Proposed Development of

Boco Rock Wind Farm

South-Eastern, New South Wales

Preferred Project Report and Response to Submissions

Volume 1

April 2010

Prepared for Boco Rock Wind Farm Pty Ltd by Wind Prospect CWP Pty Ltd

TABLE OF CONTENTS

Volume 1

1. Introduction 1

2. Summary of Submissions 3

3. Main Response 7

4. Flora and Fauna Response 45

5. Revised Statement of Commitments 53

Appendix A Eco Logical Australia Attachments

Volume 2

Appendix B Eco Logical Australia Figures

Appendix C Eco Logical Australia Table

Appendix D Revised Figures

This page is left intentionally blank.

1. INTRODUCTION

The Boco Rock Wind Farm (the Project) has been proposed to consist of up to 125 wind turbines and ancillary structures on an area of the high altitude plateau of the Monaro Plains, located within the Bombala and Cooma-Monaro Shire Council boundaries, approximately 6 kilometres (km) west of the township of Nimmitabel, New South Wales (NSW).

The proposal is a Part 3A Major Project under the *NSW Environmental Planning and Assessment Act 1979* and therefore the consent authority is the Minister for Planning. The proposal is also consistent with the criteria of *Critical Infrastructure* as it is a power generator with the capacity to generate in excess of 30 MW (previously 250 MW). Subsequent applications for approval may be sought under Section 78A of the *Environmental Planning and Assessment (EP&A) Act 1979 (NSW)* associated with the lease of land for the turbine sites and associated infrastructure.

The Project will also be assessed by the Federal Department of the Environment, Water, Heritage and the Arts (DEWHA) with respect to matters of National Environmental Significance under the *Environment Protection & Biodiversity Conservation (EPBC) Act 1999*.

The Project is being developed by Boco Rock Wind Farm Pty Ltd (the Proponent), a wholly owned subsidiary of Wind Prospect CWP Pty Ltd (WPCWP). WPCWP is a joint venture partnership between the Wind Prospect Group and Continental Wind Partners (CWP).

The Project was publicly announced in September 2008, at the commencement of detailed feasibility studies and early stages of planning. The Environmental Assessment was submitted to the NSW Department of Planning on the 11th November 2009 and placed on public exhibition from the 9th December 2009 to the 3rd February 2010. During this period, submissions were sought from the local community, government agencies, interested parties and other stakeholders. The Department of Planning accepted submissions up to the 3rd February 2010, though a few late submissions were also received and included.

Purpose of this Report

The Department of Planning provided individual submissions from members of the public and government agencies and asked the proponent to respond to the issues raised in accordance with Section 75H of the *NSW Environmental and Planning Assessment Act 1979*.

This Preferred Project Report and Response to Submissions considers and responds to the issues raised in the submissions on the Boco Rock Wind Farm Environmental Assessment.

Modifications to the Project

Following a review of the submissions received and discussions with the relevant parties, the Proponent has modified the two proposed layouts of the wind farm. These modifications have resulted in the removal of three wind turbines from the Springfield Cluster, including the associated access track, crane hard-standings and other associated works. The Project now consists of two design layouts consisting of 122 wind turbines (Revised Layout Option 1) or 104 wind turbines (Revised Layout Option 2) as shown in Figures 3.1A, 3.3A and 3.7A. Also, a section of access track (as

shown in Figure 3.3A) has been modified to follow the legal Council road reserve in order to minimise the impact of that section of track on hollow-bearing trees.

These changes came about as a result of further consultation with the NSW Department of Environment, Climate Change and Water (DECCW) and Federal Department of Environment, Water, Heritage and the Arts (DEWHA). The reasoning behind these changes is explained in Section 4.

2. SUMMARY OF SUBMISSIONS

Responses Received

The Department of Planning received a total of 16 submissions during the public exhibition period, terminating on the 3rd February 2010. This consisted of the following:

Submission Number	Name
1	Industry and Investment NSW
2	*Member of the Public*
3	*Member of the Public*
4	*Member of the Public*
5	*Member of the Public*
6	Roads and Traffic Authority (RTA)
7	Bombala Council
8	Cooma-Monaro Shire Council
9	*Member of the Public*
10	Department of Environment, Climate Change and Water (DECCW)
11	*Member of the Public*
12	NSW Office of Water
13	Airservices Australia
14	*Member of the Public*
15	*Member of the Public*
16	*Member of the Public*

As can be seen from the above table, nine submissions came from members of the public and seven came from government agencies, local councils and the like. In accordance with section 75H of the *Environmental Planning and Assessment Act 1979*, this response to submissions report considers the issues raised in the submissions received in relation to the Environmental Assessment for the proposed Boco Rock Wind Farm.

Format of Response to Submissions

The response to submissions has been structured to mirror the original Environmental Assessment chapter format, as follows:

Chapter	Title	Issues Raised?	Number of Statements
1	Executive Summary	No	-
2	Introduction	No	-
3	Project Description	Yes	22
4	Project Justification	Yes	5
5	Planning Context	Yes	4
6	Stakeholder Consultation	Yes	12
7	Assessment of Key Issues	Yes	1
8	Landscape and Visual Impact Assessment	Yes	29
9	Noise Assessment	Yes	1
10	Flora and Fauna Assessment	Yes	*
11	Cultural Heritage Assessment	Yes	1
12	Traffic and Transport Assessment	Yes	7
13	Aviation Assessment	Yes	5
14	Communications Assessment	No	-
15	Electromagnetic Fields	Yes	1
16	Fire and Bushfire Assessment	Yes	2
17	Water Assessment	Yes	7
18	General Environmental Assessment	Yes	6
19	Socio-Economic Assessment	Yes	15
20	Statement of Commitments	No	-
21	Conclusion	No	-

* The Flora and Fauna Assessment section is dealt with separately (see Section 4).

Due to the low number of submissions received, individual issues were extracted from the relevant submissions, tabulated and responded to accordingly. Where a submission raises an issue which is similar to, one previously covered then reference is made back to the original comment to avoid duplication, where possible.

The Submission Statement number (e.g. Submission Statement (3.4)) is a unique identifying number assigned to each submission. This number is designed to preserve the anonymity of public and community-based submissions whilst referring directly to specific comments made.

DECCW Response

The submission from DECCW contained a number of key issues which required further discussion over and above a simple response, including site visits and face-to-face meetings. Consequently Eco Logical Australia Pty Ltd, the consultants who prepared the original Flora and Fauna Assessment for the Environmental Assessment, were engaged to prepare a detailed response to the issues raised.

Due to the significance of the issues, subsequent meetings were held with DECCW and DEWHA to address their concerns and to resolve the issues to the satisfaction of all parties. Significant progress was made, resulting in a modification to the turbine layout from that originally submitted in the Environmental Assessment. This revised layout is altered by the removal of three wind turbines from the Springfield Cluster in accordance with DECCW's requirements following the discussions. The justification for this change is given in Eco Logical's response on behalf of the Proponent (Section 4).

The map shown in Figure 3.3A has been revised to show the new turbine positions, including the modifications to the two turbine layouts, access track and associated infrastructure.

Bombala Council Response

Bombala Council provided a submission to the NSW Department of Planning on the 3rd February 2010 regarding the proposed Boco Rock Wind Farm which contained a series of comments on the Environmental Assessment. Bombala Council subsequently provided two further clarifications to their original submission on the 9th March 2010 and 30th March 2010 respectively.

In their first clarification, Bombala Council withdrew clause 3 under Community impacts as listed in their original submission. As this issue was not raised in any other submission, we have not provided a response under Chapter 3: Main Response. In their second clarification, Bombala Council rescinded the statement that "the turbines should not be located closer than 1 km from the holding boundary of a non associated holding." As this issue was raised in several other submissions, a response to this issue can be found on page 10 of this document as Submission Statement (7.7) under Chapter 3: Main Response.

Transmission Line Route

At the request of the NSW Department of Planning an additional map has been prepared which shows the alternate transmission line corridors under consideration, in relation to the position of the Boco Rock Wind Farm layouts. This is shown in Figure 3.7A.

Revised Statement of Commitments

In response to several submissions, the Proponent has revised or added to the original Statement of Commitments as shown in Chapter 20 of the Environmental Assessment. This resulted in 13 commitments being amended, 2 deleted and 6 added. These amendments are contained in a revised Statement of Commitments as shown in Section 5.

This page is left intentionally blank.

3. MAIN RESPONSE

Chapter 1: Executive Summary

No responses received.

Chapter 2: Introduction

No responses received.

Chapter 3: Project Description

Submission Statement (2.2)
"In respect of the major project application dated 15 May 2009 and the letter dated 4 August 2009 requesting permission to change the proponent to Boco Rock Wind Farm Pty Ltd, it seems to me that it will be necessary for the new proponent to complete a new major project application form."
Response: The change in company name was discussed with the NSW Department of Planning prior to its implementation. As the change was deemed '*de minimis*' and had no other impact on the preparation or submission of the Environmental Assessment, the alteration was considered acceptable and required no further action.
Submission Statement (2.4)
"Clause 3.1 refers to a definition of Development footprint, including an area of 107 ha said to be permanent, which is inconsistent with the concept of structures being decommissioned."
Response: Section 3.1 and Table 3.1 in the Environmental Assessment provide the definition of the Development footprint. To clarify, during construction the Development footprint would be a maximum area of 200 ha due to both temporary and permanent components. During operation the Project would have a maximum area of 107 ha due to the removal of temporary components no longer required post-construction. At the time of decommissioning, as discussed in Section 3.9.10, all above-ground infrastructure will be dismantled and removed from the site. Any remaining components will be covered over or buried to ploughing depth, unless their removal is economically viable or environmentally necessary, or is a requirement of the landowner lease agreement. The removal of access roads will depend on any continuing use for farming or fire access, again depending on the lease arrangements. Assuming nothing other than the above-ground structures (turbines, substation equipment and above-ground powerline) are removed, up to 107 ha could potentially be left following decommissioning as previously explained.
Submission Statement (2.5)
"Figure 3.2 and most other maps are unsatisfactory in that it is impossible to determine accurately the position of turbines. The EA should be amended to provide maps showing the precise position of turbines as these positions are critical to landscape views."
Response: Appendix 2 of the Environmental Assessment lists the co-ordinates of each turbine location for the two potential wind farm layouts; one consisting of 125 wind turbines (Layout Option 1) and the other 107 wind turbines (Layout Option 2). Figures 3.1 and 3.2 in Volume 1 show reduced-scale maps showing the position of turbines for each

of these two layouts. Volume 2 contains full-scale A3 versions of Figures 3.1 and 3.2 which clearly show the locations of the turbines.

Submission Statement (2.6)

"There are two layout options shown, but no reason is given for this. The EA should be amended to withdraw one layout or to explain precisely why two are shown. The proponent should specify which layout it considers acceptable for all purposes."

Response: The reason for the two layout options is provided on Page 22, Volume 1 of the Environmental Assessment:

> "The difference in number between the two layouts is due to the relative sizes of the wind turbine models being considered for the Project, and in particular their blade length....The choice between these two design layouts is largely dependent on a successful tender process for the supply of wind turbines to the Project".

This means that due to the different blade diameters of the wind turbines under consideration, the separation distance required to remove turbulence effects between each turbine changes. Since Layout Option 1 has 125 wind turbines it will generally have wind turbines with a smaller generation capacity and smaller blade diameter, compared to Layout Option 2 which has 107 wind turbines, a larger generation capacity and larger blade diameter. The optimal layout option could potentially consist of a mix of those machines considered suitable for either Layout Option 1 or 2.

The selection of turbine model is linked to the turbine supply contract for the project and is chosen based on a competitive tendering process. Therefore it is impractical to predict which turbine will be used for the site prior to planning consent. However the anticipated dimensions of the turbines likely to be used for the site are known and these form the basis of the assessment process. Both layouts assume worst case for noise, landscape and visual impact to ensure that the Environmental Assessment is representative of the potential impacts. This approached was discussed and agreed with the NSW Department of Planning prior to going down this path. For further information on the wind turbines being considered refer to Section 3.3.

Submission Statement (3.6)

"Furthermore, in conjunction with removing these turbines, the proposed development was increased from 73 turbines to 125 turbines, and extended north of the Maclaughlin River, in close proximity to our family landholdings north of the Maclaughlin."

Response: The development of a wind farm layout is dependent on a number of factors as discussed in Section 4.6.2. As listed in Section 3.2, after consultation with surrounding and affected parties, a more detailed grid connection study, other Project related studies and discussions with turbine manufacturers the Project was modified both in terms of scale and the area on which the Project will be situated. Figure 6.1 provides a visual representation of the changes between the Original Layout (73 wind turbines) and Layout Option 1.

In determining the size and scope of the Project, it is necessary to consider all potential impacts. While the respondent does have wind turbines extending north along his boundary, all attempts were made to minimise the southern influence of the Project on the respondent's landholdings through initial discussions (see Appendix 4 of the Environmental Assessment). The wind turbines moved from the original eastern extent were in a higher yield area, so it was necessary to increase the number of turbines to compensate for the reduced generation capacity. The Proponent has modified the layout to be as accommodating as possible without reducing the overall financial viability of the project.

Submission Statement (15.1)
"There is an existing (unused) dwelling with shed and yards near the northern end of the road. Future development of these 3,900 hectares will inevitably require an upgraded dwelling….The turbines in the Boco Group [should] be no closer than 5 km to the dwelling indicated."
Response: Currently there are no local (Bombala or Cooma-Monaro Shire Council), state or federal policies that determine the minimum distance between a residential receptor and a wind turbine, therefore the Proponent must conduct studies to determine the potential effect of a wind turbine on a residential receptor. These can include visual, shadow flicker and noise assessments. Appendix 6 and 8 of the Environmental Assessment provide further detail into how these studies are conducted and the outcomes for this Project. Submission 15 has requested that no turbine be closer than 5km to his indicated property. The closest proposed turbine to the existing (unused) dwelling is 2.5 km to the north east. No further justification for this separation is provided by the respondent, except that this dwelling will be the closest non-associated residential receptor. Figure 3.8 shows the location of this uninhabited dwelling (labelled 'Submission 15') in relation to the Project, including its position with respect to shadow flicker, noise and visual influence. As can be seen from Figure 3.8, the dwelling will not receive any shadow flicker and will have a potential zone of visual influence to blade tip for between 40 - 60 wind turbines. The dwelling would also be predicted to receive noise impacts less than 30dB(A), below the South Australian EPA *Noise Guidelines for Wind Farms* (2003) criteria of 35dB(A) or 5dB(A) above background. Reviewing these facts as presented in the Environmental Assessment, the Proponent sees no justification in moving wind turbines in the Boco Cluster from their current position.
Submission Statement (15.3)
"When I did meet him he said he was only interested in occupied dwellings, and asserted the right to site turbines as close to a boundary fence as possible provided the fan did not cut the airspace above the fence."
Response: Please refer to Submission Statement 15.1 (page 9) in response to location of turbines near dwellings. There is nothing in the planning regulations which prevents wind turbines being placed next to a boundary fence as long as the blades, or any part of the turbine's construction, do not cross into a non-involved landowner's property and it does not impact on any of the previously mentioned factors listed in Section 4.6.2.
Submission Statement (15.4)
"It is proposed that an allowance to reposition the wind turbines and other infrastructure up to 100m radius from the submitted layouts, subject to conditions of approval is issued. …. A condition should be imposed that no relocation is to occur nearer to a neighbouring boundary than the minimum distance determined."
Response: Statement of Commitments 099 already proposes such a commitment to maintain separation distances, stating "where a neighbouring boundary already has a determined minimum distance, no wind turbines will be constructed within the 500m buffer" in relation to the landowner to the south of the Project. Elsewhere the turbines will be repositioned with respect to the suggested micro-siting allowance of 100m from proposed infrastructure or provided the nature of any modification is considered consistent with the level of impact that has been assessed.

Submission Statement (7.7)
"The turbines should not be located closer than 1 km from the holding boundary of a non associated holding"
Response: The key consideration of the impact of wind turbines on neighbouring properties is the proximity to residential dwellings and not just to property boundaries. The Environmental Assessment as submitted contains a thorough assessment of the potential impacts on all nearby dwellings, covering in particular the issues of noise, shadow flicker and visual impact. Under planning regulations, turbines can be placed adjacent to landowner boundaries so long as no part of the turbine or its construction passes into a non-associated property without proper agreement. The Proponent has ensured that there will be no adverse impact on any residential dwellings surrounding the site and has made a specific concession of 500m separation distance from nearby landowner boundaries for the affected parties (Statement of Commitments 099). The proposed turbine layouts have no adverse impact on any of the adjacent dwellings as shown by the Environmental Assessment. The Proponent notes that, in a meeting on the 25th March 2010, Bombala Council rescinded the statement requesting a 1 km separation from the boundary of a non associated holding.
Submission Statement (3.9)
"1 kilometre buffer zone. Turbines should be located at least 1 km from our property boundary."
Response: Please refer to the response to Submission Statement 7.7 (page 10) regarding the 1km boundary separation.
Submission Statement (5.11)
"We are entirely justified in our request that the turbines be sited 1 km from our boundary …"
Response: Please refer to the response to Submission Statement 7.7 (page 10) regarding the 1km boundary separation.
Submission Statement (15.9)
"All turbines be no closer than 1 km from our boundary."
Response: Please refer to the response to Submission Statement 7.7 (page 10) regarding the 1km boundary separation.
Submission Statement (2.7)
"Clause 3.3.2. It is unacceptable for the proponent to refer to various tower heights. The EA should refer to one tower height only, so that all other consequential effects may be properly considered."
Response: The Proponent describes various tower heights in Section 3.3.2 to provide an understanding of the potential wind turbines that could be used if the Project is approved. The various wind turbine tower heights are due to the uncertainty of the model of turbine which may be selected for the site, which is selected based on a competitive tendering process. The Proponent in Section 3.3.3 does refer to a maximum blade tip height of 152m, which is the tallest wind turbine under consideration, and it is this figure which is used throughout the Environmental Assessment for all studies. The proponent has considered the worst case impacts based on turbine dimensions to ensure that the assessment does not underestimate the potential impacts.

Submission Statement (3.10)
"Reduce Turbine Height to 125 metres (to blade tip), The proposed turbine height was increased to 152m near the completion of the planning and consultation process."
Response: The Proponent explains the increase in maximum blade tip height to 152m in the Environmental Assessment. There are several factors for the decision to use a larger tower height: • Section 6.3.1 under Project Refinement, it was clarified that the proposed wind turbine tower heights would be 100m (and therefore a maximum blade height of 152m) to maximise the full potential of the local wind resource and cater for new turbine models entering the market; • Table 6.4 provides a timeline of key stages in the consultation process. Information on the increase in maximum hub height was publicly disseminated in July 2009. The submission of the final Environmental Assessment to DoP for Public Exhibition occurred in November 2009, some four months later. This allowed enough time for the tower height amendment to be reviewed and discussed; • Section 3.3.2, wind turbines under consideration, is not an exhaustive list since new turbine models and certified designs are continually entering the market place; and • Section 4.6.4, today with the demand for renewable energy sources, wind turbines are increasing in generator size and height both onshore and offshore to maximise the capacity of wind farms. Therefore to ensure that the efficiency of the Project is maximised to its full potential and to be able to utilise the latest turbine models the turbine height must remain at a maximum of 152m as written in the Environmental Assessment.
Submission Statement (7.1)
"It is requested the tower height be retained at the original proposal of 125m."
Response: Please refer to the response to Submission Statement 3.10 (page 11) regarding the increase in wind turbine height.
Submission Statement (2.8)
"Clause 3.3.7. Approximately four permanent wind monitoring masts up to 100 metres high are proposed at locations yet to be determined. The Environmental Assessment should be amended to specify precisely the locations, and photographs provided showing how they will appear in the landscape."
Response: Discussed in Section 3.3.7, the reason for up to four permanent wind monitoring masts on-site is to enable the performance monitoring of the wind turbines during the operational phase of the project. As discussed in Section 3.8, micro-siting could result in the modification of wind turbine placement and consequently the location of the wind monitoring masts. Image 3.4 shows what a tubular or lattice wind monitoring mast would look like. Currently there are two 60m tubular and one 100m lattice tower monitoring masts installed on-site (as of the 15th March 2010), which act as a guide to how additional wind monitoring masts would look in the landscape when they are installed.
Submission Statement (2.9)
"Clause 3.8 calls for an allowance to reposition turbines and other infrastructure up to 100 metre

radius from the submitted layouts. This request should not be acceded to as the proponent has had years to ascertain the position of structures, and important landscape views can be adversely affected."

Response: Section 4.6.2 explains the development process to arrive at a design layout for a wind farm. Section 3.8 explains why an allowance for the repositioning of turbines and other infrastructure up to 100m radius is required. This is due to considerations such as final turbine selection, ongoing energy yield analysis, unforseen geological or environmental constraints, constructability/cost-reduction and pre-construction engineering investigations. The repositioning of wind turbines and other infrastructure up to a 100m radius from the submitted layouts is subject to conditions of approval as issued. Varying the turbine locations by up to 100m would not have a significant impact on the landscape and visual impact of the project, as outlined in Chapter 8.

Submission Statement (2.13)

"Clause 3.10 This clause provides that "pre-construction works involve final site surveys (for heritage and ecology)". This work should have been completed previously."

Response: The Environmental Assessment contained a detailed assessment of the Ecology and Cultural Heritage impacts based on survey corridors to allow for micro-siting. Section 3.9.4 provides the full reference to the statement provided in the conclusion of Chapter 3, Section 3.10. Pre-construction works are only conducted after the Project has Development Approval and the detailed design and turbine contract has been completed. If, following the approval of the Project, it is deemed that further detailed cultural heritage and flora and fauna surveys are required then the Proponent will conduct these studies after the final design layout has been determined. Further surveys could also occur during the construction phase, as a number of enabling works for infrastructure and the stripping and careful storage of existing soil from affected areas can reveal potential cultural heritage artefacts which require further investigation. Therefore it may not be possible to complete all appropriate surveys prior to Development Approval.

Submission Statement (2.10)

"Clause 3.9.10 The proponent proposes that "at the end of the operational life of the Project" only above ground infrastructure will be removed, while tower bases and underground cables, which it is claimed "contain no harmful substances" will remain. Subject to retaining structures to protect groundwater, all infrastructure should be removed, unless an appropriate expert report is included in an amended EA, setting out why any materials should be left on site and detailing all risks associated with those materials."

Response: The materials used in the construction of the Project will have no long-lasting harmful effects on the environment and any potentially harmful substances, such as oil, will be removed during decommissioning. Section 3.9 states "The tower bases would be cut back to below ploughing level or topsoil built up over the footing to achieve a similar result". Further in the section in states "The underground cables are buried below ploughing depth and contain no harmful substances. They would be left in the ground and only recovered if environmentally appropriate to do so".

Any components left in the ground following decommissioning will have no additional ongoing impact, the same as during construction and operation. A decommissioning plan will be prepared towards the end of the wind farm's life detailing what and how components will be removed from the site or left in situ. If this plan identifies any potential ongoing risks, then they will be mitigated for during the decommissioning phase of the project.

Submission Statement (7.5)
"The exact life of the project is unclear in the documents. In any event Council hold concerns relating to the responsibility for removal of the structures. It is unlikely that the landholders will have the financial capacity to fund the restoration in the event of a collapse of the development company. Suitable surety must be in place as a condition of consent."
Response: The term 'Project owner' in this case refers to that company in ownership of the project at the time of decommissioning. Table 3.3 provides an anticipated Project timeline including decommissioning. Section 3.9.1 explains why this is only anticipated, as the Project needs to obtain Development Approval, project financing where appropriate and turbine component supply and construction contracts prior to progressing along the timeline. When these items are obtained, the Project timeline will coincide with Table 3.3 and the Project will be operational for 20 years. The Proponent does not intend on providing a decommissioning bond because commitments related to decommissioning are covered in the individual landowner lease agreements, as stated in Section 3.9.10. These agreements cover the removal of relevant and agreed infrastructure at the end of the lease period and are commercially confidential, so cannot be provided in the Environmental Assessment. The cost of decommissioning is more than covered by the material and recyclable cost of the wind turbines, electrical infrastructure and ancillary components, if it is necessary to fund decommissioning in this manner. This is consistent with the Taralga judgement (*Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd*). A decommissioning plan will be prepared towards the end of the wind farm's life detailing what and how components will be removed from the site or left in situ. This will cover any required surveys prior to commencing decommissioning, such as flora and fauna and traffic impacts. It will then detail the timescale and process of decommissioning within the timeframe allowed by the planning consent. As the make and number of turbines is not yet known, and given the potential change to the environment during the operational phase of the wind farm, it is logical to prepare the decommissioning plan towards the end of the wind farms life.
Submission Statement (2.11)
""All decommissioning work would be the responsibility of the Project owner and is a provision with the lease agreement". An amended EA should be prepared to include the following: 1. Who precisely is the "Project owner" referred to, 2. A full copy of the lease agreement referred to, 3. A full copy of any lease or other agreement entered into between the proponent and any landowner concerning the development, and 4. Full details of any security to be provided for the decommissioning, including but not limited to the nature of the security, the holder of the security and the terms upon which the security is to be made available for the use of any party at any time."
Response: Please refer to the response to Submission Statement 7.5 (page 13) regarding decommissioning work for the Project.
Submission Statement (3.11)
"Project Decommissioning. It is unclear from the Project Application what level of security we have that the turbines will be removed at the end of the lifetime of the project."
Response: Please refer to the response to Submission Statement 7.5 (page 13) regarding decommissioning work for the Project.

Submission Statement (8.5)
"It is suggested that the consent clarify the content of Section 3.9.10 i.e. that it is the project owner's responsibility, not the landowner's responsibility, for the ultimate decommissioning of the generating towers and associated infrastructure. As Council is not privy to the terms of the leases with the landowners this will provide some surety to Council and successive landowners for the decommissioning requirements."
Response: Please refer to the response to Submission Statement 7.5 (page 13) regarding decommissioning work for the Project.
Submission Statement (9.5)
"It is of great concern that there is no clear plan of action or security that the turbines will be removed at the end of the lifetime of the project. Firm guarantees must be put in place with finances allocated for the removal of the turbines in the future."
Response: Please refer to the response to Submission Statement 7.5 (page 13) regarding decommissioning work for the Project.
Submission Statement (2.14)
"Clause 3.11 This clause indicates that the route of the connection to the electricity grid is unknown. It is most unsatisfactory that this Environmental Assessment is proceeding in these circumstances."
Response: The Director General's Requirements and Section 3.11 of the Environmental Assessment state that the electricity transmission line will be assessed under Part 5 of the Environmental Planning and Assessment (EP&A) Act and clause 228 of the EP&A Regulations. The Proponent for this project would be Country Energy, as the transmission line would ultimately become the owner and operator of this new infrastructure. Approval of the transmission line follows a separate process to that of the Project application, therefore is not directly linked with the planning approval for the wind farm. Table 3.6 and Figure 3.7 detail three potential corridors for the required transmission line whilst Section 3.11.3 identifies the Southern Corridor as the most favourable of the line routes. Following approval of the main Project, the transmission corridor will be selected and the application for the new line completed by Country Energy.
Submission Statement (4.4)
"Additionally, proposed routing of transmission lines to the proposed development appears to be planned for alongside our boundary."
Response: The three potential transmission line development corridors, as shown in Figure 3.7, each originate at the collector substation on-site and proceed east to connect to the existing Country Energy transmission line. As detailed in Section 3.11.3, the Southern Corridor is currently identified as a suitable transmission line route and detailed field surveys along this route will determine whether or not ecological, heritage and visual impacts can be satisfactorily avoided, mitigated and/or managed. Therefore the proposed routing of the transmission line could occur along the respondent's boundary but will have no physical impact on their property. The outcome of further surveys following Project approval, will determine whether the proposed transmission line route remains next to the respondents boundary.

Chapter 4: Project Justification

Submission Statement (2.3)
"Chapter 1: Executive Summary asserts that a benefit of the proposal is "the injection of approximately $700 million into the Australian economy". The EA gives no detail of the claim."
Response: The value of $700 million is derived from a calculation of the project cost based on a per turbine capital cost of approximately $5.6 million per 2 MW turbine multiplied by the number of turbines. The respondent's assertion that much of this figure would not directly benefit the Australian economy is partially correct. As there are no utility scale turbine manufacturing companies or facilities in Australia, the purchase of key turbine components (blades, nacelle and hub) would therefore take place outside of the country. However, essential components such as tower sections, foundations, electrical components (cables, transformers, etc) and construction materials are available from within Australia and their acquisition would benefit the local economy. A revised figure, based on the above assumptions, would be in the order of $280 million and is a more accurate approximation of the financial benefit to the Australian economy. Additionally, up to $26 million would be injected into the local economy during the operational phase of the wind farm (approximately 20 years) due to Operations and Maintenance (O&M) requirements. It is difficult to provide exact figures for New South Wales or Australia as a whole, as contracts are still under negotiation and such figures are commercially confidential. Additionally, the secondary and tertiary knock-on effects of such a large construction project will bring localised, short and long-term benefits, above and beyond this figure.
Submission Statement (2.15)
"Clause 4.4 refers to targets for renewable energy. Solar, and not Wind, technology is the fastest growing sector of the renewable energy industry.... Solar technology will not cause anything like the damage to landscape values which is occasioned by wind turbines, nor will it cause any of the other notorious problems in Australia and overseas caused by industrial wind turbines."
Response: The Proponent does not disagree that solar technology research is attracting significant investment and that technological advancements continue to be made in this field. However, wind power remains a more cost-effective technology at the present time, being significantly more mature as shown in Table 4.1 and Figure 4.2 of Volume 1. As of November 2009 there were 1,668 MW (49 projects) of wind generation in Australia compared to 9 MW (17 projects) of Solar Thermal & PV (source: CEC Renewable Energy Database). The Proponent does not intend discussing the merits or flaws of solar technology as this is not relevant to the application currently before the NSW Department of Planning.
Submission Statement (5.1)
"We now find ourselves facing the prospect of being surrounded by the biggest wind farm in Australia."
Response: The Boco Rock Wind Farm would consist of up to 125 turbines with a maximum tip height of 152m, with a rated output of 270 MW. The question of size can either relate to the number of turbines or their physical size, or both. The operational Waubra Wind Farm consists of 128 turbines with a maximum tip height of 120m, generating 192 MW. The consented Silverton Wind Farm will consist of 282 turbines (max. 598 under Concept Approval) with a proposed maximum tip of height of 155m and a potential rated output of 846 MW. Therefore the proposed Boco Rock Wind Farm

would not be the biggest wind farm in Australia.
Submission Statement (16.1)
"What is the reduction in carbon generated by power stations as a result of the Boco Rock Wind Farm? So I would like to understand as a result of implementing Boco Rock Wind Farm • How much carbon production (e.g. by power stations) will be reduced, • How we will monitor/measure this reduction, • When the reduction will happen, and • When the Wind Farm (and any necessary supporting infrastructure e.g. gas turbines or batteries) becomes carbon negative. To build 10 gas turbines that run for 70% of the time and 100 wind towers that run for 30% of the time, does not seem an efficient approach – why not only 10 gas turbines for 100% of the time."
Response: As detailed in the Environmental Statement, the operation of the Boco Rock Wind Farm will offset the equivalent of 699,240 tonnes of carbon dioxide which would otherwise have been generated by a fossil-fuel power station. This reduction is an annual saving for the operational lifetime of the wind farm. Wind farms are typically operational for 95-98% of the time generating electricity. However, peak generating capacity (a 2 MW turbine generating a full 2 MW) for a wind farm over a 12 month period is represented by its capacity factor, which is calculated conservatively at 35% as stated in Section 4.6.5. No power station, whether renewable, fossil-fuel or nuclear, operates at 100% capacity for 100% of the time. In terms of carbon cost for construction of a wind farm, it is known that energy payback for the manufacture, transport, installation, operation and decommissioning is in the order of 6-7 months. Given the operational lifespan of 20-25 years, this is a rapid recovery rate.
Submission Statement (15.7)
"The original proposal had only 73 smaller turbines and must have been considered viable. Consequently removing some of the 125 turbines now proposed would not threaten the viability of the project, which has been a matter of concern with smaller projects."
Response: The Proponent considers the proposed development of a size and scale which can be accommodated in the Cooma-Monaro area, as detailed in the Environmental Assessment. The removal of wind turbines from the project does have an effect the financial viability of the project given the somewhat fixed costs of connecting into the local transmission network. Similarly there are economies of scale with reduced construction and turbine supply costs for installing a greater number of turbines. With the removal of wind turbines from higher yield areas of land in the original proposed layout, more turbines were required to compensate for the loss of turbines in lower yield areas. In Section 2.2.3 of the original Preliminary Environmental Assessment, under turbine specifications and operation, stated "Typical geometry of machines of the 2 to 3.3 MW class include a tower height (or hub height) of 80-100 metres and the blade length up to 55 metres (i.e. a rotor diameter of up to 110 metres), giving a blade tip height for the turbine of up to 155 metres." Therefore the original proposal did not consist of smaller wind turbines.

Chapter 5: Planning Context

Submission Statement (2.1)
"I submit that the above Application should not proceed further until all recommendations of the [Rural Wind Farm Inquiry] are followed and all necessary legislation is passed."
Response: Chapter 5 describes the relevant Federal, State and Local Government legislation, policy and guidelines that are considered during the development of the Project. The NSW Department of Planning is responsible for ensuring that the requirements of the Environmental Planning and Assessment (EP&A) Act and its regulations are addressed for developments where the Minister for Planning has the Approval Authority. This results in Director-General's Requirements (DGR's) which provide the Proponent with required issues to be addressed and relevant guidelines to assess each of these issues. The Project has addressed each of the DGR's as outlined in Table 5.2. It is inappropriate to halt the decision-making process pending the release of future guidelines which will not necessarily be implemented as part of planning policy. The Proponent has followed the Best Practice Guidelines for Wind Farm Development as prepared by the Clean Energy Council (formerly AusWEA). Regarding adherence to the Inquiry recommendations (which are not formal guidelines as written), the Project Environmental Assessment was on Public Exhibition for seven weeks compared to the usual four weeks and was therefore open to public comment for longer than usual. The issue of compensation was addressed in the Taralga judgement (see Submission Statement 2.26, page 41) and therefore the issue of compensation is not relevant to the Project.
Submission Statement (9.6)
"The recent Cohen inquiry into Rural Windfarms has made recommendations to alter wind development guidelines including increasing the opportunity to comment on proposals from 30 days to 90 days and to look into compensation for neighbouring property owners within the viewshed of the turbines. …. this development should adhere to these new guidelines and further assessments should be undertaken and more time given for comment."
Response: Please refer to the response to Submission Statement 2.1 (page 17) regarding the response to the RWF Inquiry.
Submission Statement (14.1)
"A final decision on this project should be delayed until a set of national guidelines, the draft of which was only published in October last year, can be finalised as recommended by the recent NSW Upper House Inquiry into Rural Wind Farms."
Response: Please refer to the response to Submission Statement 2.1 (page 17) regarding the response to the RWF Inquiry.
Submission Statement (2.16)
""For the Project to be classified as a Part 3A of the EP&A Act, the proposed activity is required to be permissible under the relevant LEP. The project occurs on land zoned 1(a) Rural Zone, which does not prohibit the erection of wind turbines or farms, as land can still be predominantly used for pastoral purposes". This is not correct. Under the Bombala LEP 1990, development which may be carried out without consent is agriculture, development which is prohibited is motor showrooms, residential flat buildings and shops and all other development (which includes industrial wind

turbines irrespective of other farm activities) requires development consent."
Response: The quoted statement from Section 5.3.2 is correct and in accordance with the Bombala LEP 1990. The respondent is correct in his statement that the Project requires development consent, which is the purpose of submitting a planning application to the NSW Department of Planning as the consenting authority.

Chapter 6: Consultation

Submission Statement (2.19)
"I believe that the personal notification to residents within a 5 kilometre radius of the Project was inadequate and should have been 15 kilometres (being the distance from which the wind turbines are said to be visible)… Many district residents are unaware of the proposed development."
Response: A detailed and pro-active community consultation programme was carried out during the assessment phase of the wind farm development, as outlined in Chapter 6: Stakeholder Consultation. Although direct letter drops and face-to-face meetings occurred within 5km of the site, information about the project was disseminated more widely. Articles and advertisements about the Project were printed in local and regional papers and several news items appeared on local radio, covering a much larger area than the suggested 15 kilometres. This is particularly borne out with the respondents to the website "*Have Your Say*" feature and public Opinion Surveys where 48% (26) of respondents lived greater than 15 kilometres from the site. Therefore information about the wind farm did reach the wider community and people were aware of the proposed development.
Submission Statement (3.8)
"In addition, there have been a number of verbal commitments made to us by the proponent, which I have not been able to find reference to in the Project Application. These include compensation for increased aerial operation costs, and a commitment not to move turbines any closer to our boundary when micro-siting takes place."
Response: The micro-siting of turbines with respect to the respondent's property is covered by Statement of Commitment 099 as written. The Proponent has addressed the issue of aerial operations in Chapter 13: Aviation Assessment, including the potential risk to nearby airstrips and the issue of increased operational costs. The initial turbine layout was modified to mitigate for the landing ground to the south of the wind farm. An independent assessment of the risk to nearby landing grounds was also undertaken, as shown in section 13.2.5 of the Environmental Assessment. This determined that, though there may be an increase in risk and expense in the cost of aerial spraying activities, such risk was a function of the aerial operator's experience. The Proponent's assessment of the situation is that there will be no increase in risk or cost based on the placement of turbines for the Boco Rock Wind Farm. However the Proponent has agreed to mitigate for any proven increase in costs which may occur as a result of the wind farm's construction. This forms the basis of the new Statement of Commitment 111.
Submission Statement (4.2)
"Wind Prospect has made no attempt to consult us regarding the impacts of the proposed development on our properties [Residence 1] and [Residence 2]. We have had no contact from Wind

Prospect in respect of the impact of the development on these properties despite our significant stakeholding in the development arising from our land adjoining the proposed development, and being located close (within 1 kilometre) to proposed turbine locations."

Response: The Proponent held an initial meeting with the respondent and other members of his family on the 23rd September 2008 where it was understood that all communication regarding the development of the Boco Rock Wind Farm would be handled through the respondent's brother. There has been frequent communication by phone and email, as well as face-to-face meetings, with the respondent's brother up until the point of submission. The Proponent assumed that information was being relayed in a timely and detailed fashion but accepts that no direct contact was continued during this time solely due to the basis of the original discussion.

The two properties mentioned have always been considered throughout the assessment process as occupied residences. In siting the wind farm, both of the residences mentioned are 5.1km from the nearest turbine. These distances are more than adequate to ensure no adverse noise impact or shadow flicker will occur. The respondent's property boundary reaches a minimum distance of 900m from the nearest turbine at its closest point.

Submission Statement (4.3)

"Wind Prospect through its lack of consultation has not made itself aware of relevant features on our land that impact on their application, including the presence on our property of an airstrip and 2 residences."

Response: Please refer to the response to Submission Statement 4.2 (page 18) with regard to residences. Consideration of the airstrip is given in the response to Submission Statement 3.8 (page 18).

Submission Statement (4.5)

"We have received no contact from Wind Prospect in respect of the impact of the proposed development on these properties whatsoever, including:

1. No record of any attempt by Wind Prospect to contact us regarding the impact of the proposed development on [Residence 1] and [Residence 2];
2. No correspondence or mailbox drops regarding the proposal;
3. No other attempts of any type to communicate or seek our feedback on the proposal's impact on [Residence 1] and [Residence 2] in any form, other than an open day held for the general public in the local town of which we became aware only through the general media."

Response: Please refer to the response to Submission Statement 4.2 (page 18) regarding communication with the respondent.

Given that the respondent makes reference to the respondent's brother's submission to the NSW Department of Planning and agrees with his comments, the respondent appears to have been aware of the development prior to submitting comments.

Submission Statement (9.1)

"In the Project Application, there were 22 Landscape Values Questionnaires received by the proponent. 60% of these considered that the proposed development would have a negative impact on the landscape."

Response: Please refer to the response to Submission Statement 5.4 (page 21).

Submission Statement (3.3)
"22 Landscape Values Questionnaires received by the proponent, 60% of which considered that the proposed development would have a negative impact on the landscape. This was dismissed as being "*statistically too small to determine an overall trend*"."
Response: Please refer to the response to Submission Statement 5.4 (page 21).
Submission Statement (9.2)
"The level of public consultation was clearly inadequate and is of serious concern when the development is one of the largest in the southern hemisphere. The public consultation days were held in the small town of Nimmitabel, were not advertised widely and should have been held in Cooma, the major centre of the area."
Response: The process of stakeholder consultation is detailed in Chapter 6, outlining the various methods used to engage with all potentially affected stakeholders. The Proponent considers the consultation to be in line with the AusWind Best Practice Guidelines and thorough in its handling of the consultation process during the development phase of the project. The public exhibition was held in Nimmitabel because it was the closest centre of population to the site, some 6 km from the Project. Cooma is an additional 37 km north from Nimmitabel along the Monaro Highway. As detailed in Chapter 6, the public exhibition was widely advertised through the local media, including an interview on ABC South-East radio. Please refer to the response Submission Statement 5.1 (page 15) regarding the development's size.
Submission Statement (9.4)
"In the Project Application, the proponent claims to have used input from local groups and individuals to mitigate adverse impacts to the local community as far as practical. Issues raised have been addressed where feasible to do so and have resulted in a number of modifications to the original layout. There was no community consultation for the expansion of turbine number from 73 to a 125, last minute increase in turbine height, and new location of turbines - the community was informed by a press release in the local newspaper."
Response: The preparation of an Environmental Assessment is an evolving process and the turbine layout of a wind farm will be subject to change right up to the point of submission. The Proponent ensured that information about changes to the project was released in July 2009 to the media regarding the increase in the number of turbines, the change in turbine height and adjusted positions, which was publicised in the local press and on the project website. The Proponent did not consider such changes merited an additional Open Day, given the media coverage of the amendments. Please refer to the response to Submission Statement 3.6 (page 8) with regard to the increase in wind turbine height. The increase in height from 125m to 152m, a change of 27m, was not considered significant and resulted in only a slight increase in visual impact (see zone of visual influence comparison in Volume 2, Figure 8.3) as shown in the Environmental Assessment. Positional changes were also considered to have little additional impact compared to the original design. Neither of these changes fundamentally altered the impact of the Project in terms of the overall consideration of the concept of a wind farm or the impact of this Project on the surrounding area.
Submission Statement (5.3)
"We have negotiated in good faith with a developer who has changed the scope and scale of the

project with no regard for the cumulative impact on our property."
Response: The Proponent and its consultants have always considered any amendments to the turbine numbers and/or layout when assessing the impact of the wind farm development on the surrounding area. All associated and non-associated residences have been taken into consideration, including any additional impacts due to increased turbine numbers or height to blade tip. The Environmental Assessment considers fully these changes and represents the full consideration of all impacts on the surrounding residences and landscape.
Submission Statement (5.4)
"He also happily quotes the statistic that 69% of the respondents to his Public Opinion survey (20 responses) supported the development whilst dismissing as "*too small to determine an overall trend*" the statistic "that 60% of respondents to his Landscape values questionnaire (22 responses) considered the development would have a negative impact on the landscape (Landscape and Visual Impact Assessment p119)."
Response: The Proponent accepts that both samples are statistically small given the number of respondents to the questionnaires, and this should have been reflected in the text of the Environmental Assessment. It is unfortunate that the total number of responses to both questionnaires (42) is extremely small, less than 3%, compared to the number given out (approximately 1,860).
Submission Statement (15.2)
"This is less than the full truth as no attempt was made to visit and talk to <u>all</u> adjoining landholders....I believe that the proponent avoided due diligence in searching neighbouring titles and inspecting the area."
Response: The Proponent carried out a community consultation exercise as detailed in Chapter 6. Attempts were made to contact all landowners within 5 km of the site and engage in face-to-face discussions regarding the proposed development. In cases where no landowners were present, information was left at the residence. At the same time and throughout the development of the project, on-site investigation (ground-truthing) of nearby properties was undertaken to ensure all relevant constraints were taken into consideration. This included determining the location of property boundaries, residences, air strips and any other feature which would impact on the Project development. The respondent himself was present at a stakeholder meeting the Proponent held on the 23rd September 2008 where it was understood that all communication regarding the development of the Boco Rock Wind Farm would be handled through the respondent's son.

Chapter 7: Assessment of Key Issues

Submission Statement (2.20)
"I note that no expert has been required to acknowledge acceptance of the terms of a code of conduct which would highlight duties relevant to reports."
Response: There is no requirement under Planning Legislation for the developer, or the consultants who work on their behalf, to enter into a formal 'code of conduct'. All consultants provide accurate and independent assessments based on their own specific knowledge and experience, knowing that they will be subject to independent scrutiny. It would be inappropriate for either the Proponent or consultants to present information which is incorrect, inaccurate or misleading.

Chapter 8: Landscape and Visual

Submission Statement (15.6)
"We use horse in the running of our property and horses are well known to shy or become flighty at unaccustomed sights or movements. The one time I met the proponent his associate said that ground shadows could be visible up to one kilometre from a turbine. This is of concern as the project is on the northern side of our property."
Response: According to the British Horse Society, there is no conclusive evidence that horses are frightened by wind farms, nor is the society opposed to wind farms (British Horse Society 1997). The UK's first commercial wind farm, Delabole Wind Farm, houses a riding school and stud farm. Horses are known to ride within 5m of the base of the turbines without incident. Following construction of the wind farm there may be a period of acclimatisation to the presence of the turbines and their operational characteristics, but as with other animals, they should soon adapt to their new environment.
Submission Statement (9.7)
"Comments concerning relatively minor changes to the mix of pasture species are of low relevance to the landscape assessment…"
Response: The LVIA report considers both 'landscape' and 'visual impacts', therefore comments concerning human modifications to the landscape, even those that are assumed to be of low relevance, are still relevant to the landscape and visual impact assessment. The LVIA notes comments from various authors, including Dr John Benson and Sir Keith Hancock that portions of the Monaro landscape have been heavily modified by agricultural improvement for pasture and arable production, but the LVIA also acknowledges that it is not necessarily the case that a landscape should be less valued as a result of modification. In addition to the brief consideration of agricultural improvements to the Monaro landscape, the LVIA includes extensive photographic and descriptive passages that relate to the broader nature of both the wind farm site and adjoining landscape within the surrounding viewshed.
Submission Statement (9.8)
"The Garrad Hassan shadow flicker assessment describes the site as 'mainly cleared land' and 'describes the landscape as pristine'."
Response: Garrad Hassan was commissioned by Green Bean Design to prepare a shadow flicker

assessment for the Boco Rock LVIA. The shadow flicker report stated that 'the (wind farm) site is mainly cleared land'. In the context of the shadow flicker report 'mainly cleared land' is used to describe the generally open appearance of the wind farm site and is not intended to imply that the wider Monaro landscape has been cleared of vegetation or timber.

The main LVIA report correctly identifies that the wind farm site includes a mix of semi improved grassland and temperate montane grassland and acknowledges that the project area is surrounded by large tracts of pastoral tree-less grassy plains, portions of which have been modified by agricultural improvements.

There is no reference in the shadow flicker assessment report which describes the landscape as 'pristine' and the Garrad Hassan shadow flicker assessment has not made any attempt to assess the existing character or condition of the landscape.

Submission Statement (14.2)

"The LVIA pre-empts reports of other consultants such as that by Garrad Hassan."

Response: The shadow flicker assessment prepared by Garrad Hassan was commissioned by Green Bean Design and appended to the LVIA report. In order to ensure that the pertinent points of the shadow flicker assessment were not overlooked, the shadow flicker assessment was summarised in the main body of the LVIA with the approval of Garrad Hassan.

The LVIA has not pre-empted reports prepared by other consultants.

Submission Statement (11.1)

"In the Landscape Sensitivity Assessment Criteria…no attempt is made to prioritize or score each of the criteria listed."

Response: The landscape sensitivity assessment criteria listed in Table 4 of the LVIA are individually ranked in Tables 5 to 11 for each landscape character area, and include a sliding bar scale (shaded grey) to indicate the degree of lower to higher sensitivity.

Submission Statement (11.2)

"One of the most important aspects when considering the environmental value of the proposed wind farm sites is the mark of 'settlement and human influence'."

Response: Settlement and human influence have been included as one of the six criteria in the assessment of landscape sensitivity and is considered to be an important aspect of environmental value. Settlement and human influence has been consistently ranked as moderate to high in the assessment of landscape sensitivity.

Submission Statement (11.3)

"The absence of strong topographical variety is an indicator of lower sensitivity – an argument could be launched to the contrary."

Response: We agree that an argument could be launched to the contrary, and the LVIA text preceding Table 4 acknowledges that some individuals will place higher (and different) values on the landscape than others.

Some landscape perception studies have identified that scenic quality (and landscape sensitivity) increase with greater degrees of relative topographic relief and ruggedness, although these studies are largely subjective based.

Submission Statement (9.9 and 11.4)
"It would appear that the (wind farm) 'footprint' does not include much of the broader Monaro area which will be well within the viewshed of this development."
Response: The 'footprint' of the wind farm, as discussed in the LVIA report, relates to the approximate 11,700 hectares of land that extends across the 17 participating rural residential and farming properties. In the context of the LVIA, the viewshed has been defined as 'the area of land surrounding and beyond the project area which may be potentially affected by the wind farm'. The extent of the viewshed is illustrated in the ZVI diagrams. The LVIA has included a comprehensive assessment of view locations within the viewshed, including residences up to, and beyond, 10km from the wind farm site.
Submission Statement (11.5 and 2.28)
"Wind farm developments have been previously approved…in similar areas of landscape character…anyone passing through the Monaro landscape and mistaking it for these other areas…would appear to have a very limited knowledge of landscape type and quality. No evidence is provided to support the claim that the site is reasonably typical of other landscape types found in surrounding areas of the Monaro, as well as landscapes within the wider regional context of the NSW Southern Tablelands." "The suggestion that the Monaro is similar to other landscapes in the NSW Southern Tablelands is not correct."
Response: Whilst underlying geology and local environmental factors have shaped the Monaro landscape into recognisable local features and forms; there are broader similarities between the landscape surrounding the Boco Rock wind farm site and landscapes that contain approved wind farm developments in other areas of the New South Wales Southern Tablelands. These similarities are apparent when comparing the panoramic photographs (LVIA Section 5) to panoramic photographs and photomontages prepared for other wind farm sites. Whilst photographs from other Environmental Assessments cannot be reproduced, there is a photograph which compares the Boco Rock and Capital Hill wind farm landscapes provided with the Benchmark Study (Figure 33). Similarities in landscape character areas surrounding the Boco Rock wind farm and previously approved wind farm developments in the New South Wales Southern Tablelands include: • Gently undulating landform, rising to steep hillsides and ridgeline areas; • Landscapes divided by rivers, drainage lines, dry gullies through valley areas; • Predominant grass cover, both improved and natural with the appearance of an agricultural economy (livestock grazing); • Sparse evidence of rural occupation, generally restricted to small townships and individual homesteads; and • Simple road system with some sealed surfaces but predominantly dirt and gravel roads. The LVIA identified 7 landscape character areas which generally occur within the viewshed of the wind farm and include: • Undulating grasslands; • River valley and drainage lines; • Broad river valley;

- Simple slope and ridgeline areas;
- Upland wetland and plateau;
- Timbered areas; and
- Settlements.

The LVIA desk top study confirmed that the landscape character areas identified within the wind farm viewshed also occur across portions of the surrounding Monaro landscape.

Whilst the LVIA identifies broader similarities in character between the landscape within the wind farm viewshed and those surrounding approved wind farm developments within the New South Wales Southern Tablelands, the LVIA identifies and acknowledges that the Boco Rock wind farm occurs within the wider context of the Monaro sub region of the Southern Tablelands, and within the sub alpine climatic region below and to the east of the Snowy Mountain Range.

The Monaro landscape, influenced by combinations of physical and environmental conditions, displays some characteristics that are commonly associated with the Monaro, including the large tracts of pastoral naturally tree-less grassy plains that occur within, and extend beyond, the wind farm viewshed. The natural tree-less grassy plains generally comprise remnant portions and modified areas of temperate montane grassland, a habitat type closely associated with the Monaro, but with smaller outlying occurrences located around Goulburn, Braidwood, Bathurst and Guyra in northern New South Wales. In this regard the Monaro landscape displays some characteristics that are likely to be limited in a State wide landscape context. Seven landscape character areas within the wind farm view shed have been identified, described and assessed in the LVIA and are generally representative of existing characteristics that occur within the surrounding Monaro landscape.

According to Hancock (Hancock, WK. (1972) Discovering Monaro, Cambridge University Press) the Monaro extends across 3 of the 141 New South Wales cadastral divisions and includes Wellesley, Wallace and Beresford which have a combined area of approximately 1,398,594 hectares.

The LVIA identified that the wind farm would be located on seventeen participating rural residential and farming properties totalling an area of approximately 11,700 hectares, which as a percentage represents less than 1% of the Monaro landscape.

The wind farm view shed within 15km of the wind turbines (Fig 18 of the LVIA report) extends across an area of approximately 148,500 hectares, or just over 10% of the Monaro landscape; however, the ZVI illustrated in Fig 18 of the LVIA demonstrates that the extent of turbine visibility to the tip of blade will be less due to the influence of surrounding topography. The more likely extent of visibility would extend across approximately 102,600 hectares, which represents around 7% of the surrounding Monaro landscape. As stated in the LVIA, the conservative nature of the ZVI would suggest the actual extent of visibility would be less.

The LVIA determined that the landscape within the wind farm viewshed had a Medium sensitivity to accommodate change, and that some landscape characteristics within the wind farm viewshed will be altered by the wind farm. The potential impact on the Monaro landscape as a whole, together with those landscape values and sensitivities identified in the LVIA, is considered to be an acceptable level of impact given the relatively small extent of Monaro landscape likely to be directly impacted by the wind farm site.

Submission Statement (2.29)

"The LVIA does not adequately cover the areas that are required of it…

The landscape report should be rejected in its entirety."

Response: The LVIA report has been prepared in accordance with the Director Generals Requirements (dated 1st June 2009) as issued by the New South Wales Department of Planning for the Boco Rock wind farm project

The LVIA has taken account of the guidelines within the Wind Farms and Landscape Values National Assessment Framework (Australian Wind Energy Association and Australian Council of National Trusts, June 2007).

The Boco Rock wind farm LVIA methodology has been adopted and applied to similar Part 3A Environmental Assessment projects assessed and approved by the New South Wales Department of Planning.

Submission Statement (3.12)

"The lack of any concession from the proponent that the largest wind farm development to be constructed in the Country will have any visual impact on our property, demonstrates either incompetence, or the dishonesty of deliberate omission."

Response: The Boco Rock wind farm is not the largest proposed or approved wind farm in Australia. The Silverton wind farm is the largest approved wind farm in Australia with Project and Concept Approval for around 598 wind turbines in the far west of New South Wales.

There are a number of other wind farm projects across Australia (at various stages in the development process) that would include a greater number of turbines than proposed at Boco Rock.

The LVIA assessed and determined that no wind turbines would be visible from within the Bellevue residence, with the closest turbine located around 7.4km west to north west of the residence.

The LVIA considers that if receptors are not normally present at a particular location, such as agricultural pasture areas, or they are screened by landform or vegetation, then there is likely to be a nil visual impact at that location. However, the LVIA acknowledges that people engaged in rural activities, including farming industries, may have a degree of sensitivity toward the wind farm development (as indicated in the LVIA Table 16).

The LVIA conclusion also acknowledges that:

> 'the wind farm may have the potential to impact people engaged in predominantly farming or recreational activities, where views toward wind turbines occur from surrounding and non-associated agricultural areas. Ultimately the level of impact would depend on the type of activities engaged in as well as the location of the activities together with the degree of screening provided by local landform or vegetation within individual properties.
>
> Whilst views toward the turbines will occur from a wide area of unoccupied rural agricultural land, the LVIA has determined that the sensitivity of visual impacts is less for those employed or carrying out work in rural areas compared to potential views from residential dwellings'.

Submission Statement (3.13)

"If night time lighting is required, this impact will extend beyond daylight hours. Given it is uncertain whether night lighting will be required, we are being asked to comment on a project where the full extent of the impact is as yet uncertain."

Response: The requirement for lighting would be subject to the advice and endorsement of the Civil Aviation Safety Authority (CASA). CASA is currently undertaking a safety study into the risk to aviation posed by wind farms and may develop a new set of guidelines to replace the Advisory Circular with regard to lighting for wind turbines that was withdrawn by CASA in mid 2008.

The LVIA has considered a number of issues relating to night time lighting, including existing night light sources, potential light sources, potential receptors and impact; however, the final level of impact can only be determined once the requirement for lighting has been determined and a detail

design has been completed.

Submission Statement (5.12)
"100 turbines will be visible from the [Residence] homestead area."
Response: The LVIA has included a number of Zone of Visual Influence (ZVI) diagrams that illustrate the wind farms potential extent of visibility. The ZVI are conservative as the screening affects of any structures and vegetation above ground level are not considered in any way. Therefore the wind farm may not be visible at many of the locations indicated on the ZVI diagrams due to the local presence of trees or other screening potential. While the ZVI diagrams are a useful visualisation tool, they are very conservative in nature. The ZVI diagrams for the '125' design layout (representing the layout with the greater extent of visibility) are illustrated in the LVIA Figures 18 and 19. Figure 18 illustrates the potential ZVI to 'tip of blade' and includes potential views toward any part of the turbine including the tip of a rotor blade that may be visible above a ridgeline or hill. Figure 19 illustrates the potential ZVI to the 'rotor face' and includes views toward the complete rotor diameter. Figure 18 indicates that around 80 to 100 turbines may be visible to 'tip of blade' from areas of landscape surrounding the respondent's residence. Views toward these turbines would also include views toward portions of turbines rather than complete wind turbine structures. Figure 19 indicates that around 60 to 80 may be visible to the rotor face from areas of landscape surrounding the residence. The closest wind turbine to the residence is located approximately 7.4km from the house, with a number of the turbines illustrated on the ZVI located more than 15km from the homestead. The LVIA determined that the wind turbines would not be visible from the within the residence, largely as a result of tree and garden planting to the west of the residence.
Submission Statement (5.13)
"Misleadingly the developer quotes statistics gathered by another company…in another area…to demonstrate local support for this enormous project."
Response: The LVIA reported the results from a number of perception studies carried out in Australia and overseas including the survey carried out for the Gullen Range wind farm. The Epuron Gullen Range wind farm survey targeted people living in a number of small urban and rural communities located in the area immediately surrounding the proposed Gullen Range wind farm as well as other communities surrounding potential future wind farm development sites in the Southern Tablelands Region of New South Wales. The Gullen Range survey is relevant to The Boco Rock wind farm as it canvasses opinions from communities within the Southern Tablelands Region, but the LVIA report has not used, or intended this study to demonstrate local community support for the Boco Rock wind farm. Local community perceptions and opinions were sought through a range of consultation activities described in Section 14 of the LVIA, and in more detail elsewhere in the Environmental Assessment.
Submission Statement (5.14)
"The developer happily quotes the statistic that 69% of the respondents to his Public Opinion survey (20 responses) supported the development whilst dismissing as "too small to determine an overall trend" the statistic that 60% of respondents to his Landscape Values questionnaire (22 responses)

considered the development would have a negative impact on the landscape.

The report fails to emphasise that a clear majority of local residents completing a survey indicated that the development would have a negative impact on the landscape."

Response: The LVIA clearly states that the number of responses to the Public Opinion Surveys and the Landscape Values Questionnaires are both too small to determine any trend in overall positive or negative support for the wind farm development amongst the wider community.

The results of the Public Opinion Surveys and the Landscape Values Questionnaires are presented (without bias) in Section 14 of the LVIA.

The LVIA clearly records the results of the Public Opinion Survey and Landscape Values Questionnaire completed and returned by the community. Approximately 1,860 surveys were distributed during the door-knocking of neighbouring residences, targeted mail-outs to the local area and at the public Open Day. The results are included in Section 14 of the LVIA.

In summary the results were as follows:

From a total of 20 Public Opinion Surveys received by the Proponent:

- 15 respondents supported the Boco Rock wind farm development
- 3 respondents did not support the Boco Rock wind farm development; and
- 2 respondents were undecided.

The three respondents who did not support the wind farm development cited issues with views, spoiling the landscape/wildlife issues and spoiling the scenery.

From a total of 22 Landscape Values Questionnaires received by the Proponent:

- 13 of the respondents considered that the Boco Rock wind farm development would have a negative impact on the landscape; and
- 9 of the respondents considered that the Boco Rock wind farm development would have either a neutral or positive impact on the landscape.

Whilst 1,860 surveys were distributed by the various methods listed above, only 42 completed surveys were returned. This would therefore imply that greater than 97% of the recipients did not feel strongly enough one way or another to comment on the potential impact of the wind farm on the surrounding landscape.

The LVIA also notes that an informal straw poll was carried out by the on-line version of the Cooma-Monaro Express (11th October 2007), which posed the question: 'Should Monaro have wind farms?' From a total of 119 respondents 75% agreed that the Monaro should have wind farms, 23% of respondents disagreed and 2% were undecided.

Submission Statement (2.30)

"The report is incorrect when it indicates that views of the Snowy Mountains will not be damaged.

There are some of the most magnificent views…which will be irreparably damaged, which include all district roads and many places in Nimmitabel."

Response: The LVIA has assessed 92 residential receptor locations and 25 public receptor locations. The LVIA has not identified any views toward the Snowy Mountain Range from these receptor locations that will be potentially 'damaged' by the wind farm.

Section 5 of the LVIA includes annotated panoramic photographs from 55 locations surrounding the wind farm site, including views west toward the Snowy Mountain Range.

An assessment of the potential visual impact of the wind farm has included the majority of local and surrounding roads as well as views from Nimmitabel. The LVIA determined that the majority of views

toward the wind farm from within Nimmitabel are screened by buildings and tree cover.

A small number of residences located on elevated ground to the east of Nimmitabel may have potential distant views toward a small number of turbines within the eastern portion of the wind farm project area. Annotated panoramic photographs from these locations are included in LVIA (Section 5).

Submission Statement (2.31)

"The Snowy River Way is a tourist route… for the landscape expert not to acknowledge the nature of the road, the views from it…is extraordinary."

Response: Views and potential visual impacts from the Snowy River Way have been included and assessed in the LVIA.

Section 5 of the LVIA includes annotated panoramic photographs from portions of the Snowy River Way, including photo locations:

- B19 – View east to south east from the Snowy River Way;
- B20 - View east to south east from the Snowy River Way;
- B28 – View west to north from the Snowy River Way;
- B29 – View west to north west from the Snowy River Way;
- B30 – View west to north west from the Snowy River Way, Maclaughlin River crossing;
- B44 – View east to north east from Snowy River Way crossing Sherwins Range ridgeline;
- B49 – View west from the Snowy River Way (off the Monaro Highway);
- B51- View west from the Snowy River Way;
- B52 – View west from the Snowy River Way; and
- B53 – View west to north west from the Snowy River Way.

The locations of the panoramic photographs depicting views from the Snowy River Way are illustrated in the LVIA (Fig 5 – Panoramic Photo Locations).

In addition to the panoramic photographs, four photomontages (B and C for both the '125' and '107' design layouts) have been prepared from view points along the Snowy River Way. The photomontages locations are illustrated in the LVIA Fig 23. The photomontages are included in Figs 25, 26, 31 and 32.

In addition to the panoramic photographs and the four photomontages, the LVIA identified and assessed potential views from 10 individual receptor locations along the Snowy River Way. These view points are illustrated in the LVIA (Fig 22 – Selected Public Receptor Locations), and assessed in the LVIA (Table 18 – Selected Public Receptor Matrix). These receptor locations include:

- P10
- P11
- P13
- P14
- P15
- P16
- P17
- P19
- P20
- P21

Given the above, we believe that the LVIA has adequately acknowledged and assessed both the nature of the Snowy River Way as well the views from it.

Submission Statement (7.8)

"The transit corridor created by Snowy River way in the vicinity of Sherwins range requires some protection. The turbines should be pushed back from the road a minimum of 1 km each side. Snowy River way is a designated tourist route."

Response: Whilst the Snowy River Way is designated a tourist route, this in itself does not appear to be a statutory requirement for the creation of a 1km buffer either side of the Snowy River Way road corridor. Whilst some tourists may not be primarily travelling along the Snowy River Way to view the wind farm development, the wind turbines will create a point of interest for those wishing to gain a view of operational wind turbines and for those tourists with a general interest in renewable energy. A number of existing Australian wind farm developments cater for tourist visitation, creating visitor centres, display material and dedicated lookout points.

The Proponent notes that from the point at which the Snowy River Way crosses the Sherwin Range the wind turbines are generally set perpendicular to the road alignment, therefore the turbines will tend to become a rear view for motorists and passengers as vehicles cross the Range from an east or west direction.

The level of visibility is unlikely to be significantly reduced at a distance of 1 km from the Snowy River way and the LVIA notes that at a distance of 1 km or less the 'wind turbines would dominate the landscape in which they are situated…and would result in a high level of visibility'. It is not clear what level of required protection is desired, or could be achieved by a 1 km buffer. The Proponent therefore sees no reason to implement a 1 km buffer zone to either side of the Snowy River way.

Submission Statement (2.32)

"The expert strays from the experts presumed area of expertise to assert that the development should proceed as it is for the public benefit."

Response: The expert does not assert that the development should proceed as it is for the public benefit.

The LVIA (Section 14.4) states that whilst visual perceptions and attitudes of local communities are an important issue, and need to be assessed locally in terms of potential landscape and visual impacts, there is also an issue of the greater potential public benefit provided by renewable energy production.

This statement is supported by the quotation from Chief Judge Justice Preston in regard to the 2006 Land & Environment Court decision to confirm the wind farm at Taralga.

The LVIA acknowledges that 'whilst the exact circumstances between the Taralga wind farm and the proposed Boco Rock wind farm may differ, the comments provided by the Chief Judge clearly state the need for the broader public good to be put before the potential negative impacts on some members of the local community'.

Submission Statement (2.33)

"The report fails to address the landscape and other problems which will arise…when land is subdivided near the development."

Response: The LVIA report considers issues relating to the potential future subdivision of land (Section 8.4 -Future Residential Receptors).

Submission Statement (14.3)

"The suggestion here is that the site is surrounded by hills which attract poor weather.

The turbines are 'unlikely' to be seen from the Alps due to distance whereas the Alps are unlikely to be seen from the turbine site due to poor weather.

If visibility in wet conditions or cloud cover or even a blizzard were the only test of the adverse

impact of an industrial development on a landscape, we would have turbines all over the Snowy and Blue Mountains."

Response: The LVIA states that local climatic and atmospheric conditions (principally rain and cloud) have the potential to influence the visibility of the Boco Rock wind farm from surrounding receptor locations, and more significantly, from distant receptor locations.

The LVIA has included statistics from the Bureau of Meteorology, collected over the past ten years at the Nimmitabel Wastewater Treatment Facility which indicates that there are:

- 102 clear days (annual mean average)
- 118 cloudy days (annual mean average)
- 81 days of rain (annual mean average)

We can find no statement or suggestion in the LVIA, directly or otherwise, that local hills attract poor weather.

At a distance of around 74km it is 'unlikely' that the wind turbines will be visible from elevated portions of the Snowy Mountain Range.

Periods of rain (81 days annual mean average) and cloudy days (118 days annual mean average) will tend to reduce the overall visibility of the Snowy Mountain Range from elevated areas surrounding the wind farm site.

We do not believe that wet or cloudy conditions are (or should be) the only test of adverse impact of a development on the landscape, as is demonstrated by the comprehensive nature of the LVIA.

Submission Statement (14.4)

"So the onus is on the landscape to integrate with $750m worth of turbines… and the degree of impact will depend on how well it succeeds."

Response: The LVIA (Section 6) sets out a clear and structured approach in the assessment of landscape sensitivity which the LVIA defines as 'the degree to which a particular landscape character area can accommodate change arising from a particular development, without detrimental effects on its character'.

Submission Statement (14.5)

"The summary of the LVIA implies that 'this' part of the Monaro is somehow separate to the rest."

Response: 'This' part of the Monaro refers to the area surrounding the wind farm site and within the viewshed of the wind farm as illustrated in the ZVI diagrams. The LVIA does not imply that this area is separated from surrounding areas of the Monaro which, as part of the Southern Tablelands, is defined by Cooma in the north, Nimmitabel in the east, Ando/Bombala in the south and Dalgety/Berridale in the west.

Submission Statement (14.6)

"Obfuscating language on the crucial question of visibility."

Response: The LVIA clearly sets out and describes differences in perception from both static and dynamic view points.

Views from vehicles travelling along many of the local roads, including the Snowy River Way, pass through undulating landscape (and more so to the east of the Sherwin Range) where the extent and direction of view is largely determined by the nature of surrounding landform. As a dynamic view

(i.e. from a moving vehicle) the spatial arrangement of the view is likely to change rapidly. Overall when viewed from more elevated and static view points, the landscape is 'large scale and open' in appearance.
Submission Statement (14.7)
"Painting turbines 'other colours' as mitigation."
Response: Consideration of turbine colour is an option to minimise visual contrast; however, the LVIA has not canvassed any idea of 'other colours' and clearly states an 'off-white' or 'grey' structure as opposed to white. The availability of turbine colour is largely dependent on the manufacturers of the turbine structures.
Submission Statement (14.8 and 2.34)
"Not content with planting 127 of these 150m high wind turbines on a large swathe of the Monaro, they now undertake to alter it even further by introducing vegetation screening in a region characterised by its almost total and natural absence of vegetation other than grass." "The report suggests that wind turbines can be screened by planting vegetation. Planting vegetation is easier said than done. Trees take many years to reach maturity if they grow at all."
Response: An approval is being sought for a maximum of 125 turbines, and not 127 as stated in the submission. Tree planting is one method by which views toward the proposed wind farm could be mitigated, and despite the prevailing environmental conditions, the LVIA notes that the majority of the 92 individual residences assessed by the LVIA already have various groups or lines of tree planting immediately surrounding them to provide shelter against inclement weather conditions which, in some cases, will also screen views toward the proposed wind farm. The opportunity for individual neighbouring properties to install screen planting around buildings, where planting around buildings is already commonplace, is unlikely to alter the regional character even further. The LVIA panoramic photographs (Section 5) illustrate that varying areas and densities of tree cover already occur across portions of the wind farm site as well as surrounding areas.

Chapter 9: Noise

Submission Statement (2.27)
"Volume 3 Appendices, A8 Noise Impact Assessment: No information is given as to who is to monitor and make decisions on unacceptable noise."
Response: It is the NSW Department of Planning's responsibility, as the consenting authority, to undertake to deal with any noise complaints made concerning the wind farm. All such noise complaints should be directed to the NSW Department of Planning for consideration in the first instance. Should a complaint about noise be lodged then the Proponent will assess, monitor and ultimately mitigate for any noise impacts as per the Statement of Commitments 009-013.

Chapter 10: Flora and Fauna

Refer to Section 4 for the flora and fauna response.

Chapter 11: Cultural Heritage

Submission Statement (10.1)
"DECCW recommend a program of salvage archaeological excavation and analysis be undertaken in a sample of the survey units prior to construction. DECCW also suggest the preparation of a Cultural Heritage Management Protocol which documents the procedures to be followed for impact avoidance or mitigation."
Response: These recommendations are in line with the Statement of Commitments 037-042 so we offer no further comment.

Chapter 12: Traffic and Transport

Submission Statement (6.1)
"The RTA requests clarification of the likely traffic movements at the following junctions throughout the duration of the construction period, including peak volumes: • Monaro Highway and Springfield Road • Monaro Highway and the Snowy River Way • The Snowy River Way and Avon Lake Road • Any accesses along the Snowy River Way proposed to be used for the subject development. The traffic study should identify existing treatments for the above junctions and where necessary, outline works required to ensure that the safety and efficiency of the classified road network is not compromised by the development, particularly during the construction period."
Response: The Proponent will provide this information within the Traffic Management Plan (see Statement of Commitment 044) prior to commencement of construction once the turbine specification, including transportation loads and frequencies, is known. Different turbine designs may require fewer/greater component transportation runs and construction vehicle movements, which can be identified once the turbine contract has been let.
Submission Statement (6.2)
"The RTA is concerned that the proponent is proposing to use an access point with deficient sight distance and create a new access also with deficient sight distance. To ensure road safety is not compromised, the RTA considers that any access to the Snowy River Way proposed for the subject proposal must have safe intersection sight distance (SISD) available in both directions in accordance with the RTA Road Design Guide. Based on this, the RTA requests revised access points be identified that have SISD in both directions."
Response: The Proponent will review the access point at this location and amend it in accordance with the RTA's requirements during the development of a Traffic Management Plan. Any proposed new access point will be agreed with the RTA to ensure that it meets the required SISD before construction starts. This forms the basis of the new Statement of Commitment 112.
Submission Statement (7.2)
"Boco Road is currently owned and maintained by Council. The traffic study (Appendix A of Appendix 12 of the Environmental Assessment) identifies that a significant portion of Boco Road will be used by the development however this is not consistent with the Project Description, section 3."

Response: Appendix 12(A) of the Environmental Assessment does identify Boco Road as a major access route, however the letter from Bega Duo Designs dated 30th April 2009 states that during investigations for the Traffic and Transport Study (Appendix 12 of the Environmental Assessment) it became obvious that the existing access to the Boco Cluster, using Boco Road, had a number of constraints. This is why Section 3.5.3 discusses the use of an internal link road instead of the use of Boco Road.

Submission Statement (7.3)

"In addition to any road construction requirements a general maintenance levy of 10c per ton per kilometre should be required as a condition of consent. This levy must extend for the life of the project, be adjusted annually by CPI and also recognise the impacts of decommissioning of the development."

Response: The Proponent is prepared to upgrade and maintain the roads used for the duration of the project to the required standard in accordance with the Environmental Assessment and Statement of Commitments (043 - 050). In particular Statement of Commitment 046 states the Proponent will:

> "Prepare road dilapidation reports covering pavement and drainage structures for all of the routes before and after construction. Any damage resulting from construction traffic, except that resulting from normal wear and tear, would be repaired at the Proponent's cost. Alternatively, the Proponent may negotiate other forms of compensation for road damage with the relevant roads authorities as appropriate."

Also during operation and maintenance of the Project, as discussed in Section 12.3.2, operational traffic will be restricted to maintenance and inspection vehicles, or other traffic use (e.g. visitors), which will make periodic visits. Bulldozers/graders could be needed on an infrequent basis for maintenance of access roads during the life of the Project. Also if a significant turbine component requires replacement during the operation of the wind farm, then larger vehicles such as a crane or semi-trailer would be required but on an extremely limited basis.

Therefore, the Proponent does not agree with an ongoing charge for use of public roads, due to the complexity of working out such a calculation, the significant reduction of traffic volume during operation and maintenance, and the unnecessary financial burden it would place on the Project.

Submission Statement (8.1)

"To ensure that these roads are trafficable at all times by the community, and due to the impact loads will have in all weather conditions, it will be required that the roads are maintained to an all weather standard during the construction of the project."

Response: The Proponent will undertake an assessment of all roads to be used during the construction, operation and decommissioning of the project. This will consist of a dilapidation report as per Statement of Commitments 046, a Traffic Management Plan as per Statement of Commitments 044, and ensuring that all roads are maintained in a safe and appropriate condition for all weather use.

Submission Statement (8.2)

"Council would insist on Springfield Road being sealed from the current end of the sealed formation to a point past the intersection of Avon Lake Road to maintain all weather access, and beyond if traffic demand requires."

Response: The Proponent will prepare a dilapidation report as per Statement of Commitment 046 to

ensure that all roads are maintained to the appropriate standard. The Proponent will discuss the need to seal this section of road with the Council during the construction stage of the project. If the section does need to be sealed, then in accordance with Statement of Commitments 044 and 046 the roads will be maintained in a safe and appropriate condition for all weather use.
Submission Statement (8.6)
"Roads affected by the development are to be left in a newly sealed condition, without pavement failures and to the standards required by Councils Development Control Plans and Engineering Standards."
Response: Please refer to Submission Statement 8.2 (page 34) for the sealing of roads.

Chapter 13: Aviation Assessment

Submission Statement (2.21)
"Clauses 13.2.5 and 13.2.6 The wind turbines pose a substantial risk to all types of aircraft, but in particular to agricultural aerial spraying aircraft which are required to fly between them."
Response: In Section 13.2.5 the Argus Consulting Group summarised the relative risk to aviation and operations: > "There is nothing preventing an aerial application aircraft from flying between the towers given that the closest pair is approximately 300m apart. Given that aerial application aircraft routinely fly close (within 5m) to obstacles such as trees, power lines, radio towers and any other obstacle found in a rural environment, it is reasonable to expect that a pilot would be able to safely manoeuvre about these obstacles." Section 13.2.5 also says agricultural operations that involve low level flying can only occur in good conditions (high visibility) in accordance with the aviation regulations, where wind turbines would be highly visible. Aerial operators are engaged in low level flying and agricultural operations are required to undertake a risk assessment for each flight. This would identify specific hazards such as trees and power lines. Wind turbines would be treated no differently. Therefore the operation of low flying aircraft in the vicinity of wind turbine does not represent an unacceptable risk if normal operational procedures are followed.
Submission Statement (4.6)
"Wind Prospect has not made itself aware of the location of the airstrip on our land, and it appears that airstrip is not even considered as a "known landing ground" in the aviation assessment forming chapter 13 of the Environmental Assessment."
Response: Chapter 13 discussed the impact of the Project on all forms of aviation activities that were identified during planning and design through consultation with relevant aviation bodies and the local community. The chapter discusses aviation activity in the Study area, potential impacts from the Project and appropriate mitigation actions. While the respondents landing ground was not identified during discussions with the respondents family, Chapter 13 adequately addresses the associated risks of operating from such an airstrip. Given that the nearest wind turbine is 900m from the respondents boundary, which is the closest possible point where the airstrip could be located, there is unlikely to be any adverse impact on its

use or the safety of aircraft.
Submission Statement (3.2)
"The proximity of turbines to our airstrip will increase the cost of aerial agricultural operations… Of a more specific nature is the airstrip, where the siting of turbines will increase the cost of aerial operations, due to a more indirect route required to be taken after takeoff. The proponent had verbally suggested they would compensate if this were the case, however there is no indication of this in the Project Application."
Response: Based on the results of independent assessments, as shown in Chapter 13, there should be no additional costs associated with agricultural spraying by air. However, the Proponent agrees to mitigate for any adverse impact should costs be shown to increase due to the presence of the wind turbines. This forms the basis of the new Statement of Commitment 111.
Submission Statement (15.8)
"In relation to the airstrip the Project application states,…"an increased risk to safety and possible increase in the cost of aerial spraying activities during the construction and operational phases of the Project…"No provision has been made for increased costs."
Response: The Proponent is prepared to mitigate for any increase in aerial spraying costs should costs be shown to increase due to the presence of the wind turbines. However it was noted that the level of risk and expense are a function of an aerial operator's experience and competence, and that physical features such as trees and power lines are everyday obstacles that are avoided. As such the proximity of wind turbines in the vicinity of Landing Ground 01 or other airstrip should be considered no differently.
Submission Statement (13.1)
"… as long as the proposed Boco Rock Wind Farm has not changed from that proposed for assessment in October 2008 last year, Airservices does not have any further interest in the proposed Wind Farm. However, if the proposal has changed, it will have to be formally assessed again by Airservices."
Response: The Proponent discussed all modifications to the proposed Boco Rock wind farm with Airservices Australia in July 2009. This included the revisions to the number of turbines, the two proposed layouts and the increase in turbine height. Airservices Australia accepted all changes in an email dated 20th July 2009 and there have been no other alterations since that time.

Chapter 14: Communication

No responses received.

Chapter 15: Electromagnetic Fields

Submission Statement (2.22)
"Chapter 15 refers to the dangers to human health of exposure to electric and magnetic fields, but no mention whatever is made of the dangers to the health of animals."
Response: Chapter 15 refers to the theoretical health impacts and possible mitigation strategies for Extremely Low Frequency electromagnetic fields generated by the operation of a wind farm. All

associated literature and guidelines are related to limits of exposure to electric and magnetic fields which focus on workers and the public. No mention is made about the theoretical health impacts on animals in the Environmental Assessment, as this is not a requirement of the DGR's, and all associated guidelines and research papers are focused on human health. All cabling will be insulated, buried to a depth of 1m where possible and installed in accordance with Australian Standards for safe operation. All other electrical infrastructure will likewise be designed to Australian Standards. Given that the presence of electric and magnetic fields is deemed suitable for human exposure it therefore supposes that animal exposure is likewise acceptable.

Chapter 16: Fire and Bushfire Impacts

Submission Statement (2.12)
"Clause 3.9.11 An amended EA should be prepared to indicate precisely how a fire on a turbine is to be extinguished and by whom, and whether the Rural Fire Service is to be compensated in any and, if so, what way for the extra work that service will be required to perform by reason of the development."
Response: Section 16.3.3 discusses the operation of wind turbines and the potential for fires. A fire in a modern wind turbine is rare and dedicated monitoring systems (e.g. SCADA) enable turbines to be automatically shut down if ambient temperatures exceed the safe operating range, or if components overheat. Other remote alarming and maintenance procedures are required for electrical faults, which can still occur within the tower or nacelle creating a fire. In Chapter 20, Statement of Commitments 067 and 068, refer to the Proponent consulting RFS and NSW Fire Brigade to determine site access and response protocols in the event of a fire originating within the Project infrastructure. So in addition to the Proponents fire mitigation plans for the potential for infrastructure to catch fire, the RFS and NSW Fire Brigade will also be called in to assist with the fire if required. Any loss or damage caused by the wind turbines, whether by fire or other means, would be subject to insurance claims and appropriate compensation to the affected parties.
Submission Statement (2.23)
"Clause 16.4 refers to "a minimum of one trained person on-site" in respect of fire fighting. The EA implies elsewhere that there will be no staff ordinarily at the site. The EA should be amended to specify what staff will be at the site, when and for what purpose."
Response: During the construction and decommissioning phases basic fire fighting equipment will be provided at each active site suitable for first response actions, with a minimum of one trained person on-site at all time. During the operational phase there will not normally be anyone present at the wind farm. When necessary, any maintenance or other on-site staff will also carry basic fire fighting equipment and have a minimum of one trained person capable of carrying out first response actions to any fire.

Chapter 17: Water

Submission Statement (2.24)
"No assurance is given that the groundwater will not be diminished as a result of construction or at any time thereafter, considering that it is proposed that foundations never be removed. Further, no monetary or other security is being offered by the proponent and all risks forever are apparently to

be borne by all persons other than the proponent."
Response: The Proponent will prepare a Soil and Water Management Plan in accordance with Statement of Commitments 081. This will ensure that the construction, operation and decommissioning of the wind farm will have no long-term, unacceptable impact on water sources in the vicinity of the development. The Proponent will mitigate for any impacts which occur as a result of unknown eventualities for the duration of the project and ensure there are no long-lasting impacts beyond decommissioning as per Statement of Commitments 082 and 083.
Submission Statement (1.1)
"I&I NSW concurs with the proposed safeguards and mitigation measures to minimise environment impacts, in particular those related to surface water, groundwater and riparian protection detailed in sections 17 and 20 of the EA. All the proposed safeguards and mitigation actions listed in the EA and Appendices should be included in any project approval, and listed in the Construction and Operation Environmental Management Plans (CEMP and OEMP) and fully implemented by the proponent and its contractors."
Response: The Proponent will prepare a Soil and Water Management Plan covering the entire life of the wind farm, as detailed in Statement of Commitments 081-083. The plan will ensure that there is no adverse environmental impact related to ground or surface water.
Submission Statement (1.2)
"I&I NSW concurs with the proposal to upgrade the existing causeway road crossing of the McLaughlin River on site to install box culverts, which will improve fish passage at this location (section 3.5.3 of EA). I&I NSW recommends that any project approval require that the design and construction of this upgraded waterway crossing, and any other access track crossings of on-site waterways, be undertaken in accordance with I&I NSW's *Policy and Guidelines for Fish Friendly Waterway Crossings* (2004) and *Why Do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings* (2004)."
Response: Statement of Commitment 047 confirms the requirement to upgrade the causeway to provide improved migration opportunity for fish in the MacLaughlin River.
Submission Statement (12.1)
"Before commencing any works or using any existing works that capture surface water the proponent is to ensure the relevant licences are obtained from the NSW Office of Water [NOW] under the *Water Act 1912* or *Water Management Act 2000* whichever is applicable."
Response: The Proponent, as contained within Statement of Commitment 103, will ensure that all required licences and/or permits are obtained prior to commencement of works which capture surface water during the construction and operation of the project.
Submission Statement (12.2)
"Before commencing construction of any groundwater work or using any existing works for the purpose of groundwater extraction, the proponent is to ensure the relevant licences are obtained under the *Water Act 1912* from the NSW Office of Water."
Response: The Proponent, as contained within Statement of Commitment 103, will ensure that all required licences and/or permits are obtained prior to commencement of works which involve groundwater extraction during the construction and operation of the project.

Submission Statement (12.3)
"The NOW recommends that the design of waterway crossings, culverts and any in-stream works be submitted to NOW in a Surface Water Management Plan for endorsement to ensure consistency with NSW Government policy and/or guidelines prior to construction."
Response: The Proponent will prepare a Soil and Water Management Plan for approval by NOW prior to construction, as detailed in Statement of Commitment 081 to 083.
Submission Statement (12.4)
"The NOW requests a groundwater investigation be undertaken prior to blasting activities in consultation with NOW, to assess the risk of impact on existing licensed groundwater users and groundwater dependent ecosystems. If appropriate, this investigation should be accompanied by suitable mitigation measures."
Response: The Proponent agrees to undertake a groundwater investigation prior to blasting activities and to implement mitigation measures or alternative construction practices as appropriate. This forms the basis of the new Statement of Commitment 114.

Chapter 18: General Environmental Assessment

Submission Statement (7.4)
"There is insufficient detail relating to the location of internal roading relative to crown road reserves."
Response: Section 18.5.3 states it may be necessary to transfer a Crown Road to Council for discrete sections of land that are to be affected by the proposed development. To date the only area where this has been identified is within the Cooma-Monaro Shire and that would be the Crown Road access to Lot 7301 DP 1139914. The Proponent is prepared to cover the cost of the Council adopting Crown Roads and the cost of maintaining them for the duration of the Project, if it is necessary to do so.
Submission Statement (8.3)
"Clarification is sought as to the use of any Crown Roads for the project and as to whether any improvement works on Crown Roads will require their dedication to Council, which creates a long-term maintenance legacy for Council. …. In addition, a payment for amortised maintenance costs over the life of the project will be required."
Response: There are currently no Crown Roads which the Proponent plans to use within the Bombala Shire Council area. Detail on the issue of Crown Roads is provided in section 18.5.2 which explains that such roads will, where appropriate, be transferred into the respective landowner's ownership. However the Proponent is prepared to cover the cost of the Council adopting Crown Roads and the cost of maintaining them for the duration of the Project, if it is necessary to do so.
Submission Statement (1.3)
"I&I NSW notes in the EA (Chapter 19, p236-237) that the proponent has contacted exploration companies that hold current titles within the subject area … I&I NSW notes (Chapter 20, p 270) that the proponent has committed to ongoing liaison with current title holders to advise them of any modifications to the project design. In addition, at the time of decommissioning, the proponent will consult with landowners and mineral title holders to discuss retention of access roads within the

project area.
Response: The Proponent will continue to liaise with exploration companies and relevant title holders throughout the construction, operation and decommissioning of the proposed wind farm. This is outlined in Statement of Commitments 105 and 106.
Submission Statement (1.4)
"I&I NSW requests that final turbine and infrastructure layouts be provided to the Department once they become available."
Response: Final turbine and infrastructure layouts will be provided to all relevant organisations, including I&I NSW, once they have been finalised. This forms the basis of the new Statement of Commitment 115.
Submission Statement (1.5)
"The [I&I NSW] supports the sourcing of sand and gravel required for construction of the project from local quarries (Chapter 3, p 42). It is important that the proponent continues its efforts to minimise constraints on access for mineral exploration."
Response: The Project will source all sand and gravel from local quarries where possible in order to ensure that licence holders for mineral exploration are not adversely affected or impeded.
Submission Statement (1.6)
"Management of weeds should be considered as part of the EA for the wind farm. Weeds can be introduced from equipment and will take hold on disturbed areas, particularly access roads, areas for cabling and disturbed areas around the base of each turbine. Mitigation measures for managing weeds should be included in the Environmental Assessment."
Response: Statement of Commitment 014 outlines the creation of a Weed Management Plan for the control and suppression of weeds during the life of the wind farm.

Chapter 19: Socio-Economic

Submission Statement (2.25)
"In clause 19.1 the proponent concedes that there is "some risk of property value impacts" resulting from the development, but offers no compensation whatever to owners of nearby properties."
Response: The issue of compensation in relation to properties affected by the impacts of wind farms was discussed in the Land and Environment Court of NSW decision in *Taralga Landscape Guardians Inc v Minister for Planning and RES Southern Cross Pty Ltd* (2007) 161 LGERA 1 (*Taralga*). That judgment provides appropriate guidance and can equally be applied in relation to the Boco Rock Wind Farm project. His Honour Chief Justice Preston determined that, although it is necessary to consider elements of public interest and public policy issues associated with the proposal, monetary compensation is not appropriate where: • the proposed windfarm is a private development on land upon which it is a permissible use; and • the potential adverse impacts of the development can be mitigated by ameliorative works, such as landscaping/ screening vegetation.

The Court held that:

> "*Creating such a right to compensation ... would not merely strike at the basis of the conventional framework of landuse planning but would also be contrary to the relevant objective of the Act, in s5(a)(ii), for 'the promotion and co-ordination of the orderly and economic use and development of land'*."

His Honour concluded that in cases where the impacts of the proposal on nearby properties are so significant and severe and there is no viable opportunity to ameliorate them, it is appropriate to require the proponent, by way of condition of consent, to purchase the properties at market value if so required by the landowners. However, it would not be reasonable to impose on the proponent the onerous acquisition regime contained in the *Land Acquisition (Just Terms Compensation) Act* 1991.

The assessment of the Boco Rock Wind Farm, as shown in the Environmental Assessment and Statement of Commitments, indicates that all potential adverse impacts on nearby properties can be mitigated. No property within the proximity of the wind farm is considered sufficiently impacted to require compensation of any form.

Submission Statement (2.26)

"Clause 19.1.1 contains the proponent's suggestion that the decision of the court in the Taralga case is relevant to this application and means that neighbouring landowners are not entitled to compensation. All these assertions are incorrect."

Response: The Land and Environment Court decision in Taralga sets a precedent and is an authority that may be relied upon by proponents of wind farms in relation to potential mitigation measures associated with the impacts of wind turbines on nearby properties. The Proponent has, through its preparation of the Environmental Assessment of the Boco Rock Wind Farm, considered the impacts on nearby properties and concluded that all potential impacts can be ameliorated and that no property is sufficiently impacted to warrant any monetary compensation.

Submission Statement (3.1)

"Part of the family landholding is a 3600 ha property, which currently has no residence. Our ability to build a residence on this property would be severely impeded by the proposed turbine development…The proximity of turbines to potential sites for further residences will severely impact our ability to develop the property."

Response: The proposed Boco Rock Wind Farm does not exclude any landowner from building new residential dwellings on their property, subject to appropriate planning consent. The presence of wind turbines may determine which locations are more suitable for residential development, based on potential noise and visual impact. The issue is addressed in Chapter 4 and Section 19.1 of the Environmental Assessment.

Submission Statement (3.4)

"It is our view, and that of rural real estate agents we have consulted, that the overwhelming visual impact, and impediments to further development, would have a substantial impact on the market value of the property."

Response: Section 19.1 of the Environmental Assessment covers the potential impact of wind turbines on land value, including recent independent reports exploring the matter. The most recent report by the NSW Valuer General (*Preliminary Assessment of the Impact of Wind Farms on Surrounding Land Values in Australia, August 2009*) investigated eight wind farms, two in NSW and

six in Victoria.

"The main finding was that the wind farms do not appear to have negatively affected property values in most cases. Forty (40) of the 45 sales investigated did not show any reductions in value. Five (5) properties were found to have lower than expected sale prices (based on a statistical analysis). While these small number of price reductions correlate with the construction of a wind farm further work is needed to confirm the extent to which these were due to the wind farm or if other factors may have been involved."

This section also states that many factors can influence the perceived and actual property value. In most rural areas the main determinant for property and land values is the agricultural productivity of the land, both to sustain animals and to grow crops. Such productivity is not linked to the development of a wind farm in the area, but is dependent on the innate quality of the land and the farming practices used in operating an agricultural business upon it.

The Boco Rock Wind Farm has assessed the potential visual and noise impact on the surrounding area and deemed them to be acceptable within current guidelines. There is no reason to presume that the wind farm will affect the market value of any nearby properties.

Submission Statement (3.5)
"While the impact on our properties is completely ignored in the project application, it is interesting the developer recognised the impact on neighbouring properties in his own submission to the Rural Senate Inquiry, "the project cannot be developed without some risk of property value impacts during the constructional and operational phases". (E. Mounsey 2009)"
Response: The impact on all properties within the vicinity of the wind farm is covered by the appropriate chapters of the Environmental Assessment. Any new development will have an impact on its surroundings, regardless of the actual nature of that development. The significance of such impacts depends very much on the size and scale and whether those impacts are permissible/acceptable. In the assessment of the Boco Rock Wind Farm, the Proponent has determined through detailed investigation that the risk to property values is minimal given the size and scale of the development. This is in line with the details of section 19.1 of the Environmental Assessment and the NSW Valuer General report (also see response Submission Statement 3.4, page 41).
Submission Statement (5.6)
"Wearing a substantial reduction in the market value our property"
Response: Please refer to the response to Submission Statement 3.4 (page 41) regarding potential impact on property market values.
Submission Statement (5.7)
"Losing the potential to profitably develop it in the future"
Response: Please refer to the response to Submission Statement 3.4 (page 41) regarding potential impact on property market values and Submission Statement 3.1 (page 41) regarding future development.
Submission Statement (5.8)
""the project cannot be developed without some risk of property value impacts during the constructional and operational phases" (E. Mounsey, submission 67, NSW Senate Rural Wind Farm

Inquiry 2009)."
Response: Please refer to the response to Submission Statement 3.5 (page 42) regarding the response to the RWF Inquiry.
Submission Statement (5.9)
"Chief Justice Preston in his ruling in Taralga Landscape Guardians vs Minister for Planning, acknowledged the detriment to property amenity even while refusing to award compensation on the basis that "*any otherwise compliant project which had some* impact in lowering the amenity of another property *would be exposed to claim*".... leaves the proponent with a clear obligation to mitigate the impact of the development on our property."
Response: Please refer to the response to Submission Statement 2.25 (page 40) which details the issue of the Taralga judgement with respect to compensation. The Boco Rock Wind Farm Environmental Assessment, in particular the chapters on Landscape (Chapter 8) and Noise (Chapter 9), demonstrate that the development will have no adverse impact on nearby property.
Submission Statement (7.6)
"The proposed community contribution of $2,500 per turbine per year is considered insufficient given the impact of the development on the unspoilt unique nature of the location."
Response: The contribution per turbine to a Community Fund is a voluntary commitment to provide financial opportunities for the wider community, enabling them to benefit indirectly from the Boco Rock Wind Farm. The proposed figure of $2,500 per turbine, linked to CPI, has the potential to provide between $267,500 and $312,500 per annum based on the two proposed layouts. This figure is in line with other recent developments and provides a substantial amount of money to support new and ongoing community schemes in the local area.
Submission Statement (8.7)
"The stated figure of $2,500 per tower per year be increased to a higher level to reflect the project applicant's commitment to provide tangible offsets against the real and perceived visual and environmental impacts on the locality."
Response: Please refer to the response to Submission Statement 7.6 (page 43) regarding the contribution to the Community Fund.
Submission Statement (9.3)
"The developer recognises the impact on neighbouring properties in his own submission to the Rural Senate Inquiry, "the project cannot be developed without some risk of property value impacts during the constructional and operational phases". (E Mounsey 2009) It is interesting to note that nowhere in the development application is this acknowledged."
Response: Please refer to the response to Submission Statement 3.5 (page 42) regarding the response to the RWF Inquiry.
Submission Statement (2.17)
""The proposed development would provide off-farm income to land owners assisting agricultural enterprises during times of drought or other hardship". I submit that the proponent cannot simply assert that income is to be paid, and that the proponent must specify that income."

Response: The matter of payment to landowners involved in the project is a commercial arrangement and not relevant to the assessment of the development before the NSW Department of Planning.
Submission Statement (2.18)
"I assume that the proponent does not intend to make payments to owners of nearby farmland. There is ample evidence to suggest that those owners are likely to sustain losses in the capital values of their land by reason of the wind turbines. Such losses will not, of course, enable the promotion of agriculture."
Response: Please refer to the response to Submission Statement 2.25 (page 40) regarding the impact on property values. As asserted in section 19.1, in particular by the Henderson and Horning Property Consultants report (2006), the Boco Rock Wind Farm will not affect the productivity of the land in which it is situated. Therefore agricultural activities can proceed unimpeded whilst the wind farm provides a fixed, guaranteed income to landowners involved in the project which in turn provides financial security.
Submission Statement (15.5)
"This is clearly an attempt to prevent inclusion of mitigation measures in the Project approval and is untenable."
Response: The Proponent has outlined in the Statement of Commitments a series of mitigation measures to cover for a wide range of eventualities. The Proponent is not avoiding the inclusion of such measures as is demonstrated throughout the Environmental Assessment prepared in support of the Project.

Chapter 20: Statement of Commitments

Refer to Section 5 for amended and additional Statement of Commitments.

Chapter 21: Conclusion

No responses received.

4. FLORA AND FAUNA RESPONSE

Development footprint and turbine layout

Wind Prospect CWP has applied the hierarchical principles of avoid, mitigate and as a last resort offset to the Environmental Assessment in accordance with the Director-General of the DoP's Assessment requirements for the Project that state "*impacts are to be minimised as far as reasonable and feasible*".

At the request of DECCW, two turbines in the Sherwins cluster were removed from the Project prior to exhibition as they directly impacted on known GED habitat and individuals, and the road in the Sherwins cluster was also re-aligned to avoid bi-secting an area of known habitat.

Further, in acknowledgement of the values of the area of GED habitat with confirmed GED records within the Springfield Cluster, Wind Prospect CWP will remove the three end turbines from the string of 5 turbines to avoid and further reduce impacts to GED's and GED habitat at this location (Refer to Figure 1, Proposed impacts at Springfield cluster as exhibited and Figure 2, Revised impacts to GED at Springfield cluster after removal of three turbines and associated roads).

Based on the revised turbine layout, the impact to known GED habitat at this location will be reduced from 4.5 ha to 1.8 ha.

Given the further removal of turbines from areas of known GED habitat will affect the financial feasibility of the project, it is requested that should the project be approved, there be limited restriction on the timing of construction activities (i.e. the construction of the Sherwins and Springfield clusters independently) in relation to the breeding season of GED's. In this regard, the modified Statement of Commitments 017 and 029 are proposed which clearly delineate those activities which can and cannot occur on the Springfield and Sherwins clusters during the GED breeding season.

Impacts that are not able to be offset

As stated above, in acknowledgement of the values of the area of GED habitat within the Springfield Cluster, Wind Prospect CWP will remove the three end turbines from the string of 5 turbines within the known GED habitat on the Springfield cluster to avoid and further reduce impacts to GED's and GED habitat at this location.

Based on the revised turbine layout (Figure 2), the impact to known GED habitat at this location will be reduced from 4.5 ha to 1.8 ha (Refer to Table 1 and figures in column headed "122 Turbines, Revised Impact Area").

One turbine has been left on the fringe of the fenced paddock within the known GED habitat as the area is dominated by exotic Mallow (refer to Image 1). This area does not meet the definition of NTG (>50% of ground cover is not native) and is not considered to be GED habitat due to the extent and cover of weeds. The retention of the 2nd of the 5 turbines in this location is therefore considered acceptable in regards to impacts to GED as the area is not GED habitat. Furthermore, this turbine can be accessed from the northern paddock, thereby minimising impacts in the paddock with known GED (Refer to location of existing fencing and remaining turbines shown in Figure 2).

Sandie Jones of the DECCW was shown this area on Tuesday 16th March 2010 and agrees that the area is not NTG nor considered GED habitat.

Image 1: Extent of exotic Mallow (weeds) at 2nd of five wind turbines within the Springfield cluster

The GED habitat mapping in this area has also been re-mapped at a finer scale to reflect recent pasture improvements that have taken place on the adjacent property within the previously mapped area of GED habitat (Figure 2). It is noted that since the assessment and habitat mapping was undertaken in 2009, the area of contiguous GED habitat with adjoining properties has been reduced through cultivation by 88 ha (402 ha down to 314 ha).

It is also noted that grazing is continuing on the land where the 3 turbines have been removed and that the conservation security of this area cannot be guaranteed, regardless of whether the Project is approved or not. The proposed offset package (see below) will provide this guarantee of habitat protection on the land title and provide in perpetuity management that is aimed at maintaining and improving biodiversity values for NTG and GED.

The proposed offset package provides between 753 and 767 ha of GED habitat (depending on the combination of land parcels in the final package), that will be protected on title and actively managed in perpetuity.

169 ha (or 20%) of the available offset lands contain confirmed GED records, a 60:1 offset ratio for the area of known impact to this species and far in excess of the 5% minimum required by the DECCW in the offset area . The remaining impacts to potential habitat are offset at a ratio of up to 10:1, almost all mapped as "high potential" GED habitat (Table 1). Overall, the 100.9 ha of impacts to known and potential GED habitat will be offset at a ratio of between 7.5 and 8.2 to 1.

Given that GED were not recorded in areas identified as potential habitat, despite targeted survey, and that the Project includes a GED relocation/harm minimisation strategy, should GED be detected during the construction phase, it is believed that the package of mitigation measures and offsets adequately addresses the impacts on GED within the Springfield cluster and the Project generally.

Temporary versus permanent loss

Although the Environmental Assessment Report discusses temporary and permanent loss separately, following discussions with the DECCW in January 2010, for the purposes of calculating impacts and the associated offset requirements, all impacts have now been included as permanent loss (Refer to figures in Table 1 where permanent and temporary loss have been combined).

The proposed offset areas includes up to 788.85 ha of Natural Temperate Grassland (NTG) (Refer to Table 1), depending on the combination of land parcels in the final package, to offset 74.9 ha of impact, a ratio of over 10:1.

Despite the inclusion of all impacts in the offset calculations, Wind Prospect CWP has made a Statement of Commitment 014 to revegetate the temporary clearance areas as best as possible to assist in preventing weed invasion and other impacts to surrounding NTG. The methodology likely to be required to undertake this revegetation has been briefly discussed with the DECCW and would be discussed in detail with the DECCW and the DEWHA and formalised following project approval. Further, the Project includes a Statement of Commitment 099 to further reduce the total impact to NTG and GED habitat via micro-siting of turbines and fine scale road design following project approval.

The success or otherwise of this rehabilitation will not be used to reduce the offset requirements.

Threatened species relocation strategy

Eco Logical Australia acknowledges and agrees that translocation of threatened species seldom results in success and cannot be relied upon to mitigate impacts. In that regard, the Project does not include a translocation strategy. A relocation or harm minimisation strategy has been proposed which does not reduce the commitment to the offset package. It is additional to the offset package.

All impacts to GED habitat will be offset. It is acknowledged that it is likely that some GED individuals may be lost from areas mapped as potential habitat, despite not been recorded during the assessment stage, as a consequence of the Project and therefore to minimise the unnecessary loss of individuals where possible, relocation of individuals out of the construction area to immediately adjacent and contiguous habitat is proposed. A draft relocation strategy outlining how this is proposed has been included in the Ecological Assessment Report as Appendix N. In summary, the draft relocation strategy states that:

a. Relocation sites will support habitat similar to that of where the individual is caught or in the unlikely event that this is not possible, within an area currently mapped as potential habitat (pg 285 Ecological Assessment Report). Given habitat features for the GED are similar across much of the site, it is likely that all individuals would be able to be relocated into areas of similar habitat.
b. Should any juveniles be capture during pre-clearance surveys they will be relocated using the same methodology used for adults. Monitoring of the survival rate is not proposed as the relocation is part of harm minimisation measures rather than as a mitigation, offset or research measure.
c. Based on the GED habitat mapping (page 147 Ecological Assessment Report), it is believed that it would be highly unlikely that habitat for the GED would not be present within 150 m of a captured individual.
d. A monitoring program for any relocated individuals is not proposed. The relocation strategy is additional to the proposed offset package. The offset package accounts for all GED habitat loss including known and potential habitat. Temporary habitat loss has been calculated as permanent loss.

A similar method as that proposed for the GED is proposed for the SLL although spider burrows will not be installed. Rock rolling will be the principle method of pre clearance surveys for SLL as it is not practical to construct more typical drift lines and pitfall traps in the rocky environment.

It is noted that whilst SLL's have been recorded from one of the proposed offset sites approximately 4 km north west of the nearest part of the Project, no SLL were recorded in the study area.

As for GED, the relocation is part of harm minimisation measures, should any SLL be captured, not a mitigation or offset measure. The offset area includes up to 831 ha of known and potential habitat for SLL.

Subject to Project approval, a detailed relocation plan will be prepared for SLL as for GED. It is envisaged that the relocation methodology would be formulated in consultation with the DECCW and DEWHA.

Striped Legless Lizard

DECCW raised concerns about calculations for SLL not being included in the Environmental Assessment at a meeting on 11th January 2010. Eco Logical Australia consequently ran credit calculations for the SLL and provided the results to the DECCW, DoP and DEWHA as a report titled "*Indicative Biobanking Assessment Report – Striped Legless Lizard Credit Calculations*" on 13th January 2010.

It is noted that whilst SLL's have been recorded from one of the proposed offset sites approximately 4 km north west of the nearest part of the Project, no SLL were recorded in the study area.

The Indicative SLL Biobanking Assessment Report indicated that on the worst case scenario of 119.89 ha of potential SLL habitat being impacted by the Project (125 turbines, 12 metre layout and all permanent and temporary loss combined), the Project would required 2,997 SLL credits. Based on the default number of credits generated of 6 per hectare for a Biobank site in benchmark condition, this would translate to an offset area requirement of 499.5. If the Biobank site is outside of

benchmark condition, which for a range of site score attributes parts of the offset sites are as they were assessed as part of the impact, the offset area required would be significantly less.

The proposed offset area includes up to 831 ha of known and potential habitat for SLL, again well in excess of that required by the Biobanking Assessment.

The methodology to be used for pre-clearance surveys for the SLL will be developed in consultation with DECCW and DEWHA following project approval. It is acknowledged that spider tubes and endoscoping are not suitable for this species and funnel traps and rock rolling are likely to be used for this species given the difficulty in installing pitfall traps in the rocky landscape.

Biodiversity Offset

The DECCWs submission sates that there is a lot of uncertainty around the size of the proposed offset and how it will be secured.

The Environmental Assessment report clearly describes how the offsets will be secured, via Biobanking Agreements on title which is understood to be DECCW's preferred method of securing offsets.

A Biobanking Agreement provides for in perpetuity management with management funds, paid in full on registration, and held in a trust account (the Biobanking Trust Fund). Funds are then returned to the land owner on an annual basis following a review by DECCW of the previous year's performance. If performance is not satisfactory, management funds are withheld or the Minister for the Environment can arrange for a third party to undertake the required management. A Biobanking Agreement, once registered and any credits sold, can only be removed or extinguished by the Minister for the Environment.

Land subject to a Biobank Agreement will remain in the tenure of the original land owners. The Minister for the Environment must determine whether the land owner is a "fit and proper" person to manage the land including their ability to achieve improvements in conservation values.

A Biobank Agreement cannot be registered on the title of any land without the consent of the property interest holder who holds a mining lease or mineral claim (Sec 127F(1)(e) of the TSC Act). As indicated on page 236 of Volume 1 of the Environmental Assessment prepared by Wind Prospect CWP, there are two companies with interests over the land in the area; Volcan Australia Corporation Pty Ltd (Volcan) and Geogen Victoria Pty Ltd (Geogen). Wind Prospect CWP has undertaken to contact these property interest holders to enquire into the nature of their activities within the lease area and whether these are likely to be permissible uses and if not whether they are happy to provide consent to the registration of Biobank Agreements. Initial responses have been received from both Volcan and Geogen suggesting that the proposed offset area will not pose any undue conflict with across their tenement holdings. Formal responses are being sought from both property interest holders and details of which will be provided to the DoP and DEWHA on receipt.

It is understood that the DEWHA has expressed a desire for Wind Prospect CWP to provide "draft Biobank Agreements" as part of their assessment/determination of the Project. It is not possible to prepare a draft Biobank Agreement until after a formal site assessment and site management plan have been prepared. However, the management requirements in Attachment 3 can be provided as a

subset of an agreement to indicate the type of management each property will be legally obligated to implement under a Biobank Agreement in relation to the grazing of domestic animals. The management requirements in Attachment 3 have been created in consultation with the land owners of the proposed offset area and DECCW, subsequent to on site discussions on 16th and 17th March 2010.

The Environmental Assessment report presents a range of options as it was unclear from previous discussion with the DECCW whether it's preferred position was to have an offset in the same relative proportion to all vegetation and habitat types being impacted or an offset that provided a large and therefore viable area of NTG and GED habitat as these were the key ecological issues pertaining to the Project. It is understood that the latter is still DECCW's preferred option.

On 13th January 2010, Wind Prospect CWP provided the DECCW, DoP and DEWHA with revised/updated maps showing the location of the proposed offset sites, their areas and biodiversity values. It was noted that the areas show all the land currently available to meet the offset requirements and that not all of the land shown will necessarily form the final package as this will be subject to more detailed mapping of site boundaries and agreements to be reached with the land owners.

The DECCW, DoP and DEWHA inspected these properties during the site inspection 4th March 2010 and have advised that all are appropriate in terms of area and biodiversity values but that grazing regimes that allow for incremental improvements in biodiversity values still need to be determined with the land owners and form part of the Biobanking Agreement.

Further discussions have subsequently been held between the three interested land owners and Sandie Jones of the DECCW on Tuesday 16th and Wednesday 17th March 2010 to identify more precisely the grazing regimes required to maintain and improve NTG values and habitat for GED, SLL and LWS. These requirements are summarised in Attachment 3 and all land owners have indicated to Wind Prospect CWP that they remain interested in pursuing Biobank Agreements on their properties subject to a successful opportunity cost negotiation with Wind Prospect CWP. Wind Prospect CWP will seek a formal commitment from each of the land owners with respect to securing the ability to implement the proposed offset package and advise the DoP and DEWHA accordingly.

In summary and to avoid any doubt, the offset package proposed will:

- be secured and registered on title under a NSW Biobanking Agreement.
- will secure approximately 750 ha of NTG with known records of GED and SLL and potential habitat across up to 3 properties, depending on the final combination of land parcels (up to 836 ha of land is currently available to meet the final combination), this is a ratio of 10:1 for the loss of 74.9 ha of NTG.
- between 753 and 821 ha of known GED habitat, depending on the combination of land parcels in the final package. 169 ha of the proposed offset lands contain confirmed GED records, a 60:1 offset ratio for the area of known impact to this species. The remaining impacts to potential habitat are offset at a ratio of up to 10:1. Overall, the 100.9 ha of impacts to known and potential GED habitat will be offset at a ratio of between 7.5 and 8.2 to 1.
- up to 831 ha of known and potential habitat for SLL.

- up to 831 ha of known and potential habitat for the Little Whip Snake (LWS)

The offset package has been calculated on a worst case scenario for the now 122 turbine layout, combining permanent and temporary loss and allowing for roads up to 12 m wide and associated areas of earthworks.

It is believed that the package of mitigation measures and offsets adequately addresses the impacts to GED habitat within the Springfield cluster and the Project generally.

Images of habitat values on offset properties

Image 2: Confirmed GED habitat on Rolfe property

Image 3: Woodland & Potential GED habitat on Bridgewater Property

Statement of Commitments

SoC016 – amendment can be made when offsets finalised

SoC017 and 029 – modified by WPCWP following discussion with DECCW/DEWHA

SoC019 - monitoring of the relocations is not proposed as this is considered a harm minimisation measure and not a mitigation, offset or research measure – no change.

SoC030 - The methodology to be used for pre-clearance surveys for the Striped Legless Lizard will be developed in consultation with DECCW and DEWHA following project approval. It is acknowledged that spider tubes and endoscoping are not suitable for this species and funnel traps and rock rolling are likely to be used for this species given the difficulty in installing pitfall traps in the rocky landscape.

SoC031 – Relocation strategies for the GED, SLL and Little Whip Snake will be finalised in consultation with DECCW and DEWHA following project approval. It is felt that it would be unreasonable to request funding to be put into the preparation of these documents prior to project approval.

SoC084 – Acknowledged and agreed that no fertiliser should be applied to site.

SoC086 - Acknowledged and agreed that no chemical dust suppression should be used on site.

SoC099 – A commitment to avoid hollow-bearing trees wherever possible during micro-siting has been made. A recent amendment to the proposed road alignment on the Yandra cluster has been made to minimise impacts on hollow-bearing trees (see Figure 7 below). This area was shown to DECCW during the 4 March site inspection.

FIGURE 7: PROPOSED ROAD ALIGNMENT IN THE YANDRA CLUSTER 2010

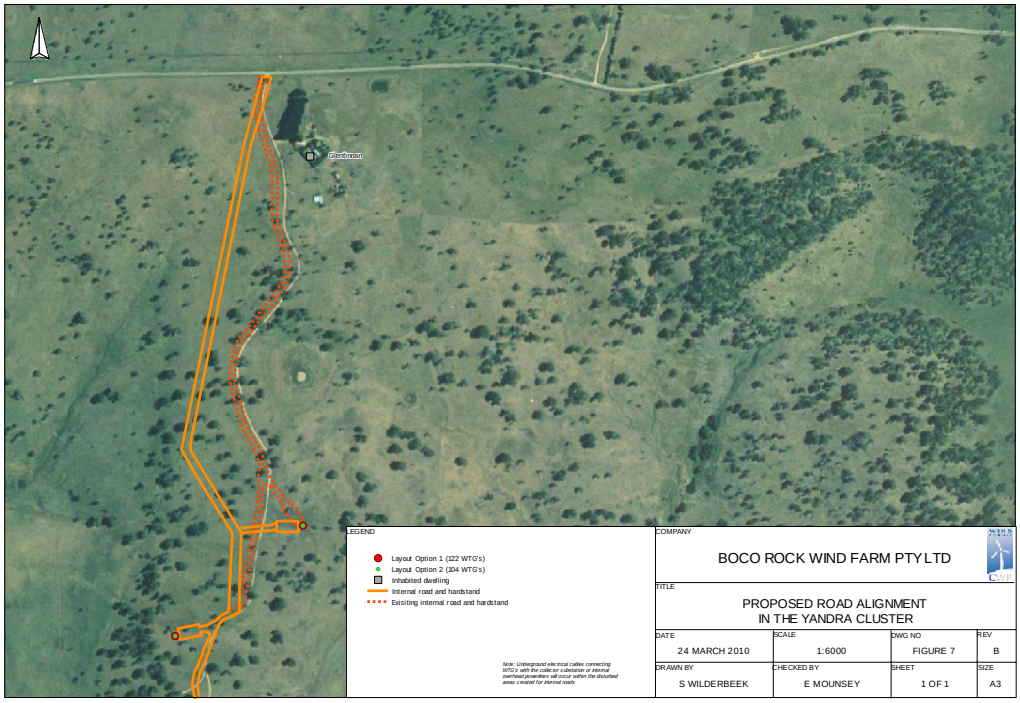

Figure 7 Proposed Road Alignment in the Yandra Cluster
(A3 size version of this Figure is displayed in Appendix A)

5. REVISED STATEMENT OF COMMITMENTS

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
Landscape and Visual								
001	Impact to receptors	Minimise view of infrastructure	Use of a matt and/or off-white finish on the structures to reduce visual contrast between wind turbine generator (WTG) structures and the viewing background (this is subject to final turbine selection).	Proponent	✓	✓		✓
002	Impact to receptors	Minimise view of infrastructure	Tracks have been designed to follow contour lines and existing roads will be used as much as possible, which will minimise cut-and-fill and the potential landscape scarring.	Proponent in consultation with road engineers	✓	✓		✓
003	Impact to receptors	Minimise view of infrastructure	Location of the collector substation and other ancillary infrastructure sited sympathetically with the nature of the locality and away from major roads and residences where possible to mitigate visual impact.	Proponent	✓	✓		✓
004	Impact to receptors	Minimise view of infrastructure	The majority of electrical connections within the Project site (i.e. cables between the WTG's) have been designed to be located underground (where possible), in order to further reduce potential visual impacts.	Proponent	✓	✓		✓
005	Impact to receptors	Minimise view of infrastructure	Undertake landscape planting where screening is deemed appropriate and in accordance with the outcomes of the assessment process.	Proponent in consultation with affected receptor		✓	✓	✓
006	Impact to receptors	Minimise view of construction	Re-instate disturbed soil areas immediately after completion of construction and decommissioning which would include re-contouring and re-seeding with appropriate plant species and local materials where feasible.	Proponent		✓		✓

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
007	Impact to receptors	Minimise view of construction	Enforce safeguards to control and minimise dust emissions during construction and decommissioning.	Proponent		✓		✓
008	Impact to receptors	Minimise view of construction	Minimise activities that may require night time lighting and, if necessary, use low lux (intensity) lighting designed to be mounted with the light projecting inwards to the Project site to minimise glare.	Proponent		✓		✓
Noise								
009	Operational noise exceedance	Compliance	If WTG noise impacts are non-compliant with stated criteria used for the assessment due to temperature inversion, atmospheric stability or other reasons, then an 'adaptive management' approach can be implemented to mitigate or remove the impact. This process could include: • Investigating the nature of the reported impact; • Identifying exactly what conditions or times lead to undue impacts; • Consideration of operating WTG's in a reduced 'noise optimised' mode during offending wind directions and at night-time (sector management); • Turning off WTG's that are identified as causing the undue impact; and • Providing acoustic upgrades (glazing, façade, masking noise etc) to affected dwellings.	Proponent			✓	
010	Construction noise exceedance	Minimisation	Ensure work activities occur within recommended working hours, according to the EPA, where practicable (i.e. 7.00 am to 6.00 pm, weekdays and 8.00 am to 1.00 pm on Saturdays). Any proposed work outside of these hours will entail close consultation with the affected community.	Proponent in consultation with EPA		✓		✓

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
011	Construction noise exceedance	Minimisation	Prior notification to the affected public and restricted use of exhaust/engine brakes in built up areas for night-time deliveries.	Proponent		✓		✓
012	Construction noise exceedance	Minimisation	Continued adequate maintenance of construction vehicles.	Proponent		✓		✓
013	Construction noise exceedance	Minimisation	Noise emissions from construction activity will be localised and temporary.	Proponent		✓		✓
Flora and Fauna								
014	Spread of weeds	Minimise spread	Development of a Weed Management Plan, which provides: • From soil disturbance and vegetation clearance, placing soil which may contain exotic species at least 50 m from any water source; • Where a specific weed risk has been identified, all machinery, equipment and vehicles are to be washed down before entering and leaving the Project site; • Topsoil that is limited in weeds, harvested to salvage the native soil seed bank and then used to reintroduce the seed bank back into disturbed areas; • All onsite staff and contractors educated on noxious weeds present at the Project site and ways to prevent spread; • Revegetation with locally native endemic species characteristic of the cleared vegetation type; • Control of perennial weed grasses within the disturbance zone for 3 to 5 years after construction; and • Management of stock access during periods of vegetation and soil disturbance in coordination with landowners.	Proponent in consultation with ecologist and associated landowners		✓	✓	✓

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
015	Loss of biodiversity value	Minimise impact	Development of a Conservation Management Plan, which provides: • All vehicles are to remain within the extent of the earth works designed specifically for the Project to minimise vegetation disturbance; • Care to be taken when working in close proximity to trees to prevent damage to roots; • All on-site staff and contractors to undergo a brief site induction regarding the known threatened species on-site and the management protocol should any be encountered; • All logs and large rocks removed from within the proposed development area are to be redistributed following the completion of works in temporary clearance areas or adjacent areas to supplement habitat; • Revegetation of disturbed areas will be timed to maximise success. Average rainfall is steady throughout the year with a slightly higher average number of rain days in spring. With spring being the typical growth period of many flora, revegetation is likely to be undertaken at this time. The CEMP will include Key Performance Indicators to measure the success of the revegetation process and adaptive responses will be applied relative to the observed success; • Daily checking of trenches by the Environmental Compliance Manager to ensure any captured fauna will be released according to the Construction Environmental Management Plan (CEMP) or Threatened Species Management Plan (TSMP) *(Note: this will not be carried out during the operation phase)*; • Pre-clearance surveys undertaken to determine if roosts, nests or dens present in any trees proposed for clearing; • Bird and bat strike monitoring will be undertaken in accordance with the monitoring guidelines provided by the Australian Wind Energy Association (Brett Lane & Associates 2005). If results show that longer term monitoring is required then a monitoring programme will be developed in consultation with DECCWW and other departments/agencies	Proponent in consultation with ecologist and DECCW	✓	✓	✓	✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
			as required. Such a programme could include adaptive management whereby significant impacts are dealt with by using an adaptive approach; • Should WTG's require lighting, select lighting that minimises the likelihood of attracting insects and hence foraging bats, subject to CASA requirements; • During water extraction from the dam, a suitable water level for use by the Blue-billed Duck should be maintained and extraction from the dam undertaken in a manner that avoids key habitat areas such as reeds and rushes;					
016	Loss of biodiversity value	Minimise impact	An offset package comprising Natural Temperate Grassland EEC, and known habitat for Grassland Earless Dragon and Striped Legless Lizard of approximately 750 ha is proposed, which will be secured through the Biodiversity Banking and Offsets Scheme (BioBanking).	Proponent in consultation with ecologist, DECCW, DEWHA and associated land owners	✓			
Flora and Fauna - Grassland Earless Dragon								
017	Impacts on GED sensitive lifecycle stages - mating and laying periods	Minimise impact	The following activities will not be carried out in the Sherwin and Springfield Clusters during the GED breeding season (November to January): • Civil construction comprising earthworks associated with the building or removal of internal access tracks and crane hardstands; • Trenching for underground cables; • Excavation and construction of wind turbine foundations; • Clearing and benching the substation location; and • Clearing, excavation and construction for any power line pole foundations required to be installed. This excludes all activity which does not have a direct impact on GED habitat, such as the installation of turbine, substation and	Proponent in consultation with ecologist and DECCW		✓		✓

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
			powerline components following the construction of the above.					
018	Injury or death of GED present within construction area	Minimise impact	Pre-clearance surveys within the construction area boundaries where located within known or potential GED habitat within three weeks of the proposed construction activities commencing. Including: • Spider-tubed sized pitfalls - between late January and April (or until the onset of cold weather); and • Systematic searches of tussocks, rolling of all rocks with a diameter greater than 20 cm and the use of an endoscope to search spider burrows - May to end of October.	Proponent in consultation with ecologist and DECCW	✓			
019	Relocation to avoid Injury or death of GED present within construction area	Minimise impact	Survey of distribution and habitat to select relocation sites: • Use aerial photography etc to map areas of potential habitat and likely condition; • Identify areas for relocations and hence field verification; • Field verification will be undertaken well in advance of pre-clearance surveys to ensure relocation sites have been selected prior to pre-clearance surveys; • Gather data from known sites, including rock cover, tussock spacing and spider burrow densities; • Undertake field assessment to confirm desktop habitat mapping and use data collected from known sites to assess habitat condition. Map habitat condition for proposed relocation sites; and • Simultaneously undertake rock rolling and endoscope surveys for the GED with particular focus on relocation sites to determine the distribution and density of GED and ensure relocations do not occur in areas where there are already high densities (i.e. assess carry capacity of the land). *Note: Spider tubing will not be used if any surveys are undertaken between November and January or during winter months.*	Proponent in consultation with ecologist and DECCW	✓			

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
020	Injury or death of GED present within construction area	Minimise Impact	Relocation of GED from construction area (detailed relocation strategy is included in Appendix 10): • GED will be moved to adjacent areas (i.e. outside construction boundaries) within 150 m to 200 m of the construction area; • Relocation sites will support habitat similar to that of where the individual was caught or if this is not possible, within an area currently mapped as potential habitat. This is explained in the original Environmental Assessment in Section 10.5. • Individuals caught in pitfall traps will be left in the pitfall traps and moved immediately to the relocation site and placed within one of the three proposed artificial burrows to be installed for each relocated individual. The pitfall will then be re-installed at the pre-clearance survey site; • If individuals are caught during winter, they will be placed in a cloth bag and transported immediately to the release site. They will then be placed in one of the artificial burrows. Individuals in torpor will be warmed slightly to assist in getting them to enter the burrow and a flat stone placed over the burrow for protection; • Individuals found active during the warmer months of the year will be placed in cloth bags and immediately transported to the release site where they will be released into a grass sward; and • In areas where a group of individuals are found the same approach as that used for individuals would be implemented. However, a greater density of artificial burrows will be established (1,000 burrows within a 150 m zone).	Proponent in consultation with ecologist and DECCW	✓	✓		✓
021			This Statement of Commitment has been removed.					

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
022	Injury or death of GED that re-enter the construction area	Minimise impact	During the summer months (January to April) in areas where GED habitat (both known and potential) occurs within turbine construction areas, the development zone should be partially fenced off using plastic gutter guard to deter individuals from nearby grassland moving back into the area. It obviously will only be possible to fence out some sides of the area where machinery and vehicle access is not required.	Proponent in consultation with ecologist and DECCW	✓	✓		✓
023	Capture within trenches	Minimise impact	An Environmental Compliance Manager will be onsite during the civil works phase (including cable trenching and laying) to conduct regular inspections in trenches and excavated areas and manage any incidental GED encounters.	Proponent in consultation with ecologist and DECCW	✓	✓		✓
024	Capture within trenches	Minimise impact	A trained field officer or post graduate research student will be onsite a minimum of two days per week and on call to assist in the management of any findings by construction personnel.	Proponent in consultation with ecologist and DECCW	✓	✓		✓
025	Capture within trenches	Minimise impact	Trenches will be dug and filled in sections and therefore it is not anticipated that any section of trench would remain uncovered for more than a few days.	Proponent in consultation with ecologist and DECCW	✓	✓		✓
026	Habitat loss	Minimise impact	Rocks removed from the construction area will be scattered throughout designated areas of NTG where past rock removal has been undertaken, during the rehabilitation phase of the track verges.	Proponent in consultation with ecologist and DECCW		✓		✓
027	Habitat loss	Minimise impact	Rocks between 20 cm diameter and 50 cm diameter will be salvaged from earth works and scattered across identified re-rocking areas.	Proponent in consultation with ecologist and DECCW		✓		✓
028			This Statement of Commitment has been removed.					

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
Flora and Fauna - Striped Legless Lizard								
029	Impacts on Striped Legless Lizard lifecycle stages	Minimise impact	The following activities will not be carried out in the Sherwin and Springfield Clusters during the SLL breeding season (November to January): • Civil construction comprising earthworks associated with the building or removal of internal access tracks and crane hardstands; • Trenching for underground cables; • Excavation and construction of wind turbine foundations; • Clearing and benching the substation location; and • Clearing, excavation and construction for any power line pole foundations required to be installed. This excludes all activity which does not have a direct impact on SLL habitat, such as the installation of turbine, substation and powerline components following the construction of the above.	Proponent in consultation with ecologist and DECCW		✓		✓
030	Injury or death of Striped Legless Lizard present within construction area	Minimise impact	Pre-clearance surveys within the construction area boundaries where located within known or potential Striped Legless Lizard habitat within three weeks of the proposed construction activities commencing. Methodology to be developed in consultation with DECCW and DEWHA. Including: • Funnel traps; and • Systematic searches of tussocks, rolling of all rocks with a diameter greater than 20 cm.	Proponent in consultation with ecologist and DECCW	✓	✓		✓
031	Injury or death of Striped Legless Lizard present within construction area	Minimise impact	Striped Legless Lizard will be moved to adjacent areas (i.e. outside construction boundaries) within 150 m to 200 m of the construction area. Methodology to be developed in consultation with DECCW and DEWHA.	Proponent in consultation with ecologist and DECCW	✓	✓		✓

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
032	Injury or death of Striped Legless Lizard present within construction area	Minimise impact	During the summer months (January to April), the development zone should be partially fenced off with plastic gutter guard to deter individuals from nearby grassland moving back into the area. It obviously will only be possible to fence out some sides of the area where machinery and vehicle access is not required.	Proponent in consultation with ecologist and DECCW	✓	✓		✓
033	Injury or death of Striped Legless Lizard present within construction area	Minimise impact	Reticulation trenches (each section will only be open for short periods) which will then be checked daily for any trapped Striped Legless Lizard will be released on-site into adjacent areas with suitable habitat and cover.	Proponent in consultation with ecologist and DECCW	✓	✓		✓
Flora and Fauna - Natural Temperate Grassland								
034	Loss of habitat	Minimise impact	Road layouts have been placed outside areas of NTG so as to minimise fragmentation of NTG wherever feasible.	Proponent in consultation with ecologist and DECCW	✓			
035	Loss of habitat	Minimise impact	Potential locations for concrete batching plants have been located in disturbed and sown areas to avoid further impacts on NTG.	Proponent in consultation with ecologist and DECCW	✓			
036	Loss of habitat	Minimise impact	Temporary construction facilities will be located in disturbed areas and within the current study area wherever possible to avoid further impacts on NTG.	Proponent in consultation with ecologist and DECCW	✓			

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
Cultural Heritage								
037	Loss of cultural heritage items	Minimise impact	Development of a Cultural Heritage Management Protocol, which provides procedures to be followed for impact avoidance and accidental discovery.	Proponent in consultation with an archaeologist, relevant Aboriginal communities and NSW DECCW	✓	✓		✓
038	Loss of cultural heritage items	Minimise impact	Personnel involved in the construction and management phases of the Project should be trained in procedures to implement recommendations relating to cultural heritage, where necessary, to decrease impact.	Proponent in consultation with archaeologist	✓	✓	✓	✓
039	Loss of Aboriginal heritage items	Minimise impact	A program to salvage archaeological excavations and analysis be undertaken in a sample of Survey Units prior to construction.	Proponent in consultation with archaeologist	✓	✓		✓
040	Loss of Aboriginal heritage items	Minimise impact	In the case of a few low/moderate and moderate archaeological significance locales, it is recommended that impacts are avoided or limited through the detailed design and construction phases of the Project.	Proponent in consultation with archaeologist	✓	✓		✓
041	Loss of Aboriginal heritage items	Minimise impact	Ground disturbance impacts associated with the Project be kept to a minimum and to defined areas, as to ensure minimum impact to Aboriginal objects (stone artefacts), which can be expected to extend in a relatively continuous, albeit very low to low density distribution, across the broader landscape encompassed by the Project.	Proponent in consultation with archaeologist		✓		✓
042	Loss of Non-Indigenous heritage items	Minimise impact	Impact on already-disturbed sections or avoid recorded items altogether where feasible.	Proponent in consultation with archaeologist		✓		✓

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
Traffic and Transport								
043	Safety and asset protection	Minimise risk	Contract a licensed haulage contractor with experience in transporting heavy and over-size loads, to be responsible for obtaining all required approvals and permits from the RTA and Councils and for complying with conditions specified in the aforementioned approvals.	Proponent in consultation with RTA and councils	✓			
044	Safety and asset protection	Minimise risk	Development of a Traffic Management Plan, which provides: • Scheduling of deliveries, timing of transport, limiting the number of trips per day; • Undertaking community consultation before and during all haulage activities and providing a dedicated telephone contacts list to enable any issues or concerns to be rapidly identified and addressed; • Managing the haulage process, including the erection of warning signs and/or advisory speed signs posting in advance of isolated curves, crests, narrow bridges and changes of road conditions; • Placing of speed limits on all roads that would be used primarily by construction traffic to reduce the likelihood of any accidents and reduce maintenance costs; • Designing and implementing temporary modifications to intersections and roadside furniture as appropriate; • Producing a Transport Code of Conduct which would be made available to all contractors and staff detailing traffic routes, behavioural requirements and speed limits; • Establishing procedures to monitor traffic impacts on public and internal access tracks during construction, including noise, dust nuisance and travel times, and to implement modified work methods to reduce such impacts where possible; and • Reinstating pre-existing conditions after temporary modifications to the roads and pavements along the route, where applicable, in consultation with relevant authorities.	Proponent in consultation with licensed haulage contractor and road authorities	✓	✓		✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
			• Provide the RTA with traffic movements at the following junctions throughout the duration of the construction period: • Monaro Highway and Springfield Road • Monaro Highway and Snowy River Way • The Snowy River Way and Avon Lake Road • Any access along the Snowy River Way proposed to be used for the wind farm development					
045	Safety and asset protection	Minimise risk	Implement all aspects of the Traffic Management Plan in co-ordination with the Councils and Road Traffic Authority (RTA).	Proponent in consultation with licensed haulage contractor and road authorities		✓		✓
046	Safety and asset protection	Minimise risk	Prepare road dilapidation reports covering pavement and drainage structures for all of the routes before and after construction. Any damage resulting from construction traffic, except that resulting from normal wear and tear, would be repaired at the Proponent's cost. Alternatively, the Proponent may negotiate other forms of compensation for road damage with the relevant roads authorities as appropriate.	Proponent in consultation with council and road authorities	✓	✓		✓
047	Loss of biodiversity value	Minimise impact	The reconstruction of the causeway, as discussed in Chapter 3 Project Description, will be in accordance with the Department of Water and Energy under the *Water Management Act 2000* and the NSW Department of Primary Industries Fish Friendly Waterways Crossing guidelines.	Proponent	✓	✓		✓
048	Safety and asset protection	Minimise risk	Consideration for establishing a transport pool for employees from nearby towns to minimise traffic volumes.	Proponent	✓			
049	Safety and asset protection	Minimise risk	Establish a procedure to ensure the ongoing maintenance of the Project site internal access roads during the operation phase. This maintenance would include sedimentation and erosion control structures, where necessary.	Proponent			✓	

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
050	Safety and asset protection	Minimise risk	Prepare and implement a revised Traffic Management Plan reflecting change in traffic volumes, during time of decommissioning.	Proponent in consultation with council and road authorities				✓
Aviation Assessment								
051	Creation of hazard	Minimise risk	The Proponent will provide the RAAF AIS, CASA, AA and AAAA with the location and height details once final design positions are known and before construction commences. After construction is complete, the Proponent will provide RAAF AIS, CASA, AA and AAAA with "as constructed" details.	Proponent	✓	✓	✓	✓
052	Creation of hazard	Minimise risk	The Proponent will provide CASA with notification of any cranes (temporary obstacles) that exceed 110 m above ground level.	Proponent	✓	✓		✓
053	Creation of hazard	Minimise risk	Appropriate information regarding the WTG layout and dimensions will be supplied to the Rural Fire Service, if required, to assist in their planning and execution of fire response.	Proponent	✓	✓		✓
054	Creation of hazard	Minimise risk	On receipt of Development Approval for the Project, and with particular regard to the Aeronautical Impact Assessment and Obstacle Lighting Review, the Proponent will consult with CASA on the issue of obstacle lighting.	Proponent in consultation with CASA	✓			
055	Impact to nearby properties	Minimise impact	If lighting is required, the Proponent will commit to shielding provisions allowed under existing CASA guidelines. At the time of writing the shielding restricts the downward component of light to 5 % of nominal intensity emitted below 5 ° below horizontal and zero light emission below 10 ° below horizontal.	Proponent in consultation with CASA	✓			

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
Communication								
056	Deterioration of signal strength	Minimise deterioration	Amend planned WTG positions if necessary and feasible within the Approval Conditions, to create corridors to ensure minimal interference on links.	Proponent	✓			
057	Deterioration of signal strength	Minimise deterioration	Use of primarily non-metallic WTG blades, to minimise disruption.	Proponent	✓	✓		✓
058	Deterioration of signal strength	Minimise deterioration	Where practical, use equipment complying with the Electromagnetic Emission Standard AS/NZS 4251.2:1999.	Proponent	✓	✓		✓
059	Deterioration of signal strength	Minimise deterioration	A system for recording any complaints on interference, to allow for further investigations with the affected party, to reach an amicable solution.	Proponent			✓	✓
060	Deterioration of signal strength	Minimise deterioration	General mitigation methods for radio-communication include: • Modifications to or relocation of existing antennae; • Installation of a directional antennae; and • Installation of an amplifier to boost the signal.	Proponent			✓	✓
061	Deterioration of signal strength	Minimise deterioration	If television interference is experienced and reported by an existing receiver in the vicinity of the Project, the source and nature of the interference would be investigated by the Proponent. Should the cause of interference be attributed to the Project, then the Proponent will put suitable mitigation measures in place after consultation and agreement with the effected landowner. These could include: • Re-orientation of existing aerials to an alternative transmitter; • Provision of a land line between the effected receiver and an antenna located in a suitable reception area; • Provision of satellite or digital TV where available; and • Installation of a new repeater station in a location where interference can be avoided (this is more complex for digital but also less likely to be required for digital television).	Proponent			✓	✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
Electromagnetic Fields								
062	Exposure from EMF's	Minimise exposure	Bury electrical cables where possible to shield electrical fields.	Proponent		✓		✓
063	Exposure from EMF's	Minimise exposure	Place wires together to cause a cancellation between the fields of electrical phases for magnetic fields.	Proponent		✓		✓
064	Exposure from EMF's	Minimise exposure	Place appropriate security around emitting structures (e.g. collector substation).	Proponent	✓			
065	Exposure from EMF's	Minimise exposure	Ensure the public, including tourists, that need to go near emitting structures are accompanied by a trained and qualified staff member.	Proponent			✓	✓
Fire and Bushfire								
066	Increase risk of fire ignition or spread	Minimise risk	Adherence to all regulations under the NSW Rural Fires Act 1997 and the Snowy Monaro and Bombala Bushfire Risk Management Plans.	Proponent in consultation with relevant authorities	✓	✓	✓	✓
067	Increase risk of fire ignition or spread	Minimise risk	The Rural Fire Service (RFS) and NSW Fire Brigade will be consulted in regard to the adequacy of bushfire prevention measures to be implemented on-site during construction, operation and decommissioning. These measures would potentially cover hot-work procedures, asset protection zones (APZ's), safety, communication, site access and response protocols in the event of a fire originating in the Project infrastructure, or in the event of an external wildfire threatening the Project or nearby properties.	Proponent in consultation with RFS and NSW Fire Brigade	✓	✓	✓	✓
068	Increase risk of fire ignition or spread	Minimise risk	Provide RFS with the locations of individual WTG locations, ancillary infrastructure, construction work schedule, location of additional water supplies for construction, potential landing pads for fire fighting aircrafts and helicopters and access gates for fire fighting	Proponent	✓	✓	✓	✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
			services.					
069	Increase risk of fire ignition or spread	Minimise risk	Installation of access tracks at appropriate width and vertical clearances with access suitable for all weather conditions.	Proponent	✓	✓		✓
070	Increase risk of fire ignition or spread	Minimise risk	Education to construction crews and maintenance staff on the topic of bushfire risk management and risks that could be present at the Project.	Proponent		✓	✓	✓
071	Increase risk of fire ignition or spread	Minimise risk	Provision of basic fire fighting equipment at each active site, including fire extinguishers, knapsacks and other equipment suitable for initial response actions with a minimum of one trained person on-site.	Proponent		✓	✓	✓
072	Increase risk of fire ignition or spread	Minimise risk	Maintain provision for mobile telephone and UHF radio communications.	Proponent in consultation with RFS and NSW Fire Brigade		✓	✓	✓
073	Increase risk of fire ignition or spread	Minimise risk	The collector substation will be surrounded by a gravel and concrete area, free of vegetation, to provide an APZ.	Proponent	✓	✓		✓
074	Increase risk of fire ignition or spread	Minimise risk	The collector substation facility will be bunded with a capacity exceeding the volume of the transformer oil. The facility will be regularly inspected and maintained to ensure leaks do not present a fire hazard, and to ensure the bunded area is clear (including removing any rainwater).	Proponent	✓	✓	✓	✓
075	Increase risk of fire ignition or spread	Minimise risk	Placement and maintenance of APZ will occur around WTG's, transmission line easements and ancillary structures to minimise the spread of fire. Workplace health and safety protocols will be developed to minimise the risk of fire for workers in the control room and amenities.	Proponent	✓	✓	✓	✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
076	Increase risk of fire ignition or spread	Minimise risk	WTG's will be shut down if monitored components reach critical temperatures or if directed to by the RFS in the case of a nearby wildfire being declared (an all-hours contact number would be available to the RFS during the bushfire period).	Proponent in consultation with the RFS			✓	
077	Increase risk of fire ignition or spread	Minimise risk	Flammable materials and ignition sources brought onto the Project site will be handled and stored as per manufacturer's instructions.	Proponent		✓	✓	✓
078	Increase risk of fire ignition or spread	Minimise risk	Lightening protection will be installed correctly to minimise risk of malfunction.	Proponent		✓		✓
Water								
079	Loss of integrity to riparian corridor	Minimise loss	Any access tracks (with the exception of crossings) and all other works and disturbances should not be located in any riparian corridors.	Proponent in consultation with DWE	✓	✓		✓
080	Loss of integrity to riparian corridor	Minimise loss	DWE guidelines for river crossing designs, based on the Strahler Stream Order Categorisation to minimise environmental impact, will be followed in the design and upgrade of existing roads and river crossings.	Proponent in consultation with DWE	✓	✓		✓
081	Loss of water quality and change to hydraulic regime	Minimise loss and impact on adjacent watercourses	Development of a Soil and Water Management Plan (SWMP), to minimise soil disturbance, prevent erosion from surface runoff and to prevent disturbance of water resources in the area. Including: • All drainage from the Project is in accordance with the POEO Act; • All outlet structures designed in accordance with DWE guidelines; • Avoid removal or disruption to naturally occurring drainage stabilisers;	Proponent in reference to Landcom 2004	✓	✓	✓	✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
			• Installation of water retardation and diversion devices around construction areas, including devices to manage surface runoff from hardstand areas and surfaced access tracks; • Design appropriate sedimentation basins to catch and treat all water from the Project site and consider utilising existing drainage paths for discharge points; • Monitor changes to quantity and quality of receiving waters at Nimmitabel Wastewater Treatment Facility (Station No 222017); • Regular inspection, maintenance and cleaning of water quality and sedimentation control devices; and • If erosion is detected as a result of inadequate maintenance of drainage control devices, the relevant Environmental Manager shall be alerted and remedial action is to occur immediately, to ensure no re-occurrence of the event.					
082	Loss of water quality and change to hydraulic regime	Minimise loss and impact on adjacent watercourses	In particular the SWMP provides specific measures for access tracks: • All roads have sufficient cross-fall gradient to allow all runoff to be collected and treated; • All watercourse crossings to be designed in accordance with the DWE guidelines; • The design and construction footprint and the extent of disturbances proposed within the riparian zone should be minimised; • Maintain existing or natural hydraulic, hydrologic, geomorphic and ecological functions of the watercourse; and • Stabilise and rehabilitate all disturbed areas.	Proponent in reference to Landcom 2004	✓	✓	✓	✓
083	Loss of water quality and change to hydraulic regime	Minimise loss and impact on adjacent watercourses	In particular the SWMP provides specific measures for hydrology: • The establishment and operation of the concrete batching plant(s) facilities must be in accordance with the Environment Protection Authority's guidelines for the Concrete Batching Industry and the Environment Protection Licence issued by Department of Environment and Climate Change (DECCW);	Proponent in reference to Landcom 2004	✓	✓	✓	✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
			• Concrete and cement carrying vehicles should be washed out in appropriate wash-down facilities off-site; • Management of hazardous material, waste and sewage; • Wastewater produced from temporary on-site toilets during construction will be stored and trucked off-site; • All hazardous materials are to be properly classified and stored away from flood prone areas and drainage lines. Appropriate spill kits and fire protection are to be provided on-site during construction; • Any on-site refuelling must occur in an area greater than 100 m from the nearest drainage line; and • All hazardous materials are to be stored and transported appropriately in accordance with relevant DECCW and Workcover guidelines and regulations, to avoid release into the environment.					
Air Quality								
084	Deterioration of air quality	Minimise impact	During excavation topsoil will be stockpiled. After excavation topsoil will be replaced for seeding and excess subsoil will be disposed of in an appropriate manner. If any excavation occurs on steep slopes the topsoil will need to be stabilised.	Proponent		✓		✓
085	Deterioration of air quality	Minimise impact	Any stockpiled material will be covered with plastic, seeded or otherwise bound to reduce dust. Dust levels at stockpile sites would be visually monitored. Dust suppression (e.g. water sprays) would be implemented if required.	Proponent		✓		✓
086	Deterioration of air quality	Minimise impact	During dry and windy conditions a water cart or alternative (non-chemical) dust suppression would be available and applied to work areas.	Proponent		✓		✓
087	Deterioration of air quality	Minimise impact	If blasting is required, Australian New Zealand Environment and Conservation Council guidelines for control of blasting impacts will be followed.	Proponent in consultation with ANZECC		✓		✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
Soil and Landforms								
088	Disturbance to existing land formations	Minimise disturbance	The SWMP provides specific measures for soil: • Procedure for personnel to manage suspected contaminated soils disturbed during earthworks; • All disturbed soil surfaces should be stabilised as soon as practicable after works have ceased in the area; and • All stockpiles should be covered to prevent the loss of material during high wind and rain events. Where practicable stockpiles should be placed in areas sheltered from the wind.	Proponent		✓		✓
089	Soil compaction	Minimise impact	The SWMP will have specific measures for stock management: • Management of stock access during periods of vegetation and soil disturbances; and • Removal of stock access from construction areas for entire construction periods to allow for regeneration – subject to landowner participation.	Proponent in consultation with associated landowners		✓		✓
Waste								
090	Waste generation	Minimise waste and maximise recycling	Provision of skip bins and recycling bins on-site to handle packaging materials and domestic waste.	Proponent		✓	✓	✓
091	Waste generation	Minimise waste and maximise recycling	Mulch vegetation and use on-site where feasible, otherwise burn on-site with permission from council, provide firewood to landowners or take to Cooma landfill.	Proponent		✓		✓
092	Waste generation	Appropriate disposal of waste	On-site toilets will either be drained by a septic tank or be an enclosed unit.	Proponent		✓	✓	✓

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
093	Waste generation	Appropriate disposal of waste	All chemicals and oils will be treated as contaminated waste at the Cooma landfill.	Proponent		✓	✓	✓
094	Waste generation	Appropriate disposal of waste	Any disposal of unsuitable excavated material will require development consent from Bombala Council, unless it is virgin excavated natural material, then it can be disposed of at the Cooma landfill.	Proponent		✓		✓
Response to Consultation								
095	Damage to Trigonometrical Stations	Avoid damage	Commitment to avoid disturbing and damaging the Trigonometrical Station's and adjacent witness marks.	Proponent		✓		✓
096	Crown roads and Crown land	Avoid impact	Relocation of overhead line to ensure no part of the Project intersects the known area of land under an Aboriginal Land Claim.	Proponent	✓	✓		✓
097	Council roads	Liaison with council	It may be necessary to transfer a Crown Road to Council for discrete sections of land that are to be affected by the proposed development. The Proponent will cover the cost of Council adopting such roads and maintaining them for the duration of the Project.	Proponent in consultation with council	✓	✓		✓
098	Council roads	Liaison with council	In the instance of an existing council road located outside of the legal road reserve, road boundaries will be adjusted as necessary so that any part of the road on which upgrading work was carried out for the Project was brought into the legal reserve.	Proponent in consultation with council	✓	✓		✓
Construction								
099	Environmental	Minimise impact	Micro-site on-site infrastructure within a 100 m radius of the proposed Project infrastructure with respect to: • Maintaining a minimum 500 m buffer between constructed WTG's and the neighbouring landowner to the south of the Boco Cluster;	Proponent in consultation with relevant consultant	✓	✓		✓

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
			• Minimising impacts to ecologically sensitive habitats and species, as listed in Chapter 10 Flora and Fauna; and • Avoiding hollow-bearing trees wherever possible.					
100	Environmental	Minimise impact	Access roads have been designed along current tracks and roads present within the study area where possible to avoid additional vegetation clearance for access.	Proponent	✓			
101	Environmental	Minimise impact	The reticulation has been placed underground and within the road footprint where possible to allow for temporary rather than permanent disturbance.	Proponent	✓			
102	Environmental	Minimise impact	Electrical cables occurring across significant gullies and waterways will be strung overhead.	Proponent	✓			
103	Environmental	Minimise impact	Development of a Construction Environmental Management Plan (CEMP), which provides: • A SWMP in accordance with Landcom (2004). Managing Urban Stormwater: Soils and Construction, 4th Edition; • A Construction Dust Management Plan (CDMP) as listed in Appendix 23; • Manage site security and uncontrolled access via a lockable chain link fence around the temporary site facilities to minimise acts of vandalism and arson; • Obtain necessary licenses and permits from NOW, DPI and NSW DECCW; • Manage disturbance to 'no go' areas by flagging, fencing and including details on hard copy and electronic construction plans; • Designate environmental management responsibility to key personnel;	Proponent	✓	✓		✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
			• Transport of oil (80,000 L for collector substation transformer and 1,000 L per WTG transformers) will be via purpose built vehicles/ tankers in accordance with the Australian Dangerous Goods Code and will be fitted with emergency spill equipment. Oil will be transferred to transformers by qualified personnel, who have training in emergency spill response. Spill control equipment will be available at the point of use; • Incorporate licensing requirements for the concrete batching plants into the CEMP, including speed limits, portable spill kits, and management of concrete slurry; • Use of fire mitigation and management strategies discussed in Chapter 16 Fire and Bushfire; • Use local water supplies, where possible, in written agreement with local landowner; • Community consultation strategy for the duration of the construction period, to keep community informed of progress/delays and to maintain a method for receiving and addressing community feedback; and • Other mitigation measures as outlined in Appendix 23.					
104	Environmental	Minimise impact	Development of an Operational Environmental Management Plan (OEMP), which can be combined with the CEMP and additions added for operation of the Project as listed in Appendix 23.	Proponent			✓	
Mineral Exploration								
105	Future land use for mineral exploration	Minimise impact	Liaise with Volcan Australia Pty Ltd and Geogen Victoria Pty Ltd and provide updates of any modifications to the Project design that arise during the construction of the Project.	Proponent		✓		
106	Future land use for mineral exploration	Minimise impact	At the time of decommissioning, communicate with associated landowners and mineral title holders that may wish to retain roads.	Proponent				✓

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
Tourism								
107	Future tourism	Manage increase	Consideration of a parking or stopping bay if required.	Proponent in consultation with councils and landowners			✓	
Community Wellbeing								
108	Affect on local area	Maximise positive effect of proposal	Contributions of $2,500 per wind turbine into a Community Fund as each stage of the Project commences commercial operation will be established in close cooperation with the Bombala and Cooma-Monaro Shire Councils to provide funding for local community interest groups and activities.	Proponent in consultations with councils and community	✓		✓	✓
Economic								
109	Affect on local economy	Maximise positive effect of proposal	Local contractors will be used where it is feasible, which will allow the Proponent to utilise the full potential of local resources.	Proponent in consultation with local industry representatives	✓	✓		✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
Amended Statements of Commitment								
010	Construction noise exceedance	Minimisation	Ensure work activities occur within recommended working hours, according to the EPA, where practicable (i.e. 7.00 am to 6.00 pm, weekdays and 8.00 am to 1.00 pm on Saturdays). Any proposed work outside of these hours will entail close consultation with the affected community.	Proponent in consultation with EPA		✓		✓
016	Loss of biodiversity value	Minimise impact	An offset package comprising Natural Temperate Grassland EEC, and known habitat for Grassland Earless Dragon and Striped Legless Lizard of approximately 750 ha is proposed, which will be secured through the Biodiversity Banking and Offsets Scheme (BioBanking).	Proponent in consultation with ecologist, DECCW, DEWHA and associated land owners	✓			
017	Impacts on GED sensitive lifecycle stages - mating and laying periods	Minimise impact	The following activities will not be carried out in the Sherwin and Springfield Clusters during the GED breeding season (November to January): • Civil construction comprising earthworks associated with the building or removal of internal access tracks and crane hardstands; • Trenching for underground cables; • Excavation and construction of wind turbine foundations; • Clearing and benching the substation location; and • Clearing, excavation and construction for any power line pole foundations required to be installed. This excludes all activity which does not have a direct impact on GED habitat, such as the installation of turbine, substation and powerline components following the construction of the above.	Proponent in consultation with ecologist and DECCW		✓		✓
020	Injury or death of GED present within construction	Minimise Impact	Relocation of GED from construction area (detailed relocation strategy is included in Appendix 10): • GED will be moved to adjacent areas (i.e. outside construction boundaries) within 150 m to 200 m of the construction area;	Proponent in consultation with ecologist and DECCW	✓	✓		✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
	area		• Relocation sites will support habitat similar to that of where the individual was caught or if this is not possible, within an area currently mapped as potential habitat. This is explained in the original Environmental Assessment in Section 10.5. • Individuals caught in pitfall traps will be left in the pitfall traps and moved immediately to the relocation site and placed within one of the three proposed artificial burrows to be installed for each relocated individual. The pitfall will then be re-installed at the pre-clearance survey site; • If individuals are caught during winter, they will be placed in a cloth bag and transported immediately to the release site. They will then be placed in one of the artificial burrows. Individuals in torpor will be warmed slightly to assist in getting them to enter the burrow and a flat stone placed over the burrow for protection; • Individuals found active during the warmer months of the year will be placed in cloth bags and immediately transported to the release site where they will be released into a grass sward; and • In areas where a group of individuals are found the same approach as that used for individuals would be implemented. However, a greater density of artificial burrows will be established (1,000 burrows within a 150 m zone).					
021			This Statement of Commitment has been removed.					
028			This Statement of Commitment has been removed.					
029	Impacts on Striped Legless Lizard lifecycle stages	Minimise impact	The following activities will not be carried out in the Sherwin and Springfield Clusters during the SLL breeding season (November to January): • Civil construction comprising earthworks associated with the building or removal of internal access tracks and crane hardstands; • Trenching for underground cables;	Proponent in consultation with ecologist and DECCW		✓		✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
			• Excavation and construction of wind turbine foundations; • Clearing and benching the substation location; and • Clearing, excavation and construction for any power line pole foundations required to be installed. This excludes all activity which does not have a direct impact on SLL habitat, such as the installation of turbine, substation and powerline components following the construction of the above.					
030	Injury or death of Striped Legless Lizard present within construction area	Minimise impact	Pre-clearance surveys within the construction area boundaries where located within known or potential Striped Legless Lizard habitat within three weeks of the proposed construction activities commencing. Methodology to be developed in consultation with DECCW and DEWHA. Including: • Funnel traps; and • Systematic searches of tussocks, rolling of all rocks with a diameter greater than 20 cm.	Proponent in consultation with ecologist and DECCW	✓	✓		✓
031	Injury or death of Striped Legless Lizard present within construction area	Minimise impact	Striped Legless Lizard will be moved to adjacent areas (i.e. outside construction boundaries) within 150 m to 200 m of the construction area. Methodology to be developed in consultation with DECCW and DEWHA.	Proponent in consultation with ecologist and DECCW	✓	✓		✓
044	Safety and asset protection	Minimise risk	Development of a Traffic Management Plan, which provides: • Scheduling of deliveries, timing of transport, limiting the number of trips per day; • Undertaking community consultation before and during all haulage activities and providing a dedicated telephone contacts list to enable any issues or concerns to be rapidly identified and addressed;	Proponent in consultation with licensed haulage contractor and road authorities	✓	✓		✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD

			• Managing the haulage process, including the erection of warning signs and/or advisory speed signs posting in advance of isolated curves, crests, narrow bridges and changes of road conditions;
			• Placing of speed limits on all roads that would be used primarily by construction traffic to reduce the likelihood of any accidents and reduce maintenance costs;
			• Designing and implementing temporary modifications to intersections and roadside furniture as appropriate;
			• Producing a Transport Code of Conduct which would be made available to all contractors and staff detailing traffic routes, behavioural requirements and speed limits;
			• Establishing procedures to monitor traffic impacts on public and internal access tracks during construction, including noise, dust nuisance and travel times, and to implement modified work methods to reduce such impacts where possible; and
			• Reinstating pre-existing conditions after temporary modifications to the roads and pavements along the route, where applicable, in consultation with relevant authorities.
			• Provide the RTA with traffic movements at the following junctions throughout the duration of the construction period:
			  • Monaro Highway and Springfield Road
			  • Monaro Highway and Snowy River Way
			  • The Snowy River Way and Avon Lake Road
			  • Any access along the Snowy River Way proposed to be used for the wind farm development					

049	Safety and asset protection	Minimise risk	Establish a procedure to ensure the ongoing maintenance of the Project site internal access roads during the operation phase. This maintenance would include sedimentation and erosion control structures, where necessary.	Proponent			✓	

	Impact	Objective	Mitigation Task	By	Stages			
					PC	C	OM	RD
084	Deterioration of air quality	Minimise impact	During excavation topsoil will be stockpiled. After excavation topsoil will be replaced for seeding and excess subsoil will be disposed of in an appropriate manner. If any excavation occurs on steep slopes the topsoil will need to be stabilised.	Proponent		✓		✓
086	Deterioration of air quality	Minimise impact	During dry and windy conditions a water cart or alternative (non-chemical) dust suppression would be available and applied to work areas.	Proponent		✓		✓
097	Council roads	Liaison with council	It may be necessary to transfer a Crown Road to Council for discrete sections of land that are to be affected by the proposed development. The Proponent will cover the cost of Council adopting such roads and maintaining them for the duration of the Project.	Proponent in consultation with council	✓	✓		✓
099	Environmental	Minimise impact	Micro-site on-site infrastructure within a 100 m radius of the proposed Project infrastructure with respect to: • Maintaining a minimum 500 m buffer between constructed WTG's and the neighbouring landowner to the south of the Boco Cluster; • Minimising impacts to ecologically sensitive habitats and species, as listed in Chapter 10 Flora and Fauna; and • Avoiding hollow-bearing trees wherever possible.	Proponent in consultation with relevant consultant	✓	✓		✓

	Impact	Objective	Mitigation Task	By	Stages PC	C	OM	RD
New Statements of Commitment								
110	Decommissioning	Manage process	A Decommissioning Plan will be prepared at the end of the wind farm's life detailing the process of decommissioning, the components to be removed and those to be left in situ.	Proponent				✓
111	Landowner aerial spraying	Minimise impact	Reimburse landowners with airstrips on property which adjoins the Boco Rock Wind Farm for any proven increase in agricultural spraying costs as a result of the presence of the wind turbines.	Proponent			✓	
112	Safety and asset protection	Minimise risk	All access points to the Snowy River Way will have safe intersection sight distance (SISD) available in both directions in accordance with the RTA Road Design Guide.	Proponent in consultation with the RTA		✓	✓	✓
113	Loss of water quality and change to hydraulic regime	Minimise loss and impact on adjacent watercourses	Mitigate for any impacts on groundwater as a result of the construction or operation of the wind farm. Ensure that there are no lasting impacts on groundwater following decommissioning.	Proponent in consultation with Landcom 2004		✓	✓	✓
114	Loss of water quality and change to hydraulic regime	Minimise impact on groundwater	Carry out a groundwater investigation prior to any blasting on-site (if required) to ensure that there is no adverse impact on groundwater for users or dependent ecosystems. If the investigation highlights areas of concern, then appropriate mitigation or alternative methods will be used.	Proponent in consultation with NOW	✓	✓		
115	None	Minimise risk	Provide a finalised turbine layout and infrastructure map, including turbine co-ordinates, to all stakeholders following completion of the construction of the wind farm.	Proponent			✓	

APPENDIX A – ECO LOGICAL AUSTRALIA ATTACHMENTS

Attachment 1: Outcomes of meeting to discuss DECCWs comments regarding the adequacy of the Environmental Assessment for the proposed Boco Rock Wind Farm

Attachment 2: Minutes from the Boco Rock Wind Farm Ecological Assessment 11th January 2010

Attachment 3: Biobank Agreement Management Actions

ATTACHMENT 1

Gary Whytcross
Regional Director
South East Region
Environment Protection and Regulation Group
Department of Environment, Climate Change and Water
PO Box 622
QUEANBEYAN NSW 22620

10 December 2009

Dear Mr Whytcross

RE: Outcomes of meeting to discuss DECCWs comments regarding the adequacy of the Environmental Assessment for the proposed Boco Rock Wind Farm

Thank you for you and your staffs time on Thursday 3rd December to discuss the above.

We note the following agreed outcomes of the meeting:-

1. That the Proponent (Wind Prospect CWP Pty Ltd) has prepared an assessment (Biobanking Site Assessment report with indicative but robust credit calculations) using the Biobanking Methodology to assess impacts on all biodiversity values.

2. Additional fauna surveys in accordance with the DGRs, although not required for a Biobanking Assessment, were also undertaken to meet EPBC Act requirements (accredited assessment process).

3. Once the final turbine type (between 2 to 3.3 MW) and layout has been determined that these credit calculations will be repeated by an accredited biobank assessor with the minimum number of plots and assessment circles required in accordance with the latest version of the credit calculator and any advice from DECCs regarding amendments to these requirements (assessment circles).

4. The Proponent will not be seeking a Biobanking Statement as the project will be assessed via the Part 3A s75JA Provisions.

5. That DECCW accepts that the terminology of "Red Flags" does not apply to projects being assessed under these provisions although they do provide an indication of the high biodiversity values of these areas and would prefer that impacts to these areas be avoided.

6. That DECCW accepts that areas that are intended to be revegetated (i.e. road verges following the construction phase) are classed as temporary impacts and are treated as such by the credit calculator that provides some "credit" for the revegetation. The proponent acknowledges that the revegetation is unlikely to replicate the full values of the Biodiversity of these areas prior to impact.

We note that DECCW requested further clarification/information on the following:-

- Statement of Commitments (~~refer to Inclusion 1~~)

- Impacts to woodland vegetation and significant local Squirrel Gliders populations (Inclusion 2).

- Number of hollow bearing trees to be lost (Inclusion 2)

DECCW will now undertake a detailed assessment of the proposal and a meeting is to be scheduled for the first week in January 2010 (suggested dates Wednesday and/or Thursday 6-7th January at Queanbeyan) to allow agreement to be reached on any outstanding issues including:-

- Loss of "known habitat" versus "habitat" (defined by ELA as potential habitat) for Grassland Earless Dragons and agreement on calculation of offset areas.
- The assumptions used in the credit calculations (revegetated areas, loss of hollow bearing trees)
- Agreement on quantification of offsets (given that calculations will need to be revised post approval)
- Statement of Commitments including need to retire additional credits.

Could you please confirm that the suggested date(s) are suitable.

If you require any clarification of the additional information provided please contact either Tammy Haslehurst (02 8536 8663 or 0400 494 233 Ecology and Site Survey), Credit calculations (Daren James 8536 8618 or 0404 447 077) or offsets (Robert Humphries 8536 8620 or 0417 258 264)

Yours sincerely,

Andrew Morison
Managing Director
Eco Logical Australia

Cc Dinuka McKenzie, A/Director, Infrastructure Projects DoP
Dr Sandie Jones, DECCW
Ed Mounsey, Development Manager, Wind Prospect CWP Pty Ltd.

Inclusion 2: The area of Woodland vegetation to be impacted and number of Hollow bearing trees

The Environment Assessment (EA) report and credit calculation report includes details regarding the area of woodland vegetation types to be impacted (Table 20 of EA report and Table 6 of the Biobanking Assessment report).

The total area of woodland vegetation of all condition classes (biometric mod-good, low and derived grasslands) to be impacted is 100.75 ha for the 107 turbine layout with 12 m roads (permanent and temporary loss combined) and 101.41 ha for the 125 turbine layout.

It is noted that over half of this area is derived grassland (Ribbon Gum and Snow Gum woodland where the tree canopy is completely absent). In these areas there will be no loss of hollow bearing trees as there are no trees to be impacted.

A further 5-10% of this woodland vegetation is in biometric low condition (i.e. <25% of the Lower benchmark for canopy cover and > 50% of ground cover is exotic species). Areas mapped in low condition have a canopy cover of less than 4% (benchmark is 15-30%). Eco Logical Australia agrees with Wind Prospect's statement/commitment that the ability to avoid trees (and hollows) in areas mapped as biometric low condition is extremely high and achievable (Refer to attached photographs).

The maximum area of intact (treed) woodland vegetation (in biometric moderate-good condition) to be impacted where there is a possibility that some hollow bearing trees will be lost is 30.07 ha for the 107 turbine layout with 12 m roads (permanent and temporary loss combined) and 30.06 ha for the 125 turbine layout. The EA report indicates the intention to avoid, where ever possible, any hollow bearing trees in these areas, indeed roads and turbine pads have been designed with this in mind ,to avoid trees "where possible" in these areas i.e. impacts will primarily be to ground and mid cover. Further, in many cases, the ground cover to be impacted is >50% exotic (these areas only being mapped as mod-good condition because the canopy is > 25% of the lower benchmark and therefore could not be mapped as low condition). See photographs below.

Accordingly, the actual number of trees to be impacted in this zone is likely to be extremely low and therefore impacts to the local Squirrel Glider population minimal or negligible.

The offset strategy includes a commitment, subject to any alternative preferences by DECCW, to include the appropriate proportion of these woodland vegetation types in the offset area(s) which will include large areas with mature canopy and hollows suitable for Squirrel Gliders and due to the changed management regime that will be imposed will, over time, allow for regeneration of canopy species to replace the inevitable loss of the current canopy layer due to senescence and old age.

ATTACHMENT 2

MINUTES

TITLE	Boco Rock Wind Farm Ecological Assessment
LOCATION	Department of Planning, Bridge Street, Sydney
DATE	11 January 2010
TIME	11 am – 2pm
ATTENDEES	**Department of Planning** Neville Osborne, Anna Timbrell **Eco Logical Australia:** Robert Humphries, Darren James, Tammy Haslehurst **Wind Prospect CWP:** Ed Mounsey, Scott Evans **DECCW:** Sandie Jones, David Nicholson, Andrew Remnant

1. Known versus potential habitat – Grassland Earless Dragon / Striped Legless Lizard

Eco Logical advised that both known and high/low potential habitat for the Grassland Earless Dragon (GED) (107 ha of impact) had been included in the Biobanking credit calculation for the species. As this represented the maximum loss for the species on site a recalculation of the GED credits required, using a multiplier for different habitat types, was not required. i.e. the total area of habitat could be multiplied by the revised Tg score.

Action: Resolved – no further action required as implications of revised Tg score communicated.

Striped Legless Lizards (SLL) were not included as species credits in the indicative biobanking calculation – Eco Logical provided reasons such as the species not being found on the impact site during survey and therefore only potential habitat was mapped on site. ELA also noted that the species inclusion would not make a significant change to the credit calculations. DECCW requested that ELA include calculations for the Stripped Legless Lizard.

Action: Eco Logical to re-run with SLL and forward the calculations and justification to DECCW.

If offsets were required for impacts on potential habitat it was discussed that a consistent approach must be applied on the offset sites. That is, impact on potential habitat should be allowed to be offset with credits generated for potential habitat on the Biobank site.

Action: Agreed – no action required.

As turbines are present in known GED habitat DECCW cited the requirement to avoid and mitigate all impacts. ELA advised that extensive measures have been undertaken to avoid and minimise impacts, including removal of some turbines but that some impacts would still occur and that this was consistent with the DoP's DGRs that require impacts to be "*minimised as far as reasonable and feasible*". In addition, based on the area of potential habitat mapped in the study area which it has been agreed all requires offsetting, the actual loss of known habitat was relatively small.

It was explained by WPCWP that removal of additional turbines from the proposal, particularly those in high wind areas along Sherwins range, would affect the viability of the project.

Action: Resolved – no action required.

2. Tg Score for GED

DECCW advised that they are currently revising the credit calculator and that they believe the current Tg score for the GED is inadequate.

DECCW advised that they would like to change to Tg Score for the GED from 0.75 to 0.125, as they had found errors in the original calculation, and that they would like that to be considered in the current assessment

The change in Tg score is estimated to change the offset requirement from ~230 ha to ~1396 ha that is it would increase the number of credits required from approx 1,396 credits to around 8,376.

WPCWP advised they have been using the tool in good faith and therefore a request for an offset of this size at this stage of the project would be unreasonable even if it is considered more appropriate for the species.

DECCW advised that outside the biobanking scheme offsets for red flag communities are generally in the order of 10:1.

3. DECCW Biobanking Calculation Queries

Matters discussed included:

Benchmark changes for Management Zone 3, and others areas where current and future site value scores had been maintained at 3. ELA outlined the reasons for this (namely '0' scores in benchmarks and that the plot data did not record any mid story or ground story shrubs).

Action: Resolved – no action required.

Percentage native vegetation cover within assessment circles:

Noted that circles only impact on an outcome when they cross either a 10% or a 30 % band and changing from 30% – 40 % to 60 % - 70 % would not change the predicted species for this assessment as they are all within the same threatened species landscape band.

ELA presented some worst case scenarios that demonstrated that the landscape scores were in the 20-30% category for woodland areas and 60-70 % for grassland areas and that they remained in these categories post impact.

Agreed that if tool ran for final footprint, all assessment circles would be included so as to strictly comply with biobanking scheme. Given proposed changes to the methodology, this may be a number of representative landscape circles.

Action: Resolved – no action required.

4. Temporary versus permanent loss

Revegetation discussed and consideration of rehabilitation in tool was explained.

It was advised that a 17 % increase in credit requirements would result if all loss was considered permanent. This increase would be less for the 6 m road layout as most loss under this layout if permanent loss.

Option of a Deferred Credit arrangement for rehabilitation was discussed as DECCW believe rehabilitation in the landscape is very difficult to achieve.

WPCWP stated that the rehabilitation was a mitigation measure and the credits calculated for the development should therefore be reduced by the appropriate amount.

Action: Resolved – no action required.

5. Vegetation mapping

Area of concern discussed. It was noted that a change in vegetation type would not significantly alter the credit calculations and therefore no change is required to provide DECCW with a robust estimate of the total offset area required.

Action: Resolved – no action required.

6. Hollow-bearing Tree Removal / Squirrel Glider

Worst case scenario examples for hollow-bearing tree clearance were presented. It was noted that impacts are minor. Agreed by all that no further hollow-bearing tree data was required.

Action: Eco Logical to provide maps of the examples to DECCW

7. Offset Sites

Offset options discussed.

In principal agreement for an approximately 750 ha offset site comprised of a combination of properties that incorporates both woodland and grassland areas and known records of GED and SLL.

DECCW agreed to review the values of the properties using their internal databases.

Action: Eco Logical to provide shape files of the proposed offset sites to DECCW

Action: DECCW to review values of the properties using internal databases

8. Relocation Strategy

DECCW advised that they will comment on the relocation strategy although it is not considered a project requirement. Comments should be considered suggestions not requirements.

9. Statement of Commitments

DECCW advised they will comment on the Statement of Commitments although this will mainly be regarding wording of the commitments not the proposed commitments.

Summary

- No re-run of the Biobanking tool required
- DECCW will look at the proposed offset properties using their data prior to formal site approval
- No change required to the vegetation mapping
- No further hollow-bearing tree data required
- Indicative Biobanking calculations considered appropriate
- In principal agreement reached for a 750 ha offset site comprised of a combination of properties

Eco Logical to send to DECCW:

- Maps for hollowing-bearing trees and Squirrel Glider analysis
- Shape files for proposed offset sites
- SLL calculations and justification

Cc Sandie Jones

Biobank Agreement Management Actions

The 'standard' and 'additional' management actions that may be required at a biobank site for the creation of ecosystem and/or species credits is outlined in Section 2.6 of the Biobanking Assessment Methodology. Standard actions are those that apply to the generation of ecosystem credits and include:

- Management of grazing for conservation;
- Weed control;
- Management of fire for conservation;
- Management of human disturbance;
- Retention of regrowth and remnant native vegetation;
- Replanting or supplementary planting where natural regeneration will not be sufficient;
- Retention of dead timber;
- Erosion control; and
- Retention of rocks.

'Additional' actions are those that apply to the management of threatened species and their habitats, for either the creation of ecosystem credits (where threatened species are predicted on site) or for species credits. Additional actions may include:

- Control of feral and/or overabundant native herbivores;
- Vertebrate pest management – Feral Pigs; and
- Vertebrate pest management – Foxes and/or miscellaneous species;
- The following additional management actions are required for the generation of Grassland Earless Dragon and Striped Legless Lizard credits at the proposed Biobank sites.
- Cat and/or Fox Control
- Feral and/or native herbivore control/exclusion (e.g. rabbit, goats, deer etc).

Management of grazing for conservation

Current best practice management of Natural Temperate Grasslands and Grassland Earless Dragon Habitat requires carefully controlled grazing by native and/or domestic animals to maintain a healthy ground cover of native grasses and associated forbs/herbs.

The following grazing management practices were determined in consultation with the DECCW's Sandie Jones and the three landholders on 16-17th March 2010.

For each of the proposed Biobank Sites which will form the biodiversity offset package for the proposed Boco Rock Wind Farm, the landholders will be legally obligated to meet the following requirements, in perpetuity, in relation to grazing and grazing related activities:-

- All grazing to be "time controlled rotational cell grazing" not set stocking.
    - Additional internal fencing and stock watering points, as identified in each Biobank Agreement will be permitted to facilitate suitable rotation grazing frequencies.
- No application of any fertilizers to increase productivity and /or grazing potential of the land (domestic animals nutrient supplements in the form of animal "licks" or "brews" permitted).

- No non native pasture improvement activities (i.e. conversion of NTG to Phalaris or Barley Grass)
- Ground cover to be maintained at a minimum 1,500kg/ha dry biomass and between 70-100% cover (i.e. no greater than 30% bare ground)
    - Note this is an average for NTG sites. Specific targets will be developed for each property and broad vegetation and/or habitat type as part of the preparation of the Biobank Agreement Management Plans i.e. biomass may be lower for rocky areas which provide better GED habitat and higher in non rocky areas that are more suitable to be managed as NTG.
- Grazing is to be removed from paddocks once these minimum thresholds are reached and not restocked until in excess of these minimum thresholds.
    - If these minimum thresholds are exceeded as a result of drought conditions, no stock are to be permitted into the Biobank areas until ground cover has recovered. Landholders will have to consider either de-stocking from other parts of their properties not subject to the Biobank Agreement or supplementary feed in other parts of their properties.
- Each paddock/grazing cell is to be rested for at least two, 2-4 week periods during the flowering season, September to March, to allow seeding of native flora.
- Two 1 ha grazing exclusion plots are to be established in each vegetation type on each property to monitor the effects of no grazing on NTG and GED habitat values.
- Any woodland areas in Biobank sites are to establish tree regeneration zones. These will be temporary fenced areas up to 30 metres around remnant clumps/individual trees to allow for natural regeneration of canopy species. These temporary enclosures will be periodically moved once canopy species are robust enough to withstand damage by stock.

Monitoring and Reporting

A detailed grazing record (date, paddock number, number of stock, duration, biomass at commencement and completion of grazing cycle) is to be maintained and made available for inspection on request and included in the standard Biobank Annual report.

A scientifically rigorous grazing/habitat condition monitoring program is to be established, using permanent monitoring plots and photo points, and implemented for each Biobank site that monitors and reports annually on the following:-

- Reduction in weed cover across the Biobank sites as a whole and in particular around “sheep camps”
- Increases in tussock cover
- Number and richness of native species

Local benchmark sites may be established to assist in reporting against these targets.

It is noted that to meet the above NTG conservation targets that each of the three landholders will need to reduce their current grazing practices by between 10 and 30%, which on average, will achieve the approximate 20% predicted improvement in biodiversity values (over an in perpetuity timeframe) used by the Biobanking Assessment methodology to calculate the approximate 5:1 offset ratio for NTG.