## Environment

Thank you for the opportunity to provide a submission to the assessment of the proposed Jupiter Wind Farm currently on Public Exhibition. I oppose this proposal on the grounds that the Jupiter Wind Farm proposal is located in an unsuitable location and the impact on flora and fauna will be unacceptably high. Any assessment of this wind farm must consider the suitability of the site, and the fact that a wind farm can be built in a more appropriate location. In weighing advantages and disadvantages of the current site selection, please note that this proposal has not given consideration to an alternative site in both its original development application and the current EIS.

## Australia has the worst mammal extinction rate in the world

"Australia is one of the most important nations on Earth for biodiversity. In fact, Australia is one of only 17 "megadiverse" nations and is home to more species than any other developed country. Most of Australia's wildlife is found nowhere else in the world, making its conservation even more important. 87% of our mammal species, 93% of reptiles, 94% of frogs and 45% of our bird species are found only in Australia.

Sadly, however, Australia is facing an extinction crisis. Australia has the worst mammal extinction rate in the world: 30 native mammals have become extinct since European settlement. To put this in a global context, 1 out of 3 mammal extinctions in the last 400 years have occurred in Australia. More than 1,700 species of animals and plants are listed by the Australian Government as being at risk of extinction. Around 30% of our surviving (non-bat) mammal species are threatened with extinction." –

http://www.australianwildlife.org/wildlife.aspx#sthash.Ll3VwOcq.dpuf

It is generally agreed that human activities, particularly the destruction of habitat and habitat fragmentation, are largely responsible for this increase in species extinction rate.

Australian species are particularly vulnerable, as marginal populations survive in harsh conditions. Viable habitat is removed for human use, depriving species of food sources and protection. Migratory routes are fragmentised, food sources are isolated in such a way that species are no longer able to move to new feeding grounds due to distance. A wind farm is classified as green energy. Wind energy has the support of conservation groups. Wind generated energy is for the good of the environment. The building of a wind farm must therefore be carefully assessed against environmental damage. Can Australia afford to lose more habitat when the habitat is important and habitat loss can be readily avoided? The answer is obviously no.

Current policy of placing wind turbines on large agricultural tracts of land has minimised habitat impacts, as the land has been largely cleared and used in such a way as to minimise the usefulness of habitat to native species. In the site chosen for the proposed Jupiter wind farm, the agricultural land is small in size, borders EI3 zoned land, falls in important migratory routes, and is surrounded by land rich in biodiverse and viable habitat. Therefore the impact becomes unacceptably high, *particularly as such locations can be avoided in favour of areas of lower impact*.

The Jupiter Wind Farm Proposal is located in an unsuitable location and the impact on fauna will be unacceptably high. This area forms part of an important state and regional wildlife corridor. Farms in the area are surrounded by uncleared tracts of land, and heavily treed lifestyle blocks. Turbines will be placed close to national parks and nature reserves.

The Jupiter EIS lists 37 threatened species known or with the potential to occur in the Study Area. When you take into account the EIS only studied the area of the PA, and not the area surrounding the PA, this is an extraordinarily high figure. The species lists are also incredibly long, because this site is situated in a biodiversity corridor, and because the farmland is surrounded by important habitat.

In the Secretary's Environmental Assessment Requirements – Ecological Impacts the EIS must

"provide justification for site selection of the proposed turbine locations taking into account the potential to use areas of lower habitat value within the site"

But perhaps the requirements should request that the EIS must

"provide justification for site selection taking into account the potential to use a site of lower habitat value"

Unfortunately, this provision does not occur.

#### **Difficulties in Adequately Addressing Environment Impacts**

1. OEH have a potential conflict of ideology with the environmental importance of alternate energy solutions weighed against the immediate cost to the environment of a particular wind farm. However, Australia is rich in wind resources, and the loss of one particular site due to environmental impact, will have no effect on the overall potential of wind industry. Indeed, the environmentally positive nature of alternate energy places a more onerous obligation on wind farms to do no environmental harm. Lowering carbon emissions is of no assistance to a dead bird or an extinct species.

Climate change is the big issue. It is the reason we are seeking alternative energy solutions to lower carbon emissions. Biodiversity corridors are recognised as being of increasing importance as the climate changes, enabling animals to move from one area to another as temperatures alter. Biodiversity corridors will be the difference between the survival of species or a rate of extinction like we have never seen before. So why is the Jupiter wind farm being sited in a biodiversity corridor?

"Climate change is likely to impact negatively on bird conservation and a significant multilateral effort is required to radically reduce carbon emissions and improve the resilience of ecosystems to the impacts of climate change. It is essential however that the response to climate change is developed in a way that does not have a negative significant impact on biodiversity. Our knowledge about the impacts of wind farms on avian populations, including the cumulative impact of multiple wind farm projects, is inadequate to make robust assessments. It is therefore important to adopt a precautionary approach when bird populations may be affected and to increase our knowledge of wind farm impacts on birds through dedicated research, monitoring and evaluation." Wind Farms and Birds Policy, Birdlife Australia.

The argument of a lack of research is used repeatedly as a reason to take no action. There are many aspects of wind farms that need to be studied. These studies are not being done. A lack of funds being cited as the main reason. From the EIS "Rotor strike is reasonably well studied in Europe and the Americas where flocking seasonal migratory birds are common, whereas literature relating to rotor strike in Australia is relatively scarce". Crucial research on habitat alienation is an example of this.

Of the research that is being done on the impact of wind farms on fauna, most concentrates on blade strike, and is conducted by the wind farms themselves. Data is not published or peer reviewed, and does not meet the scientific criteria to do so. Yet these statistics are widely used, as no other data is available. Research from overseas is cherry picked for convenience. If the research findings raise concerns, we don't use it on the grounds that overseas research is not applicable to Australia. In areas where there are known issues of negative impact, but no published research has been completed, government offices use the rationale that strong action cannot be taken in a preventative way to protect the environment.

"Unfortunately, although wind power is a cleaner option for energy production, its impact on wildlife remains unclear. In New Zealand and Australia, developers often voluntarily commission wildlife surveys before beginning construction, but studies often span inadequate time periods, details are rarely made public and robust results from impact surveys following construction have not been reported. Although some state governments in the USA have established permitting processes and guidelines for wind farm development, monitoring remains weak and haphazard (Nijhuis 2006). Thus, conservationists and scientists often find themselves in a difficult situation. As Nijhuis (2006) asked, 'How can they support and encourage the rapid spread of wind power, our most promising source of clean, renewable energy, while ensuring that the industry minimises its damage to birds and other wildlife?'. As a result of concern over the negative impacts that wind-energy developments could have on wildlife, especially threatened species, efforts have been increasing to avoid establishing new developments at locations that are likely to pose significant risks to birds, and to accurately quantify the impacts of wind farms on birds at existing wind farm sites (Percival 2005; Morrison et al. 2007)." From Powlesland, R. 2009: Impact of wind farms on birds: a review. Science for Conservation 289. Department of Conservation, Wellington A precautionary approach would be advised, and great care in the placement of wind farms, ensuring they are well away from wildlife corridors and habitat with a high biodiversity value.

- 2. Questions have been raised in the media about OEH's capacity to effectively protect the environment in the face of funding cuts and job insecurity. One OEH staff member is quoted as saying "We are under pressure not to rock the boat" as reported by Peter Hannan, the Environment editor for the Sydney Morning Herald, who outlined these issues in the article "Lost and Found" published in January 2017. The article raises concerns regarding OEH's failure to report the very important find of a plant species thought to be extinct at the request of the developer.
- 3. There is an inherit assumption of merit and importance that may not be appropriate for all proposals. The policy of avoid, minimise, offset has an underlying principal of prioritising development approval. There is no "reject" in that profile, and "avoid" is being used in terms of micro siting, not as an assessment of the appropriateness of the site itself.
- 4. Biobanking, as the name suggests, places an economic value on environmental damage allowing the developer to buy their way out of legislation designed to protect the existing environment in real terms. While it may be an effective measure in certain circumstances, it is not a blanket solution. Turning environmental damage into a system that deals with the environment in the abstract and translates environmental values into dollar values is arguably revenue raising. Offsets play a similar function. Replacing existing viable habitat with existing viable habitat that already exists somewhere else as viable habitat is not exactly adding anything to the environment.

# You cannot offset a biodiversity corridor. Nor can you biobank away the problem. Because a biodiversity corridor is irreplaceable.

#### The Area

The Draft South East and Tablelands Regional Plan, Goal 2 – Protect and Enhance the Region's Natural Environment, states that "The South East and Tablelands region is one of the most biologically diverse in NSW" "The South East and Tablelands is home to more than 100 threatened plant species, 112 threatened animal species, and 13 endangered ecological communities. Over three million hectares or 56 per cent of the region has high environmental value or forms part of a national park or state forest".

# The Wildlife Corridors

The Great Eastern Ranges corridor extends 3,600 km from the Victorian Alps to the Atherton Tablelands in far north Queensland. This vast area contains Australia's richest diversity of plants and animals, and includes the project area for the proposed Jupiter Wind Farm.



The Draft South East and Tablelands Regional Plan, Goal 2 – Protect and Enhance the Region's Natural Environment provides mapping for the region's lands of high environmental value and networks biodiversity corridors that link these high environmental lands. See excerpt below

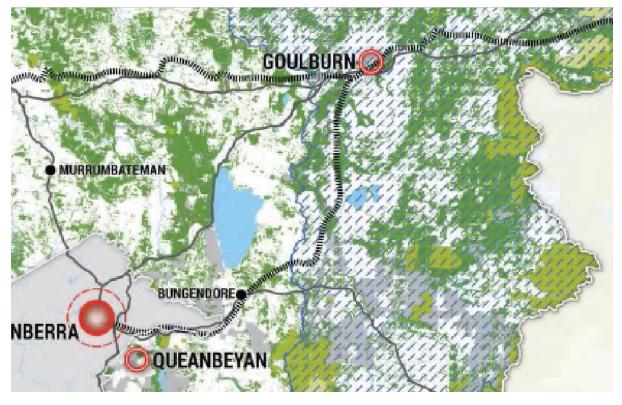


FIGURE 4: ENVIRONMENTAL VALUES



The proposed Jupiter wind farm is located in this highly sensitive biodiversity region, and would be built in a major biodiversity corridor.

Biodiversity Corridors were not included in the biodiversity study of the Jupiter Wind Farm EIS

# К2С

**Kosciuszko to Coast** (K2C) is a partnership of eleven organisations and numerous associate members working with landholders between Kosciuszko and Namadgi National Parks and the Coast (K2C region) to conserve and recover our grasslands, woodlands, riparian and wetland areas, small bush birds, arboreal mammals and treasured forest communities and species. K2C is a regional partner in the Great Eastern Ranges initiative. K2C is part of the biodiversity corridor regeneration, ensuring stronger links between the coast, and Kosciuszko National Park.

K2C has a particular focus on Glossy Black habitat and has an interest in the area surrounding the proposed Jupiter wind farm PA. K2C are working with landowners in the vicinity of the proposed Jupiter wind farm.

K2C and its programmes were not included in the biodiversity study of the Jupiter Wind Farm EIS

## Mulloon Institute: Mulloon Community Landscape Rehydration Project

This project is a model for community programmes to heal and rehabilitate landscapes across Australia, providing stable, resilient and productive landscapes.

The Mulloon Community Landscape Rehydration Project involves 17 landholders and covers an entire catchment of 23,000 hectares of land, with 40 km of creeks and tributaries including Mulloon, Reedy, Sandhills and Shiel Creeks. The project area forms a critical biodiversity corridor by connecting the Tallaganda National Park with the protected State Reserve of the Mid-Shoalhaven Water Catchment.

The Mulloon Community Landscape Rehydration Project (MCLRP) has been selected as one of only five global model projects by the Sustainable Development Solutions Network - a United Nations initiative.

Mention of the Mulloon Institute and its programmes were not included in the biodiversity study of the Jupiter Wind Farm EIS.

## Current Research in the Area surrounding the PA

OEH are have been studying the Bent-wing bat in the Mt Fairy Region. The latest research indicates that the caves are currently occupied, that cave use is constant, and that it is being used as a permanent feeding site. The site had previously been thought to be used as a resting cave on the way to the Wee Jasper maternity caves. This research raises questions about the impact of a wind farm on the bat population. The proposed Jupiter wind farm would be placed in the path of the bat's migratory breeding route, and could interfere with feeding ranges, as it is not known how far the bats travel to feed and drink.

These latest OEH bat studies were not included in the biodiversity study of the Jupiter Wind Farm EIS

OEH are currently completing a bird survey at Mulloon Creek. The Diamond Firetail is on the list, and is threatened. Lathams Snipe, Restless Flycatcher, Azure Kingfisher, Dusky Woodswallow, Eastern Yellow Robin, Red-browed Finch, and the White-winged Triller are rare and declining species on the list. From the spreadsheet **Mulloon Creek Bird Baseline Nov 2015.** This research is ongoing, and the list contains bird species that are not included in the EIS, but obviously occur in the area.

The OEH bird survey was not included in the biodiversity study of the Jupiter Wind Farm EIS

#### **Scott Nature Reserve**

The Scott Nature reserve, zoned E3, sits alongside the PA of the southern precinct of the proposed Jupiter Wind Farm. The reserve is a nesting and feeding site for the Glossy black cockatoo, and the habitat of rare and threatened species. Currently, the reserve is part of a corridor running through to Tallaganda. The viability of the reserve, and its biodiversity value derive

from the corridor. The Jupiter wind farm cuts off Scott Nature Reserve from Tallaganda.

From the Plan of Management, May 2010, NSW National Parks and Wildlife Service Part of the Department of Environment, Climate Change and Water

"The reserve is vegetated with a medium height forest of brittle gum E. mannifera, broad-leaved peppermint E. dives and black she-oak Allocasuarina littoralis. Other trees recorded in the reserve include silvertop ash E. sieberi, candlebark E. rubida, scribbly gum E. rossii, narrow-leaved peppermint E. radiata and ribbon gum E. viminalis. The shrub layer is an open cover of a geebung Persoonia mollis subsp. livens, Hakea dactyloides and Lomatia ilicifolia, with a range of other shrubs. The ground layer consists of a sparse cover of tussock grasses including snow grass Poa sieberiana, with blue flax lily Dianella revoluta subsp. revoluta, Patersonia sericea and scattered herbs including Goodenia hederacea var hederacea and native St. John's wort Hypericum gramineum."

"Native mammals recorded in the reserve include eastern grey kangaroo Macropus giganteus, swamp wallaby Wallabia bicolor, and ring-tailed possum Pseudocheirus peregrinus, as well as eight species of bat. A koala, Phascolarctos cinereus, listed as vulnerable under the Threatened Species Conservation Act, has been recorded within two kilometres of the reserve."

"The locality has abundant birdlife, with twelve species being recorded in a preliminary survey of the reserve. Birds recorded included white-throated treecreeper Cormobates leucophaea, rufous whistler Anthochaera carunculata, spotted pardalote Pardalotus punctatus and striated pardalote Pardalotus striatus. The threatened glossy black cockatoo Calyptorhynchus lathami has also been recorded in the reserve. A number of other woodland birds are expected to utilise the reserve. Species recorded in the broader area that are likely to utilise the reserve include the barking owl Ninox connivens and powerful owl Ninox strenua, both listed as vulnerable under the TSC Act."

"The reserve is located within a matrix of cleared, timbered and regenerating lands. It thus has some connectivity to the larger timbered mass of Tallaganda National Park about eight kilometres to the south. Maintaining the integrity of the remaining habitat within the reserve and, where possible, linking this to adjacent areas of bushland to facilitate wildlife corridors is important in ensuring long term viability of the reserve's biological values." The Scott Nature Reserve Plan of Management was not included in the biodiversity study of the Jupiter Wind Farm EIS. Nor were any studies conducted there.

## **Glossy Black-Cockatoo**

NSW SCIENTIFIC COMMITTEE

ESTABLISHED UNDER THE THREATENED SPECIES CONSERVATION ACT 1995

Glossy Black-Cockatoo Calyptorhynchus lathami

Review of Current Information in NSW September 2008

Number of mature individuals: The number of mature individuals of the Glossy Black-Cockatoo is estimated as 12 000 globally for the nominate subspecies, with low reliability (Garnett & Crowley 2000). On the basis of geographic distribution and density of records (Barrett et al. 2003), about 70% would occur in NSW, or about 8 400 birds.

Population reduction and continuing declines: The Glossy Black-Cockatoo is known to have declined with habitat loss (Higgins 1999), and the nominate subspecies' population was assessed as decreasing, with medium reliability (Garnett & Crowley 2000). Its NSW distribution has remained essentially unchanged, with no significant national change in reporting rate (-5%, P = 0.62) over 20 years between 1977-1981 and 19982002 (cf. Blakers et al. 1984; Barrett et al. 2003).

Most of the Glossy Black-Cockatoo's population now exists in state forests and NSW National Park Estate.

Severe fragmentation: The species' habitat in eastern NSW has been fragmented and its habitat in inland NSW severely fragmented. Although the Glossy Black-Cockatoo is highly mobile and can disperse tens of kilometres, or commute up to 12 km between the nest and feeding areas, most movements appear to be local (Higgins 1999). Habitat fragmentation, with long distances between nesting areas and food sources, may have energetic consequences for foraging efficiency, and hence for chick growth and survival, and breeding productivity, leading to population decline (as for Carnaby's Cockatoo C. latirostris and Forest Red-tailed Black-Cockatoo C. banksii naso: Garnett & Crowley 2000; Cooper et al. 2002).

Glossy Black Cockatoos are active in the Tarago/Mulloon area all year round. They feed and nest here. On my property at Mulloon ANU staff have identified glossy Black Cockatoo feeding signs 600 metres from the nearest turbine. I see them most days. I have photographs of juveniles feeding on my trees. I have seen them on nearby properties and feeding in the Scott Nature Reserve. Residents throughout Tarago have documented Glossies on their properties.

The Glossy Black Cockatoo flies to and from feeding grounds. I observe them flying north to south over my property in the evenings, and south to north in the morning. This flight path takes them directly through the placement of proposed turbines.

Wind turbines act as a barrier keeping the cockatoos from their feeding grounds, and further fragmenting their habitat. Habitat alienation and impacts on nesting birds.

The EIS assessed that the Glossy Black-cockatoo was likely to be significantly impacted, relating to potential exclusion of areas of high quality foraging habitat, if the species was to avoid habitat areas immediately surrounding WTGs. That is not acceptable.

#### **Habitat Alienation**

"Disturbance of birds as a result of wind farm development and operation may arise from increased activity of people and/or the presence, motion or noise of turbines. Disturbance may lead to displacement or exclusion of birds from areas of suitable habitat. The degree of disturbance can be highly variable, depending on the bird species, wind farm layout and availability of alternative habitat nearby. The choice of an appropriate site for a wind farm is the most useful way to ensure minimal negative effects on birds."

from Powlesland, R. 2009: Impact of wind farms on birds: a review. Science for Conservation 289. Department of Conservation, Wellington

Habitat alienation cannot be a mathematical formula. Variations between species means you cannot employ a one setback fits all. As the impact on different species is variable, and impacts on Australian fauna has not been studied, a precautionary approach is needed.

## No easy fix for setback from habitat

"Sprague's Pipit Anthus spragueii, Savannah Sparrow Passerculus sandwichensis, and meadowlarks Sturnella sp. showed no evidence for displacement. In contrast, the Le Conte's Sparrow Ammodramus leconteii, was significantly more likely to occupy suitable plots as distance from the nearest turbine increased. Mean plot occupancy for the Le Conte's Sparrow was more than four times lower in plots <200 m from the nearest wind turbine compared to those that were >400 m away. Our study highlights the need to investigate displacement at the level of individual species. Our data also suggest that species dependent on cryptic predator evasion strategies may be displaced from wind turbines and this idea warrants further investigation."

from "An analysis of displacement from wind turbines in a grassland bird community", in Biodiversity and Conservation 22(8) · July 2013

Research specific to Australian species to determine alienation of habitat effects has not been conducted. Overseas research has found that habitat alienation is species specific. Conclusions based on studies on one species cannot be transferred across to other species. Yet again a precautionary approach is needed. Noise impacts on nesting birds, with the danger of nest abandonment, has not been studied. Meeting noise compliance regulations for wind farms generally occurs at 1.5 km from an operating turbine. It seems odd, therefore, that birds are expected to function normally within that area. The variable noise output from wind turbines may allow opportunistic foraging, but drive birds from nests at crucial times.

The solution. Do not place wind turbines in proximity to areas of high biodiverse value. Do not place wind turbines in a known biodiversity corridor.

## **Fragmentation of Habitat**

"Most authors define habitat fragmentation as the process by which habitat loss results in the division of large, continuous habitats into a greater number of smaller patches of lower total area, isolated from each other by a matrix of dissimilar habitats (modified from Wilcove et al., 1986; Ranta et al., 1998; Franklin et al., 2002; Ewers & Didham, 2006a)" From **Ecological Consequences of Habitat Fragmentation** Raphael K Didham, The University of Western Australia and CSIRO Ecosystem Sciences, Perth WA, Australia

What is of particular importance in the above definition is the concept of degree of isolation of habitat patches. The isolation caused by habitat loss itself could be compared to a farmer clearing land for grazing. The habitat loss has occurred, and there is fragmentation, however there is a degree of safe connectivity to remaining viable habitat. The degree to which wind turbines create a more extreme form of habitat fragmentation can be argued by the degree of dissimilarity. Wind turbines are large, noisy, permanent and moving. There is increased human acitivity in the area. The interconnectivity and accessibility of fragmented habitats is lost.

"The habitat edge is not a discrete boundary line around a patch, it is a fuzzy three-dimensional zone that straddles both sides of the patch-matrix boundary, and the intensity of edge influence may be variable and asymmetrical around the physical vegetation boundary." From **Ecological Consequences of Habitat Fragmentation** Raphael K Didham, The University of Western Australia and CSIRO Ecosystem Sciences, Perth WA, Australia

The difficulty of determining where viable habitat begins and ends is complex. Placing a turbine on the edge of viable habitat, is potentially placing a turbine in the edge zone of that habitat ie a zone that is used by fauna as part of the habitat.

Despite the fact that we are in the middle of an important biodiversity corridor, and despite the proximity of E3 zoned land, the EIS states

"The landscape of the Study Area is already highly fragmented, comprising patches of native woodland with the majority native and exotic pasture grassland... The proposed Development Footprint will not exacerbate the existing fragmentation in the Study Area, PA or locality. The Project comprises small and narrow linear elements spread across a wide area and as such, the resulting permanently cleared areas are unlikely to negatively affect the connectivity of the existing ecological processes occurring in the Study Area."

This brave statement does not take into the fuzzy edge of habitat, and the degree to which habitat is fragmented by the barrier effect turbines create. The EIS does not examine the placement of turbines in relation to biodiversity corridors and E3 zoned land.

From the EIS "Several species of birds and bats may avoid areas of the Study Area where WTGs are present, as discussed in the Section 7.1.5. This may have an indirect fragmentation effect, larger than that of the development area. It is anticipated that the species are sufficiently mobile to navigate around clusters of WTGs and large areas of habitat are unlikely to be avoided by species."

This prediction of habitat alienation and consequent fragmentation suggests that species are able to navigate round obstacles in their path. This is unlikely, as Australian species notoriously have minimal margin of deviation, particularly migratory species. A convenient conclusion, but not an accurate one

## **Mitigation Measures Missing**

The EIS leaves a lot unanswered. The task of assessing the true environmental impact is made difficult by assurances mitigation strategies will be employed that have not yet been developed. We are told that they cannot yet be developed as the project has not been finalised, and turbine placement not yet decided. We are given maps and GPS coordinates of turbine placement that are meaningless, as that is not actually where the turbines will be. We are asked to accept in good faith that mitigation strategies will be effective, and yet have no mitigation strategies to assess.

"For this reason, the setback analysis is applied to each WTG individually once the specific design is known including exact location, hub height, rotor length and topographical profile between WTG position and habitat feature. It is not useful to apply the analysis based on estimated design features such as using the largest rotor length and maximum hub height because the result will overestimate the recommended setback. Smaller WTG components, if selected, will generally result in smaller required setbacks. Setback analyses will be undertaken during detailed design, when specific WTG dimensions and locations are known, with consideration made to avoidable impacts within functional parameters using micro siting." From the EIS

"A Bird and Bat Adaptive Management Program will be developed which includes details of techniques for monitoring, frequency of monitoring, adaptive management provisions; and reporting requirements"

# lt will

"Identify bird and bat mortalities to understand impact of the project, add to body of knowledge of collision impacts in an Australian context, and identify corrective actions."

Hard to assess a plan that does not exist. It is also of concern that the true impact of the project on bat species and bird species will be ascertained after the wind turbines are constructed, operating and killing.

# How do you mitigate your way out of being smack in the middle of a state and regional biodiversity corridor?

If you examine the findings of the EIS in terms of raw data, even though studies concentrated on farm land, the conclusion is obvious. The Field Survey Data tables in Biodiversity Assessment Section Annex D provide an impressive list. The raw data gives a very different answer than the data post assessment, a magic trick that occurs throughout all sections of the EIS. The determinations are made easier by the EIS's failure to look around and realise where they are.

As climate change effects temperatures, the number and diversity of species using biodiversity corridors will increase. The Jupiter wind farm EIS does not take this into account.

# Conclusion

The Jupiter Wind Farm Proposal is located in an unsuitable location and the impact on fauna will be unacceptably high. This project should never have been accepted. One glance at a map is enough to demonstrate how unsuitable it would be to place 88 turbines here. To accept this proposal would turn logic on its head. Biodiversity corridors are essential for hundreds of species to survive climate change. We are spending millions of dollars enhancing, strengthening and increasing these essential links. But we also randomly put huge wind farms in the middle of them. Obviously, such an act would be absurd.