

SITE SENSITIVITY VERIFICATION (SSV) REPORT: THE PROPOSED DOORNRIVIER 2 SOLAR PV FACILITY, PORTION 5 OF FARM DOORNRIVIER NO. 330, VIRGINIA, 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 Geyser – EAPASA Registration 2021/3287).

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 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).

SITE DESCRIPTION:

The site is located on Portion 5 of Farm Doornrivier No. 330, approximately 6km south-west of Virginia, adjacent to the R730, and in close proximity to the Theseus Substation.

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

Parts of the property have been disturbed by current and past agricultural activities, mostly livestock grazing. Portions of the property, especially near the Doring River, has been overgrazed and has led to gully erosion. There is no crop cultivation on the property.

According to the Vegetation map of South Africa, Lesotho and Swaziland (Mucina & Rutherford, 2006, as updated in the 2012 beta version and 2018 Final) two broad vegetation types are expected on the proposed site, mostly Highveld Alluvial Vegetation (Least Concern) and to a lesser extent Vaal-Vet Sandy Grassland (Endangered).

According to biodiversity overlay maps from SANBI BGIS the vast majority of the site fall within an Ecological Support Areas (ESA1). A relatively smaller area to the west of the property is classified a Critical Biodiversity Area (CBA).

The only significant freshwater resource on the property is the Doring River, which flows south to north under the R730 through the property. Not indicated on the NFEPA overlay, but clearly evident on Google Earth and during the site visit, are two tributaries to the Doring River, one crossing under the R730 south-west of the Doring River bridge, and a larger one crossing under the R730 to the north-east.

Please see photographs below:



Figure 1. Site overview photographs showing the general area around the eastern boundary looking west.



Figure 2. Site overview photographs of the north-eastern side of the property looking north-west.



Figure 3. Site overview photographs showing general view of the site. Taken from the southern corner of the property looking north-east.



Figure 4. Site overview photographs looking north-east over the eroded gullies.



Figure 5. Site overview photographs showing the Doring River running through the property, looking north and south down the Doring River from the western side.



Figure 6. Site overview photographs looking north over the site from the western boundary.

SITE SENSITIVITY VERIFICATION REPORT – DOORNRIVIER 2 SOLAR PV

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

No	Theme	DFFE Sensitivity	Agree / Disagree	Proposed Sensitivity	Motivation
1	Agriculture Theme	High Sensitivity	Disagree	Medium Sensitivity	The property is currently zoned Agricultural and parts of the property is used for agricultural purposes (livestock grazing only – no crop production). An Agricultural Potential and Soil Assessment will be conducted.
2	Animal Species Theme	Medium Sensitivity	Disagree	Very Low Sensitivity	The rating of Medium from the DFFE Screening Report is due to the potential presence of the Spotted Neck Otter. Although the Doring River is a potential habitat for the Spotted Neck Otter, and significant buffer will be established along the Doring River and its banks.
3	Aquatic Biodiversity Theme	Low Sensitivity	Agree	Low Sensitivity	The only freshwater resources on the property is the Doring River. A significant buffer will be established along the Doring River and its banks.
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	Medium Sensitivity	Disagree	Very Low Sensitivity	The proposed development is for a solar PV solar facility and will thus will not pose any threat to civil aviation within the area. There are existing high capacity powerlines in close proximity to the development.
7	Defence Theme	Low Sensitivity	Disagree	Very 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	Palaeontological Theme	Very High Sensitivity	Disagree	Medium Sensitivity	A Palaeontological assessment will be conducted.
9	Plant Species Theme	Low Sensitivity	Agree		A Botanical Impact Assessment will be conducted

EnviroAfrica

10	RFI Theme	Medium Sensitivity	Disagree	Low Sensitivity	Due to the nature of the proposed project, it is not envisaged that the proposed expansion will impact on any telecommunication facilities.
11	Terrestrial Biodiversity Theme	Very High Sensitivity	Disagree	Low Sensitivity	<p>The vast majority of the site fall within an Ecological Support Areas (ESA1). A relatively smaller area to the west of the property is classified a Critical Biodiversity Area (CBA).</p> <p>No specific terrestrial biodiversity assessment will be conducted, but will be addressed in the botanical assessment, avifauna assessment and/or the Environmental Impact Report.</p>

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 Geyser

EAPASA Reg. No. 2021/3287



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