

11 September 2020

Department of Environment, Forestry and Fisheries

Attention: Ms. Portia Makitla (Biodiversity Conservation Directorate)

Environment House
473 Steve Biko Roa
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Email: pmakitla@environment.gov.za

Dear Ms. Makitla

re.: Response to comment on the Draft Basic Assessment Report (DBAR) for the Proposed Visserspan Solar PV Facility - Project 2, Dealesville on Visserspan Farm No. 40, Tokologo Local Municipality, Free State Province (Ref. No.: 14/12/16/3/3/1/2154)

EnviroAfrica takes note of the Directorate's comment as recorded in the letter dated 24 August 2020, with regards to the study area being located in an area that is mapped in the South African National Biodiversity Institute (SANBI) Biodiversity Geographic Information System (BGIS) database maps as a Critical Biodiversity Area (CBA) and Ecological Support Area (ESA).

SANBI BGIS Maps:

However, it is known that the national SANBI BGIS database is not always accurate which is why site visits are required to ground-truth the information in the database with the *status quo*. Discrepancies in the national database information is evidenced by the SANBI BGIS Threatened Ecosystems Map included as Appendix D of the final basic assessment report (BAR). The map indicates large areas of Visserspan farm as 'Natural' even the farmstead area which falls outside of the site development footprint but is obviously degraded due to anthropogenic influences and the presence of several *Eucalyptus spp.* and other alien trees (refer to photographs in archaeological impact assessment report attached to BAR as Appendix G3a). The Threatened Ecosystems Map also completely omits indicating

the pans on the farm, particularly the significant large pan to the east of Project site 2 (also not part of any of the Visserspan project footprints) even though this pan was clearly a waterbody (refer to photographs in palaeontological impact assessment report attached to BAR as Appendix G3b, indicating presence of water), whilst a similar pan on neighbouring property is indicated in the SANBI map. Furthermore, the map shows the newer addition to Perseus substation (which is clearly visible in the underlying satellite imagery of the map and appears to occupy a footprint of about a third of the size of the original substation footprint), as 'Natural'.

The validity of the SANBI BGIS Biodiversity Map (as included in Appendix D of the final BAR) which indicates CBAs and ESAs, was contested by the botanical specialist after a verification site visit was made.

Botanical Specialist's Rationale:

Although both the independent specialist report and the final BAR acknowledge and specifically mention the presence of Vaal-Vet Sandy Grassland, a threatened ecosystem (Endangered A1) in the National List of Threatened Ecosystems, the designation of the area as a CBA or ESA was questioned by the botanical specialist, Dr. D. J. McDonald.

In his capacity as an independent specialist vegetation scientist, Dr. MacDonald stated that, "*the area does not warrant CBA1 status and is suitable for building a solar PV installation*". This conclusion was based on the botanical impact assessment report which was further explained in the specialist's opinion letter attached as Appendix G6 of the final BAR. These documents indicated that the loss of Vaal-Vet Sandy Grassland on a smaller/local scale, rates as High Negative (i.e. on the Farm Visserspan itself) but on the larger regional/cumulative scale, the rating is Low Negative. The specialist's opinion letter talks to the Directorate's comments on the proposed development and reiterates the findings of his impact assessment report stating that the SANBI CBA1 classification is too broad and that at a local scale, only about 80ha warrants such a categorisation. This is particularly pertinent since often, even good-condition grassland, on areas recovered after cultivation, lack many of the forb species that were present in the primary grassland i.e. the grassland may be in a good condition for grazing but does not represent the ecological integrity of the original biome.

Relative to the extent of the Farm Visserspan (approximately 1275ha), the study area footprint (approximately 218ha) utilises about 17% of the total surface area. However, relative to the regional scale (such as within a 30km radius from the study site), agriculture dominates the landscape and this (particularly over-grazing) is far more detrimental to Vaal-Vet Sandy Grassland than the impact of the proposed solar PV development which leaves a no-go area (due to biodiversity), as well as borders or corridors of grassland surrounding the proposed development footprint.

Should the proposed development not take place, the land would continue to be used for agriculture (cattle grazing) and although the grasses were assessed to be in a good condition, this was simply because the bulk of Project 1's site had not been utilised for grazing for approximately the past two years - *pers. comm.* from farm manager to environmental assessment practitioner (EAP) on site visit in November 2019. It was further communicated to the EAP that the area would soon be used for cattle grazing again to allow the other areas on the farm a chance to 'recuperate'. The five photographs below, show areas of degradation, within the study site, primarily through grazing. Although not clearly visible on Google Earth satellite images such as from, there are sections of degradation (such as overgrazed area or vehicle and cow tracks in various places within the grassland areas on the site.

Appendix A3 of the final BAR is the *Status Quo* map which states in its notes that:

- i. all natural grassland on site is used for grazing;
- ii. there are severely degraded patches;
- iii. rotation grazing is practised;
- iv. timelapsed satellite imagery indicates degradation.

Renewable Energy Development Zone (REDZ) 5:

It must also be noted that the regional or 30km radius around the development site, is primarily REDZ 5 (as per the REDZ 5 maps included as Appendix A6 of the final BAR). The Regional Map included as Appendix A4 of the final BAR clearly shows the areas surrounding Eskom's Perseus substation on the north, west and south are classified as CBA 1. Nonetheless, there are several renewable energy environmental impact assessment (EIA) applications which have been approved immediately south of Visserspan Farm, covering the entire area surrounding Perseus substation as referred to above and more. This is understandable considering that the closer an electricity producing facility is to the point of connection to the national grid, the less linear environmental impacts occur.

However, the Directorate's statement that the proposed development is a "*fatal flaw*" since the site covers "*a major part of an area designated as highly sensitive and according to the specialist the degraded areas are no longer degraded since they have successfully reverted to Vaal-Vet Sandy Grassland (good condition)*" and that "*the development within an areas classified as CBA1 is not supported*" is concerning considering the above-mentioned approved developments in CBA1 zones around Perseus substation which occupy more than 5 times the footprint of the entire Visserspan Farm.

Furthermore, there appears to be inconsistency in the enforcement application of the National List of Threatened Ecosystems, the SANBI (2013) Grasslands Ecosystem Guidelines¹ and the designation of Vaal-Vet Sandy Grassland as extracted from the Vegetation Map of South Africa, Lesotho & Swaziland² (as referred to in Figure 8 of the botanical impact assessment report). The Vegetation Map indicates that almost all the renewable energy developments surrounding Perseus substation (and Perseus substation itself) are located in an area designated as Vaal-Vet Sandy Grassland.

Biodiversity Gatekeepers:

Part of the recommendations in the final BAR and EMPr for this site is an ecological survey of the study area in terms of protected and/or endangered fauna and flora species, must be undertaken prior to construction to ensure that the relevant ecologist/biodiversity specialist (including flora, fauna and avifauna expertise) will be able to develop an adequate search and rescue plan (or a management plan in terms of alien plant species), if required to promote the conservation of ecological biodiversity of the area.

Conclusion and Request:

Considering all the issues raised above, it is respectfully requested that the Department visit the site together with EnviroAfrica to corroborate what the specialists and EAP observed during the verification site visits undertaken in 2018 and late 2019.

Yours sincerely,



Vivienne Thomson
Environmental Consultant
EnviroAfrica CC

Refer to pages 5 and 6 for Photographs:

¹ SANBI. 2013. Grasslands Ecosystem Guidelines: landscape interpretation for planners and managers. Compiled by Cadman, M., de Villiers, C., Lechmere-Oertel, R. and D. McCulloch. South African National Biodiversity Institute, Pretoria. 139 pages.

²Vegetation Map of South Africa, Lesotho & Swaziland (Mucina *et al.* 2005; SANBI, 2012; 2018)



Grazing degradation on Project 2 site looking east over the site



One of the cattle watering areas with severe grassland degradation looking east over Project 1 in the foreground and Project 2 site towards the background.



Degradation on 'ridge' of shallow pit on the north-eastern boundary of Project 2 site.