

**Du Plessis Dam Solar PV1 Grid Connection**  
**Ref Nr 14/12/16/3/3/1/2569**

**Signed Generic EMP: Substations**

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**PART B: SECTION 2**

**7. SITE SPECIFIC INFORMATION AND DECLARATION**

**7.1 Sub-section 1: Contact details and description of the project**

**7.1.1 Details of the applicant**

<b>Applicant name</b>	Du Plessis Dam Solar PV1 (Pty) Ltd
<b>Contact person</b>	Mr Warren Morse
<b>Physical address</b>	Top Floor; Golf Park 4, Raapenberg Rd, Mowbray, Cape Town, 7700
<b>Postal address</b>	PostNet Suite #53, Private Bag X21, Howard Place, 7405
<b>Email</b>	warren@mulilo.com
<b>Telephone</b>	(021) 685 3240

**7.1.2 Details and expertise of the EAP**

<b>EAP Name</b>	Annelize Erasmus
<b>EAP qualifications</b>	<ul style="list-style-type: none"><li>• BL (Landscape Architecture) Degree – University of Pretoria, 1988</li><li>• “Integrated Environmental Management – Theory and Practice”; University of Cape Town, 1992</li><li>• Assessor of EAP Applications for registration with EAPASA (since 1 February 2020)</li><li>• Various workshops and webinars in the environmental consultancy field</li></ul>
<b>Professional affiliation/ registration</b>	<ul style="list-style-type: none"><li>• EAPASA Registered: Annelize Erasmus (Grobler): 2019/1728</li><li>• Member of the IAIASA</li></ul>
<b>Physical address</b>	91 Wenning Street, Groenkloof, Pretoria, 0181
<b>Postal address</b>	PO Box 947; Groenkloof; Pretoria; 0027
<b>Email</b>	<a href="mailto:info@landscapedynamics.co.za">info@landscapedynamics.co.za</a> / <a href="mailto:annelize@landscapedynamics.co.za">annelize@landscapedynamics.co.za</a>
<b>Telephone</b>	082 566 4530
<b>Curriculum Vitae</b>	The Landscape Dynamics Company Profile and condensed CV of the EAP are attached hereto and/or is available on <a href="http://www.landscapedynamics.co.za">www.landscapedynamics.co.za</a>

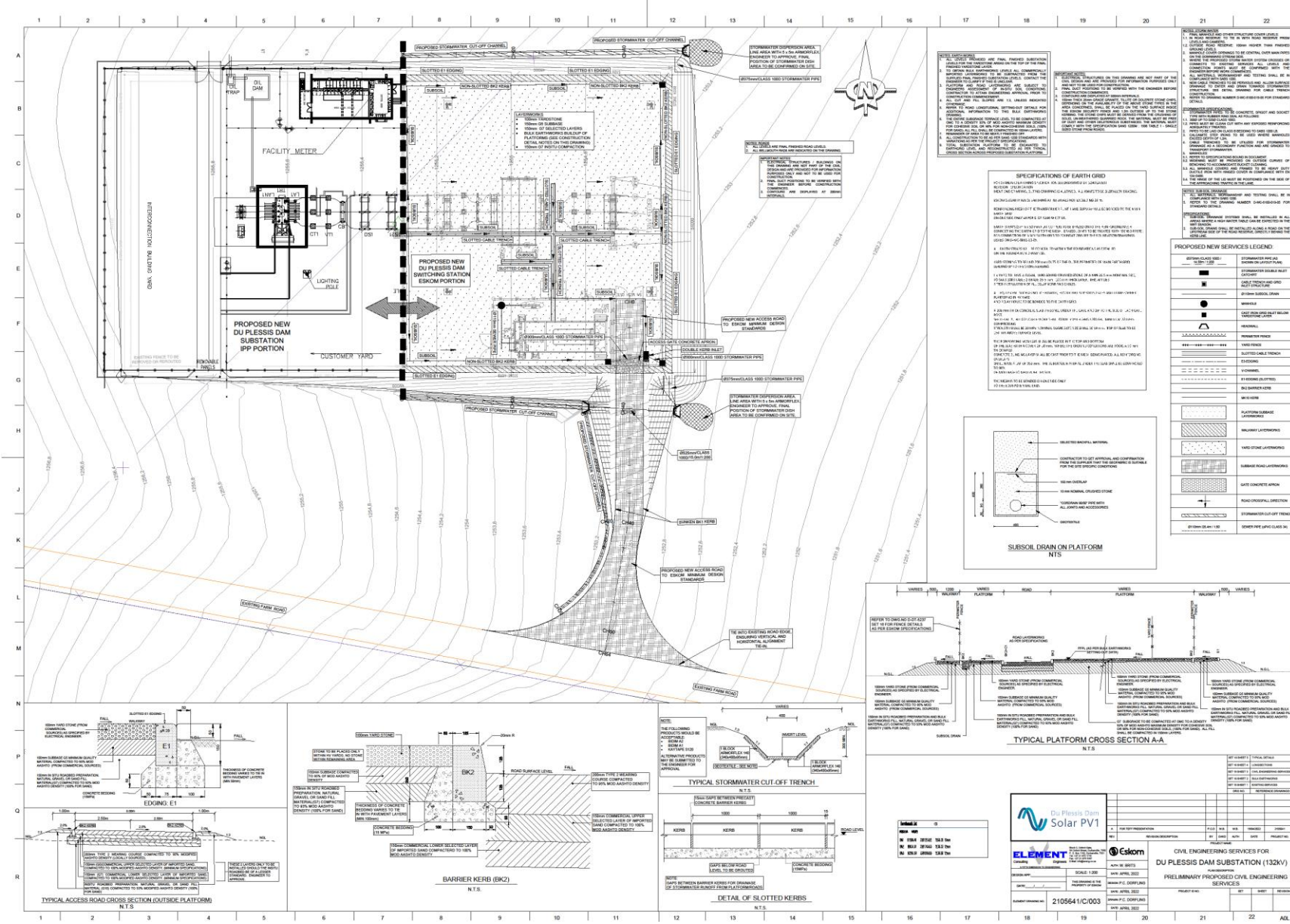
### 7.1.3 Project name

Du Plessis Dam Solar PV1 Grid Connection: Switching Station and 132kV Powerline connecting the Du Plessis Dam Solar PV1 to the Mulilo Cluster 1 Substation, De Aar, Northern Cape Province

### 7.1.4 Description of the project

Infrastructure	Specifications
Powerline (Grid connection)	<ul style="list-style-type: none"> <li>• 132kV S/C Overhead Power line will connect the Du Plessis Dam Solar PV1 Eskom Switching Station with the Mulilo Cluster 1 Substation</li> <li>• Length/Route is approximately 7.6km</li> <li>• Eskom Servitude width is 31m.</li> <li>• A 300m wide corridor was assessed</li> <li>• Associated infrastructure at the Overhead Power Line Route/Servitude:               <ul style="list-style-type: none"> <li>○ Steel monopole structures</li> <li>○ ACSR &amp; OPGW Conductors</li> <li>○ Foundations and Earthing</li> <li>○ Line Hardware and Accessories</li> </ul> </li> </ul>
Access Roads	<ul style="list-style-type: none"> <li>• ±2km, 12m wide access road               <ul style="list-style-type: none"> <li>○ Starting point at the R48 and ends at the PV1 switching station</li> <li>○ This access road is existing but will be widened to 12m</li> <li>○ Road was authorised with the Du Plessis Solar PV1 application (DFFE Ref Nr 12/12/16/3/3/2/456)</li> </ul> </li> <li>• ±6m wide access road will be constructed along the line route for construction and maintenance purposes – this road will be inside the powerline servitude</li> </ul>
Switching Station	<ul style="list-style-type: none"> <li>• 33/132kV switching yard</li> <li>• ± 0.5 hectares in size (50m x 100m)</li> <li>• Internal access roads of 6m wide</li> </ul> <p>Associated infrastructure at the Switching Station</p> <ul style="list-style-type: none"> <li>○ Outdoor Mechanical-Electrical High Voltage Equipment</li> <li>○ Indoor Medium Voltage Switchgear and Low Voltage Controlgear</li> <li>○ Lighting Protection Equipment</li> <li>○ Perimeter and internal Fencing</li> <li>○ Buildings required for operation (i.e. ablutions required for maintenance staff)</li> </ul>
Laydown area	<ul style="list-style-type: none"> <li>• A construction site area of ±1 hectares adjacent to the PV1 Switching Station site</li> <li>• All temporary infrastructure will be rehabilitated following the completion of the construction phase, where it is not required for the operation phase.</li> </ul>
Storage of diesel	<p>Diesel storage of less than 80m<sup>3</sup> for the 132kV Switching Station:</p> <ul style="list-style-type: none"> <li>○ During construction, diesel is required for construction vehicles as well as generators for the construction camp and commissioning whilst waiting for the Eskom grid connection works to be completed</li> <li>○ During operations, diesel is required for Operations &amp; Maintenance vehicles at the PV plants but also required for backup diesel generators at the substations. The Generators supply auxiliary power to the substation's protection and communications systems, should there be outages on the grid. This is an Eskom requirement together with a battery room at the substations to act as UPS for these critical systems.</li> </ul>
Temporary Services	<p>During the construction phase, temporary sanitation facilities will be provided (i.e. chemical toilets) and these toilets will be regularly serviced by a licensed company.</p>

The following page provides the concept civil design of the Eskom switching station and the IPP Substation.



### 7.1.5 Project location

The project is situated between 3km and 6km east of De Aar, within the jurisdiction of the Emthanjeni Local Municipality, Pixley Ka Seme District in the Northern Cape Province.

The infrastructure and preferred route alternative affect the following properties. The relevant property for the switching station, laydown area and diesel storage facility is marked in green below.

Farm name	Coordinates of the approximate centre point of the property	
	Latitude	Longitude
The Remainder of the Farm Du Plessis Dam No 179	30°37'52.58"S	24° 3'28.00"E
Portion 10 of the Farm De Aar 180	30°38'52.91"S	24° 3'6.60"E
Portion 5 of the Farm De Aar 180	30°39'0.06"S	24° 3'50.27"E
Portions 4 of the Farm De Aar 180	30°39'3.78"S	24° 4'36.71"E
Portions 1 of the Farm De Aar 180	30°41'0.49"S	24° 3'42.48"E

The following SG21 Digit Codes are relevant to the Du Plessis Dam PV1 Grid Connection Project

C	0	5	7	0	0	0	0	0	0	0	0	0	1	7	9	0	0	0	0	0
C	0	5	7	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	1	0
C	0	5	7	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	5
C	0	5	7	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	4
C	0	5	7	0	0	0	0	0	0	0	0	0	1	8	0	0	0	0	0	1

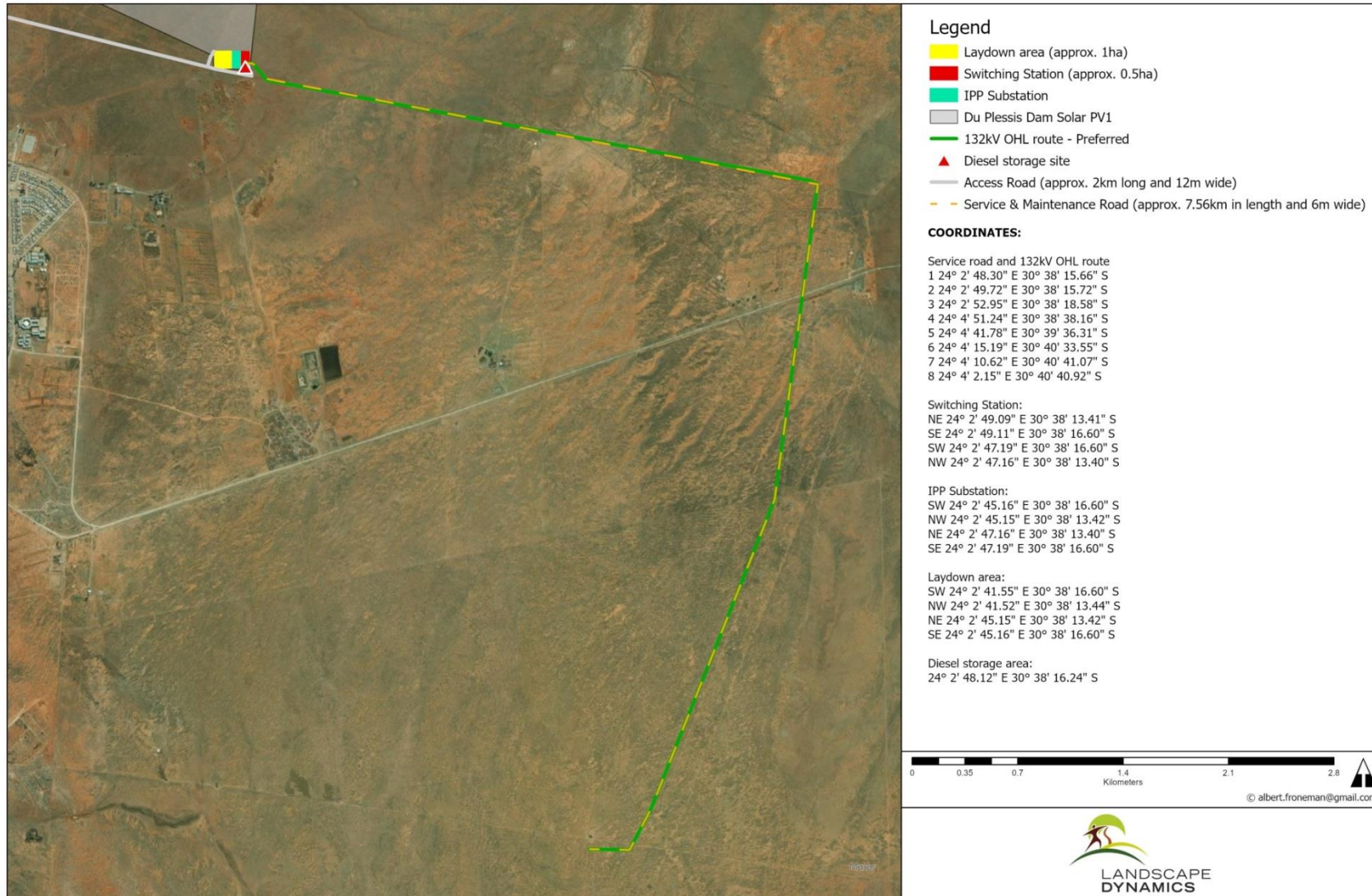
### COORDINATES OF PROJECT COMPONENTS

Refer to the coordinates provided on the project layout maps on the following pages:

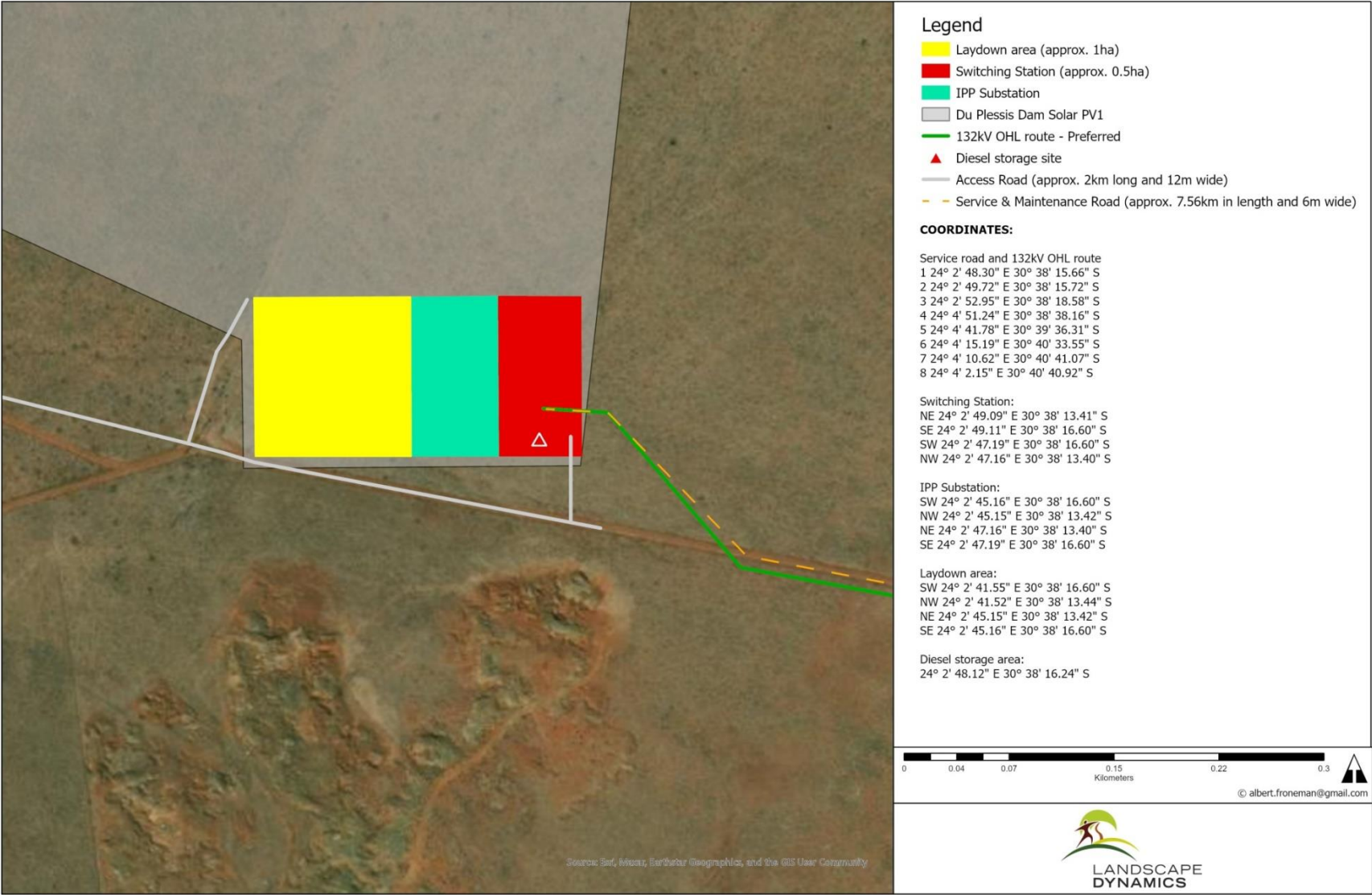
The first map indicates the entire project layout and the second map provides more detail of the switching station area.



Du Plessis Dam Solar PV1 Grid Connection: Final Layout Plan, November 2022



Du Plessis Dam Solar PV1 Grid Connection: Final Layout Plan, November 2022





## 7.2 Sub-section 2: Development footprint site map

This sub-section must include a map of the site sensitivity overlaid with the preliminary infrastructure layout. The sensitivity map must be prepared from the national web based environmental screening tool, when available for compulsory use at: <https://screening.environment.gov.za/screeningtool>. The sensitivity map shall identify the nature of each sensitive feature e.g. threatened plant species, archaeological site, etc. Sensitivity maps shall identify features both within the planned working area and any known sensitive features within 50m from the development footprint.

The Screening Tool maps below were created on 10 October 2022. The site area represents the combined substation and laydown assessment area as well as the power line corridor.



### Terrestrial Biodiversity Sensitivities



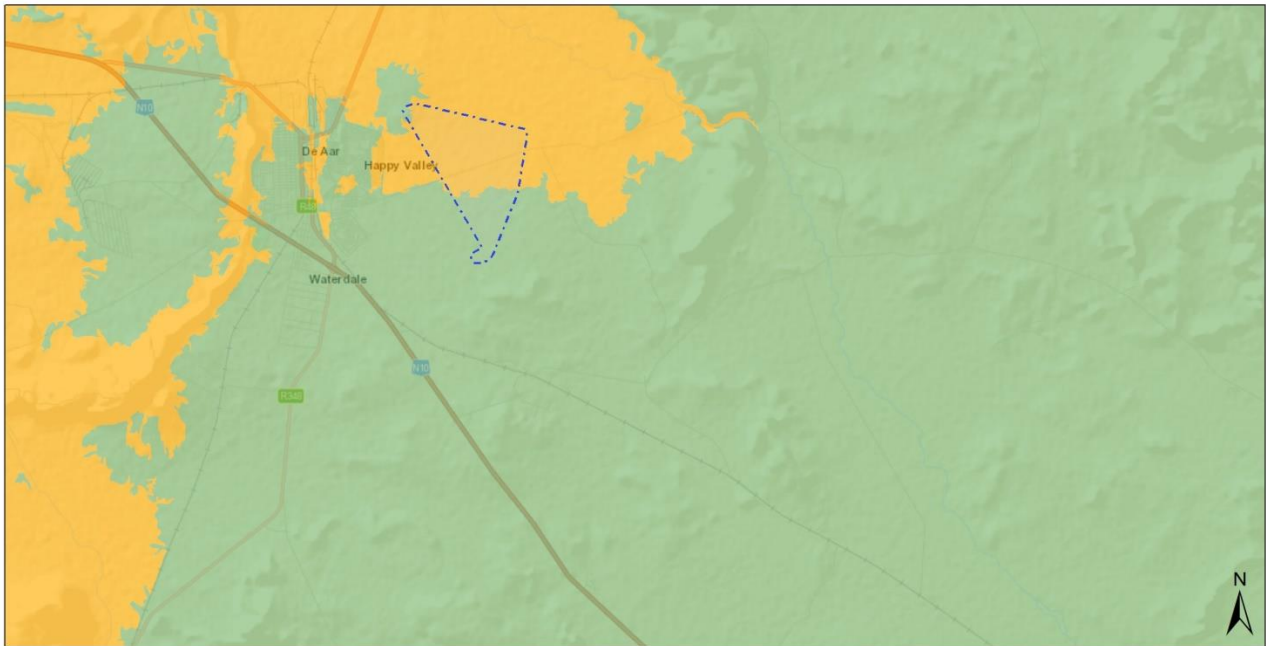
10 October 2022

#### Legend

Site Area	Erven	Public Place
EIA Application Development Footprint	Farm Portion	<b>Terrestrial Biodiversity Combined Sensitivity</b>
EIA Application Site	Farm	Very High
National Jurisdiction Area	Agri Holding	Low

0 3.5 7 km  
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), HGCC, (c) OpenStreetMap contributors, and the GIS User Community

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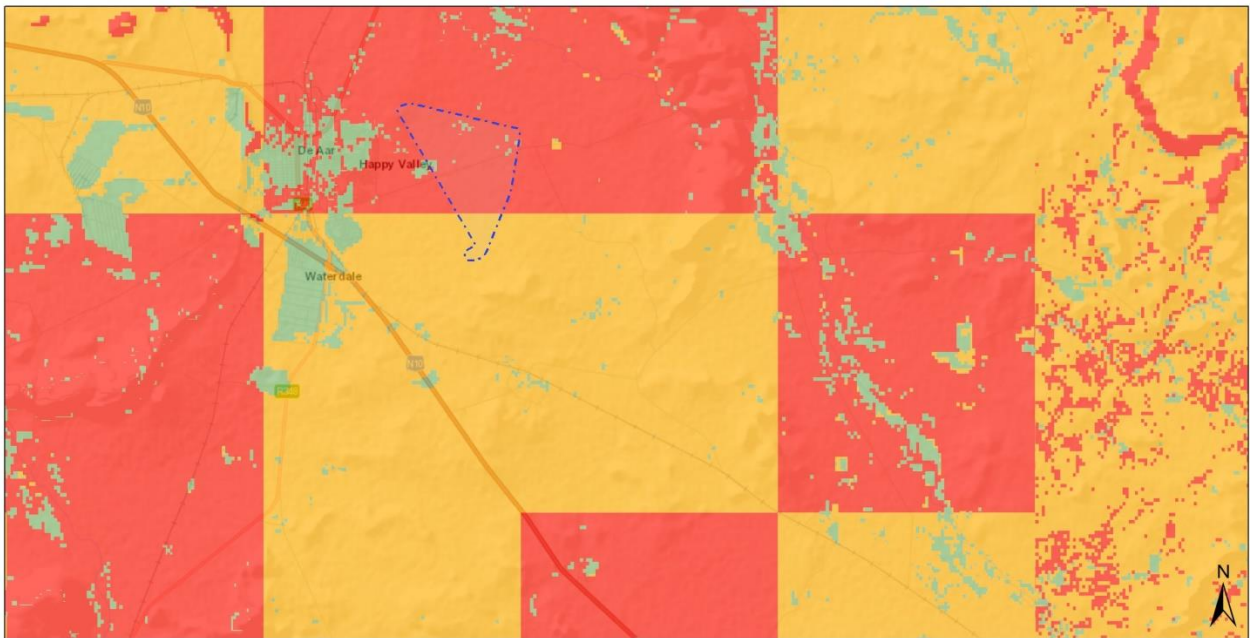
10 October 2022

Legend

- |                                       |           |
|---------------------------------------|-----------|
| Site Area                             | Very High |
| EIA Application Development Footprint | High      |
| EIA Application Site                  | Medium    |
| National Jurisdiction Area            | Low       |

0 5 10 km  
 Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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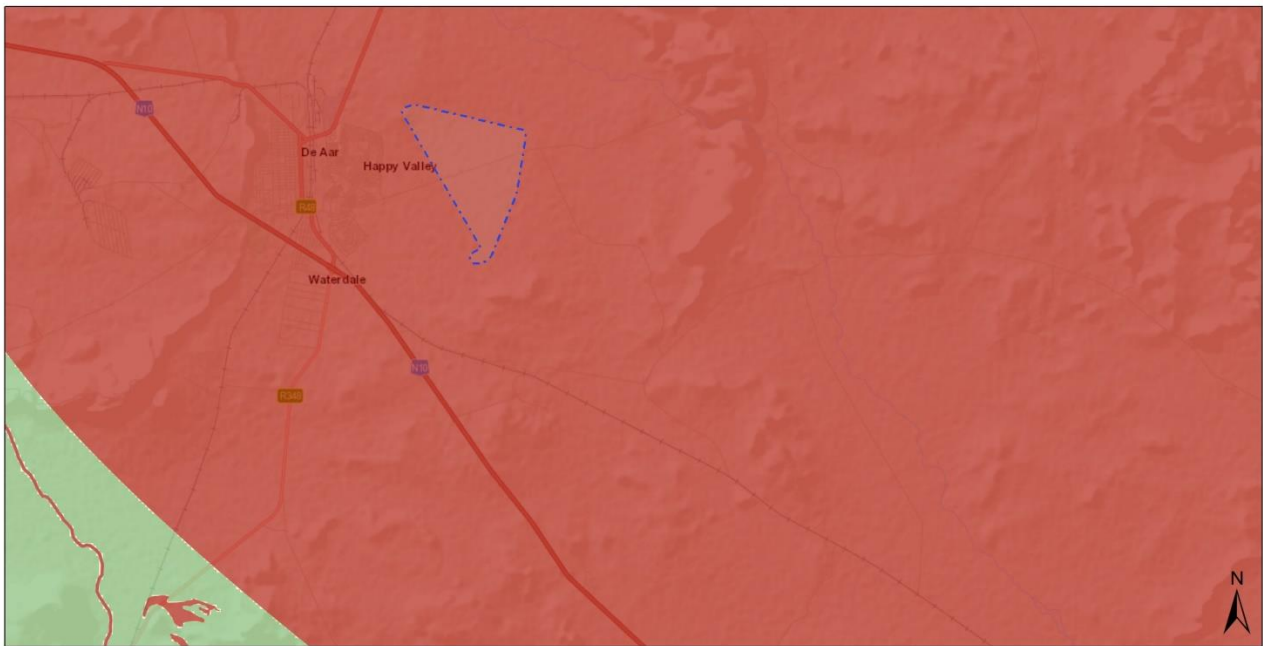
Legend

- |                                       |           |
|---------------------------------------|-----------|
| Site Area                             | Very High |
| EIA Application Development Footprint | High      |
| EIA Application Site                  | Medium    |
| National Jurisdiction Area            | Low       |

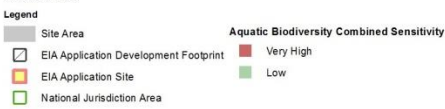
0 5 10 km  
 Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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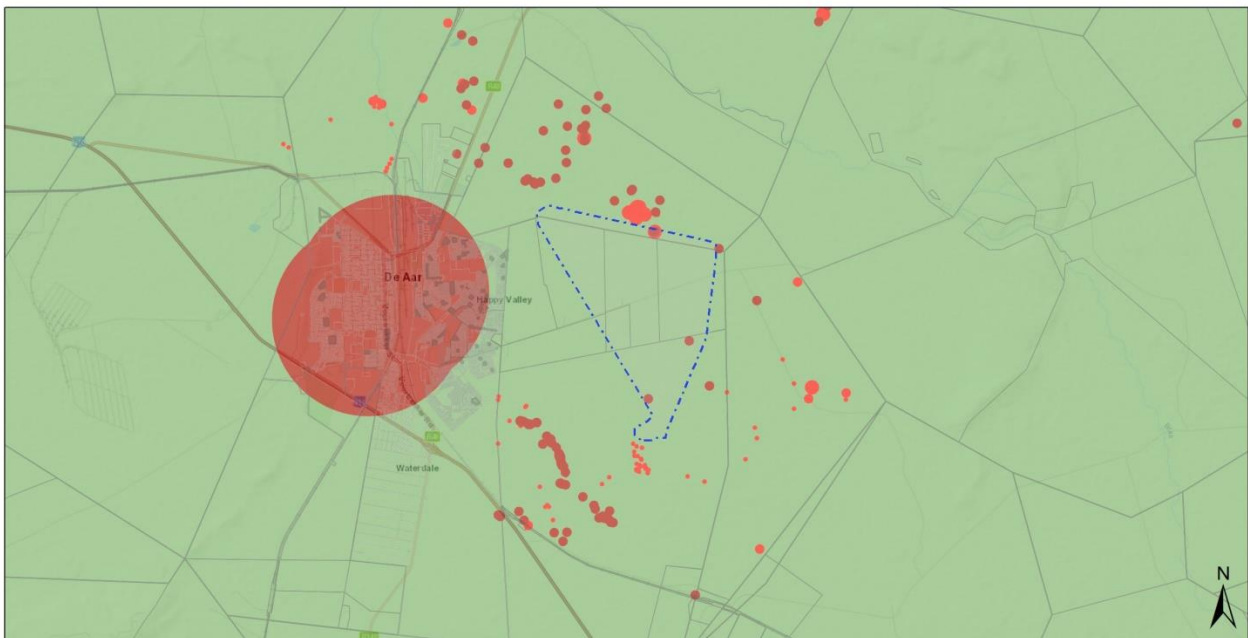


10 October 2022



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 Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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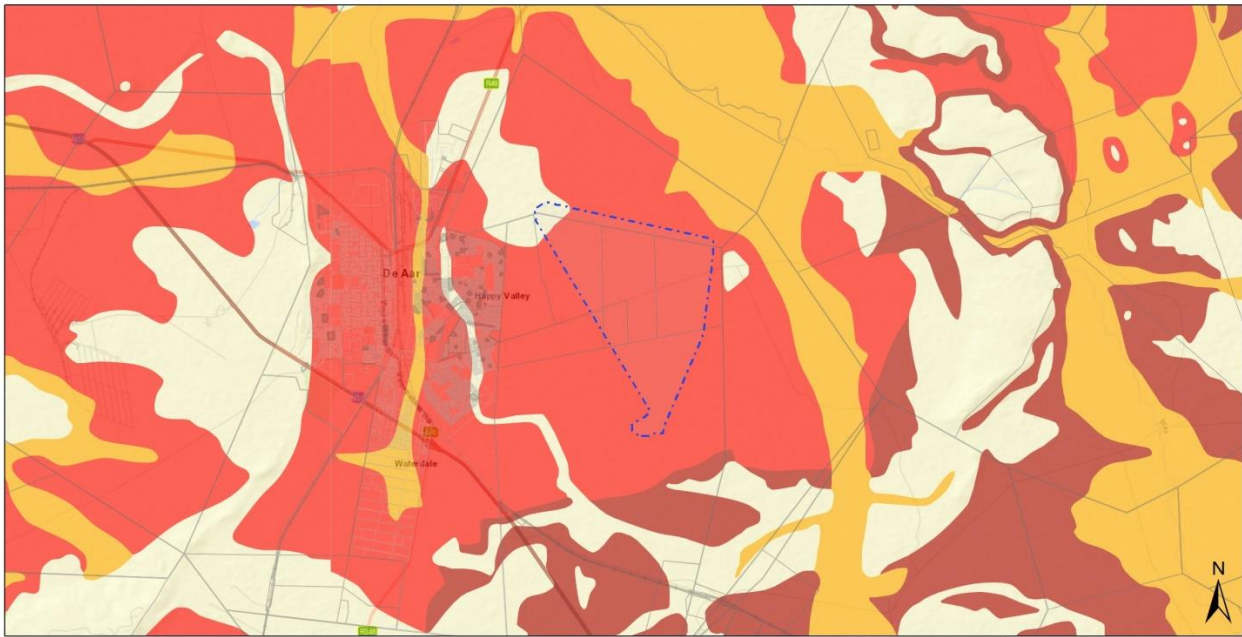


10 October 2022



0 3.5 7 km  
 Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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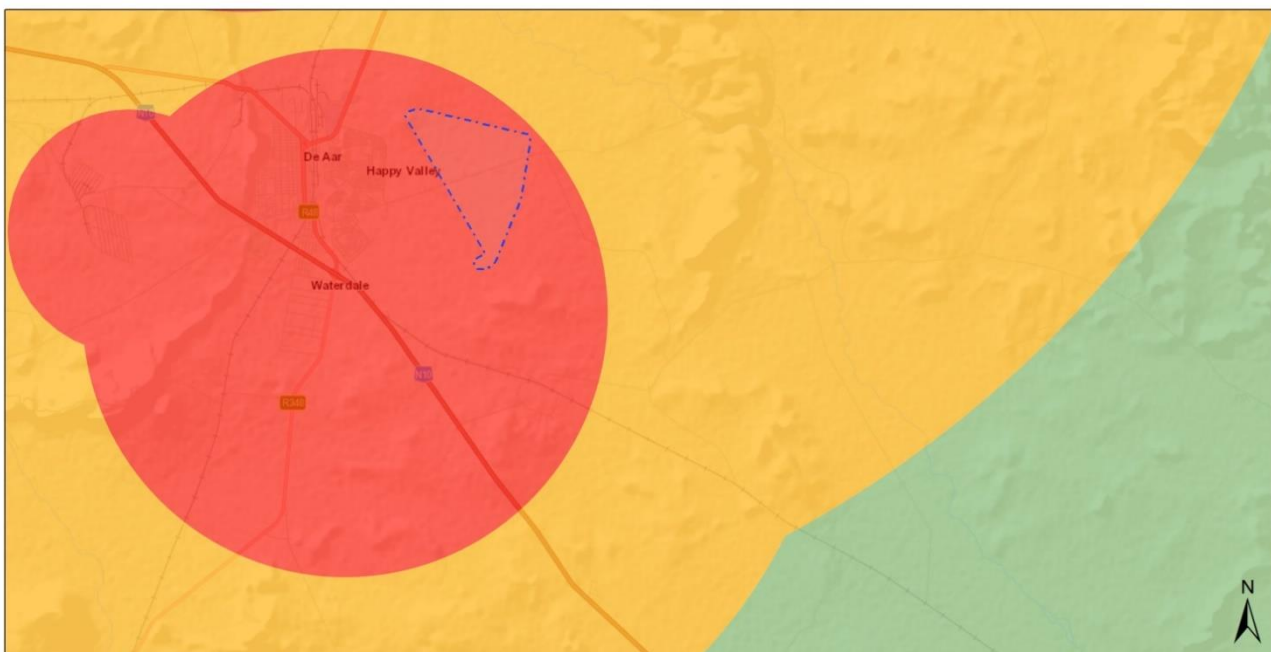
10 October 2022

Legend

- |                                       |              |  |      |
|---------------------------------------|--------------|--|------|
| Site Area                             | Erven        | Public Place                             | Low  |
| EIA Application Development Footprint | Farm Portion | <b>Paleontology Combined Sensitivity</b> |      |
| EIA Application Site                  | Farm         | Very High                                | High |
| National Jurisdiction Area            | Agri Holding | Medium                                   |      |

0 3.5 7 km  
 Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

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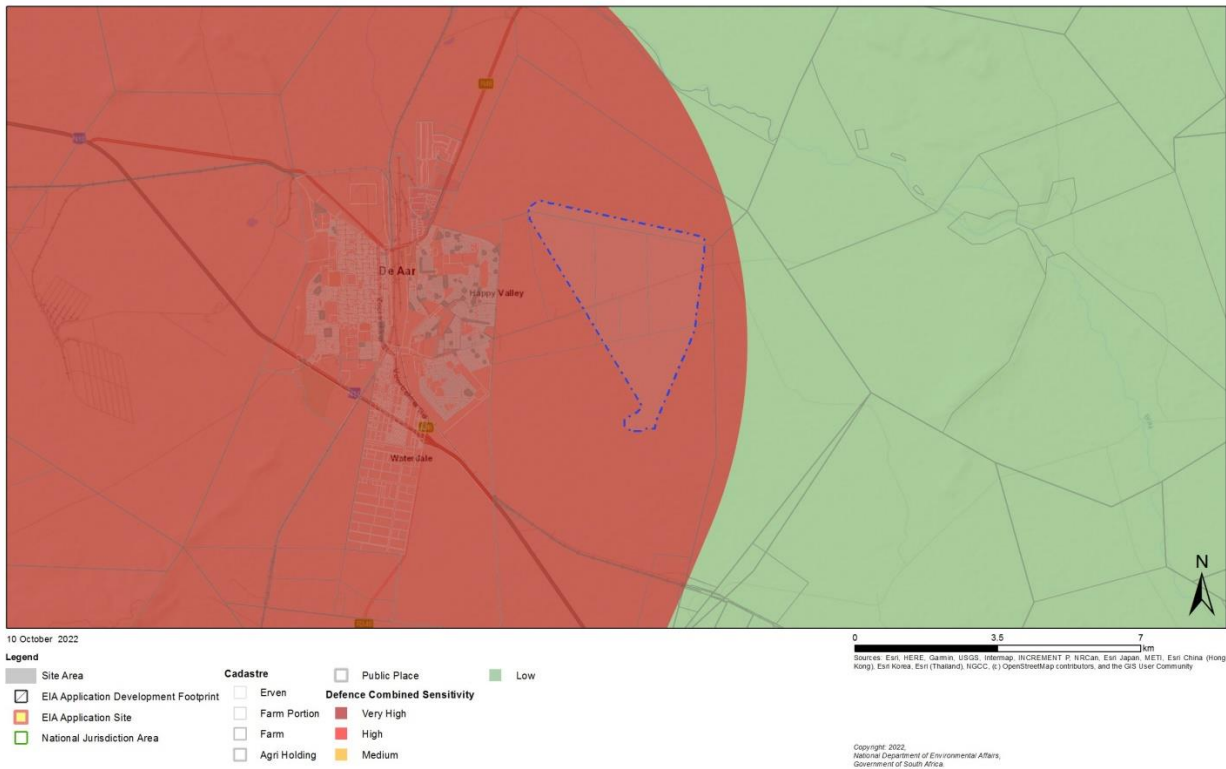
10 October 2022

Legend

- |                                       |  |      |        |
|---------------------------------------|--|------|--------|
| Site Area                             | <b>Civil Aviation Combined Sensitivity</b> |      |        |
| EIA Application Development Footprint | Very High                                  | High | Medium |
| EIA Application Site                  | Low  |      |        |
| National Jurisdiction Area            |  |      |        |

0 5 10 km  
 Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

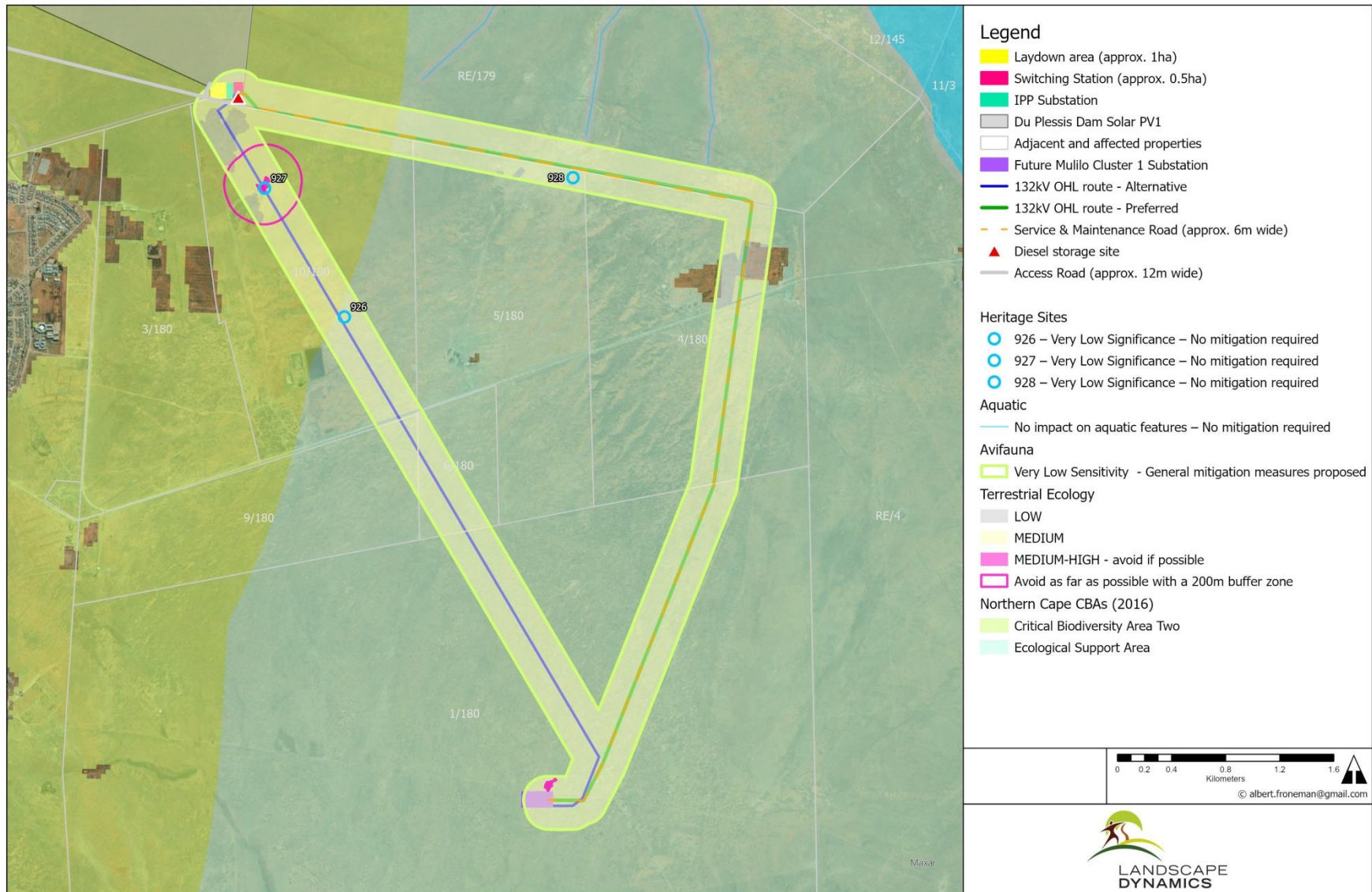
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Desktop assessments, site verification and relevant specialist studies were undertaken to confirm the relevance of the above sensitivity maps derived from the DFFE Screening Tool Report. The Screening Tool Report and the verification summary is attached in Addendum B(a) and B(b) of the generic EMP. A combined environmental sensitivity map was compiled and is provided on the next page. The applicable environmental sensitivity attributes not addressed in the Generic EMP are provided and addressed in Section C submitted as part of the Generic EMP.



## Du Plessis Dam Solar PV1 Grid Connection : Combined Environmental Sensitivity Map with Alternatives



### 7.3 Sub-section 3: Declaration

The proponent/applicant or holder of the EA affirms that he will abide and comply with the prescribed impact management outcomes and impact management actions as stipulated in Part B: Section 1 of the generic EMPr and have the understanding that the impact management outcomes and impact management actions are legally binding. The proponent/applicant or holder of the EA affirms that he/she will provide written notice to the CA 14 day prior to the date on which the activity will commence of commencement of construction to facilitate compliance inspections.



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Signature Proponent/applicant/ holder of EA

17 November 2022

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Date