Shire of Corangamite* (1999) VCAT 11208 in relation to the Australian Standard regulating radio frequency emissions from telecommunications facilities. The applicant argued that the standard gave insufficient recognition to the effect of such frequencies on human health. The Tribunal said (at p.7:)

The Tribunal is obliged to apply the relevant regulatory standards as it finds them, not to pioneer standards of its own. The creation of new standards is a matter for other authorities.

See also *Hutchinson 3G Australia Pty Ltd v City of Casey* (2002) VCAT 247 and *Optus Mobile Ltd v Whittlesea City Council* (2003) VCAT 968.

- 105 Clause 52.32-4 of the planning scheme specifically requires the design response to include “ an assessment of whether a high amenity noise limit is applicable, as assessed under Section 5.3 of the standard”. Section 5.3 of the Standard provides:

The wind farm noise limit of 40dB LA90 (10min) in 5.2 is appropriate for protection of sleep, health and amenity of residents at most noise sensitive locations. In special circumstances at some noise sensitive locations a more stringent noise limit may be justified to afford a greater degree of protection of amenity during evening and night time. A high amenity noise limit should be considered where a plan promotes a higher degree of protection of amenity related to the sound environment of a particular area...

- 106 In broad terms the noise limit specified by the standard for a high amenity area is 35dB, or background plus 5dB, when the wind speed is less than 6m/sec.
- 107 We were invited by the respondents to treat the subject land and the locality as a high amenity area. This invitation meets with the immediate conundrum that the language of the standard is not translatable to the Victorian planning framework. The “plan” referred to in section 5.3 is a plan as defined by the Resources Management Act of New Zealand. Section 43AA of that Act defines “plan” to mean “a regional plan or a district plan”. No such animals exist under the Victorian legislation.
- 108 Applying the standard *mutatis mutandis* to the Victorian experience we treat the plan referred to in the standard as a planning scheme approved under the Planning and Environment Act 1987. The Mitchell Planning Scheme does not anywhere expressly or by implication “promote a higher degree of protection of amenity related to the sound environment of a particular area”. Approaching the matter by a process of elimination it can be seen with certainty that the controls contained within the Farming zone, which includes most of the locality, do not answer this description. The purpose of the Farming zone is to encourage agricultural use, which is not an inherently quiet land use. In fact reference to the zone purposes confirms that agricultural use is to be preferred to residential use if there is potential conflict between the two.
- 109 Accordingly the Tribunal concludes that the subject land and its locality is not capable of designation as a high amenity area because it does not possess the necessary characteristics of such an area as specified in the NZ standard.

- 110 Ultimately the debate is largely sterile. This is because the modelling carried out by Mr Turnbull of Sonus, the expert acoustician who gave evidence on behalf of the permit applicant, demonstrated that all residential properties from which consent has not been obtained lie outside the 35dB(A) noise contours when the wind farm wind speed is 6m/sec or lower, including the Wollert Glen and Waugh houses which are in the course of construction.
- 111 This means that the NZ standard is not only met but is comfortably exceeded. In fact the modelling indicates that the lower noise limit applicable in a high amenity area will be achieved.
- 112 There was much debate as to whether the Wollert Glen and Waugh properties should be included in the assessment. It was said on behalf of these owners that even though their houses are not complete they are entitled to the same level of protection as existing houses. Against this it was put that the construction of the houses had commenced after the application for permit for the wind farm had been lodged, so these owners were “coming to the nuisance” to use the language employed by a number of panels which have considered wind farm projects (see for example Panel Report dated 24 June 2004 in relation to Bald Hills Wind Farm Project.
- 113 This debate is also academic. The acoustic modelling demonstrates that both the 40dB limit specified by the NZ standard for most noise sensitive locations and the 35dB limit specified for high amenity areas will be achieved at both properties currently under construction. Both the Wollert Glen and the Waugh houses will have the level of protection required by the NZ standard.

Health and Wellbeing

- 114 A major focus of the respondents’ cases was on the alleged effect of wind turbines upon the health and wellbeing of people residing close to wind farms.
- 115 The Guidelines state (at p. 30):
- Responsible authorities must assess the impact of a wind energy facility on landscape values, flora and fauna, human wellbeing and amenity in a systematic manner.
- 116 There is evidence before the Tribunal that a number of people living close to wind farms suffer deleterious health effects. The evidence is both direct⁸ and anecdotal⁹. There is a uniformity of description of these effects across a number of wind farms, both in south east Australia and North America. Residents complain of suffering sleep disturbance, feelings of anxiety upon awakening, headaches, pressure at the base of the neck and in the head and ears, nausea and loss of balance.

⁸ See statements of David Mortimer and Dr Sarah Laurie.

⁹ For example, the annexures to the statement of Dr Laurie.

- 117 In some cases the impacts have been of such gravity that residents have been forced to abandon their homes.¹⁰
- 118 On the basis of this evidence it is clear that some residents who live in close proximity to a wind farm experience the symptoms described, and that the experience is not simply imagined.
- 119 What is less clear is whether there is a causal link between sound pressure emissions from a wind farm and the health effects complained of.
- 120 Those opposing the wind farm say that the association is of itself evidence of a causal link particularly given that the symptoms disappear when residents move away from the wind farm for a period, and reappear when they return. On the other hand there is a body of acoustic and medical evidence that there is no physiological basis for a causal connection, and that the explanation must be psychological, a phenomenon described as the “nocebo effect”.
- 121 The National Health and Medical Research Council (NHMRC) has been described as the leading public health authority in Australia. In July 2010 it published *Wind Turbines and Health – A Rapid Review of the Evidence*. That publication was tendered in evidence (Exhibit A40) The publication concludes:

The review of the available evidence, including journal articles, surveys, literature reviews and government reports, supports the statement that: *There are no direct pathological effects from wind farms and that any potential impact on humans can be minimised by following existing planning guidelines.*

- 122 The publication has been the subject of some criticism¹¹, and as its name suggests was a “rapid review”. Indeed, in its public statement reference no. NEW0048 the Council said, somewhat more circumspectly, that “there is currently insufficient published scientific evidence to positively link wind turbines with adverse health effects” and that “relevant authorities should take a precautionary approach”. The Tribunal has been informed that the Council is presently revisiting the subject and will shortly publish a revised or updated review.

- 123 In June 2010 there was Senate Inquiry into the Social and Economic Impact of Rural Wind farms. The Inquiry relevantly concluded that:

Recommendation 1

2.44 The Committee considers that the noise standards adopted by the states and territories for the planning and operation of rural wind farms should include appropriate measures to calculate the impact of low frequency noise and vibrations indoors at impacted dwellings.

Recommendation 2

¹⁰ See statement of Dr Laurie: Tribunal book Vol 2, Tab 13.

¹¹ See statement of Dr Laurie, para 28.

2.58 The Committee recommends that the responsible authorities should ensure that complaints are dealt with expeditiously and that the complaints processes should involve an independent arbitrator. State and local government agencies responsible for ensuring compliance with planning permissions should be adequately resourced for this activity.

Recommendation 3

2.69 The Committee recommends that further consideration be given to the development of policy on separation criteria between residences and wind farm facilities.

Recommendation 4

2.101 The Committee recommends that the Commonwealth Government initiate as a matter of priority thorough, adequately resourced epidemiological and laboratory studies of the possible effects of wind farms on human health. This research must engage across industry and community, and include an advisory process representing the range of interests and concerns.

Recommendation 5

2.102 The Committee recommends that the NHMRC review of research should continue, with regular publication.

Recommendation 6

2.103 The Committee recommends that the National Acoustics Laboratories conduct a study and assessment of noise impacts of wind farms, including the impacts of infrasound.

Recommendation 7

3.99 The Committee recommends that the draft National Wind Farm Development Guidelines be redrafted to include discussion of any adverse health effects and comments made by NHMRC regarding the revision of its 2010 public statement.

124 The respondents have been unable to refer the Tribunal to any judgment or decision of an environmental court or tribunal which has found that there is a causal link between emissions from a wind farm and adverse health effects on nearby residents. The most that has been said is that further research may be warranted.¹²

125 The NZ Standard states at section 5.5.2:

Claims have been made that low frequency sound and vibration from wind turbines have caused illness and other physiological effects among a very few people worldwide living near wind farms. The

¹² See *Acciona Energy Oceania Pty Ltd v Corangamite Shire Council* [2003] VCAT 1617 at para 103

paucity of evidence does not justify at this stage any attempt to set a precautionary limit more stringent than those recommended in 5.2 and 5.3.

126 This “paucity of evidence” underlies the one thing about which there is agreement among the experts, both in the evidence given to the Tribunal and in the scientific literature, which is that there is a need for further research and studies.

- Dr Laurie said in her statement:

I resolved to do what I could to ensure such research (*about the adverse health effects of chronic exposure to this sound and vibration energy from wind turbines*) was urgently conducted, in order to ensure that future planning decisions for the siting of wind developments were better informed by science.

- Mr Stephen Cooper, an acoustic expert who gave evidence on behalf of the Landscape Guardians, said that further investigation and research into the question was needed.
- Dr Black, an expert in public health with much experience in the investigation of noise from infrastructure projects, who gave evidence on behalf of the permit applicant, said that further studies would be worthwhile and that the current literature about wind farms around the world was “pretty flaky”. He would support a study to demonstrate that compliance with the NZ Standard is sufficient to protect against sleep disturbance.

The recommendation of the Senate Inquiry set out above basically adds to this chorus rather than providing any concrete answers.

127 The Tribunal considers that the issue of health and wellbeing raises two distinct questions. The first question is whether there is a causal link between sound pressure emissions from wind turbines and adverse health effects on nearby residents. The link may be physiological or psychological. However, given that the respondents expressly disavow that the impact is psychological and that the so-called “nocebo effect” lacks any empirical basis, the inquiry in this case must be as to whether there is a physiological cause. In this regard Mr Cooper hypothesised that wind turbines may emit a particular low frequency “signature” that gives rise to the problem.

128 One difficulty facing the satisfactory resolution of this question is that there appears to be no overlap of expertise between the acousticians and the health experts. The acousticians can measure the noise but are unable to say what effect it has on human health. The health experts can identify the health issues but are unable to connect those issues with particular levels of noise or sound pressure. It is this that creates the need for interdisciplinary studies.

- 129 If the first question produces an affirmative answer, the second and equally important question is what is the incidence of health problems amongst the nearby residential population, and how does that incidence vary or attenuate with distance from the wind turbines. Obviously the problem must be given greater weight by decision makers if 50 per cent of the population surrounding a wind farm is affected rather than 5 per cent.
- 130 Both the proponent and the opponents of the wind farm have referred to extensive scientific literature, but none of the authors of that literature with the exception of Dr Black¹³ and Mr Cooper¹⁴ gave evidence to the Tribunal. In consequence none of the scientific literature has been able to be tested. In particular there has been no correlation of any probative value between the health impacts attributed to wind farm emissions and the distance from the wind turbines at which the impact is experienced. Many of the impacted persons referred to in the literature have resided closer to turbines than the 2 kilometres prescribed by clause 52.32 of the planning scheme.
- 131 In summary the Tribunal has been made acutely conscious of the questions but finds itself in a less than satisfactory evidentiary vacuum regarding the answers.
- 132 The Tribunal was informed in the course of the hearing that the Environment Protection Authority of South Australia is about to embark upon a detailed study of the alleged effects of the wind turbines at the Waterloo wind farm in South Australia on surrounding residents. We are told that this study will be carried out in April and May of this year.
- 133 It is probable that the study will address the relevant questions. The Tribunal considers that given the uniformity of expert opinion as to the desirability of further studies of this nature, and having regard to the imminence of the EPA study, the prudent course is to defer a final decision in the matter in anticipation that the results of the study may assist the Tribunal to answer the questions posed above. The Tribunal also considers that this course is consistent with the precautionary principle as explained by the Supreme Court in *Rozen v Macedon Ranges Shire* [2010] VSC 583 and recommended by the NHMRC in its publication NEW 0048.
- 134 The Tribunal therefore proposes to adjourn the matter for a period not exceeding six months to enable the EPA study to be carried out and a report prepared. The Tribunal will write to the EPA of South Australia in terms which have been shown to and agreed by the parties advising the EPA of its interest in the matter and asking that it be kept informed. The Tribunal will send a copy of this interim decision to the EPA.
- 135 The Tribunal will also write to the NMHRC advising of its interest in any revision or update of its position in relation to the health impacts of wind turbines, and will asked to be kept informed of progress.

¹³ A qualified medical practitioner who has been involved in a number of public health assessments for infrastructure projects. Dr Black was called by the permit applicant.

¹⁴ An experienced acoustician called by the landscape guardians.

- 136 Copies of the letters to the EPA of South Australia and the NMHRC are annexed to this interim decision.
- 137 The course proposed the Tribunal must be balanced against the Tribunal's obligation to make a decision in the matter as soon as possible. The case cannot drag on indefinitely. If at the end of six months a report from the South Australian EPA is not to hand the Tribunal will review the position and will if necessary determine the matter as best it can on the basis of the evidence now before it.
- 138 In the meantime the Tribunal would be assisted by evidence in relation to the second question posed above, namely, the incidence of health problems amongst the population surrounding wind turbines, and the extent (if any) to which those problems diminish with distance from the turbines. This evidence might take the form of properly conducted surveys of existing wind farms, including both wind farms that have been established for some years and those of more recent commission. However, that is a matter for the parties. Leave is granted to any party who so wishes to adduce such evidence in the form of written reports. If further evidence is forthcoming any party may request the hearing to be reconvened for the purpose of testing such evidence or addressing the Tribunal in relation to it.

Other Issues

Fire risk

- 139 Various submissions address fire risks associated with wind farms in the context of a locality which is in part affected the Bushfire Management Overlay and is therefore a locality with a heightened level of fire risk. Submissions focused on fires caused by the wind farm itself and the possibility that the presence of the wind farm will compromise fire fighting in the area in particular because the separation distance between turbines in a number of instances is less than the guideline separation distance contained in the CFA's Emergency Management Guidelines for Wind Energy Facilities.
- 140 We were told that there have been three turbine fires over the period that wind farms have operated in Australia. We were not told that any of these fires resulted in any harm to their neighbouring communities. Modern wind farms are very closely monitored and are programmed to close down when any parameter indicates a risk to the turbine, including a fire risk. It is unlikely that a proposed wind farm would significantly elevate fire risk for a local community as a consequence of turbine fires.
- 141 It is conceivable that a wind farm could compromise the effectiveness of water bombing aircraft as a tool to fight fires and presumably the separation distance between wind turbines is in part designed to enable the helicopters to operate between turbines if necessary. This is a very small wind farm with most wind turbines set out in two, well spaced, rows. It is unlikely that

the presence of this wind farm would significantly elevate fire risk or degrade fire management.

- 142 We note that the CFA were consulted about the permit application and have not expressed any opposition to the proposal. Nor have they elected to take part in these proceedings.

Erosion and salinity

- 143 Various parts of the subject land are affected by the Erosion Management Overlay and to a lesser extent by the Salinity Management Overlay. Council submits that the proposed development raises serious issues in respect of these overlays and that the evidence of Mr Fuller was a belated attempt to properly address the issues of salinity and erosion.
- 144 It is true that both these overlays raise issues. However, we are not convinced that this particular project creates any unusual risks to either erosion or salinity. Ultimately we agree with Mr Fuller there are a range of quite conventional engineering approaches to the management of these issues suitable for construction of the scale and intensity proposed here.

Aviation

- 145 As part of the permit application process the applicant prepared an aviation assessment after consultation with aviation industry interests. This assessment was submitted to Air Services Australia. Air Services Australia have not expressed any opposition to the wind farm. There are no convincing submissions or evidence which seriously call into question the adequacy of this assessment.

Economic and environmental benefits

- 146 Wind farms are encouraged because they generate electricity from a renewable source. This electricity displaces electricity from non-renewable sources therefore reducing the carbon intensity of electricity generation in Australia. It is argued by the Landscape Guardians, particularly through the evidence of Mr Hamish Cumming, that this benefit is illusory because of the standby power that must be maintained in carbon intensive forms of electricity to accommodate the variations in supply inherent in wind farms.
- 147 This is a very complex argument given the interconnected nature of the power supply system in eastern Australia. There is insufficient evidence before us to form a concluded view in respect of this debate. However it seems to us that the debate is not relevant to our deliberations because as discussed under the relevant planning considerations we must start from a policy matrix that encourages the development of renewable energy.

Conclusion

148 In conclusion the Tribunal would like to thank the parties for the preparation of the Tribunal Books. They were meticulously put together, and although voluminous have been of great assistance to the Tribunal both during the lengthy hearing and the preparation of this interim decision. We would appreciate it if our thanks would be conveyed to those responsible.

H. McM. Wright QC,
Senior Member

A P Liston
Senior Member

APPENDIX A – NHMRC LETTER



4 April 2013

The Secretary
National Health and Medical Research Council
GPO Box 1421
Canberra ACT 2601

Dear Sir

Cherry Tree Wind Farm Pty Ltd v Mitchell Shire Council: Proceeding no. P2910/2012

The Victorian Civil and Administrative Tribunal is currently hearing an application by Cherry Tree Wind Farm Pty Ltd to review the refusal of the Mitchell Shire Council to grant a planning permit for a 16 turbine wind energy facility in the Trawool Valley near Seymour in Victoria.

During the course of the hearing the Tribunal has been referred to a publication of the NHMRC entitled Wind Turbines and Health – A Rapid Review of the Evidence. In its publication the Council stated that there are no direct pathological effects from wind farms and that any potential impact on humans can be minimised by following existing planning guidelines.

The Tribunal has been informed that the Council is at present reviewing and possibly updating the publication. The Tribunal would appreciate it if you could advise if and when a further publication on the subject might be expected.

Yours sincerely

H. McM. Wright QC
Senior Member
Chairman

Victorian Civil and Administrative Tribunal (VCAT)
55 King Street Melbourne VIC 3000 Website www.vcat.vic.gov.au
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APPENDIX B – EPA OF SOUTH AUSTRALIA



4 April 2013

Attention: Mr Dolan

The Chief Executive
The Environment Protection Authority of South Australia
GPO Box 2607
Adelaide
South Australia 5001

Dear Sir

Cherry Tree Wind Farm Pty Ltd v Mitchell Shire Council: Proceeding no. P2910/2012

The Victorian Civil and Administrative Tribunal is currently hearing an application by Cherry Tree Wind Farm Pty Ltd to review the refusal of the Mitchell Shire Council to grant a planning permit for a 16 turn bine wind energy facility in the Trawool Valley near Seymour in Victoria.

The matter has to date occupied 23 hearing days during which the Tribunal has heard from 11 expert witnesses together with a number of lay witnesses and received 105 exhibits.

During the course of the hearing the Tribunal has been informed that the EPA of South Australia is proposing to conduct a study of the impact of an established windfarm at Waterloo upon the residents of nearby properties.

The impact of the proposed windfarm on nearby residents has emerged as an issue in the present proceeding, and the results of your EPA study may assist the Tribunal in its deliberations. The Tribunal would appreciate it if you could advise the Tribunal of the scope and purposes of your study, and the anticipated date of your report. It would also be appreciated if you could keep the Tribunal informed of the progress of your study.

A copy of the Tribunal's interim decision in the matter is enclosed for your information.

The Tribunal would be much obliged for your assistance in this matter. Please contact the Tribunal if you have any queries.

Yours sincerely

H. McM. Wright QC
Senior Member
Chairman

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