

T-N003-01 Kopleegte

Pre-application Scoping Report

THE PROPOSED KOPLEEGTE RENEWABLE SOLAR PV ENERGY GENERATION PLANT AND ELECTRIC TRUCK CHARGING FACILITY ON PORTION 11 OF THE FARM KOPLEEGTE NO. 1154 GS, OFF THE N3 HIGHWAY, NEAR WINTERTON, KWA-ZULU NATAL PROVINCE

APPLICATION FOR:

Environmental Authorisation

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SOLAR PV ENERGY GENERATION PLANT AND
ELECTRIC TRUCK CHARGING FACILITY ON
PORTION 11 OF THE FARM KOPLEEGTE NO. 1154
GS, OFF THE N3 HIGHWAY, NEAR WINTERTON,
KWA-ZULU NATAL PROVINCE**



**PRE-APPLICATION SCOPING REPORT
AND PLAN OF STUDY**

KZNEDTEA REF: To be provided

September 2026

**N3 ELECTRIC HIGHWAY CO.
T-N003-01 KOPLEEGTE**

EXECUTIVE SUMMARY

N3 Electric Highway Co. is proposing the development of the Kopleegte solar photovoltaic renewable energy generation plant and electric truck charging facility on Portion 11 of the Farm Kop Leegte No. 1154 GS, off the N3 Highway, near Winterton, KwaZulu-Natal. The facility will include a solar photovoltaic (PV) energy generation facility with an installed capacity of approximately 33.59 MWp, connected to the electric vehicle and truck charging facility via an approximately 33 kV distribution line. The development will also include a battery energy storage system (BESS) and associated electrical infrastructure.

The truck charging component will include charging stations, day and overnight truck parking, a truck wash area, tyre repair and fitment facilities, a farmstall with a manager's office, ablution facilities, water and sewer treatment infrastructure, stormwater management infrastructure, internal access and circulation roads, and associated infrastructure.

The proposed site is located adjacent to the N3 at the Winterton/Colenso Interchange (207), approximately 15 km east of Winterton, within the uThukela District Municipality, KwaZulu-Natal. The broader area originally considered and assessed for the project is approximately 65 ha.

The revised Site Development Plan provides for a total development footprint of approximately 29.06 ha, comprising approximately 24.86 ha of solar PV arrays and approximately 4.2 ha for the truck charging facility and associated infrastructure.

The original development layout extended across both sides of the N3. Following further consideration of comments received during the previous public participation process, as well as difficulties associated with obtaining the necessary right of way to transfer electricity across the N3, the proposed development was revised and consolidated on one side of the N3. The revised layout has reduced the overall development footprint while retaining the primary purpose of the development.

The existing memorial located within the development area will be retained in situ and will not be disturbed. The position of the truck charging facility may still be adjusted within the approved overall development footprint, subject to the requirements of the relevant Roads/Transport authority. Any such adjustment will involve rearrangement of the solar arrays and will not increase the overall development footprint.

Site coordinates (approximate central point): 28°46'52.17"S; 29°40'26.68"E.

The Applicant, N3 Electric Highway Co., who will undertake the activity should it be approved, appointed EnviroAfrica CC as the independent Environmental Assessment Practitioner (EAP) to undertake the relevant Environmental Impact Assessment (EIA) and Public Participation Process required in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).

A scoping exercise is being undertaken to present the proposed activities to Interested and Affected Parties (I&APs), identify environmental issues associated with the proposed development and consider concerns raised by I&APs, authorities, the project team and specialist investigations.

This Pre-application Scoping Report summarises the process undertaken to date, the revised development proposal, alternatives considered, environmental issues identified and concerns raised. The following specialist studies have been identified:

- Biodiversity Assessment
- Freshwater Assessment
- Heritage Impact Assessment
- Socio-economic Impact Assessment

- Visual Impact Assessment
- Agricultural Potential Assessment
- Avifauna Impact Assessment

Initial specialist assessments have been undertaken and preliminary findings have been incorporated into this report where available. The specialist studies will be updated and/or finalised during the EIA phase to take account of the revised development layout, and their final findings will be incorporated into the Environmental Impact Report (EIR).

Any further issues raised during the Public Participation Process will be addressed during the EIA phase. The potential environmental impacts associated with the proposed development and alternatives will be assessed further during the EIA process. The final specialist findings will be integrated into the EIR to inform the assessment of the proposed development and the identification of appropriate mitigation measures.

Based on the significance of the issues raised during the ongoing Public Participation Process and Scoping Phase, it is evident that an Environmental Impact Assessment (EIA) is required. ***It is therefore recommended that authorisation for the commencement of an EIA for the proposed development is granted.*** Should the EIA process be authorised, the issues raised in the process to date will be addressed and the specialist studies noted in this report will be undertaken.

PRELIMINARY RECOMMENDATIONS / CONDITIONS FOR AUTHORISATION

Where the development results in the loss of agricultural or grazing land, opportunities for diversification of the landowner's income may be considered. An agreement between the applicant and the landowner may provide an additional income stream associated with the proposed facility and potentially offset some of the financial implications associated with the loss of land available for agricultural use.

Such financial arrangements should, however, not be regarded as mitigation for the physical loss of agricultural land or agricultural potential. The acceptability of the development from an agricultural perspective must be determined primarily on the basis of the agricultural sensitivity and capability of the affected land, the significance of the anticipated agricultural impacts, and the findings and recommendations of the final Agricultural Assessment.

DOCUMENT CONTROL

Version	Name	Role / Responsibility	Date
AA	Lian Roos	Author / First draft for review	09 July 2024
BB	Lian Roos	Author / Second draft for review	04 September 2024
CC	Bianca Gilfillan	Author / Third draft for review	26 August 2026
DD			
EE			
Final			

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ACRONYMS

BGIS	Biodiversity Geographic Information System
CBA	Critical Biodiversity Area
DFFE	Department of Forestry, Fisheries and the Environment
DWS	Department of Water and Sanitation
KZNEDTEA	KwaZulu-Natal Department of Economic Development and Environmental Affairs
EAP	Environmental Assessment Practitioner
ECA	Environment Conservation Act (Act No. 73 of 1989)
EIA	Environmental Impact Assessment
EIR	Environmental Impact Report
EMP	Environmental Management Programme
ESA	Ecological Support Area
EV	Electric Vehicle
EWR	Environmental Water Requirements
HIA	Heritage Impact Assessment
I&APs	Interested and Affected Parties
MWp	Megawatt peak
NEMA	National Environmental Management Act (Act No. 107 of 1998)
NEMBA	National Environmental Management: Biodiversity Act (Act No. 10 of 2004)
NHRA	National Heritage Resources Act (Act No. 25 of 1999)
NID	Notice of Intent to Develop
NWA	National Water Act
OESA	Other Ecological Support Area
PV	Photovoltaic
SAHRA	South African Heritage Resources Agency
SANBI	South African National Biodiversity Institute
SEF	Solar PV Energy Generation Facility
VIA	Visual Impact Assessment
WULA	Water Use Licence Application

1 INTRODUCTION

1.1 BACKGROUND

N3 Electric Highway Co. is proposing the development of the Kopleegte solar photovoltaic renewable energy generation plant and electric truck charging facility on Portion 11 of the Farm Kop Leegte No. 1154 GS, off the N3 Highway, near Winterton, KwaZulu-Natal. The facility will include a solar photovoltaic (PV) energy generation facility with an installed capacity of approximately 33.59 MWp, connected to the electric vehicle and truck charging facility via an approximately 33 kV distribution line. The development will also include a battery energy storage system (BESS) and associated electrical infrastructure.

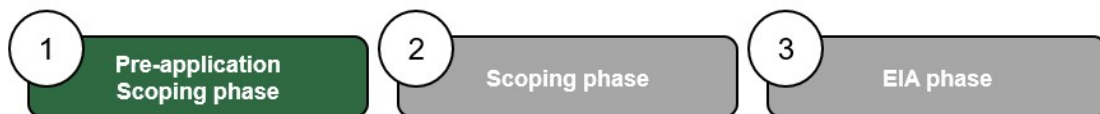
The truck charging component will include charging stations, day and overnight truck parking, a truck wash area, tyre repair and fitment facilities, a farmstall with a manager's office, ablution facilities, water and sewer treatment infrastructure, stormwater management infrastructure, internal access and circulation roads, and associated infrastructure.

The proposed site is located adjacent to the N3 at the Winterton/Colenso Interchange (207), approximately 15 km east of Winterton, within the uThukela District Municipality, KwaZulu-Natal. The broader area originally considered and assessed for the project is approximately 65 ha, while the revised development footprint is approximately 29.06 ha, comprising approximately 24.86 ha of solar PV arrays and approximately 4.2 ha for the truck charging facility and associated infrastructure.

The proposed development was previously distributed across both sides of the N3. Following further consideration of comments received during the previous public participation process and difficulties associated with obtaining the necessary right of way to transfer electricity across the N3, the development has been revised and consolidated on one side of the N3, resulting in a reduced development footprint.

Site coordinates (approximate central point): 28°46'52.17"S; 29°40'26.68"E.

The Applicant, N3 Electric Highway Co., who will undertake the activity should it be approved, appointed EnviroAfrica CC as the independent Environmental Assessment Practitioner (EAP) responsible for undertaking the relevant Environmental Impact Assessment (EIA) and Public Participation Process required in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).



This pre-application Scoping Report falls within the pre-application Scoping phase, which will be submitted to the Economic Development, Tourism and Environmental Affairs Department (EDTEA)(KwaZulu-Natal) for consideration, and forms part of the Scoping & EIA process. The purpose of this pre-application Scoping Report is to describe the proposed project, the process followed to date, to present alternatives and to list issues identified for further study and comment by specialists.

Following completion of the pre-application process, the formal NEMA Application and Draft Scoping Report will be submitted to KZN EDTEA. Subject to acceptance of the Final Scoping Report and Plan

of Study for EIA, the project will proceed to the EIA phase, during which the relevant specialist assessments will be reviewed, updated and/or finalised against the revised development layout and the identified environmental issues and potential impacts will be assessed in further detail.

1.2 DESCRIPTION OF THE PROPOSED ACTIVITY

N3 Electric Highway Co. is proposing the development of the Kopleegte solar photovoltaic renewable energy generation plant and electric truck charging facility on Portion 11 of the Farm Kop Leegte No. 1154 GS, off the N3 Highway, near Winterton, KwaZulu-Natal. The facility will include a solar photovoltaic (PV) energy generation facility with an installed capacity of approximately 33.59 MWp, connected to the electric vehicle and truck charging facility via an approximately 33 kV distribution line.

The revised development will have a total development footprint of approximately 29.06 ha, comprising approximately 24.86 ha of solar PV arrays and approximately 4.2 ha for the truck charging facility and associated infrastructure. The broader area originally considered and assessed for the project is approximately 65 ha.

The development will include a battery energy storage system (BESS) designed to store electricity generated by the solar PV facility and support the electric vehicle and truck charging operations. The BESS will assist in providing a reliable and continuous electricity supply to the charging stations, particularly during periods of high demand.

The truck charging component will include charging stations, day and overnight truck parking, a truck wash area, tyre repair and fitment facilities, a farmstall with a manager's office, ablution facilities, water supply infrastructure, sewerage treatment and/or disposal infrastructure (which may include a septic tank), stormwater management infrastructure, internal access and circulation roads, and associated infrastructure.

Rainfall and stormwater generated within the development area will be managed through the proposed stormwater management infrastructure. Stormwater will be collected via appropriate drainage infrastructure and directed to attenuation facilities, where required, to manage runoff and prevent uncontrolled discharge from the development area. Water collected on site may be treated and reused where feasible.

The proposed development was previously distributed across both sides of the N3. Following consideration of comments received during the previous public participation process, including concerns relating to the bird sanctuary/bird reserve situated north of the proposed development, as well as difficulties associated with obtaining the necessary right of way to transfer electricity across the N3, the layout was revised. The proposed development is now consolidated on one side of the N3, resulting in a reduction of the overall development footprint.

The existing memorial located within the development area will be retained in situ and will not be disturbed.

The position of the truck charging facility may still be adjusted within the same overall development footprint, subject to the final requirements of the relevant Roads/Transport authority. Concerns have been raised regarding the proximity of the proposed access points, and the Applicant is awaiting formal confirmation from the Roads/Transport authority. Should the truck charging facility be relocated within the development footprint, the solar PV arrays will be rearranged accordingly, without increasing the overall development footprint.

Vehicle and truck access will be provided from the existing/proposed road network serving the site, with the final access arrangement subject to confirmation by the relevant Roads/Transport authority.

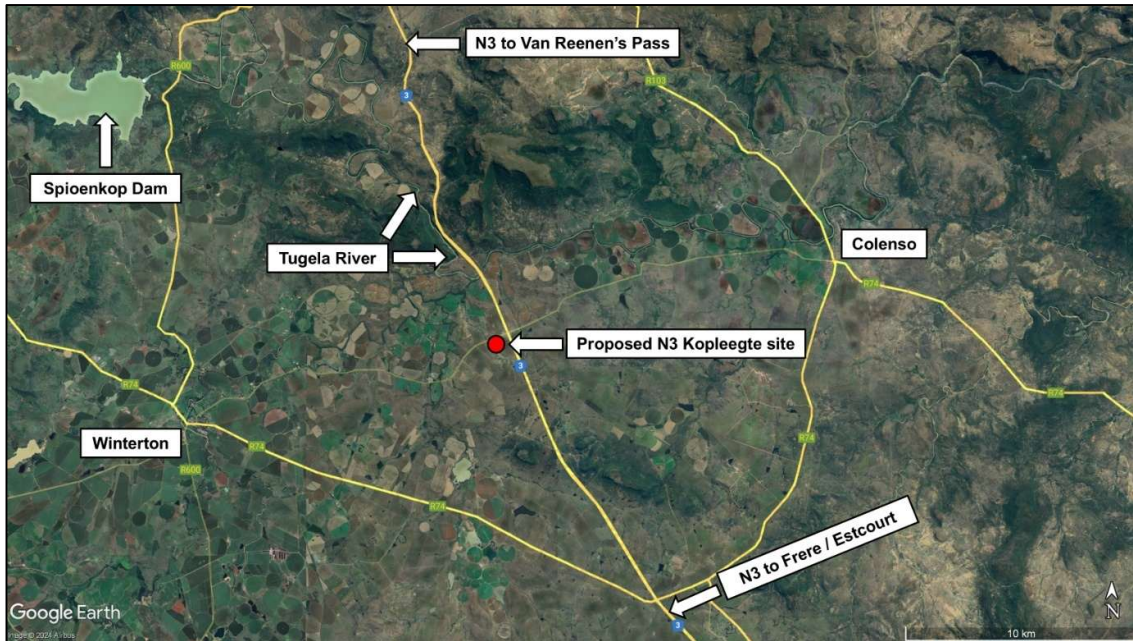


Figure 1: Google Earth image showing the locality of the proposed site (indicated by the red dot)



Figure 2: Google Earth image (1) of the proposed property and the development footprint (red polygon)

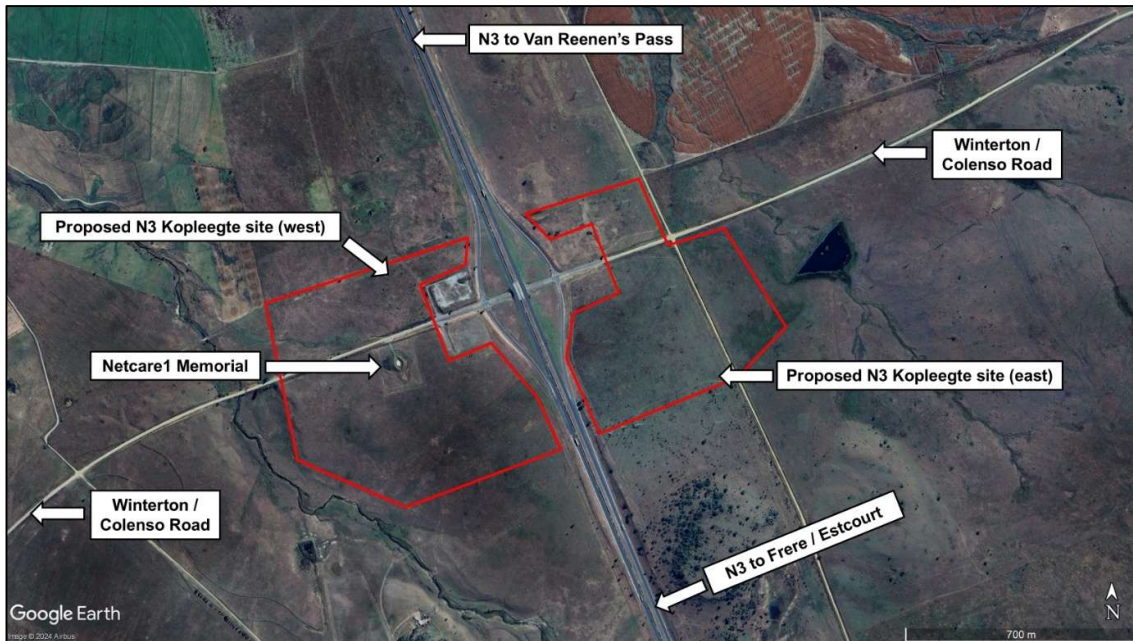


Figure 3: Google image of the proposed Kopleegte Recharging Station development footprint

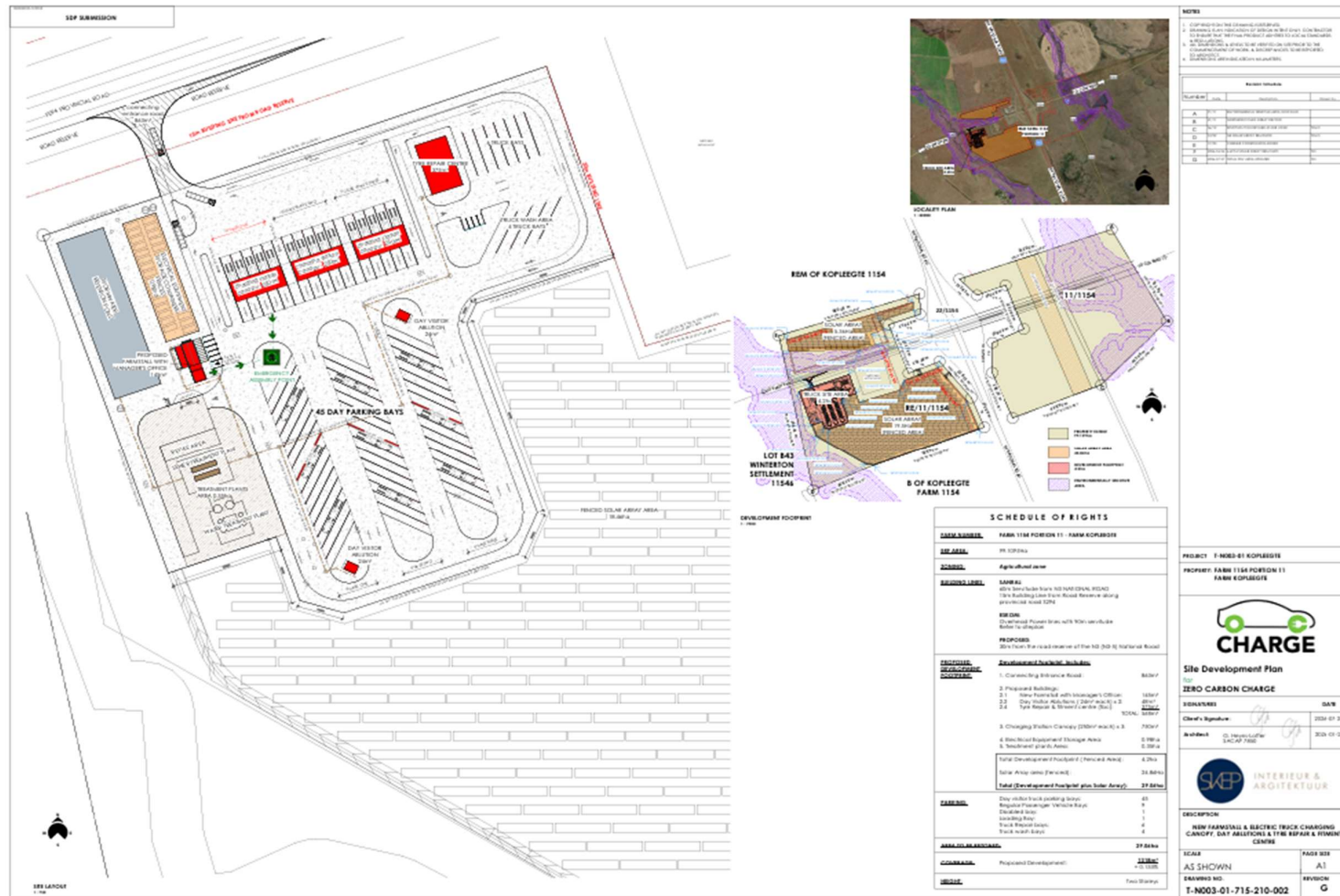


Figure 4: Detailed layout (SDP – Spatial Development Plan)

2 NEED AND DESIRABILITY

In terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), as amended (NEMA), and the Environmental Impact Assessment Regulations, 2014, as amended, the Scoping and Environmental Impact Assessment Reports must provide a description of the need and desirability of the proposed activity.

The consideration of “need and desirability” in environmental decision-making requires consideration of the strategic context of the development proposal, together with broader societal needs, environmental sustainability and the public interest.

While *need* relates primarily to whether the proposed development is required and appropriate at the present time, *desirability* considers whether the proposed development is appropriately located. The assessment of need and desirability therefore considers whether the proposed development represents an appropriate and sustainable use of the land, taking into account environmental, social and economic considerations.

2.1 NEED

South Africa has committed to reducing greenhouse gas emissions and transitioning towards a lower-carbon economy. The transport sector is an important contributor to greenhouse gas emissions, and the transition from conventional fossil-fuel-powered vehicles towards electric and other lower-emission transport technologies forms part of the country's broader transition towards more sustainable transport.

The Green Transport Strategy for South Africa (2018–2050) promotes a shift towards cleaner and more energy-efficient transport technologies, including the increased adoption of electric vehicles (EVs) and the development of the infrastructure required to support this transition.

A significant constraint to the wider adoption of electric vehicles is the availability and accessibility of suitable charging infrastructure. While EV charging infrastructure has increasingly been introduced within major urban areas, charging infrastructure along long-distance transport routes and within rural areas remains comparatively limited. This is particularly relevant to heavy vehicles, which require substantially greater charging capacity and strategically located charging facilities along major freight routes.

The N3 corridor between KwaZulu-Natal and Gauteng is one of South Africa's major freight transport routes, carrying substantial volumes of road freight between Durban and the country's inland economic centres. The availability of appropriately located charging infrastructure along this corridor will therefore be important if electric heavy vehicles are to become a viable alternative to conventional diesel-powered freight vehicles.

The proposed Kopleegte facility is intended to contribute towards addressing this infrastructure requirement by providing an electric vehicle and truck charging facility adjacent to the N3 corridor. The facility is specifically intended to accommodate the charging requirements of electric trucks and other electric vehicles travelling along this route.

An important component of the proposal is the integration of the charging facility with an approximately 33.59 MWp solar PV generation facility and battery energy storage system (BESS). Electricity generated by the solar PV facility will be stored and supplied to the charging infrastructure, reducing

reliance on electricity supplied directly from the national grid and supporting the use of renewable energy for electric vehicle charging.

The combination of renewable energy generation, battery storage and electric truck charging infrastructure is particularly relevant given the substantial electricity requirements associated with high-powered truck charging. The proposed development therefore provides an opportunity to establish charging infrastructure that is supported by dedicated on-site renewable electricity generation and energy storage.

The proposed development is also expected to provide associated socio-economic benefits, including employment opportunities during the construction and operational phases, expenditure within the local economy and the provision of supporting services to users of the N3 corridor.

The need for the proposed development is therefore based on the growing requirement for strategically located electric vehicle and heavy-vehicle charging infrastructure, particularly along major national freight corridors, together with the need to support the transition towards renewable energy and lower-emission transport in South Africa.

2.2 DESIRABILITY

The following factors determine the desirability of the area for the proposed development:

2.2.1 Location and Accessibility

The proposed site is located on Portion 11 of the Farm Kop Leegte No. 1154 GS, adjacent to the N3 at the Winterton/Colenso Interchange (207), approximately 15 km east of Winterton, within the uThukela District Municipality, KwaZulu-Natal.

Site coordinates (approximate central point): 28°46'52.17"S; 29°40'26.68"E.

The site is strategically located adjacent to the N3 national freight corridor, which provides an important transport connection between Durban and Gauteng. Its location along this major freight route supports the purpose of the proposed development, namely the provision of renewable-energy-supported electric vehicle and truck charging infrastructure for vehicles travelling along the N3.

The property has been partially disturbed by current and historical agricultural activities, including livestock grazing and cultivated/fallow areas. The remaining portions comprise predominantly grassland, with some sparse wooded areas characteristic of the regional landscape.

The site falls within the KwaZulu-Natal Highland Thornveld vegetation type. Although the vegetation type is classified as Least Concern at a national level, the ecological sensitivity of the site cannot be determined solely from the ecosystem threat status. The biodiversity sensitivities and potential impacts associated with the revised development footprint will therefore be considered through the Biodiversity Assessment and associated EIA process.

The general area is also considered suitable for solar PV generation due to its solar irradiation levels. The Global Horizontal Irradiation (GHI) for the area is approximately 1,896.9 kWh/m²/year, based on the Global Solar Atlas. GHI represents the total amount of solar radiation received by a horizontal surface and is an important consideration in determining the suitability of an area for solar PV electricity generation.

According to the Department of Forestry, Fisheries and the Environment (DFFE) Screening Tool Report, no intersections with Environmental Management Framework areas were identified.

The site's location adjacent to the N3, its proximity to an important national freight corridor, the availability of suitable solar resources and the presence of previously disturbed portions of land therefore contribute to the suitability of the site for the proposed development. The final suitability of the revised 29.06 ha development footprint will, however, be informed by the findings of the relevant specialist assessments and the EIA process.

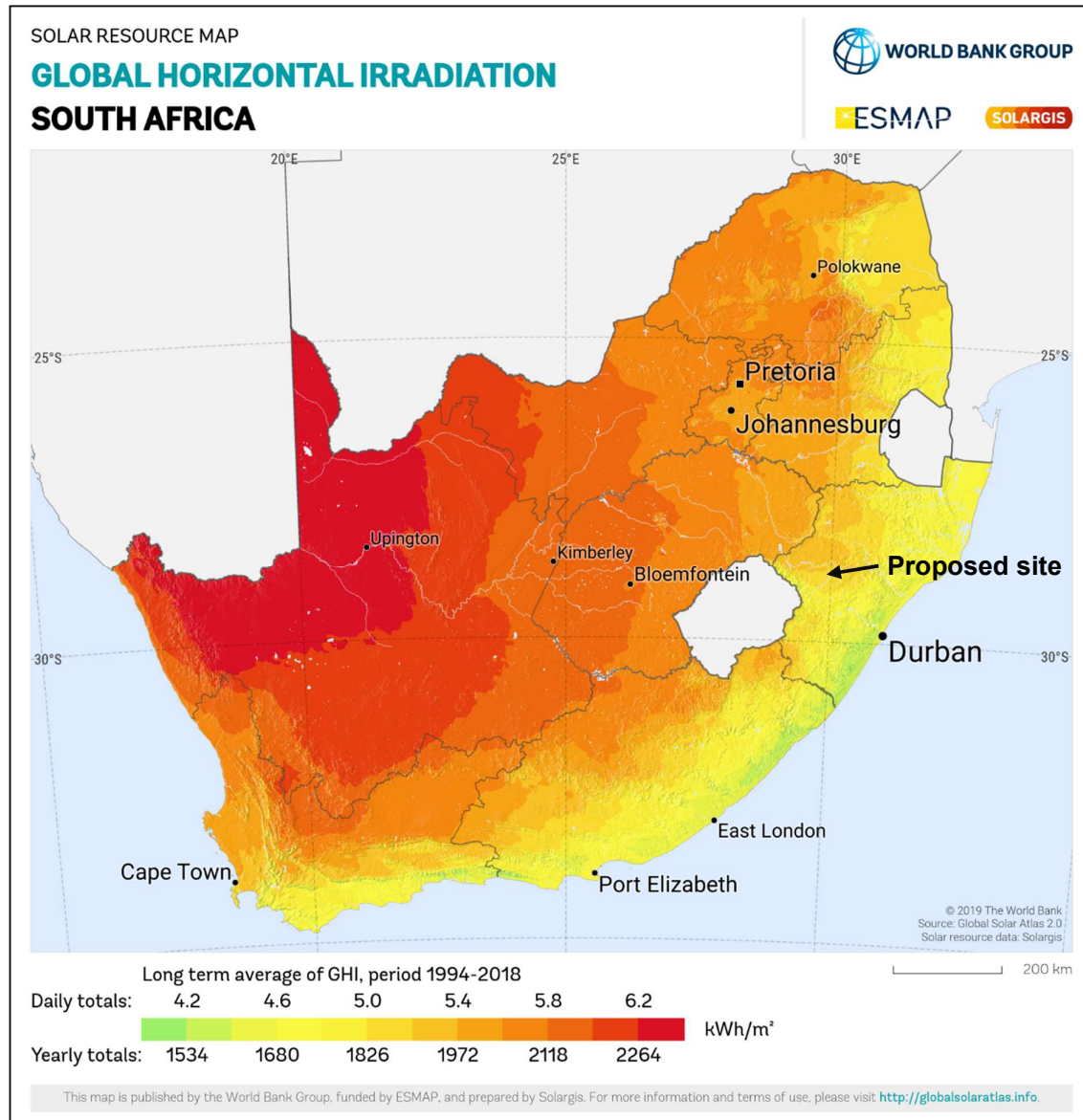


Figure 5: Global Solar Atlas image showing the Global Horizontal Irradiation levels for the proposed site

2.2.2 Compatibility with the Surrounding Area

The proposed activity is not currently provided for within the existing land-use rights of the property. The property is zoned Agricultural, and the necessary land-use planning approval will therefore be required for the proposed development. The surrounding land uses are predominantly agricultural in nature.

The proposed development is not expected to result in significant impacts on human health and well-being in terms of aspects such as noise and odours, provided that appropriate mitigation and management measures are implemented. Potential impacts associated with traffic, noise and other operational activities will be considered further during the EIA process.

The proposed solar PV and truck charging facility may alter the existing visual character and sense of place of the area, particularly as the site is situated within a predominantly rural and agricultural landscape. The potential visual impacts of the development will therefore be assessed through the Visual Impact Assessment, with appropriate mitigation measures incorporated into the final development layout where required.

The proposed development represents a change from the existing agricultural character of the site; however, its location adjacent to the N3 and its function as renewable energy and electric truck charging infrastructure are relevant considerations in assessing its compatibility with the surrounding area. The suitability and compatibility of the proposed development will be further informed by the specialist assessments, public participation process and EIA process.

2.2.3 Objectives of Integrated Environmental Management

The general objectives of Integrated Environmental Management have been taken into account through the following:

- The actual and potential impacts of the proposed activity on the environment, socio-economic conditions and cultural heritage have been identified and will be further assessed and evaluated. The associated risks and consequences, alternatives and mitigation measures will be considered with a view to minimising negative impacts, maximising benefits and promoting compliance with the principles of environmental management.
- The potential effects of the proposed activity on the environment are being considered prior to decision-making and implementation. Reasonable and feasible alternatives have been considered and will be further investigated during the EIA process.
- Adequate and appropriate opportunities for public participation are being provided through the Public Participation Process, allowing Interested and Affected Parties (I&APs) and relevant authorities an opportunity to participate in and provide input into the environmental assessment process.
- Environmental attributes and sensitivities have been and will continue to be considered in the planning, assessment and decision-making relating to the proposed activity. An Environmental Management Programme (EMPr) will be compiled and included as part of the Environmental Impact Assessment Report. The proposed development will be required to comply with the conditions of any Environmental Authorisation issued, the approved EMPr and the requirements of all relevant authorities and applicable legislation.

2.2.4 Principles of Environmental Management

The principles of environmental management as set out in Section 2 of NEMA have been taken into account. The principles pertinent to the proposed development include the following:

- People and their needs are placed at the forefront of environmental management, while serving their physical, psychological, developmental, cultural and social interests. The proposed development is expected to provide socio-economic and broader environmental benefits

associated with renewable energy generation and electric vehicle charging infrastructure. Potential negative impacts will, however, also be assessed and appropriately mitigated.

- Development must be socially, environmentally and economically sustainable. Potential impacts relating to the disturbance of ecosystems, loss of biodiversity, pollution and degradation, as well as impacts on landscapes and sites of cultural heritage significance, must as far as reasonably possible be avoided. Where impacts cannot be avoided, they must be minimised and appropriately mitigated or remedied.
- Waste generation must, as far as reasonably possible, be avoided or minimised. Waste generated during the construction and operational phases will be appropriately managed in accordance with the Environmental Management Programme (EMPr) and applicable waste management requirements.
- The use and exploitation of non-renewable natural resources must be responsible and equitable, taking into account the consequences of resource depletion. The proposed development supports the increased utilisation of renewable solar energy and the transition towards lower-emission transport infrastructure.
- Negative impacts on the environment and on people's environmental rights must be anticipated and prevented. Where impacts cannot altogether be prevented, they must be minimised and appropriately mitigated.
- The interests, needs and values of all Interested and Affected Parties (I&APs) will be taken into account through the Public Participation Process, which provides affected parties and relevant authorities with an opportunity to participate in the environmental assessment process.
- The social, economic and environmental impacts of the proposed development, including both disadvantages and benefits, will be considered, assessed and evaluated as part of the Environmental Impact Assessment Report (EIR).
- The effects of decisions on all aspects of the environment and on people will be considered in determining the best practicable environmental option. The findings of the specialist assessments, Public Participation Process and EIA process will be used to inform the preferred development layout, appropriate mitigation measures and environmental management requirements.
- An EMPr will be prepared to provide measures for avoiding, minimising, managing and monitoring potential environmental impacts during the construction, operational and, where applicable, decommissioning phases of the proposed development.

3 LEGAL REQUIREMENTS

The current assessment is being undertaken in terms of the National Environmental Management Act (Act 107 of 1998, NEMA), to be read with section 24 (5): NEMA EIA Regulations 2014. However, the provisions of various other Acts must also be considered within this EIA. The legislation that is relevant to this study is briefly outlined below:

3.1 THE CONSTITUTION OF THE REPUBLIC OF SOUTH AFRICA

The Constitution of the Republic of South Africa (Act 108 of 1996) states that everyone has a right to a non-threatening environment and that reasonable measures are applied to protect the environment.

This includes preventing pollution and promoting conservation and environmentally sustainable development, while promoting justifiable social and economic development.

3.2 NATIONAL ENVIRONMENTAL MANAGEMENT ACT (ACT 107 OF 1998)

The National Environmental Management Act (Act 107 of 1998) (NEMA), as amended, makes provision for the identification and assessment of activities that are potentially detrimental to the environment, and which require authorisation from the relevant authorities based on the findings of an environmental assessment. NEMA is a national act, which is enforced by the Department of Forestry, Fisheries and the Environment (DFFE). These powers are delegated in KwaZulu-Natal to the Department of Economic Development, Tourism and Environmental Affairs (KZNEDTEA).

On the 04 December 2014, the Minister of Water and Environmental Affairs promulgated regulations in terms of Chapter 5 of the NEMA, namely the EIA Regulations 2014. These were amended on 07 April 2017 (GN No. 326, No. 327 (Listing Notice 1), No. 325 (Listing Notice 2), No. 324 (Listing Notice 3) in Government Gazette No. 40772 of 07 April 2017). Listing Notice 1 and 3 are for a Basic Assessment and Listing Notice 2 for a full Environmental Impact Assessment.

According to the regulations of Section 24(5) of NEMA, authorisation is required for the following listed activities for the proposed development, i.e. Kopleegte Recharging Station (Table 1):

Table 1: NEMA Listed Activities

No.	Listed Activities as per Listing Notice 1, 2 and 3 (GN R327, R324, R325)	Applicability to the development
Government Notice R327 (Listing Notice 1)		
1.	The development of facilities or infrastructure for the generation of electricity from a renewable resource where- (i) the electricity output is more than 10 megawatts but less than 20 megawatts; or (ii) the output is 10 megawatts or less but the total extent of the facility covers an area in excess of 1 hectare; excluding where such development of facilities or infrastructure is for photovoltaic installations and occurs a) within an urban area; or b) On existing infrastructure	The proposed solar PV facility will have an installed capacity of approximately 33.59 MWp and will occupy approximately 24.86 ha. The site is located outside an urban area. The applicability of this activity will be confirmed during the EIA process.
11.	The development of facilities or infrastructure for the transmission and distribution of electricity; (i) outside urban areas or industrial complexes with a capacity of more than 33 but less than 275 kilovolts; or (ii) inside urban areas or industrial complexes with a capacity of 275 kilovolts or more.	The proposed solar PV facility and electric vehicle and truck charging facility will be connected via an approximately 33 kV distribution line. The final electrical specifications will be confirmed during the EIA process.
12	The development of infrastructure or structures with a physical footprint of 100 m² or more where such development occurs— (a) within a watercourse; (b) in front of a development setback; or (c) if no development setback exists, within 32 m of a watercourse, measured from the edge of a watercourse, excluding activities specifically excluded in the Listing Notice.	Infrastructure and structures exceeding 100 m² are proposed. Aquatic features have been identified within and/or in proximity to the project area. The applicability of this activity will be confirmed against the revised 29.06 ha development footprint, delineated aquatic features and findings of the Freshwater Assessment.

No.	Listed Activities as per Listing Notice 1, 2 and 3 (GN R327, R324, R325)	Applicability to the development
19	The infilling or depositing of any material of more than 10 m ³ into, or the dredging, excavation, removal or moving of soil, sand, shells, shell grit, pebbles or rock of more than 10 m ³ from a watercourse, excluding activities specifically excluded in the Listing Notice.	Construction of the proposed development and associated infrastructure may require excavation, infilling or movement of material within or in proximity to aquatic features. The applicability of this activity will be confirmed through the Freshwater Assessment and final engineering layout.
24.	The development of a road; (i) for which an environmental authorisation was obtained for the route determination in terms of activity 5 in Government Notice 387 of 2006 or activity 18 in Government Notice 545 of 2010; or (ii) with a reserve wider than 13,5 meters, or where no reserve exists where the road is wider than 8 metres; but excluding a road; a) which is identified and included in activity 27 in Listing Notice 2 of 2014; or b) where the entire road falls within an urban area; or c) which is 1 kilometre or shorter	Access and internal roads of approximately 9 m in width are proposed. The final road and access configuration remains subject to detailed design and the requirements of the relevant Roads/Transport authority.

No.	Listed Activities as per Listing Notice 1, 2 and 3 (GN R327, R324, R325)	Applicability to the development
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: (i) will occur inside an urban area, where the total land to be developed is bigger than 5 hectares; or (ii) will occur outside an urban area, where the total land to be developed is bigger than 1 hectare.	The proposed development is located outside an urban area, on land currently and/or historically used for agricultural purposes. The revised development footprint of approximately 29.06 ha exceeds the applicable 1 ha threshold.
Government Notice R325 (Listing Notice 2)		
1.	The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 MW or more, excluding where such development of facilities or infrastructure is for photovoltaic installations and occurs; a) an urban area; or b) On existing infrastructure	The proposed solar PV facility will have an installed capacity of approximately 33.59 MWp and will occupy approximately 24.86 ha. The site is located outside an urban area and the stated exclusions do not apply.
15.	The clearance of an area of 20 hectares or more of indigenous vegetation, excluding where such clearance of indigenous vegetation is required for; (i) the undertaking of a linear activity; or (ii) maintenance purposes undertaken in accordance with a maintenance management plan.	The revised total development footprint is approximately 29.06 ha. Portions of the footprint comprise indigenous vegetation, while other portions comprise cultivated, previously cultivated, disturbed and/or fallow areas. The actual extent of indigenous vegetation to be cleared will be confirmed through the updated Biodiversity Assessment.
Government Notice R324 (Listing Notice 3)		
3	The development of masts or towers of any material or type used for telecommunication broadcasting or radio transmission purposes where the applicable physical and geographical thresholds specified in Listing Notice 3 are exceeded.	The applicability of this activity will be confirmed against the final infrastructure requirements and the applicable KwaZulu-Natal geographical triggers during the EIA process.

No.	Listed Activities as per Listing Notice 1, 2 and 3 (GN R327, R324, R325)	Applicability to the development
4.	The development of a road wider than 4 metres with a reserve less than 13.5 metres. KwaZulu-Natal: (xii) Outside urban areas: (aa) Areas within 10 kilometres from national parks or World Heritage Sites or 5 kilometres from any terrestrial protected area identified in terms of NEMPAA or from the core area of a biosphere reserve.	Internal roads wider than 4 m with reserves of less than 13.5 m are proposed for access, operational and maintenance purposes. The proposed development is located outside an urban area. However, based on the environmental spatial information assessed to date, the development footprint does not appear to fall within the applicable geographical area specified for this activity. The applicability of Activity 4 will be confirmed during the EIA phase against the final road layout and applicable KwaZulu-Natal geographical triggers.
10	The development and related operation of facilities or infrastructure for the storage or storage and handling of a dangerous good where the applicable capacity and geographical thresholds specified in Listing Notice 3 are exceeded.	The proposed development includes a battery energy storage system (BESS) and associated infrastructure. The applicability of this activity will be confirmed against the final BESS design, storage specifications and applicable KwaZulu-Natal geographical triggers.
12.	The clearance of an area of 300 square metres or more of indigenous vegetation, except where such clearance of indigenous vegetation is required for maintenance purposes undertaken in accordance with a maintenance management plan. KwaZulu-Natal: (iv) Areas within a watercourse or wetland; or within 100 metres from the edge of a watercourse or wetland.	More than 300 m² of indigenous vegetation may be cleared as part of the proposed development. Wetlands, drainage features and watercourses have been identified within and/or in proximity to the broader project area. Portions of the proposed development may therefore occur within 100 m of the edge of a watercourse or wetland. The applicability of this activity will be confirmed against the revised approximately 29.06 ha development footprint, the final extent of indigenous vegetation clearance, the delineated freshwater features and the findings of the updated

No.	Listed Activities as per Listing Notice 1, 2 and 3 (GN R327, R324, R325)	Applicability to the development
		Freshwater and Biodiversity Assessments during the EIA phase.
14	The development of dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 10 m ² , or infrastructure or structures with a physical footprint of 10 m ² or more, where such development occurs within a watercourse, in front of a development setback or, where no setback exists, within 32 m of a watercourse, and where the development occurs within a geographical area identified in Listing Notice 3.	The proposed development includes infrastructure exceeding 10 m ² , and aquatic features occur within and/or in proximity to the project area. Applicability will be confirmed against the revised 29.06 ha development footprint, the delineated aquatic features, the Freshwater Assessment and the applicable KwaZulu-Natal geographical triggers.

An application form will be submitted to the KwaZulu-Natal Department of Economic Development and Environmental Affairs (KZNEDTEA). On acknowledgement from KZNEDTEA, the Scoping phase process will be initiated and undertaken to further identify potential issues.

3.3 NATIONAL HERITAGE RESOURCES ACT

The protection and management of South Africa's heritage resources are controlled by the National Heritage Resources Act (Act No. 25 of 1999).

Section 38(8) also makes provision for the assessment of heritage impacts as part of an EIA process and indicates that if such an assessment is found to be adequate, a separate HIA is not required.

Furthermore, in terms of Section 34(1), no person may alter or demolish any structure or part of a structure, which is older than 60 years without a permit issued by the SAHRA, or the responsible resources authority. Nor may anyone destroy, damage, alter, exhume or remove from its original position, or otherwise disturb, any grave or burial ground older than 60 years, which is situated outside a formal cemetery administered by a local authority, without a permit issued by the SAHRA, or a provincial heritage authority, in terms of Section 36 (3). In terms of Section 35 (4), no person may destroy, damage, excavate, alter or remove from its original position, or collect, any archaeological material or object, without a permit issued by the SAHRA, or the responsible resources authority.

Section 38(1) of the NHRA of 1999 requires the responsible heritage resources authority to notify the person who intends to undertake a development that fulfils the following criteria to submit an impact assessment report if there is reason to believe that heritage resources will be affected by such event:

- the construction of a road, wall, power line, pipeline, canal or other similar form of linear development or barrier exceeding 300m in length;
- the construction of a bridge or similar structure exceeding 50m in length;
- any development or other activity that will change the character of a site
 - exceeding 5000m² in extent; or
 - involving three or more existing erven or subdivisions thereof; or
 - involving three or more erven or divisions thereof which have been consolidated within the past five years; or
 - the costs of which will exceed a sum set in terms of regulations by SAHRA or a provincial heritage resources authority;
- the rezoning of a site exceeding 10 000m² in extent; or
- any other category of development provided for in regulations by SAHRA or a provincial heritage resources authority.

3.4 EIA GUIDELINE AND INFORMATION DOCUMENT SERIES

The following are the latest guidelines and information Documents that have been consulted:

- Department of Environmental Affairs and Development Planning's (DEA&DP) *Environmental Impact Assessment Guideline and Information Document Series (Dated: March 2013)*:
 - *Guideline on Transitional Arrangements*
 - *Generic Terms of Reference for EAPs and Project Schedules*
 - *Guideline on Alternatives*
 - *Guideline on Public Participation*
 - *Guideline on Exemption Applications*
 - *Guideline on Appeals*
 - *Guideline on Need and Desirability*
- Department of Environmental Affairs and Tourism (DEAT) *Integrated Environmental Management Information Series*

3.5 NATIONAL WATER ACT

Besides the provisions of NEMA applicable to the EIA process, the proposed development may also require authorisation in terms of the National Water Act, 1998 (Act No. 36 of 1998) (NWA). The Department of Water and Sanitation (DWS), as the authority responsible for administering the NWA, will therefore be consulted as a relevant authority during the environmental assessment process.

Based on the proposed development and the freshwater features identified within and surrounding the project area, the following water uses contemplated in Section 21 of the NWA may potentially be applicable:

- Section 21(a): Taking water from a water resource;
- Section 21(b): Storing water;
- Section 21(c): Impeding or diverting the flow of water in a watercourse; and
- Section 21(i): Altering the bed, banks, course or characteristics of a watercourse.

The applicability of these water uses will be confirmed during the EIA phase based on the final development layout, engineering requirements and the findings and recommendations of the Freshwater Assessment. Depending on the nature, extent and risk associated with the applicable water uses, authorisation may be required through a General Authorisation and associated registration process and/or a Water Use Licence Application (WULA).

Where required, the applicable water-use authorisation process will be undertaken in accordance with the requirements of the NWA and in consultation with DWS and will be coordinated with the NEMA environmental authorisation process as far as practicable.

3.6 NATIONAL ENVIRONMENTAL MANAGEMENT: BIODIVERSITY ACT

The National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA) is part of a suite of legislation falling under NEMA, which includes the Protected Areas Act, the Air Quality Act, the Integrated Coastal Management Act and the Waste Act. Chapter 4 of NEMBA deals with threatened and protected ecosystems and species and related threatened processes and restricted activities. The need to protect listed ecosystems is addressed (*Section 54*).

3.7 THE SPATIAL PLANNING AND LAND USE MANAGEMENT ACT (ACT 16 OF 2013)

The Spatial Planning and Land Use Management Act, 2013 (Act No. 16 of 2013) (SPLUMA) provides the national framework for spatial planning and land-use management in South Africa.

The proposed development is located within the jurisdiction of the Okhahlamba Local Municipality. The property is currently zoned for agricultural purposes and the proposed development is not currently provided for under the existing land-use rights. The necessary land-use planning application(s) will therefore be undertaken in terms of the applicable municipal planning legislation, land-use scheme and associated requirements of the Okhahlamba Local Municipality.

The environmental authorisation process does not replace any land-use planning approval that may be required for the proposed development.

3.8 THE CONSERVATION OF AGRICULTURAL RESOURCES ACT (ACT 43 OF 1983)

According to the Department of Environmental Affairs (2015). EIA Guideline for Renewable Energy Projects. Department of Environmental Affairs, Pretoria, South Africa, the mandate of the Conservation and Agricultural Resources Act 1983 (Act No 43 of 1983) (CARA) is to conserve “natural agricultural resources” (the soil, the water sources and the vegetation, excluding weeds and invader plants) through production potential of land, by the combating and prevention of erosion and weakening or destruction of the water sources, and by the protection of the vegetation and the combating of weeds and invader plants.

Section 6 of the Act concerns the control measures which the following may be applicable to IPPs (subsections (2) (f), (g) and (o)):

- the regulating of the flow pattern of run-off water;
- the utilisation and protection of the vegetation; and
- the construction, maintenance, alteration or removal of soil conservation works or other structures on land.

4 ALTERNATIVES

Alternatives to the proposed development are limited and have been considered below:

4.1 SITE ALTERNATIVES

The proposed site on Portion 11 of the Farm Kop Leegte No. 1154 GS is the only site alternative being considered as part of this application. The location is strategically situated adjacent to the N3 national freight corridor and is therefore considered suitable for the proposed solar PV and electric truck charging facility.

No alternative properties are proposed for assessment. Alternatives within the site, particularly in relation to the development layout, have however been considered in response to environmental sensitivities, specialist findings and comments received during the previous Public Participation Process.

4.2 ACTIVITY ALTERNATIVES

No feasible activity alternatives are proposed for assessment. The primary purpose of the development is to establish a solar PV renewable energy generation facility specifically associated with an electric vehicle and truck charging facility along the N3 corridor.

Alternative renewable energy technologies, such as wind energy and concentrated solar power, are not considered appropriate for achieving the specific purpose and design requirements of the proposed development. The proposed solar PV technology, together with battery energy storage, provides the preferred means of generating and storing renewable electricity for the proposed charging facility.

4.3 DESIGN/TECHNOLOGY ALTERNATIVES

Three different solar photovoltaic (PV) technology alternatives are options for the PV:

- Poly-Crystalline photovoltaic
- Concentrated photovoltaic (CPV)
- Thin film PV

These technologies each have their own advantages and disadvantages, from cost and space efficiency to visual impacts. The various options will be considered and assessed in more detail in the Environmental Impact Report.

4.4 LAYOUT ALTERNATIVE

The broader area originally considered and assessed for the proposed development is approximately 65 ha. During the planning and assessment of the proposed development, different layout configurations have been considered to accommodate the solar PV facility, electric truck charging facility and associated infrastructure, while taking identified environmental and technical constraints into account.

Layout Alternative 1 – Previous Layout

The previous layout provided for a development footprint of approximately 42.7 ha and extended across both sides of the N3. The layout provided a larger area for the solar PV component and associated infrastructure.

This layout would, however, result in a larger overall development footprint and require infrastructure associated with transferring electricity generated by the solar PV component across the N3 to the truck charging facility. The layout also extended into areas subsequently identified as less favourable from an environmental and technical perspective.

Layout Alternative 2 – Revised Layout (Preferred)

The revised layout has been consolidated on one side of the N3 and has a substantially reduced total development footprint of approximately 29.06 ha, comprising approximately 24.86 ha of solar PV arrays and approximately 4.2 ha for the truck charging facility and associated infrastructure.

The revised layout avoids the need to transfer electricity across the N3 and reduces the overall development footprint by approximately 13.64 ha compared with the previous layout. The reduced footprint also provides greater opportunity to avoid or minimise identified environmental sensitivities and areas unsuitable for development.

The revised layout accommodates a solar PV facility with an installed capacity of approximately 33.59 MWp, together with the battery energy storage system (BESS), electric truck charging facility and associated infrastructure required for the development.

The existing memorial located within the development area will be retained in situ and will not be disturbed.

The exact position of the truck charging facility within the revised development footprint may still be adjusted, subject to the final requirements of the relevant Roads/Transport authority. Should its position be adjusted, the solar PV arrays will be rearranged accordingly, without increasing the overall 29.06 ha development footprint.

Layout Alternative 2 is currently regarded as the preferred layout alternative, as it provides a more compact development footprint, avoids the need for electricity transfer infrastructure across the N3 and provides greater opportunity to avoid or minimise environmental impacts. The revised layout will be further assessed during the EIA phase and refined, where necessary, based on the findings of the specialist assessments and input from the relevant authorities.

4.5 NO-GO ALTERNATIVES

The No-Go Alternative entails not proceeding with the proposed solar PV renewable energy generation plant and electric truck charging facility.

Implementation of the No-Go Alternative would avoid the direct environmental impacts associated with construction and operation of the proposed development, including vegetation clearance, disturbance of habitat, visual impacts and the loss or alteration of agricultural land within the development footprint. However, the benefits associated with the proposed development would also not be realised. These include the provision of renewable-energy-supported electric vehicle and truck charging infrastructure along the N3 corridor, additional renewable electricity generation and battery energy storage capacity, as well as potential employment and socio-economic opportunities during the construction and operational phases.

Under the No-Go Alternative, the property would remain available for its existing agricultural and grazing activities. This would not necessarily mean that the site would remain entirely undisturbed, as existing and future lawful agricultural activities could continue.

The No-Go Alternative will be retained and assessed as part of the EIA process and compared with the proposed development in terms of its environmental, social and economic advantages and disadvantages. The preferred alternative will ultimately be informed by the specialist assessments, Public Participation Process and findings of the EIA.

5 SITE DESCRIPTION

5.1 LOCATION

The proposed development is located on Portion 11 of the Farm Kop Leegte No. 1154 GS, adjacent to the N3 Highway at the Winterton/Colenso Interchange (207), approximately 15 km east of Winterton, within the uThukela District Municipality, KwaZulu-Natal.

The approximate central coordinates of the site are 28°46'52.17"S; 29°40'26.68"E.

The broader area considered and assessed for the proposed development is approximately 65 ha, within which the revised development footprint of approximately 29.06 ha is situated. The revised footprint comprises approximately 24.86 ha of solar PV arrays and approximately 4.2 ha for the electric truck charging facility and associated infrastructure.

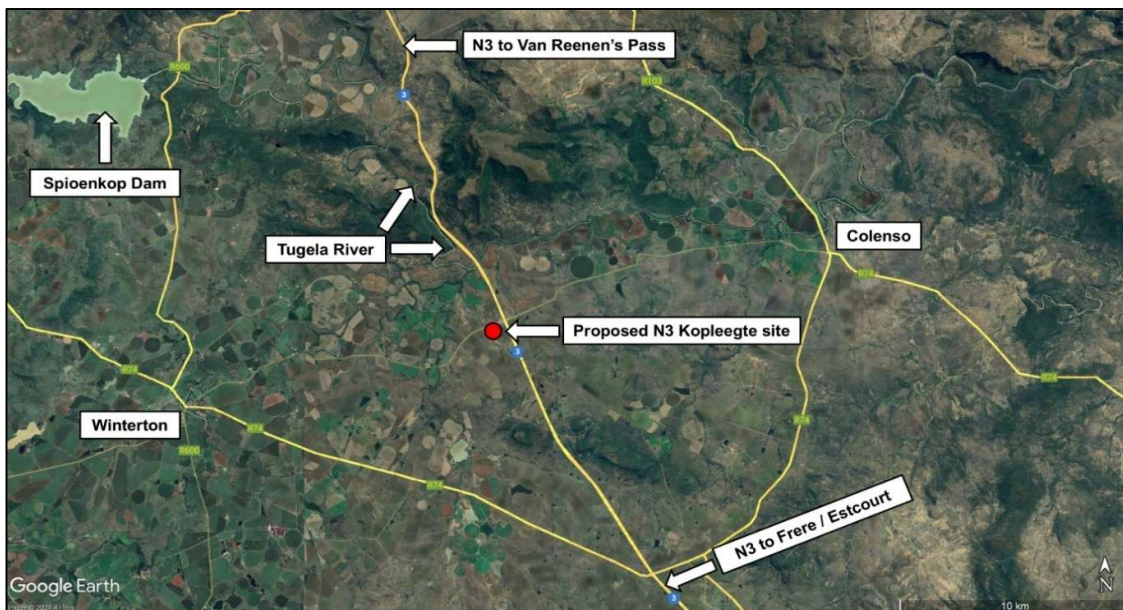


Figure 6: Proposed development site - Locality Map



Figure 7: Proposed development site – Development footprint

5.2 DFFE SCREENING TOOL REPORT

5.2.1 Proposed Development area - Environmental Sensitivity

The Department of Forestry, Fisheries and the Environment (DFFE) National Web-Based Environmental Screening Tool is a geographically based, web-enabled application that enables a proponent/applicant intending to submit an application for Environmental Authorisation in terms of the Environmental Impact Assessment (EIA) Regulations, 2014, as amended, to screen the proposed development site for environmental sensitivities.

Table 2 provides a summary of the environmental sensitivities identified by the DFFE Screening Tool for the proposed development area. The environmental sensitivities identified by the Screening Tool are indicative and must be verified on site by a suitably qualified Environmental Assessment Practitioner (EAP) and/or relevant specialist before the need for and scope of specialist assessments can be confirmed. Refer to Section 5.2.2 for the Site Sensitivity Verification.

Each environmental theme is associated with specific datasets that provide information relating to environmental sensitivities. The DFFE Screening Tool uses these datasets to assign a sensitivity rating to each theme based on the nature and location of the proposed development. The DFFE Screening Tool Report for the proposed development is attached as **Appendix 5**.

Table 2: Proposed Development area - Environmental Sensitivity (Screening Tool report results)

Theme	Very High	High	Medium	Low
Agricultural		X		
Animal Species		X		
Aquatic Biodiversity				X
Archaeological and Cultural Heritage	X			
Avian	X			
Civil Aviation (Solar PV)				X
Defence				X
Landscape (Solar)				X
Palaeontology	X			
Plant Species			X	
RFI ¹				X
Terrestrial Biodiversity				X

Only the highest environmental sensitivity per environmental theme is indicated.

¹ Radio Frequency Interference

5.2.2 Site Sensitivity Verification

The A Site Sensitivity Verification (SSV) was undertaken in accordance with the applicable *Protocols for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes*, published in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA).

The Protocols require the Environmental Assessment Practitioner (EAP) to verify the current land use and environmental sensitivities of the proposed development area, taking into consideration the sensitivities identified by the DFFE Screening Tool. The purpose of the verification is to determine whether the sensitivities identified by the Screening Tool are representative of actual site conditions and to confirm the need for relevant specialist assessments.

The Site Sensitivity Verification is undertaken through a combination of desktop assessment, available spatial information and site investigations by the EAP and/or relevant specialists. The identified environmental themes and associated sensitivity ratings are considered in relation to actual site conditions and the nature and location of the proposed development.

The objectives of the Site Sensitivity Verification are to:

- Verify the current land use and environmental theme sensitivities identified by the DFFE Screening Tool;
- Confirm or motivate the need for specialist assessments identified by the DFFE Screening Tool;
- Where the sensitivity rating identified by the Screening Tool is not supported by site conditions, provide an appropriate motivation for the revised sensitivity rating; and
- Where a specialist assessment identified by the Screening Tool is considered unnecessary, provide motivation as to why the assessment is not applicable to the proposed development.

The following table provides an overview of the environmental themes identified by the DFFE Screening Tool, together with the sensitivity ratings verified and/or proposed by the EAP and relevant specialists. The motivations provided indicate whether further specialist assessment is required as part of the EIA process.

Table 3: Environmental themes sensitivity (DFFE & Proposed) and motivation for specialist assessment

Theme	DFFE Sensitivity	Agree / Disagree	Proposed Sensitivity	Motivation & Need for Specialist Assessment
Agriculture	High	Disagree ↓	Medium	The DFFE Screening Tool identifies a High sensitivity due to the moderate to high land capability of the area. The site has historically been utilised predominantly for agricultural purposes, including grazing, with portions comprising previously cultivated and/or fallow land. Based on the site assessment and soil conditions, the agricultural sensitivity is proposed to be Medium. An initial Agricultural Compliance Statement has been undertaken and its preliminary findings are included in this report. The assessment will be updated, where necessary, to consider the revised development footprint and finalised during the EIA phase.
Animal Species	High	Agree	High	The High sensitivity is associated with the potential occurrence of sensitive animal species identified for the area by the DFFE Screening Tool. An initial

				Terrestrial Biodiversity Assessment has been undertaken and its preliminary findings are included in this report. The assessment will be updated, where necessary, to consider the revised development footprint and finalised during the EIA phase.
Aquatic Biodiversity	Low	Agree	Low	The DFFE Screening Tool identifies the Aquatic Biodiversity Theme as Low sensitivity. Notwithstanding the Low Screening Tool sensitivity, freshwater features, including wetlands, drainage features and farm dams, occur within the broader project area and require consideration in the environmental assessment. An initial Freshwater Impact Assessment has been undertaken and its preliminary findings are included in this report. The assessment will be reviewed against the revised development layout and finalised during the EIA phase.
Archaeology and Cultural Heritage	Very High	Agree	Very High	The DFFE Screening Tool identifies a Very High sensitivity for Archaeological and Cultural Heritage. An initial Heritage/Archaeological Impact Assessment has been undertaken and its preliminary findings are included in this report. Heritage resources identified within the broader study area, including the existing memorial, will be taken into account in the assessment of the revised layout. The memorial will be retained in situ and will not be disturbed. The assessment will be finalised during the EIA phase and the applicable heritage authority process will be followed.
Avian	Very High	Agree	Very High	The DFFE Screening Tool identifies the Avian Theme as Very High sensitivity, including due to the site's location within 50 km of identified colonies, while a High sensitivity feature is associated with the site's location within 20 km of known Cape Vulture restaurant sites. The broader landscape also supports a number of priority and Species of Conservation Concern relevant to the avifaunal assessment.
Civil Aviation (Solar PV)	Low	Agree	Low	No major or other relevant civil aviation aerodromes have been identified within the immediate vicinity of the proposed development. The proposed development is therefore not anticipated to result in significant impacts on civil aviation.
Defence	Low	Agree	Low	Due to the nature and location of the proposed development, significant impacts on defence-related activities are not anticipated.
Landscape (Solar)	Low	Disagree ↑	Medium	The DFFE Screening Tool identifies a Low landscape sensitivity. However, based on the site assessment and consideration of the site's landscape context, visual exposure and cultural and historical features, a Medium sensitivity is proposed. An initial Visual Impact Assessment has been undertaken and preliminary findings are included in this report. The assessment will consider the revised development layout and fixed

				PV panel configuration and will be finalised during the EIA phase.
Palaeontology	Very High	Disagree ↓	High	The DFFE Screening Tool identifies a Very High sensitivity due to the potential palaeontological sensitivity of the geological unit underlying the study area. Based on the nature and anticipated depth of disturbance associated with the proposed infrastructure, a High sensitivity is proposed. An initial Palaeontological Impact Assessment has been undertaken and its preliminary findings are included in this report. A Fossil Chance Find Protocol will be incorporated into the environmental management requirements. Should excavations extend deeper than approximately 2 m, the requirement for palaeontological monitoring and/or a field assessment will be implemented in accordance with the specialist recommendations.
Plant Species	Medium	Agree	Medium	The study area contains KwaZulu-Natal Highland Thornveld, with indigenous vegetation occurring within the natural portions of the site. The ecosystem is classified as Least Concern; however, potentially sensitive plant species may occur within the study area. An initial Terrestrial Biodiversity Assessment has been undertaken and its preliminary findings are included in this report. The assessment will be updated, where necessary, for the revised development footprint and finalised during the EIA phase.
RFI	Low	Agree	Low	The site is not located within a significant range of a high-powered transmitter facility and the DFFE Screening Tool identifies a Low sensitivity. A specialist Radio Frequency Interference Assessment is therefore not considered necessary.
Terrestrial Biodiversity	Low	Agree	Low	The DFFE Screening Tool identifies a Low Terrestrial Biodiversity sensitivity. The site is not identified as falling within a terrestrial Critical Biodiversity Area (CBA) or Ecological Support Area (ESA), although aquatic biodiversity features and other environmental sensitivities occur within the broader area. An initial Terrestrial Biodiversity Assessment has nevertheless been undertaken and its preliminary findings are included in this report. The assessment will be updated, where necessary, to consider the revised development footprint and finalised during the EIA phase.

5.3 CLIMATE

According to South African National Biodiversity Institute (SANBI), the climatic conditions associated with the proposed site location are characteristic of a summer-rainfall region, with a mean annual precipitation (MAP) of 750 mm (much of which falls in the form of thunderstorms). Mist is uncommon (14 days of mist per year for both Ladysmith and Estcourt). Mean annual temperature (MAT) 15.6–19.0°C (overall average 16.5°C). Summers are warm to hot, winters are cool. There are 15 frost days per year.

Simulated historical climate & weather data was obtained from meteoblue.com for the town closest to the proposed site – i.e. Frere. The Meteoblue climate diagrams indicated below are based on 30 years of hourly weather model simulations. They give good indications of typical climate patterns and expected conditions (temperature, precipitation, sunshine and wind). The simulated weather data have a spatial resolution of approximately 30 km and may not reproduce all local weather effects, such as thunderstorms, local winds, etc, and local differences as they occur in urban, mountainous, or coastal areas.

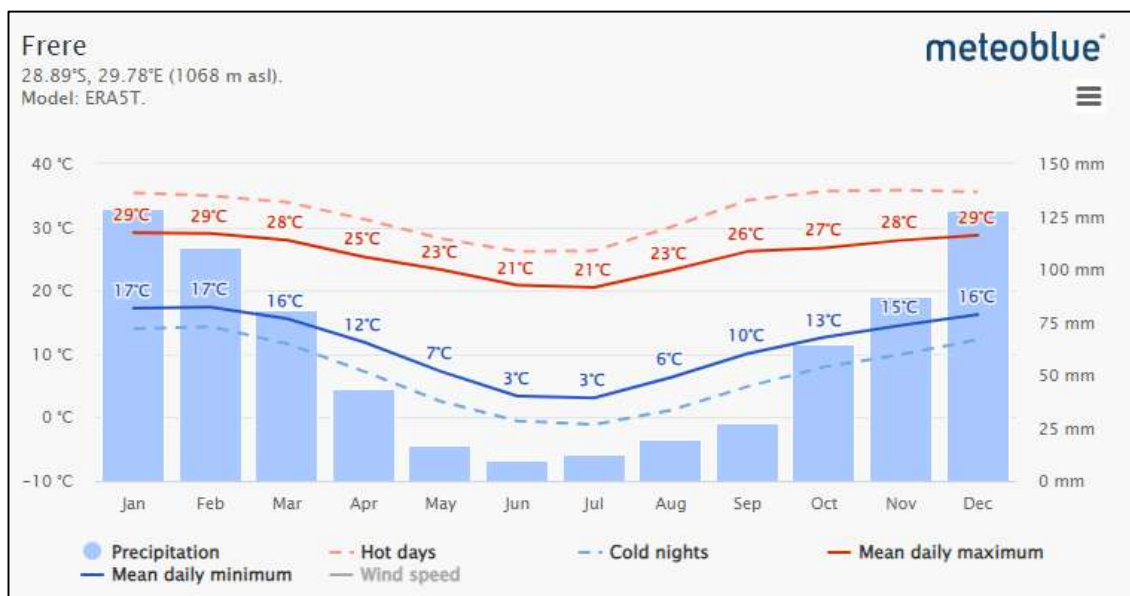


Figure 8: Meteoblue² - Simulated historical climate & weather data for the Frere area

The general area is considered well suited for solar PV development due to its relatively high levels of solar irradiation. According to the Global Solar Atlas, the Global Horizontal Irradiation (GHI) for the area is approximately 1,896.9 kWh/m²/year (Figure 5).

Global Horizontal Irradiation (GHI) represents the total amount of solar radiation received by a horizontal surface and is commonly used as an indicator of the solar energy resource available at a particular location. The relatively high GHI recorded for the project area supports the suitability of the site for the proposed solar PV facility.

Refer to Figure 5.

² https://www.meteoblue.com/en/weather/historyclimate/climatemodelled/frere_south-africa_1003654

5.4 LANDSCAPE / VISUAL

An initial Visual Impact Assessment (VIA) has been undertaken, with the preliminary findings included in this Pre-Application Scoping Report. The VIA will be updated, where necessary, to assess the revised development layout and will be finalised during the EIA phase.

The purpose of the VIA is to identify and assess the visual characteristics and scenic qualities of the surrounding landscape and to determine the extent to which the proposed development may alter these characteristics. The assessment also considers sensitive visual receptors, landscape character, visibility, Visual Absorption Capacity (VAC) and existing visual disturbances within the surrounding environment.

The DFFE Screening Tool identifies the Landscape (Solar) theme as Low sensitivity. The general landscape comprises predominantly agricultural land characterised by gently undulating to relatively flat terrain, together with existing infrastructure and other anthropogenic features. Existing visual elements within the broader landscape include the N3 Highway, agricultural activities and infrastructure, residential and farm structures, electrical transmission infrastructure and telecommunications infrastructure.

The eastern portion of the broader development area contains existing infrastructure, including telecommunications towers and Eskom electricity infrastructure. The western portion is characterised predominantly by grassland and agricultural land, with grazing occurring within the surrounding area.

A particularly important, sensitive receptor within the development area is the Netcare Helicopter Memorial, which commemorates the victims of the helicopter accident that occurred near Winterton in 2021. The memorial comprises a landscaped commemorative space incorporating concrete and granite elements, pathways, earthworks, vegetation, commemorative trees, seating and inscriptions.



Figure 9: The Netcare Helicopter Crash Site in Good Condition, Showing Evidence of Good Maintenance

The memorial represents an important cultural, historical and visual feature within the landscape and has therefore been considered in the planning of the revised development layout. The memorial will be retained in situ and will not be disturbed by the proposed development.

The preliminary VIA identified sensitive receptors within the broader surrounding landscape and considered their potential exposure to the proposed development. These include residential and farm receptors, accommodation establishments, infrastructure, the memorial and users of the surrounding road network, including the N3 Highway.

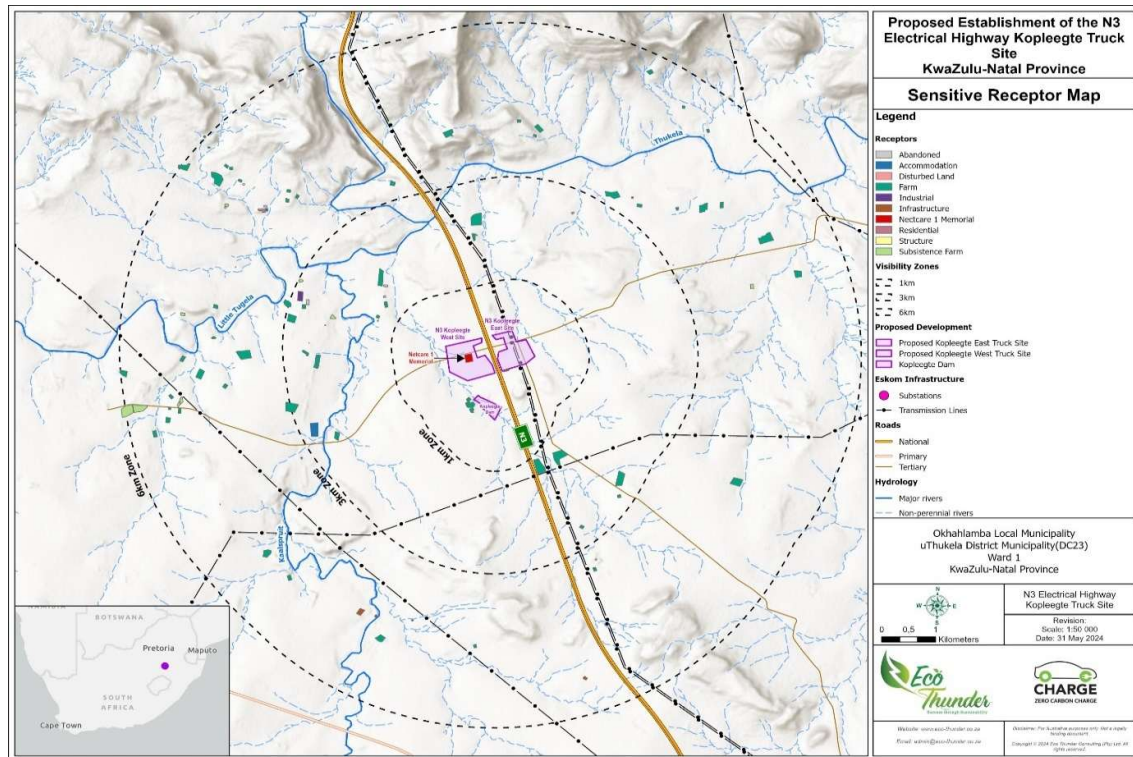


Figure 10: Sensitive receptor map

Although the DFFE Screening Tool identifies a Low Landscape (Solar) sensitivity, the site verification and preliminary visual assessment indicate that a **Medium landscape/visual sensitivity** is more appropriate. This is based on the following considerations:

- **Visual Absorption Capacity (VAC):** The VAC of the landscape is considered moderate. The gently undulating terrain, together with existing agricultural development, settlements, buildings, roads, transmission infrastructure and other anthropogenic features, provides some capacity to absorb visual change. However, portions of the proposed development may remain visible from surrounding receptors and the N3.
- **Cultural and Historical Significance:** The Netcare Helicopter Memorial constitutes a distinctive and sensitive cultural and visual receptor. Its setting and visual integrity require consideration in the detailed layout and assessment of the proposed development.
- **Landscape Character and Scenic Value:** The broader landscape is predominantly rural and agricultural in character, although it has already been modified by agricultural activities, the N3 and other infrastructure. The introduction of solar PV infrastructure and the truck charging facility will result in an additional built element within this landscape.
- **Solar PV Configuration and Glare:** The proposed solar PV facility will utilise fixed PV panels. Potential glare and glint effects, particularly in relation to users of the adjacent N3 Highway and surrounding sensitive receptors, have been considered as part of the visual assessment. The

assessment indicates that unacceptable glare impacts on the N3 are not anticipated, subject to the final layout and implementation of the applicable mitigation measures.

Considering the site's VAC, landscape context, existing infrastructure and the presence of the Netcare Helicopter Memorial, an overall Medium landscape/visual sensitivity is considered appropriate.

The revised development footprint of approximately 29.06 ha will be assessed in the final VIA. Particular attention will be given to the visibility of the solar PV arrays and truck charging facility from sensitive receptors, the N3 Highway and the memorial. Appropriate mitigation measures will be incorporated into the final layout and EMPr to minimise visual impacts and protect the setting and integrity of the memorial.

5.5 BIODIVERSITY

An initial Botanical and Terrestrial Biodiversity Assessment has been undertaken for the proposed development. The assessment will be reviewed and, where necessary, updated during the EIA phase to take account of the revised development footprint and layout.

The purpose of the Botanical and Terrestrial Biodiversity Assessment is to identify and assess the vegetation, flora, fauna, habitat and terrestrial biodiversity associated with the proposed development area and to determine the potential impacts of the proposed development on these ecological resources.

The DFFE Screening Tool identified the following sensitivities relevant to the terrestrial biodiversity assessment:

- Plant Species – Medium Sensitivity
- Animal Species – High Sensitivity
- Terrestrial Biodiversity – Low Sensitivity

The specialist field assessment generally supported the Medium Plant Species sensitivity identified by the DFFE Screening Tool. No sensitive plant species or plant Species of Conservation Concern (SCC) were recorded within the areas proposed for the solar PV infrastructure, provided that the dolerite koppies are avoided. The only threatened plant species recorded during the field assessment was *Merwillia plumbea* (Blue Squill), which is classified as Near Threatened and was confined to a dolerite koppie. The specialist indicated that this species is unlikely to be negatively affected by the proposed development, provided that the relevant koppie is avoided.

Although the DFFE Screening Tool identified the Animal Species theme as High sensitivity, the specialist did not confirm this sensitivity during the field assessment. None of the sensitive animal species identified by the Screening Tool was encountered during the survey and the specialist considered the faunal sensitivity of the site to be Low. The specialist nevertheless noted that the occurrence of faunal Species of Conservation Concern cannot be entirely excluded. Avifaunal sensitivity and potential impacts on birds are addressed separately in the Avifaunal Impact Assessment. The DFFE Screening Tool identified the Terrestrial Biodiversity theme as Low sensitivity. The specialist confirmed that the Low Screening Tool rating was supported by field observations, although the overall terrestrial biodiversity sensitivity was subsequently described as Medium to Low based on the specialist's field assessment. No fatal flaws or other obstacles to the proposed development were identified in respect of flora, vegetation, fauna or terrestrial biodiversity.

5.5.1 Vegetation

The Kopleegte study area falls within the KwaZulu-Natal Highland Thornveld vegetation type. According to the specialist assessment, this is the only vegetation type occurring within the study area.

The vegetation comprises predominantly grassland with scattered woody vegetation. The condition and composition of the grassland vary across the study area, with portions having been influenced by grazing and other existing or historical disturbances. The specialist nevertheless found well-developed grassland within portions of the site, including areas with good vegetation cover.

KwaZulu-Natal Highland Thornveld is not classified as a threatened terrestrial ecosystem. The specialist confirmed that the ecosystem is classified as Least Concern and that there are no Critically Endangered

or Endangered terrestrial ecosystems identified for the site in terms of the applicable biodiversity information considered in the assessment.

The principal direct botanical impact associated with the proposed development would be the loss of areas of KwaZulu-Natal Highland Thornveld during construction. The specialist assessed this impact as Medium Negative prior to mitigation and Low Negative after mitigation. During operation, the impact on the remaining vegetation was assessed as Low Negative, with no further vegetation loss anticipated from operation of the facility.

Where sensitive geophytes or aloes are encountered within areas to be disturbed, these should be relocated in accordance with the specialist's recommendations and any applicable permit requirements. Dolerite koppies and other identified sensitive areas should be avoided where practicable.

The Botanical and Terrestrial Biodiversity Assessment will be reviewed against the revised approximately 29.06 ha development footprint during the EIA phase to confirm that the revised layout remains consistent with the specialist's findings and recommendations.

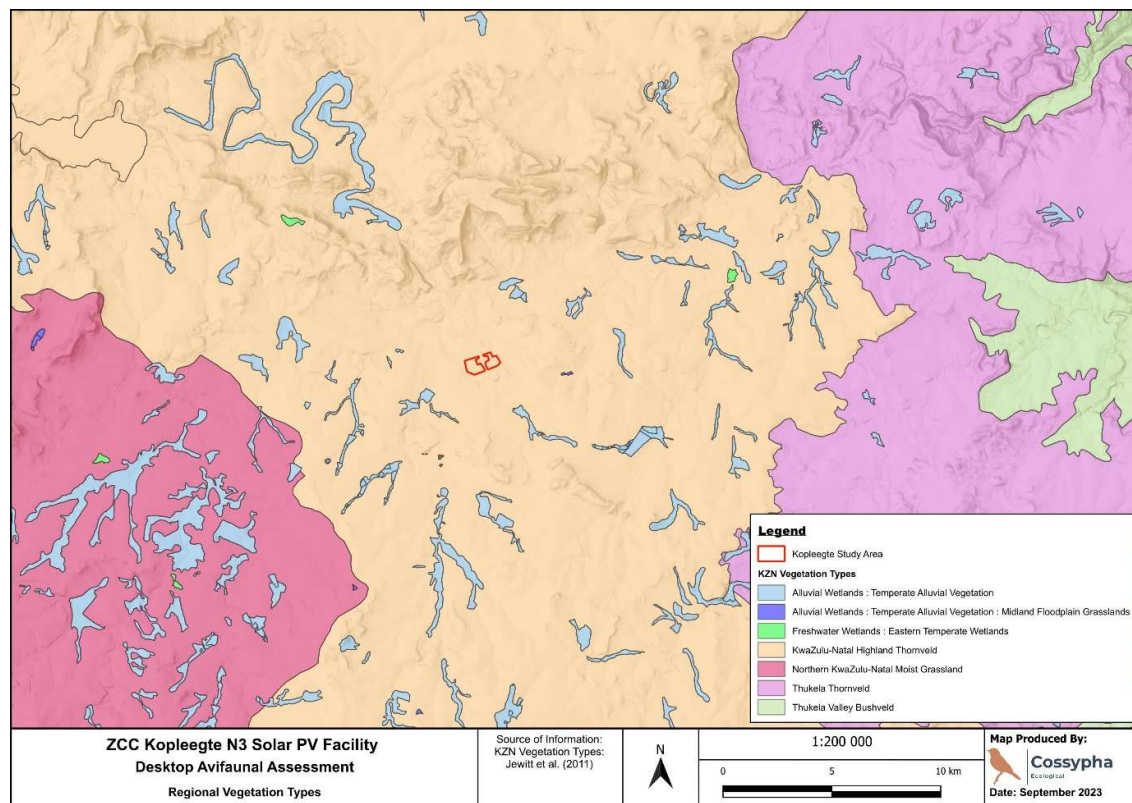


Figure 11: The study area in relation to regional vegetation types

5.5.2 KwaZulu-Natal Biodiversity Sector Plan

Ezemvelo KZN Wildlife (EKZNW) developed the KwaZulu-Natal Systematic Conservation Plan (KZN SCP; Jewitt, 2011), which was subsequently replaced by the KwaZulu-Natal Biodiversity Sector Plan (KZN BSP) to guide the long-term conservation of biodiversity within the province (Escott et al., 2016). The KZN BSP provides a spatial representation of areas of biodiversity importance and identifies areas required to support the persistence and conservation of biodiversity within KwaZulu-Natal.

The KZN BSP identifies Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) and provides a spatial planning tool to inform biodiversity conservation, protected area expansion, biodiversity stewardship and land-use planning and development decision-making.

According to the KZN BSP information considered in the Botanical and Terrestrial Biodiversity Assessment, the proposed development site does not fall within a CBA or ESA. An area classified as CBA: Irreplaceable, associated with natural thornveld vegetation, occurs approximately 500 m east of the site.

The proposed development is therefore not located directly within a mapped CBA or ESA. Nevertheless, the potential for indirect impacts on surrounding biodiversity features will be considered during the EIA phase, and the revised development layout will be assessed against the specialist's recommendations and applicable mitigation measures.

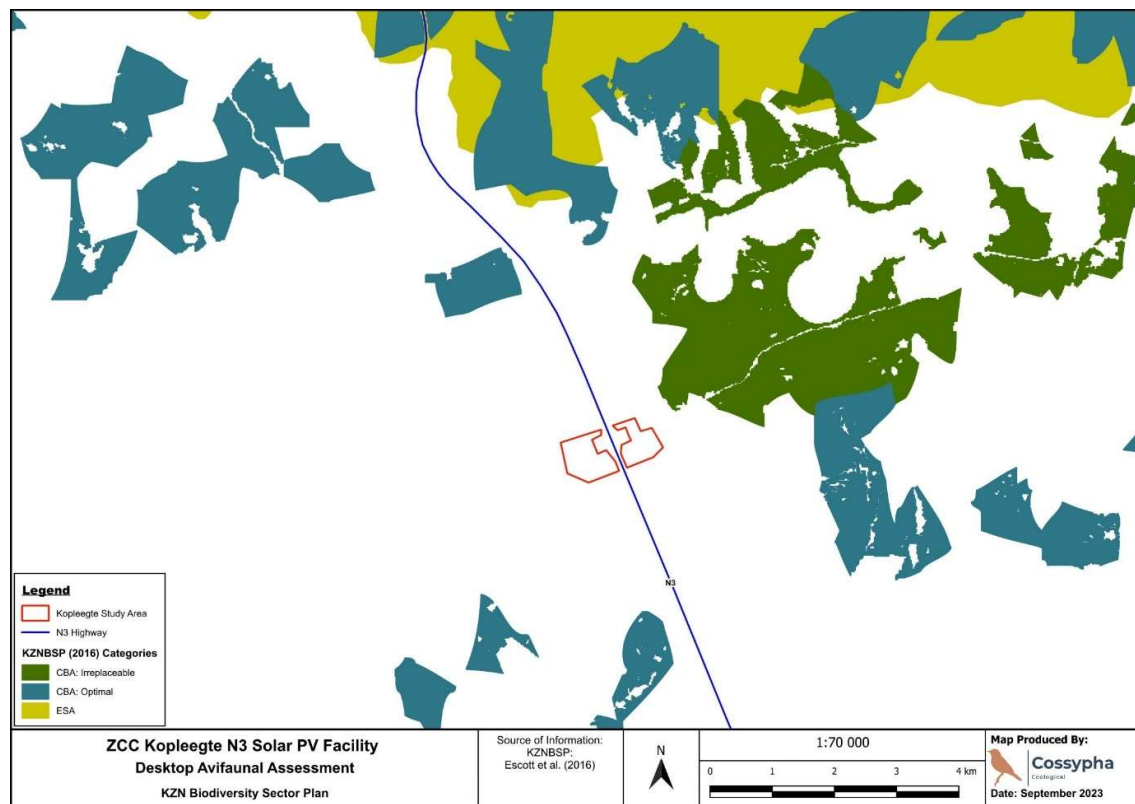


Figure 12: The study area in relation to the KZNBSP indicating that the site does not fall within a CBA

5.6 AVIFAUNA

A preliminary Avifaunal and Animal Assessment has been undertaken, with the preliminary findings included in this Pre-Application Scoping Report. The assessment will be reviewed and updated, where necessary, to consider the revised development footprint and will be finalised during the EIA phase.

The DFFE Screening Tool Report generated for the proposed development area classified the Avian theme as Very High sensitivity. This sensitivity is associated with the potential occurrence of several threatened and sensitive bird species within the broader area, including the Grey Crowned Crane, Southern Bald Ibis and Secretarybird. A known Cape Vulture feeding site (“vulture restaurant”) is also located within approximately 20 km of the study area.

5.6.1 Distribution of avifauna in the study area

The broader region supports relatively high avifaunal diversity, with approximately 372 bird species known to occur within the Quarter Degree Grid Cell (QDGC) within which the study area is located.

The Southern African Bird Atlas Project 2 (SABAP2) provides more spatially focused distribution information at a pentad scale. According to the preliminary specialist assessment, approximately 267 species have been recorded within the pentad containing the study area (2845_2940) and the adjacent pentad (2845_2935) combined.

Priority species in terms of their potential sensitivity to solar PV development include Red List Species of Conservation Concern (SCC), range-restricted species, species that congregate in large numbers and large-bodied species such as waterfowl, herons, gamebirds and raptors, including owls and vultures.

Priority species recorded within the relevant SABAP2 pentads include the Maccoa Duck, Denham's Bustard, Blue Crane, Greater Painted-snipe, Tawny Eagle, Southern Bald Ibis and Black Stork. The likelihood of these species occurring within the study area is influenced by the availability and suitability of habitat.

5.6.2 Key habitats and preliminary sensitivity

At a broader landscape scale, relatively undisturbed natural vegetation represents important avifaunal habitat. Other important habitats within the surrounding landscape include mountainous ridges and koppies situated approximately 5 km north of the site, the uThukela River and associated drainage systems, wetlands, streams and farm dams. These habitats potentially support a diversity of avifauna, including priority species such as gamebirds, raptors and gregarious passerines.

Cultivated and fallow agricultural fields may also provide habitat and foraging opportunities for certain bird species, although these areas are generally considered less sensitive from an avifaunal habitat perspective than intact natural habitat and aquatic features.

Documented records of priority species occurring within approximately 10 km of the study area include Blue Crane (*Grus paradisea*), Wattled Crane (*Grus carunculatus*), Secretarybird (*Sagittarius serpentarius*) and Martial Eagle (*Polemaetus bellicosus*). These records are predominantly associated with natural areas north of the site, including the ridges, koppies and the uThukela River system.

The botanical assessment identified the vegetation within the broader study area as predominantly KwaZulu-Natal Highland Thornveld. The eastern portion assessed by the specialist comprises mixed grassland with scattered young *Vachellia sieberiana* subsp. *woodii*, together with areas affected by grazing and alien vegetation. Seasonally wet areas, drainage features and a small dolerite koppie were

also identified. The western portion comprises generally well-developed grassland with scattered woody vegetation.

The freshwater assessment identified a number of aquatic features within the broader study area and surrounding landscape, including:

- A perennial tributary of the Little Tugela River west of the project site;
- A larger non-perennial drainage feature east of the project site;
- Ephemeral tributaries draining towards the perennial drainage system;
- Four dams, comprising two instream and two off-stream dams;
- Two Channelled Valley Bottom Wetlands; and
- Two Endorheic Depression Wetlands.

Based on the available habitat information and satellite imagery, the preliminary avifaunal assessment identified the drainage lines, wetlands and rocky koppie as sensitive avifaunal habitat. Grassland associated with the Channelled Valley Bottom Wetlands, farm dam and Depression Wetland on the eastern side was classified as Medium-High sensitivity, while the remaining grassland habitat was classified as Medium sensitivity. Modified areas, including existing roads and the Netcare Helicopter Memorial, were classified as Low sensitivity.

The preliminary avifaunal sensitivity mapping was undertaken for the broader, previous development configuration. As the proposed development has subsequently been revised and consolidated to an approximately 29.06 ha footprint on one side of the N3, the Avifaunal and Animal Assessment will be updated during the EIA phase to assess the revised layout against the identified sensitive habitats and priority species. The final layout will, as far as practicable, seek to avoid and minimise impacts on areas of higher avifaunal sensitivity.

Table 4: Summary of sensitivity categories with recommendations for the study area

Site Feature	Description and Recommendation	Sensitivity Rating
Drainage lines, wetlands, dams, and rocky areas	• Sensitive habitats providing specialised habitat for avifauna. • Must be avoided by the proposed development.	High
Natural grassland associated with wetlands	• Intact vegetation connecting sensitive habitats that provide specialised habitat for avifauna. • Must be avoided by the proposed development.	Medium-high
Natural but disturbed grassland	• Natural grassland vegetation that provides habitat for some avifauna. • It is unlikely that this vegetation provides critical habitat for priority species due to the small size and proximity to the N3 highway, however sensitivity to the development will need to be assessed during the summer bird surveys on the site.	Medium
Modified areas – roads; Netcare Memorial	• Habitat that has been modified or transformed. No natural vegetation occurs in these areas. • The development does not need to avoid these areas.	Low

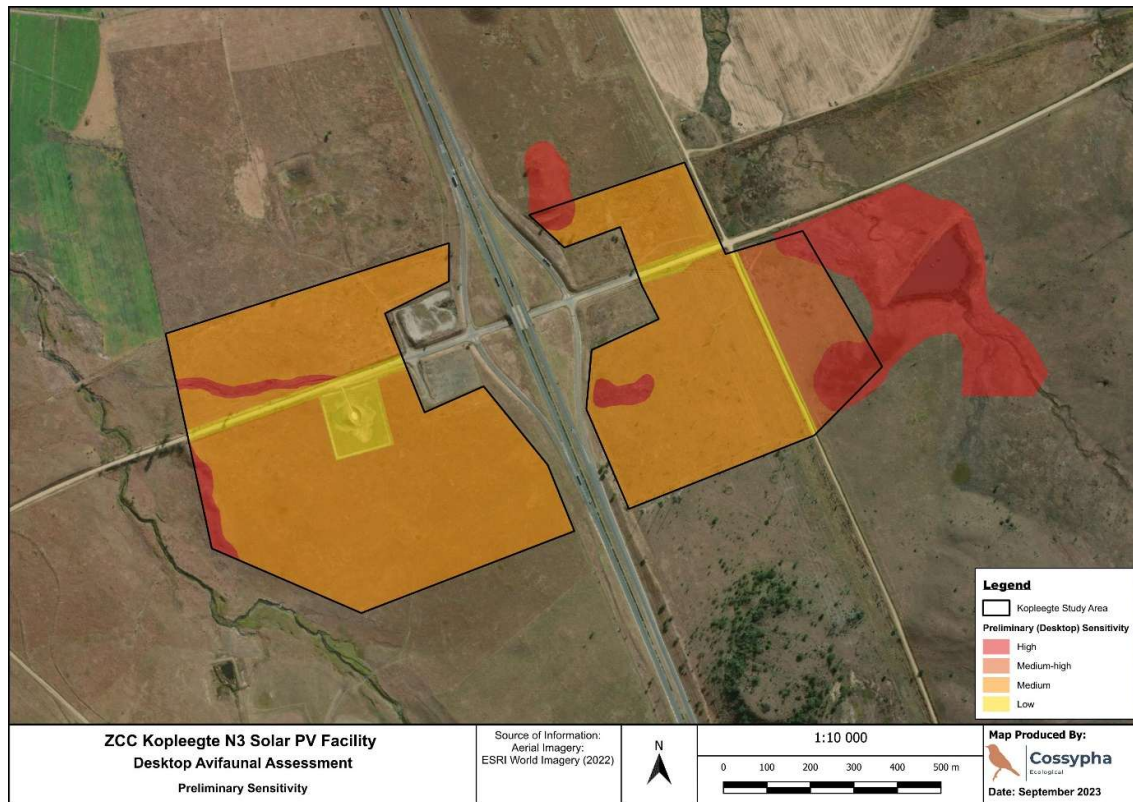


Figure 13: Preliminary (desktop) avifaunal habitat sensitivity

5.6.3 Protected areas and Important Bird Areas

According to the South African Protected Areas Database (SAPAD) and South African Conservation Areas Database (SACAD), the proposed development site does not fall within a formally protected or conservation area.

The nearest protected areas include the Tugela Drift Nature Reserve, situated approximately 12 km north-east of the site, and the Spioenkop Nature Reserve, situated approximately 15.5 km north-west of the site. Spioenkop Nature Reserve also forms part of an identified Important Bird Area (IBA SA062).

The uKhahlamba Drakensberg Park is situated approximately 32 km south-west of the proposed development site.

National Protected Area Expansion Strategy (NPAES) Priority Focus Areas also occur within the broader surrounding landscape. The closest mapped NPAES Priority Focus Area occurs approximately 500 m east of the site and corresponds with an area identified as CBA: Irreplaceable in the KwaZulu-Natal Biodiversity Sector Plan.

The proposed development footprint therefore does not directly overlap a formally protected area or Important Bird Area. Nevertheless, the presence of protected areas, important avifaunal habitats and conservation priority areas within the broader landscape will be taken into consideration in the final Avifaunal and Animal Assessment during the EIA phase.

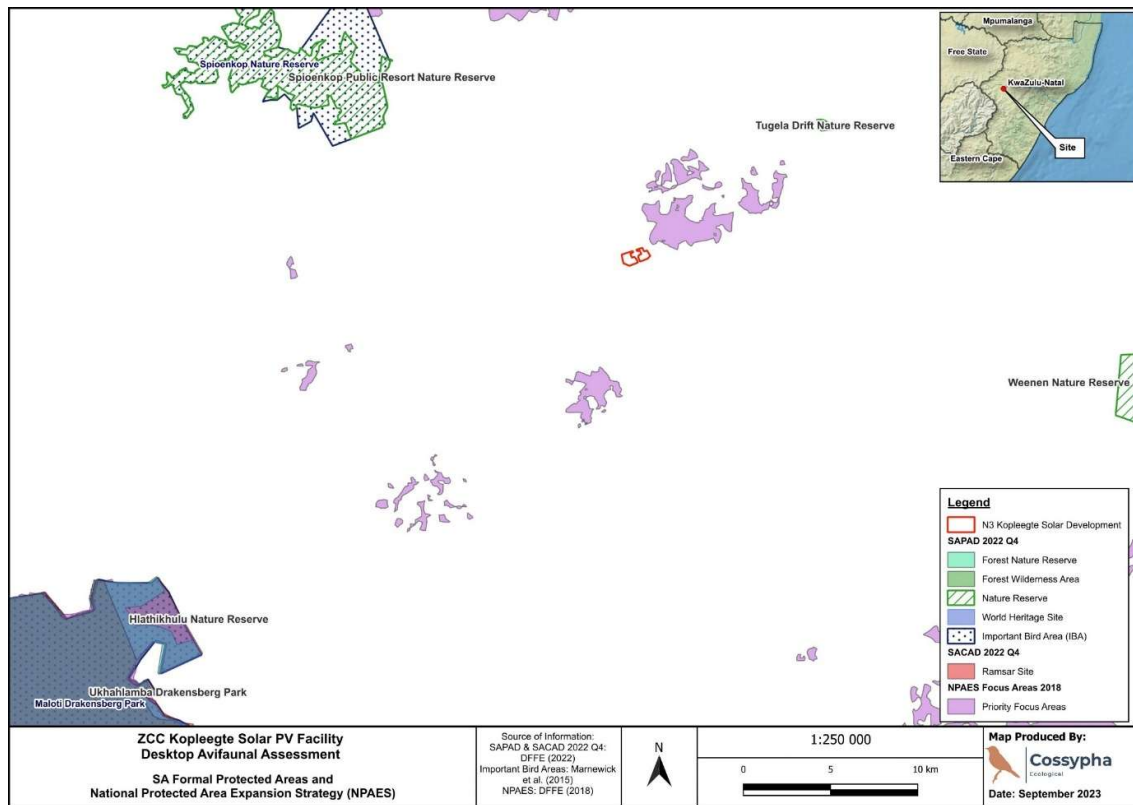


Figure 14: The study area in relation to national Protected Areas

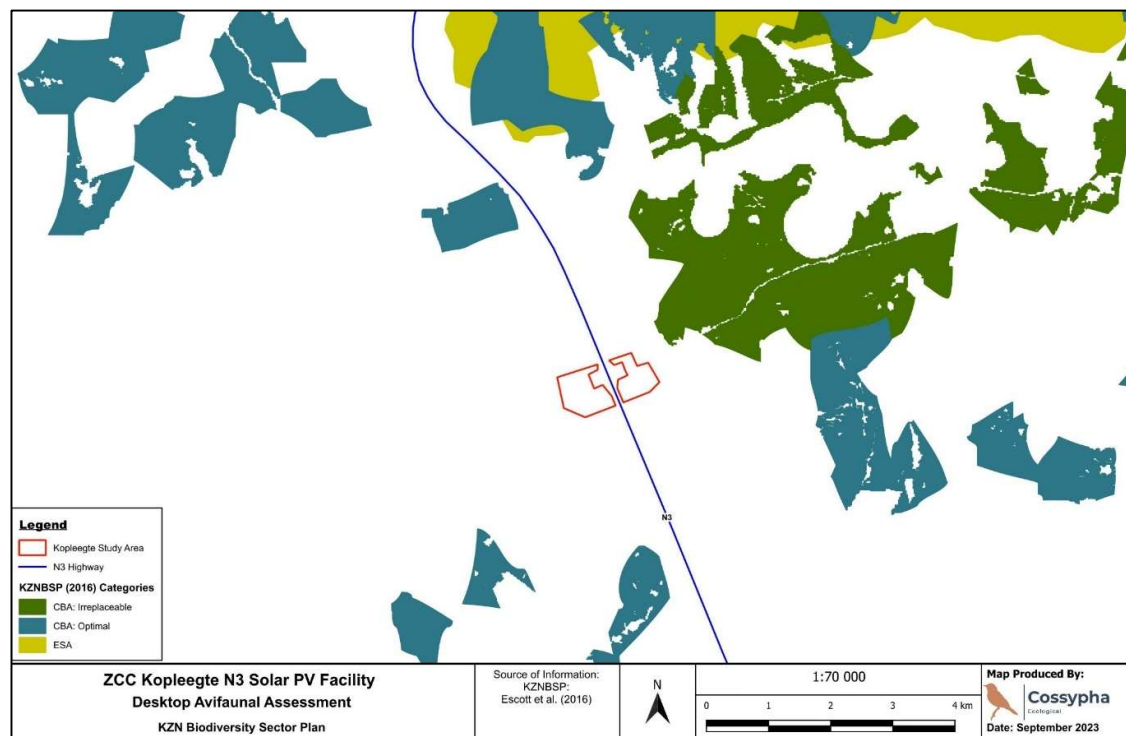


Figure 15: The study area in relation to the KZN BSP

5.7 FRESHWATER

An initial Freshwater Impact Assessment has been undertaken, with the preliminary findings included in this Pre-Application Scoping Report. The assessment will be reviewed and updated, where necessary, to consider the revised development footprint and will be finalised during the EIA phase.

The purpose of the Freshwater Impact Assessment is to identify and delineate freshwater resources associated with the proposed development area, determine their ecological condition and importance, and assess the potential impacts of the proposed development on these resources. Appropriate avoidance, management and mitigation measures are subsequently identified.

ecosystems.

The DFFE Screening Tool Report classified the proposed development area's Aquatic Biodiversity theme as Low sensitivity.

The proposed development is situated approximately 31 km north of Estcourt, within the V13E and V14A Quaternary Catchments and the Pongola-Mtamvuna Water Management Area.

The major hydrological features identified within and surrounding the broader study area comprise:

- A perennial tributary of the Little Tugela River situated west of the project site;
- A larger non-perennial drainage feature situated east of the project site;
- A series of ephemeral tributaries draining towards the perennial drainage line west of the project site;
- Four dams, comprising two instream and two off-stream dams;
- Two Channelled Valley Bottom Wetlands; and
- Two Endorheic Depression Wetlands.

No NFEPA rivers or wetlands were identified within the boundaries of the proposed development area assessed by the freshwater specialist, although depression wetlands occur within the surrounding landscape. The Kaalspruit and Little Tugela River occur towards the north-west of the broader development area. The identified tributary of the Little Tugela River and the larger non-perennial watercourse occur in close proximity to the study area and intersect the broader study boundary in places before ultimately contributing to downstream river systems.

Channelled Valley Bottom Wetlands occur on valley floors and are characterised by the presence of a defined river or drainage channel passing through the wetland. Depression Wetlands are generally characterised by closed or near-closed elevation contours within which water accumulates. An endorheic depression is inward draining and does not have a natural surface-water outflow.

The ecological condition and importance of the identified wetland systems were assessed by considering both direct and indirect disturbances affecting the freshwater environment. Existing influences considered by the specialist included roads, alien invasive vegetation, pollution, sedimentation and changes to vegetation structure, together with broader catchment influences such as agricultural activities, drought and altered hydrological functioning.

The Present Ecological State (PES) assessment considered the hydrology, geomorphology, water quality and vegetation components of the identified Hydrogeomorphic (HGM) Units. These components were assessed collectively to determine the ecological condition of the respective wetland systems. The Ecological Importance and Sensitivity (EIS) of the freshwater features was also considered as part of the specialist assessment.

The map displays the Kopelegte N3 Electric Highway Co project area, highlighted in yellow. The surrounding landscape includes agricultural fields and various water bodies. Key features include:

- Legend:**
 - Kopelegte Project Area (Yellow outline)
 - N3PA_Wetlands (Blue fill)
 - N3PA_Rivers (Dark blue line)
 - National Wetland Map 5 (White fill)
- Scale:** 0 to 2 km.
- Logos:** biosphere Enviro Solutions and EnviroAfrica.
- Inset Map:** A map of South Africa showing the location of the project area in the central-eastern region, near the Orange Free State and Northern Cape provinces.

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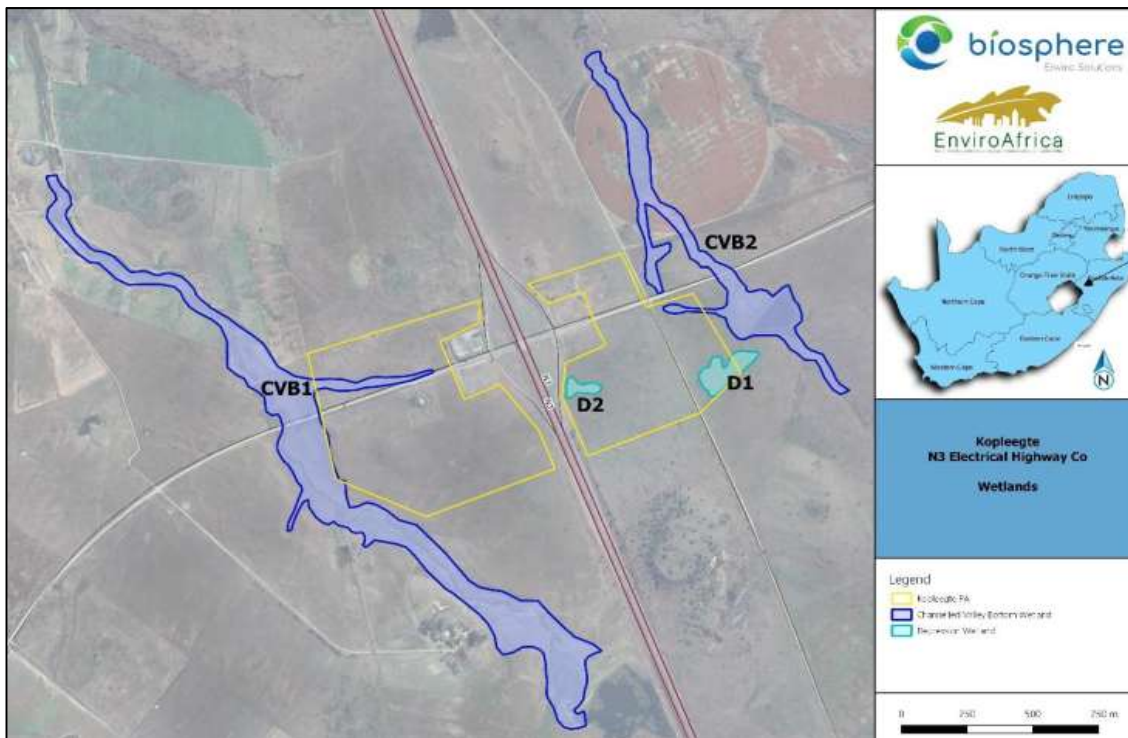


Figure 17: Two channelled valley bottom wetlands and two endorheic depression wetlands in and next to the proposed project area

5.7.1 Present Ecological State (PES), Ecological Importance and Sensitivity (EIS) and Recommended Ecological Category (REC)

The Present Ecological State (PES) assessment indicates that all four wetland units identified within the broader study area are classified as PES Category C – Moderately Modified, indicating that some loss and/or change of natural habitat and ecological functioning has occurred.

The PES classifications are as follows:

- Channelled Valley Bottom Wetland 1 (CVB 1): Category C – Moderately Modified
- Channelled Valley Bottom Wetland 2 (CVB 2): Category C – Moderately Modified
- Depression Wetland 1: Category C – Moderately Modified
- Depression Wetland 2: Category C – Moderately Modified

The Ecological Importance and Sensitivity (EIS) of the Channelled Valley Bottom Wetlands was assessed as Moderate. These wetlands are considered to have ecological importance at a provincial and/or local scale due to their contribution to biodiversity, including habitat and species diversity. They are generally not considered highly sensitive to flow modifications and have some capacity to accommodate use.

The EIS of the Depression Wetlands was assessed as Low/Marginal. These wetlands are not considered unique at a regional or local scale and are generally not highly sensitive to flow modification. As endorheic depression wetlands, they are inward draining and do not have a natural surface-water outflow.

The PES and EIS findings will inform the determination of appropriate freshwater management measures, buffers and mitigation requirements for the proposed development. The relationship between these freshwater features and the revised development layout will be confirmed as part of the final Freshwater Impact Assessment during the EIA phase.

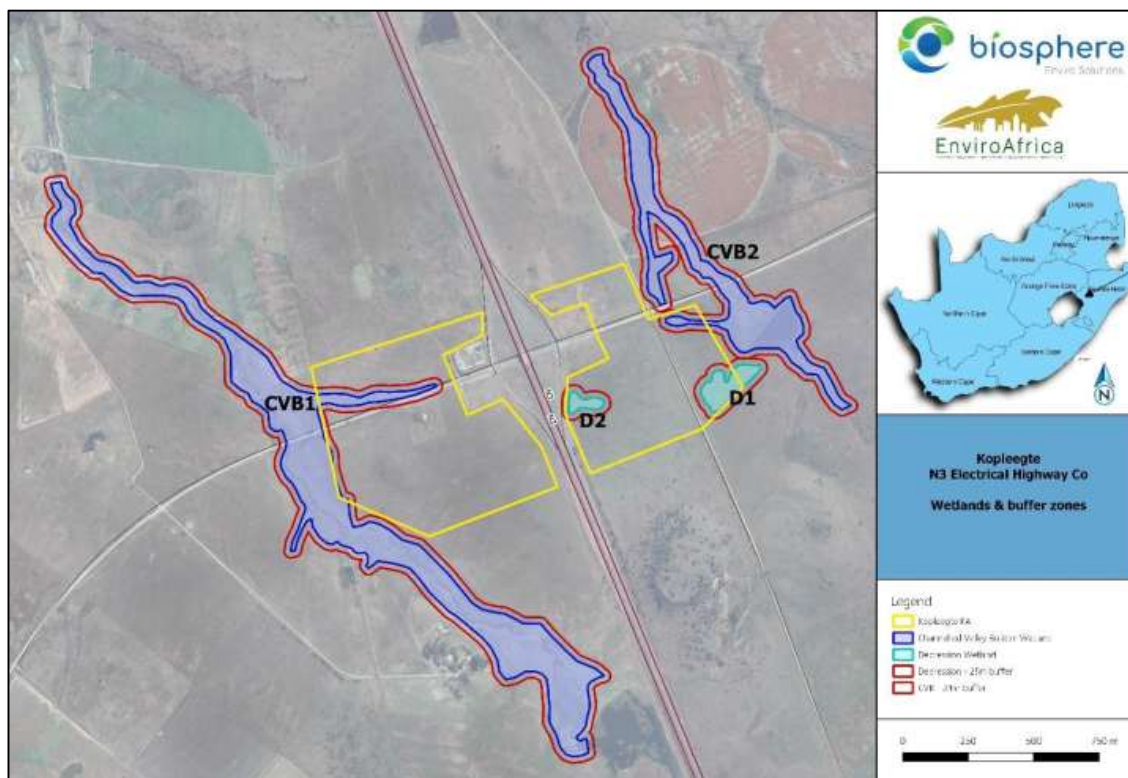


Figure 18: Delineated wetlands with buffer zones

Table 5: Overall Scores of Wetlands and River Classifications

Wetland Classification				
Site name	Classification	PES	EIS	REC
CVB 1	Channelled Valley Bottom wetland	C: Moderately Degraded	Moderate	C - maintain
CVB 2	Channelled Valley Bottom wetland	C: Moderately Degraded	Moderate	C - maintain
Depression 1 & 2	Endorheic Depression wetland	C: Moderately Degraded	Low / marginal	C - maintain
River Classification				
Site name	Classification	Ecological Health Class	IHAS	WQL
Reference Station (Tributary of the Little Tugela River)	Perennial Stream	E/F	69%	Acceptable
Control Station (Tributary of the Little Tugela River)	Perennial Stream	E/F	65%	Acceptable

5.8 AGRICULTURE

An initial Agricultural Assessment, in the form of an Agricultural Compliance Statement, has been undertaken, with the preliminary findings included in this Pre-Application Scoping Report. The assessment will be reviewed and updated, where necessary, to consider the revised development footprint and will be finalised during the EIA phase.

The purpose of the Agricultural Compliance Statement is to identify and assess the agricultural characteristics and sensitivity of the proposed development area and to determine the potential impacts of the proposed development on agricultural resources and land capability.

The DFFE Screening Tool Report classified the proposed development area's Agriculture theme as High sensitivity. The Screening Tool identifies areas of Moderate-High land capability (Classes 09 and 10) within the site, together with areas of lower land capability.

Agricultural sensitivity within the DFFE Screening Tool is informed by factors including existing land use and agricultural land capability. Land capability reflects the suitability of land for long-term agricultural production and is determined by the interaction between climatic, terrain and soil characteristics.

Land capability is calculated by considering the relative contribution of climate, terrain and soil characteristics, as follows:

$$\text{Land capability} = \text{Climate (40\%)} + \text{Terrain (30\%)} + \text{Soil (30\%)}$$

The DFFE Screening Tool identifies portions of the proposed development area as having Moderate-High agricultural land capability, which results in the overall High Agriculture theme sensitivity assigned to the site.

The Agricultural Compliance Statement will consider the actual agricultural characteristics and current land use of the site, including soil characteristics, land capability and the extent of existing and historical agricultural activities. The specialist findings will be considered in relation to the revised approximately 29.06 ha development footprint during the EIA phase to determine the potential loss of agricultural land and appropriate mitigation measures.

The land capability dataset (DAFF, 2017) indicates that portions of the proposed development area have Moderate-High land capability (Figure 19). This classification contributes to the High agricultural sensitivity assigned to the site by the DFFE Screening Tool.

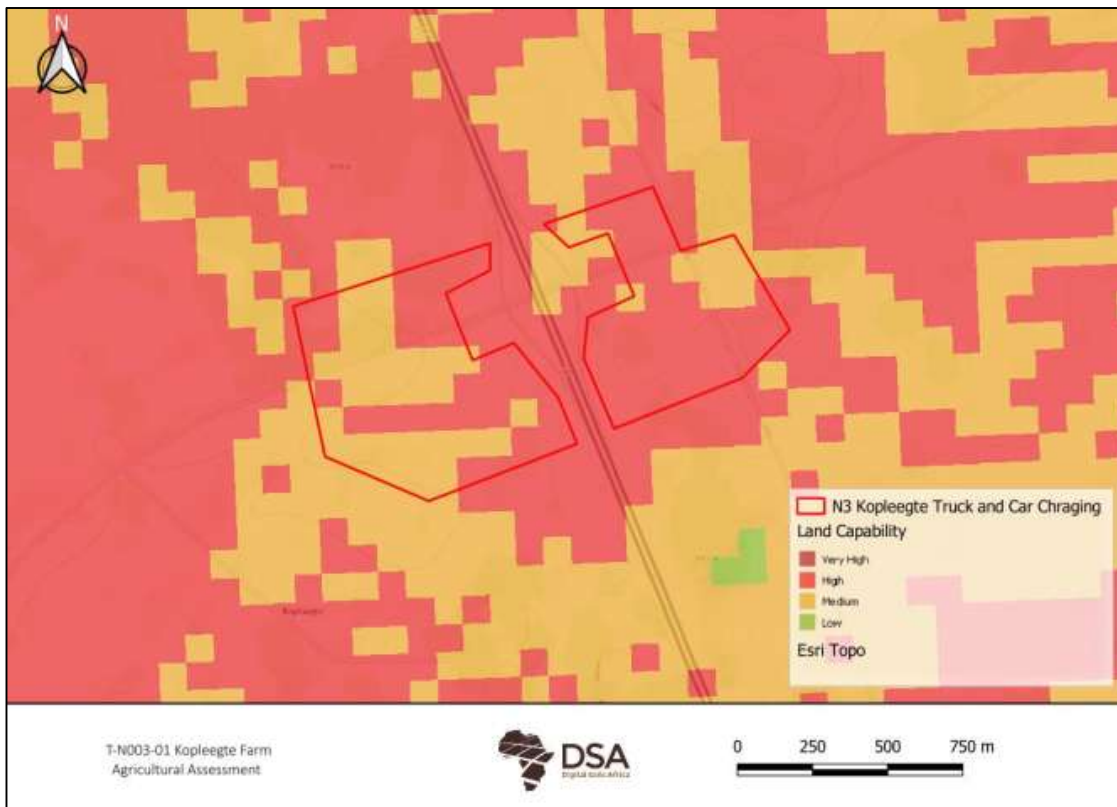


Figure 19: The land capability of the study as used in the Screening Tool

5.8.1 Land capability

Land capability is determined by the interaction between climate, terrain and soil characteristics. These components are used to determine the agricultural potential and sensitivity of the land.

5.8.1.1 Climate capability

Climate capability is the highest weighted factor, contributing 40% to the calculation of land capability. Climate capability is determined by factors including moisture supply capacity, physiological capacity and climatic constraints.

According to the DAFF (2017) land capability dataset, the study area has a climate capability value of 6, which is considered Moderate-High.

5.8.1.2 Terrain capability

Terrain influences the suitability of land for agricultural production through factors relating to plant growth, slope, accessibility and terrain sensitivity.

According to the DAFF (2017) dataset, the terrain capability of the study area ranges from 5 to 7, which is generally considered Moderate to High terrain capability.

5.8.1.3 Soil capability

The study area comprises predominantly the Fa and Bb land types. Land type data provides information on the distribution of different soils across terrain units and was used in determining soil capability.

The Fa land type is characterised predominantly by shallow soils, including Mispah and Glenrosa soil forms, with little or no lime occurring within the landscape. The Bb land type comprises red and yellow dystrophic/mesotrophic apedal soils with plinthic subsoils. The Fa land type dominates most of the study area, while the Bb land type occurs within a smaller portion of the western study area.

Soil capability is influenced primarily by plant-available water, soil sensitivity and soil fertility. According to the DAFF (2017) dataset, the development area has a soil capability value of 5, which is considered Moderate.

5.8.1.4 Conclusion

The DAFF (2017) land capability classification comprises 15 land capability classes, with increasing class values generally representing increasing agricultural production potential.

Classes 1 to 7 are generally associated with lower land capability and are more suited to uses such as grazing or conservation, while Classes 8 to 15 are regarded as having arable land capability, with agricultural potential generally increasing with the land capability class.

The study area is predominantly associated with land capability values of approximately 8 (Moderate) to 9 (Moderate-High), although lower land capability areas also occur. The eastern portion of the broader study area is predominantly classified as Moderate to Moderate-High and potentially arable, while the western portion contains a mixture of lower and higher capability land, including a limited area with a land capability value of approximately 6 (Low-Moderate).

The DFFE Screening Tool similarly identifies Moderate-High land capability (Classes 09 and 10) as the feature responsible for the overall High Agriculture theme sensitivity, while lower capability classes also occur within the screened area.

As the development layout has subsequently been revised and reduced, the Agricultural Compliance Statement will be reviewed against the revised approximately 29.06 ha development footprint during the EIA phase to confirm the land capability classes directly affected by the proposed development.

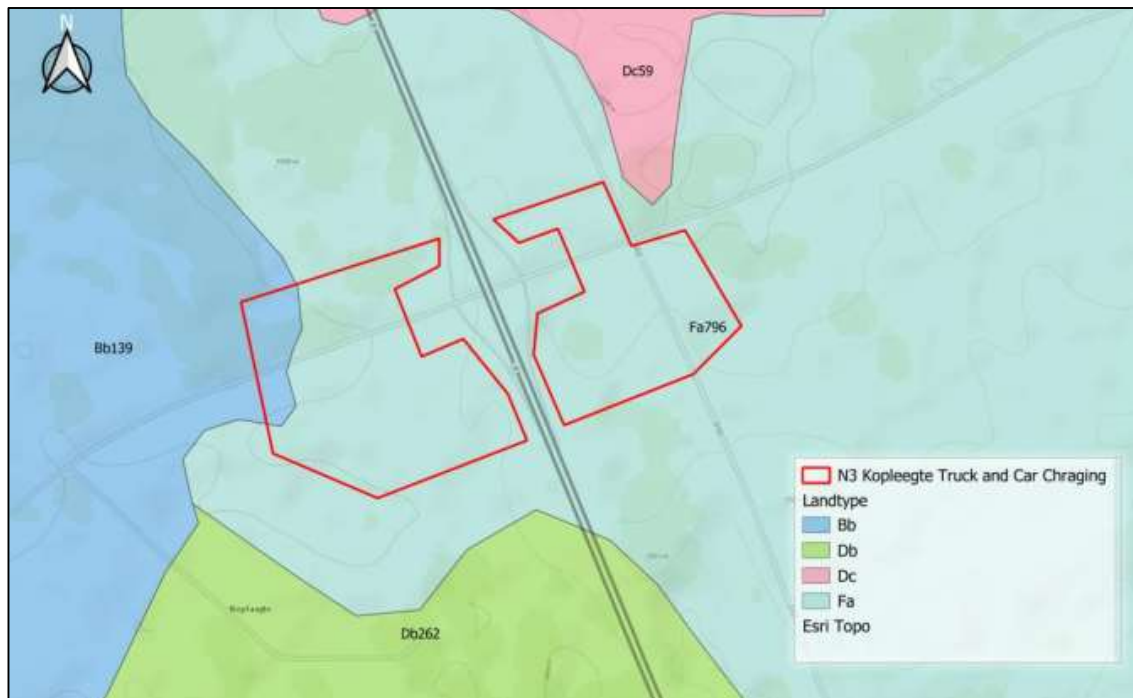


Figure 20: Land types found in the study area and the surrounding area (Land type survey staff, 1972-2002)

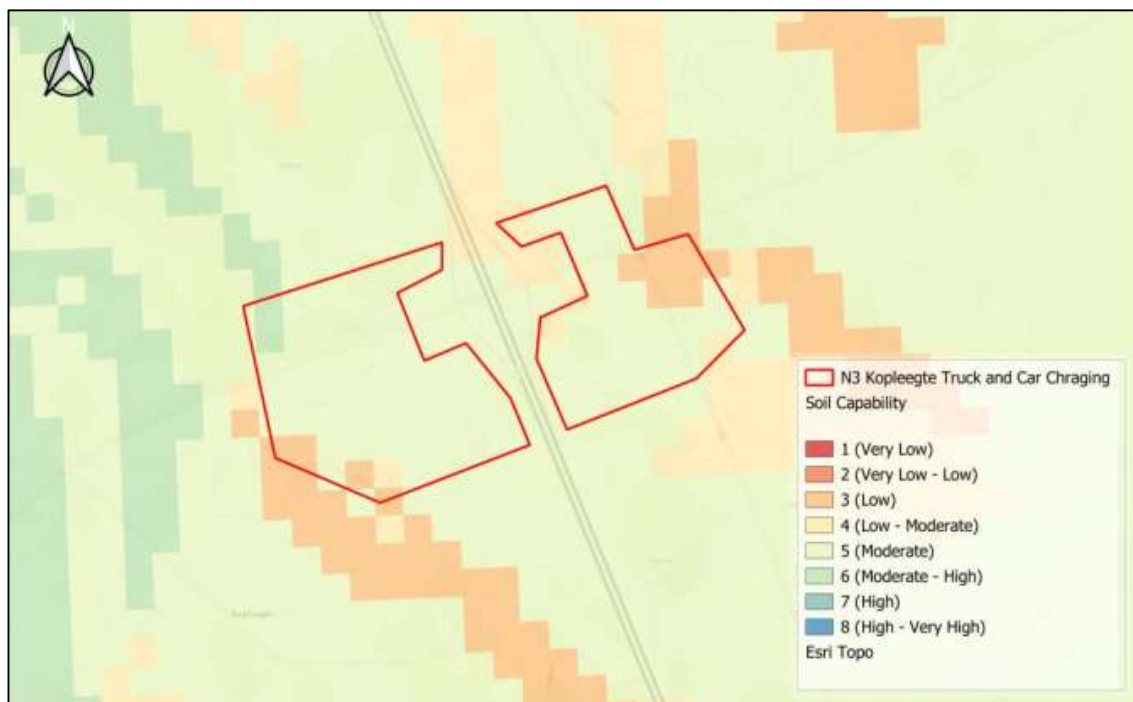


Figure 21: The soil capability of the site and surrounding area

5.8.2 Grazing capacity

Grazing capacity is expressed as hectares per Large Stock Unit (ha/LSU) and represents the area of vegetation required to sustain one Large Stock Unit over an extended period without causing deterioration of the vegetation or soil.

The study area has a grazing capacity of approximately 5 ha/LSU. A Large Stock Unit (LSU) is generally defined as an animal with a mass of approximately 450 kg and specified forage requirements (Trollope et al., 1990).

The grazing capacity indicates that the site has value for livestock grazing and this existing agricultural function will be considered when assessing the potential agricultural impacts of the revised development footprint.

5.8.3 Land use

The South African National Land-Cover 2020 (SANLC 2020) dataset was considered together with the earlier 2014 land-cover information to identify land-use characteristics and potential changes within the study area.

The SANLC 2020 dataset predominantly classifies the study area as Natural Grassland, with Roads and Rails (major linear features) also mapped within the area (Figure 22).

The land-cover mapping provides a broad-scale indication of land use and should be considered together with the findings of the Agricultural Compliance Statement and site observations. The broader project area includes areas subject to current and/or historical agricultural use, including grazing and cultivated or previously cultivated/fallow areas. The agricultural specialist assessment will therefore be reviewed against the revised approximately 29.06 ha development footprint during the EIA phase to confirm the land uses directly affected by the proposed development.

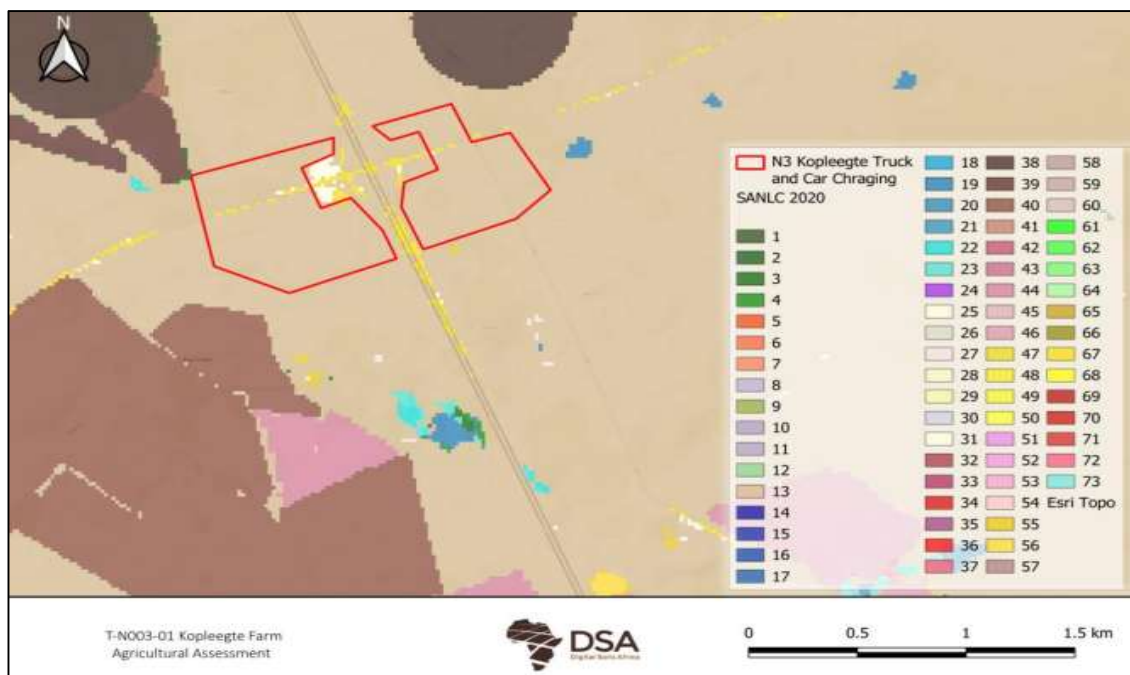


Figure 22: South African National Land-Cover 2020 (SANLC, 2020)

5.8.4 Site verification

A field survey was undertaken by the agricultural specialist, Darren Bouwer, on 9 November 2023. During the survey, soil observations were undertaken using a soil auger, and the soils were described and classified in accordance with the Soil Classification Working Group (2018).

The study area was found to be generally characteristic of the Fa land type, comprising predominantly shallow soils interspersed with slightly deeper and more weathered soils. Rock outcrops are common, and the underlying geology is predominantly associated with dolerite and shale.

At the time of the specialist's field survey, no visible evidence of cultivation was observed within the area assessed. This site-specific observation should be considered together with the broader land-cover and agricultural land capability datasets when determining the agricultural sensitivity of the proposed development area.

The agricultural specialist's findings will be reviewed in relation to the revised approximately 29.06 ha development footprint during the EIA phase to confirm that the site-verification findings remain applicable to the revised layout.

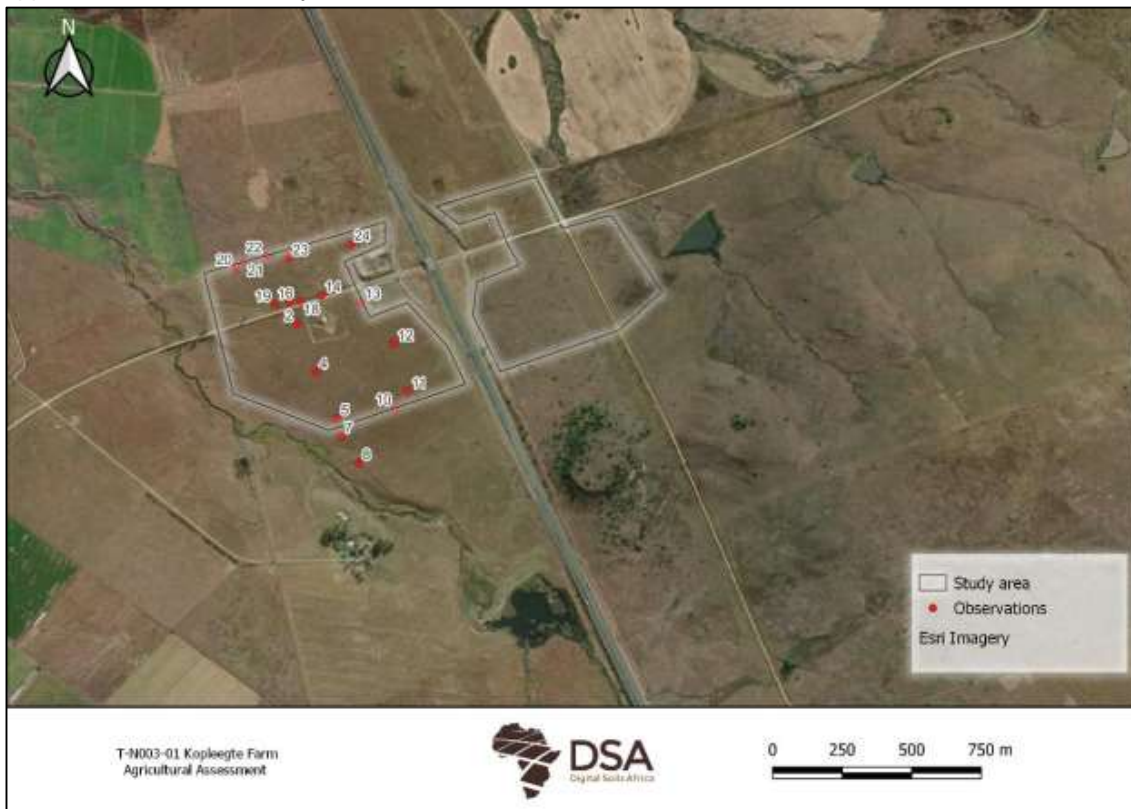


Figure 23: Observations made during the site visit



Figure 24: An example of the soils augured in the study area during site verification

Table 6: Soil types found in the study area

Soil type	A horizon	B horizon	C horizon	Land capability
Glenrosa	Orthic A	Lithic	-	Medium
Mispah	Orthic A	Rock	-	Medium
Tubatse	Orthic A	Neocutanic	Lithic	Low



Figure 25: The agricultural sensitivity of the site

5.8.5 Protected Agricultural Area

The Preservation and Development of Agricultural Land Act, 2024 (Act 39 of 2024) (PDALA) was published on 29 January 2025 and provides a legislative framework for the preservation and sustainable development of agricultural land. The Act makes provision for, amongst others, the identification and declaration of Protected Agricultural Areas. The Act has, however, not yet commenced and will come into operation on a date proclaimed by the President.

A Protected Agricultural Area is intended to protect agricultural land against non-agricultural land uses in order to promote long-term agricultural production and food security. The Act specifically provides for the protection of high-value agricultural land, including land with an agricultural land capability or agricultural potential rated above Moderate, unique agricultural land and irrigated agricultural land.

Based on the agricultural spatial information considered in the Agricultural Compliance Statement, a portion of the broader study area is mapped within a Protected Agricultural Area. The implications of this mapping, together with the agricultural sensitivity and land capability of the revised approximately 29.06 ha development footprint, will be considered in the final Agricultural Compliance Statement during the EIA phase.

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5.9 HERITAGE / ARCHAEOLOGICAL & PALAEONTOLOGICAL

An initial Heritage and Archaeological Impact Assessment has been undertaken, with the preliminary findings included in this Pre-Application Scoping Report. The assessment will be reviewed in relation to the revised development layout and finalised during the EIA phase.

The purpose of the Heritage Impact Assessment is to identify heritage resources that may be affected by the proposed development, including archaeological, historical and cultural heritage resources, and to assess the potential impacts of the development on these resources. Palaeontological resources are also considered where relevant.

The DFFE Screening Tool Report classified the environmental sensitivity themes for the proposed development area as follows:

- Archaeological and Cultural Heritage – Very High sensitivity
- Palaeontology – Very High sensitivity

The Very High Archaeological and Cultural Heritage sensitivity is associated with the proposed development area occurring within 100 m of an ungraded heritage site.

The DFFE Screening Tool also identifies areas of Very High palaeontological sensitivity within the proposed development area, indicating the potential for palaeontologically significant material to occur within the geological formations underlying the site.

The applicable heritage authorisation requirements will be confirmed with the relevant heritage authority as part of the environmental assessment process. The Heritage Impact Assessment will be finalised for the revised development footprint during the EIA phase.

5.9.1 Heritage & Archaeological findings

The desktop component of the Heritage and Archaeological Impact Assessment included a review of available historical maps, aerial imagery and information from previous archaeological investigations undertaken within the broader surrounding area.

Previous archaeological investigations undertaken on adjacent properties recorded a range of heritage resources, including stone-walled features associated with Moor Park and the Historical Period, graves and rock engravings. Previous studies also identified a high density of archaeological sites and engravings within the broader area and indicated that the landscape has considerable archaeological research potential.

Additional archaeological sites have been recorded north of the farm access road, while Late Iron Age (LIA) archaeological sites have also been documented within the broader region.

The surrounding landscape also has historical associations with the Second Anglo-Boer War, including a war cemetery to the north-east, historical pontoon crossings at the Tugela River and Boer sangars within the surrounding hills.

Historical information indicates that European settlement and agricultural occupation of the broader landscape date to at least the mid-19th century. The adjacent farms were reportedly surveyed during approximately 1852, while nearby Strydpoort, situated approximately 5 km south of the site, has historical associations dating to the 1840s. According to information obtained from the landowner, Kopleegte previously formed part of this larger historical farm landscape.

A review of the 1937 historical aerial imagery identified approximately 27 stone-walled features and one building within the area assessed by the heritage specialist. However, the 1942 topographical map does not indicate settlements within the development footprint. Subsequent construction of the N3 also resulted in substantial alteration of the historical landscape and the removal of a number of former settlement features.

The site also contains the existing Netcare Helicopter Memorial, which represents an important contemporary commemorative heritage feature. The memorial will be retained in situ and will not be disturbed by the proposed development. The revised development layout and associated infrastructure will be assessed in relation to the identified heritage resources as part of the final Heritage Impact Assessment during the EIA phase.



Figure 26: Stone-walled features, engravings and graves at GLK78A - C

Red = engraving, yellow = grave, green = archaeological site

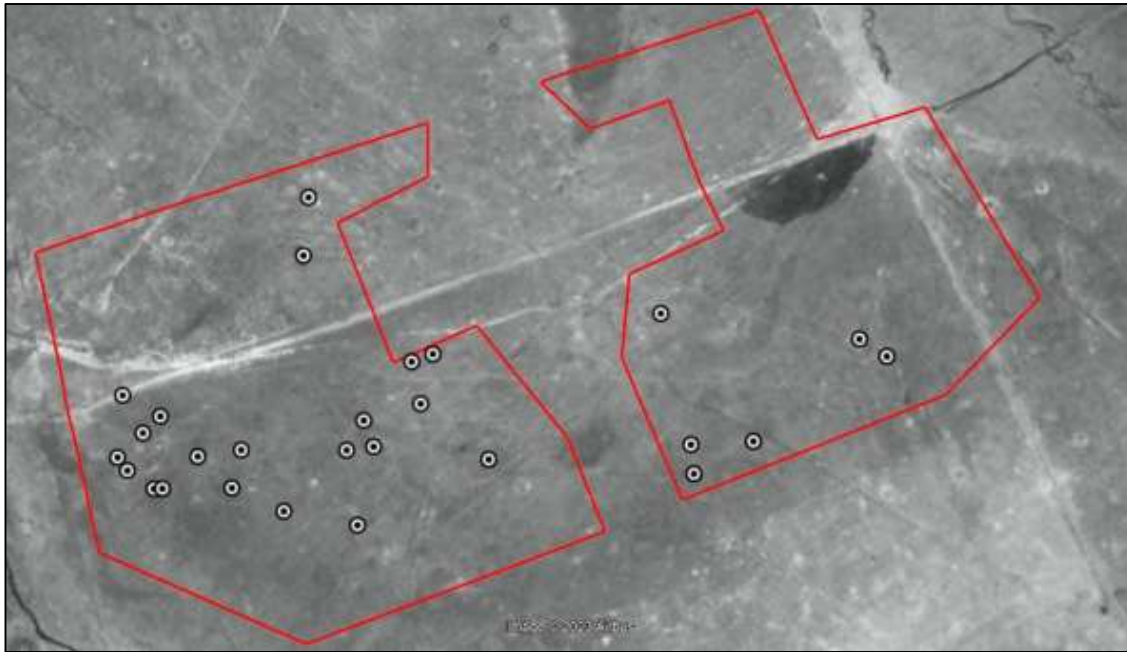


Figure 27: Location of the northern study area in 1937



Figure 28: Location of recorded sites

The archaeological features recorded within the area assessed are associated with the broader archaeological landscape previously investigated by Anderson (2015) and Anderson and Anderson (2007, 2008, 2009 and 2012). The principal archaeological site, GLK078, comprises Late Iron Age settlement remains occurring within approximately 1 km of the N3 interchange.

The earliest occupation is dated to approximately the 12th to mid-15th centuries CE, or approximately 500–800 years ago, and is associated with the Moor Park phase. Archaeological features associated with this period include sunken stone enclosures, low stone walling, graves and engravings.

Later settlement remains, dating from approximately post-1600 CE, are characterised by higher stone walls and maize-related grinding stones. These features probably continued into the Historical Period and occur outside the current development footprint. A number of Colonial Period stone-walled enclosures, dating from approximately the post-1850s period, have also been identified outside the footprint.

Several graves have been identified within the broader archaeological landscape, including graves associated with the Moor Park phase. Older graves may be difficult to identify on the surface as they can occur approximately level with the surrounding ground and may have been altered by termite activity and animal burrowing.

Previous archaeological investigations at the nearby GLK076 site found that graves represented the most significant archaeological features. Although human remains or grave goods were not consistently recovered during those investigations, the spatial position of graves within Late Iron Age settlements remains archaeologically important, as their location in relation to settlement features can provide information regarding the organisation and social structure of the settlement.

Excavations at GLK076 comprised approximately 80 individual 2 m × 2 m excavation squares. Relatively few artefacts were recovered, which is consistent with findings from other Late Iron Age sites within the KwaZulu-Natal interior. The archaeological value of these sites therefore relates not only to artefact assemblages but also to the spatial relationships between stone-walled enclosures, dwellings, graves and other settlement features.

The engravings recorded within the broader archaeological landscape are associated with Nguni-speaking communities and are considered to reflect aspects of settlement patterns and the cultural importance of cattle. Collectively, the archaeological evidence is representative of formative Nguni-speaking communities characterised by an agro-pastoralist socio-economic system.

Although archaeological features within the proposed development area are generally less well preserved than those associated with the principal archaeological sites previously investigated, the specialist has indicated that archaeological mitigation remains necessary. Appropriate recording and mitigation of affected archaeological resources would also contribute to the existing body of knowledge regarding Late Iron Age occupation of the area.

The south-eastern portion of the area assessed appears to contain comparatively limited archaeological occupation. Additional archaeological sites occur on the opposite side of the road; however, these are predominantly associated with 20th-century settlements and graves.

The identified archaeological resources and required mitigation measures will be reconsidered against the revised development layout during finalisation of the Heritage Impact Assessment. Where feasible, significant heritage resources should be avoided and retained in situ, with any unavoidable impacts subject to the requirements and approval of the relevant heritage authority.

5.9.2 Palaeontological findings

The DFFE Screening Tool classified the Palaeontology theme as Very High sensitivity, with areas of both Medium and Very High palaeontological sensitivity identified within the screened development area.

A desktop palaeontological assessment was undertaken by Dr Alan Smith. The assessment identified the underlying geology as comprising the Estcourt Formation and possibly Karoo Dolerite. Although portions of the site are mapped as having high palaeontological sensitivity, the specialist considered the actual likelihood of encountering significant fossil material during development to be Low, but not zero.

This conclusion takes into account the relatively shallow ground disturbance normally associated with solar PV infrastructure as well as existing disturbance associated with previous road and related infrastructure development.

The palaeontological specialist therefore concluded that no further palaeontological investigation is required at this stage, provided that a Chance Find Protocol is implemented during construction. Should fossil material or other potentially significant palaeontological resources be encountered during earthworks, construction within the affected area must cease and the Chance Find Protocol must be implemented.

Table 7: Palaeontological sensitivity rating

Colour	Sensitivity	Required action
Red	Very high	Field assessment and protocol for finds is required.
Orange / Yellow	High	Desktop study is required and based on the outcome of the desktop study, a field assessment is likely.
Green	Moderate	Desktop study is required.
Blue	Low	No palaeontological studies are required however a protocol for finds is required.
Grey	Insignificant / Zero	No palaeontological studies are required.
White / Clear	Unknown	These areas will require a minimum of a desktop study. As more information comes to light, SAHRA will continue to populate the map.

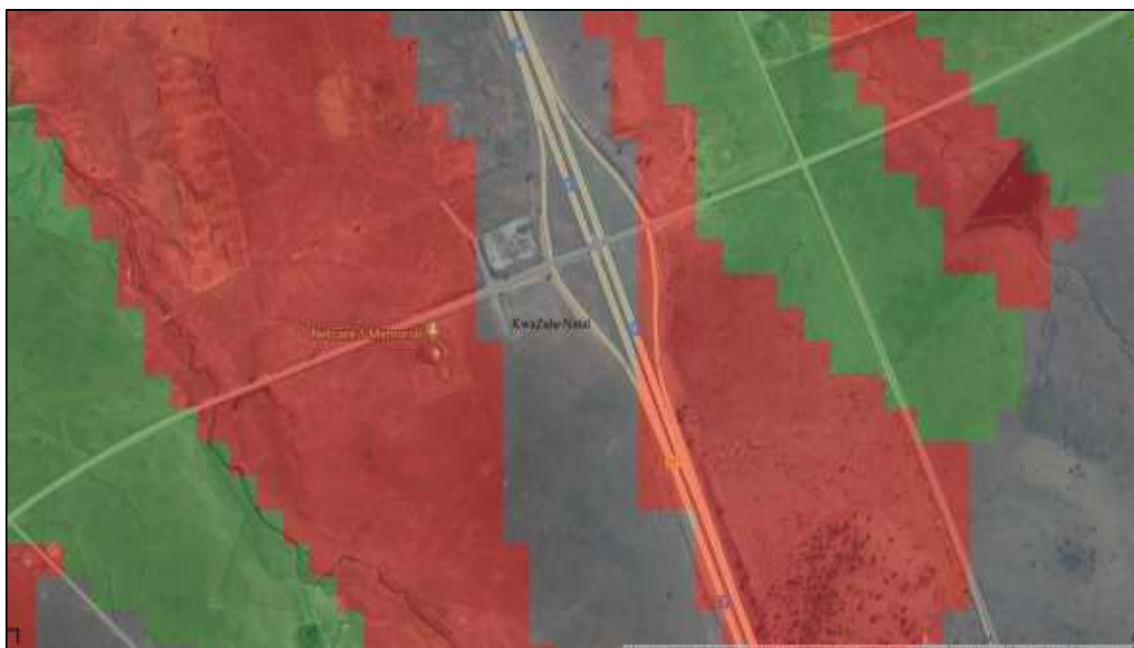


Figure 29: Palaeontological sensitivity map

5.10 SOCIO-ECONOMIC CONTEXT

5.10.1 uThukela District Municipality

The uThukela District Municipality (UTDM) Integrated Development Plan (IDP) provides the strategic framework for development within the district and addresses key priorities relating to economic development, infrastructure provision, service delivery, environmental sustainability and improvement of community well-being.

The proposed Kopleegte development is considered broadly aligned with these strategic objectives. The development will provide renewable-energy-supported electric truck charging infrastructure along the N3 freight corridor, while also creating potential investment, construction and employment opportunities within the district. The proposed solar PV generation facility and associated Battery Energy Storage System (BESS) will support the charging facility and contribute towards the provision of lower-carbon transport infrastructure.

The uThukela District economy comprises a range of sectors, including agriculture, trade, tourism and accommodation, government and community services, manufacturing, transport and related activities. Agriculture remains an important component of the district's economy and land use, with both commercial and subsistence agricultural activities occurring throughout the district. Crop production and livestock farming are particularly important within the rural areas.

The district also experiences significant socio-economic challenges, including relatively high levels of unemployment. Historical municipal economic information indicates that unemployment has remained a persistent challenge across uThukela and its constituent local municipalities, including Okhahlamba Local Municipality.

The N3 represents an important economic and freight transport corridor through the district and provides connectivity between KwaZulu-Natal and the inland economic centres of South Africa. Development of supporting infrastructure along this corridor therefore has the potential to contribute to economic activity within the district.

The proposed development may result in positive socio-economic impacts through temporary employment during construction, local procurement of goods and services, potential operational employment and increased economic activity associated with the electric truck charging facility. The associated farmstall and supporting facilities may provide additional opportunities for local economic participation.

Potential negative socio-economic impacts, including impacts associated with construction activities, traffic, surrounding agricultural land uses, visual character and the potential loss of agricultural land, will also need to be considered.

The socio-economic implications of the proposed development will therefore be assessed further during the EIA phase, taking into consideration the revised approximately 29.06 ha development footprint, specialist findings and comments received through the public participation process.



Figure 30: uThukela District Municipality³

5.10.2 Okhahlamba Local Municipality

The Okhahlamba Local Municipality Integrated Development Plan (IDP) provides the strategic framework for development within the municipality and identifies priorities relating to economic development, infrastructure provision, employment creation, skills development, environmental sustainability and improvement of community well-being.

The following socio-economic considerations are particularly relevant to the proposed Kopleegte development:

- **Economic and Social Infrastructure:** The IDP recognises the importance of developing and maintaining infrastructure that supports economic growth and improves socio-economic conditions. The proposed development will provide renewable-energy-supported electric truck charging infrastructure along the N3 corridor and is therefore broadly consistent with the objective of improving economic infrastructure within the municipality.
- **Local Economic Development:** The development has the potential to contribute to local economic activity through construction and operational employment, procurement of goods and

³ <https://municipalities.co.za/>

services and opportunities associated with the truck charging facility and supporting infrastructure. Where practicable, opportunities for local employment, procurement and skills development should be prioritised.

- Employment and Skills Development: Unemployment and limited access to skills development remain important socio-economic challenges. The proposed development may provide temporary employment during construction as well as a smaller number of longer-term operational opportunities. Skills transfer and training opportunities should be promoted where feasible.
- Environmental Sustainability: The IDP recognises the importance of sustainable development and environmentally responsible practices. The proposed 33.59 MWp solar PV facility and associated BESS will support the electric truck charging facility and contribute to the provision of lower-carbon transport infrastructure.
- Strategic Location and Economic Activity: The site's location adjacent to the N3 freight corridor provides an opportunity to support the evolving requirements of the transport and logistics sector. The charging facility, together with its associated truck parking and supporting facilities, may also generate secondary economic activity within the surrounding area.

Overall, the proposed Kopleegte development is considered broadly consistent with the municipality's objectives relating to economic development, infrastructure investment, employment creation and environmental sustainability. However, these potential socio-economic benefits must be considered together with possible adverse impacts, including the loss of agricultural land, changes to the rural character of the area, traffic-related effects and impacts on surrounding land uses.

The socio-economic implications of the development will be assessed further during the EIA phase in relation to the revised approximately 29.06 ha development footprint, specialist findings and comments received through the public participation process.

6 ENVIRONMENTAL ISSUES AND POTENTIAL IMPACTS

Environmental issues were raised through desktop analysis, site visits, informal discussions with the project team, specialists and authorities, and by Interested and Affected Parties through the initial public participation period. All issues raised will be assessed in the specialist reports and will form part of the Environmental Impact Report. Additional issues raised during the public participation will be listed in the Draft Scoping Report.

The following potential issues have been identified:

6.1 BIODIVERSITY IMPACT

The preliminary Botanical and Terrestrial Biodiversity Assessment identified the following key findings:

- The proposed development area occurs within KwaZulu-Natal Highland Thornveld, which is classified as Least Concern.
- The site comprises a combination of grassland and areas affected to varying degrees by historical and existing agricultural activities and other disturbance.
- The DFFE Screening Tool classified the Terrestrial Biodiversity theme as Low sensitivity and the Plant Species theme as Medium sensitivity.
- The terrestrial biodiversity specialist considered the Screening Tool's Low Terrestrial Biodiversity sensitivity to be appropriate, while the overall field-based terrestrial sensitivity was considered Medium to Low.
- No plant Species of Conservation Concern were recorded within the proposed solar array areas, provided that the dolerite koppies are avoided.
- *Merwillia plumbea*, classified as Near Threatened, was recorded in association with a dolerite koppie and should be avoided by the development.
- No faunal Species of Conservation Concern identified by the Screening Tool were recorded during the specialist field survey. The specialist considered the faunal sensitivity of the surveyed area to be Low, although the occurrence of Species of Conservation Concern cannot be completely excluded.
- The specialist assessed the potential construction-phase loss of KwaZulu-Natal Highland Thornveld as Medium Negative before mitigation and Low Negative after mitigation. Operational impacts were assessed as Low Negative.
- Potential biodiversity impacts can be reduced through appropriate layout planning, avoidance of sensitive features and implementation of mitigation measures, including the relocation of sensitive geophytes and aloes where avoidance is not possible.
- The specialist identified no botanical or terrestrial biodiversity fatal flaws that would prevent the proposed development from proceeding.

6.2 FRESHWATER IMPACT

The initial Freshwater Impact Assessment identified the potential impacts of the proposed development on the watercourses, wetlands and associated freshwater habitats within the broader study area.

The specialist concluded that the proposed development should, in principle, result in Low impacts on freshwater resources, provided that development infrastructure is located outside the identified hydrologically sensitive areas and their recommended buffer zones.

Potential freshwater impacts associated with the construction and operational phases include:

- Erosion and sedimentation resulting from vegetation clearing, earthworks and construction activities;
- Alteration of natural surface-water runoff patterns;
- Potential deterioration of surface-water and groundwater quality;
- Establishment and spread of alien invasive vegetation;
- Disturbance of wetlands, drainage features and watercourses;
- Increased stormwater runoff from developed and hardened surfaces; and
- Potential impacts associated with road crossings and other infrastructure located near watercourses.

The development footprint should therefore be planned to avoid identified freshwater features and their recommended buffers as far as practicable. Provided that construction and operational activities remain within the approved development areas and any disturbed freshwater areas are appropriately rehabilitated, the specialist considers that the overall freshwater impacts can be maintained at Low significance.

The preliminary freshwater assessment recommends that the 1:50-year and 1:100-year floodlines associated with relevant watercourses be taken into consideration during detailed layout planning to ensure that infrastructure is appropriately positioned outside areas subject to unacceptable flood risk.

The following key mitigation measures are recommended:

- Development footprint: Infrastructure should be located outside the delineated hydrologically sensitive areas and their recommended buffers. Appropriate stormwater management, erosion and sediment control and alien invasive vegetation management must be implemented.
- Access roads: Existing road infrastructure should be utilised as far as reasonably practicable to minimise additional disturbance. Disturbance within or near perennial and non-perennial watercourses should be minimised, and the natural flow of watercourses must not be unnecessarily impeded. Disturbed areas must be appropriately rehabilitated.
- Development infrastructure: Infrastructure should maintain the specialist-recommended buffers of approximately 24 m and 25 m from the respective delineated wetlands, as applicable. Disturbed areas must be monitored for erosion, alien invasive vegetation and rehabilitation success.
- Stormwater management: Stormwater must be appropriately managed to prevent concentrated runoff, erosion, sedimentation and deterioration of water quality within downstream freshwater features.
- Erosion and sediment control: Areas disturbed during construction must be stabilised and rehabilitated as soon as practicable, with appropriate erosion and sediment control measures implemented where necessary.
- Alien invasive vegetation: Alien invasive plant species must be controlled within disturbed areas during construction and operation.
- Long-term management: Good housekeeping and appropriate stormwater management must be maintained throughout the operational phase to minimise impacts on surface-water and groundwater resources. Culverts and other drainage structures associated with watercourse crossings must be appropriately maintained.

The initial Freshwater Impact Assessment was undertaken in relation to the broader development approximately 29.06 ha development footprint during the EIA phase to confirm the relationship between the revised layout and the delineated freshwater features, the applicability of the recommended 24 m and 25 m buffers, floodline requirements, and any applicable water-use authorisation requirements.

6.3 AVIFAUNAL IMPACT

6.3.1 Preliminary analysis

The initial Avifaunal and Animal Assessment identified a number of potential impacts associated with the construction and operation of the proposed solar PV and associated infrastructure. Potential impacts associated with solar PV developments include habitat loss and fragmentation, displacement of birds, disturbance during construction, collision with PV panels and associated power infrastructure, and indirect impacts on surrounding habitats.

Reflective PV panels may potentially result in bird collisions where birds perceive large arrays of panels as water bodies, commonly referred to as the “lake effect”. Associated infrastructure, including roads, distribution lines and electrical infrastructure, may also result in habitat disturbance and potential collision or electrocution risks.

The principal potential construction-phase impact is the loss or modification of avifaunal habitat within the development footprint, which may result in displacement of birds and other fauna. Natural grassland, wetlands, drainage features, farm dams and other aquatic habitats within the broader study area provide varying levels of foraging, breeding and movement habitat for avifauna.

The initial assessment identified watercourses, wetlands, farm dams and associated habitats as particularly sensitive avifaunal features. Development within these areas could result in the loss or disturbance of important foraging and breeding habitat and displacement of waterfowl and other species dependent on aquatic habitats. These sensitive features should therefore be avoided as far as practicable through appropriate layout planning.

Potential operational-phase impacts include:

- Collision of birds with PV panels and associated electrical infrastructure;
- Potential collision and/or electrocution associated with distribution lines and other electrical infrastructure;
- Disturbance and displacement resulting from increased human and vehicle activity;
- Alteration or loss of available foraging and breeding habitat;
- Spread of alien invasive vegetation following disturbance;
- Potential contamination of freshwater habitats from substances used during panel cleaning;
- Potential contamination associated with hydrocarbons and other pollutants from the truck charging, wash and maintenance areas; and
- Cumulative impacts associated with existing and proposed infrastructure within the broader landscape.

The previous assessment considered an earlier and substantially larger development layout and referred to the clearance of approximately 38 ha of vegetation. This figure is no longer applicable to the current proposal. The revised development has a total footprint of approximately 29.06 ha, of which approximately 24.86 ha is allocated to the solar PV component and approximately 4.2 ha to the electric truck charging facility and associated infrastructure.

The final Avifaunal and Animal Assessment will therefore reassess the potential impacts against the revised approximately 29.06 ha development footprint, including the extent of habitat loss, proximity to sensitive aquatic and avifaunal habitats, potential impacts on Species of Conservation Concern, and collision and electrocution risks associated with the final electrical infrastructure. Sensitive habitats should be avoided as far as practicable, with appropriate mitigation measures incorporated into the final layout and EMP.

Table 8: Possible impacts arising from the proposed development

Possible Impact	Source of Impact	Area and Species to be Affected	Development Phase	Nature of Impact
Loss of natural vegetation and habitat	Clearing vegetation for installation of solar panels, roads, and buildings	Natural grassland vegetation; Small passerines; Raptors; generalist mammals	Construction	Direct
Collision of avifauna with reflective surfaces of solar panels leading to injury or death	Solar panels perceived to be a water body by avifauna	Solar PV development site; Gamebirds, waterfowl; raptors	Operation	Direct
Collision and/or electrocution of avifauna with associated power lines	Existing power lines	Existing power lines; Gamebirds, waterfowl; raptors	Operation	Direct
Contamination of the environment by hazardous materials	Cleaning of solar panels during operation; Truck workshop, and cleaning of trucks	Watercourses downstream of the development, and soil below the panels; All species	Construction and Operation	Indirect
Spread of invasive alien plant species	Disturbance to soil and clearing of vegetation	Study area and surroundings	Construction	Indirect
Disturbance and displacement of resident species	Clearing of site and construction activities; Operational and maintenance activities; attraction of novel species	Site and immediate surroundings; Small terrestrial species; Common ground-dwelling gamebirds	Construction and Operation	Indirect
Habitat fragmentation	Clearing vegetation and installation of solar panels, roads, and buildings	Study area	Operation	Indirect
Increased human disturbance; Gradual environmental degradation	- Disturbance to the study area, adding to existing pressures in the landscape (farming) - Adding to cumulative pressures in the landscape caused by other approved or proposed renewable energy projects	Study area and surrounding natural areas	Operation	Cumulative

6.3.2 Pre-construction monitoring requirements & recommendations

The study area is relatively disturbed considering its proximity to the N3 highway. The site is largely comprised of disturbed but natural grassland habitat that supports generalist birds occurring in the region. The broader landscape supports numerous priority bird species, including Species of Conservation Concern (SCC), which have been confirmed within the surrounding area.

Appropriate pre-construction monitoring must therefore be undertaken in accordance with the applicable best-practice guidelines for assessing the impacts of solar energy developments on birds. This will take the avifaunal assessment to Stage 2 – Data Collection, comprising on-site avifaunal monitoring to inform the detailed impact assessment and provide baseline information against which post-construction monitoring, if required, can be compared.

The initial specialist assessment was based on the previous development configuration of approximately 63.5 ha and classified the site as having Medium avifaunal sensitivity. On this basis, the specialist recommended Assessment Regime 2, comprising sampling over a minimum of two seasons, with at least one survey undertaken during the peak summer season.

Based on the key habitats present within the study area and surrounding landscape, the specialist requires the following sampling to be incorporated into the data collection phase:

- Abundance estimates for small terrestrial birds through point-count or walked linear-transect surveys;
- Counts of large terrestrial birds and raptors through driven road transects and vantage-point monitoring;
- Searches for nest sites of priority species, including raptor nests, with all such sites accurately mapped and checked for evidence of breeding;
- Recording of the flight behaviour of priority species flying over or near the proposed development area and assessment of associated collision risk;
- Recording of bird numbers at focal wetlands, including farm dams, and local movements between waterbodies; and
- Recording of incidental sightings of priority species.

The following preliminary recommendations should guide the positioning and refinement of the proposed infrastructure and layout:

- All drainage lines, wetlands and dams should be avoided, together with the buffers recommended by the freshwater specialist;
- Natural grassland associated with sensitive freshwater habitats should be avoided as far as practicable; and
- Rocky koppies and other sensitive rocky habitat should be avoided.

As the proposed development has subsequently been reduced to an approximately 29.06 ha development footprint, the avifaunal specialist will review the revised layout during the EIA phase and confirm the appropriate monitoring requirements, sensitivity classification and final mitigation measures applicable to the revised development.

Table 9: Recommended avifaunal assessment regimes (Jenkins et al., 2017)

Type	Size	Avifaunal Sensitivity*		
		Low	Medium	High
All solar technologies except Concentrated Solar Power (CSP)	Small (<30 ha / <10 MW)	Regime 1 One site visit of 1-5 days	Regime 1 One site visit of 1-5 days	Regime 2 2-3 seasonal visits of 3-5 days over 6 months Pre- & post-con monitoring mortality searches
	Medium (30-150 ha / 10-50 MW)	Regime 1 One site visit of 1-5 days	Regime 2 2-3 seasonal visits of 3-5 days over 6 months Pre- & post-con monitoring mortality searches	Regime 2 2-3 seasonal visits of 3-5 days over 6 months Pre- & post-con monitoring mortality searches
	Large (>150 ha / >50 MW)	Regime 2 2-3 seasonal visits of 3-5 days over 6 months Pre- & post-con monitoring mortality searches	Regime 2 2-3 seasonal visits of 3-5 days over 6 months Pre- & post-con monitoring mortality searches	Regime 3 4-5 seasonal visits of 4-8 days over 12 months Pre- & post-con monitoring mortality searches
CSP	All	Regime 3 4-5 seasonal visits of 4-8 days over 12 months Pre- & post-con monitoring mortality searches		

The avifaunal sensitivity is based on the number of priority species present, or potentially present, the regional, national, or global importance of the affected area for these species (both individually and collectively), and the perceived susceptibility of these species (both individually and collectively) to the anticipated impacts of development

6.4 HERITAGE / ARCHAEOLOGICAL IMPACT

The potential impact on heritage resources, including archaeological and palaeontological resources, has been identified as a potential environmental impact associated with the proposed Kopleegte Recharging Station.

The heritage assessment identified archaeological features within the broader area associated predominantly with Late Iron Age (LIA) settlement, particularly the Moor Park Phase. The development footprint forms part of a larger archaeological landscape that has previously been surveyed, mapped and partially excavated. Archaeological features recorded include stone-walled enclosures, graves and general stone walling. Although many of these features are in a poor state of preservation and have been disturbed, sufficient archaeological material and spatial information remains to contribute to the understanding of Late Iron Age settlement patterns.

The assessment indicates that disturbance, alteration or destruction of archaeological features will require the necessary heritage approval and/or permit from the relevant heritage authority. Where impacts on archaeological resources cannot be avoided, appropriate mitigation will be required.

The heritage specialist recommends that mitigation be undertaken in the following sequence:

1. Accurate mapping of the archaeological features with the assistance of a land surveyor;
2. Use of the mapping results to identify areas of archaeological interest requiring limited excavation; and
3. Investigation of identified graves, including excavation and appropriate sampling where required.

The archaeological area has also been surveyed using LiDAR. Detailed mapping of the identified features will assist in establishing their spatial relationships and identifying areas suitable for further archaeological investigation. Stone-walled enclosures may contain or be associated with graves, while former dwelling areas may occur behind the primary enclosures and could provide additional archaeological information.

Where graves are identified within areas that may be affected by the development, these must be appropriately investigated in accordance with the requirements of the heritage authority. The specialist notes that many of the graves and archaeological features have already been disturbed by termite activity and/or aardvark burrows. Mapping should therefore be undertaken under suitable vegetation conditions to ensure that the spatial arrangement of the remaining features can be accurately recorded. The specialist further recommends that the results of archaeological mitigation be made available for public interpretation, for example through an information board within the development.

The Netcare Helicopter Memorial occurring within the development area is an existing commemorative feature and must be retained in situ and protected from disturbance during construction and operation. The heritage assessment will be reviewed against the revised approximately 29.06 ha development footprint during the EIA phase to determine which identified archaeological features occur within or in proximity to the revised footprint and to confirm the avoidance, permitting and mitigation requirements applicable to the final layout.

With regard to palaeontological resources, although the DFFE Screening Tool identifies the site as having Very High Palaeontological Sensitivity, the palaeontological specialist concluded that the likelihood of encountering significant fossil material is Low, but not zero. A Chance Find Protocol must therefore be incorporated into the EMPr and implemented should fossil material be encountered during construction.

6.5 LANDSCAPE / VISUAL IMPACT

The proposed development is located within a predominantly rural and agricultural landscape characterised by open grassland, agricultural activities and existing infrastructure associated with the N3 corridor. Existing anthropogenic elements within the broader visual environment include roads, electrical infrastructure, telecommunications infrastructure and the Netcare Helicopter Memorial.

The DFFE Screening Tool identifies the Landscape (Solar) theme as Low Sensitivity. The Visual Site Sensitivity Verification (SSV), however, identified the site as having an overall Medium visual sensitivity, taking into consideration the landscape character, visibility of the proposed development and surrounding receptors. The Visual Impact Assessment will be reviewed and finalised during the EIA phase against the revised development layout.

Potential visual impacts associated with the proposed development include:

- Alteration of the landscape character and sense of place: The introduction of solar PV arrays, the BESS, truck charging infrastructure, buildings, internal roads and associated infrastructure will introduce additional built elements into the predominantly rural and agricultural landscape.
- Visibility from surrounding receptors: The development may be visible from the N3, surrounding roads, agricultural properties, residences and other receptors within the surrounding landscape.
- Visual impact associated with the truck charging facility: Buildings, truck parking and circulation areas, charging infrastructure, the wash bay and associated infrastructure may increase the visual prominence of the development, particularly during operation.
- Night-time lighting: Lighting associated with the truck charging facility, parking areas, buildings and security infrastructure may introduce additional night-time visual impacts within the rural landscape.
- Potential glare: The PV component will comprise fixed solar panels. The glare assessment undertaken for the project indicates that unacceptable glare impacts on motorists travelling along the N3 are not anticipated, subject to implementation of the applicable recommendations and mitigation measures.
- Impact on vegetation and landscape character: Vegetation clearing and construction activities may temporarily and permanently alter the existing visual character of portions of the site.
- Potential impact on the Netcare Helicopter Memorial: The memorial represents an important existing commemorative feature within the development area and must be retained in situ and appropriately integrated into the final development layout.

The following mitigation measures should be incorporated into the detailed design and management of the development:

- Locate and design infrastructure to minimise visual intrusion from sensitive receptors as far as practicable;
- Utilise existing topography and vegetation, where appropriate, to reduce the visibility of development infrastructure;
- Retain existing vegetation where practicable and rehabilitate areas disturbed during construction with appropriate indigenous vegetation;
- Minimise unnecessary vegetation clearing and restrict disturbance to the approved development footprint;
- Design external lighting to minimise light spill, glare and unnecessary illumination of the surrounding rural landscape;
- Implement the recommendations arising from the glare assessment;
- Maintain appropriate setbacks from freshwater features in accordance with the recommendations of the freshwater specialist;

- Retain the Netcare Helicopter Memorial in situ and ensure that it is protected from disturbance during construction and operation; and
- Incorporate the final recommendations of the Visual Impact Assessment into the project design and EMPr.

The revised development layout represents a substantial reduction from the previous development configuration and consolidates the development on one side of the N3. The current development footprint is approximately 29.06 ha, comprising approximately 24.86 ha of solar PV infrastructure and approximately 4.2 ha for the truck charging facility and associated infrastructure. This more compact configuration reduces the spatial extent of the development and consequently has the potential to reduce its overall visual exposure compared with the previous layout.

The Visual Impact Assessment will be reviewed and finalised against the revised approximately 29.06 ha development footprint during the EIA phase. The final assessment will consider the visibility of the revised development from identified receptors, changes to landscape character and sense of place, night-time lighting, glare, the relationship with the Netcare Helicopter Memorial and appropriate mitigation measures.

6.6 AGRICULTURAL IMPACT

The proposed development is located on land zoned for agricultural purposes. The broader property includes land used for agricultural activities, including grazing, together with areas that have been cultivated or disturbed historically. Development of the proposed solar PV and electric truck charging facility will result in the loss of agricultural land within the development footprint and may temporarily affect surrounding agricultural activities during construction.

The DFFE Screening Tool classifies the Agriculture theme as High Sensitivity, primarily due to the occurrence of land with Moderate-High agricultural land capability, including Land Capability Classes 09 and 10. The agricultural specialist assessment, however, identified site-specific soil and land capability characteristics that require consideration when determining the actual agricultural sensitivity of the development footprint.

6.6.1 Agricultural Compliance Statement

An Agricultural Compliance Statement was undertaken for the proposed development. The specialist field survey identified soils predominantly associated with the Fa and Bb land types. The Fa land type is generally characterised by shallow soils, including Mispah and Glenrosa forms, while the Bb land type includes red and yellow dystrophic and/or mesotrophic apedal soils and soils with plinthic characteristics.

The agricultural assessment identified:

- A climate capability of 6 (Moderate-High);
- Terrain capability generally ranging between 5 and 7 (Moderate-High);
- A soil capability of approximately 5 (Moderate);
- Land capability predominantly ranging between Class 8 (Moderate) and Class 9 (Moderate-High), with some areas of lower capability; and
- An estimated grazing capacity of approximately 5 ha/LSU.

During the specialist's field survey undertaken on 9 November 2023, no visible evidence of cultivation was observed within the area assessed at that time. The site was predominantly associated with grazing

and grassland use. This finding must, however, be considered in the context of the broader property, which includes areas of current and/or historical agricultural disturbance and cultivation.

Based on the site-specific soil conditions and agricultural characteristics, the specialist considered the agricultural sensitivity of the area assessed to be lower than indicated by the DFFE Screening Tool and concluded that the proposed development was unlikely to result in a significant impact on agricultural production or regional food security.

The agricultural assessment will be reviewed against the revised approximately 29.06 ha development footprint during the EIA phase to confirm the extent and agricultural capability of land that would be directly affected, the relationship of the revised footprint to areas of Moderate-High land capability, and the significance of the permanent or long-term loss of agricultural land.

Potential agricultural impacts that will require consideration include:

- Loss of agricultural and grazing land within the development footprint;
- Reduction and/or fragmentation of land available for future agricultural production;
- Soil disturbance, compaction and erosion during construction;
- Potential impacts on existing farming activities and access; and
- Cumulative loss of agricultural land within the surrounding area.

The reduced development footprint should minimise the amount of agricultural land affected compared with the previous development configuration. Appropriate soil management, erosion control and rehabilitation measures must be incorporated into the EMP.

6.6.2 Financial incentive for agriculture

Where appropriate, an agreement between the applicant and the landowner may provide an opportunity to diversify the income generated from the property while retaining agricultural activities on unaffected portions of the land.

Such an arrangement may provide an additional income stream that is less dependent on agricultural production and could contribute to the longer-term financial sustainability of the property. This potential socio-economic benefit should, however, not be regarded as mitigation for the loss of agricultural land. The acceptability of the development from an agricultural perspective must primarily be determined by the agricultural capability and sensitivity of the affected land and the significance of the anticipated agricultural impacts.

6.7 SOCIO-ECONOMIC IMPACT

6.7.1 Socio-economic Impact Statement and Conclusion

The proposed Kopleegte Recharging Station has the potential to result in both positive and negative socio-economic impacts during the construction and operational phases.

The project will introduce renewable-energy-supported electric truck charging infrastructure along the N3 freight corridor and has the potential to contribute to investment and economic activity within the Okhahlamba Local Municipality and broader uThukela District Municipality. The proposed development may also support the transition towards lower-carbon transport infrastructure through the integration of the proposed 33.59 MWp solar PV facility, BESS and electric truck charging infrastructure.

Potential positive socio-economic impacts include:

- Temporary employment opportunities during construction;
- Longer-term employment associated with operation and maintenance of the facility;
- Opportunities for local procurement and the use of local contractors and service providers;
- Skills development and training opportunities;
- Increased local economic activity associated with the truck charging facility and ancillary services;
- Economic opportunities associated with the proposed farmstall and related facilities; and
- Investment in infrastructure supporting the transition towards electric heavy-vehicle transport.

Potential negative socio-economic impacts include:

- Temporary construction-related noise, dust and traffic impacts;
- Increased construction and operational traffic;
- Potential safety and security concerns associated with construction workers and increased activity;
- Potential impacts on existing agricultural activities and the loss of agricultural land within the development footprint;
- Changes to the rural character and sense of place of the surrounding area; and
- Potential impacts associated with access to and from the proposed facility.

No socio-economic fatal flaws have been identified at this stage. The overall socio-economic acceptability of the development will, however, depend on appropriate mitigation of potential negative impacts and maximisation of local socio-economic benefits.

The socio-economic assessment will be reviewed and finalised during the EIA phase against the revised approximately 29.06 ha development footprint, taking into consideration the final development layout, Traffic Impact Assessment, access arrangements and comments received through the current public participation process.

6.7.2 Recommendations

The following measures are recommended to maximise the positive socio-economic benefits and minimise potential negative impacts associated with the development:

- Give preference, where reasonably practicable, to local labour, particularly for unskilled and semi-skilled employment opportunities;
- Provide appropriate skills development and training opportunities where feasible;

- Give preference to local suppliers, contractors and service providers, where suitably qualified and commercially competitive;
- Manage construction-related impacts, including noise, dust, traffic and disruption to surrounding land users, through the EMPr;
- Implement appropriate traffic and access management measures in accordance with the recommendations of the Traffic Impact Assessment and the requirements of the relevant roads authority;
- Develop and implement appropriate health, safety, security and emergency-response measures for the construction and operational phases;
- Maintain effective communication with surrounding landowners, affected communities and other stakeholders during construction;
- Establish an appropriate mechanism through which complaints and grievances can be recorded and addressed;
- Promote equitable access to employment, procurement and skills-development opportunities; and
- Where practicable, encourage opportunities for local businesses to benefit from the economic activity generated by the development.

The implementation of these measures will assist in maximising the local socio-economic benefits associated with the project while reducing potential adverse effects on surrounding land users and communities.

7 DETAILS OF THE PUBLIC PARTICIPATION PROCESS

Interested and Affected Parties (I&APs) have been and will be identified throughout the process. Landowners adjacent to the proposed site, relevant organs of state, organisations, ward councillors and the Local and District Municipality were added to this database. A complete list of organisations and individual groups identified to date is shown in Appendix 4.

Public Participation will be conducted for the proposed development in accordance with the requirements outlined in Regulation 41 of the NEMA EIA Regulations 2014. The issues and concerns raised during the scoping phase will be dealt with in the EIA phase of this application.

As such, each subsection of Regulation 41 contained in Chapter 6 of the NEMA EIA Regulations 2014 will be addressed separately to thereby demonstrate that all potential Interested and Affected Parties (I&AP's) were notified of the proposed development.

Table 10: Public participation process Regulations as per NEMA EIA Regulations, 2014 (as amended 2021)

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
Regulation 39 - Activity on land owned by person other than proponent		
1.	If the proponent is not the owner or person in control of the land on which the activity is to be undertaken, the proponent must, before applying for an environmental authorisation in respect of such activity, obtain the written consent of the landowner or person in control of the land to undertake such activity on that land.	Written consent of the landowner or person in control of the land to undertake the proposed activities on the land has been obtained through an established agreement.
2.	Subregulation (1) does not apply in respect of— a) linear activities; and	Noted. Not applicable to this proposed development.
	b) strategic integrated projects as contemplated in the Infrastructure Development Act, 2014.	Noted. Not applicable to this proposed development.
Regulation 40 - Purpose of public participation		
1.	The public participation process to which the— a) basic assessment report and EMPr, and the closure plan in the case of a closure activity, submitted in terms of regulation 19; and	As part of the pre-application Scoping phase, a 30-day commenting period will be undertaken. All potential or registered interested and affected parties, including the competent authority, will be invited and allowed to submit comments regarding the proposed development.
	b) scoping report submitted in terms of regulation 21, the environmental impact assessment report, EMPr, and the closure plan in the case of a closure activity, submitted in terms of regulation 23; was subjected to must give all potential or registered interested and affected parties, including the competent authority, a period of at least 30 days to submit comments on each of the basic assessment report, EMPr, scoping report and environmental impact assessment report, and the closure plan in the case of a closure activity, as well as the report contemplated in regulation 32, if such reports or plans are submitted at different times.	
2.	The public participation process contemplated in this regulation must provide access to all information that reasonably has or may have the potential to influence any decision with regard to an application unless access to that information is protected by law and must include consultation with — a) the competent authority;	As part of the pre-application Scoping phase, notification letters will be sent to — a) The KwaZulu-Natal Department of Economic Development and Environmental Affairs (KZN EDTEA), identified as the competent authority.
	b) every State department that administers a law relating to a matter affecting the environment relevant to an application for an environmental authorisation;	

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
	c) all organs of state which have jurisdiction in respect of the activity to which the application relates; and d) all potential, or, where relevant, registered interested and affected parties.	b & c) The following state departments that administer a law relating to a matter affecting the environment relevant to an application and organs of state that have jurisdiction in respect of the activity to which the application relates: - Department of Agriculture and Rural Development - Co-operative Governance and Traditional Affairs - Eskom - Department of Energy - Department of Water and Sanitation - KZN AMAFA and Research Institute - Department of Public Works - Department of Transport - N3 Toll concession - SANRAL - Transnet - Ezemvelo KZN Wildlife d) All potential, or, where relevant, registered interested and affected parties. The notification letters will be sent to inform the parties described above about the proposed activity/development and to invite their input.

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
3.	Potential or registered interested and affected parties, including the competent authority, may be provided with an opportunity to comment on reports and plans contemplated in subregulation (1) prior to submission of an application but must be provided with an opportunity to comment on such reports once an application has been submitted to the competent authority.	During the pre-application Scoping phase, potential and registered Interested and Affected Parties (I&APs), including relevant organs of state and the competent authority, will be notified of the proposed development and provided with an opportunity to review and comment on the Pre-Application Scoping Report and associated Plan of Study for EIA. Following completion of the pre-application process and submission of the formal application to the competent authority, registered I&APs and relevant authorities will be afforded further opportunities to participate in and comment on the formal Scoping Report, Environmental Impact Assessment Report (EIR), specialist assessments and associated plans, as applicable, in accordance with the requirements of the EIA Regulations, 2014 (as amended).
Regulation 41 – Public participation process		
1.	This regulation only applies in instances where adherence to the provisions of this regulation is specifically required.	Noted.
2.	The person conducting a public participation process must take into account any relevant 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 an application or proposed application which is subjected to public participation by— a) fixing a notice board at a place conspicuous to and accessible by the public at the boundary, on the fence or along the corridor of — i. the site where the activity to which the application or proposed application relates is or is to be undertaken; and	During the pre-application Scoping phase, an English and an isiZulu A2-sized notice board will be fixed on the boundary / fence of the site where the activity to which the proposed application relates is to be undertaken. Additionally, multiple English and isiZulu A3-sized notice boards will be placed at various locations around the site.
	ii. any alternative site	There is no alternative site.

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
	b) giving written notice, in any of the manners provided for in section 47D of the Act, to— i. the occupiers of the site and, if the proponent or applicant is not the owner or person in control of the site on which the activity is to be undertaken, the owner or person in control of the site where the activity is or is to be undertaken and to any alternative site where the activity is to be undertaken	As part of the pre-application Scoping phase, notification letters will be sent to occupiers and persons in control of the site via email and/or mail drops conducted during the site visit.
	ii. owners, persons in control of, and occupiers of land adjacent to the site where the activity is or is to be undertaken and to any alternative site where the activity is to be undertaken	As part of the pre-application Scoping phase, notification letters will be sent to occupiers of land adjacent to the site via email and/or mail drops conducted during the site visit.
	iii. the municipal councillor of the ward in which the site and alternative site is situated and any organisation of ratepayers that represent the community in the area	As part of the pre-application Scoping phase, a notification letter will be sent to the relevant municipal ward councillor at the Okhahlamba Local Municipality. No ratepayer organisations are identified for the community in the area.
	iv. the municipality which has jurisdiction in the area	As part of the pre-application Scoping phase, a notification letter will be sent to a representative of the Okhahlamba Local Municipality and the uThukela District Municipality.

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
	v. any organ of state having jurisdiction in respect of any aspect of the activity; and	As part of the pre-application Scoping phase, notification letters will be sent to the following organs of state having jurisdiction in respect of any aspect of the activity: - Department of Agriculture and Rural Development - Co-operative Governance and Traditional Affairs - Eskom - Department of Energy - Department of Water and Sanitation - KZN AMAFA and Research Institute - Department of Public Works - Department of Transport - N3 Toll concession - SANRAL - Transnet - Ezemvelo KZN Wildlife
	vi. any other party as required by the competent authority	Noted. Should the competent authority require any other party to receive written notice, then this will be duly carried out.
	c) placing an advertisement in— i. one local newspaper; or	An English and isiZulu advertisement will be placed in the Lady Gazette, a local newspaper.
	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;	Noted. Not applicable to this proposed development.
	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 district 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 paragraph (c) (ii); and	Noted. Not applicable to this proposed development.

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
	e) using reasonable alternative methods, as agreed to by the competent authority, in those instances where a person is desirous of but unable to participate in the process due to — i. illiteracy;	Noted. In instances where a person desires to participate in the process but is unable to do so due to illiteracy, disability, or any other disadvantage, and makes such a desire known to the EAP, then reasonable alternative methods will be used, as agreed upon by the competent authority.
	ii. disability; or	
	iii. any other disadvantage	
3.	A notice, notice board or advertisement referred to in subregulation (2) must— a) give details of the application or proposed application which is subjected to public participation; and b) state — i. whether basic assessment or S&EIR procedures are being applied to the application; ii. the nature and location of the activity to which the application relates; iii. where further information on the application or proposed application can be obtained; and iv. the manner in which and the person to whom representations in respect of the application or proposed application may be made.	The written notices — specifically, notification letters, notice boards, and advertisements — that form part of the pre-application Scoping phase's 30-day commenting period contain details of the proposed application, which is subject to public participation. Please refer to Appendix 4 for proof of the written notices.
4.	A notice board referred to in subregulation (2) must— a) be of a size of at least 60cm by 42cm; and b) display the required information in lettering and in a format as may be determined by the competent authority.	The notice boards measured 60cm by 42cm is size and displayed the required information in a legible format. Please refer to Appendix 4 for proof of the notice boards.
5.	Where public participation is conducted in terms of this regulation for an application or proposed application, subregulation (2) (a), (b), (c) and (d) need not be complied with again during the additional public participation process contemplated in regulations 19 (1) (b) or 23 (1) (b) or the public participation process contemplated in regulation 21 (2) (d), on condition that— a) such process has been preceded by a public participation process which included compliance with subregulation (2) (a), (b), (c) and (d); and	Noted.
	b) written notice is given to registered interested and affected parties regarding where the— i. revised documents as contemplated in regulation 19 (1) (b);	Noted.

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
	ii. revised documents as contemplated in regulation 23 (1) (b); or	Noted.
	iii. environmental impact assessment report and documents as contemplated in regulation 21 (2) (d); may be obtained, the manner in which and the person to whom representations on these reports or plans may be made and the date on which such representations are due.	Noted.
6.	When complying with this regulation, the person conducting the public participation process must ensure that— a) information containing all relevant facts in respect of the application or proposed application is made available to potential interested and affected parties; and	Noted.
	b) participation by potential or registered interested and affected parties is facilitated in such a manner that all potential or registered interested and affected parties are provided with a reasonable opportunity to comment on the application or proposed application.	Noted.
7.	Where an environmental authorisation is required in terms of these Regulations and an authorisation, permit or licence is required in terms of a specific environmental management Act, the public participation process contemplated in this Chapter may be combined with any public participation processes prescribed in terms of a specific environmental management Act, on condition that all relevant authorities agree to such combination of processes.	Noted.
Regulation 42 - Register of interested and affected parties		
1.	A proponent or applicant must ensure the opening and maintenance of a register of interested and affected parties and submit such a register to the competent authority, which register must contain the names, contact details and addresses of— a) all persons who, as a consequence of the public participation process conducted in respect of that application, have submitted written comments or attended meetings with the proponent, applicant or EAP;	A register of interested and affected parties was opened and is maintained.
	b) all persons who have requested the proponent or applicant, in writing, for their names to be placed on the register; and	

Sub	Regulations of Chapter 6 of NEMA EIA Regulations, 2014 (as amended 2021)	Applicability to the development
	c) all organs of state which have jurisdiction in respect of the activity to which the application relates.	
Regulation 43 - Registered interested and affected parties entitled to comment on reports and plans		
1.	A registered interested and affected party is entitled to comment, in writing, on all reports or plans submitted to such party during the public participation process contemplated in these Regulations and to bring to the attention of the proponent or applicant any issues which that party believes may be of significance to the consideration of the application, provided that the interested and affected party discloses any direct business, financial, personal or other interest which that party may have in the approval or refusal of the application.	This subregulation is communicated to registered interested and affected parties during the public participation process.
2.	In order to give effect to section 24O of the Act, any State department that administers a law relating to a matter affecting the environment must be requested, subject to regulation 7 (2), to comment within 30 days.	State departments that administer laws relating to environmental matters relevant to the application, as well as organs of state with jurisdiction over the activity, were notified of the proposed application and invited to comment within 30 days. However, should comments not be received within the prescribed timeframes, it would be assumed that no comments are forthcoming.
Regulation 44 - Comments of interested and affected parties to be recorded in reports and plans		
1.	The applicant must ensure that the comments of interested and affected parties are recorded in reports and plans and that such written comments, including responses to such comments and records of meetings are attached to the reports and plans that are submitted to the competent authority in terms of these Regulations.	Comments of interested and affected parties are recorded together with the responses in a Comment and Response report (CRR) and where applicable, incorporated into reports and plans.
2.	Where a person desires but is unable to access written comments as contemplated in subregulation due to— a) a lack of skills to read or write; b) disability; or c) any other disadvantage; reasonable alternative methods of recording comments must be provided for.	Noted. Where a person desires to but is unable to access written comments due to illiteracy, disability, or any other disadvantage, and makes such a desire known to the EAP, then reasonable alternative methods of recording comments will be provided for.

8 PLAN OF STUDY FOR THE EIA

8.1 TASKS TO BE UNDERTAKEN

Due to the nature and scale of the proposed development, a number of activities will still need to be undertaken during the formal Scoping and Environmental Impact Assessment (EIA) process.

The current Pre-Application Scoping Report and Plan of Study for EIA will first be subjected to public and authority review during the pre-application Public Participation Process. Comments received will be considered and, where relevant, incorporated into the environmental assessment and project planning prior to commencement of the formal application process.

Following completion of the pre-application process, the NEMA Application Form will be submitted to the KwaZulu-Natal Department of Economic Development, Tourism and Environmental Affairs (KZN EDTEA), together with the Draft Scoping Report and Plan of Study for EIA. The Draft Scoping Report will be made available to registered Interested and Affected Parties (I&APs), relevant organs of state and other stakeholders for the prescribed 30-day commenting period.

All comments received during the formal Scoping Public Participation Process will be considered and addressed in the Comments and Responses Report, and the Draft Scoping Report will be updated accordingly. The Final Scoping Report and Plan of Study for EIA will thereafter be submitted to KZN EDTEA for consideration and acceptance.

Subject to acceptance of the Scoping Report and Plan of Study for EIA by KZN EDTEA, the project will proceed to the Environmental Impact Assessment phase. During this phase, the identified environmental issues and potential impacts will be assessed in further detail, the relevant specialist assessments will be reviewed and/or finalised against the revised development layout, and appropriate mitigation and management measures will be developed.

The following section sets out the tasks proposed to be undertaken as part of the EIA process. Should the proposed approach require material amendment during the assessment process, such changes will be communicated to KZN EDTEA and addressed in the relevant environmental assessment documentation.

Table 11: EIA process - Timeline

EIA Process	
Task	Timeframes
Pre - Application Scoping Report Distribution for 30 days	September 2026 – October 2026
Submit NEMA Application and Draft Scoping Report (DSR) and Plan of Study for EIA to KZNEDTEA and distribute to registered I&APs for comment.	October 2026
Draft Scoping Report PPP for 30 days	October 2026 – November 2026
Submit Final Scoping Report (FSR) and Plan of Study to KZNEDTEA for a decision.	November 2026

Receive approval for the Final Scoping Report and the Plan of Study for EIA.	December 2026 – January 2027
Undertake/further specialist studies and compile the Draft Environmental Impact Report (EIR) for public comment based on specialist information.	January 2027 – February 2027
Submit Draft EIR for public comment.	February 2027
Receive responses to the Draft EIR.	March 2027 – April 2027
Preparation of a FINAL EIR and submission to KZNEDTEA	May 2027

**Timeframes provided are estimates and are subject to change. They serve as a tentative indication and may be adjusted as the process progresses.*

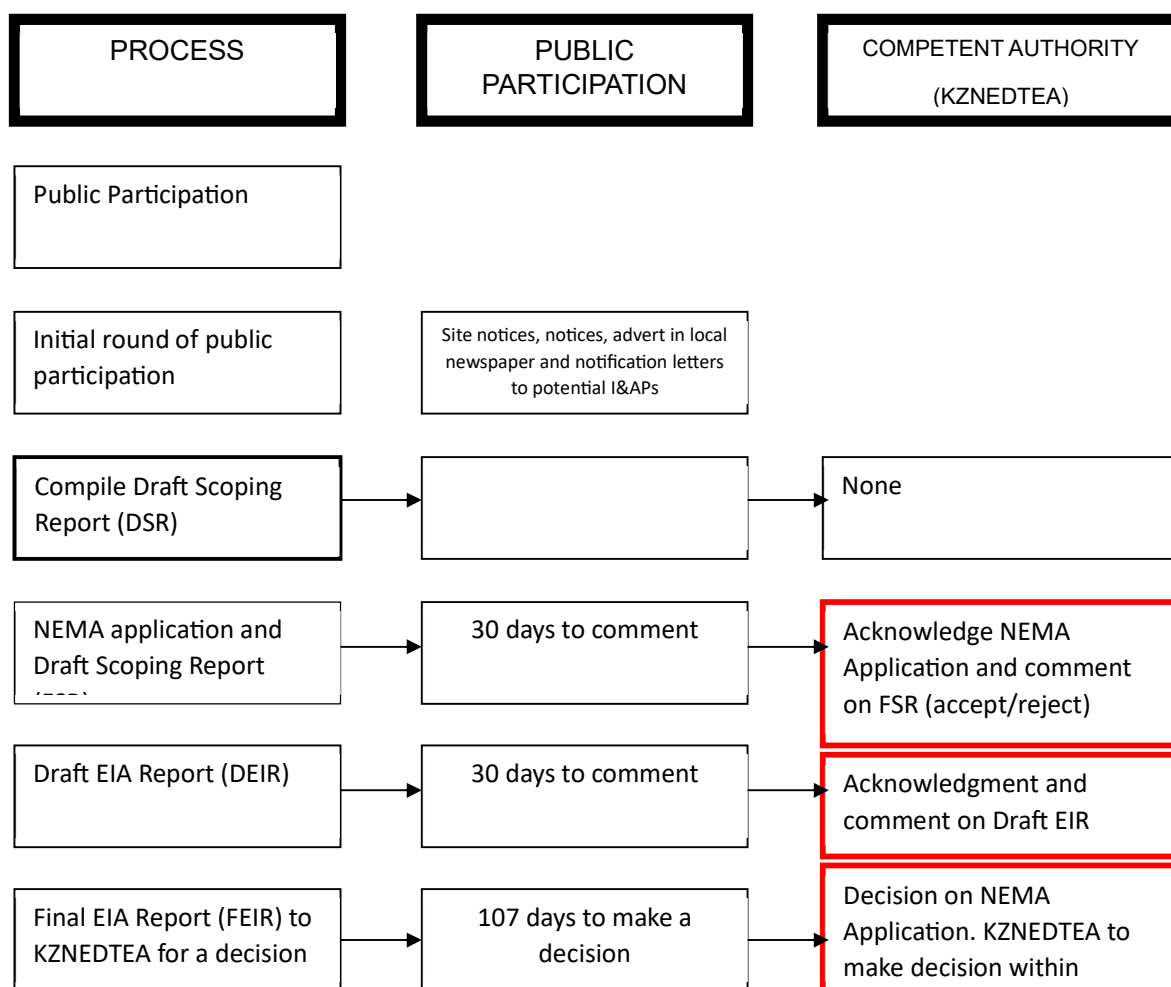


Figure 311: Summary of the EIA process and public participation process. The red indicates the stages where the competent authority will be consulted during the process

8.2 PUBLIC PARTICIPATION AND INTERESTED AND AFFECTED PARTIES

The Public Participation Process (PPP) forms an integral part of both the Scoping and Environmental Impact Assessment (EIA) phases. Figure 31 illustrates where public participation occurs within the environmental assessment process and indicates the applicable statutory timeframes.

During the current pre-application Scoping phase, potential and registered Interested and Affected Parties (I&APs), relevant organs of state and other stakeholders are being afforded an opportunity to review and comment on the Pre-Application Scoping Report and Plan of Study for EIA. Comments received during this process will be considered in the further development and assessment of the project.

Following submission of the formal NEMA application, registered I&APs and relevant authorities will be provided with further opportunities to review and comment on the environmental assessment documentation during the formal Scoping and EIA phases. This will include the Draft Scoping Report

and, subsequently, the Draft Environmental Impact Assessment Report (EIR), specialist assessments, EMPr and other relevant supporting documentation.

All comments received during the respective commenting periods will be recorded and addressed in a Comments and Responses Report. Where relevant, comments received will inform the assessment of environmental impacts, consideration of alternatives, refinement of the development layout and identification of appropriate mitigation and management measures.

During the EIA phase, the Draft EIR and associated documentation will be made available to registered I&APs and relevant authorities for the prescribed commenting period. Following completion of the commenting period, the EIR will be revised where necessary to address comments received. The Final EIR, together with the Comments and Responses Report and associated documentation, will thereafter be submitted to KZN EDTEA for consideration and decision-making.

Communication with I&APs may include email, post, telephone communication, site notices and newspaper advertisements, as appropriate. Newspaper advertisements and site notices will be published/displayed in English and isiZulu, where applicable. Meetings with key stakeholders and authorities may also be undertaken where necessary to address specific issues raised during the assessment process.

The I&AP database will be maintained and updated throughout the environmental assessment process to ensure that registered I&APs are appropriately notified of opportunities to participate and comment. The PPP may be adapted where necessary in response to issues identified during the assessment process or stakeholder input, provided that the applicable requirements of the EIA Regulations are met. Any material changes to the proposed process will be communicated to KZN EDTEA, where required.

8.3 CRITERIA FOR SPECIALIST ASSESSMENT OF IMPACTS

As a result of the environmental issues and potential impacts identified in **Section 6**, the following specialist assessments have been identified as relevant to the proposed development:

- Biodiversity Assessment;
- Freshwater Assessment;
- Heritage Impact Assessment;
- Socio-Economic Impact Assessment;
- Visual Impact Assessment;
- Agricultural Potential Assessment; and
- Avifauna and Animal Species Assessment.

Specialist investigations have already been undertaken for the project, with several studies having been completed or progressed during the earlier assessment of the development. Relevant preliminary findings have been incorporated into this Pre-Application Scoping Report.

As the development layout has subsequently been revised and reduced to an approximately 29.06 ha development footprint, the relevant specialist assessments will be reviewed, updated and/or finalised during the EIA phase, as applicable, to ensure that the assessment findings and recommendations are based on the current development proposal. The final specialist findings, impact assessments, mitigation measures and recommendations will be incorporated into the EIR and EMPr.

The impacts of the proposed development on the various components of the receiving environment will be evaluated in terms of duration, extent, magnitude and significance, as outlined in Table 12. Impacts

may be either positive or negative and will be assessed for the relevant construction and operational phases of the development.

The assessment will also consider the identified alternatives, including the preferred revised development layout and the No-Go Alternative, as described in Section 4.

The magnitude of an impact is a professional judgement made by the individual assessor, while the determination of significance is based on the combined consideration of the applicable assessment criteria, including duration, extent and magnitude.

Where mitigation is applicable, impacts will be assessed both before and after the implementation of mitigation measures, where appropriate. Recommended mitigation and management measures will be clearly identified and incorporated into the EIR and/or EMP.

Uncertainties, assumptions and limitations associated with the assessments will be identified and considered when determining the significance of potential impacts. Where the assessment methodology requires an indication of the certainty or effectiveness of a proposed mitigation measure, this will be evaluated using the applicable specialist assessment methodology.

The specialist assessments will take cognisance of the applicable minimum content requirements and relevant environmental assessment protocols, including the Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes published in Government Notice No. 320, Government Gazette No. 43110 of 20 March 2020, as applicable to the respective specialist themes.

Table 12: Criteria used for evaluating impacts

Criteria	Category
Nature of impact	This is an evaluation of the effect that the construction, operation and maintenance of a proposed dam would have on the affected environment. This description should include what is to be affected and how.
Duration (Predict whether the lifetime of the Impact will be temporary (less than 1 year) short term (0 to 5 years); medium term (5 to 15 years); long term (more than 15 years, with the Impact ceasing after full implementation of all development components with mitigations); or permanent.	Temporary: < 1 year (not including construction) Short-term: 1 – 5 years Medium term: 5 – 15 years Long-term: >15 years (Impact will stop after the operational or running life of the activity, either due to natural course or by human interference) Permanent: Impact will be where mitigation or moderation by natural course or by human interference will not occur in a particular means or in a particular time period that the impact can be considered temporary
Extent (Describe whether the impact occurs on a scale limited to the site area; limited to broader area; or on a wider scale)	Site Specific: Expanding only as far as the activity itself (<i>onsite</i>) Small: restricted to the site's immediate environment within 1 km of the site (<i>limited</i>) Medium: Within 5 km of the site (<i>local</i>) Large: Beyond 5 km of the site (<i>regional</i>)
Intensity (Describe whether the magnitude (scale/size) of the Impact is high; medium; low; or negligible. The specialist study must attempt to quantify the magnitude of impacts, with the rationale used explained)	Very low: Affects the environment in such a way that natural and/or social functions/processes are not affected Low: Natural and/or social functions/processes are slightly altered Medium: Natural and/or social functions/processes are notably altered in a modified way High: Natural and/or social functions/processes are severely altered and may temporarily or permanently cease
Probability of occurrence	Improbable: Not at all likely

Criteria	Category
Describe the probability of the Impact <u>actually</u> occurring as definite (Impact will occur regardless of mitigations)	Probable: Distinctive possibility Highly probable: Most likely to happen Definite: Impact will occur regardless of any prevention measures
Status of the Impact Describe whether the Impact is positive, negative (or neutral).	Positive: The activity will have a social/ economical/ environmental benefit Neutral: The activity will have no affect Negative: The activity will be socially/ economically/ environmentally harmful
Degree of Confidence in predictions State the degree of confidence in predictions based on availability of information and specialist knowledge	Unsure/Low: Little confidence regarding information available (<40%) Probable/Med: Moderate confidence regarding information available (40-80%) Definite/High: Great confidence regarding information available (>80%)
Significance (The impact on each component is determined by a combination of the above criteria and defined as follows) The significance of impacts shall be assessed <u>with and without mitigations</u> . The significance of identified impacts on components of the affected biophysical or socio-economic environment (and, where relevant, with respect to potential legal requirement/s) shall be described as follows:	No change: A potential concern which was found to have no impact when evaluated Very low: Impacts will be site specific and temporary with no mitigation necessary. Low: The impacts will have a minor influence on the proposed development and/or environment. These impacts require some thought to adjustment of the project design where achievable, or alternative mitigation measures Moderate: Impacts will be experienced in the local and surrounding areas for the life span of the development and may result in long term changes. The impact can be lessened or improved by an amendment in the project design or implementation of effective mitigation measures. High: Impacts have a high magnitude and will be experienced regionally for at least the life span of the development, or will be irreversible. The impacts could have the no-go proposition on portions of the development in spite of any mitigation measures that could be implemented.

Table 13: The stated assessment and information will be determined for each individual issue or related groups of issues and presented in descriptive format in the following table example or a close replica thereof

Impact Statement:		
Mitigation:		
Ratings	Duration	
	Extent	
	Intensity	
	Probability of impact	
	Status of Impact (Positive/negative)	
	Degree of confidence	
Significances	Significance without Mitigation	
	Significance <u>WITH</u> Mitigation	
Indication of the certainty of a mitigation measure considered, achieving the end result to the extent indicated, is given on a scale of 1-5 (1 being totally uncertain and 5 being absolutely certain), taking into consideration uncertainties, assumptions and gaps in knowledge:		
Legal Requirements (Identify and list the specific legislation and permit requirements which are relevant to this development):		

9 CONCLUSION AND RECOMMENDATIONS

A scoping process is being undertaken to present the proposed development to Interested and Affected Parties (I&APs), relevant authorities and other stakeholders, and to identify the key environmental issues and potential impacts requiring further investigation during the Environmental Impact Assessment (EIA) phase. The issues identified to date are based on specialist investigations, input from the project team and authorities, baseline environmental information and the environmental assessment process undertaken to date.

This Pre-Application Scoping Report and Plan of Study for EIA, prepared in terms of NEMA and the EIA Regulations, 2014 (as amended), describes the proposed development, considers the alternatives, provides an overview of the receiving environment, identifies the principal environmental issues and potential impacts, and sets out the proposed approach for the subsequent EIA process.

The proposed development has been substantially revised from the previous development configuration. The current preferred layout has been consolidated on one side of the N3 and reduced from the previous approximately 42.7 ha development footprint to approximately 29.06 ha, comprising approximately 24.86 ha for the solar PV component and approximately 4.2 ha for the electric truck charging facility and associated infrastructure. The proposed solar PV facility will have an installed capacity of approximately 33.59 MWp and will include a BESS and associated electrical infrastructure.

The following specialist assessments have been identified as relevant to the proposed development:

- Biodiversity Assessment;
- Freshwater Assessment;
- Heritage Impact Assessment;
- Socio-Economic Impact Assessment;
- Visual Impact Assessment;
- Agricultural Potential Assessment; and
- Avifauna and Animal Species Assessment.

Specialist investigations have already been undertaken for the project, with several assessments having been completed or progressed in relation to the previous development configuration. Relevant preliminary findings have been incorporated into this Pre-Application Scoping Report. Due to the revision and reduction of the development footprint, the relevant specialist assessments will be reviewed, updated and/or finalised during the EIA phase, as applicable, to ensure that their findings, impact assessments and recommendations relate to the current approximately 29.06 ha development footprint.

The investigations undertaken to date have identified a number of environmental issues requiring further consideration during the EIA phase, including potential impacts on biodiversity, avifauna, freshwater resources, heritage and archaeological resources, agricultural land, landscape and visual character, and the socio-economic environment. Potential traffic and access-related impacts will also require consideration in conjunction with the Traffic Impact Assessment and the requirements of the relevant roads authority.

No environmental fatal flaws have been identified at this stage that would prevent the proposed development from proceeding to detailed assessment during the EIA phase. The revised and reduced development footprint also provides an opportunity to avoid and minimise identified sensitive environmental features through further refinement of the layout and implementation of appropriate mitigation measures.

The current pre-application Public Participation Process will provide I&APs, relevant organs of state and authorities with an opportunity to review and comment on this Pre-Application Scoping Report and Plan of Study for EIA. Any additional issues and concerns identified through this process will be considered and, where relevant, incorporated into the subsequent formal Scoping and EIA processes.

Following completion of the pre-application process, the formal NEMA application and Draft Scoping Report will be submitted to KZN EDTEA. Subject to acceptance of the Final Scoping Report and Plan of Study for EIA by KZN EDTEA, the project will proceed to the EIA phase. During the EIA phase, the identified impacts and alternatives, including the No-Go Alternative, will be assessed in further detail and the relevant specialist assessments will be reviewed and/or finalised. The findings will be integrated into the Environmental Impact Assessment Report (EIR) and Environmental Management Programme (EMPr).

Based on the environmental assessment undertaken to date, it is recommended that the proposed development proceed through the formal Scoping and EIA process for detailed assessment. This recommendation does not constitute a recommendation for Environmental Authorisation at this stage. The environmental acceptability of the proposed development and preferred layout will be determined following completion of the detailed EIA, specialist assessments, public participation process and consideration of appropriate mitigation measures.

9.1 PRELIMINARY RECOMMENDATIONS / CONDITIONS FOR AUTHORISATION

Where the development results in the loss of agricultural or grazing land, opportunities for diversification of the landowner's income may be considered. An agreement between the applicant and the landowner may provide an additional income stream associated with the proposed facility and potentially offset some of the financial implications associated with the loss of land available for agricultural use.

Such financial arrangements should, however, not be regarded as mitigation for the physical loss of agricultural land or agricultural potential. The acceptability of the development from an agricultural perspective must be determined primarily on the basis of the agricultural sensitivity and capability of the affected land, the significance of the anticipated agricultural impacts, and the findings and recommendations of the final Agricultural Assessment.

10 DETAILS AND EXPERTISE OF THE EAP

Author / Compiler	Bianca Gilfillan
Qualifications	ND: Environmental Management BTECH: Environmental Management BSc Hons: Environmental Science
Registrations	EAPASA Registered EAP (2023/7929)
Expertise	Bianca Gilfillan is an Environmental Consultant and Assessment Practitioner with over 20 years of experience across South Africa. She specialises in environmental monitoring, compliance, management, and assessment, with strong expertise in NEMA and EPR Regulations. Her work spans diverse industries and provinces, where she has successfully managed complex authorisation processes and regulatory approvals. Her expertise includes, but is not limited to: - Environmental Authorisation applications - Waste Management Licence applications - Environmental Monitoring & Compliance - Housing and resort developments in the Western - Cemeteries in the Western Cape - Agricultural developments - Solar PV and wind energy facilities - S24G Applications - Environmental Management Programmes

Reviewer / Supervisor	Clinton Geyser
Qualifications	MSc. Geography and Environmental Management (2002) (UJ) BSc. (hons): Geography and Environmental Management (2001) (UJ) BSc. Earth Sciences, Majors in Geology and Geography and Environmental Management (1998 – 2000) (UJ)
Registrations	EAPASA Reg no. 2021/3287
Expertise	Clinton Geyser has over fifteen years' experience in the environmental management field as an Environmental Assessment Practitioner and as an Environmental Control Officer, having worked on a variety of projects in the Western, Eastern and Northern Cape. Previous completed applications include, but are not limited to: - Civil engineering infrastructure including pipelines, Waste Water Treatment Works, and roads in the Western and Northern Cape. - Solar PV facilities in the Free State and Western Cape - Agricultural developments, including reservoirs and dams, in the Western, Eastern and Northern Cape. - Telecommunications masts in the Western and Eastern Cape - Housing Developments in the Western and Northern Cape. - Resort developments in the Western and Northern Cape. - Cemeteries in the Western Cape - Waste Management Licences in the Western Cape

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