

David Hoare Consulting (Pty) Ltd

CK2017/308639/07

Environmental & Natural Resource Consultants

41 Soetdoring Avenue
Lynnwood Manor,
0041
Pretoria
Gauteng
SOUTH AFRICA

Postnet Suite #116
Private Bag X025
Lynnwood Ridge, 0040
cellular: 083 284 5111
david@davidhoareconsulting.co.za

25 July 2022

Att: Annelize Erasmus
Landscape Dynamics
PO Box 947, Groenkloof,
Pretoria, 0027

Dear Annelize

RE: MULILO DE AAR SOLAR PV: EA AMENDMENT APPLICATION (EXTENSION OF VALIDITY)

The Mulilo Total Hydra Storage (MTHS) project is Preferred Bidder in the Risk Mitigation Independent Power Producer Procurement Programme (RMIPPPP). The MTHS project consists of the following three solar facilities, which will be developed as one project, and it is envisaged that the development thereof will take place simultaneously:

- 75MW Badenhorst Solar PV2
- 75MW Badenhorst Dam Solar PV3
- **100MW Mulilo De Aar PV**

The final layout of this combined PV facility has been approved on 8 June 2021. The layout approved was guided by the Environmental Sensitivity Map which resulted from the specialist input obtained over the years through numerous EA Amendment Applications and which was again confirmed during 2021.

All the relevant NEMA authorisations for the above three PV facilities are currently in place, except for the EA of the **Mulilo De Aar Solar PV** that will now expire by 12 September if not extended. The major concern with the extension of validity for a period longer than 10 years is that the environment could have changed and needs to be re-assessed. DFFE therefore requires specialist input to confirm if any significant changes to the environment took place from the time that the EA was initially issued in 2012 up to the present date.

This letter applies only to the extension of the validity period for the Mulilo De Aar Solar PV project.

Findings of the original assessment

The original ecological assessment for the Mulilo De Aar Solar PV was undertaken in 2011 and an ecological report was submitted, dated 6 February 2012. A recent site visit was undertaken on 4 March 2022 at which time a walk-through of the area was undertaken. It was found that conditions on site were the same as when the original survey was undertaken. Therefore, the original assessment of the site is valid.

This original (2012) assessment identified three impacts for the project area, as follows:

- Loss or fragmentation of indigenous natural vegetation (Medium significance)
- Damage to wetlands/watercourses (Low significance)
- Establishment and spread of declared weeds and alien invader plants (Medium significance).

Based on the re-visit to the site and a review of the original report, these assessments are valid.

Omissions from the original assessment

At the time of the original assessment, no Northern Cape Critical Biodiversity Area map existed. Impacts on CBAs were therefore not undertaken. The entire project is within an Ecological Support Area (ESA), which extends across vast distances in all areas close to De Aar (Figure 1). There are therefore no options outside of this ESA for the project. All the recently assessed renewable energy projects directly to the east of DE Aar are within this ESA.

At the time of the original assessment, the presence of the De Aar Nature Reserve was not considered. This is because the nature reserve did not appear on any available online database at the time, and there was no CBA map at that time that would have shown it as a sensitivity. The existence of the reserve was therefore unknown at the time of the original (2012) assessment. During the recent (4 March 2022) site visit, the possible effect on this nature reserve was specifically considered. The outcome of this assessment is attached here as an Appendix. The proposed project is not considered to have any significant effect on the nature reserve.

New guidelines that are now relevant

It is now required to request a Screening Report from DFFE for an Environmental Authorization as required by the 2014 EIA Regulations. This identifies sensitivities for various Themes that need to be specifically addressed during the environmental assessment process. For an Ecological study, the relevant themes are Animal Theme, Plant Theme, and Terrestrial Biodiversity Theme. Any sensitivities occurring on site must be assessed according to the Species Environmental Assessment Guidelines.

During the walk-through survey undertaken on 4 March 2022, sensitivities for these themes, as provided in the Screening Tool report for the site, were specifically addressed. This report shows the area as having Low

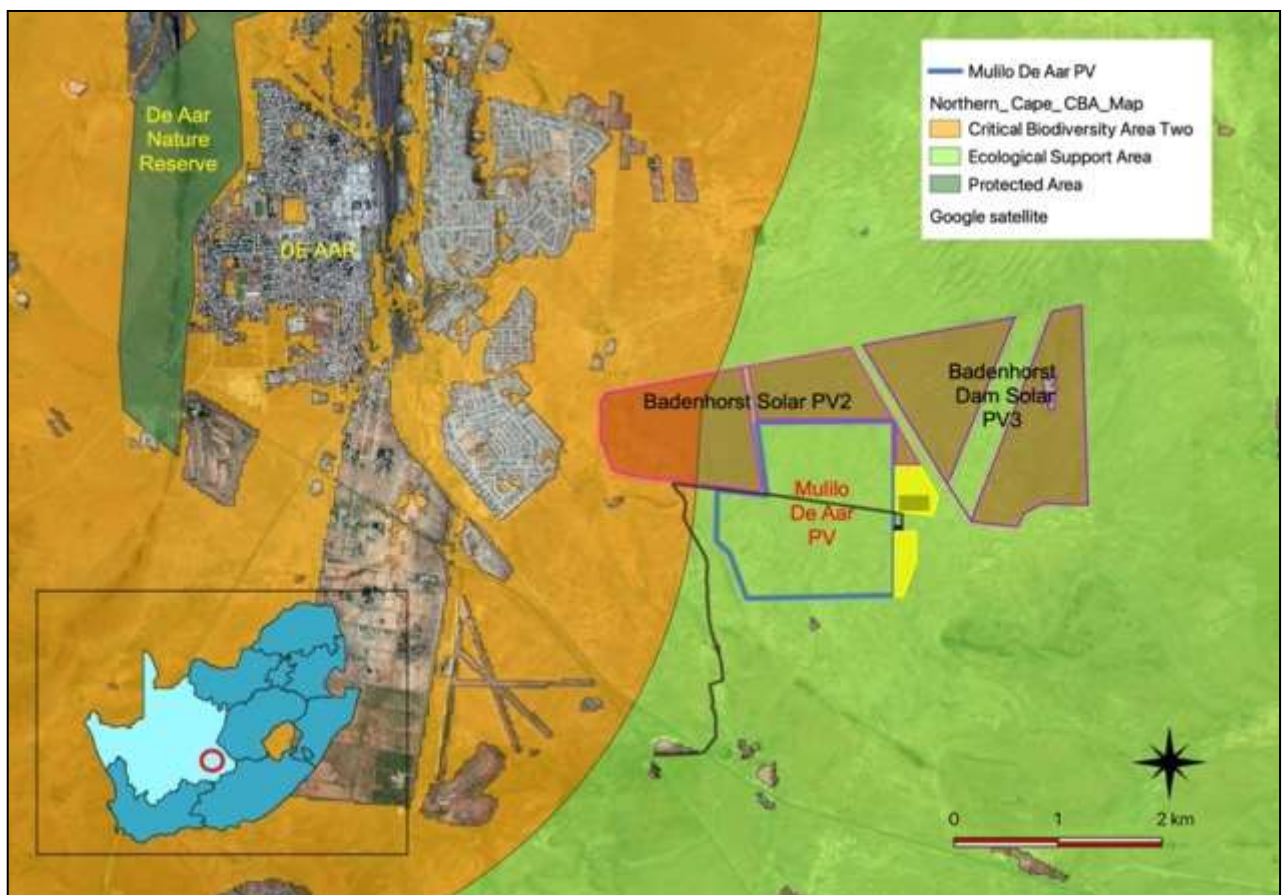


Figure 1: Northern Cape CBA map in relation to the project.

sensitivity for the Plant Theme and for the Animal Theme, which matches the original assessment for the site. Due to the presence of the Ecological Support Area, which affects all projects directly east of De Aar, the sensitivity identified in the Screening Tool report was Very High. A Terrestrial Biodiversity Theme assessment was therefore undertaken, which assessed Loss of Habitat as having Medium significance. This matches the original (2012) assessment for the site, where "Loss or fragmentation of indigenous natural vegetation" was assessed as having Medium significance.

There are therefore no conflicts between the original (2012) assessment of the **Mulilo De Aar Solar PV** site, recent guidelines, or the recent assessment for the site, for which fieldwork was recently (March 2022) undertaken.

Cumulative impacts

According to the Screening Tool report for the current project (dated 05/07/2022), there are 29 solar energy projects within 30 km of the Mulilo De Aar Solar PV project that have been approved. A cumulative assessment was undertaken for a nearby project, which concluded that the cumulative impact would have medium significance on natural vegetation. A similar assessment can be repeated here, as follows:

The vegetation type in which the current project occurs (Northern Upper Karoo) is widespread and not threatened - it occupies a total area in excess of 28100 km². Most of the solar projects listed as occurring within 30 km of the current site only affect lowland plains, which is where Northern Upper Karoo is found. Few areas within any other nearby vegetation types are affected, therefore impacts on these other vegetation types are not considered to be relevant for the cumulative assessment being undertaken here. If it is imagined as a scenario that the entire area within 30 km of the current site is developed, this would amount to approximately 10% of the entire vegetation type (the area of a circle with radius of 30 km = 2827 km²). Loss of this entire area would not affect the conservation status of the vegetation type. The reality is that only a fraction of the entire area within 30 km of the current site is affected (<2%), which is insignificant relative to the total area of the vegetation type (<0.2%).

The cumulative assessment was rated as having medium significance on the basis of being a permanent impact that will definitely happen, but the spatial extent, in terms of actual area affected, is very small. Recommended mitigation measures are adequate for ensuring that this is contained. On this basis the proposed development is supported.

The following conclusions may be made:

1. The baseline status of the environment in terms of the ecological assessment (Animal Theme, Plant Theme, Terrestrial Biodiversity Theme) has not changed since the initial EIA was done in 2012.
2. The initial impact rating undertaken during the initial assessment is still valid.
3. The mitigation measures provided in the initial assessment are still applicable. There are no new mitigation measures that should be added to the Environmental Authorisation.
4. No changes to the environment have occurred since the initial EA was issued.
5. It is confirmed that the MTHS Layout, as approved last year (in 2021), is still applicable.

In conclusion, the environment in terms of my specialist field has not changed significantly since 2012; therefore, there is no objection to the extension of the validity of the Environmental Authorisation.

Yours faithfully,



Dr David Hoare
Director

APPENDIX 1: De Aar Nature Reserve

The reserve is on the eastern side of De Aar, bordering on the town edge and including sections of the north-south running ridge system, as well as some adjacent low-lying areas (Figure 2).

It does not appear to be managed as a nature reserve and there are numerous existing impacts on the reserve, as follows (some of these are indicated in Figure 2):

1. Infrastructure constructed within the reserve (towers, edge of quarry, degradation on southern end, roads & pathways).
2. Apparent illegal development on south-eastern side.
3. Erosion damage on mountain slopes.
4. Dumping on town edges.
5. Alien invasive plants.
6. Regular foot traffic and associated issues (litter, trampling, plant collecting).

The degradation within the nature reserve on the eastern side is especially evident and includes three roads traversing the site, degradation in the areas within the roads, the quarry on the north-eastern corner, and apparent illegal construction / development on the areas adjacent to the existing town.

The following is relevant with regards to the possible effect of the proposed project on the De Aar Nature Reserve:

1. There will be no direct habitat loss on the reserve due to the proposed project.

No impact is therefore expected on the reserve that would exceed the existing baseline impacts.



Figure 2: Boundary of the De Aar Nature Reserve in relation to the town of De Aar.