

SITE SENSITIVITY VERIFICATION (SSV) REPORT: PROPOSED OBSERVATORY AND ASSOCIATED INFRASTRUCTURE ON PORTION 2 OF THE FARM MATJES RIVIER NO. 80, SUTHERLAND

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 09 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 including historical imagery, CapeFarmMapper, specialist input in combination with the site visit of 27 August 2025 to investigate, identify, and evaluate potential impacts, associated with the proposed development, on the receiving environment. The SSV report was compiled by Maboe Nthejane (EAPASA Reg. 2022/4942).

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 motivation as to why the proposed specialist assessment is not applicable to the proposed 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 proposed remote observatory comprising a modular telescope-hosting facility and associated infrastructure will be enclosed within three separate 50m x 100m (0.5ha) compounds, each surrounded by a security fence (total development footprint ≈1.5ha). Each of the three compounds will include the following infrastructure:

- 3 x Telescope Housing - 18 m x 12 m roll-off-roof on shallow concrete pad (≤ 4 m high).
- 4 x Solar Rows - 40 m x 3 m ballasted arrays (total ≈56 kWp) with 10 kWh Li-ion storage
- 1 x Generator - 20 kVA

The proposed site is located on Portion 2 of the Farm Matjes River No. 80, Sutherland, off the R354 Regional Road, approximately 3.5km north-west of Sutherland (Figure 1).

The approximate central point coordinates of the proposed site are:

32° 21' 20.55" S; 20° 38' 50.30" E.

In accordance with the 2018 Vegetation Map of South Africa, Lesotho and Swaziland (Mucina & Rutherford, 2006), the proposed footprint is covered by one broad vegetation type, mainly Roggeveld Shale Renosterveld.

According to the DFFE Screening Tool a Very High sensitivity rating was given for the Terrestrial Biodiversity Theme, as the proposed development footprint falls within an National Protected Area Expansion Strategy (NPAES) area. The SANBI BGIS map viewer also places the proposed development within a Critical Biodiversity Area (CBA).

Please see photographs taken on 27 August 2025 below:

Photographs taken on 27 August 2025



Photo 1: Photographs taken from Photo Point 1 (Figure 1) from North-West to North-East



Photo 2: Photographs taken from Photo Point 1 (Figure 1) from North-East to South-East



Photo 3: Photographs taken from Photo Point 2 (Figure 1) from West to East



Photo 4: Photographs taken from Photo Point 2 (Figure 1) from East to West



Photo 5: Photographs taken from Photo Point 3 (Figure 1) from South to West

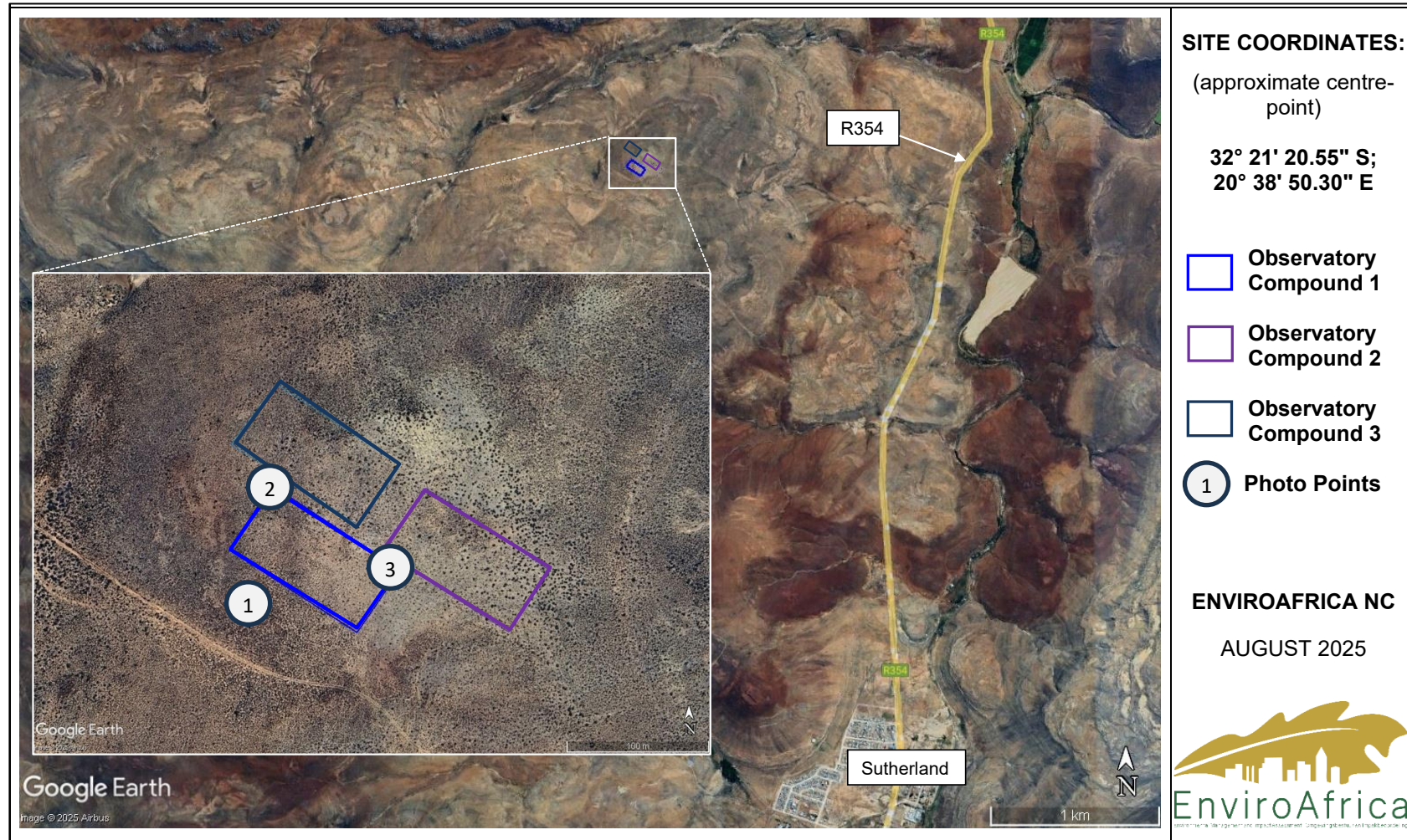


Figure 1: Photo points for the proposed observatory and associated infrastructure on portion 2 of Farm Matjes River No.80, Sutherland

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

No	Theme	DFFE Sensitivity	Agree / Disagree	Proposed Sensitivity	Motivation
1	Agriculture Theme	Low Sensitivity	Dispute		The land capability in the Northern Cape is generally low due to aridity. In addition, the site has no visible freshwater resources close by. Based on the scale of the proposed development and the absence of visible agricultural practices in the near vicinity, the likely negative impact of the proposed development on agriculture is deemed negligible. The EAP is therefore of the view that appointing an agricultural specialist to compile an agricultural statement is not warranted.
2	Animal Species Theme	High Sensitivity	Agree		A specialist has been appointed to compile a statement that will inform the application.
3	Aquatic Biodiversity Theme	Low Sensitivity	Agree		A specialist has been appointed to compile a statement that will inform the application.
4	Archaeological and Cultural Heritage Theme	Low Sensitivity	Agree		A specialist has been appointed to compile a statement that will inform the application.
5	Civil Aviation Theme	High Sensitivity	Dispute	Low	The proposed development does not pose any kind of significant risk to civil aviation and so a specialist will not be appointed to compile a specialist study report that will inform the application. The EAP is of the view that the significance rating for the Civil Aviation Theme should be Low unlike the High significance rating indicated in the Screening Tool Report. However, the Civil Aviation Authority will be requested to provide comment on the application for environmental authorisation.
6	Defence Theme	Low Sensitivity	Agree		The proposed development infrastructure is unlikely to cause any kind of significant impacts relating to the country's defence.
7	Palaeontology Theme	Very High Sensitivity	Agree		A specialist has been appointed to compile a statement that will inform the application.
8	Plant Species Theme	Medium Sensitivity	Agree		A specialist has been appointed to compile a statement that will inform the application.
9	Terrestrial Biodiversity Theme	Very High Sensitivity	Agree		A specialist has been appointed to conduct a specialist study that will inform the application.

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	Landscape/ Visual Impact Assessment	The proposed development is of very small scale and so appointing a specialist to conduct the study is deemed unwarranted. A specialist will therefore not be appointed to conduct the study.
2	Archaeological and Cultural Heritage Impact Assessment (HIA)	A specialist has been appointed to compile a statement that will inform the application.
3	Palaeontological Assessment	A specialist has been appointed to compile a statement that will inform the application.
4	Terrestrial Biodiversity Assessment	A specialist has been appointed to compile a Terrestrial Biodiversity Compliance Statement that will inform the application.
5	Aquatic Biodiversity Impact Assessment	A specialist has been appointed to compile a statement that will inform the application.
6	Socio-Economic Assessment	The proposed development is unlikely to cause any kind of significant changes in the socio-economic characteristics of Sutherland. A specialist will therefore not be appointed to compile a socio-economic impact study report to inform the application for environmental authorisation.
7	Plant Species Assessment	A specialist has been appointed to compile a specialist study report that will inform the application..
8	Animal Species Assessment	A specialist has been appointed to compile a specialist study report that will inform the application.

All the Specialist Assessments and Compliance Statements compiled by specialists and the written opinions of other suitably qualified professionals will be appended to the Basic Assessment Report and submitted to the competent authority for review.

Please do not hesitate to contact EnviroAfrica for any further information or clarity regarding the above.

Yours faithfully,

Maboe Nthejane



p:+27 21851 1616

e: Maboe@enviroafrica.co.za

a: Unit 7, Pastorie Park, Reitz Street, Somerset west, 7130

Postnet Suite 341, Private Bag X29 Somerset West 7129

W: www.enviroafrica.co.za