

CONSULTATION BASIC ASSESSMENT REPORT

Middledrift Solar Photovoltaic Facility: Proposed Construction and Operation of a Solar Photovoltaic Facility and Associated Infrastructure, on a portion of Portions 10 & 40 of Farm T`Zoetgeneugd No.192, Sundays River Valley Municipality

DEDEAT REF: EC06/C/LN1&3/M/65-2022

December 2022



Prepared for:

The Boeram Venter Trust
PO Box 112
Kirkwood
6120

Prepared by:

Sandy Wren, Emily Whitfield, Geena Pringle and JP Hechter
Public Process Consultants
PO Box 27688, Greenacres, PE, 6057
120 Diaz Road, Adcockvale, PE 6001
Phone: 041 – 374 8426; VOIP : 087 1472 451
Email: sandy@publicprocess.co.za



Public Process Consultants
Environmental Impact Assessment and
Public Participation Management

TABLE OF CONTENTS

SECTION A: ACTIVITY INFORMATION	3
1. ACTIVITY DESCRIPTION.....	4
2. FEASIBLE AND REASONABLE ALTERNATIVES	11
3. ACTIVITY POSITION	14
4. PHYSICAL SIZE OF THE ACTIVITY	16
5. SITE ACCESS.....	17
6. SITE OR ROUTE PLAN	17
7. SITE PHOTOGRAPHS.....	18
8. FACILITY ILLUSTRATION.....	18
9. ACTIVITY MOTIVATION	18
10. APPLICABLE LEGISLATION, POLICIES AND/ OR GUIDELINES	19
11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT.....	22
12. WATER USE	24
13. ENERGY EFFICIENCY	25
SECTION B: SITE/ AREA/ PROPERTY DESCRIPTION.....	26
1. GRADIENT OF THE SITE.....	26
2. LOCATION IN LANDSCAPE.....	27
3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE	27
4. GROUNDCOVER.....	28
5. LAND USE CHARACTER OF SURROUNDING AREA.....	35
6. CULTURAL/ HISTORICAL FEATURES.....	36
SECTION C: PUBLIC PARTICIPATION	39
1. ADVERTISEMENT	39
2. CONTENT OF ADVERTISEMENTS AND NOTICES	42
3. PLACEMENT OF ADVERTISEMENTS AND NOTICES.....	43
4. DETERMINATION OF APPROPRIATE MEASURES.....	43
5. COMMENTS AND RESPONSES REPORT	46
6. AUTHORITY PARTICIPATION	47
7. CONSULTATION WITH OTHER STAKEHOLDERS	48
SECTION D: IMPACT ASSESSMENT.....	49
1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES	52
2. IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES	54
3. CLIMATE CHANGE ASSESSMENT	62
4. ENVIRONMENTAL IMPACT STATEMENT	64
SECTION E: RECOMMENDATIONS OF PRACTITIONER.....	66
SECTION F: APPENDICES	67
Appendix A: Site Plan	68

Appendix B: Photographs Taken from the Centre of the Site	69
Appendix C: Facility Illustration(s)	70
Appendix D: Specialist Reports.....	71
<i>Appendix D (i): Aquatic Biodiversity Compliance Statement</i>	71
<i>Appendix D (ii): Terrestrial Biodiversity Compliance Statement</i>	97
<i>Appendix D (iii): Visual Specialist Opinion Report</i>	113
Appendix E: Comments and Responses Report	141
Appendix F: Environmental Management Programme	153
Appendix G: Other information.....	180
<i>Appendix G(i) Site Notice Board and Newspaper Advertisement</i>	180
<i>Appendix G(ii) Database of I&APs</i>	182
<i>Appendix G(iii) Correspondence Sent to I&APs and Authorities</i>	183
➤ PROJECT ANNOUNCEMENT AND REGISTRATION PHASE	183
➤ EMAIL: NOTICE OF INTENTION TO COMMENCE WITH BA PROCESS TO DEDEAT	183
➤ EMAIL TO I&APS - LETTER 1: NOTICE OF BASIC ASSESSMENT	185
➤ COMMENT FORM MAILED WITH LETTER 1	186
➤ BACKGROUND INFORMATION DOCUMENT MAILED WITH LETTER 1.....	187
<i>Appendix G(iv) Correspondence from I&APs & Authorities</i>	193
➤ PROJECT ANNOUNCEMENT AND REGISTRATION PHASE	193
➤ CORRESPONDENCE RECEIVED FROM ORGANS OF STATE/ STATE DEPARTMENTS.....	193
➤ CORRESPONDENCE RECEIVED FROM I&APS.....	207
<i>Appendix G(v) EAPs CV</i>	213
<i>Appendix G(vi) Authority Contact Details</i>	220
<i>Appendix G (vii): Proof of Notification to Landowner</i>	221
<i>Appendix G(viii) Details of Specialists and Declaration of Interest</i>	222
➤ Aquatic Biodiversity Specialist	222
➤ Terrestrial Biodiversity Specialist	228
➤ Visual Specialist.....	244
➤ Engineering Specialist – Synthesis Power Solutions.....	248
<i>Appendix G (ix): Supporting Documentation</i>	252
➤ Specialist Impact Assessment Methodology.....	252
➤ Archaeological Impact Assessment: Recommendation for the Exemption for a Phase 1 Archaeological Impact Assessment undertaken on portion of Portion 6, 10 and 40 of Farm T'Zoetgeneugd No. 192, including the area that is proposed for the PV development, Sundays River Valley Municipality – Dr Johan Binneman	255
Appendix H: Screening Tool Report.....	274
Appendix I: Site Sensitivity Verification Report	298

ABBREVIATIONS

BESS	Battery Electricity Storage System
CARA	Conservation of Agricultural Resources Act
CBA	Critical Biodiversity Area
CBA Report	Consultation Basic Assessment Report
CEMPr	Construction Phase Environmental Management Programme
DFFE	Department of Forestry, Fisheries and the Environment
DEA	National Department of Environmental Affairs
DEDEAT	Provincial Department of Economic Development, Environmental Affairs and Tourism
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
ECBCP	Eastern Cape Biodiversity Conservation Plan (2019)
EIA	Environmental Impact Assessment
EIS	Ecological Importance and Sensitivity
EMPr	Environmental Management Programme
ESA	Ecologically Sensitive Area
FEPAs	Freshwater Ecosystems Priority Areas
I&AP	Interested and Affected Party
LSRWUA	Lower Sundays River Water Users Association
NBA	Nation Biodiversity Assessment (2018)
NEMA	National Environmental Management Act (Act 107 of 1998), as amended
NEMAA	National Environmental Management Amendment Act (Act 107 of 1998)
NFEPA	National Freshwater Ecosystem Priority Areas
NHRA	National Heritage Resources Act (Act 25 of 1999)
NPAES	National Protected Areas Expansion Strategy
OEMPr	Operational Phase Environmental Management Programme
PES	Present Ecological State
Solar PPC	Solar Power Plant Controller
SABIF	South African Biodiversity Information Facility
SAHRA	South African Heritage Resources Agency
SDF	Spatial Development Framework
SEA	Strategic Environmental Assessment
SRVM	Sundays River Valley Municipality
SSV Report	Site Sensitivity Verification Report
STEP	Subtropical Thicket Ecosystem Project

EXECUTIVE SUMMARY

INTRODUCTION

The project applicant, The Boeram Venter Trust, proposes the construction and operation of a 2.2MW Solar Photovoltaic (PV) facility, including associated support and ancillary infrastructure on a portion of Portion 10 and 40 of Farm T'Zoetgeneugd No. 192, known as Middledrift, near Addo in the Sundays River Valley Municipality. It is anticipated that the facility will have a development footprint of approximately 3 ha and will produce 2.2 MW of AC electricity for private use for existing agricultural activities on the farm Middledrift. It is proposed that the PV facility supplements Eskom supply by providing a more regular, reliable, affordable, and clean source of renewable energy on site. The farm portions under assessment measure approximately ~114ha in combined extent and are currently zoned Agriculture 1. Middledrift is a working farm located within an agricultural area and consists predominantly of transformed land for pastures for grazing of domestic cattle and associated infrastructure, offices, diary, staff housing, farm dams and a cleared area for the construction of a poultry breeder facility (a separate assessment and environmental authorisation).

It is proposed that the PV facility is constructed on the western boundary of a portion of Portion 40, with a 100-meter length of 22kV cable being installed underground on Portion 10. The PV facility will have a total development footprint of 3 hectares comprising of a ~2.6 ha photovoltaic solar panel array, a ~750m² Battery Energy Storage System (BESS), a ~200m² inverter room, and ~200m² generator room. The generator room is proposed to be constructed on the southern boundary of the site and will include a new Power Plant Controller (PPC) transformer.

The farm Middledrift is located ~4.6km south of Addo/ Valentia (as the crow flies) in the Sundays River Valley Municipality. The farm can be accessed by turning off the R335 road onto the MN50595 gravel road and continuing for a distance of ~2.7km, which intersects a private access road situated along the southern boundary of Portion 10 and gives access to the farm. The nearest boundary of the Addo Elephant National Park is located ~5.2km east of portion 40 of Farm 192 and ~5.6km from the proposed development footprint.

PROJECT DETAIL

It is the intention of the applicant to construct and operate a 2.2MW Solar (PV) Facility, including associated support and ancillary infrastructure, on ~3 ha of portion of Portion 40 and 10 of Farm 192. The PV Facility will consist of the following:

- A 2.6ha stationary solar PV array with internal roads approximately ~4 meters wide
- A ~750m² BESS area
- A ~200m² inverter room and 22kV transformer
- A ~200m² generator room, including a solar PPC transformer
- A new 22kV underground cable to be installed over a distance of approximately 950 meters, with the eastern 100 meters being on Portion 10 to connect into a 22kV transformer located adjacent to the pump house.

It is proposed that the entire facility is fenced in and will be remotely monitored for maintenance purposes.

The footprint for the PV facility and associated components is on a portion of the farm previously transformed to pastures. The total area proposed for the construction of the Solar PV Facility and associated infrastructure is anticipated to be ~3ha in extent.

Pre-construction Phase

During the detailed project design phase, micro-siting and positioning of the individual mounts within the PV array will be confirmed by the technical team based on the results of soil tests undertaken. Micro-siting will also be informed by detailed information climatic conditions, topographic features, soil stability, and hydrology of the site. The panels are however proposed to be erected facing a northerly direction. The type of PV panels and BESS to be installed will be based on the best available technology at the time of construction and site-specific requirements.

Construction Phase

It is anticipated that the proposed construction phase will entail the following activities:

- In order to limit windblown dust, which increases the need for maintenance, blanket clearing for the PV array area is not proposed.
- Clearing and levelling of the area for the establishment of a concrete slab for the generator and associated transformer will be required.
- During the detailed design phase of the project soil tests will be undertaken and based on the results of these tests either concrete pillars or piling of steel will be used for the PV mounts.
- The BESS and Inverter room will require the construction of concrete plinths the laying down of and collection of BESS containers. Thus, no blanket clearing of vegetation is proposed.
- Establishment of a project laydown area for equipment.
- Clearing of pastures and levelling of areas for the establishment of internal access roads for construction and operational purposes.
- Transportation and installation of the solar PV panels and BESS.
- Removal of topsoil for the installation of the new 22kV underground cable.
- Erection of the perimeter fence.

Operational Phase

Once the PV facility and associated infrastructure has been installed, the facility will become operational and start producing 2.2MW of renewable energy. The facility will function as a hybrid system meaning the facility will operate from battery storage and will directly be connected to the Poultry Facility during power outages.

PROJECT TIMING

Should this project receive a positive Environmental Authorisation, it is proposed that the preconstruction phase will commence immediately and will be completed within 24 months. The construction phase will commence within 24 months of the completion of the Pre-construction period and is anticipated to be completed within 24 months. Once the construction phase is completed the PV facility will become operational and will continue in perpetuity.

BASIC ASSESSMENT PROCESS AND PUBLIC PARTICIPATION

In terms of the NEMA EIA Regulations 2014 (as amended), published in GN R326, 327, 325 and 324, promulgated under Chapter Five of the National Environmental Management Act (Act 107 of 1998) (NEMAA), and published in Government Gazette 40772 on the 7 April 2017, the project requires a Basic Assessment (BA), because it triggers, amongst others the following listed activity, in Listing Notice 1 (GN R324):

- “1. The development of facilities or infrastructure for the generation of electricity from a renewable resource where –*
(ii) The output is 10 megawatts or less but the total extent of the facility covers an area in excess of 1 hectare”

In addition to the above, the following listed activities are also anticipated to be triggered by the proposed development:

GN R327 (Listing Notice 1): 28. (ii).

GN R324 (Listing Notice 3): 18. a. i. (gg)

This listed activity requires authorisation from the Department of Economic Development, Environmental Affairs and Tourism (DEDEAT). The Basic Assessment Report (BAR) needs to show the competent authority, DEDEAT (Sarah Baartman Region), as well as the project applicant, The Boeram Venter Trust, what the consequences of their choices will be in biophysical, social and economic terms. Public participation forms an important component of this process, by assisting in the identification of issues and alternatives to be evaluated, and, together with specialist input, assists the competent authority with their decision-making. The BA Process is currently at the stage where an Application Form for Environmental Authorisation has been submitted to the competent authority. In parallel, Interested and Affected Parties (I&APs) are being provided with a legislated 30-day comment period within which to provide their input on the Consultation Basic Assessment Report (CBAR).

SPECIALIST STUDIES

The following specialist studies have been undertaken as part of the BA Process in order to inform the CBAR:

- Terrestrial Biodiversity Compliance Statement
- Aquatic Biodiversity Compliance Statement
- Visual Specialist Opinion Report

Specialist assessments are included in Appendix D of the CBAR. In addition, an **Archaeological Letter of Exemption and Paleontological Specialist Study**, which was undertaken as part of a previous environmental assessment on Portions 6,10 & 40 of Farm T'Zoetgeneugd No. 192 (the same properties on which this application is proposed), have been used to assess the potential impacts on heritage resources, and are included as supporting information to this report, in Appendix G (ix) of the CBAR.

ENVIRONMENTAL IMPACT STATEMENT

The proposed construction of the Solar Photovoltaic Facility is anticipated to have an overall **LOW NEGATIVE** impact on the receiving environment during the construction phases, if all the recommended mitigation measures are applied. In the operational phase, the overall impact is **VERY LOW NEGATIVE to NEUTRAL**.

Terrestrial Biodiversity impacts are not anticipated to be significant as the site is transformed to pastures, and no natural habitat remains within the proposed development footprint. With the implementation of the proposed mitigation measures, the impact has been rated as a **VERY LOW NEGATIVE** impact.

Aquatic Biodiversity impacts are not anticipated to be significant, as no natural aquatic features (rivers, drainage lines or wetlands) fall within any the proposed development footprint. The existing dam present on the site is artificial and will not be directly affected by the proposed development. With the implementation of proposed mitigation measures suggested by the Aquatic Biodiversity specialist, the impact has been rated as a **VERY LOW NEGATIVE** impact.

Archaeological and Paleontological Impact can be mitigated to **NEUTRAL** during the construction phase if the ECO and/or construction foreman are alerted to the possibility of important types of heritage artefacts which could be uncovered during excavation and levelling, and recommended actions are undertaken should a heritage material be uncovered.

The Visual impacts associated with this development is anticipated to be **VERY LOW NEGATIVE**. Impacts on sensitive receptors are anticipated to be low due to the transformed nature of the site and the surrounding agriculture activities.

The application of the proposed mitigation and design measures, as recommended by the respective specialists, to be effectively managed in order to reduce the identified impacts so as to not have a detrimental effect on the environment.

In addition, some positive impacts have also been predicted. These include the creation of a number of additional employment opportunities and associated economic growth for the local community, which has been rated as **LOW POSITIVE** for the construction phase and **LOW POSITIVE** for the operational phase. Furthermore, the establishment of the PV facility will reduce the reliance on the coal-based electricity from the national Eskom grid, reducing the GHG pollution, rated **LOW POSITIVE**.

NO-GO Alternative (Compulsory)

The No-Go alternative will result in the potential employment and skills development opportunities for the local community not being realised. In turn, the potential opportunity for economic growth in the community will be lost. The securing a stable electricity supply for current agricultural activities and the Poultry Facility currently under construction will also not be realised, which means more reliance on the national Eskom grid. These consequential impacts are regarded as **LOW NEGATIVE**.

BASIC ASSESSMENT REPORT

(For official use only)

File Reference Number:

NEAS Number:

Date Received:

Basic assessment report in terms of the Environmental Impact Assessment Regulations, 2014 as amended, promulgated in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended.

Kindly note that:

1. This **basic assessment report** is a standard report that may be required by a competent authority in terms of the EIA Regulations, 2014 as amended and is meant to streamline applications. Please make sure that it is the report used by the particular competent authority for the activity that is being applied for. This report is current as of **1 OCTOBER 2022**. It is the responsibility of the applicant to ascertain whether subsequent versions of the form have been published or produced by the competent authority
2. The report must be typed within the spaces provided in the form. The size of the spaces provided is not necessarily indicative of the amount of information to be provided. The report is in the form of a table that can extend itself as each space is filled with typing.
3. Where applicable **tick** the boxes that are applicable or **black out** the boxes that are not applicable in the report.
4. An incomplete report may be returned to the applicant for revision.
5. The use of "not applicable" in the report must be done with circumspection because if it is used in respect of material information that is required by the competent authority for assessing the application, it may result in the rejection of the application as provided for in the regulations.
6. This report must be handed in at offices of the relevant competent authority as determined by each authority **unless indicated otherwise by the Department**.
7. No faxed or e-mailed reports will be accepted **unless indicated otherwise by the Department**.
8. The report must be compiled by an independent environmental assessment practitioner (EAP). The EAP must satisfy conditions 11 below.
9. Unless protected by law, all information in the report will become public information on receipt by the competent authority. Any interested and affected party should be provided with the information contained in this report on request, during any stage of the application process.
10. A competent authority may require that for specified types of activities in defined situations only parts of this report need to be completed.

11.1 The Environmental Assessment Practitioner (EAP) must be registered in terms of S24H Regulations with the Registration Authority EAPASA as from 8 August 2022.

11.2. S24H (14) states that "only a person registered as an Environmental Assessment practitioner may perform tasks in connection with an application for an environmental authorisation contemplated in

(a) Chapter 5 of the Act read with the Environmental Impact Assessment Regulations.

(b) Section 24G of the Act

(c) Chapter 5 of the National Environmental Management Waste Act 2008 (Act No 59 of 2008) read with the Environmental Impact Assessment Regulations

11.3. Tasks in regulation 14 may only be conducted by an EAP that is registered

11.4. Regulations 20 of S24H indicates the offences and penalties as indicated below:

"20. Offences and penalties

(1) A person is guilty of an offence if that person-

(a) contravenes regulation 14 of the Regulations; or

(b) pretends to be a registered environmental assessment practitioner or registered candidate environmental assessment practitioner.

(2) A person convicted of an offence in terms of subregulation (1) is liable to the penalties contemplated in section 49B(3) of the Act."

Section 49B(3) of the Act states:

"A person convicted of an offence in terms of section 49A(1)(h), (l), (m), (n), (o) or (p) is liable to a fine or to imprisonment for a period not exceeding one year, or to both a fine and such imprisonment."

SECTION A: ACTIVITY INFORMATION

Has a specialist been consulted to assist with the completion of this section?

YES	
------------	--

If YES, please complete form XX for each specialist thus appointed:

Any specialist reports must be contained in Appendix D.

This section of the report provides an overview of the Basic Assessment project team under management of Sandy Wren, Registered Environmental Assessment Practitioner (EAP) (No: 2019/1242) and Public Process Consultants.

BASIC ASSESSMENT PROJECT TEAM		
Team Member	Company	Role
Sandy Wren	Public Process Consultants	EIA Team Leader, Registered EAP
JP Hechter	Public Process Consultants	Registered Candidate EAP
Emily Whitfield	Public Process Consultants	Trainee EAP
Geena Pringle	Public Process Consultants	Trainee EAP
Wandile Junundu	Public Process Consultants	Community Consultation
Jamie Pote	Private	Terrestrial Biodiversity Compliance Statement
Jaclyn Smith	JS Environmental Consulting	Aquatic Biodiversity Compliance Statement
Dr Johan Binneman	Eastern Cape Heritage Consultants	Archaeological Letter of Exemption
Dr John Almond	Natura Viva cc	Phase 1 Paleontological Heritage Impact Assessment
Graham Young	Graham A Young Landscape Architect (GYLA)	Visual Specialist Opinion Report
TECHNICAL TEAM		
Brandon and Louise Polley	Synthesis Power Solutions	Renewable Energy Specialists
	B&K Solar	Solar Plant Illustration layout
Bertus Smuts	Surplan	Surveyor
Nico Venter	The Boeram Venter Trust	Applicant Representative

The following independent specialist studies, which have been reviewed by the EIA Team, are included in Appendix D:

- Appendix D(i): Terrestrial Biodiversity Compliance Statement
- Appendix D(ii): Aquatic Biodiversity Compliance Statement
- Appendix D(iii): Visual Specialist Opinion Report

In addition, an **Archaeological Letter of Exemption and Paleontological Specialist Study**, which was undertaken as part of a previous environmental assessment on Portions 6,10 & 40 of Farm T`Zoetgeneugd No. 192 (the same properties on which this application is proposed), have been used to assess the potential impacts on heritage resources, and are included as supporting information to this report, in Appendix G (ix).

The specialist studies listed above have been informed by the National Web-based Environmental Screening Tool, technical input, public consultation, site visit to the area under assessment and the EAP's knowledge of the local area as well as knowledge gained through a previous Basic Assessment undertaken on Portion 6, 10 & Portion 40 of Farm 192. The Screening Tool Report is attached as Appendix H. The Site Sensitivity Verification Report (SSV) which confirms or disputes the current use of the land and environmental sensitivities of the proposed development footprint, as identified by the Screening Tool, has informed the specialist studies undertaken for this assessment, see attached as Appendix I.

1. ACTIVITY DESCRIPTION

Describe the activity, which is being applied for, in detail

INTRODUCTION

The project applicant, The Boeram Venter Trust, proposes the construction and operation of a 2.2MW Solar Photovoltaic (PV) facility, including associated support and ancillary infrastructure on a portion of Portion 10 and 40 of Farm T`Zoetgeneugd No. 192, known as Middledrift, near Addo in the Sundays River Valley Municipality. It is anticipated that the facility will have a development footprint of approximately 3 ha and will produce 2.2 MW of AC electricity for private use for existing agricultural activities on the farm Middledrift. It is proposed that the PV facility supplements Eskom supply by providing a more regular, reliable, affordable, and clean source of renewable energy on site. The farm portions under assessment measure approximately ~114ha in combined extent and are currently zoned Agriculture 1.

Middledrift is a working farm located within an agricultural area and consists predominantly of transformed land for pastures for grazing of domestic cattle and associated infrastructure, offices, diary, staff housing, farm dams and a cleared area for the construction of a poultry breeder facility (a separate assessment and environmental authorisation).

It is proposed that the PV facility is constructed on the western boundary of a portion of Portion 40, with a 100-meter length of 22kV cable being installed underground on Portion 10. The PV facility will have a total development footprint of 3 hectares comprising of a ~2.6 ha photovoltaic solar panel array, a ~750m² Battery Energy Storage System (BESS), a ~200m² inverter room, and ~200m² generator room. The generator room is proposed to be constructed on the southern boundary of the site and will include a new Power Plant Controller (PPC) transformer.

To connect the existing electrical infrastructure on site, including connecting to the Eskom grid, a ~950m underground 22kV will be installed from a new transformer adjacent to the inverter room to connect to a transformer at the dam pump house. The PV panels are proposed to be mounted onto metal frames which are usually a combination of aluminium, galvanised steel and concrete foundations. The type of PV panel and BESS installed will be based on the best available technology at the time of construction, however the PV panels will be stationary and have a built-in nonreflective film.

The PV facility will be a hybrid facility, as it will consist of a PV array as well as a BESS. Micro-siting and positioning of the individual mounts within the array will be confirmed by the technical team at the time of construction and will take into consideration the solar regime and other climatic conditions, topographic features, soil stability, and hydrology of the site. However, subject to the outcome of this detailed planning phase and as per the Facility Illustration contained in Appendix C it is anticipated that approximately 6 PV blocks may be constructed on site over an area of ~ 2.6 ha.



Figure 1.1: Photo showing a typical PV facility



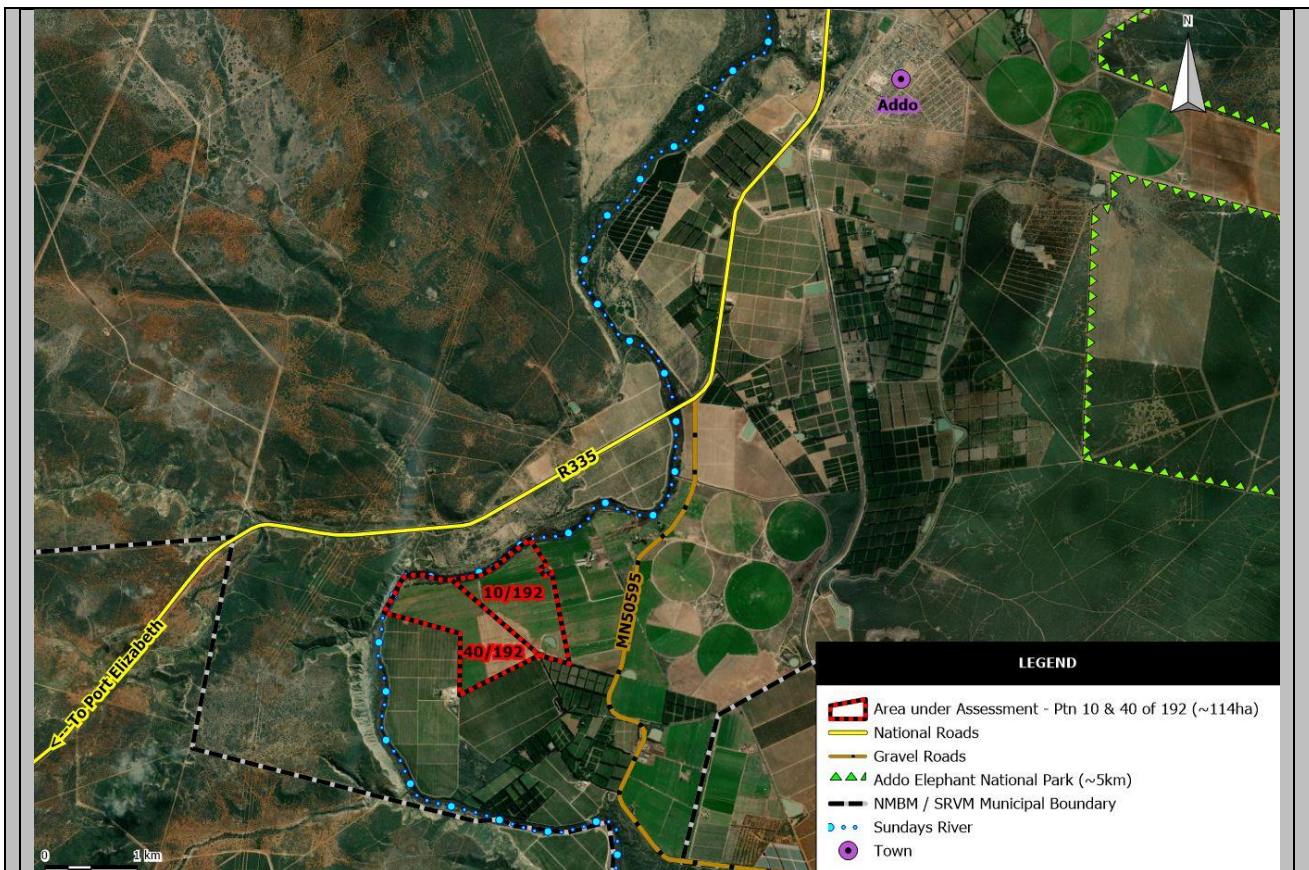
Figure 1.2: Photo of a typical BESS container

In order to connect to the Eskom grid, a new 22kV transformer will be installed near the inverter room, as well as a 22kV underground cable approximately 950 m in length to connect to an existing Eskom 1.6 MVA metering point located on the southern boundary of Portion 40. A 100meter portion of the 22kV underground cable will be installed on Portion 10 of Farm 192 to connect to a new transformer located at the pump house for the expanded dam approved as part of a previous environmental authorisation (see paragraph below). As indicated above, a generator room will be located on the southern boundary of the site which will include a new 22kV Solar Power Plant Controller (PPC) adjacent to the generator room.

On the 14 October 2019, the project applicant received Environmental Authorisation (Reference number: EC06/C/LN1&3/M/19-2019) for the construction and operation of a Poultry Breeder Facility (6 houses) and associated infrastructure on the same farm. Included as part of this authorisation is the expansion of an existing farm dam on the southern boundary of Portion 10 of Farm 192 as well as the relocation of the existing pump house and 22kV transformer. It is proposed that the poultry facility is the primary consumer of the proposed renewable energy, however there will still be dependence on Eskom supply and generators. In addition to the poultry facility the energy will be utilized for other agricultural facilities on the site, e.g., staff housing, workshop, irrigation infrastructure and pump house. The applicant is in the process of commencing with a Part 2 Amendment Application for a change in project scope, to utilize the authorised 6 poultry houses to produce broilers versus as a breeder facility and construct and operate an additional 6 broiler houses on site, 12 broiler houses in total. This will however be subject to a separate Part 2 Amendment Application process and an Amended Environmental Authorisation, should one be granted.

PROJECT LOCALITY

The farm Middledrift is located ~4.6km south of Addo/ Valentia (as the crow flies) in the Sundays River Valley Municipality. The farm can be accessed by turning off the R335 road onto the MN50595 gravel road and continuing for a distance of ~2.7km, which intersects a private access road situated along the southern boundary of Portion 10 and gives access to the farm. The nearest boundary of the Addo Elephant National Park is located ~5.2km east of portion 40 of Farm 192 and ~5.6km from the proposed development footprint.



Map 1: Locality Map of Portions 10 & 40 of Farm T'Zoetgeneugd No. 192, known as Middledrift, in the Sundays River Valley Municipality on which the Photovoltaic (PV) Facility is proposed.

SURROUNDING LANDUSE

Land-uses on the properties adjacent to Middledrift are predominantly agriculture in nature, namely, citrus orchards and livestock grazing as well as pivot irrigation. The northern and north-western boundary of the site is bound by the Sundays River which is, ~350m north of the nearest boundary of the proposed development footprint. The landscape surrounding Middledrift is characterised by agricultural activities typically associated with the “Sundays River Valley”. Although the proposed construction of a PV facility is not characteristic of the surrounding area, the landscape is characterised by transformed surfaces associated with packhouses, sorting sheds, farm sheds, dairies and more recently shade cloth. The PV facility is being constructed to provide renewable energy to newly authorised, proposed and existing agricultural activities.

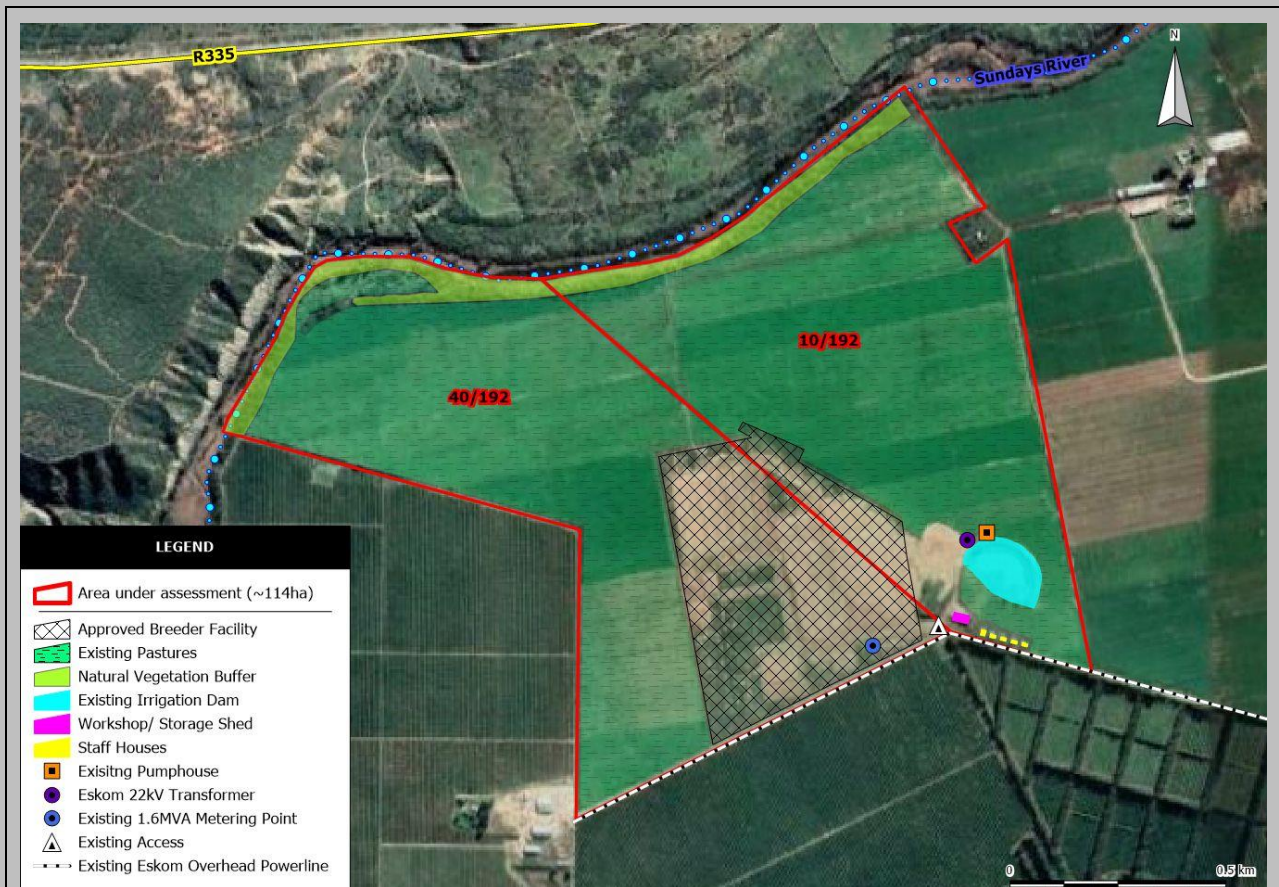
SITE OVERVIEW

The following section of the assessment provides an overview of the existing land uses and activities on as the farm Middledrift (see Map 2 below).

The area under assessment measures approximately ~114ha in combined extent and is currently zoned Agriculture 1. The majority of the farm has been modified to pastures for domestic livestock grazing with no natural vegetation remaining. A ~20m buffer of vegetation associated with the Sundays River has been retained between the existing pastures and the riverbank. A ~ 20ha portion of the site has been partially cleared of pastures associated with an authorised Poultry Breeder facility. As indicated above, the applicant is currently in the process of applying for a Part 2 Amendment Application for a change in project scope.

Existing access to the farm is located on the southern boundary of Portion 10, which provides access to both Portions 10 and 40 of Middledrift. An existing workshop/ tool shed and six staff houses are located east of the farm access point, on the southern boundary of Portion 10. An existing Eskom overhead powerline runs along

the southern boundary of Portion 10 and Portion 40 and an existing 1.6MVA metring point is located ~37m north of the southern boundary of the farm.



Map 2: Site Overview Map indicating the existing features on Portions 10 and 40 of Farm 192.

PROJECT OVERVIEW

It is the intention of the applicant to construct and operate a 2.2MW PV facility, including associated supporting and ancillary infrastructure, on ~3 ha of portion of Portion 40 and 10 of Farm 192. The PV Facility will consist of the following:

- A 2.6ha stationary solar PV array with internal roads approximately ~4 meters wide
- A ~750m² BESS area
- A ~200m² inverter room and 22kV transformer
- A ~200m² generator room, including a solar PPC transformer
- A new 22kV underground cable to be installed over a distance of approximately 950 meters, with the eastern 100 meters being on Portion 10 to connect into a 22kV transformer located adjacent to the pump house

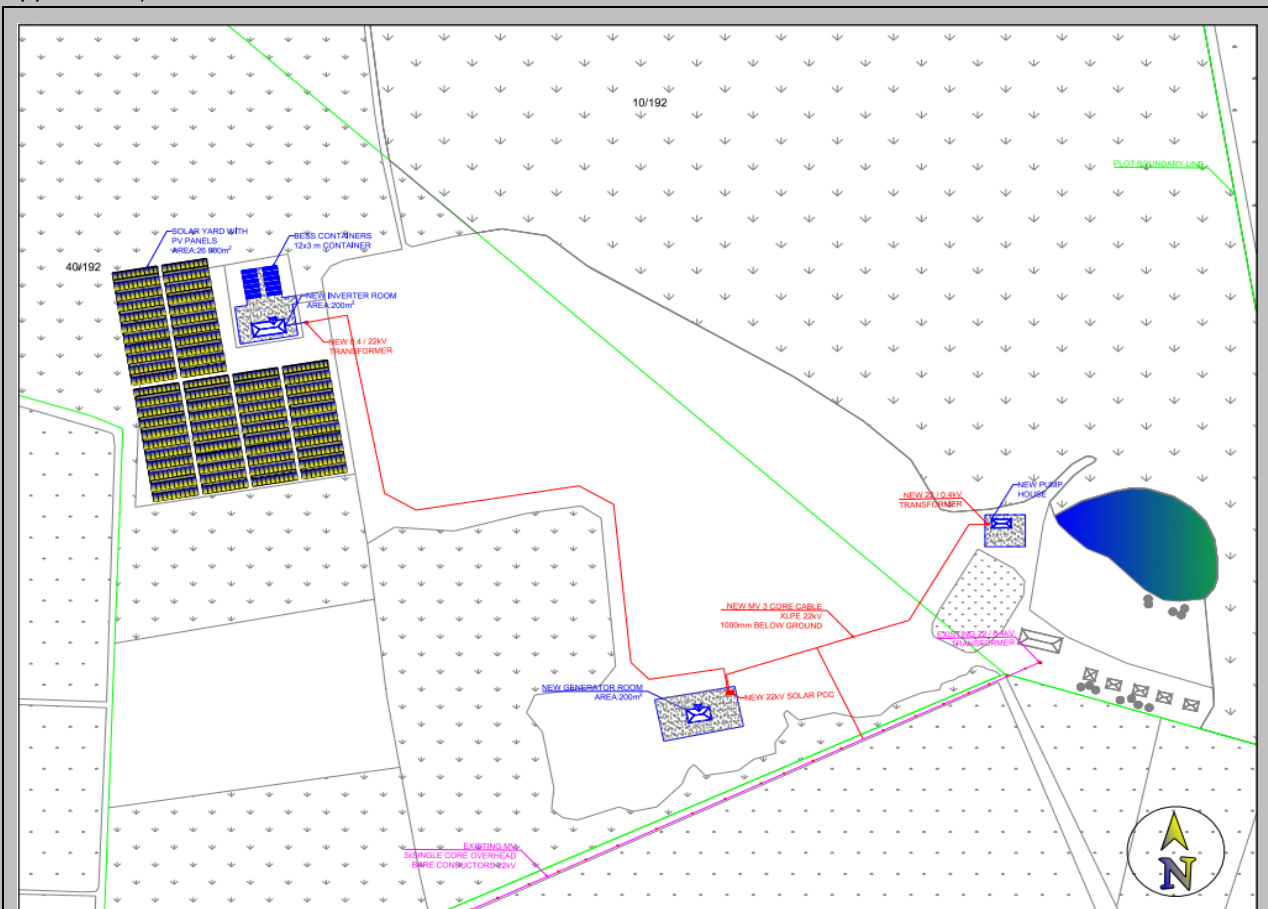
It is proposed that the entire facility is fenced in and will be remotely monitored for maintenance purposes.

Associated with the construction and operation of the proposed PV Facility are the following project activities:

- In order to limit windblown dust, which increases the need for maintenance, blanket clearing for the PV array area is not proposed.
- Clearing and levelling of the area for the establishment of a concrete slab for the generator and associated transformer will be required.
- During the detailed design phase of the project soil tests will be undertaken and based on the results of these tests either concrete pillars or piling of steel will be use for the PV mounts.

- The BESS and Inverter room will require the construction of concrete plinths the laying down of and collection of BESS containers. Thus, no blanket clearing of vegetation is proposed.
- Establishment of a project laydown area for equipment.
- Clearing of pastures and levelling of areas for the establishment of internal access roads for construction and operational purposes.
- Transportation and installation of the solar PV panels and BESS.
- Removal of topsoil for the installation of the new 22kV underground cable.
- Erection of the perimeter fence.

The footprint for the PV facility and associated components is on a portion of the farm previously transformed to pastures. The total area proposed for the construction of the Solar PV Facility and associated infrastructure is anticipated to be ~3ha in extent. The project components are indicated in Map 3 below (also attached in Appendix C).



Map 3: Development components associated with the proposed solar Photovoltaic facility (adapted from Drawing No. 2022 – MID – E – r0, by B&K Solar)

PROPOSED ACTIVITIES

PRE-CONSTRUCTION PHASE

During the detailed project design phase, micro-siting and positioning of the individual mounts within the PV array will be confirmed by the technical team based on the results of soil tests undertaken. Micro-siting will also be informed by detailed information climatic conditions, topographic features, soil stability, and hydrology of the site. The panels are however proposed to be erected facing a northerly direction. The type of PV panels and BESS to be installed will be based on the best available technology at the time of construction and site-specific requirements.

CONSTRUCTION PHASE

Solar Photovoltaic Array (Panels)

As indicated above the site will not require blanket clearing in order to minimise windblown dust. Based on the result of soil testing either concrete pillars or steel piling will be used for the frames for the PV array. Water for concrete mixing will be obtained from the existing farm dam. Access to the PV facility array will be required to be established. Individual solar panels will be arranged in multiple rows and mounted on metal frames fixed onto concrete or steel foundations. The proposed PV facility will be a fixed system with a built-in non-reflective film. Based on local climatic conditions the PV panels will be spaced at varying intervals to avoid shading adjacent panels and mounted at an angle to allow for maximum exposure to the sun. Based on detailed site information it is anticipated that 6 blocks of solar panels are anticipated over a 2.6 ha area.

Battery Energy Storage System (BESS)

It is proposed that the BESS is constructed on concrete plinths, thus not requiring blanket clearing of the ~750m² footprint. The BESS area will comprise of approximately 12 (twelve) containers, 12 x 3m each, over an area of ~750m². The type of batteries to be used will be determined based on the best available technology at the time of construction. Batteries will be kept at optimal charges to prolong battery life and capacity.

Inverter Room

The inverter room, located immediately south of the BESS will also be installed on concrete plinths. The inverter room will convert the DC electricity from the batteries, into AC electricity, which is required for the operation of transformers (i.e., Poultry Facility) and pumping infrastructure as well as the Eskom grid connection. The inverter room area is anticipated to be ~200m² in extent.

Generator Room

The ~200m² generator room and associated 22kV Power Plant Control transformer will be constructed on a concrete slab, which will require the removal and stockpiling of topsoil. The generator room is proposed to be constructed on the southern boundary of Portion 40 of Farm 192. The solar Power Plant Controller (PPC) transformer will regulate Voltage and Wattage of the network in accordance with electricity requirements.

Connection Cables

A new 22kV underground powerline will be required to be installed to connect the PV Facility with the inverter room, battery storage area and the generator room, the new transformers as well as to the Eskom grid. The underground cables are anticipated to be ~950m in length.

Eskom Grid Connection

The PV facility is proposed to be connected to the national Eskom grid as part of a wheeling agreement with the power utility. An application to connect to the national Eskom grid will be made once the final layout has been approved and the installation of the new transformers has been completed. Technical requirements from Eskom for connection to the grid will be finalised by the applicant together with the project engineers prior to connection of the facility to the grid.

OPERATIONAL PHASE

Once the PV facility and associated infrastructure has been installed, the facility will become operational and start producing 2.2MW of renewable energy. The facility will function as a hybrid system meaning the facility will operate from battery storage and will directly be connected to the Poultry Facility during power outages.

Internal Roads

It is proposed that the roads constructed during the construction phase of the project will be utilised during the operational phase of the project. It is anticipated that the new roads will measure ~4m in width.

Cleaning and Maintenance

The solar PV panels are monitored remotely for faults, thus maintenance is usually conducted as and when required, although, on average, this is anticipated to be twice a year. Dirt accumulates on the panels over time, which can reduce the efficiency of the panels thus the panels need to be washed approximately 4 times per year. A combination of compressed air, water and soap mixture will be used for cleaning, thus reducing the amount of irrigation water required from the dam. The frequency of washing is dependent on various factors, predominantly local climatic conditions (e.g., frequency of precipitation and windblown dust etc.). A reliable water supply is available on site to undertake cleaning of the panels.

Security

It is proposed that the PV facility is fenced in for security purposes and will have an access-controlled entrance.

DECOMMISSIONING PHASE

It is not anticipated that the PV facility will be decommissioned. Should the facility be decommissioned in future, this will be done in compliance with any legislation or regulations which might be applicable at the time.

SITE ACCESS

Middledrift is located ~4.6km south of Addo/ Valentia (as the crow flies), in the Sundays River Valley Municipality. The farm can be accessed by turning off the R335 road onto the MN50595 gravel road and continuing for a distance of ~2.7km, which intersects a private access road situated along the southern boundary of Portion 10 and gives access to the farm ~730m in a westerly direction.

PROJECT TIMING

Should the proposed PV facility receive a positive Environmental Authorisation, it is proposed that the development will take place in phases as follows:

PHASES	ACTIVITY	TIMEFRAME
PRE-CONSTRUCTION PERIOD		
Detailed Planning and Design Phase	<ul style="list-style-type: none"> • Determine the best technology available at the time • Prepare final layouts/ development footprint • Relevant permit & licence applications and approvals • Pre-Commencement Audit 	24 months
CONSTRUCTION PERIOD		
1	<ul style="list-style-type: none"> • Site preparation – clearing (if needed) and levelling • Construction of supporting bases • Mounting Photovoltaic arrays • Preparation and installation of battery container facility • Construction of inverter room • Construction of generator room • Relocation of the existing ESKOM transformer • Installation of underground cabling 	Commence within 24 months of the Pre-Construction period and be completed within 24 months.
OPERATION PERIOD		
Operational Phase	<ul style="list-style-type: none"> • The PV facility will produce ~2.2MW of renewable energy 	Commence upon completion of construction phase and will continue in perpetuity

Should this project receive a positive Environmental Authorisation, it is proposed that the preconstruction phase will commence immediately and will be completed within 24 months. The construction phase will commence within 24 months of the completion of the Pre-construction period and is anticipated to be completed within 24 months. Once the construction phase is completed the PV facility will become operational and will continue in perpetuity.

2. FEASIBLE AND REASONABLE ALTERNATIVES

“alternatives”, in relation to a proposed activity, means different means of meeting the general purpose and requirements of the activity, which may include alternatives to—

- (a) the property on which or location where it is proposed to undertake the activity;
- (b) the type of activity to be undertaken;
- (c) the design or layout of the activity;
- (d) the technology to be used in the activity;
- (e) the operational aspects of the activity; and
- (f) the option of not implementing the activity.

Describe alternatives that are considered in this application. Alternatives should include a consideration of all possible means by which the purpose and need of the proposed activity could be accomplished in the specific instance taking account of the interest of the applicant in the activity. The no-go alternative must in all cases be included in the assessment phase as the baseline against which the impacts of the other alternatives are assessed. The determination of whether site or activity (including different processes etc.) or both is appropriate needs to be informed by the specific circumstances of the activity and its environment. After receipt of this report the competent authority may also request the applicant to assess additional alternatives that could possibly accomplish the purpose and need of the proposed activity if it is clear that realistic alternatives have not been considered to a reasonable extent.

Paragraphs 3 – 13 below should be completed for each alternative.

This Basic Assessment has included the consideration of various layout alternatives. Site alternatives were not assessed, as the project proposes to ensure electricity security for the Poultry Breeder Facility on Middledrift as well as associated irrigation pumping infrastructure. The following factors have informed the layout alternatives considered in this assessment:

- Layout alternatives
- Proposed Part 2 Amended Application process and Amended Environmental Authorisation should such be granted.

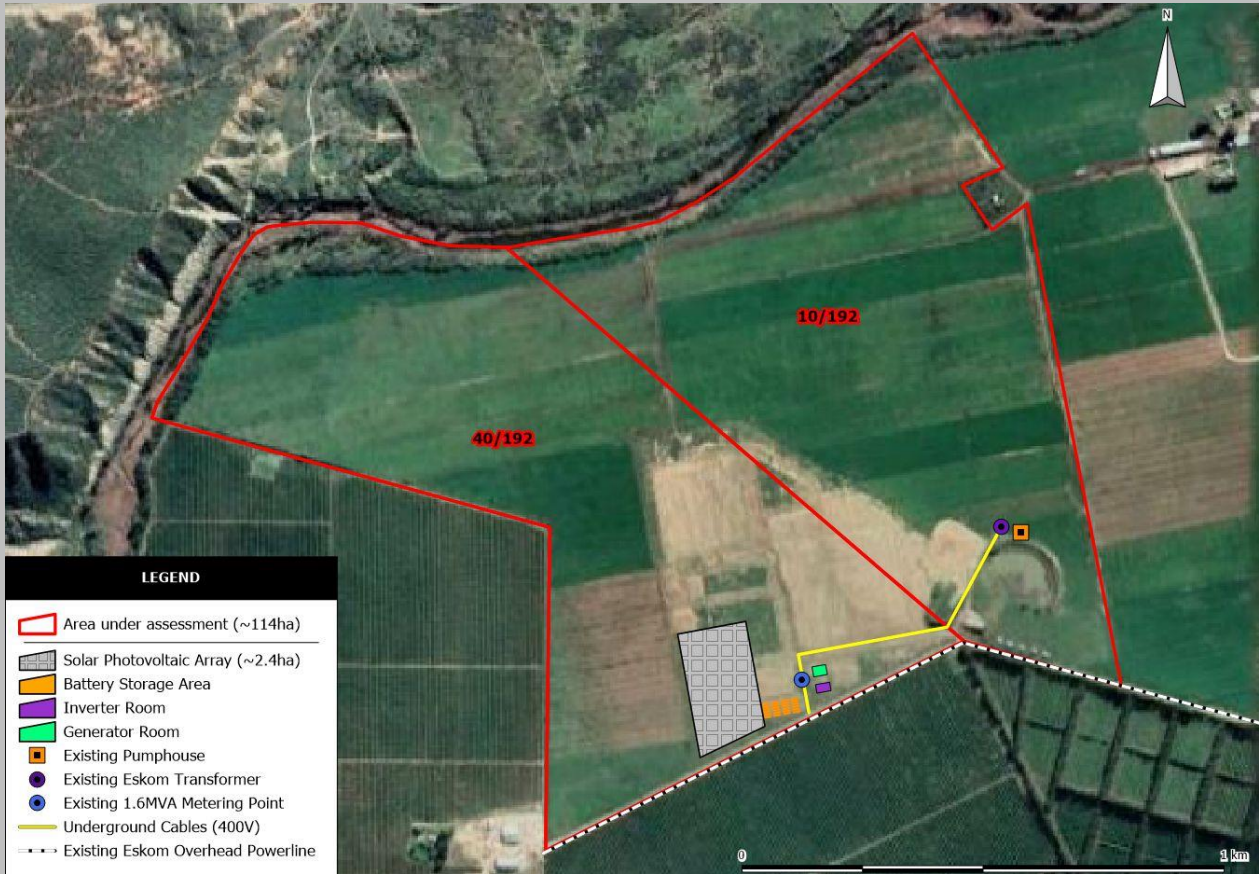
Layout 1 (not preferred)

Layout 1 below proposed the PV Facility to the west of the Middledrift Poultry Breeder Facility on the southern boundary of Portion 40. The PV array was proposed to have been ~ 2.4ha, with an inverter room of ~375m² and a battery energy storage area ~1 625m² in extent.

The project applicant is a contract grower for Sovereign Foods. The poultry facility was proposed as a breeder facility, assessed and authorised as such. This complied with Sovereign Foods requirements at that time. Subsequently, Sovereign Foods have purchased another farm which is proposed to be used as a breeder facility (egg layer) and this facility is now proposed to be utilized for broilers (raising chickens for meat).

However, this is subject to a separate Part 2 Amendment Application process, and receipt of a positive environmental authorisation, should such be granted.

Thus, in order to accommodate the additional six broiler houses, the PV facility was relocated north on Portion 40 of Farm 192. The layout below is thus **not the preferred layout**.



Layout 1: Not the preferred layout

Layout 2 (preferred)

Layout 2, as outlined in Section A above (Activity Description), and depicted in Appendix C, is the preferred layout for this site and has been assessed in full in this Basic Assessment Process. It entails an ~3ha footprint, comprising a ~2.6ha PV array, a ~750m² BESS area (~12 battery containers, 12 x 3m each), a ~200m² inverter and generator room as well as an ~950m underground 22kV cable.



Layout 2: Preferred Layout Alternative

No-Go alternative

In addition, to the alternatives discussed in this section, the No-Go alternative was assessed in full in the Impact Assessment section of this report (Section D). With the increased instability of the national electricity network, the increased cost of electricity, as well as the increased cost of fuel for alternative energy sources (e.g. diesel for generators) the costs of maintaining a consistent power supply to the poultry facility and the dam pump station, is increasing production costs. The No-Go option would result in the continuation of the current situation, the increased production costs and resultant rise in food prices. Additionally, the existing national electricity network would continue to be strained by the electricity requirements of the Poultry Breeder facility and agricultural activities. Therefore, the No-Go alternative is not the preferred layout.

3. ACTIVITY POSITION

Indicate the position of the activity using the latitude and longitude of the centre point of the site for each alternative site. The co-ordinates should be in degrees and decimal minutes. The minutes should have at least three decimals to ensure adequate accuracy. The projection that must be used in all cases is the WGS84 spheroid in a national or local projection.

C	0	7	6	0	0	0	0	0	0	0	0	0	1	9	2	0	0	0	1	0
C	0	7	6	0	0	0	0	0	0	0	0	0	1	9	2	0	0	0	4	0
1	2		3			4					5									

List alternative sites if applicable.

Alternative:

- Alternative S1¹ (preferred or only site alternative)
- Alternative S2 (if any)
- Alternative S3 (if any)

Latitude (S):

Longitude (E):

33°	35'57''	25°	39'16''
0	'	0	'
0	'	0	'

In the case of linear activities:

Alternative:

- Alternative S1 (preferred or only route alternative)*

- Starting point of the activity*
- Middle point of the activity*
- End point of the activity*

Latitude (S):

Longitude (E):

0		0	
0		0	
0		0	

Alternative S2 (if any)

- Starting point of the activity*
- Middle point of the activity*
- End point of the activity*

0		0	
0		0	
0		0	

Alternative S3 (if any)

- Starting point of the activity*
- Middle point of the activity*
- End point of the activity*

0		0	
0		0	
0		0	

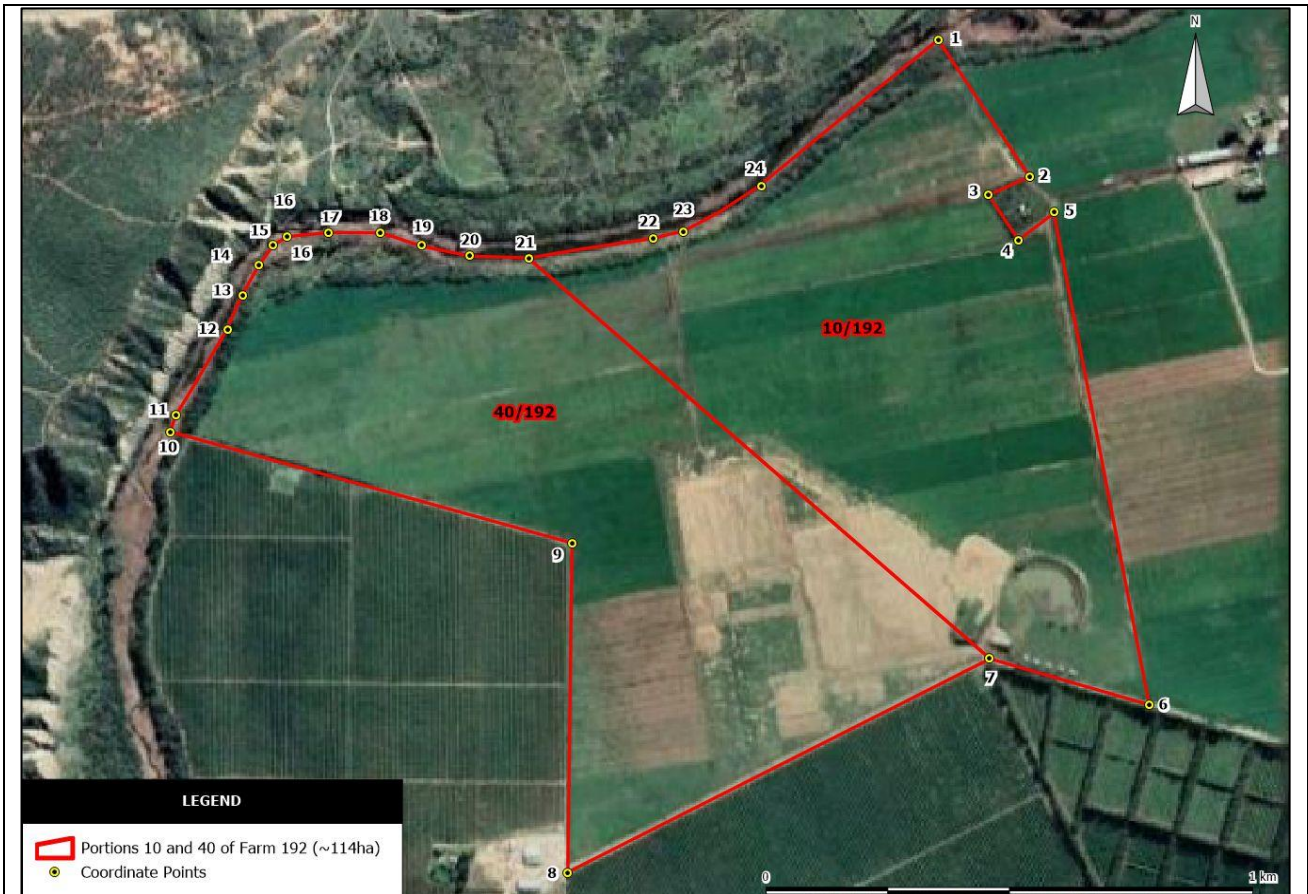
For route alternatives that are longer than 500m, please provide an addendum with co-ordinates taken every 250 meters along the route for each alternative alignment.

Note from Public Process Consultants: No route alternatives are longer than 500m.

¹ "Alternative S.." refer to site alternatives.

Coordinates for the property where the proposed Photovoltaic development will take place (Preferred alternative).

Point Number	Latitude (S) (DDMMSS)			Longitude (E) (DDMMSS)		
1	33°	35'	30.40"S	25°	39'	37.21"E
2	33°	35'	37.91"S	25°	39'	43.26"E
3	33°	35'	38.90"S	25°	39'	40.58"E
4	33°	35'	41.35"S	25°	39'	42.53"E
5	33°	35'	39.91"S	25°	39'	44.90"E
6	33°	36'	6.89"S	25°	39'	51.24 "E
7	33°	36'	4.36"S	25°	39'	40.61"E
8	33°	36'	16.08"S	25°	39'	12.56"E
9	33°	35'	58.02"S	25°	39'	12.87"E
10	33°	35'	51.91"S	25°	38'	46.15"E
11	33°	35'	51.01 "S	25°	38'	46.53 "E
12	33°	35'	46.27 "S	25°	38'	49.95 "E
13	33°	35'	44.37 "S	25°	38'	50.96 "E
14	33°	35'	42.79 "S	25°	38'	52.03 "E
15	33°	35'	41.65 "S	25°	38'	53.03 "E
16	33°	35'	41.20 "S	25°	38'	53.91 "E
17	33°	35'	40.94 "S	25°	38'	56.66 "E
18	33°	35'	40.97 "S	25°	39'	0.15 "E
19	33°	35'	41.68 "S	25°	39'	2.86 "E
20	33°	35'	42.24 "S	25°	39'	6.06 "E
21	33°	35'	42.34 "S	25°	39'	9.99 "E
22	33°	35'	41.28 "S	25°	39'	18.23 "E
23	33°	35'	40.88 "S	25°	39'	20.24 "E
24	33°	35'	38.40 "S	25°	39'	25.36 "E



Map 5: Plan indicating the coordinates of the boundary of portions 10 & 40 Farm 192, upon which the development is proposed to take place.

4. PHYSICAL SIZE OF THE ACTIVITY

Indicate the physical size of the preferred activity/technology as well as alternative activities/technologies (footprints):

Alternative:

Alternative A1² (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

or, for linear activities:

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the activity:

~30 000m ²
m ²
m ²

Length of the activity:

m
m
m

Indicate the size of the alternative sites or servitudes (within which the above footprints will occur):

Alternative:

Alternative A1 (preferred activity alternative)

Alternative A2 (if any)

Alternative A3 (if any)

Size of the site/servitude:

m ²
m ²
m ²

² "Alternative A.." refer to activity, process, technology or other alternatives.

5. SITE ACCESS

Does ready access to the site exist?

YES	NO
m	

If NO, what is the distance over which a new access road will be built

Describe the type of access road planned:

Access to the proposed PV Facility is currently obtained via a private gravel access road which can be accessed via the MN50595 ~2.7km south of the R335. The MN50595 intersects the R335 ~3km south-west of Addo.

A Traffic Impact Assessment is not proposed for the PV Facility and associated Infrastructure, as the impacts on the surrounding roads are anticipated to be of very low significance as they will be temporary and limited to the Construction Phase of the development. It is not anticipated that the Operational Phase, will increase the traffic volumes on the surrounding roads.

Include the position of the access road on the site plan and required map, as well as an indication of the road in relation to the site.

Note from Public Process Consultants: The position of the existing access road has been included on the Site Plan attached as Appendix A to this report.

6. SITE OR ROUTE PLAN

A detailed site or route plan(s) must be prepared for each alternative site or alternative activity. It must be attached as Appendix A to this document.

The site or route plans must indicate the following:

- 6.1 the scale of the plan which must be at least a scale of 1:500;
- 6.2 the property boundaries and numbers of all the properties within 50 metres of the site;
- 6.3 the current land use as well as the land use zoning of each of the properties adjoining the site or sites;
- 6.4 the exact position of each element of the application as well as any other structures on the site;
- 6.5 the position of services, including electricity supply cables (indicate above or underground), water supply pipelines, boreholes, street lights, sewage pipelines, storm water infrastructure and telecommunication infrastructure;
- 6.6 all trees and shrubs taller than 1.8 metres;
- 6.7 walls and fencing including details of the height and construction material;
- 6.8 servitudes indicating the purpose of the servitude;
- 6.9 sensitive environmental elements within 100 metres of the site or sites including (but not limited thereto):
 - rivers;
 - the 1:100 year flood line (where available or where it is required by DWA);
 - ridges;
 - cultural and historical features;
 - areas with indigenous vegetation (even if it is degraded or invested with alien species);
- 6.9 for gentle slopes the 1 metre contour intervals must be indicated on the plan and whenever the slope of the site exceeds 1:10, the 500mm contours must be indicated on the plan; and
- 6.10 the positions from where photographs of the site were taken.

A site plan has been included in Appendix A

7. SITE PHOTOGRAPHS

Colour photographs from the centre of the site must be taken in at least the eight major compass directions with a description of each photograph. Photographs must be attached under Appendix B to this form. It must be supplemented with additional photographs of relevant features on the site, if applicable.

Color photographs in the 8 compass directions, from the center of the site, are included in Appendix B.

8. FACILITY ILLUSTRATION

A detailed illustration of the activity must be provided at a scale of 1:200 as Appendix C for activities that include structures. The illustrations must be to scale and must represent a realistic image of the planned activity. The illustration must give a representative view of the activity.

A facility illustration has been included in Appendix C

9. ACTIVITY MOTIVATION

9(a) Socio-economic value of the activity

What is the expected capital value of the activity on completion?

R 11 million

What is the expected yearly income that will be generated by or as a result of the activity?

R1.8 million

Will the activity contribute to service infrastructure?

YES

Is the activity a public amenity?

YES

NO

How many new employment opportunities will be created in the development phase of the activity?

5 (Skilled)

12 (Unskilled)

What is the expected value of the employment opportunities during the development phase?

**R900 000
(Construction)**

What percentage of this will accrue to previously disadvantaged individuals?

70%

How many permanent new employment opportunities will be created during the operational phase of the activity?

**1 (skilled)
2 (unskilled)**

What is the expected current value of the employment opportunities during the first 10 years?

**R250 000p/a =
2.5 million**

What percentage of this will accrue to previously disadvantaged individuals?

80%

9(b) Need and desirability of the activity

Motivate and explain the need and desirability of the activity (including demand for the activity):

South Africa's National Development Plan, Vision 2030 (2012) indicates one of the development priorities in South Africa is to reduce greenhouse gas emissions by moving to less carbon-intensive electricity production, procuring 20 000MW of renewable energy (page 48 and 66). In 2018, a total of 10 809 GWh of electricity was produced from renewable sources (South African Energy Sector Report, 2021), which represents just over

50% of the NDP's target. Therefore, there is still a shortfall of approximately 9000 MW of renewable energy required to be procured, in order to achieve this goal.

The proposed PV facility will supplement electricity supply to the National Grid, thus contributing to the NDP's target of 20 000MW, as well as provide renewable energy to the applicant directly, thus reducing their carbon footprint.

The Final Integrated Development Plan for the SRVM (SRVM IDP 2015/ 2016), indicates that the current unemployment rate in the municipal area may be as high as 38.54%. The Agricultural sector, apart from tourism, is the largest provider of employment in the SRVM area and, as it currently represents ~11% of the employment for the SRVM area (Final SRVM IDP 2015/ 2016). Additionally, the SRVM IDP (2015/ 2016; Page 36) states that: "The municipality can boast its ecotourism and agricultural potential." Finally, the following statement is given by the SRVM Spatial Development Framework (SRVM SDF 2013; Page 8): "The agricultural sector is one of the key economic drivers of the Sundays River Valley Municipality."

The proposed development is anticipated to create 3 new permanent employment opportunities for the lifespan of the project as well as 17 temporary employment opportunities during the construction phase of the project. The Poultry Facility requires a reliable, constant energy supply in order to ensure that a certain temperature, humidity and air quality is maintained within the houses at all times. However, with the increased instability of the national electricity network, the increasing costs of electricity, as well as the increased cost of alternative energy sources (e.g. diesel for generators), maintaining a consistent power supply at the Poultry facility, is increasing production costs. By constructing a Solar PV facility, the applicant will be able to ensure a stable and cost-effective electricity supply to the Poultry Facility, thus mitigating increasing input costs and ultimately production costs.

The project will provide economic stimulation in the SRVM, through a temporary increase in demand for goods associated with the construction phase of the activity. In the long term and during the operational phase of the activity, positive economic benefits are associated with the creation of additional employment opportunities; a reduction in food production costs and the resultant food price increases.

It is the applicant's intention to build on this economic base in the SRVM, by making optimum use of the available resources in the area, including the available work force from local communities.

Indicate any benefits that the activity will have for society in general:

The PV facility will provide ~2.2MW of 2.2 MW of renewable energy, thereby reducing demand on the Eskom national grid. The applicant is thus contributing towards a decrease in greenhouse gas emissions which is a benefit for society in general.

Indicate any benefits that the activity will have for the local communities where the activity will be located:

The Final IDP (2021/ 2022) for the SRVM indicates that the current unemployment rate in the municipal area may be as high as 38.54%. The proposed development will create additional permanent employment opportunities during the operational phase, as well as several construction phase jobs. The employment opportunities that will be generated by the proposed development will improve the buying power of these individuals in the local communities, which in turn, may contribute positively towards the local economy and enable individuals to improve their standard of living.

10. APPLICABLE LEGISLATION, POLICIES AND/OR GUIDELINES

List all legislation, policies and/or guidelines of any sphere of government that are applicable to the application as contemplated in the EIA regulations, if applicable:

Title of legislation, policy or guideline:	Administering authority:	Date:
<p>GN R327 (LISTING NOTICE 1)</p> <p><i>“1. The development of facilities or infrastructure for the generation of electricity from a renewable resource where—</i> <i>(ii) the output is 10 megawatts or less but the total extent of the facility covers an area in excess of 1 hectare;</i></p> <p>It is anticipated that the proposed development footprint of the Solar PV Facility and associated infrastructure (i.e., battery storage area, inverter room, generator and power cables) for a total proposed development footprint of ~3ha in extent and will have the capacity to produce 2.2MW of AC electricity from a renewable resource.</p> <p>This listed activity will require Environmental Authorisation</p> <p><i>“24. The development of a road—</i> <i>(ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres;</i> <i>but excluding a road—</i> <i>(c) which is 1 kilometre or shorter.”</i></p> <p>The PV facility will require the construction of internal access roads in order to gain access to the project components and solar panels for maintenance and cleaning purposes. These internal roads are anticipated to be ~4 meters in width, and the combined length in not anticipated to exceed 1 kilometre. The roads will not require a road reserve.</p> <p>Thus, this listed activity is not applicable.</p> <p><i>“27. The clearance of an area of 1 hectares or more, but less than 20 hectares of indigenous vegetation, except where such clearance of indigenous vegetation is required for— “</i></p> <p>The proposed Solar PV Facility and associated infrastructure is anticipated to have a total development footprint of ~3ha. The facility is proposed to be constructed on a site which has already been transformed for pastures (since 2004). Therefore, it is not anticipated that additional indigenous vegetation will be required to be removed for the development. The Ecological Specialist has confirmed that the site is highly modified, and no remnant indigenous vegetation remains on the site.</p> <p>Thus, this listed activity is not applicable.</p>	<p>Department of Economic Development, Environmental Affairs and Tourism (DEDEAT)</p>	<p>2014 (as amended)</p>

“28. Residential, mixed, retail, commercial, industrial or institutional developments where such land was used for agriculture, game farming, equestrian purposes or afforestation on or after 01 April 1998 and where such development:

(ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare;”

The PV facility is proposed to be grid-tied as part of a Wheeling Agreement with Eskom and will provide electricity security for existing and future commercial agricultural activities on the farm. The farm currently operates a commercial dairy and received authorisation for the construction and operation of 6 breeder houses. The Solar PV Facility is considered an Agri-“industrial” development. The farm falls outside of an urban area, and the combined development footprint is anticipated to be larger than 1 hectare (~3ha) in extent.

This listed activity will require Environmental Authorisation.

*“56. The widening of a road by more than 6 metres, or the lengthening of a road by more than 1 kilometre—
(ii) where no reserve exists, where the existing road is wider than 8 metres;”*

The PV facility will require internal roads in order to gain access to the project components and solar panels for maintenance and cleaning purposes. The internal roads for the PV facility are anticipated to be ~4 meters in width and will not exceed 1 kilometre in length.

Thus, this listed activity is not applicable.

GN R324 (LISTING NOTICE 3)

“4. The development of a road wider than 4 metres with a reserve less than 13,5 metres.

a. Eastern Cape

i. Outside urban areas:

(gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve; excluding disturbed areas;...”

The PV Facility will require internal roads in order to gain access to the project components and solar panels for maintenance and cleaning purposes. The internal roads are not anticipated to be more than ~4 meters in width.

The proposed development is within in the Eastern Cape, outside of an urban area and is located within 10

<p>kilometers, ~5km from the nearest boundary of the Addo Elephant National Park.</p> <p>Thus, this listed activity will not require Environmental Authorisation.</p> <p><i>“18. The widening of a road by more than 4 metres, or the lengthening of a road by more than 1 kilometre.</i></p> <p>a. Eastern Cape</p> <p><i>i. Outside urban areas:</i></p> <p><i>(gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve;</i></p> <p>The PV Facility will require internal roads in order to gain access to the project components and solar panels for maintenance and cleaning purposes.</p> <p>The proposed development falls within in the Eastern Cape, outside of an urban area and is located within 10 kilometers, ~5km from the nearest boundary of the Addo Elephant National Park.</p> <p>Thus, this listed activity requires Environmental Authorisation</p>	
--	--

11. WASTE, EFFLUENT, EMISSION AND NOISE MANAGEMENT

11(a) Solid Waste Management

Will the activity produce solid construction waste during the construction/initiation phase?

YES	
------------	--

If yes, what estimated quantity will be produced per month?

20 m³

How will the construction solid waste be disposed of (describe)?

Construction phase waste is expected to be limited to packaging materials (shrink wrap, cardboard, packaging material, wooden pallets), builder’s rubble (cement/ concrete) and litter generated by the construction staff. Waste will be recycled as far as possible. Non-recyclable waste will be sorted into different types and disposed of at a suitably licensed waste disposal facility.

Where will the construction solid waste be disposed of (describe)?

Construction phase solid waste will be disposed of at the nearest licensed waste disposal site (Kirkwood Waste Disposal Site). Waste considered unsuitable for municipal waste disposal sites will be disposed of at a suitably licensed hazardous waste disposal facility (Koedoeskloof Waste Disposal Site).

Will the activity produce solid waste during its operational phase?

	NO
--	-----------

If yes, what estimated quantity will be produced per month?

--

How will the solid waste be disposed of (describe)?

It is not anticipated that the Photovoltaic facility will produce solid waste during the operational phase, however, should solid waste be generated (i.e., broken glass panels, electrical wires etc.) it will be disposed of at the nearest licensed disposal site (Kirkwood Waste Disposal Site).

Where will the solid waste be disposed if it does not feed into a municipal waste stream (describe)?

Waste considered unsuitable for municipal waste disposal sites will be disposed of at a suitably licensed hazardous waste disposal facility (Koedoeskloof Waste Disposal Site).

If the solid waste (construction or operational phases) will not be disposed of in a registered landfill site or be taken up in a municipal waste stream, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Can any part of the solid waste be classified as hazardous in terms of the relevant legislation? NO

If yes, inform the competent authority and request a change to an application for scoping and EIA.

Is the activity that is being applied for a solid waste handling or treatment facility? NO

If yes, then the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

11(b) Liquid Effluent

Will the activity produce effluent, other than normal sewage, that will be disposed of in a municipal sewage system? NO

If yes, what estimated quantity will be produced per month?

Will the activity produce any effluent that will be treated and/or disposed of on site? NO

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

Will the activity produce effluent that will be treated and/or disposed of at another facility? NO

If yes, provide the particulars of the facility:

Facility name:			
Contact person:			
Postal address:			
Postal code:			
Telephone:		Cell:	
E-mail:		Fax:	

Describe the measures that will be taken to ensure the optimal reuse or recycling of waste water, if any:

It is not anticipated that the Photovoltaic Facility will produce any wastewater directly, therefore no reuse or recycling will be required. The solar panels will require cleaning from time to time, which will involve spraying foreign contaminants, such as dust, from the panels with water and a high-pressure cleaner. Cleaning intervals are based on local climatic conditions and seasonal variations.

11(c) Emissions into the Atmosphere

Will the activity release emissions into the atmosphere?

	NO
	NO

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the emissions in terms of type and concentration:

It is not anticipated that any emissions will be released into the atmosphere as a direct impact of the proposed PV facility or associated infrastructure.

11(d) Generation of noise

Will the activity generate noise?

YES	
	NO

If yes, is it controlled by any legislation of any sphere of government?

If yes, the applicant should consult with the competent authority to determine whether it is necessary to change to an application for scoping and EIA.

If no, describe the noise in terms of type and level:

Noise associated with normal construction activities will be generated during the construction phase of development, i.e., construction vehicles, generators and plant equipment which is used on the site. However, construction activities will as far as possible be limited to normal working hours (weekdays: between 7am to 6pm).

Noise levels are to be kept within the limits for the area, in accordance with the requirements of the relevant national and local noise control statutes.

During the operational phase of the project, inverters and transformers utilised at the facility may emit a low humming sound which could be audible at close range, however these will be contained within enclosed structures in order to protect and secure the equipment, and to minimize any potential noise emissions.

12. WATER USE

Please indicate the source(s) of water that will be used for the activity by ticking the appropriate box(es)

	water board				
--	--------------------	--	--	--	--

If water is to be extracted from groundwater, river, stream, dam, lake or any other natural feature, please indicate

the volume that will be extracted per month:

	NO

Does the activity require a water use permit from the Department of Water Affairs?

If yes, please submit the necessary application to the Department of Water Affairs and attach proof thereof to this application if it has been submitted.

The solar panels will require cleaning from time to time, which will involve spraying off foreign contaminants, such as dust, from the panels with water and a high-pressure cleaner. The combined use of compressed air and clean water is optimal and reduces the water requirements. Cleaning intervals are based on local climatic conditions and seasonal variations, thus the amount of water required for cleaning operations will vary.

Water will be sourced from the applicant's existing water use entitlements which have been issued by the Lower Sundays River Water Users Association (LSRWUA).

13. ENERGY EFFICIENCY

Describe the design measures, if any, that have been taken to ensure that the activity is energy efficient:

- The project itself, being a renewable energy project, namely a PV facility, is a means to improve energy efficiency on the farm, by reducing the applicant's reliance on electricity from the national grid.
- Minimum lamp wattage within safety/ security requirements will be used;
- Lights will be switched off when not in use in line with safety and security.

Describe how alternative energy sources have been taken into account or been built into the design of the activity, if any:

This is an alternative energy project.

SECTION B: SITE/AREA/PROPERTY DESCRIPTION

Important notes:

- For linear activities (pipelines, etc) as well as activities that cover very large sites, it may be necessary to complete this section for each part of the site that has a significantly different environment. In such cases please complete copies of Section C and indicate the area, which is covered by each copy No. on the Site Plan.

Section C Copy No. (e.g.
A):

- Paragraphs 1 - 6 below must be completed for each alternative.

- Has a specialist been consulted to assist with the completion of this section?

YES	NO
-----	----

If YES, please complete form XX for each specialist thus appointed:

Specialist declarations forms have been completed by the respective specialists and are included in Appendix G(viii).

All specialist reports must be contained in Appendix D.

The following independent specialist studies, which have been reviewed by the EIA Team, are included in Appendix D:

- Appendix D(i): Terrestrial Biodiversity Compliance Statement
- Appendix D(ii): Aquatic Biodiversity Compliance Statement
- Appendix D(iii): Visual Specialist Opinion Report

In addition, a **Phase 1 Archaeological and Phase 1 Paleontological Impact Assessment**, which was undertaken as part of a previous environmental assessment on Portions 6,10 & 40 of Farm T'Zoetgeneugd No. 192, has been used to assess the potential impacts on heritage resources, and has been included as supporting information to this report, in Appendix G (ix).

The specialist studies listed above have been informed by the National Web-based Environmental Screening Tool, technical input, public consultation, a site visit and the EAP's knowledge of the local area as well as knowledge gained through a previous Basic Assessment undertaken on Portion 6, 10 & Portion 40 of Farm 192.

1. GRADIENT OF THE SITE

Indicate the general gradient of the site.

Alternative S1:

Flat	1:50 – 1:20					
------	-------------	--	--	--	--	--

Alternative S2 (if any):

--	--	--	--	--	--	--

Alternative S3 (if any):

--	--	--	--	--	--	--

2. LOCATION IN LANDSCAPE

Indicate the landform(s) that best describes the site:

- 2.1 Ridgeline
- 2.2 Plateau
- 2.3 Side slope of hill/mountain
- 2.4 Closed valley
- 2.5 Open valley

2.6 Plain

- 2.7 Undulating plain / low hills
- 2.8 Dune
- 2.9 Seafront

3. GROUNDWATER, SOIL AND GEOLOGICAL STABILITY OF THE SITE

Is the site(s) located on any of the following (tick the appropriate boxes)?

	Alternative S1:		Alternative S2 (if any):		Alternative S3 (if any):	
Shallow water table (less than 1.5m deep)	YES	NO	YES	NO	YES	NO
Dolomite, sinkhole or doline areas	YES	NO	YES	NO	YES	NO
Seasonally wet soils (often close to water bodies)	YES	NO	YES	NO	YES	NO
Unstable rocky slopes or steep slopes with loose soil	YES	NO	YES	NO	YES	NO
Dispersive soils (soils that dissolve in water)	YES	NO	YES	NO	YES	NO
Soils with high clay content (clay fraction more than 40%)	YES	NO	YES	NO	YES	NO
Any other unstable soil or geological feature	YES	NO	YES	NO	YES	NO
An area sensitive to erosion	YES	NO	YES	NO	YES	NO

While a geotechnical investigation has not been undertaken for the site, the following observation were made by the Civil Engineer who compiled the Road and Wet Services Report that formed part of the Basic Assessment Report for the Poultry Breeder Facility, on the farm Middledrift:

- “The majority of the site is covered by a layer of loose to moderately dense clayey sand with roots, while the topsoil can be described as clayey sand with roots.
- The abovementioned layers are underlain by Alluvium, consisting of red-brown firm to stiff clayey sand or sandy clay with occasional calcrete patches.
- The last-mentioned layers could be underlain by calcrete, mudstone, sandstone or calcareous sandstone and/ or siltstone.”

If you are unsure about any of the above or if you are concerned that any of the above aspects may be an issue of concern in the application, an appropriate specialist should be appointed to assist in the completion of this section. (Information in respect of the above will often be available as part of the project information or at the planning sections of local authorities. Where it exists, the 1:50 000 scale Regional Geotechnical Maps prepared by the Council for Geo Science may also be consulted).

4. GROUNDCOVER

Indicate the types of groundcover present on the site:

- 4.1 Natural veld – good condition ^E
- 4.2 Natural veld – scattered aliens ^E
- 4.3 Natural veld with heavy alien infestation ^E
- 4.4 Veld dominated by alien species ^E
- 4.5 Gardens
- 4.6 Sport field

4.7 Cultivated land

- 4.8 Paved surface

4.9 Building or other structure

4.10 Bare soil

The location of all identified rare or endangered species or other elements should be accurately indicated on the site plan(s).

Natural veld - good condition ^E	Natural veld with scattered aliens	Natural veld with heavy alien infestation ^E	Veld dominated by alien species ^E	Gardens
Sport field	Cultivated land	Paved surface	Building or other structure	Bare soil

If any of the boxes marked with an “^E” is ticked, please consult an appropriate specialist to assist in the completion of this section if the environmental assessment practitioner doesn’t have the necessary expertise.

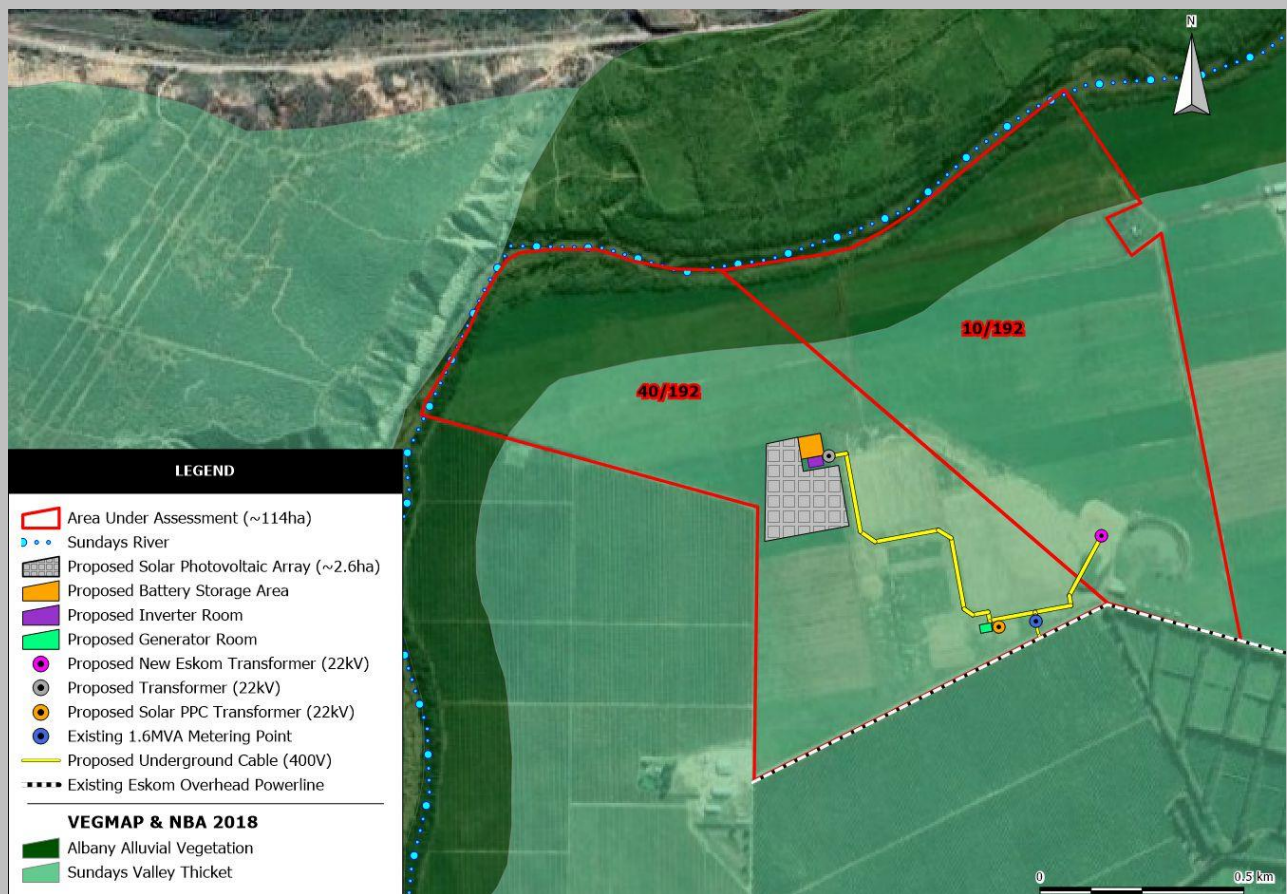
CONSERVATION PLANNING FRAMEWORKS

- **Vegetation of South Africa, Lesotho and Swaziland Map (VegMap, 2018)**

According to the VegMap (2018) mapping resources, the majority of the farm has been identified as Sundays Valley Thicket (light green on Map 6), and a portion towards the northern boundary of the farm, associated

with the Sundays River, as Albany Alluvial Vegetation (darker green on Map 6). According to the National Biodiversity Assessment (NBA 2018), Sundays Valley Thicket is classified as *Least Concerned* and has a biodiversity target of 19%. Sundays Valley Thicket is *Moderately Protected* (MP). Albany Alluvial Vegetation is classified as *Endangered* and has a biodiversity target of 31%. Albany Alluvial Vegetation is listed as a Threatened Ecosystem in terms of the National Environmental Management: Biodiversity Act (10 of 2004) as it is *Poorly Protected* (PP).

The majority of the proposed development falls within an area classified as Sundays Thicket. However, the Terrestrial Biodiversity specialist has confirmed that the proposed development footprint is located within an area that has been historically transformed to pastures for domestic cattle grazing. No remnant of intact natural vegetation remains within the proposed development footprint. See Appendix D(ii) for the full Terrestrial Biodiversity Compliance Statement Report.



Map 6: Vegetation on Portion 10 and 40 of Farm 192, in terms of the VEGMAP & NBA (2018) mapping resources.

- **Eastern Cape Biodiversity Conservation Plan (ECBCP, 2019)**

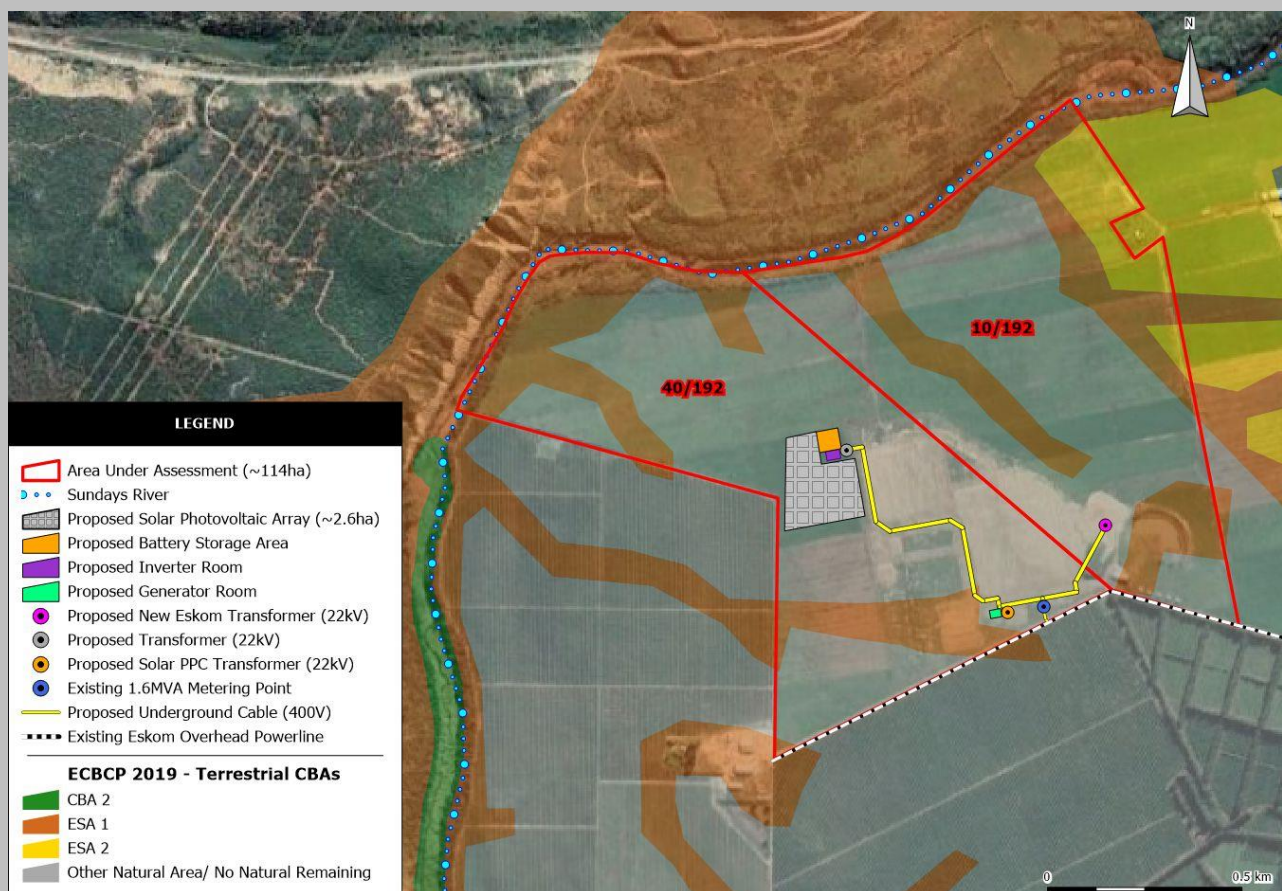
Terrestrial CBAs

In terms of the ECBCP 2019 mapping resources, sections of Portions 10 and 40 of Farm 192 have been identified as Terrestrial ESA 1 (Ecological Support Area 1) (see Map 7 below). A protruding arm identified as ESA1, runs from a westerly to easterly direction across a southern portion the farm intersecting with a portion of the proposed underground powerline, near the generator room (See Map 7). Ecological Support Area 1 should be maintained in a functional state i.e., a semi-natural state such that ecological function and ecosystem services are maintained. Ecosystems that are natural/ near-natural should be maintained and those that are moderately degraded / disturbed should be restored. The ECBCP Handbook (2019), does include land-use management guidelines for Renewable energy (i.e., PV facilities) and recommend that this type of activity is *Not Appropriate* for ESA 1. The ECBCP Handbook (2019), states that activities that are

classified as “Not appropriate” will result in destruction/degradation of important biodiversity and/ or ecological support areas, and such activities will require detailed specialist assessments by an appropriate specialist.

A north-eastern portion of the farm has been identified as a Terrestrial ESA 2 (see Map 7). Ecological Support Area 2 should be maintained in a functional state i.e., there is no intensification of current land use. These areas have been subjected to severe and/or irreversible modification but still perform some function with regards to connectivity in the ecosystem. It is not proposed that the development footprint will extent into the area identified as ESA 2.

A suitably qualified terrestrial biodiversity specialist with expertise in Ecological Sciences has prepared a Terrestrial Biodiversity Compliance Statement, as stipulated by the National Web based Environmental Screening Tool Assessment Protocols for Terrestrial Biodiversity and confirmed that the proposed site has been transformed and is not considered to be an ESA, as no intact indigenous vegetation remains within the development footprint. See attached the full Terrestrial Biodiversity Compliance Statement Report included in Appendix D(ii).

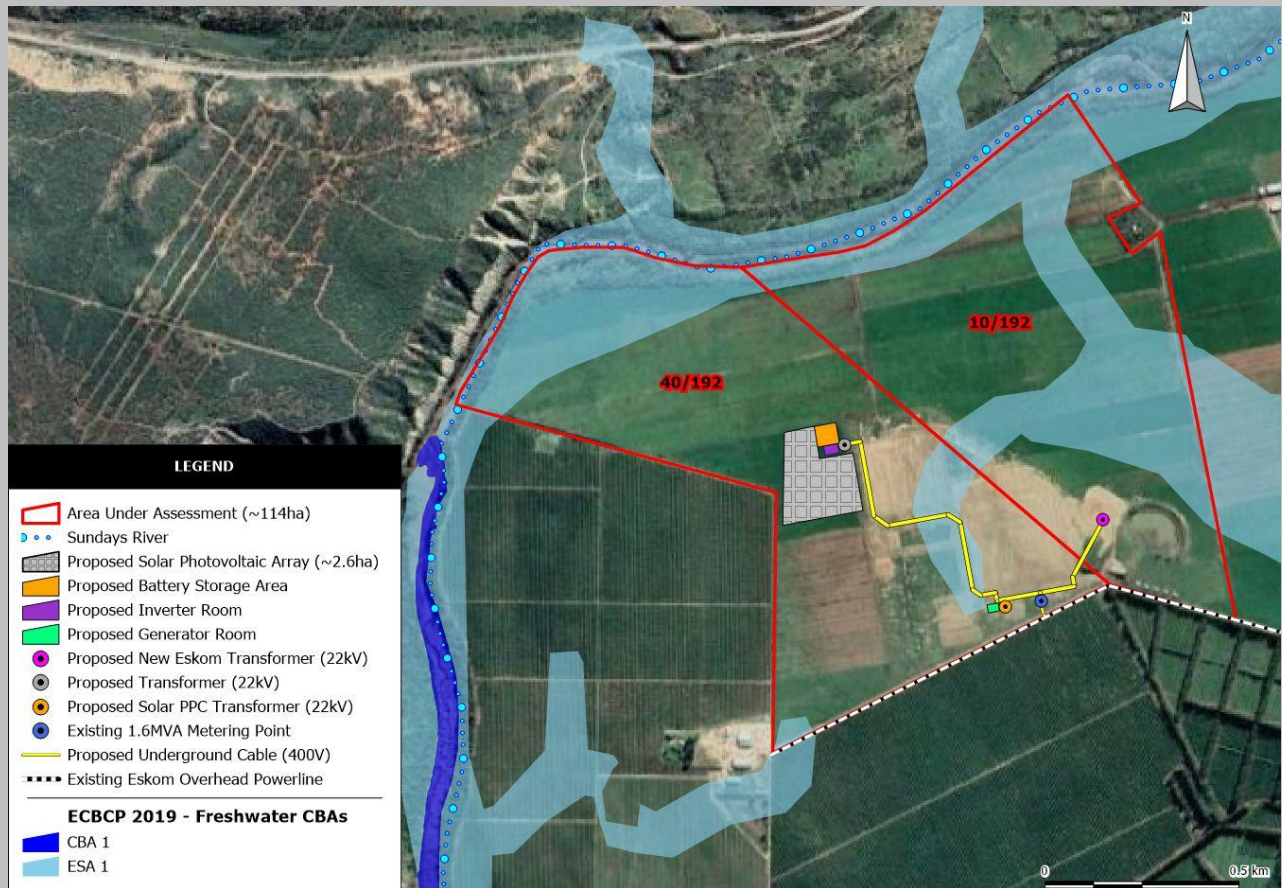


Map 7: Vegetation on Portion 10 and 40 of Farm 192, in terms of the ECBCP Terrestrial CBA (2019) mapping resources.

Freshwater/ Aquatic CBAs

In terms of the ECBCP 2019 mapping resources a north and eastern portion of the area under assessment have been identified as Aquatic ESA 1 associated with the Sundays River, located adjacent to the northern boundary of the farm (see Map 8). The ESA extends in a north-east to south-west direction cross a portion of the proposed development footprint (underground cables) and is presumed to be a historic tributary associated with the Sundays River. According to the ECBCP Handbook (2019), sites identified as Aquatic ESA 1 should be maintained in a functional state i.e., a semi-natural state such that ecological function and ecosystem services are maintained. Ecosystems that are natural/ near-natural should be maintained and

those that are moderately degraded / disturbed should be restored. However, the Aquatic Biodiversity specialist has confirmed that the site and general surroundings have been transformed. In addition, the area identified as ESA 1 does not follow streams and wetlands. The Aquatic Biodiversity Specialist has confirmed that the site has been modified and no natural drainage line and wetland are present on site. For more information see the full Aquatic Biodiversity Compliance Statement Report included in Appendix D(i).

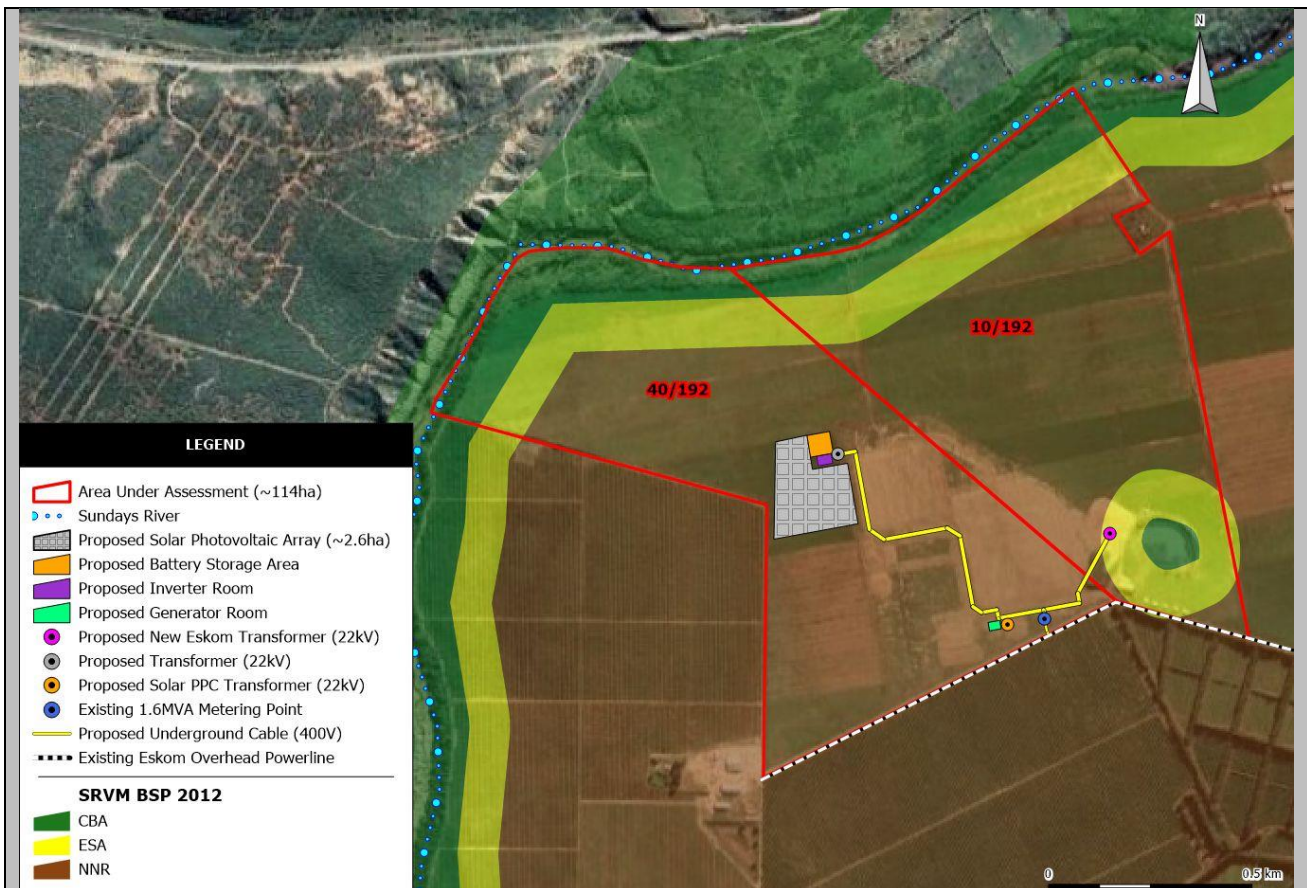


Map 8: Portion 10 and 40 of Farm 192, in terms of the ECBCP (2019) Freshwater CBA mapping resources

- **Sundays River Valley Municipality Biodiversity Sector Plan (SRVM BSP, 2012)**

According to the SRVM BSP (Skowno and Holness, 2012) mapping resources, the majority of area under assessment has been identified as No Natural Remaining (NNR), presumably due to the existing pastures on the farm. In addition, the SRVM BSP has identified a portion along the northern boundary of the farm, as a CBA and an adjoining portion as ESA, presumably associated with the Sundays River. The existing Middledrift dam, on Portion 10, has been mapped as CBA and an associated buffer area surrounding the dam as an ESA (See Map 9 below)

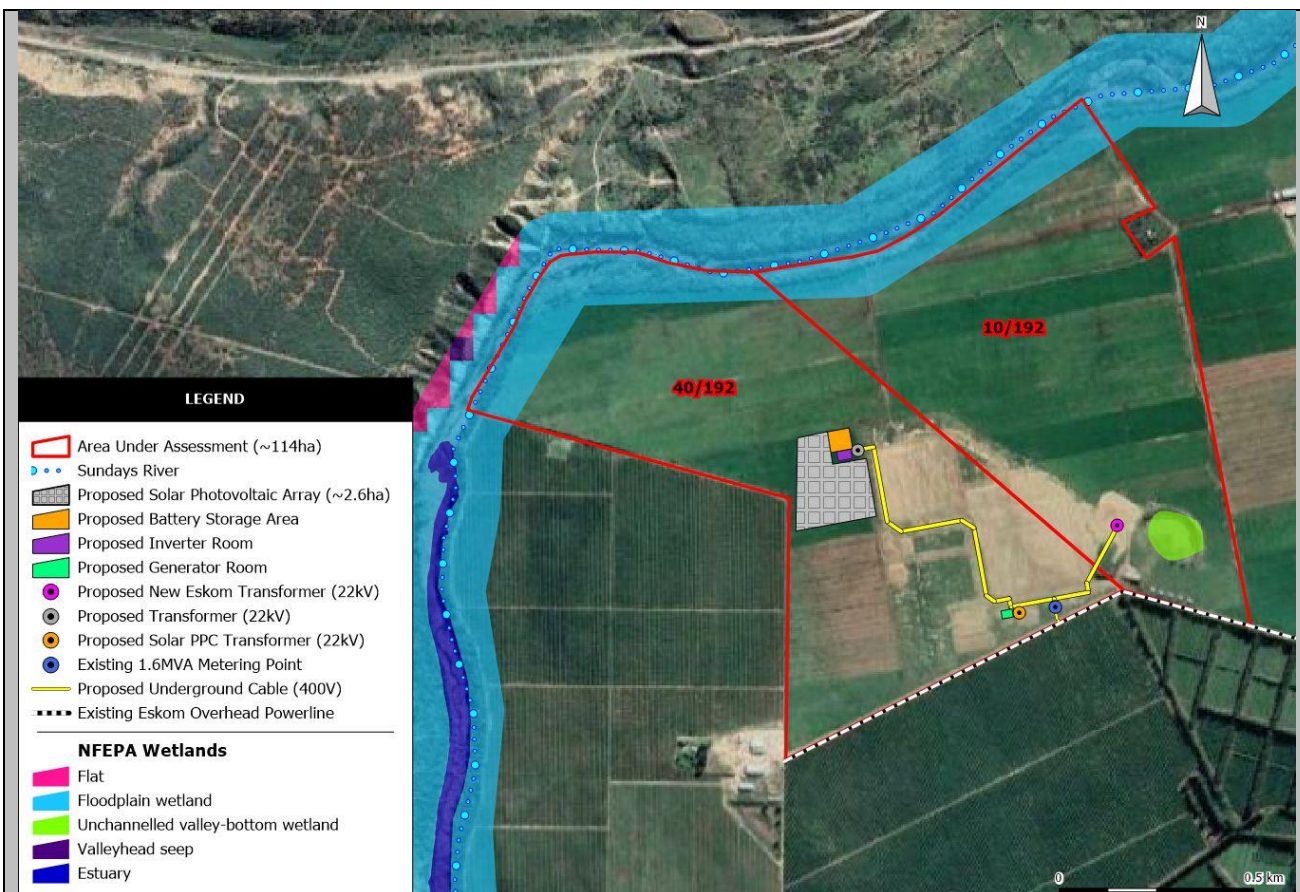
The proposed PV Facility falls within an area mapped as NNR area, adjacent to the south-western boundary, including associated infrastructure located near the southern boundary of the farm (see Map 9). The Terrestrial and Aquatic Biodiversity specialists has confirmed that the site falls within an area that was historically transformed to pastures, and no remnant of indigenous vegetation remains within the proposed footprint. See Appendix D(ii) for the full Terrestrial Biodiversity Compliance Statement Report.



Map 9: Portion 10 and 40 of Farm 192, in terms of the SRVM Biodiversity Sector Plan mapping resources.

- **National Freshwater Ecosystem Priority Areas (2011)**

According to the NFEPA (2011) mapping resources, a floodplain wetland has been mapped along the northern and north-western most boundary of the area under assessment which is associated with the Sundays River (see Map 10). The existing Middledrift farm dam has been mapped as a Unchanneled Valley-Bottom Wetland and has received Environmental Authorisation to be expanded as part of the Middledrift Breeder facility which is currently under construction (see Map 10). The Sundays River estuary extends up along the Sundays River and is located approximately 710m west of the proposed development footprint. However, the Aquatic Biodiversity specialist has confirmed that no natural wetlands occur on the site and the dam is artificial in nature. For more information see the full Aquatic Biodiversity Compliance Statement Report included in Appendix D(i) of this report.



Map 10: Portion 10 and 40 of Farm 192 in terms of the NFEPA (2011) mapping resources.

NATIONAL ENVIRONMENTAL SCREENING TOOL

The National web-based Environmental Screening Tool allows for the generating of a Screening Report referred to in Regulation 16(1)(v) of the Environmental Impact Assessment Regulations 2014, as amended, which is required to accompany any application for Environmental Authorisation. The National Environmental Screening Tool identifies the following Sensitivities on the site, which have relevance to this report:

- Terrestrial Biodiversity Sensitivity – Very High and Low (

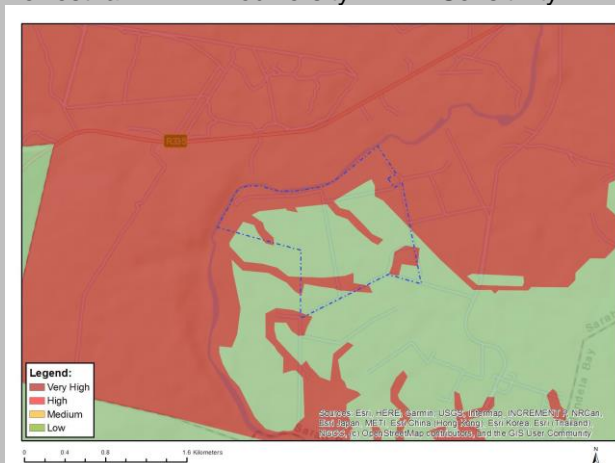


Figure 3.1).

- Plant Species sensitivity – Low (Figure 3.1).
- Animal Species sensitivity – Medium (Figure 3.2).
- Aquatic Biodiversity Sensitivity - Low (Figure 3.3).

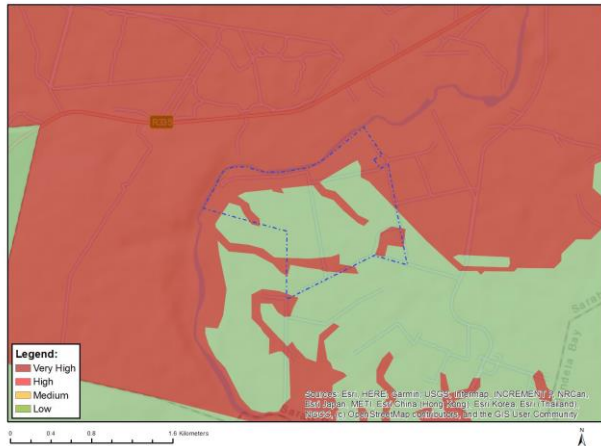


Figure 3.1: Terrestrial Biodiversity Sensitivity.

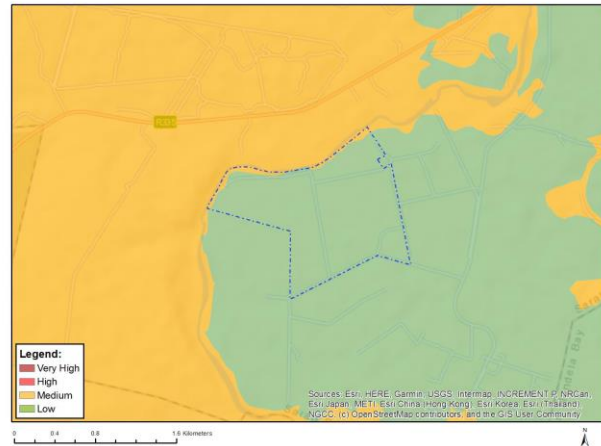


Figure 3.1: Plant Species Sensitivity

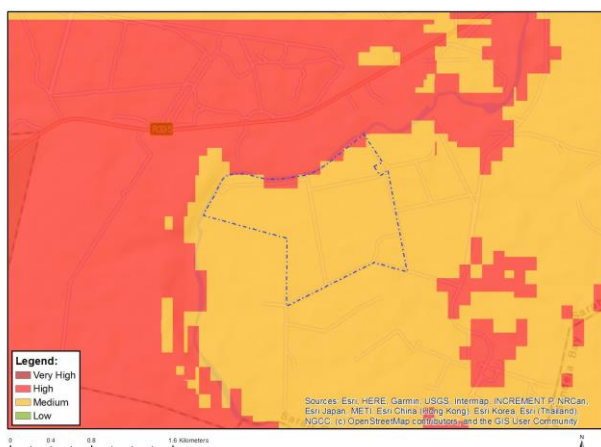


Figure 3.2: Animal Species Sensitivity



Figure 3.3: Aquatic Sensitivity

As per the National Web Based Screening Tool the project components which may impact on these biodiversity features are summarised below, and have been assessed by the relevant specialists as part of this assessment process:

Table 3.1: Screening Tool Site Sensitivities, Project Components and SSV Outcome

Sensitivity	Feature(s)	Affected Project Component/s	SSV Outcome
Terrestrial Sensitivity			
Very High	Ecological support area 1	A small section of the underground powerline route	No natural vegetation remains, footprint is modified, thus Low Terrestrial Biodiversity sensitivity confirmed
Low	Present	Majority of the PV footprint	Terrestrial Biodiversity sensitivity confirmed
Plant Sensitivity			
Low	Present	Entire development footprint	No Natural Habitat remains within development footprint, thus Low Plant sensitivity confirmed.
Animal Sensitivity			
Medium	Sensitive species 7	Potentially within the development footprint	No Natural Habitat remains within development footprint, and no Animal SCC observed on site, thus Low Animal sensitivity confirmed.
Low	Present		Low Animal sensitivity confirmed.
Aquatic Sensitivity			
Low	Present	Development footprint – refer to separate Aquatic Specialist Compliance Statement	No Aquatic features, drainage lines or wetlands were observed within the proposed development footprint. The closest boundary of

			the Sundays River is ~350m north of the proposed development footprint. Thus, Low Aquatic sensitivity confirmed.
--	--	--	--

CURRENT STATE OF THE VEGETATION

Terrestrial Environment

The following is an extract from the Terrestrial Biodiversity Compliance Statement Report provided by Mr Jamie Pote. The full statement report is attached as Appendix D (ii)

Due to the small area and transformed nature of the site (being cleared of natural vegetation), no sampling sites were required. Furthermore, vegetation within the site comprised of a mix of pasture grasses with occasional ruderal or ephemeral herbaceous weeds. The site is adjacent to an area that is currently being prepared for the construction of a chicken breeder facility, through which a section of the powerline will run.

Terrestrial Biodiversity

No natural vegetation is present on the site. Habitat characteristics indicate the area is transformed and the likelihood of any terrestrial ecosystem Biodiversity Priority Areas, plant or animal Species of Conservation Concern being found at the site or within the area of influence is negligible (**Very Low to Nil**).

Being transformed, the PV site is surrounded by pastures on the north-west, north and north-eastern sides, with Citrus orchards on the west, south-west and southern sides. The proposed development footprint is located immediately adjacent to a chicken breeder facility that is currently under construction and was authorised as part of a separate Basic Assessment Process. No remnant indigenous vegetation is presently associated with the Screening tool flagged ESA. The site is thus not considered to be an Ecological Support Area 1 nor is it likely to provide ecological function associated with such features.

The entire site is confirmed to have a **Low** Terrestrial Biodiversity sensitivity; hence a compliance statement is deemed adequate.

Aquatic Environment

The following is an extract from the Aquatic Biodiversity Compliance Statement Report provided by Ms. Jaclyn Smith. The full Statement report is attached as Appendix D(i).

No rivers occur within the proposed project footprint; however, the Sundays River does occur more than 300m from the site. The Sundays River north of the site is characterised by a well-developed active channel surrounded by prominent reed beds within the bed and banks of the river. No natural wetlands occur within the study area. One water storage/stock dams occur within the farmlands surrounding the proposed development footprint. This dam is artificial in nature and will be unaffected by the development proposals.

Aquatic Biodiversity

The proposed development footprint falls within an existing transformed area considered to be of **low** aquatic sensitivity. The only linear activity, the proposed powerline route footprint, is expected to be rehabilitated to current state (already transformed) effectively within two years of completion of construction.

The proposed development is unlikely to have any adverse negative impacts on the surrounding or downstream watercourses as no sensitive watercourses are directly within the site.

5. LAND USE CHARACTER OF SURROUNDING AREA

Indicate land uses and/or prominent features that currently occur within a 500m radius of the site and give description of how this influences the application or may be impacted upon by the application:

5.1 Natural area

5.2 Low density residential

- 5.3 Medium density residential
- 5.4 High density residential
- 5.5 Informal residential
- 5.6 Retail commercial & warehousing
- 5.7 Light industrial
- 5.8 Medium industrial^{AN}
- 5.9 Heavy industrial^{AN}
- 5.10 Power station

5.11 Office/consulting room

- 5.12 Military or police base/station/compound
- 5.13 Spoil heap or slimes dam^A
- 5.14 Quarry, sand or borrow pit

5.15 Dam or reservoir

- 5.16 Hospital/medical centre
- 5.17 School
- 5.18 Tertiary education facility
- 5.19 Church
- 5.20 Old age home
- 5.21 Sewage treatment plant^A
- 5.22 Train station or shunting yard^N
- 5.23 Railway line^N
- 5.24 Major road (4 lanes or more)^N
- 5.25 Airport^N
- 5.26 Harbour
- 5.27 Sport facilities
- 5.28 Golf course
- 5.29 Polo fields
- 5.30 Filling station^H
- 5.31 Landfill or waste treatment site
- 5.32 Plantation

5.33 Agriculture

5.34 River, stream or wetland

- 5.35 Nature conservation area
- 5.36 Mountain, koppie or ridge
- 5.37 Museum
- 5.38 Historical building
- 5.39 Protected Area
- 5.40 Graveyard
- 5.41 Archaeological site
- 5.42 Other land uses (describe)

If any of the boxes marked with an "N" are ticked, how will this impact / be impacted upon by the proposed activity.

If any of the boxes marked with an "An" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:

If YES, specify:

If any of the boxes marked with an "H" are ticked, how will this impact / be impacted upon by the proposed activity.

If YES, specify and explain:

6. CULTURAL/HISTORICAL FEATURES

Are there any signs of culturally or historically significant elements, as defined in section 2 of the National Heritage Resources Act, 1999, (Act No. 25 of 1999), including Archaeological or palaeontological sites, on or close (within 20m) to the site?

YES	NO
Uncertain	

If YES,
explain:

--

If uncertain, conduct a specialist investigation by a recognised specialist in the field to establish whether there is such a feature(s) present on or close to the site.

Briefly explain the findings of the specialist:

ARCHAEOLOGY

The following is an extract from the Letter of Recommendation for the Exemption from a full Phase 1 Archaeological Impact Assessment which was undertaken by Dr John Binneman (January 2019), on Portions 6, 10 & 40 of Farm T'Zoetgeneugd No. 192, which formed part of the Basic Assessment for the Breeder Facility, which has received Environmental Authorisation and is currently under construction:

“The proposed construction and operation of a poultry breeder house facility on a portion of Portion 6, 10 and 40 of Farm T'Zoetgeneugd 192 and associated infrastructure, including the proposed dam expansion on ~24ha will take place within an already modified environment and it is unlikely that significant heritage remains will be exposed. However, the proposed development will take place near to the Sunday's River in an area where one would expect to find freshwater shell middens. These are important archaeological sites and special care must be taken that these sites are not destroyed during development. Although it is unlikely that any significant archaeological heritage remains will be exposed during the development, there is always a possibility that human remains, and/ or other archaeological and historical material may be uncovered during the development. Should such material be exposed then work must cease in the immediate area of the finds and it must be reported to the archaeologist at the Albany Museum (Tel. 046 6222312) and/ or to the Eastern Cape Provincial Heritage Resources Authority (Tel. 043 6422811) immediately, so that a systematic and professional investigation can be undertaken. All work must stop to allow an archaeologist to conduct a systematic and professional investigation. Sufficient time should be allowed to remove/ collect such material.”

“It is recommended that the proposed construction and operation of a poultry breeder house facility and associated infrastructure on ~24ha of Portion 6, 10 and 40 of Farm T'Zoetgeneugd 192 in the Sunday's River Valley Local Municipality of the Eastern Cape Province, is exempted from a full Phase 1 Archaeological Heritage Impact Assessment. The proposed area for development is of low cultural sensitivity and it is unlikely that any significant archaeological heritage remains will be exposed on the property. From an archaeological heritage perspective, the proposed development may proceed as planned.”

The Letter of recommendation for the exemption from a full Phase 1 Archaeological impact assessment has been included in Appendix G(ix) Supporting Documentation.

PALEONTOLOGY

The following is an extract from the Palaeontological Specialist Study: Proposed Exemption from further Specialist Assessments, which was undertaken by Dr John E. Almond (May 2018), on Portions 6, 10 & 40 of Farm T'Zoetgeneugd No. 192, which formed part of the Basic Assessment for the Breeder Facility, which has received Environmental Authorisation and is currently under construction:

“The poultry breeder facility study area on a portion of Portions 6, 10 and 40 of the Farm T'Zoetgeneugd 192, ~ 9km SW of Addo in the Sundays River Valley, Eastern Cape, is underlain at depth by Early Cretaceous marine sediments of the Sundays River Formation (Uitenhage Group). This succession has yielded rich fossil assemblages of marine invertebrates (notably molluscs, such as ammonites and bivalves), plant remains (e.g. driftwood), as well as very rare vertebrate remains (e.g. dinosaurs) from the Algoa Basin of the Eastern Cape. Several important Cretaceous fossil localities – including marine

invertebrates and rare dinosaur remains - have been recorded along the Sundays River nearby (McLachlan and Anderson 1976).

However, in the low-lying areas that are earmarked for the poultry breeder facility and associated infrastructure, as well as related agricultural developments, the Sundays River Formation is entirely mantled by Holocene river sediments of the Kudus Kloof Formation which may be up to several meters thick and are, at most, very sparsely fossiliferous. Given the small footprint of the proposed development, significant impacts on fossil heritage are therefore not anticipated here.

“It is concluded that no further palaeontological heritage studies or specialist mitigation are required for this agricultural project, pending the discovery or exposure of any substantial fossil remains (e.g. vertebrate bones and teeth, shelly invertebrates, large blocks of petrified wood, fossil plant-rich horizons) during the construction phase.”

The Palaeontological Specialist Study: Proposed Exemption from further Specialist Studies, has been included in Appendix G(ix) Supporting Documentation.

Will any building or structure older than 60 years be affected in any way?	YES	NO
Is it necessary to apply for a permit in terms of the National Heritage Resources Act, 1999 (Act 25 of 1999)?	YES	NO

If yes, please submit or, make sure that the applicant or a specialist submits the necessary application to SAHRA or the relevant provincial heritage agency and attach proof thereof to this application if such application has been made.

SECTION C: PUBLIC PARTICIPATION

1. ADVERTISEMENT

The person conducting a public participation process must take into account any guidelines applicable to public participation as contemplated in section 24J of the Act and must give notice to all potential interested and affected parties of the application which is subjected to public participation by—

- (a) fixing a notice board (of a size at least 60cm by 42cm; and must display the required information in lettering and in a format as may be determined by the competent authority) at a place conspicuous to the public at the boundary or on the fence of—
 - (i) the site where the activity to which the application relates is or is to be undertaken; and
 - (ii) any alternative site mentioned in the application;

A copy of the site notice board is attached in Appendix G(i)

- (b) giving written notice to—
 - (i) the owner or person in control of that land if the applicant is not the owner or person in control of the land;

The Applicant is the landowner

- (ii) the occupiers of the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;
- (iii) owners and occupiers of land adjacent to the site where the activity is or is to be undertaken or to any alternative site where the activity is to be undertaken;

Database Development, Maintenance and Ongoing Information Sharing

The following provides an outline of the approach to the development to the project announcement database (Pre-Application), as well as the maintenance of the database and ongoing information sharing throughout the BA process.

Prior to the advertising of the BA Process, the EAP, drawing on experience in the local SRV municipal area, developed an initial database of potential I&APs for the proposed development. Adjacent landowners / tenants were identified through a deeds search (Windeed) and, where required, amongst others, adjacent landowners/ tenants, Organs of State, as well as the competent authority (DEDEAT, Sarah Baartman Region), the ward councillor for Ward 3 and other potential I&APs.

All potential I&APs were notified via Letter 1, sent via email, of the intention to commence with a Basic Assessment Process and the 30-day comment period provided in which to raise issues of concern for inclusion in the Consultation Basic Assessment Report (CBAR). Included with this notification was a comment form and locality map, as well as the Background Information Document (BID). The comment and registration period extended from the **21 April 2022 to the 24 May 2022**. Prior to advertising the Basic Assessment Process, the project database included **38 Registered I&APs**.

The assessment process was advertised in a local newspaper (The Herald), and a notice board was placed on the fence at the intersection of the MN50595 and the gravel road that leads to the farm entrance, on the **21 April 2022**. All I&APs registered on the project database will be notified of the release of the CBAR for a legislated 30-day I&AP review period. Copies of the photographs taken of the notice board placed at the entrance of the site has been included in Appendix G(i).

Comments were received from nine (9) I&APs, namely; Howard Blane (ESKOM Distribution Division: Cape Coastal Cluster – Land and Right Manager), Gcinile Dumse (Department of Agriculture, Forestry & Fisheries: LUSM), Babalwa Layini (DFFE: Department of Forestry, Fisheries and the Environment: Forestry), Randall Moore (Eastern Cape Department of Transport: District Roads Engineer), Zinzile Mtotywa (DFFE: Department of Forestry, Fisheries and the Environment), Nelisa Nama (Department of Forestry, Fisheries and the Environment: Control Environmental Officer), Angelina Shalang (ESKOM Cape Coastal Cluster: Environmental Management Manager), Khulile Siqiti (Eastern Cape Department of Transport) and from one adjacent landowner.

Subsequent to the release of the Notification of the Intention to Commence with a Basic Assessment, Ms Babalwa Layini requested that Mr Zinzile Mtotywa be registered on the project database as the Assisting Director for DFFE: Forestry, and it was confirmed telephonically that Mr Sello Mokhanya was replaced by Ms. Ayanda Mncwabe-Mama as the Acting Manager at the Eastern Cape Provincial Heritage Resources Authority. In addition, Ms Nelisa Nama (DFFE: Environmental Officer) requested to register on the project database and Mr Peter Lotter (EC Department of Transport) requested to be removed from all project databases and future correspondence be forwarded to Mr Randall Moore (EC Department of Transport: District Roads Engineer). At the time of the preparation of the CBAR, **39 Registered I&APs** were registered on the project database. Copies of correspondence sent to I&APs and Organs of State is contained in Appendix G(iii), and copies of correspondence received from I&APs has been included in Appendix G(iv).

The identification and registration of I&APs will be ongoing for the duration of the BA Process. While not required by the regulations, those I&APs identified at the outset of the BA Process will remain on the project database and be kept informed of all opportunities to comment and will only be removed from the database by request.

- (iv) the municipal councillor of the ward in which the site or alternative site is situated and any organisation of ratepayers that represent the community in the area;

Cllr Xolani Jonas, SRVM Ward 3 Councillor, has been included on the project database and provided with copies of all the relevant and available correspondence, via email. See Section 4 below for more detail on the Public Participation Process.

- (v) the municipality which has jurisdiction in the area;

Mr Rudi Herholdt, SRVM Town Planning, Mr Sydney Fadi, SRVM Municipal Manager (MM), Mr Xola Mntonintshi (Infrastructure Planning and Development) and Miss Susan Fourie (Archives Manager) were included on the project database during the project announcement and registration phase of this assessment and were provided with the available correspondence, via email. Both Mr. Herholdt and Mr Fadi provided comments during the project announcement phase. Copies of their correspondence are included in Appendix G(iv).

- (vi) any organ of state having jurisdiction in respect of any aspect of the activity; and

Authority Consultation

Notification of the intention to commence with a BA Process, was submitted to the competent authority (DEDEAT – Sarah Baartman Region) and to Organs of State and State Departments on **21 April 2022**. Included with this correspondence was a comment form and locality map of the area under assessment, as well as a Background Information Document (BID). Correspondence sent to I&APs and authorities has been attached as Appendix G(iii) to this report.

Organs of State and State Departments which may be required to issue a licence or permit prior to commencement of the project, have been consulted and are included on the project database.

All Public Participation documentation (Drafts and Final Reports) will be sent to the competent authority (DEDEAT – Sarah Baartman Region), as well as Organs of State and State Departments, which are registered on the project database in the format, as agreed to with the respective Departments. Authorities are required to provide their input on the proposed development within the timeframes stipulated. Input from authorities will be included in the Comments and Responses Trail for the Draft and Final Basic Assessment Process.

The following Organs of State and State Departments were proactively identified and included on the project database, prior to advertising the project (Pre-Application Phase) and will be notified of the various stages to comment during the BA Process:

- Maretha Alant – South African National Parks: Garden Route National Park - Environmental Planner
- Charlene Bissett – South African National Parks: Regional Ecologist
- Howard Blane – ESKOM Distribution Division: Cape Coastal Cluster – Land and Right Manager
- Luzuko Dali - Department of Economic Development, Environmental Affairs and Tourism: Biodiversity
- Nick de Goode – South African National Parks: Addo Elephant Park – Park Manager
- Gcinile Dumse – Department of Agriculture, Forestry & Fisheries: LUSM
- Sydney Fadi - Sundays River Valley Municipality: Municipal Manager
- Susan Fourie – Sundays River Valley Municipality: Archives Manager
- Rudi Herholdt – Sundays River Valley Municipality: Infrastructure Planning and Development
- Babalwa Layini - Department of Forestry, Fisheries and the Environment
- ~~Peter Lotter – Eastern Cape Department of Transport~~
- Ruffus Maloma – Provincial Department of Rural Development and Agrarian Reform: Soil Scientist
- Simpiwe Minine – ESKOM: Transmission Division – Lines and Servitudes
- Evans Mkansi – South African National Parks: Conservation Manager
- Xola Mntonintshi – Sundays River Valley Municipality: Director of Infrastructure Planning and Development
- ~~Sello Mkhanya – Eastern Cape Provincial Heritage Resources Authority.~~
- Randall Moore - Eastern Cape Department of Transport: District Roads Engineer
- Nelisa Nama - Department of Forestry, Fisheries and the Environment: Control Environmental Officer
- Anban Padayachee – South African National Parks: Section Ranger / Acting Conservation Manager
- Angelina Shalang – ESKOM Cape Coastal Cluster: Environmental Management Manager
- Khulile Siqiti – Eastern Cape Department of Transport
- Russel Smart – South African National Parks: Parks Planning and Development Coordinator
- Xolisa Songcaka – ESKOM Cape Coastal Cluster: Land Development and Environmental Manager
- Andries Struwig – Dept. of Economic Development, Environmental Affairs and Tourism: Deputy Director IEM (Competent Authority)

Subsequent to the commencement of the BA process, Ms. Babalwa Lyini (Department of Forestry, Fisheries and the Environment) requested that Mr. Zinzile Mtotywa (Assistant Director, Department of Forestry, Fisheries and the Environment) be registered on the project database. Mr Mtotywa was placed on the project database and provided with the information available for this project, namely: Letter 1 sent to I&APs, locality map, Background Information Document (BID), and comment form.

In addition, prior to the release of the Consultation Basic Assessment report (CBAR) for review, it has come to the EAPs attention that Mr Sello Mkhanya (Eastern Cape Provincial Heritage Resources Authority) is no longer the representative for the Eastern Cape Heritage Resources Authority and has subsequently been replaced by Ms Ayanda Mncwabe-Mama (Eastern Cape Provincial Heritage Resources Authority: Acting Manager). Ms Mncwabe-Mama was placed on the project database, will remain on the database and will be notified of the various opportunities to comment for the remainder of this assessment the public participation process.

Prior to the release of the CBAR, Mr Peter Lotter, (Eastern Cape Department of Transport) requested to deregister from the project database, and future correspondence should be directed to Mr Randall Moore (Eastern Cape Department of Transport: District Roads Engineer).

- (vii) any other party as required by the competent authority;
- (c) placing an advertisement in—
 - (i) one local newspaper; or
 - (ii) any official *Gazette* that is published specifically for the purpose of providing public notice of applications or other submissions made in terms of these Regulations;

A newspaper advertisement was placed in “The Herald” of **21 April 2022**. A copy of the advertisement is included in Appendix G(i)

- (d) placing an advertisement in at least one provincial newspaper or national newspaper, if the activity has or may have an impact that extends beyond the boundaries of the metropolitan or local municipality in which it is or will be undertaken: Provided that this paragraph need not be complied with if an advertisement has been placed in an official *Gazette* referred to in subregulation 54(c)(ii); and

It is not anticipated that the proposed development will have any impact that will extend beyond the boundaries of the local municipality.

- (e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desiring of but unable to participate in the process due to—
 - (i) illiteracy;
 - (ii) disability; or
 - (iii) any other disadvantage.

None have been identified to date.

2. CONTENT OF ADVERTISEMENTS AND NOTICES

A notice board, advertisement or notices must:

- (a) indicate the details of the application which is subjected to public participation; and
- (b) state—
 - (i) that the application has been submitted to the competent authority in terms of these Regulations, as the case may be;
 - (ii) whether basic assessment or scoping procedures are being applied to the application, in the case of an application for environmental authorisation;
 - (iii) the nature and location of the activity to which the application relates;
 - (iv) where further information on the application or activity can be obtained; and
 - (iv) the manner in which and the person to whom representations in respect of the application may be made.

In line with these requirements, an advert notifying all I&APs on the project database of the commencement of the Basic Assessment Process, appeared in “The Herald” on **21 April 2022** and a notice board was placed on the fence adjacent to the intersection of the MN50595 and the gravel access road. A copy of the notice board and newspaper advert are contained in Appendix G(i).

3. PLACEMENT OF ADVERTISEMENTS AND NOTICES

Where the proposed activity may have impacts that extend beyond the municipal area where it is located, a notice must be placed in at least one provincial newspaper or national newspaper, indicating that an application will be submitted to the competent authority in terms of these regulations, the nature and location of the activity, where further information on the proposed activity can be obtained and the manner in which representations in respect of the application can be made, unless a notice has been placed in any *Gazette* that is published specifically for the purpose of providing notice to the public of applications made in terms of the EIA regulations.

Advertisements and notices must make provision for all alternatives.

A copy of the notice board and newspaper advert are contained in Appendix G(i).

4. DETERMINATION OF APPROPRIATE MEASURES

The practitioner must ensure that the public participation is adequate and must determine whether a public meeting or any other additional measure is appropriate or not based on the particular nature of each case. Special attention should be given to the involvement of local community structures such as Ward Committees, ratepayers associations and traditional authorities where appropriate. Please note that public concerns that emerge at a later stage that should have been addressed may cause the competent authority to withdraw any authorisation it may have issued if it becomes apparent that the public participation process was inadequate.

The following provides an overview of the Public Participation Process proposed for this BA:

1. Pre-Application Phase (Completed)

- Project announcement identification, notification, and registration of I&APs, including the competent authority, DEDEAT – Sarah Baartman Region (Legislated 30-day comment period)
- Preliminary Specialist input.

2. Application and Basic Assessment Phase (WE ARE HERE)

- Submission of Application Form for Environmental Authorisation to DEDEAT
- Consultation Basic Assessment Report Review (**legislated 30-day comment period**)
- Submission of Final Basic Assessment Report to DEDEAT

3. Decision Making and Appeal Period

As indicated above, the BA Process has been divided into three phases. The purpose of this approach is to, amongst others, achieve the following:

- To ensure all I&APs (including the competent authority, affected/ Juristic Organs of State and State Departments) have access to information on the proposed project from the outset of the BA Process.
- To facilitate the identification of issues of concern, to inform the range of specialist studies/ compliance statements being conducted for this BA
- To assist in the identification of alternatives for assessment in this BA.
- To facilitate the refinement of the project description and preferred development footprint within the property under assessment.

1. PRE-APPLICATION PHASE

Project Announcement, Identification, Notification and Registration of I&APs

In order to notify and inform the public, potential I&APs, Organs of State and State Departments, as well as the competent authority of the proposed project, the opportunity to register as an I&AP, as well as to raise issues of concern, the BA Process was announced as follows:

- **Advertisement** in one Local Newspaper:

- The Herald, **21 April 2022** (Provincial Distribution)
- **Site Notice Board:**
 - A notice board was placed on the fence adjacent to the intersection of the MN50595 gravel road and the gravel access road to Portions 10 and 40 of Farm 192, identifying the area under assessment, potential listed activities and contact details for further information and registration as an I&AP.
- **Letter 1 to I&APs - Notice of the BA Process, Comment and Registration Period:**
 - Letter 1 included a Background Information Document (BID), locality map and comment form. Written notification of the BA Process was sent to the competent authority and to all I&APs, including Organs of State and State Departments on the project database, on **21 April 2022**, via email. A **33-day** comment and registration period was allowed for I&APs to register their interest on the project database and raise issues of concern for inclusion in the CBAR.
- **Available Information** – all project information has been made available on the website www.publicprocess.co.za.

Appendix G(i) contains a copy of the newspaper advertisement placed in “The Herald”, as well as photos taken of the site notice board placed at the intersection on MN50595 gravel road and gravel access road to Portions 10 and 40 of Farm 192. Appendix G(iii) contains copies of the correspondence sent to all I&APs and authorities and Appendix G(iv) contains copies of correspondence received from I&APs and authorities in response to the project announcement. Comments were received from eight (8) Organs of State / State Departments and one (1) Adjacent Landowner during the project announcement phase. These comments have been included in the Comments and Responses Report in Appendix E of the report. Copies of correspondence received as well as meeting registration forms are included in Appendix G(iv). All I&APs registered on the project database will be notified of the release of the CBAR for a legislated 30-day comment and review period.

2. APPLICATION AND BASIC ASSESSMENT PROCESS (**WE ARE HERE**)

This phase of the BA process entails the following, which is outlined in more detail below:

- Submission of the Application Form for Environmental Authorisation to DEDEAT
- Consultation Basic Assessment Report Review period (Legislation 30-day comment period)
- Submit Final Basic Assessment Report to DEDEAT

Submission of Application Form for Environmental Authorisation to DEDEAT

This step entails the submission of an Application Form for Environmental Authorisation to the competent authority (DEDEAT – Sarah Baartman Region), which has **10 days** within which to acknowledge receipt of the application. An electronic copy of the application form, including cover letter will be emailed in pdf format to Dayalan Govender and Andries Struwig, DEDEAT (Sarah Baartman Region; Competent Authority). Charmaine Struwig will be copied in on this email correspondence. Once the EAP has been notified of the case officer for the project, they will be provided with an electronic copy of the report.

The applicant must within **90 days of receipt** of the application by the competent authority, submit a Basic Assessment Report (BAR), inclusive of specialist reports and EMP_r, to the competent authority, which has been subjected to a Public Participation Process of at least **30 days** and which reflects the incorporation of comments received from I&APs, including any comments from the competent authority. Failure to comply with these timeframes will result in the application having deemed to be lapsed by the competent authority.

Consultation Basic Assessment Report Review (CBAR)

Once the Application Form has been checked and acknowledged by the competent authority, the CBAR will be released for a minimum legislated **30-day comment period**. The following indicates the process for the distribution of information during the review of the CBAR:

- **Letter 2** to I&APs – Notification of comment period on the CBAR:
- All I&APs on the project database will be notified of the comment period on the CBAR via email, which will include an executive summary of the CBAR, as well as a comment form.
 - Organs of State and State Departments will be provided with a copy of the CBAR, in the format as agreed to with the respective Departments, namely, emailed link to the report on the website or electronic version of the report via email or WeTransfer.
 - Project Information available for the CBAR will be placed on the project website: www.publicprocess.co.za
 - As far as practically possible, telephonic consultation and face-to-face meetings will be held with I&APs, when requested, and such discussions to be confirmed by email. If required, Zoom meetings or WhatsApp video calls can also be held as a means of communication/ consultation.
- **Submission of CBAR to DEDEAT**
 - Dayalan Govender and Andries Struwig will be emailed notification regarding the 30-day comment period to be provided for the Consultation BAR and this will include a link to the project website where the report can be downloaded. A link to a Dropbox folder containing the report will also be included in the email. Charmaine Struwig will be copied in on the email correspondence. Once the EAP is notified of the appointment of a case officer, the case officer will be included on the project database and will be sent a copy of the above email notification.

The issues raised by I&APs will be included in the Comments and Issues report attached as Appendix E of the Final BAR.

Submission of Final Basic Assessment Report to DEDEAT

The FBAR, inclusive of specialist reports and EMPr, will be submitted to the competent authority for their decision-making, within 90 days of submission of the Application Form. The FBAR will include all the comments received from I&APs during the Pre-Application (Project Announcement), as well as the Application and BA Phase (CBAR) of the Assessment process. The following indicates the process for the distribution of information during the submission of the FBAR:

- **Letter 3** to I&APs – Notification of the submission of the FBAR:
 - All I&APs, including the competent authority, affected/ Juristic Organs of State and State departments will be notified of the submission of the FBAR via email.
 - No additional comment period is proposed for the FBAR.
- **Available Information:** all project information will be made available on the project website: www.publicprocess.co.za.
- **Submission of FBAR to DEDEAT:**
 - The project case officer will be emailed notification regarding the submission of the Final BAR and Appendices, and this will include a link to the project website where the report can be downloaded. A link to a Dropbox folder containing the report will also be included in the email. Dayalan Govender, Andries Struwig and Charmaine Struwig as well as the assigned case officer will be copied in on the email notification.

The competent authority (DEDEAT- Sarah Baartman Region) will have 107 days from receipt of the FBAR, inclusive of specialist reports and EMPr, to either grant Environmental Authorisation in respect of all or part of the activity applied for; or refuse Environmental Authorisation.

3. DECISION MAKING AND APPEAL PERIOD

In terms of Regulation 4 (2) of the NEMA EIA Regulations 2014 (as amended), the applicant must, in writing, within 14 days of the date of the decision on the application by the competent authority, notify all I&APs on the project database of the decision and provide them with access to the decision and reasons for the decision, as well as draw their attention to the fact that an appeal may be lodged against the decision in terms

of the National Appeal Regulations. The following indicates the process for the notification of I&APs of the decision on the application by the competent authority:

- **Letter 4** to I&APs – Notification of the decision and appeal period:
 - All I&APs, including Organs of State and State departments will be notified of the decision reached by the competent authority, via email.
 - A copy of the Environmental Authorisation, granted, partially granted or refused, will be placed on the project website: www.publicprocess.co.za
- **Letter 5** to I&APs – Notification of the outcome of the appeal period:
 - All I&APs on the project database will be notified in writing, via email, of the outcome of the appeal period if an appeal is lodged.

Identification of issues for inclusion in the Basic Assessment Report

An important element of the BA Process is to identify issues for inclusion in the BAR and to record comments received from I&APs, including the competent authority, Organs of State and State Departments. These comments provide input towards the assessment of alternatives and the scope of the specialist assessment proposed for the BA Process.

Copies of comments received from I&APs will be included in Draft and Final reports for submission to the competent authority. Comments have been received from eight (8) Organs of State / State Departments and one (1) Adjacent Landowner. The issues raised can be divided into the following categories, the number in brackets indicate the number of times a specific issue was raised:

- Public Participation (14)
- Project Detail (5)
- Potential Soil erosion (1)
- Impacts on Human Health and Safety (1)
- Potential Impacts on Roads (1)
- Potential Impacts on Terrestrial Biodiversity (4)
- Potential Impacts on Aquatic Biodiversity (1)

As required by the NEMA EIA Regulations, 2014 (as amended), this report includes a Comments and Responses Report (See Appendix E) which outlines the issues raised, by whom, the date and manner of receipt of the comment. In compliance with Regulation 44 of the EIA Regulations, any information contained in comments made during the assessment process must be included in the reports that are made available for public review. However, this will not include any personal contact information. A response to the issue raised has been provided by the EAP, relevant specialist or the project applicant and where the issue raised falls outside of the scope of this BA, clear reasoning for such has been provided.

5. COMMENTS AND RESPONSE REPORT

The practitioner must record all comments and respond to each comment of the public before the application is submitted. The comments and responses must be captured in a comments and response report as prescribed in the EIA regulations and be attached to this application. The comments and response report must be attached under Appendix E.

The Comments raised to date have been included in the Comments and Responses Report included in Appendix E of this report.

6. AUTHORITY PARTICIPATION

Authorities are key interested and affected parties in each application and no decision on any application will be made before the relevant local authority is provided with the opportunity to give input. The planning and the environmental sections of the local authority must be informed of the application at least 30 (thirty) calendar days before the submission of the application.

List of authorities informed:

- Maretha Alant - Garden Route National Park: Environmental Planner
- Charlene Bissett – South African National Parks: Regional Ecologist
- Howard Blane – ESKOM Distribution Division: Cape Coastal Cluster – Land and Right Manager
- Luzuko Dali - Department of Economic Development, Environmental Affairs and Tourism: Biodiversity
- Nick de Goode – South African National Parks: Addo Elephant Park – Park Manager
- Gcinile Dumse – Department of Agriculture, Forestry & Fisheries: LUSM
- Sydney Fadi - Sundays River Valley Municipality: Municipal Manager
- Susan Fourie – Sundays River Valley Municipality: Archives Manager
- Rudi Herholdt – Sundays River Valley Municipality: Infrastructure Planning and Development
- Babalwa Layini - Department of Forestry, Fisheries and the Environment
- ~~Peter Lotter – Eastern Cape Department of Transport~~
- Ruffus Maloma – Provincial Department of Rural Development and Agrarian Reform: Soil Scientist
- Simpiwe Minine – ESKOM: Transmission Division – Lines and Servitudes
- Evans Mkansi – South African National Parks: Conservation Manager
- Xola Mntonintshi – Sundays River Valley Municipality: Director of Infrastructure Planning and Development
- ~~Sello Makhanya – Eastern Cape Provincial Heritage Resources Authority~~
- Randall Moore - Eastern Cape Department of Transport: District Roads Engineer
- Zinzile Mtotywa - Department of Agriculture, Forestry and Fisheries: Assistant Director
- Nelisa Nama - Department of Forestry, Fisheries and the Environment: Control Environmental Officer
- Anban Padayachee – South African National Parks: Section Ranger / Acting Conservation Manager
- Angelina Shalang – ESKOM Cape Coastal Cluster: Environmental Management Manager
- Khulile Siqiti – Eastern Cape Department of Transport
- Russel Smart – South African National Parks: Parks Planning and Development Coordinator
- Xolisa Songcaka – ESKOM Cape Coastal Cluster: Land Development and Environmental Manager
- Ayanda Mncwabe-Mama - Eastern Cape Provincial Heritage Resources Authority: Acting Manager
- Andries Struwig – Dept. of Economic Development, Environmental Affairs and Tourism: Deputy Director IEM (Competent Authority)

List of authorities from whom comments have been received:

Project Announcement and Registration Phase

- Howard Blane – ESKOM Distribution Division: Cape Coastal Cluster – Land and Right Manager
- Gcinile Dumse – Department of Agriculture, Forestry & Fisheries: LUSM
- Babalwa Layini - Department of Forestry, Fisheries and the Environment
- Randall Moore - Eastern Cape Department of Transport: District Roads Engineer
- Zinile Mtotywa - Department of Agriculture, Forestry and Fisheries: Assistant Director
- Nelisa Nama - Department of Forestry, Fisheries and the Environment: Control Environmental Officer
- Angelina Shalang – ESKOM Cape Coastal Cluster: Environmental Management Manager
- Khulile Siqiti – Eastern Cape Department of Transport

7. CONSULTATION WITH OTHER STAKEHOLDERS

Note that, for linear activities, or where deviation from the public participation requirements may be appropriate, the person conducting the public participation process may deviate from the requirements of that subregulation to the extent and in the manner as may be agreed to by the competent authority.

Any stakeholder that has a direct interest in the site or property, such as servitude holders and service providers, should be informed of the application at least 30 (thirty) calendar days before the submission of the application and be provided with the opportunity to comment.

Has any comment been received from stakeholders?

YES	NO
-----	----

If "YES", briefly describe the feedback below (also attach copies of any correspondence to and from the stakeholders to this application):

--

SECTION D: IMPACT ASSESSMENT

The assessment of impacts must adhere to the minimum requirements in the EIA Regulations, 2014 as amended, and should take applicable official guidelines into account. The issues raised by interested and affected parties should also be addressed in the assessment of impacts.

IMPACT ASSESSMENT METHODOLOGY

As per GN R326 Appendix 1, 3. (1) (h) the assessment of impacts must include the alternatives to be assessed within the preferred site, including the option of not proceeding with the activity. The impact assessment methodology has been aligned with the requirements for Basic Assessment Reports, as stipulated in GN R326 Appendix 1, 3. (1) of the 2014 EIA Regulations (as amended), which states the following:

“A basic assessment report must contain the information that is necessary for the competent authority to consider and come to a decision on the application, and must include—

- (h) a full description of the process followed to reach the proposed preferred alternative within the site, including—*
- (v) the impacts and risks identified for each alternative, including the nature, significance, consequence, extent, duration and probability of the impacts, including the degree to which these impacts—*
 - (aa) can be reversed;*
 - (bb) may cause irreplaceable loss of resources; and*
 - (cc) can be avoided, managed or mitigated;*
 - (vi) the methodology used in determining and ranking the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives;*
 - (vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects;*
 - (viii) the possible mitigation measures that could be applied and level of residual risk;*
 - (ix) the outcome of the site selection matrix;*
- (i) a full description of the process undertaken to identify, assess and rank the impacts the activity will impose on the preferred location through the life of the activity, including—*
- (i) a description of all environmental issues and risks that were identified during the environmental impact assessment process; and*
 - (ii) an assessment of the significance of each issue and risk and an indication of the extent to which the issue and risk could be avoided or addressed by the adoption of mitigation measures;”*

As per Guideline Document 5: Assessment of Alternatives and Impacts, the following methodology is to be applied to the prediction and assessment of impacts and risks. Potential impacts should be rated in terms of the direct, indirect and cumulative.

- **Direct** impacts are impacts that are caused directly by the activity and generally occur at the same time and at the place of the activity. These impacts are usually associated with the construction, operation or maintenance of an activity and are generally obvious and quantifiable.
- **Indirect** impacts of an activity are indirect or induced changes that may occur as a result of the activity. These types of impacts include all the potential impacts that do not manifest immediately when the activity is undertaken or which occur at a different place as a result of the activity.
- **Cumulative** impacts are impacts that result from the incremental impact of the proposed activity on a common resource when added to the impacts of other past, present or reasonably foreseeable future activities. Cumulative impacts can occur from the collective impacts of individual minor actions over a period of time and can include both direct and indirect impacts.

- **Spatial extent** – The size of the area that will be affected by the impact/ risk
 - Site specific
 - Local (<2 km from site)
 - Regional (within 30 km of site)
 - National
- **Consequence/ Intensity** –The anticipated severity of the impact/ risk
 - Extreme (extreme alteration of natural systems, patterns or processes, i.e. where environmental functions and processes are altered such that they permanently cease)
 - High (severe alteration of natural systems, patterns or processes i.e. where environmental functions and processes are altered such that they temporarily or permanently cease)
 - Medium (notable alteration of natural systems, patterns or processes i.e. where the environment continues to function but in a modified manner)
 - Low (negligible alteration of natural systems, patterns or processes i.e. where no natural systems/environmental functions, patterns, or processes are affected)
- **Duration** –The timeframe during which the impact/ risk will be experienced
 - Temporary (less than 1 year)
 - Short term (1 to 6 years)
 - Medium term (6 to 15 years)
 - Long term (the impact will cease after the operational life of the activity)
 - Permanent (mitigation will not occur in such a way or in such a time span that the impact can be considered transient)
- **Reversibility** – The degree to which the potential impacts/ risks can be reversed
 - Reversible
 - Partially Reversible
 - Irreversible
- **Irreplaceable loss of Resources** - The degree to which the impact/ risk may cause irreplaceable loss of resources
 - Replaceable
 - Partially Replaceable
 - Irreplaceable

Using the criteria above, the impacts will further be assessed in terms of the following:

- **Probability** –The probability of the impact/ risk occurring
 - Improbable (little or no chance of occurring)
 - Probable (<50% chance of occurring)
 - Highly probable (50 – 90% chance of occurring)
 - Definite (>90% chance of occurring)
- **Significance** – Will the impact/ risk cause a notable alteration of the environment?
 - Low to very low (the impact/risk may result in minor alterations of the environment and can be easily avoided by implementing appropriate mitigation measures, and will not have an influence on decision-making)
 - Medium (the impact /risk will result in moderate alteration of the environment and can be reduced or avoided by implementing the appropriate mitigation measures, and will only have an influence on the decision-making if not mitigated).
 - High (the impact/risk will result in major alteration to the environment even with the implementation of the appropriate mitigation measures and will have an influence on decision-making)
 - Very high (the impact/impact will result in very major alteration to the environment even with the implementation on the appropriate mitigation measures and will have an influence on decision-making)

i.e. the project cannot be authorised unless major changes to the engineering design are carried out to reduce the significance rating).

- **Status** - Whether the impact/ risk on the overall environment will be positive, negative or neutral
 - “+” (positive - environment overall will benefit from the impact/risk).
 - “-“ (negative - environment overall will be adversely affected by the impact/risk).
 - “o” (neutral - environment overall will not be affected).
- **Confidence** – The degree of confidence in predictions based on available information and specialist knowledge
 - Low
 - Medium
 - High

Impacts, mitigatory measures and the monitoring of impacts will then be collated into the EMPr and these will include the following:

- Quantifiable standards for measuring and monitoring mitigatory measures and enhancements will be set. This will include a programme for monitoring and reviewing the recommendations to ensure their ongoing effectiveness.
- Identifying negative impacts and prescribing mitigation measures to avoid or reduce negative impacts. Where no mitigatory measures are possible this will be stated.
- Positive impacts will be identified, and mitigation measures will be identified to potentially enhance positive impacts where possible.

Management Actions and Monitoring of the Impacts:

- Where negative impacts are identified, mitigatory measures will be identified to avoid or reduce negative impacts. Where no mitigatory measures are possible this will be stated.
- Where positive impacts are identified, mitigatory measures will be identified to potentially enhance positive impacts.

The table below is to be used by specialists for the rating of impacts:

Table 1.1: Rating of impacts.

Nature of the Impact	This should include a description of the proposed impact to indicate if the impact is a direct, indirect or a cumulative impact.
Extent	Site specific, local, regional or national
Duration	Temporary, short term, medium term, long term or permanent
Consequence /Intensity	Extreme, High, medium or low
Probability	Improbable, probable, highly probable, definite
Degree of Confidence	Low, medium or High
Reversibility	Reversible, Partially Reversible, Irreversible
Irreplaceable Loss of Resources	Replaceable, Partially Replaceable, Irreplaceable
Status and Significance (without mitigation)	Low, medium or High indicating whether Positive (+), Negative (-) or Neutral (o)
Mitigation	Overview of mitigatory measures to mitigate potentially negative impacts or enhance potential positive impacts indicating how this mitigatory measure impacts on the significance of the impact
Status and Significance (after mitigation)	Low, medium or High indicating whether the status of the impact is Positive (+), Negative (-) or Neutral (o)

Other aspects to be taken into consideration in the assessment of impact significance are:

- Impacts will be evaluated for the construction and operational phases of the project:
 - **NOTE:** No assessment of impacts during the decommissioning phase of the project is proposed. The relevant guidelines and rehabilitation requirements applicable at that time will need to be applied.
- Impacts will be evaluated with and without mitigation in order to determine the effectiveness of mitigation measures on reducing the significance of a particular impact; and
- The impact evaluation will, where possible, take into consideration the cumulative effects associated with this and other projects which are either developed or in the process of being developed in the local area. The impact assessment will attempt to quantify the magnitude of potential impacts (direct and cumulative effects) and outline the rationale used. Where appropriate, National standards are to be used as a measure of the level of impact.

1. ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

List the main issues raised by interested and affected parties.

Project Announcement and Registration Phase

Comments were received from eight (8) Organs of State / State Departments and one (1) Adjacent Landowner during the project announcement and registration phase as follows:

Basic Assessment and Public Participation Process

1. Mr. Howard Blane (ESKOM Distribution Division: Cape Coastal Cluster – Land and Right Manager) requested as Interested and Affected Party.
2. Ms Angelina Shalang (ESKOM Cape Coastal Cluster: Environmental Management Manager), requested to register.
3. Mr. Randall Moore (Eastern Cape Department of Transport: District Roads Engineer), the EAP was cc'ed in on an email to Mr Khulile Siqiti (Eastern Cape Department of Transport), requesting him to register as Interested and Affected Party.
4. Mr. Khulile Siqiti (Eastern Cape Department of Transport), acknowledged to a Mr Moore's request in point 3 above.
5. Ms Babalwa Layini - (Department of Forestry, Fisheries and the Environment: Forestry), requested that Mr. Zinzile Mtotywa (Department of forestry, fisheries, and the Environment: Assistant Manager) be register as an Interested and Affected Party.
6. Ms Nelisa Nama (Department of Forestry, Fisheries and the Environment: Control Environmental Officer), requested to register as an Interested and Affected Party.
7. An adjacent landowner has confirmed the contact information for representatives for the adjacent property.

Project Detail

8. The adjacent landowner raised an issue about the proximity of the proposed PV facility and the potential detrimental impact it may have the residential home on adjacent property. The commentator further commented on project specific details, including final layout, access to servitude road and the future potential commercial and industrial scale electricity generation.

Potential Soil Erosion

9. Gcinile Dumse (Department of Agriculture, Forestry & Fisheries: LUSM), recommended measures for the prevention of potential soil erosion.

Impacts on Human Health and Safety

10. The adjacent landowner raised issues regarding the potential proximity and impacts on Human Health and Safety.

Potential Impacts on Roads

11. Mr. Randall Moore (Eastern Cape Departments of Transport) stated that the MN50595 gravel road will have to be re-graveled.

Potential Impacts on Terrestrial Biodiversity

12. Mr. Zinzile Mtotywa (Department of Forestry, Fisheries and the Environment: Forestry), identified an area west of the area under assessment, and adjacent to the R355, that is of concern to the department, and which would require a site visit.

13. Gcinile Dumse (Department of Agriculture, Forestry & Fisheries: LUSM), recommended that indigenous grass species should be used in re-vegetation and adequate weed control measures must be developed including an Alien Weed Management Plan.

Potential Impacts on Aquatic Biodiversity

14. Gcinile Dumse (Department of Agriculture, Forestry & Fisheries: LUSM), recommended that aquatic resources must be protected from disturbance.

Response from the practitioner to the issues raised by the interested and affected parties (A full response must be given in the Comments and Response Report that must be attached to this report):

Project Announcement and Registration

Public Participation Process (Requests to register)

1 – 7. The I&APs above who requested to be registered, were registered on the project database.

Project detail

8. The commentator was provided with a Background Information Document, locality map at the commencement of this assessment. The facility is proposed to be located on the western boundary of the farm, ~730 meters from the nearest boundary of the adjacent property. The servitude road the commentator is referring to is on the adjacent Portion 6 of Farm T'Zoetgeneugd No.192, which does not form part of this assessment. It is not the intention to establish or commercial or industrial scale supply of electricity. The PV facility is a small-scale capable of producing 2.2MW electricity intended for private use.

Potential Soil Erosion

9. This comment is noted. The potential for soil erosion and appropriate mitigatory measures are included in the draft EMPr.

Impacts on Human Health and Safety

10. PV Facilities are not known to pose any significant danger to human health, as there is no on-site production of harmful Green House gasses (Sulphur dioxide and nitrogen oxide)

Potential Impacts on Roads

11. The comment is noted. It is recommended that the MN50595 will have to be regavelled for the construction phase of the project

Potential Impacts on Terrestrial Biodiversity

12. The area the commentator is referring to on the northern boundary of the site adjacent to the R335 does not fall within the area under assessment but belongs to an adjacent landowner. It was agreed that no site visit will be required.

13. Should revegetation be required on site, any indigenous vegetation that may occur on the site will be stockpiled and used in revegetation of disturbed areas. An alien invasive plant (AIP) management plan will be developed for the site and implemented during the Construction and Operational Phases of this project.

Potential Impacts on Aquatic Biodiversity

14. The proposed development is unlikely to have any adverse negative impacts on the surrounding or downstream watercourses as no sensitive watercourses are directly within the proposed development footprint.

2.IMPACTS THAT MAY RESULT FROM THE PLANNING AND DESIGN, CONSTRUCTION, OPERATIONAL, DECOMMISSIONING AND CLOSURE PHASES AS WELL AS PROPOSED MANAGEMENT OF IDENTIFIED IMPACTS AND PROPOSED MITIGATION MEASURES

List the potential direct, indirect and cumulative property/activity/design/technology/operational alternative related impacts (as appropriate) that are likely to occur as a result of the planning and design phase, construction phase, operational phase, decommissioning and closure phase, including impacts relating to the choice of site/activity/technology alternatives as well as the mitigation measures that may eliminate or reduce the potential impacts listed.

Alternative (preferred alternative)

CONSTRUCTION PHASE

Direct Impacts:

- **Loss of pastures for grazing land – (Terrestrial Biodiversity)**

The proposed development will result in the clearance of portions of the existing pastures on Middledrift for the establishment of concrete plinths, concrete or steel piling, a concrete slab and underground cables. The Terrestrial Biodiversity Compliance Statement has confirmed that the development footprint has been modified to pastures for livestock grazing and no natural habitat remains.

Extent: Site Specific

Duration: Permanent

Intensity: Low

Probability: Definite

Reversibility: Reversible

Irreplaceable Loss of Resources: No

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- While the site will be not be blanket cleared the development footprint will be fenced in and not allow access for grazing purposes. Therefore, there is no mitigation proposed.

Significance and Status (with mitigation): Very Low Negative (-)

- **Loss of pastures for faunal habitat – (Terrestrial Biodiversity)**

The proposed development will result in the clearance of portions of the existing pastures on Middledrift for the establishment of concrete plinths, concrete or steel piling, a concrete slab and underground cables. The pastures would provide habitat for insects, invertebrates and pollinators.

Extent: Site Specific

Duration: Permanent

Intensity: Low

Probability: Definite

Reversibility: Reversible

Irreplaceable Loss of Resources: No

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- The site will not be blanket cleared, some pasture remnants will remain under the PV array, thereby retaining some of the faunal habitat.

Significance and Status (with mitigation): Very Low Negative (-)

- **Impacts on hydrological processes – (Aquatic Biodiversity)**

An Aquatic Compliance Statement was undertaken as part of this assessment and found that the no aquatic features are present within the proposed development footprint and thus unlikely to have an impact on Aquatic Biodiversity. The Sundays River is located ~350meters north and north-west of the proposed development and is not anticipated to have a significant impact on the river. The existing dam present on the site is artificial and not be directly affected by the proposed development.

Extent: Local

Duration: Short term

Intensity: Low

Probability: Highly Probable

Reversibility: Reversible

Irreplaceable Loss of Resources: No

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- An Alien Vegetation Management Plan must be developed and implemented during and post-construction.
- A Rehabilitation Plan must be developed and implemented when required (if applicable).
- Construction activities must be limited to the approved project footprint.
- Bare soil surfaces must be protected against erosion using appropriate erosion control measures.
- Stormwater management to capture and disperse runoff must be implemented during the construction and operation phase.
- Any construction site camp and material stockpile areas must be established in already disturbed areas more than 32m from any watercourses surrounding the site.
- All hazardous substances and hazardous waste must be stored in impermeable structures placed in secondary impermeable bunded structures 110% the volume of the primary structure.
- All hazardous substances and hazardous waste should be placed more than 32m from any watercourses surrounding the site.
- Emergency response plan must be drawn up to deal with any hazardous spillages/accidental leakages.
- A Spill kit must be available on site during the construction phase.
- A drip tray must be used under all generators and any construction vehicles (when on site and not in use).
- ECO should be appointed for monitoring of conditions in the EMP.

Significance and Status (with mitigation): Very Low Negative (-)

- **Dust generation during the construction phase**

During construction, it is anticipated that some degree of dust pollution will be generated from construction activities, piling, clearance for the concrete plinths and concrete slab. Soils will be largely bare and unconsolidated and thus vulnerable to erosion by wind and water. Vehicular movement over the site may generate dust. Dust may also be generated from soil stockpiles which may be present on site.

Extent: Local

Duration: Temporarily

Intensity: Low

Probability: Highly Probable

Reversibility: Reversible

Irreplaceable Loss of Resources: Partially Replaceable

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- Blanket clearing of the site, with the exception of the area for the generator room is not proposed.
- It is proposed that steel or concrete piling are utilised for the PV structures and concrete plinths for the inverter and BESS area, thereby limiting the exposure of bare soils and wind blown dust.
- Erosion protection measures must be implemented on disturbed areas.
- Topsoil and soil stockpiles should be covered, wetted or otherwise stabilised to prevent wind erosion and dust generation.
- A water cart must be employed on windy days to wet soils that would be prone to wind erosion to limit dust generation.
- Disturbed areas should be rehabilitated in parallel with construction completion
- Compile and implement an Environmental Management Programme; and audit reporting by an ECO during construction.

Significance and Status (with mitigation): Very Low Negative (-)

- **Noise and disturbance during the construction phase**

Noise is anticipated on site associated with machinery to be used during the construction phase.

Extent: Local

Duration: Short-term

Intensity: Low

Probability: Highly Probable

Reversibility: Reversible

Irreplaceable Loss of Resources: N/A

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- Noise generated as a result of construction activities must, as far as possible, be within the limits of working hours (i.e., 8am – 5pm weekdays).
- Encourage personal not to make any unnecessary noise.
- A complaints register must be kept to document complaints and the corrective action taken.

Significance and Status (with mitigation): Low Negative (-)

- **Temporary employment opportunities will be created during the construction phase**

12 unskilled and 5 skilled employment opportunities will be created during the construction phase of the project.

Extent: Local

Duration: Temporary

Intensity: Low

Probability: Definite

Reversibility: Irreversible

Irreplaceable Loss of Resources: N/A

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Positive (+)

Mitigation

- Local labour must be sources from local communities (i.e., Addo, Kirkwood and Motherwell), as far as possible, to maximise the economic benefits for the local community.

Significance and Status (with mitigation): Low Positive (+)

- **Traffic – Impacts on Districts roads**

It is not anticipated that there will be significant impact on the district roads, as construction equipment will be kept on site and all necessary materials (i.e. steel and solar panels) will be trucked onto site prior to the commencement of and during the construction phase.

Extent: Regional

Duration: Temporary

Intensity: Low

Probability: Probable

Reversibility: Reversible

Irreplaceable Loss of Resources: N/A

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- Keep construction and earth-moving vehicles on site during construction phase.
- The road must be maintained during the construction phase when necessary to mitigate the impact, if any, of additional vehicle traffic.
- Hauling vehicles must operate during normal operational times and allow for adequate spacing between trucks to allow for passing motorists.
- Vehicles must be in good working order to avoid unnecessary damage to roads.
- Appropriate signage should be erected to warn of slow-moving vehicles as well as wide turning vehicles when applicable.

Significance and Status (with mitigation): Low Negative (-)

- **Runaway bush fires during construction phase**

Extent: Local

Duration: Temporary

Intensity: High

Probability: Probable

Reversibility: Partially Irreversible

Irreplaceable Loss of Resources: Partially Reversible

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Medium Negative (-)

Mitigation

- No open fires should be allowed on site, except on designated areas
- Construction personnel must not be allowed to light fires on site.
- No fires should be left unattended
- Suitable firefighting equipment should be kept on site

Significance and Status (with mitigation): Low Negative (-)

- **Generation of waste during the construction phase**

Generation of general building waste including packaging materials and rubble will be accumulated on site, temporarily stored and disposed of. It is also likely that construction personnel will generate waste on site.

Extent: Site Specific

Duration: Temporary

Intensity: Medium

Probability: Probable

Reversibility: Reversible

Irreplaceable Loss of Resources: Replaceable

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- No waste from construction or otherwise may be disposed of on site
- No construction waste to be stockpiled on site
- All waste may temporarily be stored at site before being suitably disposed of at an appropriately licensed and registered waste disposal facility
- Collection of waste to be contracted to an approved contractor and disposed of at an appropriately licensed site. Safe disposal certificate to be obtained and kept as a record.
- Adequate litter drums or other suitable containers must be located on site and emptied on a minimum of a weekly basis and waste disposed of at an appropriately licensed waste disposal facility.
- Appropriate ablution facilities to be provided on site. If portable toilets are utilised these must be emptied regularly by a registered contractor.

Significance and Status (with mitigation): Very Low Negative (-)

- **Generation of hazardous waste by construction machinery during the construction phase**

Small amounts of hazardous waste such as oil, grease, or fuel is anticipated to be generated on site by construction equipment.

Extent: Site specific

Duration: Temporary

Intensity: Low

Probability: Probable

Reversibility: Reversible

Irreplaceable Loss of Resources: Replaceable

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- Hazardous waste from construction activities to be separated, classified and stored in acceptable receptacles and disposed to appropriately licensed site.
- Machinery must not be serviced on site and measures including drip pans and compacted soil must be used whenever machinery is parked for prolonged periods of time.
- Monthly waste disposal record must be kept of all waste disposed.
- A spill response kit must be on site during construction
- All staff should be trained in the correct handling, storage and disposal of hazardous wastes.

Significance and Status (with mitigation): Very Low Negative (-)

- **The exposure of significant Archaeological material or artefacts on site**

Based on the findings of the desktop Archaeological Impact Assessment, it is unlikely that any significant Palaeontological material will be found on site. However, there is a possibility of discovering significant archaeological material and artefacts during excavations and clearing.

Extent: Site Specific

Duration: Permanent

Intensity: Low

Probability: Improbable

Reversibility: Irreversible

Irreplaceable Loss of Resources: Irreplaceable

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Neutral (0)

Mitigation

- It is recommended that in the unlikely event that any archaeological materials are exposed during the development, it should be reported immediately to the nearest museum/archaeologist or to the EC

Provincial Heritage Resources Authority (ECPHRA) so that a systematic and professional investigation can be undertaken.

- If any evidence of archaeological sites or artefact, graves or other heritage resources are found during development or construction, ECPHRA and an accredited professional archaeologist or must be alerted immediately.
- If the newly discovered heritage resources prove to be of archaeological significance, a Phase 2 rescue operation might be necessary at the cost of the developer. Sufficient time must be allowed to remove / collect such material.
- Site foremen should be informed before vegetation clearing commences on the possible types of heritage sites and cultural material they may encounter and the procedures to follow when they find sites: i.e. human skeletal material, stone artefacts, fossil bone, stone features and historical artefacts or features.

Significance and Status (with mitigation): Neutral (0)

- **Impacts on potential undiscovered Palaeontological material on site.**

Based on the findings of the Paleontological Impact Assessment, it is unlikely that any significant Palaeontological material will be found on site. However, there is a possibility of discovering significant Palaeontological material during excavations and clearing.

Extent: Site Specific

Duration: Permanent

Intensity: Low

Probability: Improbable

Reversibility: Irreversible

Irreplaceable Loss of Resources: Irreplaceable

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Neutral (0)

Mitigation:

- The ECO responsible for these developments should be alerted to the possibility of important fossil remains being found either on the surface or exposed by fresh excavations during construction.
- Should substantial fossil remains be exposed during vegetation clearing and site preparation, the ECO should safeguard these, preferably in situ, and alert EC Provincial Heritage Resources Authority (ECPHRA) and an accredited professional palaeontologist as soon as possible so that appropriate action (e.g. recording, sampling or collection) can be taken by a professional palaeontologist.
- The palaeontologist will need to apply beforehand for a collecting permit from ECPHRA for which an approved depository for any fossil material collected will need to be designated (e.g., Albany Museum, Grahamstown).
- Sufficient time must be allowed to remove/collect such material.

Significance and Status (with mitigation): Neutral (0)

Indirect impacts:

- **General health and safety risks associated with the construction activities on site**

With construction activities and the associated personnel comes potential on-site risks such as fires and waste generation and excavation.

Extent: Site Specific

Duration: Temporary

Intensity: Low

Probability: Probable

Reversibility: Reversible

Irreplaceable Loss of Resources: N/A

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- Fires must only be lit in a designated area.
- Construction personnel may not stay on site after working hours or set up temporary residences.
- Ablution facilities must be provided to construction personnel.
- Litter bins must be provided at the construction footprint for waste generated by construction personnel and must be emptied and appropriately disposed of on a regular basis.

Significance and Status (with mitigation): Very Low Negative (-)

Cumulative impacts:

None anticipated.

OPERATIONAL PHASE

- **Loss of agricultural land**

The proposed PV facility will result in a loss of land that is currently being utilised for agriculture (grazing of cattle). The proposed renewable energy facility is in support of existing agriculture (pump house and irrigation) and future agricultural activities (poultry, citrus irrigation, dam pump house) on site, thus supporting the applicant's current agricultural activities.

Extent: Site Specific

Duration: Permanent

Intensity: Low

Probability: Definite

Reversibility: Reversible if the project gets decommissioned

Irreplaceable Loss of Resources: Partially replaceable

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- Limit disturbance outside of the development footprint
- The proposed project will support and facilitate existing as well as future agricultural activities on the site.

Significance and Status (with mitigation): Very Low Negative (-)

- **Visual impacts – Visual Intrusion in the landscape**

Potential visual impacts on the Landscape Character and Sense of Place may occur as a result of the PV array which could result in Glint and Glare. It is anticipated that the PV facility will be absorbed by the surrounding agricultural land uses

Extent: Local

Duration: Permanent

Intensity: Low

Probability: Definite

Reversibility: Reversible

Irreplaceable Loss of Resources: Replaceable

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- Employ good housekeeping practices including maintaining the Solar PV panels.

Significance and Status (with mitigation): Very Low Negative (-)

- **Employment opportunities for the local community**

Several employment opportunities will be created during the operational phase and is anticipated to be sourced from local labour markets.

Extent: Local

Duration: Permanent

Intensity: Low

Probability: Probable

Reversibility: Reversible

Irreplaceable Loss of Resources: N/A

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Positive (+)

Mitigation

- Local labour must be sourced from local communities (i.e., Addo, Kirkwood and Motherwell), as far as possible, to maximise the economic benefits for the local community.

Significance and Status (with mitigation): Low Positive (+)

- **Reduction of reliance on coal fired Eskom electricity and GHG pollution.**

The PV facility is a renewable energy project and will produce electricity for use by the Poultry Facility limiting the reliance on the national Eskom coal fired grid and ensuring a reduction in GHG pollution.

Extent: National

Duration: Permanent

Intensity: Low

Probability: Definite

Reversibility: Reversible

Irreplaceable Loss of Resources: N/A

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Positive (+)

Mitigation

- No mitigation proposed

Significance and Status (with mitigation): Low Positive (+)

NO-GO ALTERNATIVE

- **No establishment of a PV facility and continued reliance on Eskom for coal fired electricity.**

Should the project not be authorised the applicant will remain dependent on coal fired electricity from Eskom. This is increasing production costs in the SRVM area. It further may negatively impact on the proposed feasibility of the proposed Amendment Application for a poultry broiler facility due to the unreliable energy supply from Eskom, which is vital for the operation of poultry facilities.

Extent: Local

Duration: Permanent

Intensity: Medium

Probability: Definite

Reversibility: Reversible

Irreplaceable Loss of Resources: Partially Replaceable

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- No mitigation proposed.

Significance and Status (with mitigation): Low Negative (-)

Indirect impacts:

- **Non-realisation of job creation for the local community**

The No-Go alternative will result in no employment opportunities for the local community.

Extent: Local

Duration: Permanent

Intensity: Low

Probability: Definite

Reversibility: Reversible

Irreplaceable Loss of Resources: N/A

Degree of Confidence: High

Status and Significance of Impact (no mitigation): Low Negative (-)

Mitigation

- None proposed

Significance and Status (with mitigation): Low Negative (-)

Cumulative impacts:

None anticipated.

3. CLIMATE CHANGE ASSESSMENT

Climate change issues must be considered as part of the EIA process Please consider the Climate Change guideline. EAP must determine:

- a) The potential impact of climate change on society and the economy, whether the impact is negative or positive, considering that society needs to be at the centre of the proposed development;

Climate change is anticipated to have a negative impact on the local economy of the Sundays River valley area. Climate change is resulting in unpredictable climatic conditions, which includes higher than normal temperatures, less frequent rainfall events and higher rainfall levels when rain does occur.

Higher temperatures than normal, which last for longer periods of time, have impacted on farming and irrigation practises in the Sundays River Valley (SRV), e.g., shade cloth is being erected to, amongst others, limit the evaporation of irrigation water. This has had a negative impact on the quality and quantity of the citrus harvest and subsequent negative economic impacts for farmers and employees. The citrus industry is the largest employer in the region Sundays River Valley Municipal area.

On the other hand, climate change has resulted in some positive impacts in the SRV area. Climate change has resulted in a shift in the wind pattern, with the windy season starting later than expected thus resulting in less wind damage to fruit and thereby improving export quality.

This project, the proposed PV Facility and associated infrastructure, is a renewable energy project, which will result in a reduction in greenhouse gas emissions, which are concomitant with climate change. This will occur by decreasing the demand on the Eskom electrical grid which is coal fired energy.

- b) The potential alternatives of the proposed development, alternatives that will have less impact on climate change (environment and generation of waste included), the society and economy;

This assessment is for a renewable energy project, namely a PV facility, which is anticipated to decrease negative impacts on climate change and the environment. It is anticipated to have a positive impact on the economy and society by decreasing the reliance on the Eskom grid and coal fired electricity. The proposed project is an alternative energy source which will result in less impact on climate change, society and the economy.

- c) whether, and to what extent, the proposed development will result in the release of greenhouse gas (GHG) emissions;

The proposed development is for a solar photovoltaic facility, generating electricity from a renewable resource. It is not anticipated that the facility will produce any greenhouse gasses (GHG) on site during the operational phase.

- d) whether the proposed development is necessary to achieve long term decarbonisation goals;

The proposed solar PV Facility will aid South Africa in reaching the National Development Plan, Vision 2030 (2012) which aims to reduce greenhouse gas emissions by moving to less carbon-intensive electricity production. In 2021 South Africa had only produced 10 809GWh of electricity which was just over 50% of the NDP's target of 20 000MW of renewable energy. This proposed development would aid South Africa by contributing 2MW of renewable energy to the goal of 20 000MW of renewable energy by 2030. Additionally, the proposed Solar PV Facility will provide renewable energy, thus reducing the applicants carbon footprint.

- e) the impact of the development on social, economic, natural and built environment that are crucial for climate change, adaptation and resilience;

This project is a renewable energy project, a PV facility, which is expected to have a positive impact on climate change, adaptation and resilience.

The PV facility will positively contribute towards climate change adaption as it will limit reliance on the national Eskom grid, and coal fired electricity.

The PV facility is proposed to be developed in an area that has previously been modified to pastures, thus no natural vegetation is proposed to be removed. Thus, natural vegetation such as Spekboom thicket, known for its carbon sequestration role in delaying climate change, will not be affected.

- f) the projected impact of climate change on proposed development; and surrounding environment, and implications for the development.

Climate change can potentially impact the development in the following ways:

- The performance of the PV facility can be impacted by external factors such as, increased concentrations of GHG in the atmosphere. With increased GHG's in the atmosphere, incoming short wave radiation rays are scattered and/ or blocked at a higher level in the atmosphere, limiting the solar rays that reach the PV panels and therefore the efficiency of the PV facility.
- With sporadic climatic conditions and longer duration of rain events, cloud cover could influence the solar regime for longer, meaning the solar rays available for the solar PV facility is reduced.
- Increased average temperature could potentially affect the performance of PV facilities negatively. Electrons are released inside the PV panels during normal operations and electricity is generated. Due to the law of thermodynamics, in the presence of excess heat (higher than normal temperatures), electrons can react sporadically and as a result generate lower voltages with less electrical output.

- Increased rainfall events can cause flash flooding and with the Sundays River being ~350m north of the facility there is a potential for the river breaking its banks and flooding the PV facility.

g) Explanation of how the impacts is likely to be exacerbated or minimised as result of climate change and what measures are likely to be implemented to accommodate and manage (adapt to) the anticipated worst scenario where applicable

This is a renewable energy project anticipated to contribute positively towards climate change. However, climate change could negatively impact on the project, namely:

- Increased temperatures affecting PV performance
- Increased winds resulting in silting of the panels, requiring more regular washing
- Increased rainfall events and intensity resulting in flooding.

h) whether, and to what extent, the impacts identified in (a) -(g) can be mitigated.

This is a renewable energy project which is anticipated to contribute positively towards climate change. In order to mitigate the impacts of the climate change the following are feasible mitigatory measures:

- change to the direction of the PV panels to avoid high intensity heat which impacts on PV panel efficiency.
- More regular washing of the PV panels to remove dust build up
- Set the PV facility back from areas of potential flooding.

4. ENVIRONMENTAL IMPACT STATEMENT

Taking the assessment of potential impacts into account, please provide an environmental impact statement that summarises the impact that the proposed activity and its alternatives may have on the environment after the management and mitigation of impacts have been taken into account, with specific reference to types of impact, duration of impacts, likelihood of potential impacts actually occurring and the significance of impacts.

Alternative A (preferred alternative)

The proposed construction of the Solar Photovoltaic Facility is anticipated to have an overall **LOW NEGATIVE** impact on the receiving environment during the construction phases, if all the recommended mitigation measures are applied. In the operational phase, the overall impact is **VERY LOW NEGATIVE to NEUTRAL**.

Terrestrial Biodiversity impacts are not anticipated to be significant as the site is transformed to pastures, and no natural habitat remains within the proposed development footprint. With the implementation of the proposed mitigation measures, the impact has been rated as a **VERY LOW NEGATIVE** impact.

Aquatic Biodiversity impacts are not anticipated to be significant, as no natural aquatic features (rivers, drainage lines or wetlands) fall within any the proposed development footprint. The existing dam present on the site is artificial and will not be directly affected by the proposed development. With the implementation of proposed mitigation measures suggested by the Aquatic Biodiversity specialist, the impact has been rated as a **VERY LOW NEGATIVE** impact.

Archaeological and Paleontological Impact can be mitigated to **NEUTRAL** during the construction phase if the ECO and/or construction foreman are alerted to the possibility of important types of heritage artefacts which could be uncovered during excavation and levelling, and recommended actions are undertaken should a heritage material be uncovered.

The Visual impacts associated with this development is anticipated to be **VERY LOW NEGATIVE**. Impacts on sensitive receptors are anticipated to be low due to the transformed nature of the site and the surrounding agriculture activities.

The application of the proposed mitigation and design measures, as recommended by the respective specialists, to be effectively managed in order to reduce the identified impacts so as to not have a detrimental effect on the environment.

In addition, some positive impacts have also been predicted. These include the creation of a number of additional employment opportunities and associated economic growth for the local community, which has been rated as **LOW POSITIVE** for the construction phase and **LOW POSITIVE** for the operational phase. Furthermore, the establishment of the PV facility will reduce the reliance on the coal-based electricity from the national Eskom grid, reducing the GHG pollution, rated **LOW POSITIVE**.

NO-GO Alternative (Compulsory)

The No-Go alternative will result in the potential employment and skills development opportunities for the local community not being realised. In turn, the potential opportunity for economic growth in the community will be lost. The securing a stable electricity supply for current agricultural activities and the Poultry Facility currently under construction will also not be realised, which means more reliance on the national Eskom grid. These consequential impacts are regarded as **LOW NEGATIVE**.

SECTION E: RECOMMENDATIONS OF PRACTITIONER

Is the information contained in this report and the documentation attached hereto sufficient to make a decision in respect of the activity applied for (in the view of the environmental assessment practitioner)?

YES	NO
YES	NO

Is an EMPr attached?

The EMPr must be attached as Appendix F.

If "NO", indicate the aspects that should be assessed further as part of a Scoping and EIA process before a decision can be made (list the aspects that require further assessment):

If "YES", please list any recommended conditions, including mitigation measures that should be considered for inclusion in any authorisation that may be granted by the competent authority in respect of the application:

All mitigation measures included in the impact section should be considered for inclusion in the Environmental Authorisation, should one be granted.

SECTION F: APPENDICES

The following appendixes must be attached as appropriate:

Appendix A: Site plan(s)

Appendix B: Photographs

Appendix C: Facility illustration(s)

Appendix D: Specialist reports

Appendix E: Comments and responses report

Appendix F: Environmental Management Programme (EMPr)

Appendix G: Other information