

SITE SENSITIVITY VERIFICATION (SSV) REPORT: THE PROPOSED HARVARD 1 SOLAR PV FACILITY, REMAINDER OF PORTION 8 OF FARM SPES BONA NO. 2355, BLOEMFONTEIN, FREE STATE

INTRODUCTION:

This Site Sensitivity Verification (SSV) Report was undertaken in terms of the *Protocols for the Assessment and Minimum Criteria for Reporting on identified Environmental Themes* (referred to “the Protocols” hereafter) as per Government Notice No. 320 (published in Government Gazette No. 43110 on 20 March 2020)¹. These Protocols, effected as on the 9th May 2020, must be complied with for every new application submitted after the effective date. According to the Protocols, the EAP must verify the current use of the proposed site for development as well as the site’s environmental sensitivity, in accordance with the DFFE Screening Tool Report, to determine the need for specialist inputs in relation to the themes (and proposed specialist assessments) included in the Protocols.

METHODOLOGY:

The Site Sensitivity Verification (SSV) report was compiled based on desktop studies [including the SANBI BGIS Biodiversity Spatial Plan, vegetation maps (Vegetation map of SA (Mucina & Rutherford, 2006, as updated in the 2012 beta version and 2018 Final), NFEPA, land-use map, Google Earth imagery, historical imagery), specialist input in combination with a site visit (conducted during November 2021) to investigate, identify, and evaluate potential impacts, associated with the proposed development, on the receiving environment (namely the proposed site for development). The SSV report was compiled by the EAP (Mr Clinton Geysler).

AIM OF THE SSV REPORT:

The aim of the SSV Report is to;

- Verify land use and theme sensitivities as identified by the DFFE Screening Tool;
- Confirm or motivate against the need for a particular specialist assessment(s) as indicated by the DFFE Screening Tool; and
- Should the need for a specialist assessment be refuted / challenged, provide a motivation as to why the proposed specialist assessment is not applicable to the proposed development.

Please note: that this SSV report should be read in combination with the Pre-Application Draft Scoping Report (SR). This will aid in contextualizing the status of the proposed site for development.

¹ The Protocols are in line with Section 24(5)(a) and (h) and Section 44 of the National Environmental Management Act (NEMA), 1998 (Act No. 107 of 1998).

EnviroAfrica

SITE DESCRIPTION:

The site is located on Remainder of Portion 8 of Farm Spes Bona No. 2355, approximately 5km west of Bloemfontein.

The site is easily accessible from the Koppies Rd from the north.

The majority of the site has been disturbed by agricultural activities, especially the central and eastern part of the property. Large portions are currently utilised for maize crops. Smaller portions of the property (to the west and north-east) are undeveloped and near natural, covered in grassland.

According to the Vegetation map of South Africa, Lesotho and Swaziland (Mucina & Rutherford, 2006, as updated in the 2012 beta version and 2018 Final) only one broad vegetation type is expected on the proposed site, namely Winburg Grassy Shrubland, which is classified as Least Concern

According to biodiversity overlay maps from SANBI BGIS the site does not within a Critical Biodiversity Area (CBA), or an Ecological Support Areas (ESA & ESA2s).

According to SANBI BGIS, part of the site is classified as “degraded” (these are the cultivated lands), and the remaining areas are classified as “other”.

From the SANBI National Freshwater Ecosystem Priority Areas map, there is only one freshwater resource identified on the property. The desktop analysis identified an artificial wetland to the south-east of the property.

No other freshwater resources have been identified on the site.

The topography is also ideal, as the property is generally flat, with very little gradient.

Please see photographs below:



Figure 1. Site overview photographs showing the existing agricultural area on site. Taken from the northern boundary looking south.



Figure 2. Site overview photographs showing the existing agricultural area on site. Taken from the northern-western boundary looking south. The existing agricultural area can be seen to the east, and the natural grassland area to the west (right of the image).



Figure 3. Site overview photographs showing general view of the site. Taken from the centre of the property looking south. The existing cultivated areas can be seen to the east (left of the image), and the natural grassland to the south-west.



Figure 4. Site overview photographs from the western boundary of the property looking east. The western side of the property is generally undisturbed and natural.



Figure 5. View of the general grid connection route.



Figure 6. View of the general grid connection route towards the existing Harvard substation.

Table 1. Themes and associated sensitivity as per the DFFE Screening Tool.

No	Theme	DEA Sensitivity	Agree / Disagree	Proposed Sensitivity	Motivation
1	Agriculture Theme	High Sensitivity	Agree		The property is currently zoned Agricultural and part of the property is used for agricultural purposes. An Agricultural Potential and Soil Assessment will be conducted.
2	Animal Species Theme	Medium Sensitivity	Disagree	Low Sensitivity	The rating of Medium Sensitivity is on the DFFE Screening Tool is due to the potential presence of <i>Hydrictis maculicollis</i> (Spotted Neck Otter). No significant freshwater resources are found on the site or directly adjacent to the site, except for a small artificial wetland on the site. No Spotted Neck Otters were observed during the site visit and are unlikely to be found on the property.
3	Aquatic Biodiversity Theme	Very High Sensitivity	Disagree	Low Sensitivity	The rating of Very High Sensitivity is on the DFFE Screening Tool is due to the property being within a strategic water source area. However, no significant freshwater resources are found on the site or directly adjacent to the site, except for a small artificial wetland on the site. A Freshwater Impact Assessment will still be conducted.
4	Archaeological and Heritage Theme	Low Sensitivity	Agree		A Heritage Impact Assessment will be conducted.
5	Avian Theme	Low Sensitivity	Agree		An Avifauna Impact Assessment will however still be conducted.
6	Civil Aviation Theme	Low Sensitivity	Agree		The proposed development is for a solar PV solar facility and will thus will not pose any threat to civil aviation within the area.
7	Defence Theme	Medium Sensitivity	Disagree	Low Sensitivity	Due to the nature of the proposed project, it is not envisaged that the proposed expansion will impact any defence-related activities.
8	Landscape (solar) Theme	Very High Sensitivity	Disagree	High Sensitivity	The proposed PV solar facility will not be developed on any high ridges or on slopes greater than 1:4.

EnviroAfrica

9	Palaeontological Theme	Very High Sensitivity	Agree		A Palaeontological assessment will be conducted.
10	Plant Species Theme	Medium Sensitivity	Agree		A Botanical Impact Assessment will be conducted
11	RFI Theme	Very High Sensitivity			
12	Terrestrial Biodiversity Theme	Low Sensitivity	Agree		No specific terrestrial biodiversity assessment will be conducted, but will be addressed in the botanical assessment, avifauna assessment and/or the Environmental Impact Report.

Table 2. Specialist assessments identified as per the DFFE Screening Tool.

No	Proposed Specialist Assessment	Verification of Site Sensitivity And Motivation On The Need For Specialist Investigation
1	Agricultural Impact Assessment	The property is currently zoned Agricultural and part of the property is used for agricultural purposes. An Agricultural Potential and Soil Assessment will be conducted.
2	Landscape/ Visual Impact Assessment	A Visual Impact Assessment will be conducted
3	Archaeological and Cultural Heritage Impact Assessment (HIA)	A Heritage Impact Assessment (including an assessment of Archaeological resources) be conducted.
4	Palaeontological Impact Assessment	A Heritage Impact Assessment (including an assessment of Palaeontological resources) be conducted.
5	Terrestrial Biodiversity Assessment	The Terrestrial Biodiversity Sensitivity Theme was Low. A Terrestrial Biodiversity Assessment will not be conducted, but a Botanical Impact Assessment will be conducted including the impact on Critical Biodiversity Areas.
6	Aquatic Biodiversity Impact Assessment	A Freshwater Impact Assessment will be conducted.
7	Civil Aviation Assessment	Due to the nature of the development, a Civil Aviation Assessment is not considered necessary.
8	Defense Assessment	Due to the nature of the development, a Defense Assessment is not considered necessary.
9	RFI Assessment	Due to the nature of the development, a RFI Assessment is not considered necessary.
10	Geotechnical Assessment	A Geotechnical Assessment will be conducted as part of the engineering investigations
11	Socio-economic Impact Assessment	A Socio-economic Impact Assessment will be conducted.
12	Plant Species Assessment	A Botanical Impact Assessment will be conducted
13	Animal Species Assessment	An AviFauna Impact Assessment will be conducted

EnviroAfrica

Please do not hesitate to contact me should you require any further information or clarity on the above.

Best Regards,

Clinton Geysler



Environmental Assessment Practitioner

EnviroAfrica cc

p: +27 21 851 1616 m: +27 83 309 9211

f: +27 86 512 0154

a: Unit 7, Pastorie Park, Reitz St, Somerset West, 7130
P.O. Box 5367, Helderberg, 7135

w: www.enviroafrica.co.za e: clinton@enviroafrica.co.za