

PAARDE VALLEY PV2 EXTENSION OF VALIDITY OF ENVIRONMENTAL AUTHORISATION

AVI-FAUNAL IMPACT STATEMENT LETTER

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DETAILS OF THE SPECIALIST AND EXPERTISE TO COMPILE A SPECIALIST COMMENT

Chris van Rooyen

Chris has 27 years' experience in the management of wildlife interactions with electricity infrastructure. He was head of the Eskom-Endangered Wildlife Trust (EWT) Strategic Partnership from 1996 to 2007, which has received international acclaim as a model of co-operative management between industry and natural resource conservation. He is an acknowledged global expert in this field and has worked in South Africa, Namibia, Botswana, Lesotho, New Zealand, Texas, New Mexico and Florida. Chris also has extensive project management experience and has received several management awards from Eskom for his work in the Eskom-EWT Strategic Partnership. He is the author of 15 academic papers (some with co-authors), co-author of two book chapters and several research reports. He has been involved as ornithological consultant in numerous power line and wind generation projects. Chris is also co-author of the Best Practice for Avian Monitoring and Impact Mitigation at Wind Development Sites in Southern Africa, which is the industry standard. Chris also works outside the electricity industry and had done a wide range of bird impact assessment studies associated with various residential and industrial developments.

Albert Froneman

Albert has an M. Sc. in Conservation Biology from the University of Cape Town and started his career in the natural sciences as a Geographic Information Systems (GIS) specialist at Council for Scientific and Industrial Research (CSIR). In 1998, he joined the Endangered Wildlife Trust where he headed up the Airports Company South Africa – EWT Strategic Partnership, a position he held until he resigned in 2008 to work as a private ornithological consultant. Albert's specialist field is the management of wildlife, especially bird related hazards at airports. His expertise is recognized internationally; in 2005 he was elected as Vice Chairman of the International Bird Strike Committee. Since 2010, Albert has worked closely with Chris van Rooyen in developing a protocol for pre-construction monitoring at wind energy facilities, and he is currently jointly coordinating pre-construction monitoring programmes at several wind farm facilities. Albert also works outside the electricity industry and had done a wide range of bird impact assessment studies associated with various residential and industrial developments.

Expertise of Specialist

Curriculum vitae: Chris van Rooyen

Profession/Specialisation	:	Avifaunal Specialist
Highest Qualification	:	BA LLB
Nationality	:	South African
Years of experience	:	27 years

Key Experience

Chris van Rooyen has twenty-two years' experience in the assessment of avifaunal interactions with

industrial infrastructure. He was employed by the Endangered Wildlife Trust as head of the Eskom-EWT Strategic Partnership from 1996 to 2007, which has received international acclaim as a model of co-operative management between industry and natural resource conservation. He is an acknowledged global expert in this field and has consulted in South Africa, Namibia, Botswana, Lesotho, New Zealand, Texas, New Mexico and Florida. He also has extensive project management experience and he has received several management awards from Eskom for his work in the Eskom-EWT Strategic Partnership. He is the author and/or co-author of 17 conference papers, co-author of two book chapters, several research reports and the current best practice guidelines for avifaunal monitoring at wind farm sites. He has completed around 130 power line assessments; and has to date been employed as specialist avifaunal consultant on more than 50 renewable energy generation projects. He has also conducted numerous risk assessments on existing power lines infrastructure. He also works outside the electricity industry and he has done a wide range of bird impact assessment studies associated with various residential and industrial developments. He serves on the Birds and Wind Energy Specialist Group which was formed in 2011 to serve as a liaison body between the ornithological community and the wind industry.

Expertise of Specialist

Curriculum vitae: Albert Froneman

Profession/Specialisation	:	Avifaunal Specialist
Highest Qualification	:	MSc (Conservation Biology)
Nationality	:	South African
Years of experience	:	25 years

Key Qualifications

Albert Froneman (Pr.Sci.Nat) has more than 25 years' experience in the management of avifaunal interactions with industrial infrastructure. He holds a M.Sc. degree in Conservation Biology from the University of Cape Town. He managed the Airports Company South Africa (ACSA) – Endangered Wildlife Trust Strategic Partnership from 1999 to 2008 which has been internationally recognized for its achievements in addressing airport wildlife hazards in an environmentally sensitive manner at ACSA's airports across South Africa. Albert is recognized worldwide as an expert in the field of bird hazard management on airports and has worked in South Africa, Swaziland, Botswana, Namibia, Kenya, Israel, and the USA. He has served as the vice chairman of the International Bird Strike Committee and has presented various papers at international conferences and workshops. At present he is consulting to ACSA with wildlife hazard management on all their airports. He also an accomplished specialist ornithological consultant outside the aviation industry and has completed a wide range of bird impact assessment studies. He has co-authored many avifaunal specialist studies and pre-construction monitoring reports for proposed renewable energy developments across South Africa. He also has vast experience in using Geographic Information Systems to analyse and interpret avifaunal data spatially and derive meaningful conclusions. Since 2009 Albert has been a registered Professional Natural Scientist (reg. nr 400177/09) with The South African Council for Natural Scientific Professions, specialising in Zoological Science.

1 BACKGROUND

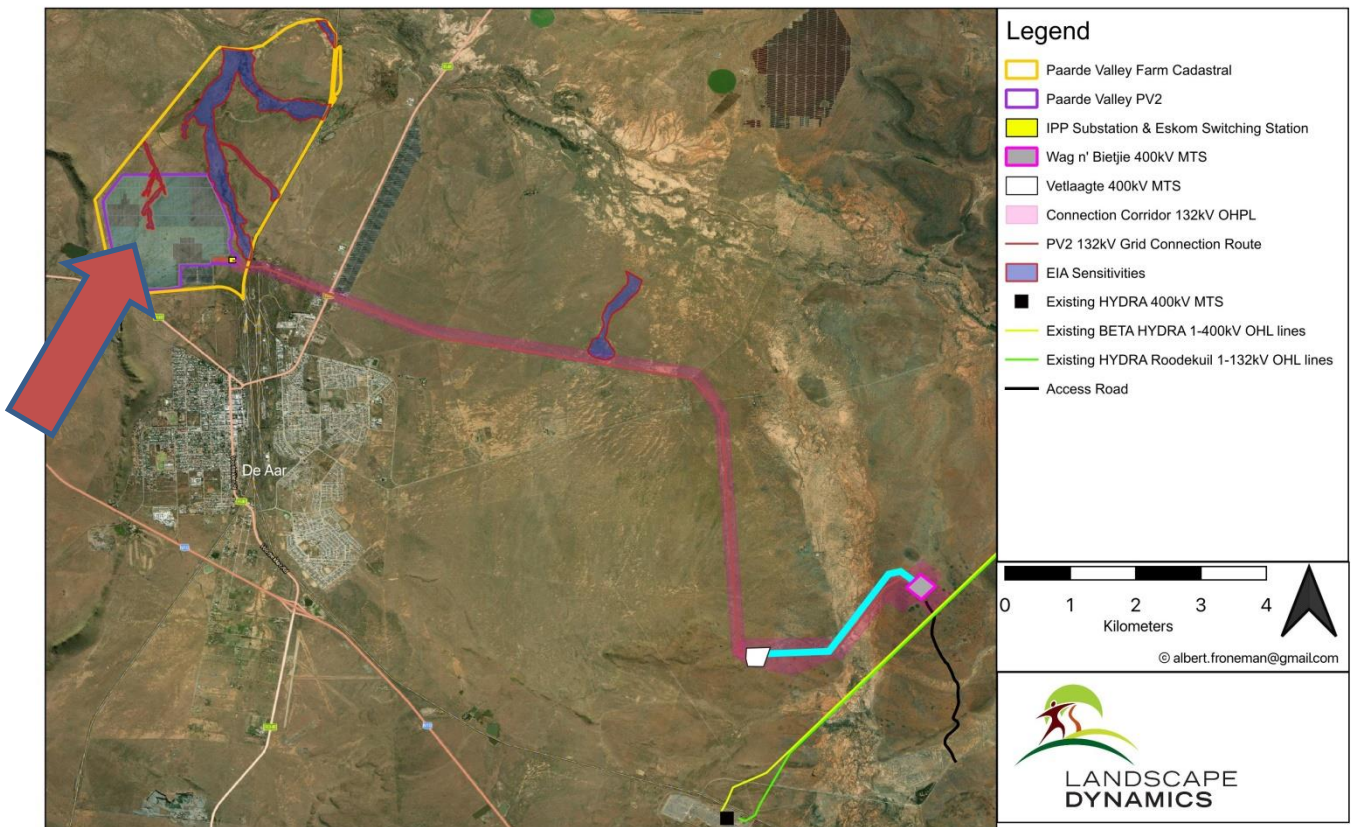
Mulilo intends to establish a solar energy facility and associated infrastructure immediately to the north of the town of De Aar. The EIA process for the proposed PV facility was undertaken in 2012 and Environmental Authorisation (EA) for the proposed PV Facility was initially granted by DEA on 1 March 2013 (DFFE reference no: 12/12/20/2500).

The Paarde Valley PV2 project is a 75MW – 150MW solar PV facility with associated infrastructure. The Environmental Authorisation for this project lapses on 7 June 2023 and it is therefore required to extend the validity period of the EA for one year. This statement letter statement is in support of this EA extension application.

The proposed PV site is situated in the Emthanjeni Local Municipality in the Northern Cape Province. The site is approximately 320 ha in extent situated on Portion 2 of the farm Paarde Valley 145. This letter is applicable to the footprint of the Paarde Valley PV2 solar energy facility. A locality map of the site and associated infrastructure (the grid connection) is provided below.

PAARDE VALLEY PV2 SOLAR ENERGY FACILITY AND TWO ASSOCIATED GRID CONNECTIONS, DE AAR, NORTHERN CAPE

- (a) Paarde Valley PV2 Solar Energy Facility Project De Aar: Extension of validity of EA, Updated EMPr and Finalisation of Layout
- (b) Paarde Valley PV2 Onsite Switching Station and 132kV Grid Connection: Update and Approval of EMPr and Approval of Final Layout
- (c) Transfer one 132kV powerline from Wag 'n Bietjie MTS to Vetlaagte MTS for the Paarde Valley PV2 Project and compilation of standalone EMPr



2 TERMS OF REFERENCE

The following terms of reference are applicable to this specialist comment:

Undertake a site visit (if deemed necessary) to the authorised Paarde Valley PV2 Site and compile a specialist comment/ statement addressing the following:

- An investigation to determine if the baseline environment has changed significantly since the original assessment, which was conducted approximately 10 years ago. This will be required for the proposed amendment to extend the validity period of the EA.
- Confirm the following :
 - Is the initial impact rating undertaken during the initial assessment still valid?
 - Are the mitigation measures provided in the initial assessment still applicable?
 - Are there any new mitigation measures that should be added to the Environmental Authorisation if the DFFE decides to extend the commencement period as per the application?
- Make a statement re cumulative impact
- A statement as to whether or not the proposed amendments will result in an increased level or change in the nature of the impact, which was initially assessed and considered when application was made for the environmental authorisation.
- Confirm if the PV layout is still applicable
- Conclude if there is any objection to the extension of the validity of the Environmental Authorisation.

3 FINDINGS AND CONCLUSIONS

Based on the above, the following is concluded:

- The baseline status of the environment has not changed significantly since the initial EIA was done in 2012.
- Site verification:
The site was inspected on 29 March 2022 to assess whether the conditions at the site have changed materially from when the original assessment was done in December 2011. The development area was inspected with a 4 x 4 vehicle and on foot for one day. The findings were as follows:
 - No new avifaunal sensitivities were recorded during the site inspection that had not already been identified previously in the Avian Impact Assessment Report (Harebottle 2011).
 - No nests of Red Data priority species were recorded during the site inspection in March 2022.
 - The Avian Impact Assessment Report (Harebottle 2011) is still valid and applicable, as the receiving environment had not changed in any material way. The impact assessment is summarised as follows:

Phase	Pre-Mitigation Significance	Residual Impact Significance
Construction		
Habitat Loss	LOW-MEDIUM	LOW
Disturbance	MEDIUM	LOW-MEDIUM
Operation		
Displacement	MEDIUM	LOW-MEDIUM
Mortality	MEDIUM-HIGH	MEDIUM

- The initial impact rating undertaken during the initial assessment is still valid.
- No additional mitigation measures were identified.
- Cumulative Impact:

According to the official register of the Department of Forestry, Fisheries and the Environment (DFFE), there are currently 56 registered applications for renewable energy projects within a 30km radius around the Paarde Valley PV 2 project. Some of the projects are approved, some are already operational, and some are in process. The total land parcel area which is the subject of these applications amounts to approximately 67 481 ha. The total land parcel area which is the subject of the Paarde Valley PV 2 project amounts to approximately 1 071ha, which is approximately 1.5% of the total land parcel area which is subject to renewable energy applications. The contribution of the Paarde Valley PV 2 to the cumulative impact of the proposed renewable energy projects within a 30km radius is therefore **Low**. The total area of similar habitat within the 30km radius is approximately 290 430 ha. The total land parcel area which is the subject of renewable energy applications comprises about 23% of this area. The cumulative impact of all the proposed renewable energy projects is therefore rated to be **Medium**.¹

- The layout of the PV facility as approved in 2012 is still applicable.

4 RECOMMENDATION

The proposed amendments are acceptable from an avifaunal perspective, and will not change the nature or level of impact assessed. No additional mitigation measures will be required. The environment in terms of our specialist field has not changed significantly since 2012; therefore, there is no objection to the extension of the validity of the Environmental Authorisation

5 REFERENCES

- Harebottle, D. 2011. Construction of three photovoltaic energy facilities near De Aar, Northern Cape, Avifaunal Impact Assessment.
- Department of Forestry, Fisheries and the Environment (DFFE). 2023. Renewable Energy EIA Application Database for SA. https://egis.environment.gov.za/renewable_energy

¹ It must be noted that the land parcel area is always bigger than the actual footprint of the facility and that not all the facilities will be built. The impact may thus be less severe – this must be taken as a worst-case scenario.