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Dear Magdalena

**CONSIDERED OPINION**  
**RIETKLOOF WIND FARM - CONSERVATION PLAN**

This opinion is provided on the basis of information contained in:

- PROPOSED RIETKLOOF WIND ENERGY FACILITY - FINAL BASIC ASSESSMENT REPORT prepared by WSP in Africa and dated February 11, 2019;
- BASIC ASSESSMENT FOR THE PROPOSED RIETKLOOF WIND ENERGY FACILITY: FAUNA & FLORA SPECIALIST IMPACT ASSESSMENT REPORT AND CONSERVATION MANAGEMENT PLAN prepared by 3Foxes Biodiversity Solutions (3Foxes - Simon Todd), and dated July 2018;
- RIETKLOOF WIND FARM BA – AGRICULTURAL AND SOIL ASSESSMENT, prepared by EOH Coastal & Environmental Services and dated June 2018;
- PROPOSED RIETKLOOF WIND ENERGY FACILITY, WESTERN CAPE, SOUTH AFRICA: DRAFT ENVIRONMENTAL MANAGEMENT PROGRAMME, prepared by WSP in Africa and dated February 11, 2019;
- Environmental Authorisation Reg. No. 14/12/16/3/3/1/1977 dated 10 April 2019 and subsequent amendments issued by Department of Environmental Affairs;
- Environmental Authorisation Reg. No. 14/12/16/3/3/1/1590 dated 23 November 2016 and subsequent amendments issued by Department of Environmental Affairs; and
- Various site Assessment and reports prepared by **Trusted Partners**, over the period 2018 to date.

**Trusted Partners** were recently appointed by WSP in Africa to prepare the Terrestrial Ecological Walkdown Assessment as required by the Environmental Authorisation for the Rietkloof Wind Energy Facility (RK-WEF). The RK-WEF is situated some 20-30 kilometres north of Matjiesfontein and within the proclaimed Komsberg Renewable Energy Development Zone (REDZ).

**Trusted Partners** have extensive experience in the region inasmuch that we have been engaged on several other WEF's immediate adjacent to RK-WEF as well as numerous others in the region in preparing Biodiversity and Critical Habitats Assessment (IFC PS 6), Terrestrial Ecological Assessments, Biodiversity Management Plans and supporting projects as Environmental & Social Risk Management Adviser.

**Ecological Setting of RV-WEF**

The Rietkloof Wind Farm and the associated infrastructure is located on a site ~20km north of Matjiesfontein. The site falls within the Laingsburg Local Municipality (Central Karoo District Municipality) in the Western Cape. It must be noted that the Rietkloof Wind Farm is located within the Komsberg Renewable Energy Development Zone (REDZ) as determined by the Strategic Environmental Assessment for Wind and Solar Photovoltaic Energy in South Africa (2015 – CSIR/DEA) and formally gazetted on 16 February 2018 (GN 114).

The WEF consists of the following:

- 47 wind turbines with a maximum generating capacity of 147MW;
- Transformer hard standing area per turbine;

- Construction camp and Laydown areas;
- Access roads;
- Overhead 33kV powerlines and underground cabling;
- Low voltage substation; and
- 125m tall wind measuring lattice masts.

**Trusted Partners** recently prepared a report on the Terrestrial Ecology of the RK-WEF as required in the aforementioned EA's, in order to ensure that the micro-siting of the turbines and power line has the least possible impact and all protected plant species impacted are identified. As a secondary outcome, a list of protected species as well as species suited to rescue/translocation was provided.

The Terrestrial Ecology of the RK-WEF is one of several Terrestrial Ecology reports **Trusted Partners** have undertaken for a series of adjacent Wind Energy Facility Projects within an overlapping Area of Influence. The general descriptions provided in the report are thus an overview of the broader area and contains information that has been summarised from separate but contiguous / overlapping site assessments in order to more effectively contextualise the broader environment and the Area of Influence as well as to better understand the 'bigger picture', since the natural environment is interconnected and is strongly influenced by the surrounding ecological dynamics.

The walk down for the RK-WEF Terrestrial Ecology report was undertaken in the time-period between August 30, 2021, and September 11, 2021. The Level-of-Effort was three persons, consisting of two Natural Scientists and one Technician. The site walkdown was undertaken shortly after a particularly rainy period, which was evident in the notable flowering proliferation, which progressed throughout the site visit period. While the seasonal response of local flora does vary throughout the year, with certain species flowering during different seasons, the time during which the walkdown was undertaken is deemed to have been at a time that would most effectively identify the most species. Many geophytic species which may be dormant for large parts of the year were visible, if not flowering. It is possible that certain flora were not visible at the time of the walkdown. A comprehensive list of references, including data sources is provided in Section 13. Data sources that were utilised for the walkdown and report include the following:

- National (DFFE) Web Based Screening Tool – to generate the sites potential environmental sensitivity;
- National Vegetation Map 2018 (NVM, 2018), Mucina & Rutherford (2006) and National Biodiversity Assessment (NBA, 2019) – description of vegetation types, species (including endemic) and vegetation unit conservation status;
- National and Regional Legislation including Provincial Nature Conservation Ordinance (P.N.C.O). NEM:BA Threatened or Protected Species (ToPS);
- Botanical Database of Southern Africa (BODATSA) and New Plants of Southern Africa (POSA) – lists of plant species and potential species of concern found in the general area (SANBI);
- International Union for Conservation of Nature (IUCN) - Red List of Threatened Species;
- Animal Demography Unit Virtual Museum (VM) – potential faunal species;
- Global Biodiversity Information Facility (GBIF) – potential faunal species;
- Southern African Bird Atlas Project 2 (SABAP2) – bird species records;
- National Red Books and Lists - mammals, reptiles, frogs, dragonflies & butterflies;
- National Freshwater Ecosystem Priority Areas assessment (NFEP, 2011) - important catchments;
- National Protected Areas Expansion Strategy (NPAES, 2018) and South Africa Protected Area database (2020) – protected area information;
- Critical Biodiversity Areas of the Northern Cape (2016) – Bioregional Plan;
- Namakwa District Biodiversity Sector Plan (2008) – Bioregional Plan;
- Succulent Karoo Ecosystem Planning (SKEP, 2002);
- SANBI BGIS – All other biodiversity GIS datasets;
- Aerial Imagery – Google Earth, Esri, Chief Surveyor General (<http://csg.dla.gov.za>);
- Cadastral and other topographical country data - Chief Surveyor General (<http://csg.dla.gov.za>);
- Original Ecological Assessments conducted for the project, excluding bats and avifauna by Todd (2011, 2014, 2016, 2019); and other adjacent Critical Habitat and Biodiversity Assessments by Trusted Partners (2020); and
- Other sources include peer-reviewed journals, regional and local assessments and studies in the general location of the project and its area of influence, landscape prioritization schemes (Key Biodiversity Areas),

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systematic conservation planning assessments and plans, and any pertinent masters and doctoral theses, among others.

### General Terrestrial Biodiversity

Annexure A shows the site locality and regional vegetation units.

It is clearly evident from the site investigation that the vegetation units which are represented within the project area of influence are transitional rather than distinct units. The Renosterveld complex, of which the Shale Renosterveld is recognised as one unit is clearly associated with the higher lying mountains which extend along the Roggeveldberge from the Hantam Karoo near Calvinia in the north-west to the Nuweveldberge between Fraserburg and Merweville in the north-east and extending southwards into the Koedoesberge towards Matjiesfontein. The higher-lying mountainous areas receive a higher rainfall compared to the surrounding distinctly karroid areas, which promotes a less and distinctly wood succulent shrub and herbaceous component compared to the strongly succulent karroid vegetation.

The vegetation occurring within the area surrounding the site and area of influence is broadly according to the national vegetation classification and descriptions for Central Mountain Shale Renosterveld on the higher mountains and slopes, transitioning with Koedoesberge-Moordenaars Karoo on the lower mountains and valleys in the south, east and west with strong Tanqua Karoo influences in the west and Tanqua Escarpment Shrubland in the north. Tanqua Wash Riviere elements are found encroaching towards the site from the west, into the lower lying valleys running south, north and westwards (Figure 2). It is further evident that the Koedoesberge-Moordenaars Karoo present on the west side of the project area has several dominant species not occurring on the western side, with appearance of species such as *Euphorbia hamata* suggesting that the vegetation unit in this area may be more closely aligned with the Tanqua Karoo than with the Moordenaars Karoo found to the east. Several Species of Conservation Concern were identified during the initial ecological assessments. In addition, with the inclusion of additional available information and surveying, additional species have been identified. Where these species have been identified as occurring, measures have been taken to try and better understand the ecology (Annexure B), the broader distribution of the species and local populations within the project site and broader Area of Influence.

At least 50 mammal species potentially occur at the site. The mammalian community is therefore relatively rich and due to the remote and inaccessible nature of the area probably has not been highly impacted by human activities. In general, the ungulates present at the site are likely to be fairly widespread. Springbuck are confined by fences and occur only where farmers have introduced them or allowed them to persist and should be considered as part of the farming system rather than as wildlife *per se*. Both Duiker (*Sylvicapra grimmia*) and Steenbok (*Raphicerus campestris*) are adaptable species that can tolerate high levels of human activity and are not likely to be highly sensitive to the disturbance associated with the development. Klipspringer (*Oreotragus oreotragus*) and Grey Rhebok (*Pelea capreolus*) are somewhat more specialized in their habitat requirements and make use of the upper slopes of the site. The Riverine Rabbit (*Bunolagus monticularis*) which is listed as Critically Endangered (IUCN 2010) and is regarded as the most threatened mammal in South Africa is known to occur within the broad area. Populations of this species occur between Sutherland and Fraserburg to the northeast as well as around Touwsriver to the southwest. Based on the available information, the habitat at the site does not appear to be suitable for this species and there are no known records from the area, indicating that it is highly unlikely that the Riverine Rabbit occurs at the RK-WEF project site.

There is a wide range of environments present for reptiles at the site, including rocky uplands and cliffs, open lowlands and densely vegetated riparian areas. As a result, the site has a rich reptile fauna which is potentially composed of 7 tortoise species, 20 snakes, 17 lizards and skinks, two chameleons and 10 geckos. The site falls within the range of the little-known Fisk's House Snake (*Lamprophis fiskii*) which is listed as Vulnerable and has usually been recorded in karroid sandy areas. This species may therefore occur within the lowlands of the site and as such would probably not be significantly impacted by the development especially given its nocturnal, largely subterranean and secretive nature. Tortoises were relatively abundant at the site and many Angulate Tortoises, (*Chersina angulata*) were observed as were several Karoo Tent Tortoises (*Psammobates tentorius tentorius*).

Although there are no perennial rivers at the site, several of the larger drainage lines in the area were observed to contain rocky, sheltered pools that are likely to contain water on a permanent basis. Several wetlands with dense

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stands of sedges were also observed at the site and are likely to represent important amphibian habitats. Consequently, amphibians which require near-permanent water as well as those adapted to more arid conditions are likely to occur at the site. Nevertheless, only eight frog and toad species are likely to occur at the site, all of which are quite widespread species of low conservation concern.

### Appraisal of the Conservation Management Plan

In 2018/9, WSP in Africa commissioned 3Foxes Biodiversity Solutions to prepare a Biodiversity Impact Assessment Report for the then proposed RV-WEF. The report provided, *inter alia*, a:

- Description of the Affected Environment;
- An Impact Assessment Methodology;
- An Impact Assessment;
- Conclusions and Recommendations; and
- An Appendix 5: Conservation Management Plan.

The 3Foxes Report attempts to provide a rationale for the Conservation Plan under the primary assumption that the site proposed for development is heavily grazed by livestock and that this has had negative consequences for the diversity and condition of the vegetation as well as the diversity of fauna present as many species are negatively affected by the decrease in vegetation cover associated with heavy grazing pressure or in the case of most antelope present in the area, compete directly with livestock for food resources. 3Foxes goes on to proposed mitigation (due to over grazing) be achieved through reducing grazing pressure on six farms upon which the RK-WEF is proposed. However, the commissioned Agricultural Impact Assessment report (EOH Coastal & Environmental Services) unequivocally state the contrary: *“Based on the agricultural potential onsite, DAFF (Agriculture) has determined the grazing capacity to be between 18-25 hectare per large stock unit (ha/LSU) on low undulating landscapes and 26-30 ha/LSU on steep mountainous areas. Grazing capacity potential was determined in 1995 by DAFF (Agriculture) to be between 41-80 ha/LSU increasing to 26-30 ha/LSU towards the eastern sections. **This indicates that, grazing onsite is not utilised to its fullest potential capacity, but this is as a result of water availability.**”*

The key matter here is that any overgrazing (actual or perceived) is in fact not an impact arising from the WEF. In addition, the WEF company itself has no jurisdiction whatsoever over how an individual landowner or collective of landowners manages their lands and hence livelihoods. This assumption by 3Foxes is a complete overreach in scope of assessment and obligation, and thus places burden on the WEF which is not of the WEFs creation.

3Foxes randomly and without providing any scientific basis, determines that no less 4000ha of land must be set aside for this conservation area and that such area shall be based on the footprint and layout of the final development. This statement by 3Foxes eludes all reasonable logic as neither the footprint, nor the layout equate in any manner whatsoever to the alleged degradation of land capability through overgrazing by stock.

3Foxes assertion that the creation of such a conservation area provides a *“safe space were vegetation is not overgrazed and where fauna can retreat from disturbance on the wind farm”* is at best described as delusional. Fauna are simply not going to collect into a defined conservation area should they be disturbed by the wind farm (or in fact any other activity). We have noted that during the construction and commission phase of the nearby Roggeveld WEF (also owned by Red Rocket) there was frequent observations of fauna (antelope, baboons, snakes, rabbits and hares, tortoises, etc) present in or about the construction footprint. These larger faunal only depart the area when there was human presence and did not selectively move to any area in particular. It must be understood the the RK-WEF (together with the Brand Valley WEF, Roggeveld WEF and Karreebosch WEF) cannot be seen in isolation from the overall ecological functionality of the Koedoesberge. The notion that faunal species will restrict themselves to a predetermined conservation area/footprint is naïve and unscientific.

The farmlands of the Koedoesberge are not overgrazed and are not high volume / intensive sheep farms. The statement by 3Foxes regarding *“withdrawing land from production is seen as undesirable, both from an economic and food security point of view. Maintaining some production is therefore seen as a key goal of the management plan, but this must be played off against the diminishing biodiversity returns associated with increasing output, whether this be from game or livestock”*, is confusing and demonstrates a lack of understanding of the farming economics of the area. 3Foxes recommendation that the stocking rate of livestock should be maintained at 50% of

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that recommended for livestock in the area is made without any scientific or agricultural reference or understanding, and as such cannot be relied upon for informed decision making.

It is confusing to say the least in trying to understand the logic behind stocking of the conservation area with appropriate game species to encourage the use of this area by indigenous fauna. How 3Foxes envisages to retain stocked animals within the conservation and at the same time attract "indigenous fauna" (as well as those purportedly escaping from the WEF activities) is unfathomable. Also, the recommendation on fencing is illogical: in the first instance an area of 4 000ha whilst size hardly constitutes sufficient area for effective game management or to redress a perceived deficit in functional biodiversity; and in the second instance, fencing whilst precluding animals from escape also precludes those animals which 3Foxes deems to be escaping from the wind farm activities, from entering the fenced area. It is important to note that none of the farms are games farms and do not actively stock any games species. Moreover, the notion that game counts are to be undertaken annually and that game population be "adjusted downwards when stocking rate is exceeded by 30%" is null and void since the landowners do not and will not be stocking the farms with game (these are not game farms).

Furthermore, the Red Rocket Construction Manager, who has been living almost permanently on the nearby Roggeveld Wind Farm for the past three years has not seen any Gemsbok, Blue Wildebeest or Eland.

In Common Law it is understood that game present on a land parcel belongs to the landowner, and should the land own wish to hunt such game the landowner it within their rights to do so (assuming the species are not protected). 3Foxes impinges on the landowners right in this regard by saying Steenbok, Duiker, Klipspringer and Grey Rhebok should not be hunted. Whether or not a landowner desires to hunt on their farm, remains their prerogative, and has nothing to do with any impact created by the WEF.

3Foxes make unfounded recommendations for the reduction of water points and that such should be at least 5km apart. However, the agricultural report by EOH Coastal & Environmental Services indicates that water is in fact the primary factor that limited full land capability use. An increase in water points would most probably have a beneficial outcome on the broader ecological function particularly for game species.

The conclusion by the Agricultural Impact Assessment report that the land is "not utilised to its fullest potential capacity" is fundamental to the request for removal of Conservation Area from the Environmental Authorisation, as 3Foxes based on their recommendation an incorrect assessment of such agricultural (land carry capacity) potential. The conclusion reached by EOH Coastal & Environmental Service thus effectively makes null the foundation upon which 3Foxes base their desire for a conservation area to mitigate perceived overgrazing.

Other lesser matters raised by 3Foxes such as tourism, quad biking, pets (!), etc are not considered in this opinion on the basis that such are so far out-of-context and divorced from any reasonable thought processes related to the impacts from the WEF, that specific response is a pointless endeavour.

### **Concluding Opinion**

As indicated above **Trusted Partners** have over the past three years conducted numerous assessments on four WEFs on the Koedoesberge, as has 3Foxes across the same projects. Whilst **Trusted Partners** have sort to understand the Koedoesberge as a larger ecological domain and sort to align impact management practices the across the various projects, 3Foxes has for some reason elected (without scientific basis as indicate herein) that a fenced conservation area should be established on the southern most of the WEFs on the Koedoesberge.

Given the above, it is the considered opinion of **Trusted Partners** that:

- The biodiversity across Koedoesberge cannot be managed on a piecemeal basis;
- The ecological functioning of the Koedoesberge and the current farming practice appear to be in relative harmony with each other;
- The establishment and operational of WEF on the Koedoesberge (as attested to be the numerous and various Environmental Authorisations pertaining to such WEF) do not have a significant impact on ecological functional and biodiversity on the Koedoesberge;
- Establishment of a conservation area, as described by 3Foxes, is highly unlikely to achieve the any objectives envisaged by 3Foxes;

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- The conservation plan is especially onerous upon the landowner and serves little to address impact that may be resultant from establishment of WEF;
  - The biodiversity and ecological functioning of the Koedoesberge is best left as unhindered as in its current form;
  - There is particular inconsistency in that the conservation plan method has not been equally applied to the numerous other WEF in the Komsberg REDZ and elsewhere in South Africa; it appears to be an arbitrary application to RK-WEF.

In summary, the conservation plan mooted by 3Foxes and include in the Environmental Authorisation for the RK-WEF, has been founded on particularly weak scientific evidence, if any at all, causing the conservation plan to be fatally flawed. As such it is the consider opinion of **Trusted Partners** that there are exceptionally strong grounds for the removal of the conservation plan from the Environmental Authorisation in totality.

Whereas you may have any queries with regards to the above opinion, please contact me directly.

Yours sincerely

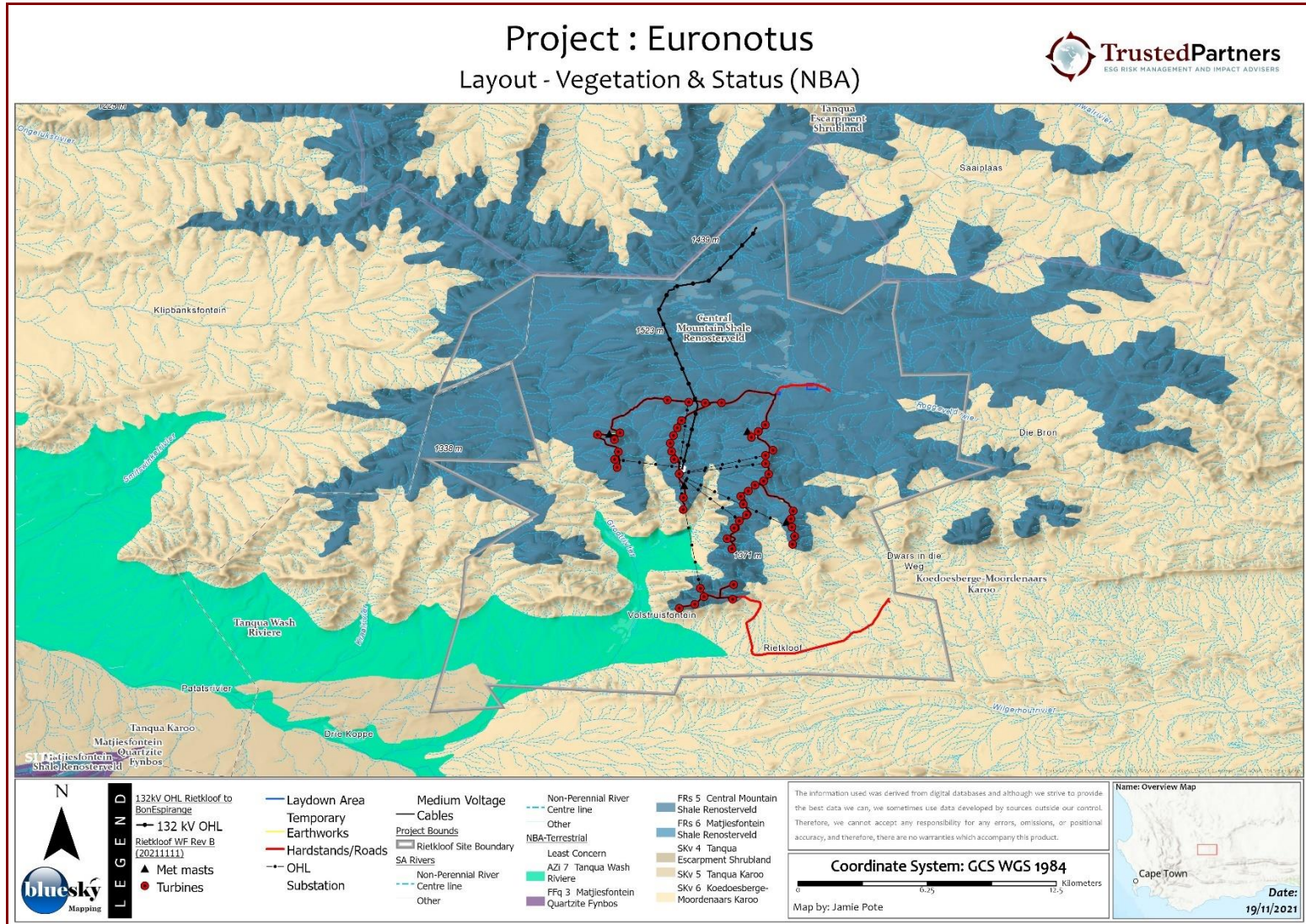


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ANNEXURE A:



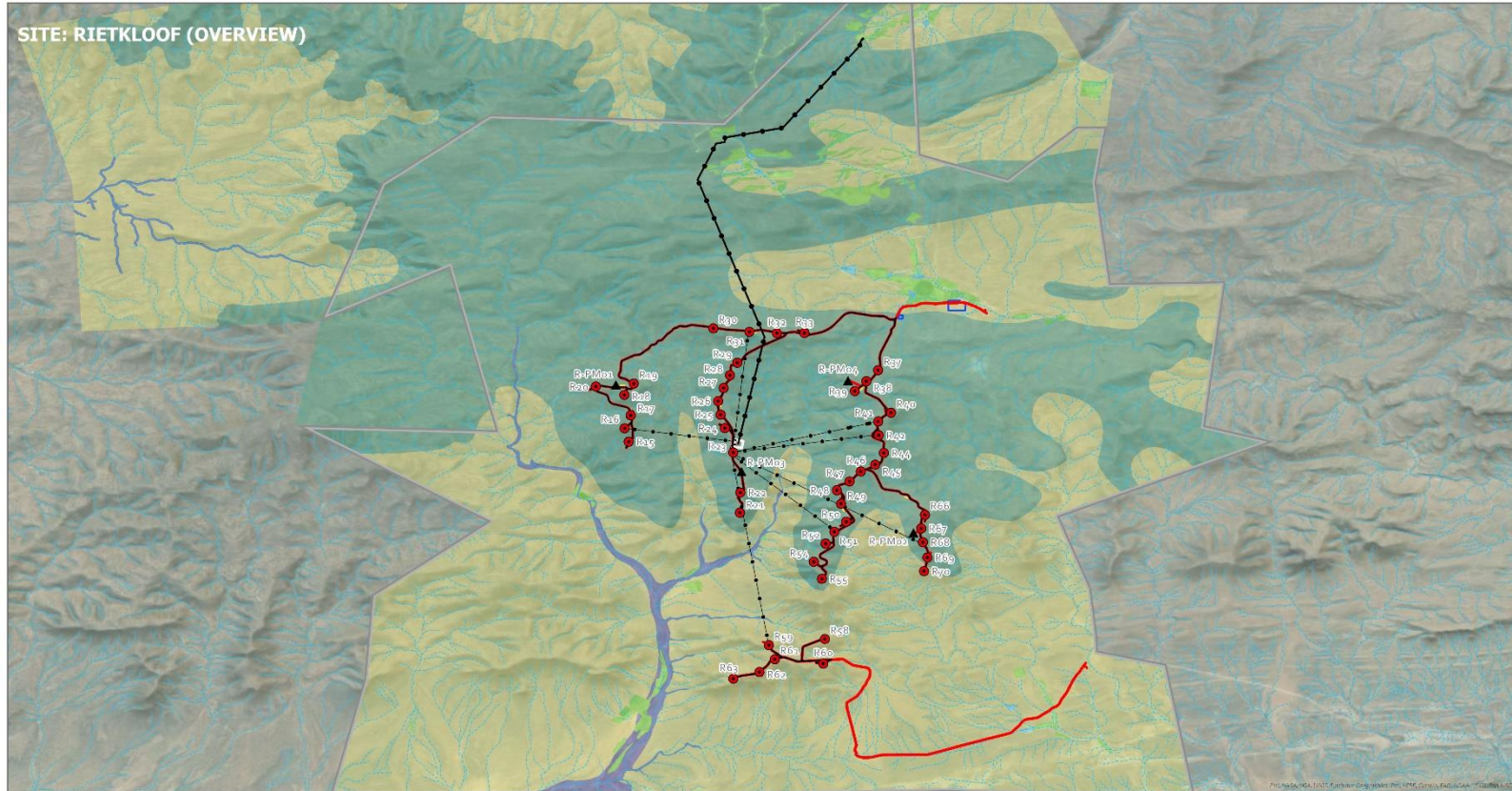
ANNEXURE B:

# Project : Euronotus

## Layout - Sensitivity Overview



SITE: RIETKLOOF (OVERVIEW)



 	<b>LEGEND</b> --- 132 kV OHL WEF positions ▲ Met masts ● Turbines WEF Infrastructure Laydown Area Temporary Earthworks	Hardstands/Roads OHL Substation Medium Voltage Cables Rietkloof Site Boundary	<u>WC Rivers (line)</u> Non-Perennial River Centre line Other <u>NC Rivers (line)</u> Non-Perennial River Centre line	Other <u>Mapped Vegetation</u> Renosterveld Karroid Dams Cultivated Riviere	The information used was derived from digital databases and although we strive to provide the best data we can, we sometimes use data developed by sources outside our control. Therefore, we cannot accept any responsibility for any errors, omissions, or positional accuracy, and therefore, there are no warranties which accompany this product.	Name: Overview Map  Date: 19/11/2021



# Rietkloof Wind Farm

## Komsberg Renewable Energy Development Zone

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Commissioned opinion

The requirement for a conservation offset area as specified in the Environmental Authorization

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Commissioned by: Trusted Partners



Commissioned for: Red Rocket South Africa



Opinion by: D. Balfour (*PhD*)

Date: 29 November 2021

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## Background

The Department of Environmental Affairs has issued Environmental Authorizations (EA) to Rietkloof Wind Power (RF) Pty Ltd for the development of the Rietkloof Wind Energy Facility and its associated infrastructure, north of Matjiesfontein in the Western Cape Province, under the following EAs:

- Environmental Authorisation Reg. No. 14/12/16/3/3/1/1977 dated 10 April 2019 and subsequent amendments issued by Department of Environmental Affairs; and
- Environmental Authorisation Reg. No. 14/12/16/3/3/1/1590 dated 23 November 2016 and subsequent amendments issued by Department of Environmental Affairs

Among others, the EA requires that a Conservation Management Plan (CMP) is developed for the Rietkloof site, that spans 12 farm portions or properties, and that a Conservation Forum is established to monitor the implementation of the CMP. A condition of the Conservation Management Plan is that it pertains to the management of, at a minimum, a 4,000 ha Conservation Area. The CMP needs to be applicable for the operational period of the wind farm and be subjected to regular review.

Red Rocket South Africa (RRSA), who wholly own Rietkloof Wind Power (RF) (Pty) Ltd has expressed concern about the inclusion of the CMP and the development of a Conservation Forum as a requirement of the EA. This report was commissioned as an independent opinion of the appropriateness these requirements in the EA for the Rietkloof site.

This document is structured around a concise expression of the opinion, followed by a supporting set of more detailed observations and arguments which draw on a site visit, a reading of the documents provided and experience of the field in general. Multiple factors inform the opinion, and the opinion is structured around a number of themes.

## Opinion

- a) The need for a Conservation Management Plan, detailing specific management of an as yet undefined Conservation Area, with oversight by a Conservation Forum is underpinned by weak logic and vague ecological notions. Recommended in the Flora and Fauna Specialist Report, the need for these two conditions is based on the recommendation for a Conservation Area to address perceived ecological impacts due to the wind farm. Unfortunately, the rationale for a) requiring and b) calculating the size and positioning of the proposed Conservation Area are poorly established in the Specialist Report, thus the need for the CMP and Conservation Forum are based on an ecologically poor foundation. These aspects of the Specialist Report have been repeated, essentially unchanged, in the Basic Assessment Report.
- b) The need for a CMP and Conservation Forum appear to have been uncritically included in the EA from these original sources, and the weak logic, vague notions and poor rationale are thus simply perpetuated.
- c) The EA clearly provides for the direct impacts of the wind turbines and the associated infrastructure to be directly mitigated on the site – so this issue is largely dealt with.
- d) The requirement for a Conservation Area with a CMP and Conservation Forum are recommended, presumably because it is thought that they will result in some desired

outcome. Unfortunately, the Specialist Report does not clearly articulate either the impacts that are being addressed<sup>1</sup> or the outcome that might be achieved through the interventions. Even if one accepts the desired outcome is adequately captured by the mention of the vague notion of “improved landscape level connectivity and improved plant level biodiversity” as is suggested by the Specialist Report, the logic underpinning this is poor, and no evidence is presented to suggest that the establishment of a minimum of 4,000 ha Conservation Area, which is a key requirement of the Conservation Management Plan, will result in these very broadly defined outcomes. Indeed, it is questionable if it even can.

- e) The rationale for requiring what is functionally a biodiversity offset, as opposed to a mitigation intervention, on the Rietkloof site is not explained at any point in the documentation. In particular, how the figure of “at least 4,000 ha” is derived when the actual footprint of the wind farm is stated as being approximately 126 ha, is unclear. Also unclear is the limitation for placing the Conservation Area only on the six identified properties – properties that are peripheral to the site and with subjectively less impact from the wind turbine placement.
- f) The EA impact assessment process is intended to address the impacts of a development, not to seek ways to address past or even present impacts on the environment that have nothing to do with the development. The Specialist Report specifically suggests that the Conservation Area be managed to reduce the intensity of utilization of the veld by livestock (Pgs. 28 and 70) while at the same time suggesting that “appropriate” game are placed on the Conservation Area. This has the effect of imposing a requirement on one or more of the farmers to make adjustments to their land management to address poorly defined impacts of the wind farm which they do not own or operate<sup>2</sup>. This is a questionable approach. In addition, the recommendations that “appropriate” game be placed on the conservation area are backed by recommendations (Pg. 72) that are both very confusing and highly questionable from a conservation perspective and they should not be implemented as they are currently worded.
- g) Although not an element of the EA, the recommendations made in the draft CMP at the end of the Specialist Report, a report which argues for best practice in the management of the Conservation area, are among the most confusing that I have read in over 30 years in this business.

For these reasons the requirement of a Conservation Management Plan and a Conservation Forum, both of which address the management of an as yet undefined Conservation Area, is not rational and should be removed from the EA and the notion of establishing a Conservation Area should be scrapped.

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<sup>1</sup> The suggestion is made that, as much of the Rietkloof site is also a Critical Biodiversity Area (CBA), the mere presence of the wind farms “will cause a moderate impact” but no further details are presented.

<sup>2</sup> It is important to note that it is being recommended that the Conservation Area be stocked with livestock at 50% of the recommended agricultural rate. Evidence from the field trip suggests that this is already being achieved.

## Context in which the opinion was sought

Among others, the conditions of the EA require that an amended Environmental Management Programme (EMPr), which addresses a number of outstanding issues including the final site layout map, must be made available for comments by registered Interested and Affected Parties and the holder of this EA must consider such comments. Once amended, the final EMPr must be submitted to the Department for written approval prior to commencement of activities. The EA specifies what the EMPr must include as a minimum. This list includes, among others:

- 14.2. The final conservation management plan,
- 14.8. A conservation management plan, (*this appears to be duplication, presumably made in error*),
- 135. Rietkloof Wind Farm must engage with Cape Nature and provide them with the opportunity to provide input to the final Conservation Management Plan, and
- 136. The project company Rietkloof must establish an environmental conservation forum to monitor the implementation of the Conservation Management Plan.

The requirement for a Conservation Management Plan (CMP), stems from perspectives and recommendations presented in the Flora and Fauna Specialist Report as a contributor to the Basic Assessment Report (BAR) for project. Specifically, the Specialist Report identifies the following relevant details:

- The majority of the site is classified as a Critical Biodiversity Area (CBA) as well as being classified as a focus area in the National Protected Area Expansion Strategy (NPAES). It is also a site considered to be a broadly sensitive environment due to the presence of numerous species and habitats of conservation concern.
- In light of the above it is suggested that the development of a wind farm *may compromise the ecological functioning of the CBA or result in biodiversity loss within the CBA if there is not appropriate mitigation*. In order to reduce this potential impact, an on-site mitigation measure whereby no less than 4,000ha of affected land is committed to conservation orientated management for the duration of the operational and decommissioning phases of the development, and that this should be managed in line with an agreed CMP. The offset area is designated as the “Conservation Area”.
- Six “Potential Conservation Properties” are identified (Figure 9 of the report) as appropriate for locating the Conservation Area. According to the report the intention is not to conserve the full extent of the Potential Conservation Properties, but to *“determine a suitable extent, based on the final layout and extent of the Rietkloof wind farm, the connectivity of the areas secured for conservation as well as the diversity in terms of vegetation type and gradient”*. In other words, the Conservation Area which can occupy portions of between one and six properties should be implemented to enhance the connectivity and functioning of the landscape. The exact extent of the Conservation Area, the report suggests, shall be agreed by an ecologist and submitted to DEA for approval together with a Conservation Management Plan prior to the commencement of construction. The final configuration of the Conservation Area must take consideration of the footprint and final layout of the wind turbines and should cover the topographical gradients of the site. This includes ranging from the low-lying

plains in the south to the high-lying hills in the north as well as a significant east-west gradient.

The effective implementation of this measure, it is suggested, would reduce the impact of the windfarm development on the ecological connectivity of the CBAs of the site to an acceptable level and would ensure that the dominant ecological processes of the area are maintained.

This opinion does not comment on other mitigation measures mentioned in the EA.

## Assessment

This assessment is based on a reading of the documents that were provided by Trusted Partners, spending a full day (8 hours) visiting the site during which I had sight of most areas of the Rietkloof Wind Farm site, and personal experience.

### The site visit

In the limited time available it was not possible to travel on all existing roads nor to walk to all areas of the site. It was possible however to access many high points and to see representative samples of all elements of the landscape at the Rietkloof site from a reasonable distance. Through this I was able to generate a realistic impression of where the turbines will be located in the landscape if not the detail of the final placement at each site. This landscape scale view of the site is important in shaping the opinion that I express. In particular:

- In a full day of driving, I noted approximately 200 sheep and less than 10 springbok in the entire Rietkloof landscape. I was informed by a frequent visitor to the area that the stocking density of sheep has remained in this ballpark over the past few years and does not change markedly over an annual cycle. I have no independent evidence either way. Assuming that this number is a minimum number of livestock at the site which has an area of 27,608 ha, that results in an average density of 0.724 sheep per km<sup>2</sup>. Not knowing the upper limit to the stocking rate of sheep on the site but assuming that the actual number could be up to 3 times higher, that results in an average density range of between 0.724 and 2.17 sheep per km<sup>2</sup>. Recommended stocking densities for Central Mountain Shale Renosterveld – the dominant vegetation at the site - by the Department of Agriculture is 36 ha per Large Stock Unit (LSU; or a cow equivalent). If this figure is conservatively converted to a density for sheep by multiplying by 4 (a factor of six is commonly used) that results in a stocking density for sheep of 9 ha per sheep or 11 sheep per km<sup>2</sup>. Based on these observations, assumptions and calculations the density of sheep to which the land is currently being managed is 20% or less of what is agriculturally recommended. If these conservative figures are correct, there is no point in implementing the Conservation Area, the current management of the land already exceeds the stated objectives in the Specialist Report which justify the EA requirement.
- Envisaging the landscape with the completed wind turbines erected and operational, I tried to envisage where landscape connectivity was impeded and what species would be impeded. With over 25 years' experience in protected area management and planning, I was not able to reach the same conclusion as the author of the Specialist Report. In fact the Specialist report is self-contradictory on this matter when it indicates

that species such as Grey Rhebok, which are most likely to be the affected species, would become habituated to the turbines.

## The specialist report

The specialist report, and subsequently the BAR, contains incomplete information, vague assertions, and at times inconsistent logic, or it appears to ignore relevant information. I capture some of the pertinent detail in bullet form below.

- As the wind turbines and the associated infrastructure are to be placed largely in elevated positions, they will mostly have a direct impact on the biodiversity found at the top of the ridges. These direct impacts can be and are addressed in the Specialist Report. Beyond the direct impacts of the turbines and associated infrastructure (indicated as being in the region of 126 ha), the wind farm will be sited in farm land where grazing of the veld has been an ongoing activity for over 200 years. This activity is widespread throughout the region including on land that is identified as CBA. The Specialist Report recognizes this and identifies the impact of livestock grazing as being negative for the biodiversity of the area (First paragraph Pg. 28). The grazing of livestock *“has negative consequences for the diversity and condition of the vegetation as well as the diversity of fauna present as many species are negatively affected by the decrease in vegetation cover associated with heavy grazing pressure or in the case of most antelope present in the area, compete directly with livestock for food resources. Due to the negative impacts of livestock on fauna and flora, releasing areas from livestock grazing can significantly improve the use and value of these areas for biodiversity. An option to mitigate the impacts of the Rietkloof development on CBAs would be to reduce or remove grazing pressure from parts of the site. This mitigation is considered to combine avoidance, minimization and rehabilitation [...]. This would be especially beneficial where the various gradients described above are present and would thus be enhanced through improved management”*.

The discontinuity in logic in this extract from the Specialist Report is unfortunate and is at the core of this issue. Essentially the establishment of the proposed conservation area is conceptualized to address an existing, and potentially ongoing - although this is not clear - problem of veld degradation through farming practices that have nothing to do with the proposed wind farm development. The conservation area is essentially a “biodiversity offset” that has been inappropriately designed and is being inappropriately applied.

## Structure of the logic

The EA does not require that a Conservation Area is established rather it requires that a Conservation Management Plan is drafted with input from Cape Nature and that an Environmental Management Forum must be established to monitor the implementation of the Conservation Management Plan. The net result is that an area must be identified and managed in accordance with an approved plan. The rationale presented in the Specialist Report for recommending the Conservation Area is important; it is articulated as follows and I paraphrase: *The Rietkloof site is broadly sensitive environment due to the presence of numerous species and habitats of conservation concern. The distribution of these has however been mapped in detail*

*and the layout of the proposed wind farm will effectively avoid these. Much of the remainder of the site falls within a CBA, and this impact can be effectively mitigated through the implementation of a Conservation Area, i.e., appropriate conservation oriented management on selected properties within the larger Rietkloof site in order to enhance the ecological processes that may have been negatively affected by the wind farm. With these mitigation measures, the Rietkloof Wind Farm will likely have acceptable terrestrial ecological impacts can therefore be supported from a terrestrial ecological point of view.*

I have a few comments to make under this point.

- The requirement for a Conservation Area, together with an associated Conservation Management Plan is not a standard, or even common, element of an EA for a wind farm. Indeed, it is not a requirement in the Specialists Reports or the EAs of the nearby wind farm sites of Brand Valley (Immediately adjacent to Rietkloof Wind Farm) Kareebosch Wind Farm, Roggeveld Wind Farm or any of the other wind farm developments in the Komsberg Renewable Energy Development Zone which have fundamentally the same landscape and impact features as the Rietkloof properties.
- The ridgetops on Rietkloof are repeatedly identified in the Specialist Report as sensitive and with species of conservation concern and, correctly, interventions are targeted at minimizing and mitigating impacts on and around the footprint of the turbines and access roads (which totals approximately 126 ha (pg.38)). The specialist Report identifies other impacts associated with the ridgetops such as on the habitat of Klipspringer *Oreotragus oreotragus* and Grey Rhebok *Pelea capreolus* to be of low concern as the antelope are *“likely to become habituated to the turbines themselves and the main threat to these species within the site would be from habitat loss which is considered a relatively minor impact”* (Section 4.6 on Mammals).
- The slopes and gradients of the landscape along with the drainage lines and rocky outcrops are identified as adding biodiversity to the landscape but no threat is identified to them outside of the very nebulous notion of *“development may compromise the ecological functioning of the CBA”* (Impact 5 Page 40), or the development *“may deter certain species from the area, resulting in a loss in broad-scale landscape connectivity”* (Impact 5 Page 40). These statements are unsubstantiated by either example, a contextualized narrative rationale or any evidence. This is important as the logic for the conservation area is to address this weakly evidenced generic possible “risk”.
- The logic presented in the bullet above is unfortunately carried forward to the assessment of operational phase impacts (Impact Four: Pg 49) where it states that *“Cumulative impacts are a significant concern in the Roggeveld area due to the large amount of proposed wind energy development. The Rietkloof site is largely within a CBA and the loss of habitat within the CBA may impact the ecological functioning of the CBA and result in increased habitat fragmentation and reduced landscape connectivity. Overall, the impact of the development on CBAs is considered to be low after mitigation but the low impact is contingent on the implementation of the conservation measures that have been suggested”*.

In addition to the “potential impact” being nebulous and weakly defined, the proposed mitigation – that of a minimum of 4,000 ha conservation area – is poorly linked to the problem it is designed to solve. There is very little reason to believe that a 4,000 ha or

greater area, which will have to be fenced as it is specified that it is important to keep sheep to a density of half of the agriculturally acceptable level (which it is assumed to be the case in the surrounding farmland although no evidence is provided to support this), will achieve the goal of addressing the cumulative impacts of wind farms in the entire Roggeveld area. This is particularly true as the requirement for a conservation area does not exist for the other windfarm sites, and even if they did, they would need to be planned in a manner that would achieve ecological integration between the conservation areas in all three wind farm sites – without this the cumulative landscape scale risks would not be mitigated by the required Conservation Area.

- The Specialist Report appears to miss the fact that the direct impact of the turbines and associated infrastructure will be largely on the ridge tops, and for these the impact is mitigated, while the establishment of a proposed conservation area will be almost entirely on the lower regions and slopes where the only impact is from the farming activities of the landowner, not the development of the wind farm. This proposed action of setting aside an area in which sheep density is managed is thus pertinent to the farmer not the energy producer. There is no legal framework in which it is appropriate to impose what is essentially a punitive requirement on the farmer, or in this case potentially six farmers, to mitigate a vaguely defined risk which may be generated by the wind farm development. This is core to the issue, even if the proposed intervention of establishing a conservation area had a remote chance of contributing to mitigating any risks, real or not.
  - The ecological processes which the author of the Specialist Report imagined to be “enhanced” are unstated and thus unclear. There is however some suggestion that landscape level connectivity is in need of enhancing. As the only interruption to landscape scale processes which can be imposed by the wind farms can result from the physical presence of the turbines or associated infrastructure, and as a requirement of the conservation area is that it should avoid inclusion of the infrastructure, it is not clear at all how the desired result can be obtained by the proposed intervention.
  - No mention is made of the governance issue, who is to carry the costs of the conservation area and how the energy company can be held accountable for the implementation of a third party – the farmer.
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