



**Arcus Project Number 2146**

**Proposed Umsinde Emoyeni 140 MW Phase 1 and 140 MW Phase 2 Wind Energy Facilities, Western and Northern Cape Provinces**

**MEETING: BirdLife SA Comments on Umsinde EIA Avifaunal Specialist Report**

**Date: 05/05/2016**

**Notes and Actions**

<b>Attendees:</b>			
Samantha Ralston-Paton (SR) – BirdLife South Africa (BLSA)			
Lucia Rodrigues (LR) – Western Cape Black Eagle Project			
Andrew Pearson (AP) – Arcus Consulting – Avifaunal Specialist			
Anja Teroerde (AT)– Arcus Consulting – Avifaunal Assistant Specialist			
Ashlin Bodasing (AB) – Arcus Consulting - EAP			
Ben Brimble (BB) – Windlab Developments SA – Project Developer			

Attendee	Notes	Actions	Person	Due Date
AP	Welcome and purpose of the meeting to discuss comments received from BLSA and LR on the Avifaunal Specialists Report for the proposed Umsinde Project.			
SR	Did the EIA report have any significant change made before submission of the Final EIA to the DEA?			
AB	No significant changes were made to the report from Draft to Final.			
SR	This site has a number of Verreaux’s Eagle (VE) which as we have come to understand and verify with some operational monitoring data, are prone to collision with wind turbines. BLSA are not currently convinced that enough has been done to protect VE on this site.			
	The avifaunal 12 month pre-construction monitoring has gone over and above the minimum requirements set in the guidelines. 3 km buffer alone may not be adequate to address the current concerns of potential fatality. Additional monitoring effort is required because of the number of pairs in the area and the activity recorded. At least one year of additional monitoring is required, focused on Verreaux’s Eagle and the latest proposed turbine layouts. GPS tagging could yield useful data, but BirdLife SA is cautious about this approach due to the potential risk to birds. Visual observation should be adequate.			
AP	The 3 km buffer is from the draft VE guidelines, which show that in South Africa recommended buffers to date have varied (with a mean of 2.45 km). The 3 km buffer was also advised by recommendations from other specialist reports as well as input from Dr. Andrew Jenkins.			



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	The final proposed layout avoids ridges and high sensitivity areas based on flight activity.			
LR	The 3 km nest buffer is good but there is no flight activity buffer.			
SR	How much confidence is there that the sensitivity map displays what is actually happening on site. Birdlife acknowledges that best practice was followed and exceeded but as this is a highly sensitive site for Verreaux's Eagle BLSA would like another year of monitoring to get a better understanding of how birds are using the site. Ideally this should take place within the EIA. Ridges and high sensitivity areas were not demarcated as no-go areas. BirdLife South Africa is concerned that these may not be avoided if the layout gets amended, which often happens.			
SR	BirdLife South Africa is concerned about heavy reliance on adaptive management. ., we need as much information pre-operation to better inform the layout and environmental management plans. There is a lack of capacity in DEA to oversee and enforce operational mitigation measures. These measure must be put in place prior to commencement of the operational phase.			
BB	There is concern from the developer that even if an additional 12 months of monitoring is undertaken BLSA will still ask for another additional year of monitoring. The minimum standards have already been complied with.			
BB	What is the reason behind why BLSA does not agree with the findings of the Avifaunal Report			
LR	Has been studying Verreaux's Eagle since 2004. A volunteer researcher supported by the EWT and has written articles on the subject and is co-author of a recently published paper "Verreaux's Eagles in contrasting land-use areas.". It is important to get it right from the start. There are turbines proposed near and within areas of high flight activity. The potential collision based on flight activity will be unacceptable. Once a windfarm becomes operational developers are reluctant to share post construction monitoring data which makes it unlikely that meaningful adaptive management will be introduced.. Would like to see no turbines close to or in areas of high flight activity. Juvenile Eagles are a concern. Believes 3 km buffers will be sufficient initially but not during juvenile dispersal. They will then go into areas of high flight activity away from nests, which are currently not sufficiently buffered.			
SR	So far 6 mortalities of Verreaux's Eagle have been documented in South Africa. There is a theory that as several of these happened away from nests collisions occur during territorial displays.	Correction from BLSA, only 5 mortalities not 6.		
LR	Would want to see areas of high activity sufficiently buffered and one more year of monitoring focussed on the proposed layout area to identify and confirm these areas. Of the entire site,			



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	focussing in particular, on the high flight activity areas. Flight paths of the dispersing juveniles have to be shown separately			
<b>SR</b>	Additional monitoring must look at bird behaviour			
<b>LR</b>	Autumn months are especially important (April/May) to monitor, as this is when preparation for mating/nest building occurs.			
<b>AP</b>	Understands that VE is the main concern. Important to note that site was assessed based on all birds, and incidences of other priority species and birds was generally low.			
<b>SR</b>	Assuming that another year of monitoring is done the site remains highly sensitive. BLSA wants clear legally binding and enforced actions in the EMP for operational phase mitigations with specific numbers, which would be determined together with the avifaunal specialist. For example clear descriptions of the number of VE mortalities that would result in mitigation/s such as deterrents/turbine curtailment/shutdown/removal being required.			
<b>BB</b>	Windlab will be happy to include this in the EMP.			
<b>LR</b>	As there are many windfarms in the Karoo it is important to minimise collisions on all of them due to cumulative impacts. As GPS tagging has not proven successful on Verreaux's Eagles thus far, would radar be an option?			
<b>AP</b>	Could probably be more efficient with people than with radar. Radar is more useful for nocturnal species.			
<b>SR</b>	Radar only covers an area of a few kilometres and would be very expensive on such a huge site. Can be helpful in combination with people but has its limitations. So far a significant proportion of Verreaux's eagles that were GPS tagged died. Two birds were tagged two weeks ago and BirdLife SA would rather not see further birds should tagged pending that outcome of that study.			
<b>LR</b>	There are comparisons between Verreaux's and Golden Eagles in many EIAs. It would be better to compare populations with similar density and behaviour. For example Western Scotland has Golden Eagle at a density of 50 km <sup>2</sup> which is comparable to Karoo densities. There are many wind farms in Western Scotland. Approach RSPB for results.	LR to send applicable research papers to AP	LR	16/05/2016
<b>SR</b>	Little post-construction monitoring is done in Scotland.			
<b>AB</b>	Stated that the worst case scenario has been assessed in the EIA and by the specialists, the assessment was done on 98 turbines per phase, but it is unlikely that all 98 will be constructed.			
<b>BB</b>	It is more likely that between 35-50 turbines per phase will be constructed			
<b>LR</b>	High sensitivity areas must be no go areas. No turbines in high flight activity areas			
<b>AP/AB/BB</b>	No turbines have been placed in high sensitivity areas			



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<b>AB</b>	What would BLSA recommend for them to support the proposed project			
<b>SR</b>	Another year of monitoring focusing on VE and the proposed layout and high flight activity areas. The additional year of monitoring does not need to follow the current guideline, it needs to be focused in an attempt to fill any knowledge gaps and to confirm the flight sensitivities. The environmental management programme needs to be changed and clear thresholds of activity data and mitigation measures needs to be included with regards to fatalities. Behaviour of VE needs to be monitored for another year. The results of the additional monitoring would need to show that the development of a WEF is acceptable in terms of potential impacts on avifauna.	AP to compile a proposed methodology and scope for the additional 1 year bird monitoring, to which Birdlife SA (SR) and LR will give input.	AP	18/05/2016