Appendix C.9: Civil Aviation Site Sensitivity Verification

1. Introduction

This report serves as the Site Sensitivity Verification for Civil Aviation for the Basic Assessment (BA) for the proposed development of three 175 MW Solar Photovoltaic (PV) Facilities and associated Infrastructure (i.e. Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3), near Touws River, Western Cape. The projects are being proposed by Veroniva (PTY) Ltd, and forms part of a cluster of nine Solar PV Facilities and associated infrastructure.

2. Need for the Site Sensitivity Verification

On 20 March 2020, in Government Gazette 43110, Government Notice (GN) 320, the Department of Environment, Forestry and Fisheries (DEFF) published procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of Sections 24(5)(a) and (h) and 44 of the National Environmental Management Act (Act 107 of 1998, as amended) (NEMA) when applying for an Environmental Authorisation (EA). GN 320 prescribes general requirements for undertaking Site Sensitivity Verification, as well as protocols for assessment and minimum report content requirements of environmental impacts associated with specified environmental themes for activities requiring EA. GN 320 was enforced within 50 days of publication of the notice i.e. on 9 May 2020.

GN 320 specifically includes a protocol that provides the criteria for the specialist assessment and minimum report content requirements for impacts on civil aviation installations for activities requiring EA. This protocol replaces the requirements of Appendix 6 of the 2014 NEMA Environmental Impact Assessment (EIA) Regulations (as amended).

This specific protocol states that proposed developments that occur on sites identified as Very High, High or Medium sensitivity, as depicted on the National Web-Based Environmental Screening Tool (Screening Tool), must include a Civil Aviation Compliance Statement. It further states that there are no requirements if the proposed developments occur on sites identified as Low sensitivity on the Screening Tool. However, a Site Sensitivity Verification is required for the Civil Aviation Protocol.

Therefore, since the proposed Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3 projects require an EA in terms of the 2014 NEMA EIA Regulations (as amended), and Civil Aviation was identified as a relevant theme for the Solar Methodology on the Screening Tool, as well as a required study, GN 320 must be complied with.

3. Methodology

The Site Sensitivity Verification Process and Report has been compiled based on the following methodology:

- Existing spatial databases were used to determine the location of civil aviation installations in relation to the proposed project area, and to identify preliminary areas of concern in terms of impacts to civil aviation installations;

- The proposed project sites and footprints were plotted on the Screening Tool to identify the sensitivity allocated;
- A site visit was undertaken to confirm the current land use and the environmental sensitivity as it relates to Civil Aviation;
- Additional research was undertaken to substantiate the Site Sensitivity Verification process; and
- A Site Sensitivity Verification Report was compiled (i.e. this report).

The information sources listed in Table 1 were used in the Site Sensitivity Verification process.

Table 1: Information Sources used for the Site Sensitivity Verification process

Data / Information	Source	Date	Type	Description
National Web-Based Environmental Screening Tool (Screening Tool)	Department of Environment, Forestry and Fisheries (DEFF)	2020	Spatial / Online Assessment	The Screening Tool is a geographically based web-enabled application which allows a proponent intending to submit an Application for EA in terms of the 2014 NEMA EIA Regulations (as amended) to screen the proposed site for any environmental sensitivity[1].
RSA Airspaces in 3D	Air Traffic and Navigation Services SOC Limited (ATNS)	2020	Google Earth KMZ File	The RSA Airspaces in 3D data KMZ file is an initiative undertaken by the ATNS to illustrate the definitions and complexities of airspace, routes, aerodromes and navigational facilities within South Africa to the public in the interest of safety[2].
Airport, Airfields and Obstacle Datasets [Note that this dataset was used in the Visual Impact Assessment undertaken for the proposed project]	Civil Aviation Authority (CAA)	2018	Spatial Vector Dataset	Location of airfields in RSA.
Wind and Solar PV Phase 1 Strategic Environmental Assessment (SEA)	Department of Environmental Affairs (DEA)	2015	Report	SEA commissioned by the DEA [now operating as the DEFF) in 2013 for an assessment of wind and solar PV energy in South Africa, with an aim of identifying eight Renewable Energy Development Zones (REDZs) to focus and incentivize such development (i.e. Phase 1 REDZs SEA: CSIR Report Number: CSIR/CAS/EMS/ER/2015/0001/B).
Wind and Solar PV Phase 2 SEA	DEFF	2019	Report	SEA commissioned by the DEFF in 2016 for an assessment of wind and solar PV energy in South Africa, with an aim of identifying three additional REDZs to focus and incentivize such development (i.e. Phase 2 REDZ SEA. CSIR Report Number: CSIR/SPLA/SECO/ER/2019/0085).
Visual Impact Assessment for the proposed projects	Quinton Lawson and Bernard Oberholzer, QARC and BOLA	2020	Report	This Visual Impact Assessment was commissioned for the proposed Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3 project.

Therefore, the Site Sensitivity Verification was undertaken using desktop analysis, satellite imagery, preliminary on-site inspection, and other available and relevant information.

[1] https://screening.environment.gov.za/screeningtool/index.html#/pages/welcome

[2] https://www.atns.co.za/rsakmz.php

4. Proposed Project Location

The proposed projects are located entirely within the Komsberg Renewable Energy Development Zone (REDZ 2), one of the eight REDZs formally gazetted in South Africa for the purpose of developing solar and wind energy generation facilities (GN 114; 16 February 2018). The proposed Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3 projects are located on the Remainder of Grootfontein Farm Number 149 and Portion 5 of Grootfontein (Surveyor General (SG) 21 Digit Codes: C01900000000014900000 and C01900000000014900005).

5. Details of the Environmental Assessment Practitioner

GN 320 states that prior to commencing with a specialist assessment, the current use of the land and the potential environmental sensitivity of the site under consideration as identified by the screening tool must be confirmed by undertaking a Site Sensitivity Verification. GN 320 further notes that the Site Sensitivity Verification must be undertaken by an Environmental Assessment Practitioner (EAP) or specialist with expertise in radar.

This Site Sensitivity Verification has been undertaken by Lizande Kellerman, an EAP at the CSIR. Lizande Kellerman is registered with the South African Council for Natural and Scientific Professions (SACNASP), with Registration Number 400076/10 in the field of Botanical Sciences. Inputs to the Site Sensitivity Verification Report were provided by Luanita Snyman-van der Walt and Rohaida Abed of the CSIR.

6. Findings of the Screening Tool

A Screening Tool Report was generated for the proposed Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3 project using the following classification: Utilities Infrastructure → Electricity → Generation → Renewable → Solar → PV → Solar PV.

The map of relative civil aviation (Solar PV) theme sensitivity generated and included in the Screening Tool depicted that the Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3 project footprints are located in a low sensitivity area from a civil aviation perspective i.e. there are no major or other types of civil aviation aerodromes or buffers that intersect with the project footprint (Figure 1).

In terms of GN 320, this means that no further requirements are applicable i.e. a Compliance Statement is not required, if the site is indeed found to be of low sensitivity during the site visit.

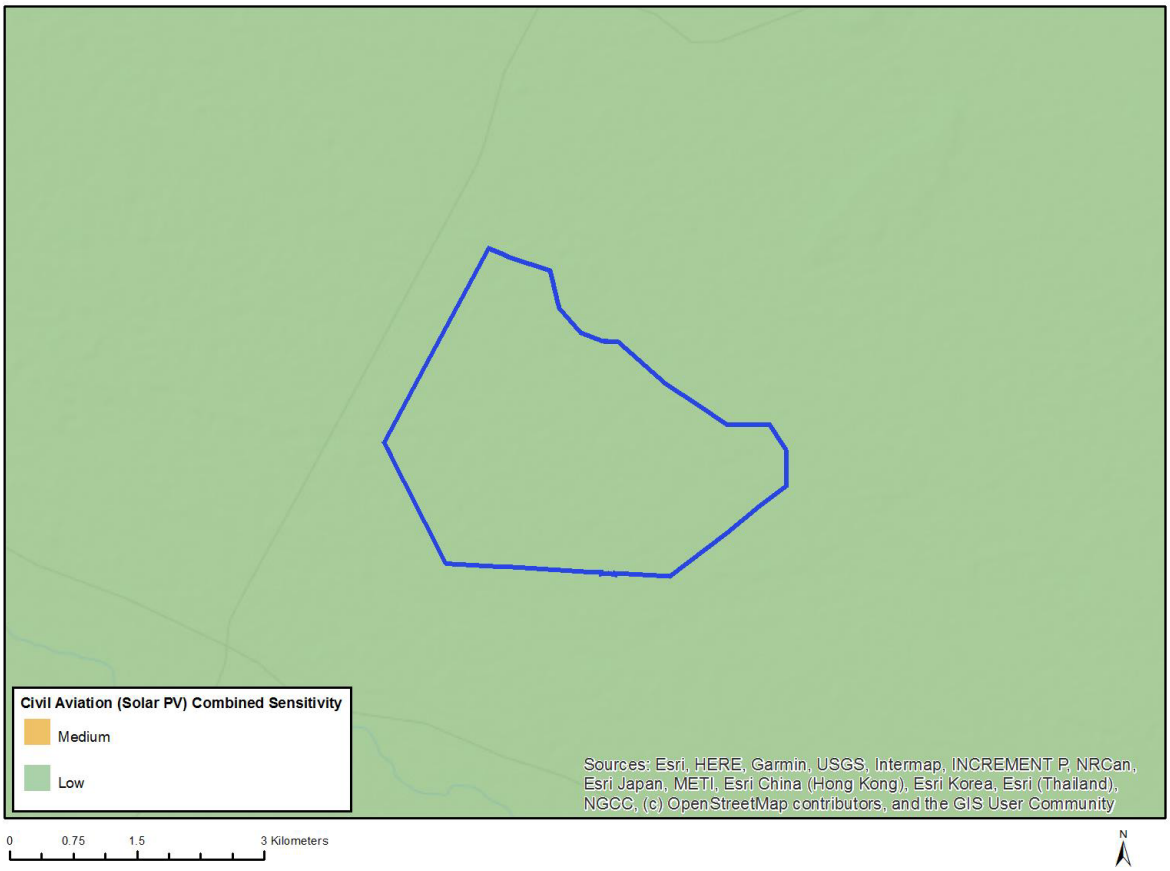


Figure 1: Screening Tool Map showing the Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3 Project Footprints in terms of Civil Aviation Sensitivity.

7. Details of the Site Visit

The details of the site visit are noted below:

Date of Site Visit	15 – 16 October 2020
Specialist Name	Lizande Kellerman (EAP)
Professional Registration Number	SACNASP Reg, No. 400076/10
Specialist Affiliation / Company	CSIR

8. Findings

The site visit confirmed that the proposed project sites currently do not have any agricultural activity but were historically used for sheep grazing. **No civil aviation installations were found within the proposed project footprint for Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3.** The area is arid and typified by short karroid shrubland vegetation characteristic of the Succulent Karoo Biome. Refer to Figures 2 and 3 for views of the Grootfontein Farm, on which the proposed projects will take place.

Figure 2: View from the R356 towards Grootfontein Farm (NE direction) (Photo: L. Kellerman)

Figure 3: View from the R356 towards Grootfontein Farm (E direction) (Photo: L. Kellerman)

However, there is an airstrip and helicopter landing pad at the Sadawa Game Reserve (21 Digit SG Code: C01900000000047700000), which is located about 8.5 km away from the Grootfontein PV project. The airstrip and helicopter landing pad are only occasionally used for small aircraft (and scraped down before use only when required). The landing strip is approximately 1.3 km long and oriented NW-SE. Figures 4, 5 and 6 below show the airstrip and helicopter landing pad. The location of this private landing strip, potentially due to its small scale, is not shown on the Screening Tool. The Visual Impact Assessment undertaken for the proposed project has confirmed that the Sadawa airstrip is located away from the proposed project sites and outside of the high sensitivity areas allocated in the Visual Impact Assessment.

Figure 4: Sadawa Game Reserve helicopter landing pad (Photo: L. Kellerman)

Figure 5: Sadawa Game Reserve airstrip (view in NW direction) (Photo: L. Kellerman)

Figure 6: Sadawa Game Reserve airstrip (view in SE direction) (Photo: L. Kellerman)

The Inverdoorn Private Nature reserve is also located more than 10 km to the south-west of the proposed Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3 sites. Research and discussions with local landowners have indicated that the Inverdoorn Private Nature Reserve also has a landing strip. The location of the landing strip is shown on the Screening Tool; however, the actual civil aviation installation and its associated buffers do not fall within the proposed Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3 project sites.

Research has also indicated that the Rooikoppies airfield[3] is located near Touwsrivier, more than 25 km away from the proposed project sites, on the southern side of the Bontberg mountains.

The ATNS data has confirmed that there are two unlicensed aerodomes outside of the 30 km radius of the proposed project sites. The ATNS data further notes that Area Navigation Routes associated with the Cape Town International Airport Airspace intersect with the 30 km radius of the project area, however none intersect with the actual Grootfontein PV 1, Grootfontein PV 2 and Grootfontein PV 3 project sites. The ATNS data also notes that Conventional Routes associated with the Cape Town International Airport Airspace intersect with the 30 km radius of the project area, over the Grootfontein Farms. However, the proposed solar panels will range to a maximum height of 10 m from ground level, and is thus not likely to impact negatively on civil aviation installations or air traffic associated with the Cape Town International Airport.

The ATNS data also indicates the location of the Touws River Weapons Training area, which is classified as restricted airspace, located more than 25 km to the south-west of the project sites. Based on the location, it will not be impacted on by the proposed solar PV projects.

Most of the features noted above are in line with the findings of the Phase 1 and Phase 2 Wind and Solar SEA Reports.

Figure 7 indicates the location of the civil aviation features noted above, which informed this Site Sensitivity Verification.

[3] https://mapcarta.com/14265164

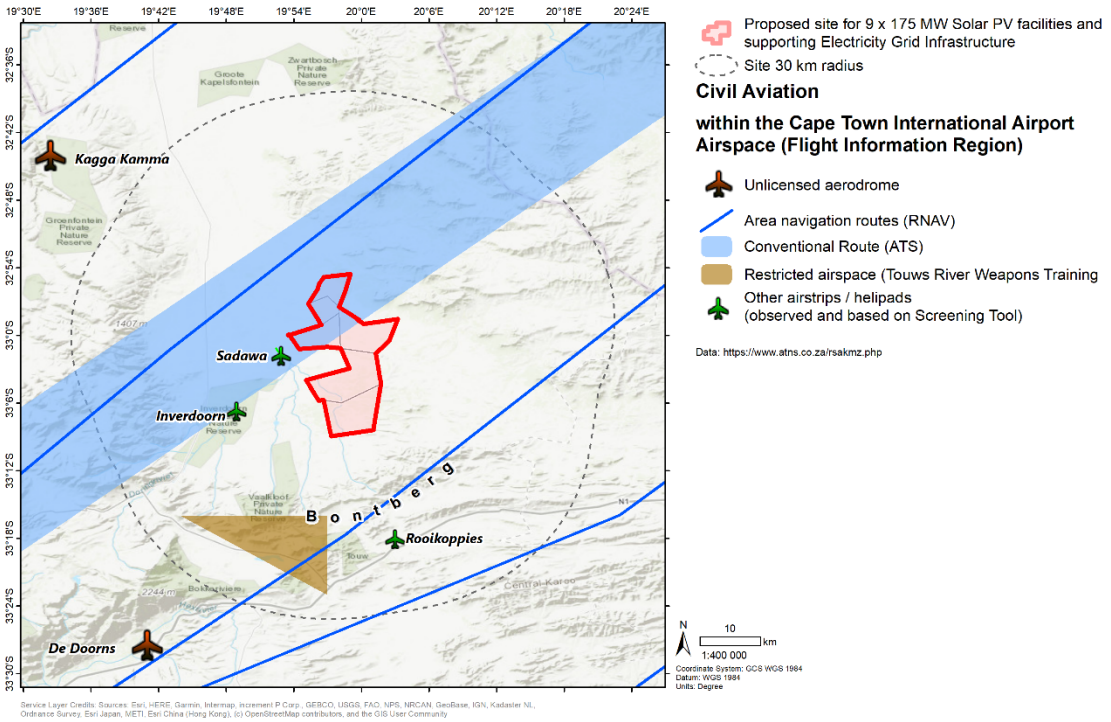


Figure 7: Civil Aviation Features relative to the proposed project sites based on the site visit and existing databases.

9. Concluding Statement

The proposed project sites were determined and verified to be of low sensitivity (as it relates to civil aviation). This was determined through a site visit and based on existing databases, and confirms the sensitivity allocated on the Screening Tool. Based on the above, in terms of GN 320, no further requirements are applicable i.e. a Compliance Statement is not required.

10. Appendix A: EAP Declaration

I, **Lizande Kellerman**, declare that –

- I act as the independent environmental assessment practitioner in this site sensitivity verification;
- I have expertise in conducting environmental impact assessments, including knowledge of the Act, Regulations and any guidelines that have relevance to the proposed activity;
- I will comply with the Act, Regulations and all other applicable legislation;
- I will perform the work relating to the site sensitivity verification in an objective manner, even if this results in views and findings that are not favourable to the applicant;
- I will take into account, to the extent possible, the matters listed in Regulation 13 of the Regulations when preparing the site sensitivity verification and any report relating to the site sensitivity verification;
- I undertake to disclose to the applicant and the Competent Authority all material information in my possession that reasonably has or may have the potential of influencing - any decision to be taken with respect to the site sensitivity verification by the Competent Authority; and - the objectivity of any report, plan or document to be prepared by myself for submission to the Competent Authority, unless access to that information is protected by law, in which case it will be indicated that such information exists and will be provided to the Competent Authority;
- I will perform all obligations as expected from an environmental assessment practitioner in terms of the Regulations; and
- I am aware of what constitutes an offence in terms of Regulation 48 and that a person convicted of an offence in terms of Regulation 48(1) is liable to the penalties as contemplated in Section 49B of the Act.

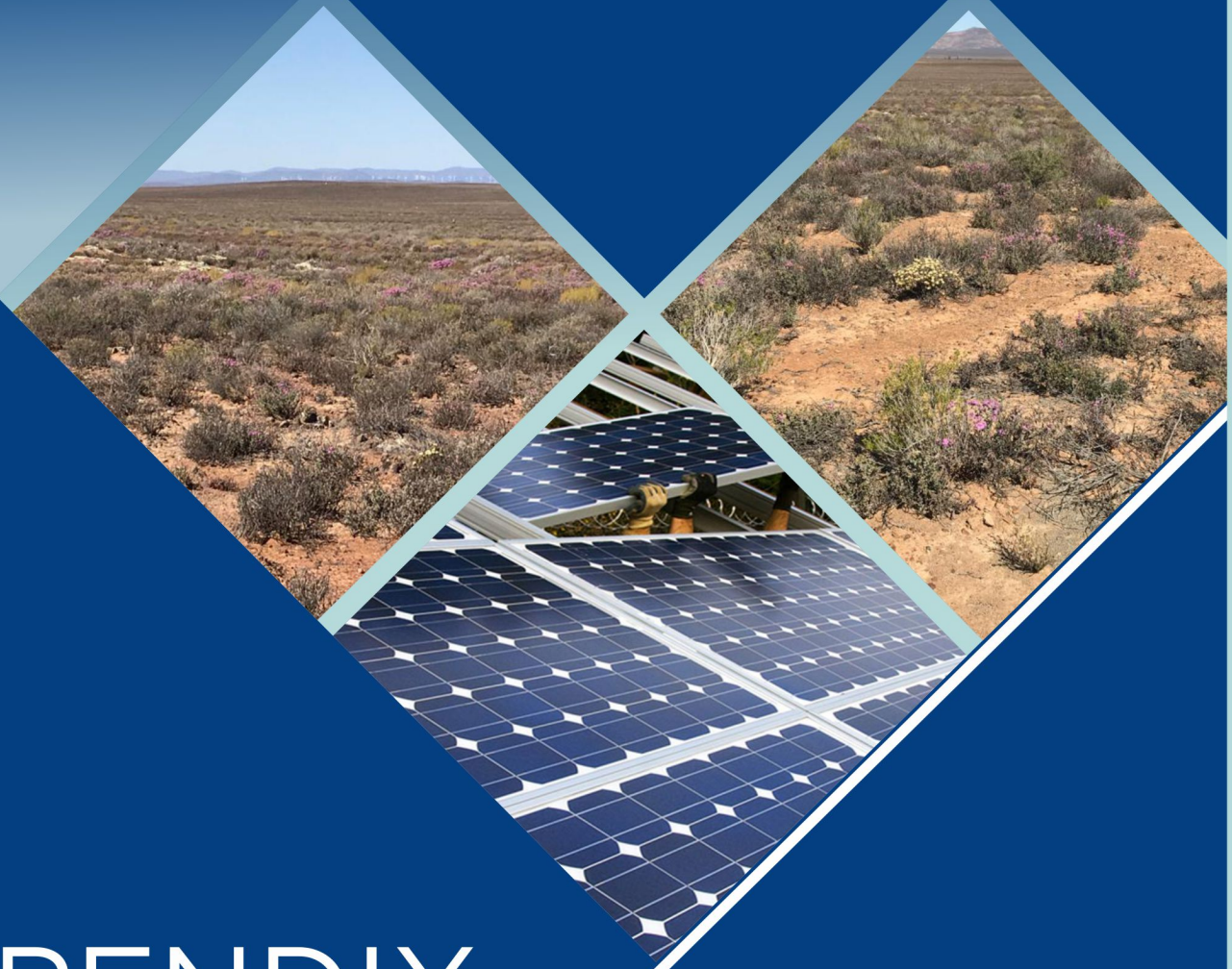
Disclosure of Vested Interest (delete whichever is not applicable)

- I do not have and will not have any vested interest (either business, financial, personal or other) in the proposed activity proceeding other than remuneration for work performed in terms of the Regulations;
- ~~I have a vested interest in the proposed activity proceeding, such vested interest being:~~

_____
_____
_____

Signature of the Environmental Assessment Practitioner	
Name of Company	CSIR
Date	12 November 2020

Basic Assessment for the Proposed Development of three 175 MW Solar Photovoltaic Facilities and associated Infrastructure (i.e. Grootfontein PV 1, Grootfontein PV 2, and Grootfontein PV 3), near Touws River, Western Cape



APPENDIX C.10

Defence Site Sensitivity Verification