mineral resources & energy

Department:
Mineral Resources and Energy
REPUBLIC OF SOUTH AFRICA

DRAFT SCOPING REPORT

FOR KOPANYA SOLAR PHOTOVOLTAIC PROJECT, BOOYSENDAL NORTH MINE, LIMPOPO PROVINCE

SUBMITTED FOR ENVIRONMENTAL AUTHORISATIONS IN TERMS OF THE NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 AND THE NATIONAL ENVIRONMENTAL MANAGEMENT WASTE ACT, 2008 IN RESPECT OF LISTED ACTIVITIES THAT HAVE BEEN TRIGGERED BY APPLICATIONS IN TERMS OF THE MINERAL AND PETROLEUM RESOURCES DEVELOPMENT ACT, 2002 (MPRDA) (AS AMENDED)

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KOPANYA SOLAR PHOTOVOLTAIC PROJECT, BOOYSENDAL NORTH MINE, LIMPOPO PROVINCE

Scoping Report

Version – Draft

02 November 2026

GCS Project Number: 25-0608

Client Reference: Kopanya Solar PV Project



GCS Environment SA (Pty) Ltd. **Reg No:** 2002/028494/07
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Kopanya Solar Photovoltaic Project, Booysendal North Mine, Limpopo Province

Scoping Report

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OBJECTIVE OF THE SCOPING PHASE

The Scoping Phase aims, through a consultative process, to:

- Identify the policies and legislation applicable to the proposed activity.
- Establish the need and desirability of the proposed activity, including its relevance within the context of the chosen location.
- Confirm the preferred activity and technological alternatives through a comprehensive impact and risk assessment, using a ranking process.
- Determine and verify the ideal site through a detailed selection process that encompasses impact and risk assessment, considering cumulative impacts and evaluating all alternatives based on the geographical, physical, biological, social, economic, and cultural dimensions of the environment.
- Pinpoint key issues to be addressed in the assessment phase.
- Define the scope of the assessment, including the methodologies, expertise required, and extent of further consultation necessary to assess the impacts and risks associated with the preferred site. This includes evaluating the impacts' nature, significance, consequence, extent, duration, and probability to guide the precise development footprint within the site.
- Identify appropriate measures to avoid, manage, or mitigate impacts and assess the residual risks that require ongoing management and monitoring.

During the Scoping Phase, concerns raised by stakeholders and registered Interested and Affected Parties (I&APs) are considered to identify significant issues warranting further specialist investigation and assessment. You are invited to review the Draft Scoping Report (DSR), available for public comment from 9 November 2026 to 9 December 2026, at the locations listed below. Written comments and substantiated issues must be submitted to GCS Environment South Africa (Pty) Ltd (GCS) by 9 December 2026. Providing feedback well within the review period is appreciated to allow the Environmental Assessment Practitioner (EAP) adequate time to address comments comprehensively.

Place	Address
Phasha Royal Kraal	D1392 Road, Phasha Village Steelpoort
Batlokwa Ba Magolego Traditional Authority at Mapodile Thusong Centre	Mapodile Village, Fetakgomo Tubatse Local Municipality, Limpopo
Boeketlong Lodge	5050 Mogoroane, Ga-Moloi, Jane Furse, 1085
Phokwane Clinic	Stand No X1, Phokwane, Nebo, Ngwaritsi, 1059
Maseven Clinic	Maseven Village, Fetakgomo Tubatse Local Municipality, Limpopo
Ngwaabe Home Based Care	Ga-Rantho/Ga-Masha, Ngwaabe area, Limpopo
Chrome Valley Lodge	Tweefontein Farm, Tweefontein Road, Steelpoort, 1133 *Reports are available at this venue Monday to Friday 08h00 to 16h00.*

Place	Address
GCS Website	https://www.gcs-sa.biz/public-documents/

Following the DSR comment period, the Report will be updated to incorporate all received feedback. The finalised Scoping Report will then be submitted to the Competent Authority (CA), which in this case is the Department of Mineral and Petroleum Resources (DMPR). Upon reviewing the Final Scoping Report (FSR), the DMPR may either approve it, potentially with conditions, or advise the Applicant to proceed with the tasks outlined in the Plan of Study for the Environmental Impact Assessment (EIA). Alternatively, the DMPR retains the right to refuse Environmental Authorisation (EA) at this stage.

YOUR INPUT ON THE DRAFT SCOPING REPORT

You are invited to review the DSR, which will be available for public review from 9 November 2026 to 9 December 2026. Please ensure that any substantiated issues and comments are submitted in writing to GCS by 9 December 2026. Early submission of feedback within the review period is highly appreciated to allow the EAP adequate time to address your comments comprehensively.

If you have further inquiries or additional comments after reviewing the DSR, please feel free to contact:

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EXECUTIVE SUMMARY

Project Overview and Purpose

Booysendal Platinum (Pty) Ltd (Booysendal, the Applicant), a subsidiary of Northam Platinum Holdings Limited, proposes to develop the Kopanya Solar Photovoltaic (PV) Project at Booysendal North Mine in Limpopo Province. The proposed development will comprise a utility-scale solar PV facility with an electricity generation capacity of approximately 25 megawatts alternating current (MWac), together with associated electrical infrastructure, access roads and supporting facilities. The Project is intended to supplement the Mine's existing electricity supply, improve energy security and reliability, reduce dependence on grid-supplied electricity and support the integration of renewable energy into mining operations.

The proposed Project forms part of the Applicant's broader approach to improving the long-term sustainability of its mining operations. Solar PV generation provides an opportunity to reduce reliance on conventional electricity sources during daylight hours, with associated potential benefits relating to greenhouse gas emissions, electricity costs and operational resilience. The development will, however, require the establishment of new infrastructure within an environmentally sensitive landscape, and its acceptability must therefore be evaluated through the statutory environmental assessment process.

Project Location and Description

The proposed Project is situated within the existing Booysendal Mining Right area, approximately 35 kilometres west of Mashishing, within the Fetakgomo Tubatse Local Municipality, Sekhukhune District Municipality, Limpopo Province. The affected properties comprise the Remaining Extent (Portion 0) of the Farm Booysendal No. 43 JT and Portion 2 of the Farm Der Brochen No. 7 JT. The development area is located northeast of the existing Booysendal North Mine infrastructure, within a mountainous landscape characterised by natural vegetation, drainage features and existing mining activities.

The proposed development will include ground-mounted solar PV arrays incorporating bifacial panels on single-axis tracking systems, an on-site substation and control room, transformers, inverters, underground electrical cables, overhead power lines, access roads and ancillary infrastructure. A 132-kilovolt overhead power line connection is proposed to integrate the facility with the existing Mine electrical infrastructure. Construction activities will include site preparation, localised vegetation clearance, foundations, cable trenching, electrical installation, access road development and associated earthworks.

Environmental Authorisation and Regulatory Framework

GCS Environment South Africa (Pty) Ltd has been appointed as the independent Environmental Assessment Practitioner (EAP) to undertake the environmental assessment process on behalf of Booysendal. The proposed development requires Environmental Authorisation (EA) in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998), and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended. The application is being undertaken through a Scoping and Environmental Impact Reporting (S&EIR) process, with the Department of Mineral and Petroleum Resources (DMPR) acting as the Competent Authority (CA).

The proposed activities include renewable electricity generation, electricity transmission and distribution infrastructure, vegetation clearance, road development and infrastructure potentially affecting watercourses. Additional regulatory requirements may include water use authorisation under the National Water Act, 1998 (Act No. 36 of 1998), heritage-related approvals and permits for protected biodiversity resources. The applicability and extent of these requirements will be confirmed through the specialist investigations and detailed assessment undertaken during the EIA Phase.

Purpose and Outcomes of the Scoping Phase

The purpose of the Scoping Phase is to identify the principal environmental and socio-economic issues associated with the proposed development, evaluate reasonable and feasible alternatives, consider stakeholder concerns and establish the scope of investigations required during the EIA Phase. The Draft Scoping Report (DSR) presents the proposed development, its environmental and social setting, the applicable legislative framework, preliminary environmental sensitivities, potential impacts and the Plan of Study for the EIA.

The Scoping Phase draws on available environmental information, the National Web-Based Environmental Screening Tool, Site Sensitivity Verification investigations, preliminary specialist findings and stakeholder engagement. The identification of potential impacts at this stage does not constitute a final determination of their significance or acceptability. These matters will be assessed in greater detail during the EIA Phase, when the findings of the specialist investigations will be integrated into the Environmental Impact Assessment Report (EIR) and Environmental Management Programme (EMPr).

Alternatives Considered

The alternatives assessment considers the location of the solar PV facility, overhead power line alignments, access roads, technology options and the no-go alternative. Two potential development sites were considered during the initial site selection process. The preferred site, situated east of the Groot Dwars River, was selected for further investigation because of its comparatively favourable terrain, available development area and technical suitability.

The alternative site, situated west of the river near existing mining infrastructure, presented additional constraints, including rocky terrain and an identified cicada breeding area.

Two overhead power line alternatives, identified as OHL1 and OHL2, and two access road alternatives have been identified for further assessment. These alternatives will be evaluated against engineering requirements, environmental sensitivities, potential disturbance footprints, watercourse crossings and construction access requirements. Solar PV technology is preferred over concentrated solar power because of its lower operational water requirements, modular layout, comparatively limited infrastructure requirements and compatibility with the proposed embedded-generation arrangement. The no-go alternative will provide a basis for comparing the environmental consequences of proceeding with the Project against retaining existing land uses.

Environmental Sensitivities and Preliminary Specialist Findings

The proposed development is situated within a landscape containing areas of natural Mountain Bushveld, rocky habitats, drainage features and the Groot Dwars River. The preliminary specialist investigations have identified environmental sensitivities requiring further assessment, particularly in relation to terrestrial biodiversity, protected plant species, avifauna, freshwater ecosystems, soil-water processes and landscape character. The Site Sensitivity Verification findings provide an important basis for refining the development footprint and determining the scope of additional investigations.

The terrestrial biodiversity investigations identified sensitive natural habitats, including Mountain Bushveld and river-associated vegetation, as well as potential constraints relating to plant and animal species of conservation concern. The proposed overhead power line and access road corridors require particular consideration because of their potential interaction with natural vegetation, ecological corridors and sensitive habitats. Further investigations will determine the significance of potential habitat loss, fragmentation, disturbance and impacts on protected species.

Avifaunal considerations include potential disturbance to nesting, roosting and foraging habitats, together with collision and electrocution risks associated with overhead electrical infrastructure. Freshwater-related sensitivities include watercourses, drainage features and their associated ecological functions, with potential impacts arising from vegetation clearance, earthworks, access road crossings and changes to surface and subsurface drainage. The detailed assessments will inform appropriate infrastructure placement, buffers, avoidance measures and environmental management requirements.

The mountainous terrain also introduces considerations relating to slope stability, erosion, visual exposure and construction disturbance. Heritage and palaeontological investigations will address the potential occurrence of archaeological resources, historical features, graves,

burial grounds and fossil heritage within the development footprint. These investigations will be particularly important in ensuring that culturally significant resources are identified and appropriately protected before construction activities commence.

Potential Environmental and Socio-Economic Impacts

The Scoping Phase has identified potential positive impacts associated with improved electricity supply reliability, renewable energy generation, reduced greenhouse gas emissions, temporary employment, skills development and local procurement opportunities. The Project may also contribute to the continued operation of existing mining infrastructure by supplementing electricity supply and reducing exposure to grid-related supply constraints.

Potential adverse impacts include the loss and fragmentation of natural vegetation, disturbance to protected species and fauna, impacts on avifauna, changes to natural drainage, erosion, soil disturbance and potential effects on freshwater ecosystems. Additional considerations include visual intrusion, construction-related noise and dust, traffic and access disruption, waste generation, potential contamination, community health and safety, and impacts on heritage resources and existing land uses. Cumulative impacts associated with existing mining operations and other infrastructure within the surrounding area will also require assessment.

The EIA Phase will evaluate the nature, extent, duration, probability and significance of these impacts, both before and after mitigation. The assessment will apply the mitigation hierarchy, prioritising avoidance of sensitive environmental features, followed by measures to minimise, rehabilitate and manage impacts. Residual risks requiring ongoing monitoring or management will be identified and addressed through the EMPr.

Public Participation Process

Public participation forms an integral part of the S&EIR process and provides an opportunity for communities, landowners, traditional authorities, government departments and other I&APs to identify concerns and contribute to the environmental assessment. Issues identified during stakeholder engagement include cultural heritage, graves and traditional practices, biodiversity and land disturbance, water resources, community livelihoods, waste management, project safety, electricity supply, employment, local procurement and access to project information.

The DSR will be available for public review from 9 November 2026 to 9 December 2026. Copies will be placed at the identified public review locations, including traditional authority facilities, community facilities, clinics and other accessible venues. An electronic copy will also be available on the GCS website. Comments received will be documented and addressed in a Comments and Responses Report (CRR), which will accompany the Final Scoping Report (FSR) submitted to the DMPR.

The EIA Phase will provide a further opportunity for stakeholder participation through the circulation of the Draft EIR and EMPr for a minimum 30-day public review period. The reports will be made available at the same public review locations used during the Scoping Phase. Targeted focus group meetings will be undertaken where required, and comments received will inform the final assessment and proposed environmental management measures.

Plan of Study for the Environmental Impact Assessment

The Plan of Study for the EIA establishes the approach for investigating the environmental and socio-economic issues identified during the Scoping Phase. The specialist investigations will assess the preferred development footprint and relevant infrastructure alternatives, including the overhead power line and access road alignments. The findings will be used to identify sensitive areas, refine the development layout, evaluate potential impacts and determine appropriate mitigation and monitoring measures.

The specialist assessments proposed for the EIA Phase are summarised below.

Specialist Assessment	Principal Matters To Be Investigated
Agricultural Potential Assessment	Soil characteristics, land capability, existing land uses and potential loss or disturbance of agricultural resources.
Level 2 Hydropedological Assessment	Soil-water movement, subsurface drainage, hydrologically sensitive soils and potential changes to natural drainage processes.
Freshwater Ecology Assessment	Watercourse delineation, ecological condition, freshwater ecosystem functioning, buffers and potential impacts from infrastructure development.
Terrestrial Biodiversity, Plant and Animal Species Assessment	Vegetation communities, sensitive habitats, protected and threatened species, habitat loss, fragmentation and ecological connectivity.
Avifaunal Impact Assessment	Bird species and habitat use, species of conservation concern, nesting and roosting features, and collision and electrocution risks.
Heritage Impact Assessment	Archaeological, historical and cultural heritage resources, including graves and burial grounds, and appropriate protection measures.
Palaeontological Impact Assessment	Geological sensitivity, potential fossil heritage and management of palaeontological discoveries.
Visual Impact Assessment	Landscape character, sensitive visual receptors, visibility of infrastructure and cumulative visual effects.
Closure and Rehabilitation Assessment	Decommissioning requirements, infrastructure removal, soil rehabilitation, revegetation, post-closure land use and estimated closure costs.

The specialist findings will be integrated into the EIR to assess potential direct, indirect and cumulative impacts, including interactions between environmental disciplines. The assessment will consider reasonable and feasible alternatives, identify environmental exclusion areas and determine the significance of impacts before and after mitigation. The resulting environmental management and monitoring commitments will be incorporated into the EMPr.

Conclusion and Way Forward

The Scoping Phase has identified the principal environmental and socio-economic matters requiring further investigation before the environmental acceptability of the proposed Kopanya Solar PV Project can be determined. Although the Project has the potential to improve electricity supply reliability and contribute to renewable energy generation, the proposed development is located within a landscape containing sensitive terrestrial and freshwater habitats, protected species, heritage resources and areas susceptible to construction-related disturbance.

The preferred development site has been selected for further assessment on the basis of technical suitability and the initial consideration of environmental constraints. Its final acceptability, together with the preferred overhead power line and access road alignments, remains subject to the outcomes of the detailed specialist investigations, assessment of alternatives and Public Participation Process.

Following completion of the DSR review period, comments received will be incorporated into the CRR and addressed in the FSR. The FSR and Plan of Study for the EIA will then be submitted to the DMPR for consideration. Subject to acceptance of the Scoping Report, the specialist investigations and detailed impact assessment will be completed, followed by public review of the Draft EIR and EMPr and submission of the final documents to the DMPR for decision-making.

The purpose of the present DSR is therefore to establish an appropriate and sufficiently comprehensive basis for the EIA Phase.

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LIST OF ABBREVIATIONS

Abbreviation	Description
BN Mine	Booysendal North Mine
CA	Competent Authority
CBA	Critical Biodiversity Area
CRR	Comments and Responses Report
CSP	Concentrated Solar Power
DMPR	Department of Mineral and Petroleum Resources
DSR	Draft Scoping Report
DWS	Department of Water and Sanitation
EA	Environmental Authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
EIR	Environmental Impact Assessment Report
EMPr	Environmental Management Programme
FEPA	Freshwater Ecosystem Priority Area
FSR	Final Scoping Report
GCS	GCS Environment South Africa (Pty) Ltd
GIS	Geographic Information System
GHG	Greenhouse Gas
I&APs	Interested and Affected Parties
NEMA	National Environmental Management Act, 1998 (Act No. 107 of 1998)
NEMBA	National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004)
NHRA	National Heritage Resources Act, 1999 (Act No. 25 of 1999)
NWA	National Water Act, 1998 (Act No. 36 of 1998)
OHL	Overhead Power Line
OHL1	Overhead Power Line Alternative 1
OHL2	Overhead Power Line Alternative 2
PPP	Public Participation Process
PV	Photovoltaic
SAHRA	South African Heritage Resources Agency
SAHRIS	South African Heritage Resources Information System
S&EIR	Scoping and Environmental Impact Reporting
SEI	Site Ecological Importance
SSVR	Site Sensitivity Verification Report
WUL	Water Use Licence
WULA	Water Use Licence Application

UNITS OF MEASUREMENT

Unit of Measure	Description
%	Percentage
°	Degree (angular measurement)
°C	Degrees Celsius
ha	Hectare
km	Kilometre
km²	Square kilometre
kV	Kilovolt
kW	Kilowatt
m	Metre
m²	Square metre
m³	Cubic metre
mm	Millimetre
MW	Megawatt
MWac	Megawatt alternating current
W	Watt

1 INTRODUCTION

Booysendal Platinum (Pty) Ltd (Booysendal, the Applicant), a subsidiary of Northam Platinum Holdings Limited, proposes to develop the Kopanya Solar Photovoltaic (PV) Project (the proposed Project), comprising a 25 megawatt alternating current (MWac) utility-scale solar PV facility and associated infrastructure at the Booysendal North (BN) Mine in Limpopo Province.

The proposed Project will be located within the existing Booysendal Mining Right area (Department of Mineral and Petroleum Resources (DMPR) reference number: LP 30/5/1/3/2/1 (188) MR), on the Remaining Extent (Portion 0) of the Farm Booysendal No. 43 JT and Portion 2 of the Farm Der Brochen No. 7 JT. The site is situated approximately 35 kilometres (km) west of Mashishing, within the Fetakgomo Tubatse Local Municipality and Sekhukhune District Municipality, Limpopo Province. The proposed development footprint will cover approximately 49 hectares (ha).

GCS Environment South Africa (Pty) Ltd (GCS) has been appointed as the independent Environmental Assessment Practitioner (EAP) to undertake the required environmental assessment process in accordance with the National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA), and the Environmental Impact Assessment (EIA) Regulations, 2014[1], as amended. The proposed Project is subject to a Scoping and Environmental Impact Reporting (S&EIR) process, which includes the identification and assessment of potential environmental impacts, coordination of specialist investigations, facilitation of public participation and preparation of the required environmental assessment documentation for submission to the DMPR, as the Competent Authority (CA).

This Scoping Report has been prepared as part of the S&EIR process to provide an overview of the proposed Project, describe the receiving environment, identify potential environmental impacts and alternatives, and establish the scope of the detailed investigations to be undertaken during the EIA Phase.

1.1 Purpose of the Scoping Report

The purpose of the Scoping Report is to identify the key environmental issues, potential impacts and reasonable and feasible alternatives associated with the proposed Project, and to establish the scope of the investigations required during the EIA Phase. The Scoping Report provides a preliminary assessment of the potential environmental and social implications of the proposed development, taking into consideration the nature and extent of the proposed activities, the environmental sensitivities of the receiving environment and the findings of

[1] Environmental Impact Assessment Regulations, 2014, promulgated in terms of Section 24(5) and Section 44 of the National Environmental Management Act, 1998 (Act No. 107 of 1998), under Government Notice Regulation 982 of 4 December 2014, as amended.

available baseline information.

An important component of the Scoping Phase is the identification and consideration of issues raised by relevant authorities, stakeholders and Interested and Affected Parties (I&APs). Through the Public Participation Process (PPP), stakeholders are afforded an opportunity to review the proposed Project, identify concerns and provide input into the assessment process. These comments are documented and considered in determining the issues requiring further investigation during the EIA Phase.

The Scoping Report also outlines the applicable legislative and policy framework, describes the reasonable and feasible alternatives considered, and identifies the specialist studies required to assess potential environmental impacts. The findings of the Scoping Phase inform the development of a Plan of Study for EIA, which sets out the proposed approach, methodology and specialist investigations to be undertaken during the subsequent assessment phase.

The Scoping Report has been prepared in accordance with Appendix 2 of the EIA Regulations, 2014, and will be submitted to the DMPR for consideration. Acceptance of the Scoping Report and associated Plan of Study for EIA will enable the proposed Project to proceed to the detailed EIA Phase, during which identified impacts will be assessed and appropriate mitigation and management measures developed.

1.2 Structure of the Scoping Report

This Scoping Report has been prepared in accordance with the requirements of Appendix 2 of the EIA Regulations, 2014. The Report is structured to provide an overview of the proposed Project, its location and associated infrastructure, the applicable legislative framework, the environmental and socio-economic characteristics of the affected area, the alternatives considered and the potential impacts identified during the Scoping Phase. It also documents the PPP and presents the Plan of Study for the subsequent EIA Phase.

The Report comprises 19 sections, supported by figures, tables, specialist information and appendices. The structure and contents of the Report are summarised in **Table 1-1**.

Table 1-1: Structure of the Scoping Report

Section	Contents
1. Introduction	Introduces the proposed Project, explains the purpose of the Scoping Report and outlines its structure and compliance with the EIA Regulations.
2. Project Team	Provides details of the Applicant, Environmental Assessment Practitioner (EAP), specialist team, relevant expertise and declarations of independence.
3. Location and Description of the Property	Describes the geographical location, affected properties, cadastral information, project coordinates and relevant locality and layout plans.
4. Description of the Scope of the Proposed Overall Activity	Summarises existing and required environmental authorisations, applicable listed activities, proposed infrastructure and activities associated with construction, operation and decommissioning.

Section	Contents
5. Screening Tool Outcomes	Presents the National Web-Based Environmental Screening Tool findings and Site Sensitivity Verification outcomes for terrestrial biodiversity, plant and animal species, avifauna, aquatic biodiversity, agricultural resources, visual sensitivity and other relevant environmental themes.
6. Need and Desirability of the Project	Evaluates the need for the proposed development, its strategic and planning context, potential socio-economic benefits, environmental sustainability considerations and compatibility with existing land uses.
7. Alternatives	Describes the site, overhead power line, access road and technology alternatives considered, including the no-go alternative and the rationale for identifying the preferred development options.
8. Policy and Legislative Context	Identifies the legislation, policies, plans, guidelines and regulatory requirements applicable to the proposed Project and environmental assessment process.
9. Scoping and Environmental Impact Assessment Reporting Process	Describes the statutory environmental assessment process, including the application, Scoping Phase, EIA Phase, specialist investigations, public participation, decision-making and appeals.
10. Details of the Public Participation Process Followed	Documents stakeholder identification, notification and consultation activities, availability of the Draft Scoping Report and key issues raised by Interested and Affected Parties (I&APs).
11. Environmental Attributes Associated with the Project Area	Describes the receiving environment, including climate, topography, geology, soils, water resources, biodiversity, noise, traffic, socio-economic conditions, heritage and visual characteristics.
12. Potential Impacts on the Environment and Community Identified During the Scoping Phase	Identifies potential positive and negative environmental and socio-economic impacts requiring further investigation, including cumulative impacts.
13. Plan of Study for the Environmental Impact Assessment Process	Defines the alternatives, environmental aspects, specialist investigations, impact assessment methodology, authority consultation and public participation activities proposed for the EIA Phase.
14. Measures to Avoid, Reverse, Mitigate or Manage Identified Impacts and Residual Risks	Outlines the preliminary approach to impact avoidance, mitigation, rehabilitation, environmental management and monitoring of residual risks.
15. Other Information Required by the Competent Authority	Addresses potential effects on directly affected persons, heritage resources forming part of the national estate and other matters required under the National Environmental Management Act, 1998.
16. Period for Which the Environmental Authorisation Is Required	Specifies the requested duration of the Environmental Authorisation for the proposed development.
17. Conclusion and Way Forward	Summarises the Scoping Phase findings and outlines the remaining public participation, specialist assessment, reporting and regulatory submission requirements.
18. Undertaking or Affirmation by the Environmental Assessment Practitioner	Provides the required undertaking or affirmation by the EAP regarding the information presented and the environmental assessment process.
19. References	Lists the information sources, legislation, guidelines, specialist reports and other references used in compiling the Scoping Report.
Appendices	Contain supporting documentation, including relevant specialist information, public participation records, maps, declarations and other supporting material, as applicable.

1.3 Content of the Scoping Report

The content of this Report must comply, in terms of content, with Appendix 2 of the EIA Regulations. In **Table 1-2**, the requirements as set out in Appendix 2, are correlated with the sections in this Report.

Table 1-2: Contents of the Scoping Report

Appendix 2 Requirement	Contents of the Scoping Report	Relevant Section in the Report
2(1)(a)	Details of the EAP who prepared the Report and the expertise of the EAP, including a curriculum vitae.	Sections 2.2
2(1)(b)	Location of the proposed activity, including Surveyor General codes, property descriptions, physical addresses and relevant coordinates.	Sections 3.1 - 3.3
2(1)(c)	A plan showing the location of the proposed activities at an appropriate scale, including relevant corridors and infrastructure.	Section 3.4
2(1)(d)	Description of the scope of the proposed activity, including applicable listed activities, associated infrastructure and activities to be undertaken.	Section 4
2(1)(e)	Description of the applicable policy and legislative context, including relevant legislation, policies, plans, guidelines, spatial planning instruments and municipal development frameworks.	Section 8
2(1)(f)	Motivation for the need and desirability of the proposed development, including its suitability within the preferred location.	Section 6
2(1)(g)(i)	Details of all reasonable and feasible alternatives considered.	Section 7
2(1)(g)(ii)	Details of the PPP undertaken in accordance with Regulation 41, including supporting documentation and stakeholder inputs.	Sections 10.1 - 10.4
2(1)(g)(iii)	Summary of issues raised by I&APs and an indication of how these have been incorporated or the reasons for their exclusion.	Section 10.5
2(1)(g)(iv)	Description of environmental attributes associated with the alternatives, including geographical, physical, biological, social, economic, heritage and cultural characteristics.	Sections 5, 7and 11
2(1)(g)(v)	Identification of impacts and risks associated with each alternative, including their nature, significance, consequence, extent, duration and probability, and the extent to which impacts can be reversed, may result in irreplaceable loss or can be avoided, managed or mitigated.	Sections 7, 12, 13.4 and 14
2(1)(g)(vi)	Methodology used to determine and rank the nature, significance, consequences, extent, duration and probability of potential environmental impacts and risks associated with the alternatives.	Section 13.4
2(1)(g)(vii)	Identification of potential positive and negative environmental and socio-economic impacts associated with the proposed development and alternatives.	Section 12
2(1)(g)(viii)	Identification of potential mitigation measures and residual environmental risks.	Sections 13.4 and 14
2(1)(g)(ix)	Outcome of the site selection process and comparison of alternatives.	Section 7
2(1)(g)(x)	Motivation for not considering alternatives, including alternative locations, where applicable.	Section 7
2(1)(g)(xi)	Concluding statement identifying the preferred alternatives, including the preferred location of the proposed activity.	Section 7
2(1)(h)(i)	Description of alternatives to be considered and assessed during the EIA Phase, including the no-go alternative.	Sections 7 and 13.1
2(1)(h)(ii)	Description of the environmental aspects to be assessed during the EIA Phase.	Section 13.2
2(1)(h)(iii)	Identification of environmental aspects requiring specialist assessment.	Section 13.3

Appendix 2 Requirement	Contents of the Scoping Report	Relevant Section in the Report
2(1)(h)(iv)	Description of the proposed methodology for assessing environmental aspects, including specialist investigations.	Sections 13.3 and 13.4
2(1)(h)(v)	Description of the proposed methodology for assessing the duration and significance of environmental impacts.	Section 13.4
2(1)(h)(vi)	Identification of the stages at which the competent authority will be consulted.	Section 13.5
2(1)(h)(vii)	Particulars of the PPP to be undertaken during the EIA Phase.	Section 13.6
2(1)(h)(viii)	Description of the tasks to be undertaken as part of the EIA process.	Sections 9.3 and 13
2(1)(h)(ix)	Identification of suitable measures to avoid, reverse, mitigate or manage identified impacts and determine the extent of residual risks requiring management and monitoring.	Sections 13.3, 13.4 and 14
2(1)(i)	Undertaking under oath or affirmation by the EAP regarding the correctness of information provided, inclusion of stakeholder comments and information communicated to I&APs.	Section 18
2(1)(j)	Undertaking under oath or affirmation by the EAP regarding the level of agreement between the EAP and I&APs on the Plan of Study for the EIA.	Section 18
2(1)(k)	Any specific information required by the competent authority, where applicable.	Section 15
2(1)(l)	Any other matters required in terms of Sections 24(4)(a) and (b) of the National Environmental Management Act, 1998.	Sections 15.1–15.3

2 PROJECT TEAM[2]

This section provides the details of the Applicant, EAP and Project Team.

2.1 Applicant

Table 2-1 below provides the contact details of the Applicant.

Table 2-1: Contact Details of the Applicant

Company Name:	Booysendal Platinum (Pty) Ltd
Company Registration Number:	2002/016771/07
Postal Address:	Postnet Suite #199 Private Bag X20097 Lydenburg, 1120 South Africa
Physical Address:	Farm Booysendal 43JT Greater Tubatse Municipality South Africa
Contact Person:	Mr Willem Sterrenberg Otto Van Heerden
Telephone No.:	+27 87 158 6851
E-mail Address:	Otto.VanHeerden@norplats.co.za

2.2 Environmental Assessment Practitioner

GCS has been appointed by the Applicant as the independent EAP responsible for undertaking the S&EIR process in accordance with the NEMA, and the EIA Regulations, 2014.

[2] Required in accordance with Appendix 2, Section 2(1)(a) of the EIA Regulations, 2014, which requires the Scoping Report to include details of the EAP who prepared the report and the expertise of the EAP, including a curriculum vitae. The appointment and requirements applicable to EAPs and specialists are further addressed in Regulations 12 and 13, and specialist report requirements are set out in Appendix 6.

GCS will be responsible for managing the EA process, coordinating the specialist assessments, facilitating the PPP, and compiling the Scoping Report, Environmental Impact Assessment Report (EIR) and Environmental Management Programme (EMPr) for submission to the DMPR.

The contact details and professional registrations of the appointed EAP are provided in **Table 2-2**. The EAP's curriculum vitae, qualifications, professional registrations are attached as **Appendix A**.

Table 2-2: Contact Details of the Environmental Assessment Practitioner

Name of Environmental Assessment Practitioner:	Paula Tolksdorff
Professional Affiliation / Registration:	Registered Environmental Assessment Practitioner (Environmental Assessment Practitioners Association of South Africa): 2019/509. Registered Professional Natural Scientist (South African Council for Natural Scientific Professions): (152904). International Association for Impact Assessment – South Africa Membership: 1745. International Association for Public Participation Membership: IAP2SA014.
Company Name:	GCS Environment South Africa (Pty) Ltd
Physical Address:	63 Wessel Road Rivonia, 2128
Postal Address:	P.O. Box 2597 Rivonia 2128
Telephone No.:	+27 (0)11 803 5726
Facsimile No.:	+27 (0)11 803 5745
E-mail Address:	paulat@gcs-sa.biz

2.2.1 Expertise of the Environmental Assessment Practitioner

2.2.1.1 The Qualifications of the Environmental Assessment Practitioner

Paula Tolksdorff holds a Baccalaureus Technologiae in Civil Engineering: Urban and Rural Development, obtained in 1997.

2.2.1.2 Summary of the Environmental Assessment Practitioner's Experience

Paula Tolksdorff has more than 30 years of environmental-sector experience across mining, industrial, energy, infrastructure and commercial projects in South Africa and elsewhere in Africa. Her experience includes Basic Assessment and EIA processes, EMPr, environmental compliance auditing, stakeholder engagement, water and waste management, environmental due diligence and multidisciplinary Project management.

2.2.2 Independence of the Environmental Assessment Practitioner and Specialists

GCS and the specialist team have been appointed to undertake their respective scopes of work independently and objectively. They have no business, financial, personal or other interest in the approval or refusal of the proposed Project, other than fair remuneration for professional services rendered.

The remuneration of the EAP and specialists is not dependent on the outcome of the application or on the findings, conclusions or recommendations of the environmental

assessment and specialist reports.

The EAP and specialists have undertaken to disclose all material information and any circumstances that may compromise, or may reasonably be perceived to compromise, their independence or professional judgement. Signed declarations of independence are included in their each report.

2.3 Details of the Specialist Team

The specialist team appointed to undertake the environmental investigations for the proposed Project is presented in **Table 2-3**. The table provides details of the specialists responsible for the respective assessments, including their areas of expertise and associated organisations.

Table 2-3: Details of the Specialist Team

Specialist Study	Specialist Detail
Agricultural Potential Assessment The Biodiversity Company	
Full name:	Matthew Mamera
Title / position:	Environmental and Ecological Specialist
Highest qualification:	Doctor of Philosophy – Soil Science
Years of experience:	10 years
Registration(s):	Registered Professional Natural Scientist –SACNASP No. 116356
Hydropedological Assessment The Biodiversity Company	
Full name:	Matthew Mamera
Title / position:	Environmental and Ecological Specialist
Highest qualification:	Doctor of Philosophy – Soil Science
Years of experience:	10 years
Registration(s):	Registered Professional Natural Scientist –SACNASP No. 116356
Freshwater Ecological Assessment The Biodiversity Company	
Full name:	Rian Pienaar
Title / position:	Wetland Ecologist
Highest qualification:	Master of Science – Environmental Science Cum Laude
Years of experience:	5 years
Registration(s):	Registered Professional Natural Scientist –SACNASP No. 135544
Terrestrial Biodiversity, Plant and Animal Species Assessment The Biodiversity Company	
Full name:	Andine De Villiers
Title / position:	Terrestrial Ecologist
Highest qualification:	Magister Scientiae – Zoology with Distinction
Years of experience:	3 years
Registration(s):	Registered Professional Natural Scientist –SACNASP No. 164894
Avifaunal Impact Assessment The Biodiversity Company	
Full name:	Dr Lindi Steyn
Title / position:	Environmental and Ecological Specialist
Highest qualification:	Philosophiae Doctor – Biodiversity and Conservation
Years of experience:	8 years
Registration(s):	Registered Professional Natural Scientist –SACNASP No. 119992
Heritage Impact Assessment Digby Wells Environmental	
Full name:	Danny Viljoen
Title / position:	Field Archaeologist
Highest qualification:	BA (Hons) Archaeology
Years of experience:	8 years

Specialist Study	Specialist Detail
Registration(s):	ASAPA #744
Palaeontological Impact Assessment **Digby Wells Environmental**	
Full name:	Danny Viljoen
Title / position:	Field Archaeologist
Highest qualification:	BA (Hons) Archaeology
Years of experience:	8 years
Registration(s):	ASAPA #744
Socio-Economic Impact Assessment **Southern Economic Development**	
Full name:	An Kritzinger
Title / position:	
Highest qualification:	B. Admin (Hons) Economics (University of Pretoria) M. Admin (Economics) (University of Stellenbosch)
Years of experience:	20 years
Registration(s):	Not applicable
Visual Impact Assessment **Donaway Environmental**	
Full name:	Johan Botha
Title / position:	Environmental Consultant
Highest qualification:	Bachelor of Science in Environmental Science, North-West University, 2011
Years of experience:	15 years
Registration(s):	Not applicable
Full name:	Michael Cloete
Title / position:	Visual and Social Impact Assessment
Highest qualification:	Master of Science (MSc) in Geography and Environmental Management, North-West University, 2020
Years of experience:	6 years
Registration(s):	Not applicable
Closure and Rehabilitation Assessment	
Full name:	Anja Van Deventer
Title / position:	Environmental Specialist (Rehabilitation and mine closure)
Highest qualification:	Master of Environmental Science in Sustainable Rehabilitation, 2004
Years of experience:	21 years
Registration(s):	Land Rehabilitation Society of Southern Africa Council of Minerals and Energy Ministers of South Africa Registered Professional Natural Scientist –SACNASP No. 145156

3 LOCATION AND DESCRIPTION OF THE PROPERTY[3]

3.1 Project Location

The proposed Project will be located within the existing Booysendal Mining Right area (DMPR reference number: LP 30/5/1/3/2/1 (188) MR), on the Remaining Extent (Portion 0) of the Farm Booysendal No. 43 JT and Portion 2 of the Farm Der Brochen No. 7 JT. The site is situated approximately 35 km west of Mashishing, within the Fetakgomo Tubatse Local Municipality and Sekhukhune District Municipality, Limpopo Province. The proposed

[3] Required in accordance with Appendix 2, Section 2(1)(b) and (c) of the EIA Regulations, 2014, which requires the Scoping Report to include the location of the activity, including the 21-digit Surveyor General code of each cadastral land parcel, the physical address and farm name where available, or the coordinates of the property boundary where such information is not available, as well as a plan locating the proposed activity at an appropriate scale.

development footprint will cover approximately 49 ha.

3.2 Property Description

Table 3-1 provides a detailed description of the property involved in the project, including the farm portion covered by the application, the relevant municipal district, and the nearest town to the proposed Project.

Table 3-1: Property Description

Farm Name	Booysendal No. 43 JT and Der Brochen No. 7 JT
Affected Portions	Remaining Extent (Portion 0) of Booysendal No. 43 JT and Portion 2 of Der Brochen No. 7 JT
Application Area	Portions of the affected properties within the existing Booysendal North Mine Mining Right area
Development Footprint	Approximately 49 ha
Mining Right Reference	LP 30/5/1/3/2/1 (188) MR
Province	Limpopo
District Municipality	Sekhukhune District Municipality
Local Municipality	Fetakgomo Tubatse Local Municipality
Magisterial District	Sekhukhune
Nearest Town / Settlement	Mashishing (Lydenburg), approximately 35 km east of the Project site
Surveyor General Codes	Remaining Extent (Portion 0) of Booysendal No. 43 JT T0JT0000000000430000 Portion 2 of Der Brochen No. 7 JT T0JT0000000000070002

3.3 Project Coordinates

The coordinates of the proposed Project site and associated infrastructure components are provided in **Table 3-2** and correspond with the assessed development footprint and Project layout plans.

Table 3-2: Coordinates of the proposed Project

Project Component or Location	Latitude	Longitude
Approximate centre point of the solar photovoltaic facility	25°4'51.042"S	30°7'37.784"E
Outer edges boundary		
A	25°4'53.658"S	30°7'22.864"E
B	25°4'48.168"S	30°7'22.543"E
C	25°4'43.573"S	30°7'23.627"E
D	25°4'40.068"S	30°7'24.905"E
E	25°4'38.735"S	30°7'29.499"E
F	25°4'36.667"S	30°7'32.921"E
G	25°4'36.064"S	30°7'39.235"E
H	25°4'46.147"S	30°7'47.262"E
I	25°4'54.694"S	30°7'50.451"E
J	25°4'59.480"S	30°7'51.621"E
K	25°5'8.419"S	30°7'56.785"E
L	25°5'8.493"S	30°7'42.658"E
M	25°5'3.442"S	30°7'40.183"E
N	25°4'55.453"S	30°7'33.476"E
O	25°4'53.658"S	30°7'22.864"E
Overhead power line 1		

Project Component or Location	Latitude	Longitude
Overhead power line route – Start	25°4'50.491"S	30°7'23.789"E
Overhead power line route – Middle	25°5'21.031"S	30°7'23.034"E
Overhead power line route – End	25°5'51.021"S	30°6'52.687"E
Overhead power line 2		
Overhead power line route – Start	25°4'50.955"S	30°7'24.571"E
Overhead power line route – Middle	25°5'7.442"S	30°7'7.746"E
Overhead power line route – End	25°5'50.953"S	30°6'52.453"E
Access road 1		
Access Road – Start	25°5'3.580"S	30°7'5.140"E
Access Road – Middle	25°5'2.867"S	30°7'13.310"E
Access Road – End	25°5'35.809"S	30°7'21.672"E
Access road 2		
Access Road – Start	25°4'52.617"S	30°7'27.383"E
Access Road – Middle	25°5'9.762"S	30°7'19.813"E
Access Road – End	25°5'33.978"S	30°7'21.261"E

3.4 Locality, Cadastral and Layout Plans

The proposed Project is located within the existing BN Mine Mining Right area, in the vicinity of Lydenburg, Limpopo Province. The proposed Project will be developed on a portion of the existing mining property, with the proposed development footprint situated northeast of the established BN Mine infrastructure.

The proposed development will comprise solar PV arrays, an on-site substation and control room, associated electrical infrastructure, overhead power lines, underground cables, access roads and supporting operational facilities. The layout also makes provision for construction laydown areas, equipment storage, parking and ancillary infrastructure. The proposed development footprint and infrastructure layout are illustrated in **Figure 3-2**.

The regional locality, Mining Right boundary and proposed Project location are illustrated in **Figure 3-1**, while **Figure 3-2** presents the proposed site layout and associated infrastructure in relation to the existing mining facilities, access roads and surrounding watercourses.

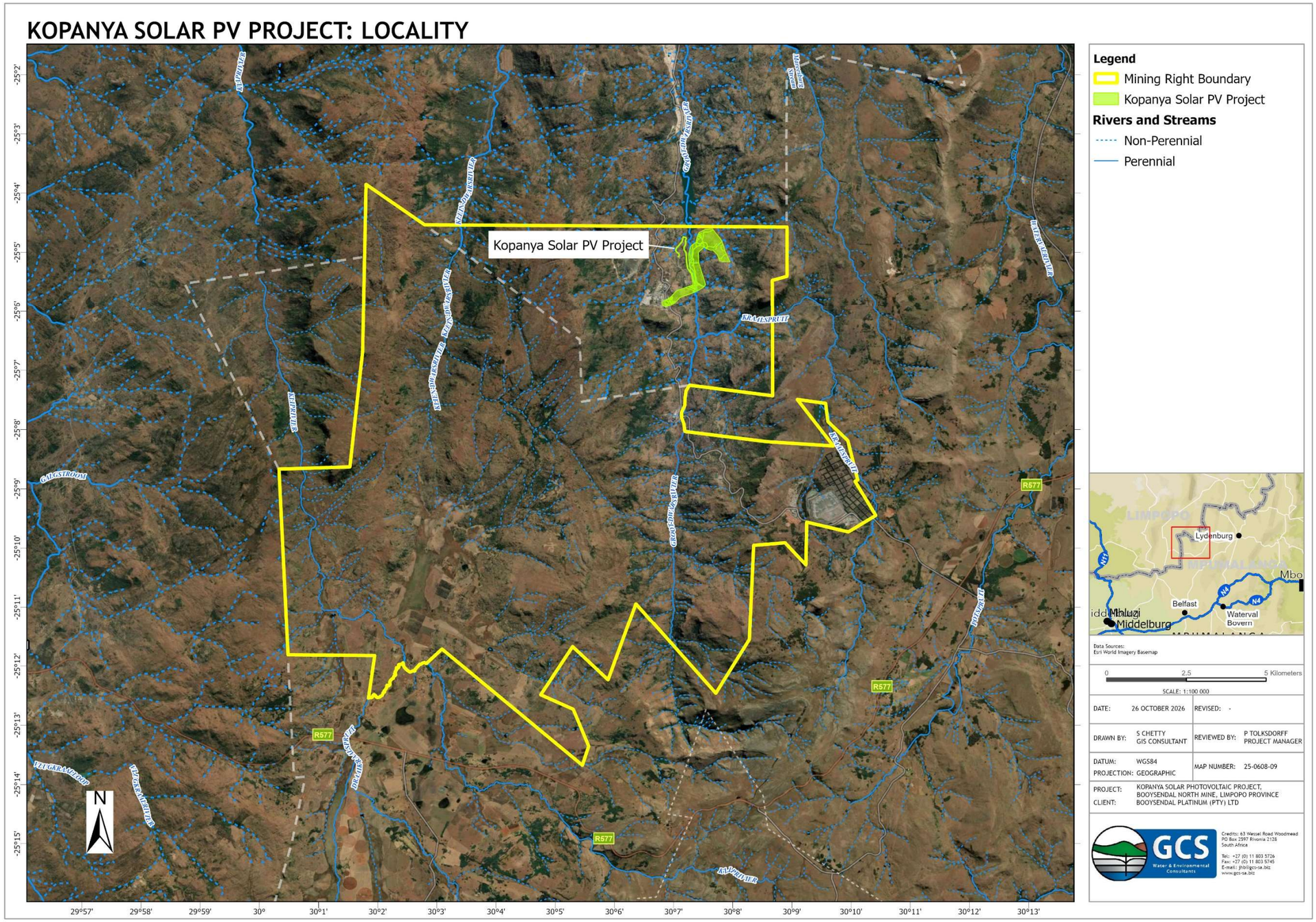


Figure 3-1: Regional Locality and Mining Right Boundary of the Proposed Kopanya Solar PV Project

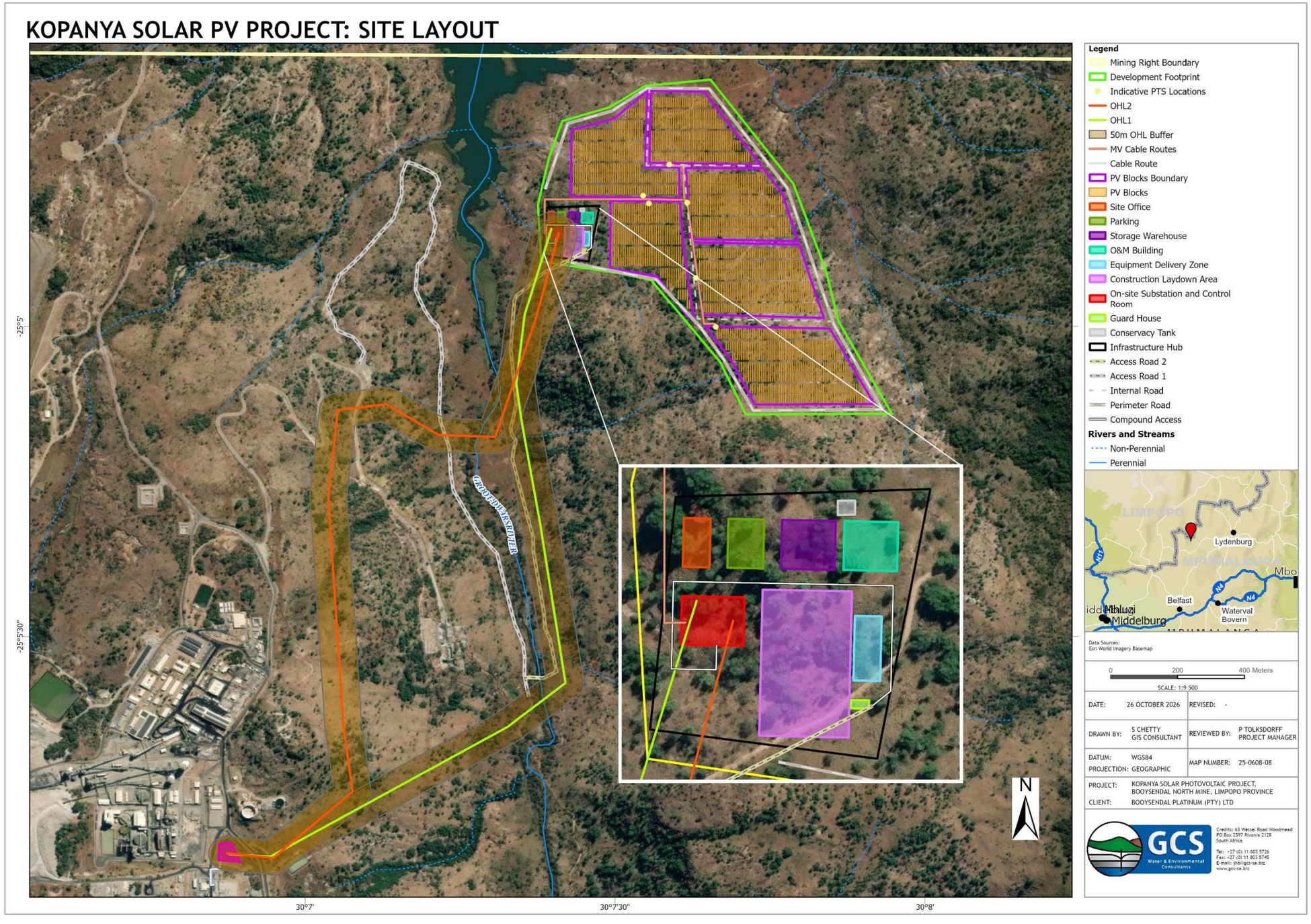


Figure 3-2: Proposed Kopanya Solar PV Project Site Layout

4 DESCRIPTION OF THE SCOPE OF THE PROPOSED OVERALL ACTIVITY[4]

4.1 Existing Authorisations

Booysendal holds several mining, environmental and water use authorisations for the existing North Mine. These authorisations provide for the underground mining operations and associated surface infrastructure, including mineral processing facilities, tailings storage facilities, ventilation infrastructure, water management systems and supporting infrastructure. The original approvals have been amended over time to accommodate the expansion and development of the mining operations.

The existing authorisations have been issued in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), the NEMA, and the NWA. The authorisations held by Booysendal Platinum (Pty) Ltd for the BN Mine, as provided for this assessment, are summarised in **Table 4-1**.

Table 4-1: Existing Authorisations for Booysendal North Mine

Date	Authorisation / Reference	Description
20 June 2003	Environmental Management Programme Approval	Approval of the original Environmental Management Programme for Booysendal Mine in terms of the Minerals Act, 1991 (Act No. 50 of 1991).
10 September 2009	Converted Mining Right – 114/2010/MR	Converted Mining Right issued in terms of the Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002), providing for mining operations within the approved mining area.
13 September 2010	Environmental Management Programme Amendment – LP30/5/1/3/2/1 (188) EM	Approval of an amended Environmental Management Programme for the UG2 underground mining operations and associated infrastructure, including provision for future expansion.
11 August 2017	Section 102 Environmental Management Programme Amendment – LP30/5/1/2/3/2/1 (188) EM	Approval of the expansion of existing UG2 underground mining operations, the metallurgical plant and the existing tailings storage facility.
2018	Integrated Water Use Licence – 06/B41G/AJBEICG/7110	Authorisation of water uses in terms of Sections 21(a), (b), (c), (e), (g), (i) and (j) of the National Water Act, 1998 (Act No. 36 of 1998), associated with the mining operations and supporting infrastructure.
17 July 2019	Environmental Authorisation – LP30/5/1/2/3/2/1 (0188) EM	Environmental Authorisation for the BN Expansion Project (Phase 2), including underground mining expansion and associated surface infrastructure on the farms Booysendal 43 JT and Buttonshope 51 JT.
2 June 2023	Amended Environmental Authorisation – LP30/5/1/2/3/2/1 (0188) EM	Environmental Authorisation amendment for additional mining infrastructure, including emulsion storage facilities, ventilation shafts and associated infrastructure at BN Mine.

4.2 Required Authorisations

The proposed Project will require an EA in terms of the NEMA, and the EIA Regulations, 2014. Given the nature and scale of the proposed development, a S&EIR process will be undertaken, with the

[4] Required in accordance with Appendix 2, Section 2(1)(d) of the EIA Regulations, 2014, which requires the Scoping Report to include a description of the scope of the proposed activity, including all listed and specified activities triggered and being applied for, as well as a description of the associated structures and infrastructure related to the development.

DMPR acting as the CA.

The proposed development may also require a Water Use Licence (WUL) in terms of the NWA, particularly where infrastructure development, access roads and associated activities affect watercourses or their regulated areas. The applicable water uses will be confirmed through the aquatic biodiversity and associated specialist assessments, and the necessary authorisation will be sought from the Department of Water and Sanitation (DWS).

In addition, the Project may require heritage approvals or permits in terms of the National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA), and biodiversity-related permits in terms of the National Environmental Management: Biodiversity Act, 2004 (Act No. 10 of 2004) (NEMBA), and applicable provincial legislation. These requirements will be determined through the relevant specialist assessments and engagement with the responsible authorities.

The applicable listed activities under NEMA and the anticipated water uses under the NWA are presented in Section 4.3.

4.3 Listed and Specified Activities

The proposed Project trigger listed activities in terms of the EIA Regulations, 2014, and the associated Listing Notices published under NEMA. These include activities associated with renewable energy generation, electricity transmission and distribution, vegetation clearance, road development and infrastructure within or near watercourses.

The applicable listed activities requiring EA are summarised in **Table 4-2**.

Table 4-2: Listed Activities to be Authorised under the National Environmental Management Act, 1998

Name of Activity	Aerial Extent of Activity (hectares (ha) or square metres (m^2))	Listed Activity	Applicable Listing Notice	Listed Activity Description as per Regulations / Notice
The Project includes an up to 132 kV overhead power line, together with associated grid connection infrastructure.	Approximately 2.7 km in length	X	Listing Notice 1: GN R 983 Activity 11 (i)	**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 kilovolts (kV) but less than 275 kV**; or (ii) inside urban areas or industrial complexes with a capacity of 275 kV or more; excluding the development of bypass infrastructure for the transmission and distribution of electricity where such bypass infrastructure is — (a) temporarily required to allow for maintenance of existing infrastructure; (b) 2 kilometres (km) or shorter in length; (c) within an existing transmission line servitude; and (d) will be removed within 18 months of the commencement of development.
The development of infrastructure or structures with a physical footprint of 100 m^2 or more where such development occurs within a watercourse, in front of a development setback, or within 32 m of a watercourse where no development setback exists, subject to exclusions.	Approximately 49 ha	X	Listing Notice 1: GN R 983 Activity 12 (ii) (a) and (c)	**The development of-** (i) dams or weirs, where the dam or weir, including infrastructure and water surface area, exceeds 100 square metres; **or (ii) infrastructure or structures with a physical footprint of 100 square metres 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 metres of a watercourse, measured from the edge of a watercourse**, excluding- (aa) the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour; (bb) where such development activities are related to the development of a port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies; (cc) activities listed in activity 14 in Listing Notice 2 of 2014 or activity 14 in Listing Notice 3 of 2014, in which case that activity applies; (dd) where such development occurs within an urban area; (ee) where such development occurs within existing roads road reserves or railway line reserves; or (ff) the development of temporary infrastructure or structures where such infrastructure or structures will be removed within 6 weeks of the commencement of the development and where indigenous vegetation will not be cleared.
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.	To be determined	X	Listing Notice 1: GN R 983 Activity 19	**The infilling or depositing of any material of more than 10 cubic metres (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**; but excluding where such infilling, depositing, dredging, excavation, removal or moving - (a) will occur behind a development setback; (b) is for maintenance purposes undertaken in accordance with a maintenance management plan; (c) falls within the ambit of activity 21 in this Notice, in which case that activity applies; (d) occurs within existing ports or harbours that will not increase the development footprint of the port or harbour; or (e) where such development is related to the development of a

Name of Activity	Aerial Extent of Activity (hectares (ha) or square metres (m^2))	Listed Activity	Applicable Listing Notice	Listed Activity Description as per Regulations / Notice
				port or harbour, in which case activity 26 in Listing Notice 2 of 2014 applies.
The Project comprises a solar PV facility with an installed generation capacity of up to 25 MW.	Approximately 49 ha	X	Listing Notice 2: GN R 984 Activity 1	**The development of facilities or infrastructure for the generation of electricity from a renewable resource where the electricity output is 20 megawatts or more**, 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 clearance of an area of more than 20 ha of indigenous vegetation.	Approximately 49 ha	X	Listing Notice 2: GN R 984 Activity 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.
Development of a road wider than 4 m.	6 m in width and approximately 3.8 km in length	X	Listing Notice 3: GN R 985 Activity 4 (e) (i) (cc) and (ee)	**The development of a road wider than 4 metres with a reserve less than 13.5 metres.** **(e) Limpopo** **(i) Outside urban areas:** (aa) A protected area identified in terms of NEMPAA, excluding disturbed areas; (bb) National Protected Area Expansion Strategy Focus areas; **(cc) Sensitive areas as identified in an environmental Management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority**; (dd) Sites or areas identified in terms of an international convention; **(ee) Critical biodiversity areas as identified in Systematic biodiversity plans adopted by the competent authority or in bioregional plans;** (ff) Core areas in biosphere reserves; or (gg) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core areas of a biosphere reserve, excluding disturbed areas, where such areas comprise indigenous vegetation; or (ii) Inside urban areas: (aa) Areas zoned for use as public open space; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority or zoned for a conservation purpose.

Name of Activity	Aerial Extent of Activity (hectares (ha) or square metres (m^2))	Listed Activity	Applicable Listing Notice	Listed Activity Description as per Regulations / Notice
The clearance of 300 m^2 or more of indigenous vegetation within specified sensitive geographical areas.	Approximately 49 ha	X	Listing Notice 3: GN R 985 Activity 12 (e) (i) and (ii)	**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.** **(e) Limpopo** **(i) Within any critically endangered or endangered ecosystem listed in terms of section 52 of the NEMBA or prior to the publication of such a list, within an area that has been identified as critically endangered in the National Spatial Biodiversity Assessment 2004; (ii) Within critical biodiversity areas identified in bioregional plans**; or (iii) On land, where, at the time of the coming into effect of this Notice or thereafter such land was zoned open space, conservation or had an equivalent zoning or proclamation in terms of NEMPAA.
The development of 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 within 32 m of a watercourse, within specified sensitive geographical areas.	Approximately 49 ha	X	Listing Notice 3: GN R 985 Activity 14 (ii) (a) (c) (e) (i) (dd) and (ff)	**The development of** (i) dams or weirs, where the dam or weir, including infrastructure and water surface area exceeds 10 square metres; or **(ii) infrastructure or structures with a physical footprint of 10 square metres or more; where such development occurs (a) within a watercourse;** (b) in front of a development setback; or **(c) if no development setback has been adopted, within 32 metres of a watercourse, measured from the edge of a watercourse**; excluding the development of infrastructure or structures within existing ports or harbours that will not increase the development footprint of the port or harbour. **(e) Limpopo** **(i) Outside urban areas:** (aa) A protected area identified in terms of NEMPAA, excluding conservancies; (bb) National Protected Area Expansion Strategy Focus areas; (cc) World Heritage Sites; (**dd) Sensitive areas as identified in an environmental Management framework as contemplated in Chapter 5 of the Act and as adopted by the competent authority**; (ee) Sites or areas identified in terms of an international convention; (ff) **Critical biodiversity areas or ecosystem service areas as identified in systematic biodiversity plans adopted by the competent authority or in bioregional plans**; (gg) Core areas in biosphere reserves; or (hh) Areas within 10 kilometres from national parks or world heritage sites or 5 kilometres from any other protected area identified in terms of NEMPAA or from the core area of a biosphere reserve, where such areas comprise indigenous vegetation; or (ii) Inside urban areas:

Name of Activity	Aerial Extent of Activity (hectares (ha) or square metres (m^2))	Listed Activity	Applicable Listing Notice	Listed Activity Description as per Regulations / Notice
				(aa) Areas zoned for use as public open space; or (bb) Areas designated for conservation use in Spatial Development Frameworks adopted by the competent authority, zoned for a conservation purpose.

The proposed development may also trigger water uses in terms of Section 21 of the NWA, particularly where infrastructure and associated construction activities intersect with watercourses or their regulated areas. The anticipated water uses are summarised in Table 4-3.

Table 4-3: Water Uses in Terms of Section 21 of the National Water Act, 1998

Section 21 Water Use	Proposed Project Activity
Section 21(c): Impeding or diverting the flow of water in a watercourse.	Construction of access roads, cable crossings, overhead power line infrastructure and associated works within watercourses or their regulated areas, where these activities may impede or divert water flow.
Section 21(i): Altering the bed, banks, course or characteristics of a watercourse.	Earthworks, excavation, vegetation clearance and construction of infrastructure within watercourses or their regulated areas, where these activities may alter the physical characteristics of a watercourse.
Section 21(g): Disposing of waste in a manner which may detrimentally impact a water resource.	Potentially applicable to wastewater management or disposal infrastructure associated with the construction and operational facilities, subject to confirmation of the proposed waste and wastewater management arrangements.

The final water use requirements will be confirmed following completion of the relevant specialist assessments and detailed infrastructure design. Where required, a Water Use Licence Application (IWULA) will be submitted to the DWS for consideration.

4.4 Description of the Activities to be Undertaken

4.4.1 Purpose of Project

The proposed Project aims to improve the security, reliability and affordability of electricity supply to BN Mine, while supporting South Africa's transition towards renewable energy. The Project will involve the development of a solar PV facility with an installed generation capacity of up to 25 MWac, primarily to meet the electricity requirements of the existing mining operations.

The BN Mine requires a continuous and reliable electricity supply to support underground mining, mineral processing and associated infrastructure. Electricity supply constraints, grid instability and increasing electricity tariffs present operational and financial risks to the Mine. The proposed Project will reduce dependence on grid-supplied electricity through on-site renewable energy generation, thereby improving energy security, reducing operating costs and supporting the long-term sustainability of mining operations.

At a broader level, the Project will contribute to South Africa's renewable energy and climate change mitigation objectives by reducing reliance on fossil-fuel-based electricity and associated greenhouse gas emissions. Electricity generated by the facility will primarily be used by the BN Mine, with surplus electricity potentially exported to the national electricity grid, subject to the applicable grid connection and regulatory arrangements.

The proposed Project will therefore provide an alternative electricity supply to support existing mining operations, improve operational resilience and contribute to the reduction of the Mine's carbon footprint.

4.4.2 Description of the Proposed Development

4.4.2.1 Overview of the Proposed Facility

The proposed Project will comprise a utility-scale solar PV facility with an installed generation capacity of 25 MW_{AC}. The facility will be developed within the existing BN Mine area and has been designed to integrate with existing mining and electrical infrastructure.

The Project will utilise single-axis tracking bifacial solar PV panels, enabling increased energy yield through improved solar exposure throughout the day. The development has been purposefully designed to minimise additional land disturbance by locating the facility within an established mining area and using modular, industry-standard infrastructure.

4.4.2.2 Solar PV Arrays and Tracking System

The solar PV facility will comprise up to approximately 45 000 bifacial solar panels, each with a typical wattage of greater than 600 watts (W). The panels will be mounted on single-axis tracking systems, allowing the panels to follow the sun's movement from east to west and optimise electricity generation.

The racking and tracking systems will be constructed from steel sections supported by driven piles, reducing the need for extensive concrete foundations and limiting ground disturbance. Panel structures will be designed to accommodate site-specific geotechnical conditions, wind loading, and long-term operational requirements.

4.4.2.3 Electrical Infrastructure and Grid Connection

The Project will include the following electrical and grid connection infrastructure:

- A 132 kV overhead power line connecting the solar PV facility to the grid connection infrastructure;
- An on-site PV substation to collect and regulate electricity generated by the PV arrays;
- A step-down substation; and
- Power transformer stations and associated electrical infrastructure housed in prefabricated units or electrical houses.

Electricity generated by the facility will be used primarily to supply the BN Mine. Any surplus electricity generated will be exported to the national electricity grid, with Eskom remaining the grid operator.

4.4.2.4 Temporary Construction Infrastructure

Temporary infrastructure required during the construction phase will include:

- A construction yard and laydown areas of approximately 1 ha;
- Site offices, storage areas, and temporary ablution facilities;
- Internal access roads and construction traffic routes; and

- Temporary services required to support construction activities.

Construction of the proposed Project is anticipated to occur over a period of approximately 15 months. At peak construction, an estimated 300 personnel will be employed, comprising skilled and semi-skilled labour associated with civil works, electrical installation, and commissioning activities.

4.4.2.5 Permanent Operational Infrastructure

Permanent operational infrastructure associated with the proposed Project will include:

- Buildings for operations, maintenance, control, and storage purposes;
- An operations and maintenance warehouse;
- Parking areas for operational staff and service vehicles; and
- Security facilities, including access control points.

The operational lifespan of the Project is anticipated to be approximately 25 years, during which an estimated 20 personnel will be employed for routine operation, maintenance, and security functions.

4.4.2.6 Supporting Infrastructure and Services

Additional supporting infrastructure will include:

- Water supply and sanitation systems, utilising conservancy tanks or septic systems (to be confirmed);
- Internal and access roads, linking the facility to existing Mine infrastructure;
- Security and access control infrastructure, including perimeter fencing; and
- Telecommunications systems to support monitoring, control, and security operations.

Stormwater runoff from the facility will be managed through underground drainage systems that direct surface flows to designated low-lying areas. No permanent retention ponds or culverts are anticipated as part of the stormwater management design.

4.4.2.7 Water Requirements and Management

Water will be required primarily during the construction phase of the proposed Project for activities such as dust suppression, concrete works, and general construction purposes. Total construction phase water demand is estimated to be approximately 1 790 cubic metres (m^3) over the construction period.

During the operational phase, water requirements will be limited and associated mainly with routine maintenance activities and domestic use within operational buildings. Operational water demand is estimated at approximately 518 m^3 per annum.

Water for both construction and operation will be sourced from existing Mine water supplies and/or boreholes, and no new water abstraction infrastructure is proposed as part of the Project. Water

use will be managed in accordance with the Mine's approved water management procedures to ensure efficient utilisation and to prevent wastage.

The proposed Project will not involve any process water use, and no wastewater generation is anticipated during normal operation. Sanitation will be managed through conservancy tanks or septic systems, with effluent removed and disposed of by appropriately licensed service providers, in accordance with applicable legislation and municipal requirements.

4.4.2.8 Waste Management

Waste will be generated during the construction, operational, and decommissioning phases of the proposed Project. All waste streams will be managed in accordance with the Mine's approved waste management procedures, the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEMMWA), and recognised industry best practice.

4.4.3 Construction Phase

During the construction phase, both non-hazardous and hazardous waste streams will be generated. Waste volumes are anticipated to be temporary and largely associated with civil works, installation activities, and workforce-related activities.

Non-hazardous waste will include:

- General domestic waste generated by construction personnel;
- Packaging materials associated with solar PV components, including wooden pallets, cardboard, plastics, polystyrene, and strapping materials;
- Scrap metal arising from mounting structures, tracker systems, cable trays, and minor steel off-cuts;
- Construction off-cuts, including electrical cabling, conduits, and plastic materials;
- Minor quantities of inert waste, such as concrete residues generated during foundation works; and
- Damaged, defective, or broken solar PV panels arising from transport, handling, or installation activities.

Solar PV panels damaged during delivery or installation will be handled with care to prevent further breakage. Intact but defective panels will, where possible, be returned to the supplier under warranty agreements. Broken panels will be stored in a designated, secure area to prevent glass dispersion and environmental contamination. Panels suitable for recycling will be sent to appropriately authorised recycling facilities.

Hazardous waste generated during construction will be limited in volume and will include:

- Small quantities of fuels, oils, and hydraulic fluids associated with construction vehicles and equipment;

- Oily rags, absorbent materials, used filters, and contaminated materials; and
- Empty containers that previously contained hazardous substances, such as oils, greases, and cleaning agents.

Hazardous waste will be stored in clearly demarcated, bunded areas with impermeable surfaces to prevent soil and groundwater contamination. All hazardous waste will be removed from site by licensed service providers and disposed of at authorised hazardous waste facilities in accordance with applicable legislation.

4.4.4 Operational Phase

Waste generation during the operational phase is expected to be minimal and largely associated with routine maintenance and administrative activities.

Non-hazardous waste during operation will primarily include:

- Limited domestic waste generated by operational and maintenance personnel;
- Minor packaging waste associated with spare parts and replacement components; and
- Scrap metal and redundant components arising from maintenance activities.

Hazardous waste during operation may include:

Used oils, lubricants, and cleaning materials associated with maintenance activities;

- Oily rags, absorbent materials, and used filters;
- Damaged or replaced solar PV panels arising from storm events, mechanical failure, vandalism, or routine replacement; and
- Electrical components such as inverters or transformers containing oils or electronic parts.

Although intact PV panels are generally classified as general waste, damaged panels may contain glass, aluminium, silicon, polymers, and trace metals that require appropriate handling and controlled disposal or recycling. Damaged or replaced panels will be temporarily stored in a secure, weather-protected area to prevent environmental release of materials. Where feasible, panels will be recycled through specialised PV recycling facilities to recover reusable materials and minimise waste to landfill.

All operational waste will be collected, transported and disposed of in accordance with approved waste management procedures.

4.4.5 Decommissioning Phase

At the end of the proposed Project's operational lifespan, the facility may be decommissioned, repowered, or refurbished. The decommissioning phase will generate both non-hazardous and hazardous waste streams associated with dismantling and removal of infrastructure.

Waste generated during decommissioning will include:

- Non-hazardous waste, such as dismantled equipment, scrap metal, concrete material, fencing, and general waste associated with infrastructure removal;
- Solar PV panels, including damaged, obsolete, or end-of-life panels and associated mounting structures and electrical components; and
- Hazardous waste, including batteries (if applicable), electronic components, oils, and other hazardous materials.

Solar PV panels removed during decommissioning will represent one of the primary waste streams. Where panels remain functional, opportunities for reuse, resale, or repowering will be investigated. Panels that have reached end-of-life will be prioritised for recycling through specialised PV recycling facilities capable of recovering glass, aluminium frames, and other recyclable materials.

Electrical components, including inverters and transformers, will be assessed for potential refurbishment or recycling. Hazardous materials will be separated and managed in accordance with applicable waste legislation.

All decommissioning waste will be transported by licensed service providers to authorised waste management or recycling facilities. The decommissioning process will aim to maximise material recovery and recycling to support circular economy principles and minimise landfill disposal.

5 SCREENING TOOL OUTCOMES[5]

The National Web-Based Environmental Screening Tool (Screening Tool) was used to identify potential environmental sensitivities associated with the proposed Project. The Screening Tool Report, generated on 26 October 2026, provides an initial indication of environmental constraints based on national spatial datasets and identifies the environmental themes requiring consideration during the environmental assessment process.

In accordance with the NEMA, and the EIA Regulations, 2014, the Screening Tool findings must be considered alongside site-specific information. The purpose of Site Sensitivity Verification (SSV) is to confirm or dispute the sensitivity classifications identified by the Screening Tool and establish whether additional specialist investigations are required.

Site Sensitivity Verification Reports (SSVRs) have been prepared for terrestrial biodiversity, plant and animal species, avifauna, aquatic biodiversity, agricultural resources and landscape sensitivity. These assessments were informed by desktop investigations, spatial datasets and field surveys, providing a more detailed understanding of the environmental characteristics of the proposed development area.

[5] Required in accordance with Regulation 16(1)(b)(v) of the EIA Regulations, 2014, which requires an application for environmental authorisation to be accompanied by the report generated by the National Web-Based Environmental Screening Tool. The site sensitivity verification must confirm or dispute the current land use and environmental sensitivities identified by the Screening Tool, and must inform the specialist studies required for the assessment.

The specialist findings are particularly important given the location of the proposed solar PV facility within a mountainous landscape characterised by natural Mountain Bushveld, the Groot Dwars River and associated drainage features, together with existing mining infrastructure and previously disturbed areas. The proposed development also includes two overhead power line alternatives, access road alternatives and associated infrastructure, which must be considered in relation to the identified environmental sensitivities.

This chapter summarises the Screening Tool classifications, presents the findings of the specialist verification assessments and identifies the implications for the S&EIR process. A consolidated comparison of the Screening Tool classifications and verified sensitivities is provided at the end of the chapter.

5.1 Legislative Framework and Verification Approach

The Screening Tool and SSV requirements are established under the EIA Regulations, 2014, and the procedures published in Government Notice No. 320 of 20 March 2020, as amended. These procedures require the environmental sensitivity of the proposed development footprint to be verified through appropriate desktop information and, where necessary, field investigations undertaken by suitably qualified specialists.

The verification process must establish whether the environmental sensitivities identified by the Screening Tool accurately represent conditions within the proposed development area. Where the findings differ, the specialist must provide a reasoned motivation supported by site-specific evidence, including habitat assessments, field observations, photographs, spatial information and relevant ecological or environmental datasets.

For the proposed Project, the specialist investigations considered the solar PV development area and associated infrastructure corridors. The terrestrial biodiversity assessment included two overhead power line alternatives, each with a 200 m assessment corridor, and an access road with a 20 m assessment buffer. Terrestrial and aquatic field surveys were undertaken between 26 and 30 January 2026, during the summer rainfall season.

The verification assessments distinguish between the sensitivity assigned to the broader Project area and the sensitivity of individual habitats or environmental features. This distinction is important because the highest Screening Tool classification does not necessarily apply uniformly across the entire development footprint. For example, relatively intact Mountain Bushveld and natural watercourses may exhibit High or Very High sensitivity, while previously disturbed or modified areas may have substantially lower ecological importance.

The verified sensitivities will inform the identification of environmental constraints, the assessment of feasible development alternatives and the scope of the detailed specialist impact assessments. They will also guide the refinement of the proposed development layout and the identification of appropriate avoidance, mitigation and rehabilitation measures.

5.2 Screening Tool Sensitivity Classifications

The Screening Tool Report identifies 12 environmental themes relevant to the proposed Project. These themes include biodiversity, agricultural resources, heritage, landscape characteristics and infrastructure-related constraints.

The highest sensitivity classifications were assigned to Terrestrial Biodiversity, Aquatic Biodiversity and Landscape, all of which were identified as Very High. High sensitivity was identified for Agriculture, Animal Species and Archaeological and Cultural Heritage, while Medium sensitivity was assigned to Plant Species, Palaeontology and Radio Frequency Interference. The Avian, Civil Aviation and Defence themes were classified as Low.

The classifications reflect the presence of mapped environmental features and the potential occurrence of sensitive resources within the broader assessment area. However, the Screening Tool does not replace field-based investigations or detailed impact assessments. The specialist verification reports therefore provide the basis for determining whether these classifications should be accepted, disputed or spatially refined.

Table 5-1: Environmental Sensitivity Themes Identified by the National Web-Based Environmental Screening Tool

Environmental Theme	Screening Tool Sensitivity	Principal Sensitivity Considerations
Terrestrial Biodiversity	Very High	Critical Biodiversity Area, FEPA sub-catchment and protected area expansion priorities
Animal Species	High	Potential occurrence of species of conservation concern
Plant Species	Medium	Potential occurrence of sensitive plant species
Avian	Low	Aviation-related avian sensitivity classification
Aquatic Biodiversity	Very High	Rivers, drainage features and FEPA sub-catchment
Agriculture	High	Mapped agricultural land capability and soil potential
Landscape (Solar)	Very High	Steep slopes and proximity to rivers and wetlands
Archaeological and Cultural Heritage	High	Proximity to mapped heritage resources
Palaeontology	Medium	Potential fossil-bearing geological formations
Civil Aviation (Solar PV)	Low	Aviation-related infrastructure and operational constraints
Defence	Low	Defence-related infrastructure and operational constraints
Radio Frequency Interference	Medium	Proximity to telecommunications infrastructure

The specialist verification findings for the principal environmental themes are discussed in the following sections. Themes for which no separate specialist verification findings are currently available are addressed separately, with their status identified in the consolidated verification table.

The verified sensitivities will form the basis for the detailed specialist impact assessments, consideration of feasible development alternatives and refinement of the proposed infrastructure layout. The findings will also guide the identification of appropriate environmental management measures to avoid, minimise or mitigate potential impacts during construction and operation.

5.3 Terrestrial Biodiversity, Plant and Animal Species

This section is informed by the Terrestrial Site Sensitivity Verification Report for the Proposed Kopanya Solar Photovoltaic (PV) Project and associated infrastructure (The Biodiversity Company, 2026a) (**Appendix C)**, which assessed the terrestrial biodiversity, plant and animal species sensitivities of the proposed development area and associated infrastructure. The assessment verified the relevant Screening Tool classifications, identified sensitive habitats and species of conservation concern, and established the ecological constraints requiring further consideration during the EIA process.

5.3.1 Screening Tool Findings

The Screening Tool assigned Very High sensitivity to the Terrestrial Biodiversity Theme, High sensitivity to the Animal Species Theme and Medium sensitivity to the Plant Species Theme. These classifications reflect the ecological importance of the broader landscape and the potential presence of threatened or protected species within the Project Area of Influence (PAOI).

The terrestrial biodiversity sensitivity is associated with the presence of Critical Biodiversity Area 2, a Freshwater Ecosystem Priority Area sub-catchment and an area identified under the National Protected Area Expansion Strategy. The Project area also forms part of a mountainous landscape containing natural vegetation that contributes to ecological connectivity and provides potential habitat for species of conservation concern.

The Biodiversity Company undertook a terrestrial biodiversity, plant and animal species SSV assessment, including a field survey from 26 to 30 January 2026. The assessment considered the proposed solar PV development area, two overhead power line alternatives and associated access infrastructure.

5.3.2 Habitat Assessment

The specialist identified several habitat types within the PAOI, including Mountain Bushveld, river habitat, degraded bushveld, natural drainage features, artificial water resources and modified areas. These habitats differ in their ecological condition, functional integrity and suitability for supporting indigenous flora and fauna.

Mountain Bushveld represents one of the most ecologically important habitats within the assessment area. The specialist identified relatively intact vegetation communities capable of supporting range-restricted flora and fauna species of conservation concern. These areas retain important ecological functions and contribute to habitat connectivity within the broader mountainous landscape.

River habitats and associated natural drainage features also contribute to ecological connectivity, particularly where they provide movement corridors and suitable habitat for fauna. Although some drainage features are relatively small, they retain ecological functions and support indigenous vegetation.

Degraded bushveld has been affected by historical and ongoing disturbance but continues to provide

habitat for indigenous flora and fauna. Artificial water resources and modified areas exhibit lower ecological importance because their natural characteristics and ecological functioning have been substantially altered by existing activities.

5.3.3 Verified Terrestrial Biodiversity Sensitivity

The specialist confirmed Very High sensitivity for Mountain Bushveld within the proposed solar PV array area. This classification was validated because the habitat is relatively intact, ecologically functional and capable of supporting species of conservation concern.

River habitat and Mountain Bushveld associated with the overhead power line and access road corridors were assigned High sensitivity. Although these areas retain important ecological characteristics, the specialist disputed the uniform Very High Screening Tool classification for these portions of the PAOI.

Degraded bushveld, drainage areas and natural drainage lines were assigned Medium sensitivity, reflecting their remaining ecological functions and existing levels of disturbance. Artificial water resources were assigned Low sensitivity, while highly modified areas were assigned Very Low sensitivity.

The findings demonstrate that the Very High Screening Tool classification is appropriate for certain natural habitats but does not accurately represent all areas within the proposed development footprint. The specialist therefore validated the classification for the most sensitive Mountain Bushveld habitats and disputed it for habitats exhibiting lower ecological importance.

Table 5-2: Comparison of Screening Tool and Specialist-Verified Terrestrial Biodiversity, Plant and Animal Species Sensitivities

Screening Tool Theme	Screening Tool Sensitivity	Habitat / Feature	Specialist Sensitivity	Verification Outcome
Terrestrial Biodiversity	Very High	Mountain Bushveld – solar PV array	Very High	Validated
Terrestrial Biodiversity	Very High	River and Mountain Bushveld – road and overhead power line	High	Disputed
Terrestrial Biodiversity	Very High	Degraded Bushveld, drainage area and natural drainage lines	Medium	Disputed
Terrestrial Biodiversity	Very High	Artificial water resources	Low	Disputed
Terrestrial Biodiversity	Very High	Modified areas	Very Low	Disputed
Plant Species	Medium	Protected and threatened flora	High	Disputed
Animal Species	High	Suitable natural habitat for species of conservation concern	High	Validated

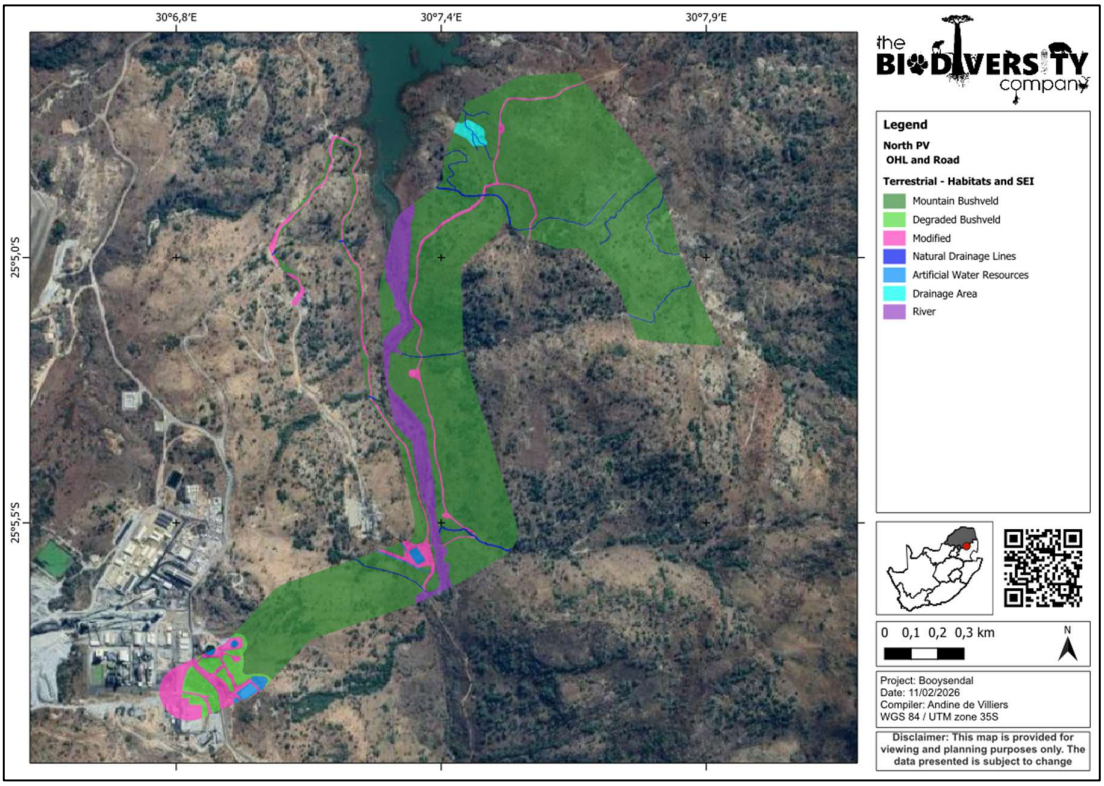


Figure 5-1: Habitat types delineated within the Project Area of Influence (The Biodiversity Company, 2026a)

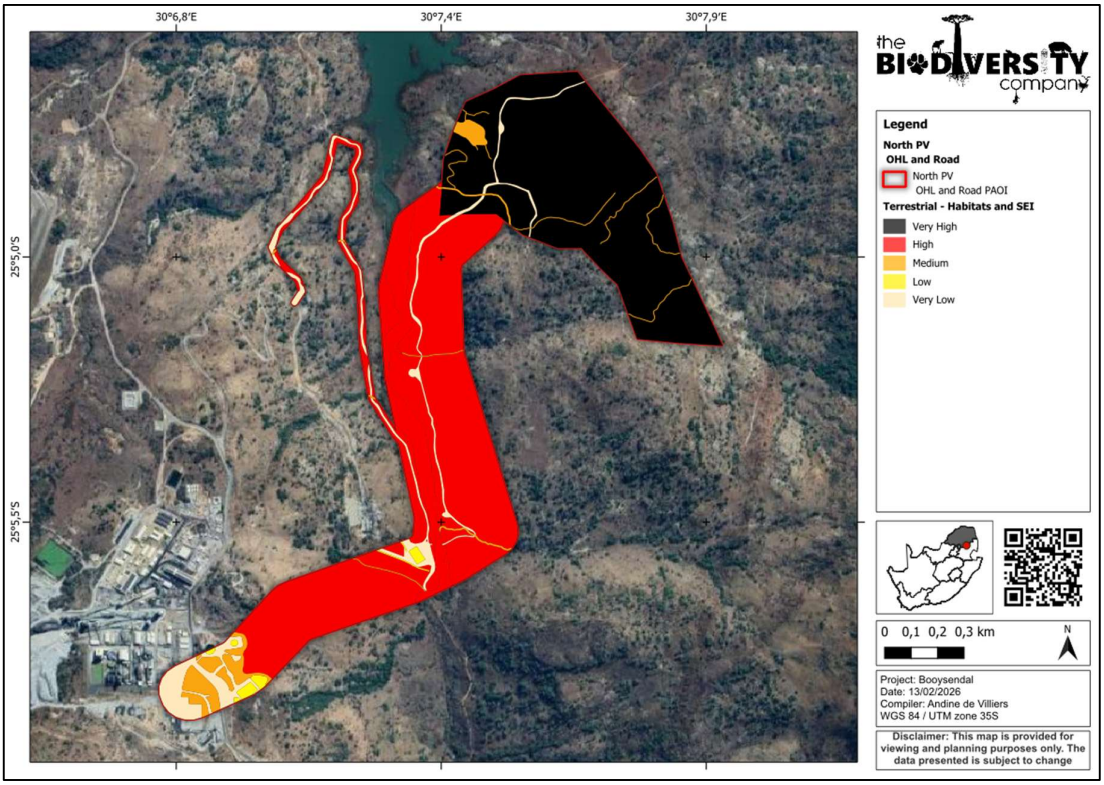


Figure 5-2: Figure 1-2: Site Ecological Importance of habitats within the Project Area of Influence (The Biodiversity Company, 2026a)

5.3.4 Plant Species Sensitivity

The Screening Tool assigned Medium sensitivity to the Plant Species Theme. However, the field survey identified several protected and threatened plant species within the PAOI, particularly within Mountain Bushveld habitat.

Species recorded included *Aloe barbara-jeppeae* (Tree Aloe), *Sclerocarya birrea* subsp. *caffra* (Marula), *Scadoxus puniceus* (Paintbrush Lily) and *Lydenburgia cassinoides* (Sekhukhune Bushman's Tea). The occurrence of these species demonstrates that portions of the Project area provide suitable habitat for conservation-important flora and may be subject to applicable permit requirements where vegetation removal or disturbance is proposed.

Based on the field findings, the specialist disputed the Medium Plant Species sensitivity and assigned High sensitivity. The revised classification reflects the presence of sensitive flora and the importance of avoiding unnecessary disturbance to natural vegetation.

5.3.5 Animal Species Sensitivity

The Screening Tool assigned High sensitivity to the Animal Species Theme. Although no faunal species of conservation concern were recorded during the terrestrial field survey, the specialist confirmed that the natural habitats within the PAOI are suitable for such species.

The specialist noted that species of conservation concern may occur intermittently within the Project area, including during foraging or movement through the landscape. The absence of observations during a single field survey therefore does not establish that these species are absent.

The High Animal Species sensitivity was validated on this basis. The detailed assessment must consider the potential loss and fragmentation of suitable habitat, disturbance to fauna and the maintenance of ecological connectivity.

5.3.6 Implications for the EIA

The terrestrial specialist findings identify habitat loss, fragmentation, vegetation disturbance and potential impacts on protected flora as important considerations for the proposed development. The location of solar PV arrays, access roads, overhead power line structures and associated infrastructure must therefore be assessed in relation to the verified habitat sensitivities.

The detailed EIA should prioritise the avoidance of intact Mountain Bushveld, sensitive plant populations and natural ecological corridors. Where impacts cannot be avoided, appropriate mitigation, rehabilitation and monitoring measures will need to be identified and incorporated into the EMPr.

5.4 Avifauna

This section is informed by the Avifauna Site Sensitivity Verification Report for the Proposed Kopanya Solar Photovoltaic (PV) Project and associated infrastructure (The Biodiversity Company, 2026b), (**Appendix D)** which assessed the avifaunal sensitivity of the proposed development area and associated infrastructure, verified the relevant Screening Tool classifications and identified

potential constraints requiring consideration during the EIA process.

5.4.1 Screening Tool Findings

The Screening Tool assigned Low sensitivity to the Avian Theme and High sensitivity to the Animal Species Theme. The avifaunal specialist assessment evaluated the Animal Species Theme in relation to bird species of conservation concern and the ecological importance of habitats within the PAOI.

The Biodiversity Company undertook an avifaunal SSV assessment to identify habitat types, assess their suitability for avifauna and determine whether the Screening Tool's High Animal Species classification accurately represents the sensitivity of the assessment area.

5.4.2 Habitat Assessment and Site Ecological Importance

The specialist identified Mountain Bushveld, degraded bushveld, modified habitats, artificial water resources, drainage areas and river habitat. Each habitat was assessed according to its condition, potential to support avifaunal species of conservation concern and ecological importance.

Mountain Bushveld was assigned High sensitivity because it remains in relatively good natural condition and provides suitable foraging, nesting and roosting habitat. The specialist validated the High Animal Species classification for this habitat.

River habitat was assigned Very High sensitivity because of its natural condition, suitability for avifaunal species of conservation concern and relatively low resilience to potential development impacts. The specialist therefore disputed the High Screening Tool classification for this habitat and assigned a higher sensitivity rating.

Drainage areas were assigned Medium sensitivity. Although these areas have experienced disturbance, they continue to support avifaunal communities and provide potential nesting and foraging habitat.

Degraded bushveld and artificial water resources were assigned Low sensitivity, reflecting their altered condition and the likelihood that any occurrence of species of conservation concern would be temporary or transient. Modified habitats were assigned Very Low sensitivity because of their limited potential to support sensitive avifauna.

5.4.3 Verified Avifaunal Sensitivity

The specialist findings demonstrate considerable variation in avifaunal sensitivity across the PAOI. The High Animal Species classification was validated for Mountain Bushveld but disputed for river habitat, drainage areas, degraded bushveld, artificial water resources and modified areas.

The verified Very High sensitivity of river habitat highlights the importance of maintaining natural riverine environments and associated ecological functions. Similarly, High sensitivity Mountain Bushveld should be considered during infrastructure placement to minimise the loss of suitable nesting, roosting and foraging habitat.

These findings relate specifically to the Animal Species Theme assessed by the avifaunal specialist.

Table 5-3: Comparison of Screening Tool and Specialist-Verified Avifaunal Sensitivities

Screening Tool Theme	Screening Tool Sensitivity	Habitat	Specialist Sensitivity	Verification Outcome
Animal Species	High	River habitat	Very High	Disputed
Animal Species	High	Mountain Bushveld	High	Validated
Animal Species	High	Drainage area	Medium	Disputed
Animal Species	High	Degraded Bushveld	Low	Disputed
Animal Species	High	Artificial water resources	Low	Disputed
Animal Species	High	Modified habitat	Very Low	Disputed

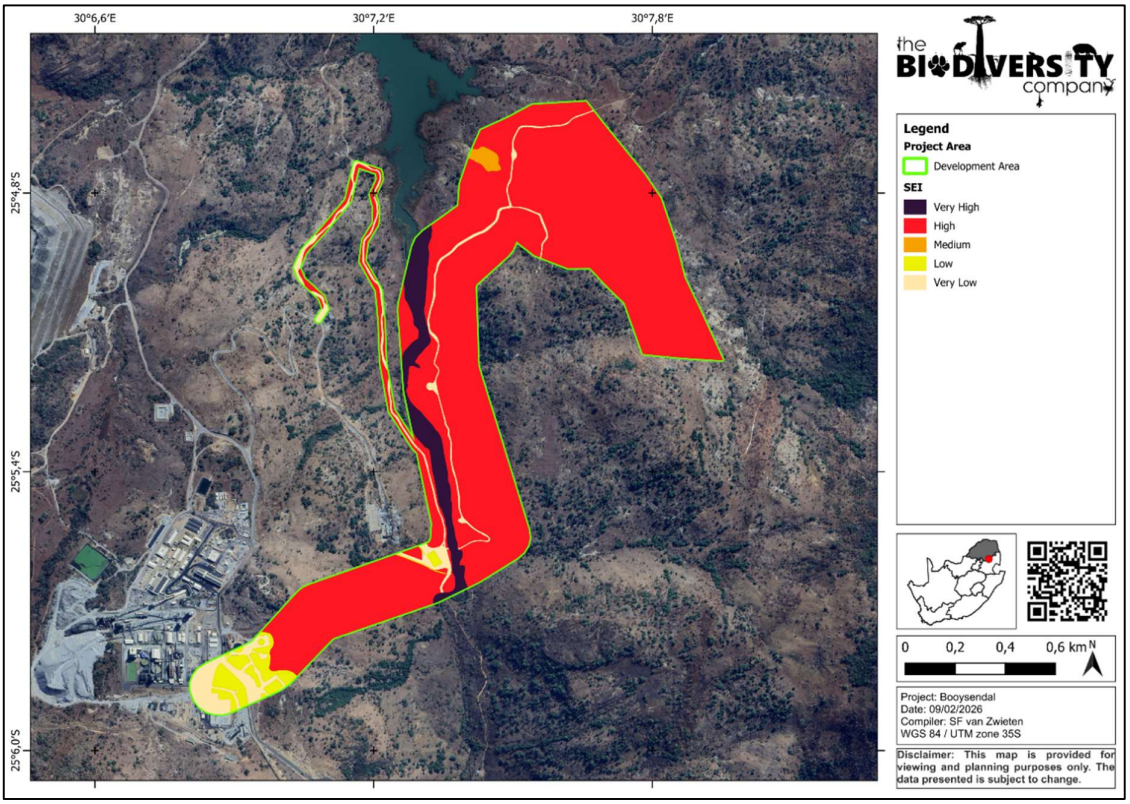


Figure 5-3: Avifaunal Site Ecological Importance of the proposed development area (The Biodiversity Company, 2026b)

5.4.4 Implications for the EIA

Potential impacts on avifauna include the removal of suitable habitat, disturbance during construction and operation, and collision or electrocution risks associated with overhead electrical infrastructure.

The detailed avifaunal assessment must consider the two proposed overhead power line alternatives, particularly their proximity to sensitive riverine and Mountain Bushveld habitats. Appropriate mitigation measures may include infrastructure alignment refinement, bird-safe electrical design and measures to reduce collision risks.

The specialist findings will also inform construction management requirements, including the timing of vegetation clearance where relevant, protection of sensitive habitats and monitoring of avifaunal

impacts.

5.5 Aquatic Biodiversity

This section is informed by the Site Sensitivity Verification Report: Aquatic Biodiversity Theme – Proposed Kopanya Solar Photovoltaic (PV) Project and Associated Infrastructure (The Biodiversity Company, 2026c) (**Appendix E**), which assessed the aquatic biodiversity sensitivity of the proposed development area and associated infrastructure. The assessment verified the relevant Screening Tool classifications, identified and delineated freshwater ecosystems and associated drainage features, and established the aquatic ecological constraints requiring further consideration during the EIA process.

5.5.1 Screening Tool Findings

The Screening Tool assigned Very High sensitivity to the Aquatic Biodiversity Theme across the Project area. This classification was attributed to the presence of rivers and a Freshwater Ecosystem Priority Area sub-catchment.

The classification reflects the potential ecological importance of freshwater ecosystems and their contribution to hydrological connectivity within the broader landscape. However, the Screening Tool does not distinguish adequately between natural watercourses, artificial wet areas and portions of the Project area where freshwater features are absent.

The Biodiversity Company undertook an aquatic biodiversity SSV assessment, including field investigations from 26 to 30 January 2026, to identify and delineate freshwater features and verify the assigned sensitivity.

5.5.2 Watercourse Identification

The field survey identified the perennial Groot Dwars River, non-perennial drainage lines and a drainage area within the assessment area. Artificial wet areas and channels associated with existing platinum mining activities were also recorded.

The Groot Dwars River represents the principal natural freshwater feature within the PAOI. The river contributes to the ecological functioning and hydrological connectivity of the surrounding landscape and provides habitat and movement corridors for aquatic and associated terrestrial species.

The non-perennial drainage features convey surface water through the landscape and contribute to local hydrological processes. Although these features are less ecologically significant than the perennial river, they remain relevant to stormwater management and the potential impacts of infrastructure development.

Artificial wet areas and channels were distinguished from natural freshwater systems because their presence and functioning are associated with existing mining activities.

5.5.3 Verified Aquatic Biodiversity Sensitivity

The specialist validated the Very High sensitivity of the Groot Dwars River. The classification reflects

the river's natural characteristics, ecological contribution and role in maintaining hydrological connectivity within the broader landscape.

The Very High classification was disputed for natural drainage features, which were assigned Medium sensitivity. Although these features convey surface water, the specialist concluded that they do not support the same level of ecological functioning as the perennial river.

Freshwater buffer areas were also assigned Medium sensitivity. The specialist recognised that these areas do not necessarily constitute freshwater ecosystems but remain important for protecting watercourses from adjacent development activities.

The remaining areas were assigned Low sensitivity because they lack typical wetland indicators and are not representative of natural freshwater ecosystems. Artificial wet areas were also generally classified as Low sensitivity.

The verified aquatic sensitivity therefore comprises Very High sensitivity associated with the Groot Dwars River, Medium sensitivity associated with natural drainage features and freshwater buffers, and Low sensitivity in areas without natural freshwater ecosystems.

Table 5-4: Comparison of Screening Tool and Specialist-Verified Aquatic Biodiversity Sensitivities

Aquatic Feature	Screening Tool Sensitivity	Specialist Sensitivity	Verification Outcome
Groot Dwars River (HGM 1)	Very High	Very High	Validated
Drainage features	Very High	Medium	Disputed
Freshwater buffers	Very High	Medium	Disputed
Remaining area	Very High	Low	Disputed*

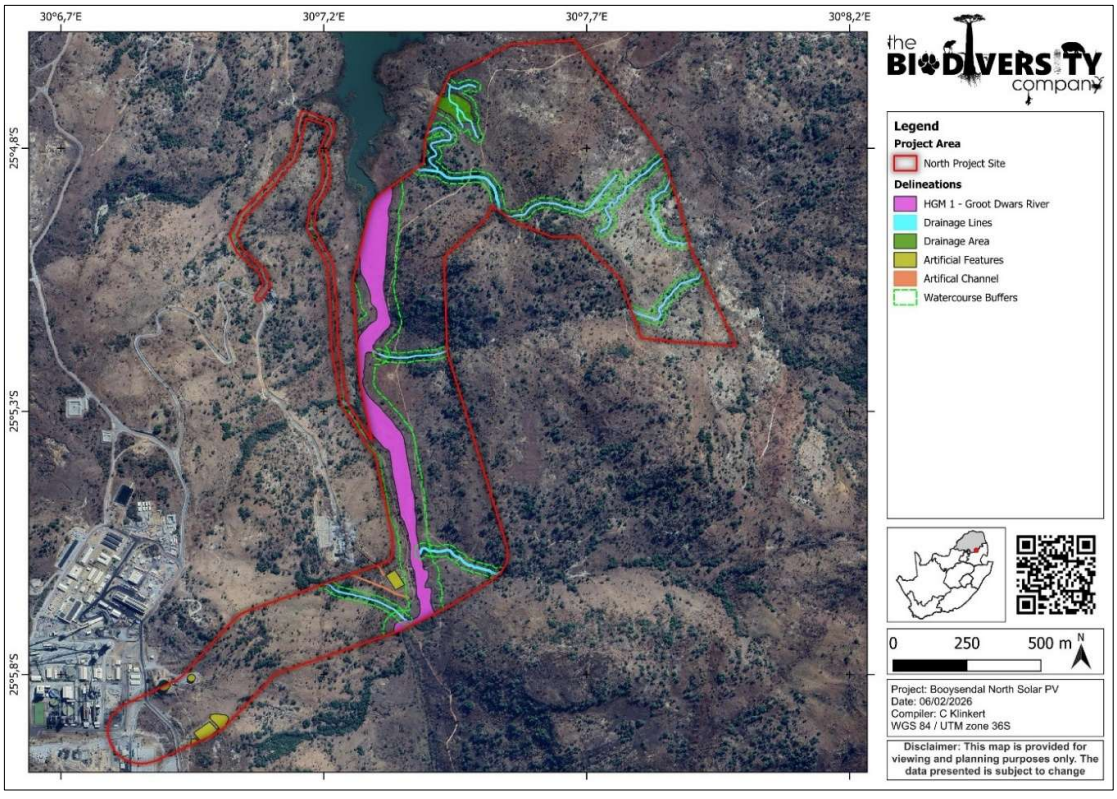


Figure 5-4: Identified watercourses and recommended precautionary buffer zones within and surrounding the Project area (2026c)

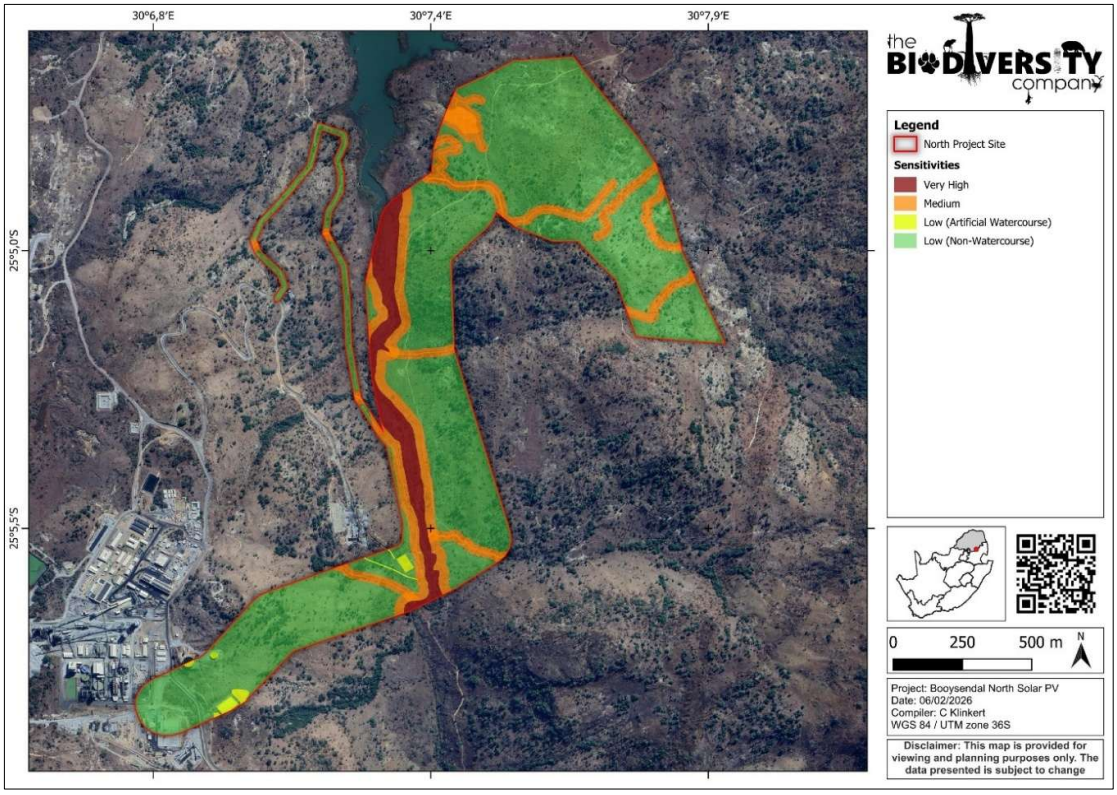


Figure 5-5: Verified Aquatic Biodiversity Theme sensitivity (2026c)

5.5.4 Watercourse Buffers and Further Assessment

The specialist recommended an initial 32 m precautionary buffer around identified natural watercourses. This buffer provides an initial basis for avoiding or minimising disturbance during project planning but does not replace the determination of appropriate site-specific buffer requirements.

A detailed Functional Wetland and Impact Assessment was recommended to evaluate freshwater ecosystem functioning, assess potential impacts and determine appropriate mitigation and buffer requirements.

The proposed overhead power line and access road alternatives must be assessed in relation to the delineated watercourses and potential crossings. Particular consideration should be given to the placement of infrastructure, construction activities within or near watercourses, stormwater runoff, erosion and sedimentation.

The assessment findings will also inform the identification of water uses that may require authorisation in terms of the NWA.

5.6 Agricultural Resources

This section is informed by the Site Sensitivity Verification Report: Agricultural Theme – Proposed

Kopanya Solar Photovoltaic (PV) Project and Associated Infrastructure (The Biodiversity Company, 2026d) (**Appendix F**), which assessed the agricultural sensitivity of the proposed development area and associated infrastructure. The assessment verified the relevant Screening Tool classifications, evaluated soil characteristics, land capability and agricultural potential, and identified agricultural constraints requiring further consideration during the EIA process.

5.6.1 Screening Tool Findings

The Screening Tool identified areas of High, Medium and Low agricultural sensitivity within the proposed Project area, based on mapped land capability and agricultural potential.

The agricultural specialist assessment was undertaken to verify these classifications through an evaluation of soil forms, soil characteristics, land capability and agricultural potential. The assessment considered the suitability of the land for agricultural production and the potential effects of the proposed development on soil resources.

5.6.2 Soil Characteristics and Agricultural Potential

The Biodiversity Company identified several soil forms within the assessment area, including Valsrivier, Swartland, Kroonstad, Spioenberg, Mispah, Johannesburg, Stilfontein and Witbank.

The agricultural potential of these soils varies according to their physical characteristics, depth, drainage properties and landscape position. Valsrivier and Swartland soils, together with hydromorphic Kroonstad soils, were generally associated with Low to Medium agricultural potential.

Mispah soils and certain disturbed or anthropogenic soils were associated with Low or Very Low agricultural potential. The presence of shallow soils, limiting soil characteristics and existing disturbance reduces the suitability of these areas for agricultural production.

The assessment therefore identified spatial variation in agricultural sensitivity rather than a uniformly High sensitivity across the development footprint.

5.6.3 Verified Agricultural Sensitivity

The specialist disputed the High Screening Tool classification in areas where field observations indicated Medium or Low agricultural potential. Areas mapped as High sensitivity but containing Valsrivier, Swartland and Kroonstad soils were generally assigned Medium sensitivity, while areas containing low-potential soils such as Mispah were assigned Low sensitivity.

The Medium Screening Tool classification was validated where field findings confirmed Low to Medium agricultural potential. However, it was disputed and reduced to Low where soils exhibited very limited agricultural capability.

The Low Screening Tool classification was validated where low-potential soils were identified, although certain areas were increased to Medium where field observations indicated greater agricultural potential than initially mapped.

The findings demonstrate that the Screening Tool classifications required refinement based on the

actual soil characteristics and land capability. The verified agricultural sensitivity is predominantly Low to Medium.

Table 5-5: Comparison of Screening Tool and Specialist-Verified Agricultural Sensitivities

Screening Tool Sensitivity	Specialist Sensitivity	Principal Soil Considerations	Verification Outcome
High	Medium	Valsrivier, Swartland and Kroonstad soils	Disputed
High	Low	Mispah soils	Disputed
Medium	Medium	Valsrivier, Swartland and Kroonstad soils	Validated
Medium	Low	Mispah, Johannesburg, Stilfontein and Witbank soils	Disputed
Low	Medium	Valsrivier, Swartland and Kroonstad soils	Disputed
Low	Low	Mispah and Johannesburg soils	Validated

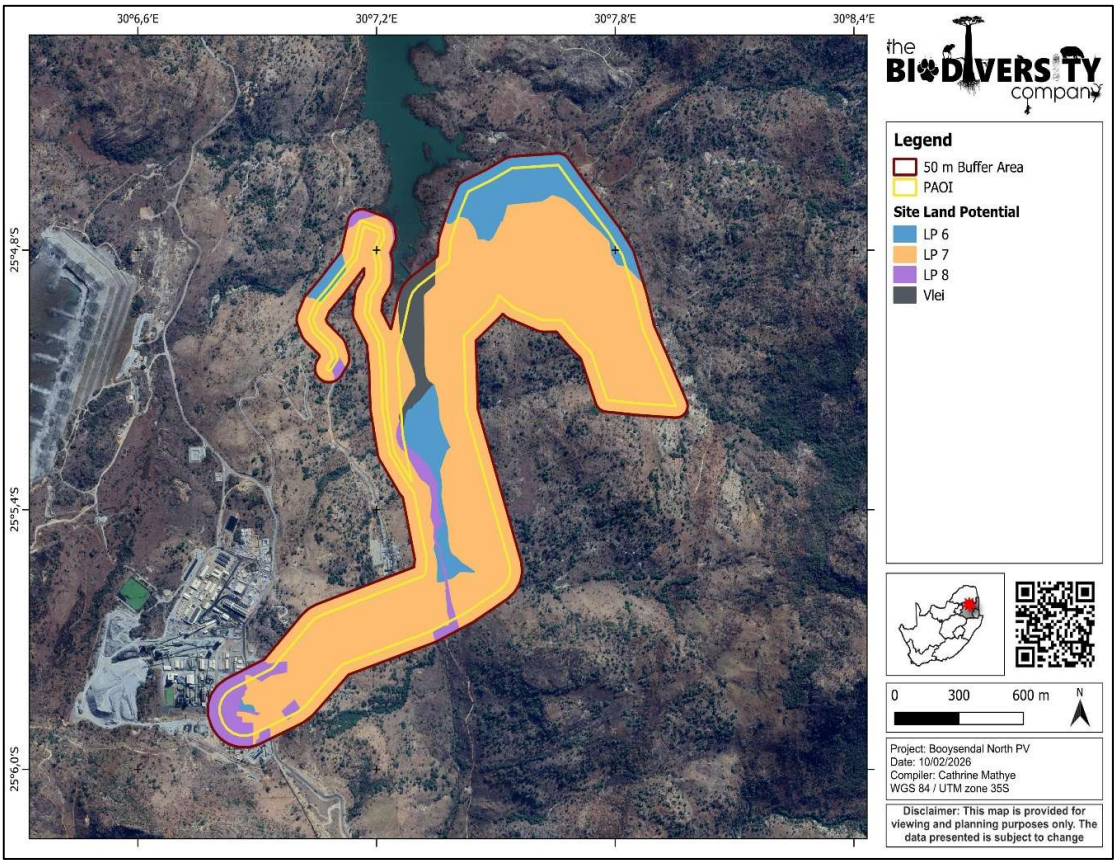


Figure 5-6: Agricultural land potential within the proposed development area (The Biodiversity Company, 2026d)

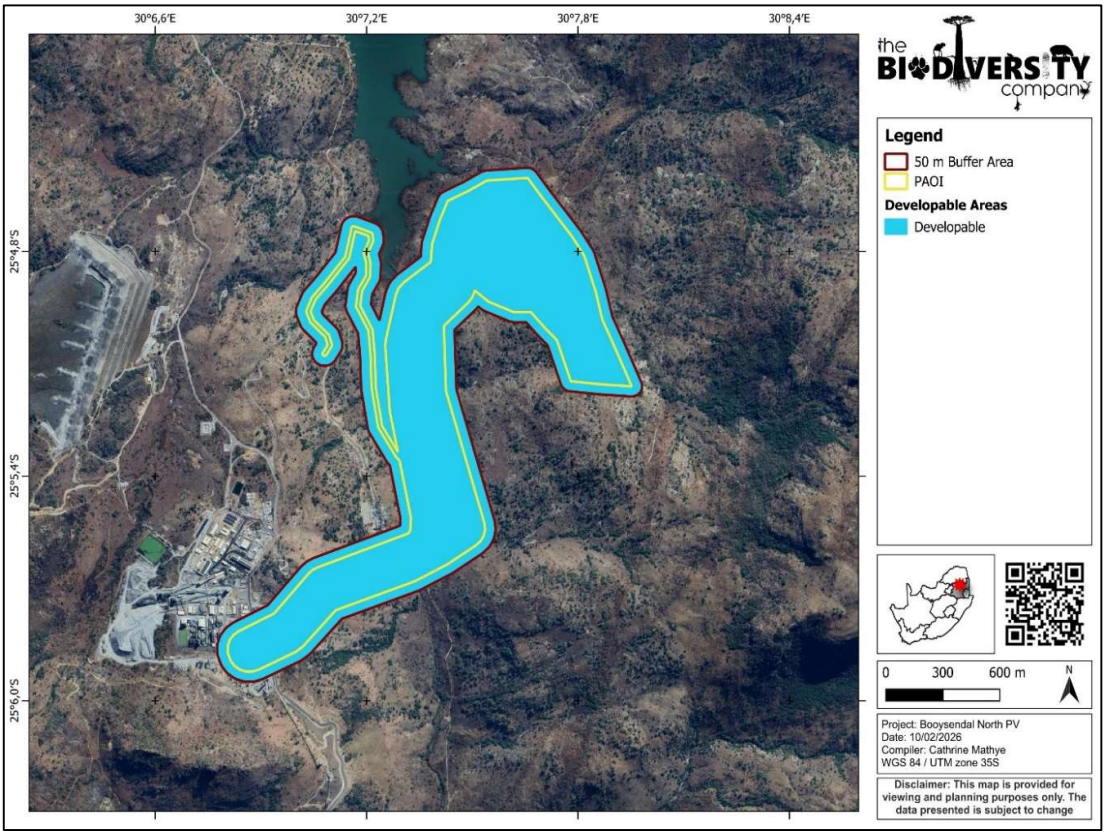


Figure 5-7: Developable areas identified through the agricultural assessment (The Biodiversity Company, 2026d)

5.6.4 Implications for the EIA

The agricultural assessment indicates that the proposed development is generally suitable from an agricultural perspective, subject to the implementation of appropriate soil management and rehabilitation measures.

Potential impacts include soil disturbance, compaction, erosion, changes to surface drainage and the loss of soil resources within the development footprint. These impacts should be managed through minimisation of unnecessary disturbance, appropriate topsoil handling, erosion control and rehabilitation of temporary construction areas.

The verified sensitivity findings will inform the detailed impact assessment and the identification of suitable construction and operational management measures for inclusion in the EMPr.

5.7 Landscape and Visual Sensitivity

This section is informed by the Visual Impact Assessment: Site Sensitivity Verification Report – The Proposed Kopanya PV Project and Associated Infrastructure near Steelpoort, Limpopo Province (Donaway Environmental, 2026) (**Appendix G)**, which assessed the landscape and visual sensitivity of the proposed development area and associated infrastructure. The assessment verified the relevant Screening Tool classifications, evaluated topography, landscape character, existing land uses and potential visual exposure, and identified visual constraints requiring further consideration

during the EIA process.

5.7.1 Screening Tool Findings

The Screening Tool assigned Very High sensitivity to the Landscape (Solar) Theme, primarily due to the presence of steep slopes and proximity to rivers and wetlands.

The identified landscape sensitivity features included slopes steeper than 1:4, slopes between 1:4 and 1:10, slopes gentler than 1:10, areas within 250 m and 500 m of rivers, and areas within 1,000 m of wetlands.

These classifications reflect the potential for solar PV infrastructure to alter landscape character, increase visual exposure and affect scenic features or sensitive visual receptors.

5.7.2 Landscape Characteristics

Donaway Environmental undertook a visual SSV assessment considering topography, vegetation, existing land uses and potentially sensitive visual receptors.

The proposed Project is located within a mountainous landscape characterised by prominent ridgelines, steep slopes and natural vegetation. The existing BN Mine infrastructure also forms part of the surrounding visual environment and influences the landscape character.

The mountainous terrain and vegetation provide substantial opportunities for natural screening. The specialist's assessment of the Zone of Theoretical Visibility indicated that topography limits the visibility of the proposed development from portions of the surrounding landscape.

Nevertheless, the potential visibility of solar PV infrastructure and overhead power lines must be considered in relation to sensitive receptors and the cumulative influence of existing mining activities.

5.7.3 Verified Landscape Sensitivity

The specialist disputed the Very High sensitivity assigned to slopes steeper than 1:4, reducing the classification to Medium. The reduction was motivated by the screening effects of existing vegetation and topography, which limit visibility.

The High sensitivity assigned to slopes between 1:4 and 1:10 was also disputed and reduced to Medium for similar reasons. The Low sensitivity assigned to slopes gentler than 1:10 was confirmed.

The specialist disputed the Very High sensitivity assigned to areas within 250 m of rivers and the High sensitivity assigned to areas within 500 m of rivers, reducing both classifications to Medium. Although the Groot Dwars River and Der Brochen Dam contribute to the scenic character of the landscape, the specialist noted that these features are not established visitor attractions and that access to certain areas is restricted by mining activities.

The Medium sensitivity assigned to areas within 1,000 m of wetlands was confirmed.

The verification therefore supports a reduction in sensitivity for several landscape features while retaining the need for further visual assessment.

Table 5-6: Comparison of Screening Tool and Specialist-Verified Landscape Sensitivities

Landscape Feature	Screening Tool Sensitivity	Specialist Sensitivity	Verification Outcome
Slopes steeper than 1:4	Very High	Medium	Disputed
Within 250 m of a river	Very High	Medium	Disputed
Slopes between 1:4 and 1:10	High	Medium	Disputed
Within 500 m of a river	High	Medium	Disputed
Within 1,000 m of a wetland	Medium	Medium	Confirmed
Slopes gentler than 1:10	Low	Low	Confirmed

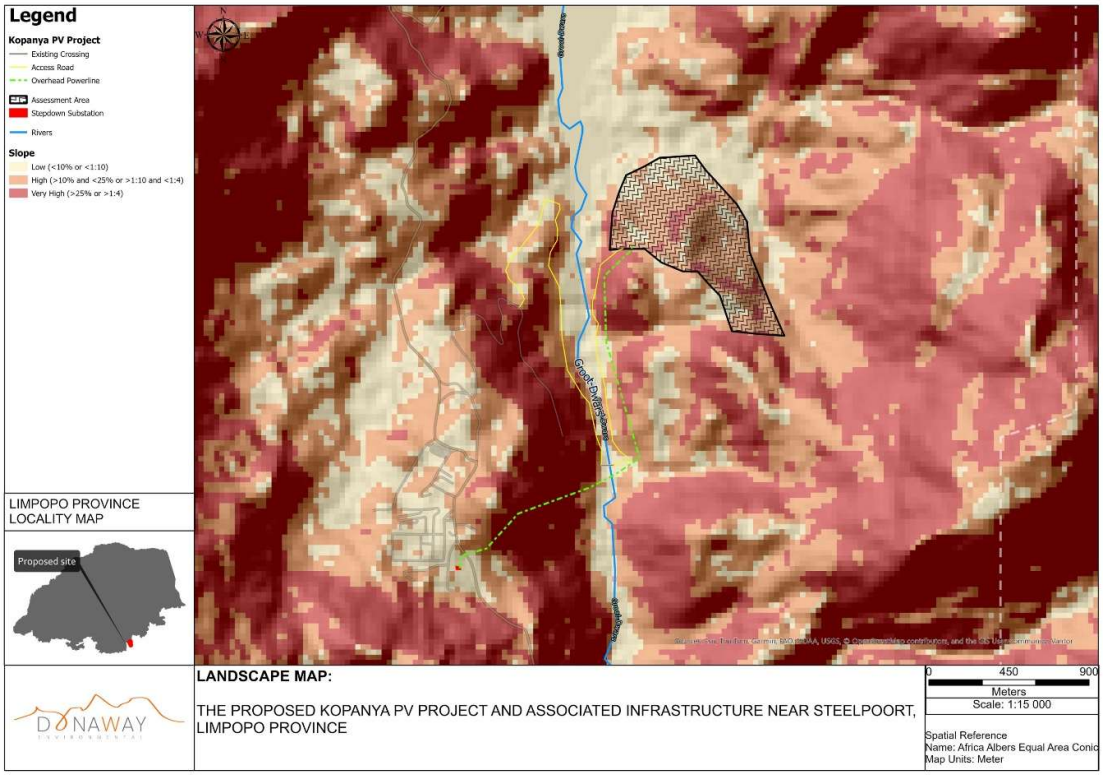


Figure 5-8: Landscape sensitivity associated with slope gradients (Donaway Environmental, 2026)

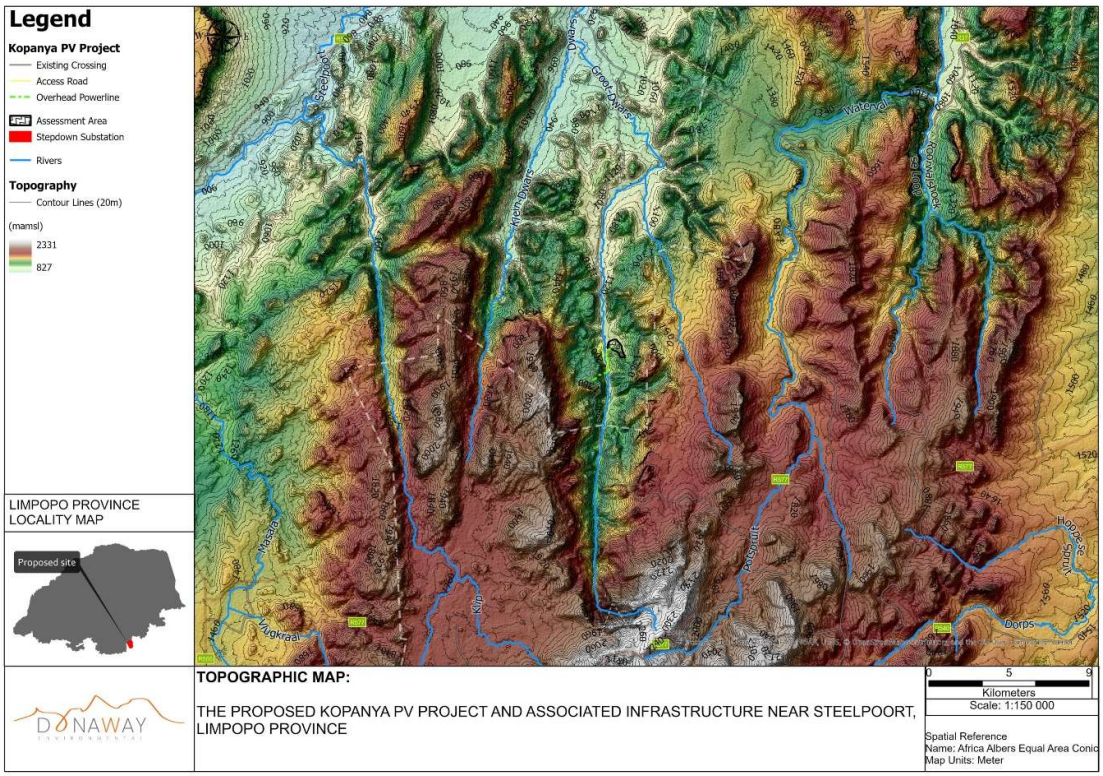


Figure 5-9: Topography of the proposed Project area (Donaway Environmental, 2026)

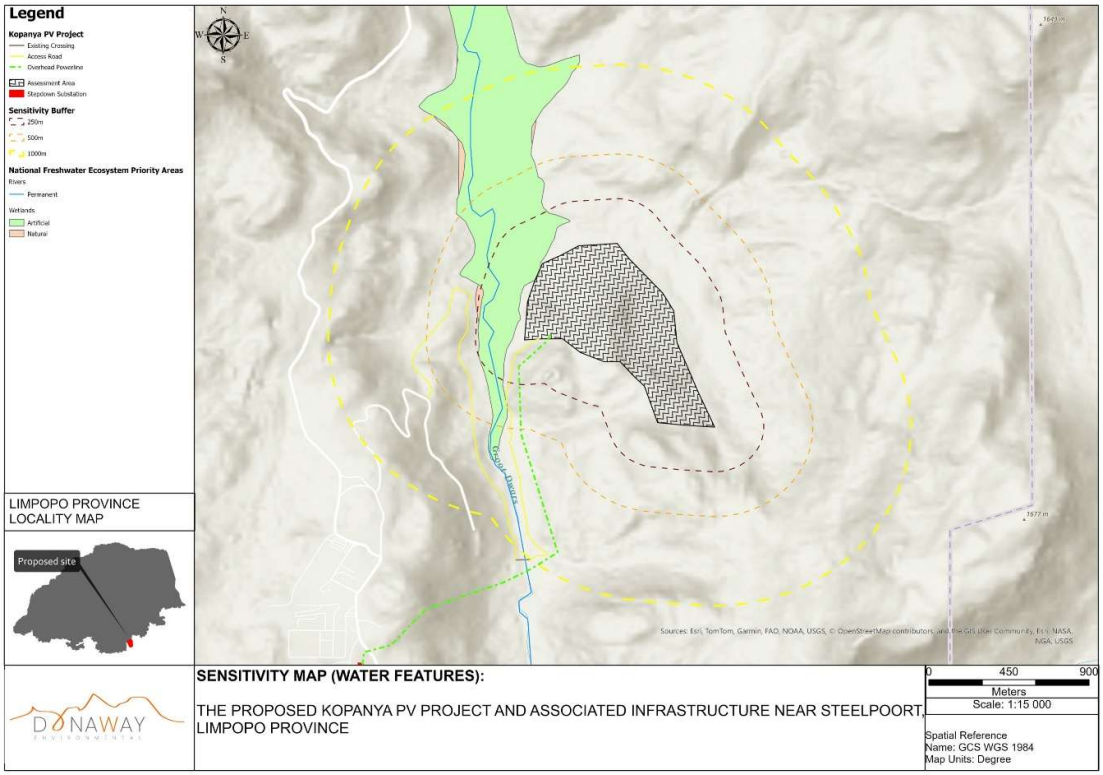


Figure 5-10: Landscape sensitivity associated with water features (Donaway Environmental, 2026)

5.7.4 Requirement for a Visual Impact Assessment

Despite the reduction in several Screening Tool classifications, Donaway Environmental recommended a full Visual Impact Assessment.

The assessment will consider the potential visibility of the proposed solar PV facility, associated infrastructure and overhead power line alternatives, including the influence of topography, vegetation and existing mining activities.

Particular attention should be given to sensitive visual receptors, changes to landscape character, potential skyline crossings and cumulative visual impacts. The findings will inform infrastructure placement, design considerations and mitigation measures to minimise adverse visual effects.

5.7.5 Archaeological and Cultural Heritage

The Screening Tool assigned High sensitivity to the Archaeological and Cultural Heritage Theme due to the presence of mapped heritage resources within the broader Project area, including resources classified as Grade IIIa, IIIb and IIIc. This classification indicates the potential occurrence of archaeological, historical and culturally significant resources that may be affected by the proposed development.

The proposed Project is located within a landscape with an established history of human settlement, traditional land use and mining activities. Heritage resources may include archaeological remains, historical structures, burial grounds, graves and places of cultural significance. Such resources may hold historical, social, cultural or spiritual importance for local communities, irrespective of their physical condition or formal heritage grading.

Particular sensitivity is associated with burial grounds, graves and other places of cultural importance, which may have strong ancestral and spiritual associations for affected families and communities. The identification and management of these resources therefore require careful consideration of local cultural practices, traditional values and stakeholder concerns. The potential for direct and indirect disturbance must be considered during infrastructure planning, construction and operation.

The High Screening Tool sensitivity is retained and is not disputed at this stage. Heritage resources will be considered during the EIA process, with emphasis on avoiding disturbance to culturally significant areas, maintaining appropriate access arrangements and identifying suitable protection and management measures in consultation with affected stakeholders and the relevant heritage authorities.

5.7.6 Palaeontology

The Screening Tool assigned Medium sensitivity to the Palaeontology Theme, indicating the potential occurrence of fossil-bearing geological formations within the proposed development area. Palaeontological sensitivity is primarily influenced by the geological characteristics of an area and the potential for fossil material to be preserved within the underlying rock formations.

The proposed development will involve ground-disturbing activities, including excavations for solar PV infrastructure, foundations, cable trenches, access roads and overhead power line structures. These activities may expose underlying geological material and, where fossil-bearing formations are present, could potentially affect previously unidentified palaeontological resources.

Although the likelihood of encountering significant fossil material is dependent on the geological formations present, the possibility of unexpected discoveries during construction cannot be entirely excluded. Appropriate precautionary measures, including a Fossil Finds Procedure, will therefore be considered to ensure that any fossil material encountered is identified, reported and managed in accordance with the applicable heritage legislation.

The Medium Screening Tool sensitivity is retained and is not disputed for the purposes of the SSV. Palaeontological considerations will be addressed during the EIA process, with appropriate management measures incorporated into the Environmental Management Programme to minimise potential impacts on fossil heritage resources.

5.8 Other Screening Tool Themes

5.8.1 Civil Aviation

The Screening Tool assigned Low sensitivity to the Civil Aviation (Solar PV) Theme, indicating that no significant aviation-related constraints were identified within the proposed development area. The classification considers the potential proximity of the development to aviation infrastructure and areas where development activities may affect aviation safety or operations.

The proposed Project comprises ground-mounted solar PV panels, associated electrical infrastructure and overhead power lines. Although the Screening Tool indicates Low sensitivity, potential aviation considerations associated with the development include the height of overhead power line structures and the potential for solar panel reflections to affect aircraft operations. These considerations will be addressed, where applicable, through detailed engineering design and compliance with relevant aviation safety requirements.

The Screening Tool classification is accepted and is not disputed. No additional aviation-specific specialist assessment is proposed at this stage, subject to any applicable requirements of the South African Civil Aviation Authority.

5.8.2 Defence

The Screening Tool assigned Low sensitivity to the Defence Theme, indicating that no significant defence-related constraints were identified within the proposed development area. This theme considers the potential proximity of proposed developments to military installations, defence infrastructure and areas associated with defence operations.

The proposed Project is located within an existing mining landscape and comprises solar PV infrastructure, overhead power lines and associated access infrastructure. Based on the Screening Tool findings, no elevated sensitivity associated with defence installations or operational

requirements has been identified within the proposed development area.

The Screening Tool classification is accepted and is not disputed. No additional defence-specific specialist assessment is proposed at this stage. Any requirements identified through consultation with the relevant authorities will be considered during the environmental assessment and detailed design processes.

5.8.3 Radio Frequency Interference

The Screening Tool assigned Medium sensitivity to the Radio Frequency Interference Theme due to the presence of telecommunications infrastructure within approximately 1 km of the proposed development area. This classification indicates the potential for interaction between the proposed development and existing telecommunications or radio communication infrastructure.

The proposed Project will include solar PV panels, inverters, transformers, electrical cabling, overhead power lines and associated electrical infrastructure. Certain electrical components, particularly power electronic equipment such as inverters, may generate electromagnetic emissions during operation. Where inadequately controlled, these emissions have the potential to interfere with nearby radio communication systems or other sensitive electronic equipment.

The potential for interference will depend on the location and operating characteristics of existing telecommunications infrastructure, the design and specifications of the proposed electrical equipment, and the implementation of appropriate electromagnetic compatibility measures. These considerations can generally be addressed through equipment selection, appropriate electrical design, grounding, shielding and compliance with applicable technical standards.

The Screening Tool classification is accepted and is not disputed. The Medium sensitivity classification will be considered during detailed engineering design, including the identification of relevant telecommunications infrastructure and consultation with infrastructure operators, where necessary. Appropriate design and operational measures will be implemented to minimise the potential for

5.9 Implications for the Environmental Impact Assessment

The SSV assessments confirm that the proposed Project area contains environmentally sensitive features that must be considered during the detailed EIA. The principal ecological constraints are associated with intact Mountain Bushveld, protected and threatened flora, suitable habitat for fauna and avifaunal species of conservation concern, the Groot Dwars River and associated natural drainage features.

The findings also demonstrate that environmental sensitivity varies considerably across the proposed development area. Modified habitats, artificial water resources and previously disturbed areas generally exhibit lower ecological sensitivity, while intact natural habitats and watercourses retain important ecological functions.

The agricultural assessment identified predominantly Low to Medium sensitivity, indicating that

agricultural constraints are generally less significant than the biodiversity and aquatic constraints. The landscape assessment also identified opportunities for natural visual screening associated with the mountainous terrain and existing vegetation, although a full Visual Impact Assessment remains necessary.

The detailed EIA will assess the proposed solar PV facility and associated infrastructure against the verified environmental sensitivities. Particular consideration will be given to the two overhead power line alternatives and access road alternatives, including their potential impacts on sensitive habitats, watercourses, avifauna and landscape character.

The specialist findings will inform the selection of preferred infrastructure alignments, refinement of the development layout and identification of mitigation, rehabilitation and monitoring measures for inclusion in the EMPr. The outstanding heritage and palaeontological assessments will also be incorporated into the detailed EIA.

5.10 Summary of Screening Tool and Site Sensitivity Verification Outcomes

The Screening Tool classifications and specialist verification outcomes are consolidated in **Table 5-7**. The table distinguishes between classifications that were validated, disputed or refined by the specialists, and themes for which verification findings remain outstanding.

Table 5-7: Summary of Screening Tool Sensitivity Classifications and Specialist Verification Outcomes

Environmental Theme	Screening Tool Sensitivity	Specialist-Verified Sensitivity	Verification Outcome
Terrestrial Biodiversity	Very High	Very High for Mountain Bushveld within the solar PV area; High for river and Mountain Bushveld associated with linear infrastructure; Medium to Very Low for other habitats	Partially validated / disputed
Plant Species	Medium	High, based on protected and threatened flora recorded within Mountain Bushveld	Disputed
Animal Species	High	High, based on suitable natural habitat for fauna species of conservation concern	Validated
Avian	Low	Avifaunal assessment identified Very High river habitat, High Mountain Bushveld, Medium drainage areas and lower sensitivity in modified habitats under the Animal Species Theme	Separate Avian Theme not explicitly verified
Aquatic Biodiversity	Very High	Very High for Groot Dwars River; Medium for drainage features and buffers; Low for remaining areas	Partially validated / disputed
Agriculture	High, Medium and Low	Predominantly Low to Medium based on verified soil characteristics and agricultural potential	Partially validated / disputed
Landscape (Solar)	Very High, High, Medium and Low	Medium for several slope- and river-related features; Low and Medium classifications confirmed for other features	Partially validated / disputed
Archaeological and Cultural Heritage	High	To be confirmed by the specialist	Not disputed
Palaeontology	Medium	To be confirmed by the specialist	Not disputed
Civil Aviation (Solar PV)	Low	Low	Not disputed
Defence	Low	Low	Not disputed
Radio Frequency Interference	Medium	Medium	Not disputed

The specialist verification outcomes demonstrate that the Screening Tool classifications do not uniformly represent environmental conditions across the proposed development footprint. The field-based assessments provide a more detailed and spatially representative understanding of the environmental constraints associated with the Project.

The verified sensitivities will form the basis for the detailed specialist impact assessments, consideration of feasible development alternatives and refinement of the proposed infrastructure layout. The findings will also guide the identification of appropriate environmental management measures to avoid, minimise or mitigate potential impacts during construction and operation.

The outstanding specialist verification findings will be incorporated into the EIR to ensure that the final assessment reflects the environmental sensitivities of the proposed development area and associated infrastructure.

6 NEED AND DESIRABILITY OF THE PROJECT[6]

In accordance with Item 2(1)(f) of Appendix 2 of the EIA Regulations, 2014, as amended, this chapter provides a motivation for the need and desirability of the proposed Project, including the suitability of the preferred location.

The assessment is informed by the principles of sustainable development contained in the Constitution of the Republic of South Africa, 1996, and the NEMA. These principles require that development be environmentally sustainable, socially equitable and economically justifiable, taking into consideration the needs of present and future generations.

The following sections consider the need for renewable electricity generation, the suitability of the preferred location, strategic planning priorities, socio-economic and environmental considerations, and the consequences of not proceeding with the Project.

6.1 Need for the Proposed Development

The need for the proposed Project arises primarily from the electricity requirements of BN Mine and the operational risks associated with reliance on grid-supplied electricity. Mining and mineral processing activities require a reliable electricity supply to support production, ventilation, pumping, processing and other essential services. Electricity supply interruptions, grid constraints and increasing electricity costs may adversely affect operational efficiency and the long-term sustainability of mining operations.

The proposed Project will comprise a solar PV facility with a generation capacity of up to approximately 25 MWac, together with associated electrical infrastructure, access roads and supporting facilities. Electricity generated will primarily supplement the Mine's electricity

[6] Required as per the EIA Regulations Appendix 2 (2) (1) (f) a motivation for the need and desirability for the proposed development including the need and desirability of the activity in the context of the preferred location.

requirements, thereby reducing reliance on grid-supplied electricity during solar generation periods and supporting improved energy resilience and electricity cost management.

The Project also supports South Africa's broader transition towards a diversified and lower-carbon electricity generation mix. The Integrated Resource Plan 2025 recognises renewable energy technologies as an important component of future electricity generation capacity, while balancing energy security, affordability and environmental sustainability (DEE, 2025).

The proposed development is therefore motivated by the need to improve electricity supply resilience, support operational continuity and contribute renewable electricity generation capacity to an existing mining operation.

6.2 Desirability of the Proposed Development

The desirability of the proposed Project relates to the suitability of the preferred location, its compatibility with existing land uses and the extent to which potential environmental impacts can be avoided or mitigated.

The Project is proposed within the existing Booysendal Mining Right area, on the Remaining Extent (Portion 0) of Farm Booysendal No. 43 JT and Portion 2 of Farm Der Brochen No. 7 JT, within the Fetakgomo Tubatse Local Municipality, Sekhukhune District Municipality, Limpopo Province. The location provides opportunities to integrate renewable electricity generation with existing mining infrastructure, including access roads and electrical infrastructure, while locating the facility close to the intended electricity consumer.

Although the Project is situated within an existing mining area, the proposed development footprint includes natural habitats and environmentally sensitive features. Specialist assessments identified areas of High and Very High terrestrial biodiversity sensitivity, protected and threatened plant species, sensitive avifaunal habitats and natural watercourses, including the Groot Dwars River. These features require consideration during the assessment of alternatives and refinement of the proposed infrastructure layout.

The agricultural assessment identified predominantly Low to Medium agricultural sensitivity and concluded that the anticipated residual impact on agricultural production potential would be low with appropriate mitigation. The visual assessment indicated that the mountainous terrain and existing vegetation provide substantial natural screening, although further assessment of visual impacts remains necessary.

The proposed location offers potential advantages in terms of infrastructure integration and renewable electricity generation. However, its environmental desirability remains dependent on avoiding sensitive features where practicable and demonstrating that residual impacts can be appropriately managed.

6.3 Strategic and Planning Context

The proposed Project aligns with national objectives relating to energy security, economic

development and the transition towards lower-carbon electricity generation. The National Development Plan 2030 recognises reliable and affordable electricity as essential for economic growth and industrial development, while the Integrated Resource Plan 2025 supports diversification of the electricity generation mix, including renewable energy technologies (National Planning Commission , 2012; DEE, 2025)

The Climate Change Act, 2024 (Act No. 22 of 2024), establishes a framework for South Africa's climate change response and transition towards a low-carbon and climate-resilient economy. By generating renewable electricity and potentially displacing a portion of the Mine's grid-supplied electricity, the proposed Project supports these broader policy objectives.

At the provincial and municipal levels, the Project must be considered in relation to the applicable Limpopo provincial and Sekhukhune and Fetakgomo Tubatse municipal planning frameworks. Although the proposed development is located within an existing mining right area, the applicable property zoning and any additional land use approvals must be confirmed. The EA does not replace separate statutory approvals that may be required.

6.4 Socio-economic Considerations

The proposed Project is expected to provide temporary employment and procurement opportunities during construction, including civil works, installation of solar PV infrastructure, electrical works, transport, security and associated services. A smaller number of employment opportunities will be associated with the operation and maintenance of the facility.

Local employment and procurement will be encouraged where reasonably practicable, subject to the availability of suitably qualified personnel, contractor requirements and the Applicant's procurement policies. The extent of these benefits will depend on the final engineering design, construction programme and operational arrangements.

The principal indirect socio-economic benefit relates to improved electricity supply resilience at BN Mine. A more predictable electricity supply may support operational continuity and assist in maintaining the Mine's contribution to regional employment and economic activity. Potential construction-related impacts, including traffic, dust, noise and disturbance to surrounding land uses, will be assessed and managed through the EMPr.

6.5 Environmental Sustainability Considerations

The proposed Project will generate electricity from a renewable solar resource without the combustion of fossil fuels during normal electricity generation. By supplementing the Mine's electricity requirements, the facility is expected to reduce reliance on grid-supplied electricity and potentially lower the indirect greenhouse gas emissions associated with electricity consumption.

These benefits must be considered alongside the potential environmental impacts associated with construction and operation. The principal considerations include vegetation clearance, habitat fragmentation, disturbance to protected and threatened species, potential impacts on

watercourses, soil erosion, altered stormwater runoff and visual impacts.

The specialist assessments identified environmentally sensitive habitats within the Project area, particularly Mountain Bushveld, natural river systems and associated drainage features. The aquatic biodiversity assessment recommended an initial precautionary buffer of 32 m around natural watercourses, subject to further assessment and refinement.

The EIA will consider these sensitivities through the assessment of development alternatives and application of the mitigation hierarchy. Priority will be given to avoiding sensitive areas, minimising unavoidable disturbance and implementing appropriate rehabilitation and monitoring measures.

6.6 Compatibility with Existing Land Uses

The proposed Project is intended to support BN Mine through renewable electricity generation and is therefore functionally associated with the existing mining operation. Its location within the mining right area provides opportunities to use existing infrastructure and access arrangements, subject to engineering feasibility and operational requirements.

The final layout must maintain access to existing Mine infrastructure, avoid interference with mining activities and comply with applicable electrical safety and servitude requirements. It must also respond to the identified environmental sensitivities, particularly natural vegetation, protected plant species and watercourses. The agricultural assessment indicates that the proposed development is not expected to result in a substantial loss of high-potential agricultural land.

6.7 Consequences of Not Proceeding with the Development

Under the no-go alternative, the proposed solar PV facility and associated infrastructure would not be developed, and the affected properties would remain under their existing land uses. This alternative would avoid the additional environmental impacts associated with the Project, including vegetation clearance, habitat disturbance, soil erosion, construction-related impacts and potential effects on aquatic and terrestrial biodiversity.

However, the no-go alternative would also mean that the proposed renewable electricity generation capacity of approximately 25 MWac would not be realised. BN Mine would remain more dependent on its existing electricity supply arrangements, and the anticipated benefits associated with improved energy resilience, electricity cost management and reduced indirect greenhouse gas emissions would not be achieved through this Project.

The no-go alternative would therefore avoid additional environmental disturbance but would not contribute to the Mine's renewable energy objectives. Its comparative merits will be considered during the EIA Phase alongside the potential environmental and socio-economic benefits of the proposed development.

7 ALTERNATIVES[7]

This section meets the requirements of items 2(1)(g)(i) of Appendix 2 of the EIA Regulations, by providing details of the alternatives considered and the final proposed alternative. The following site alternatives have been considered and are discussed in more detail below.

7.1 Site Alternatives

Two site alternatives were considered for the proposed Project as part of the site selection screening process undertaken in November 2025. The assessment considered land availability, terrain, solar resource potential, proximity to existing mining infrastructure, technical constraints and environmental sensitivities identified through the National Web-Based Environmental Screening Tool.

The preferred site (yellow) is located east of the Groot Dwars River, while Alternative Site 1 (purple) comprises several separate areas situated west of the river, adjacent to existing mining infrastructure. The alternatives are illustrated in Figure 7-1.

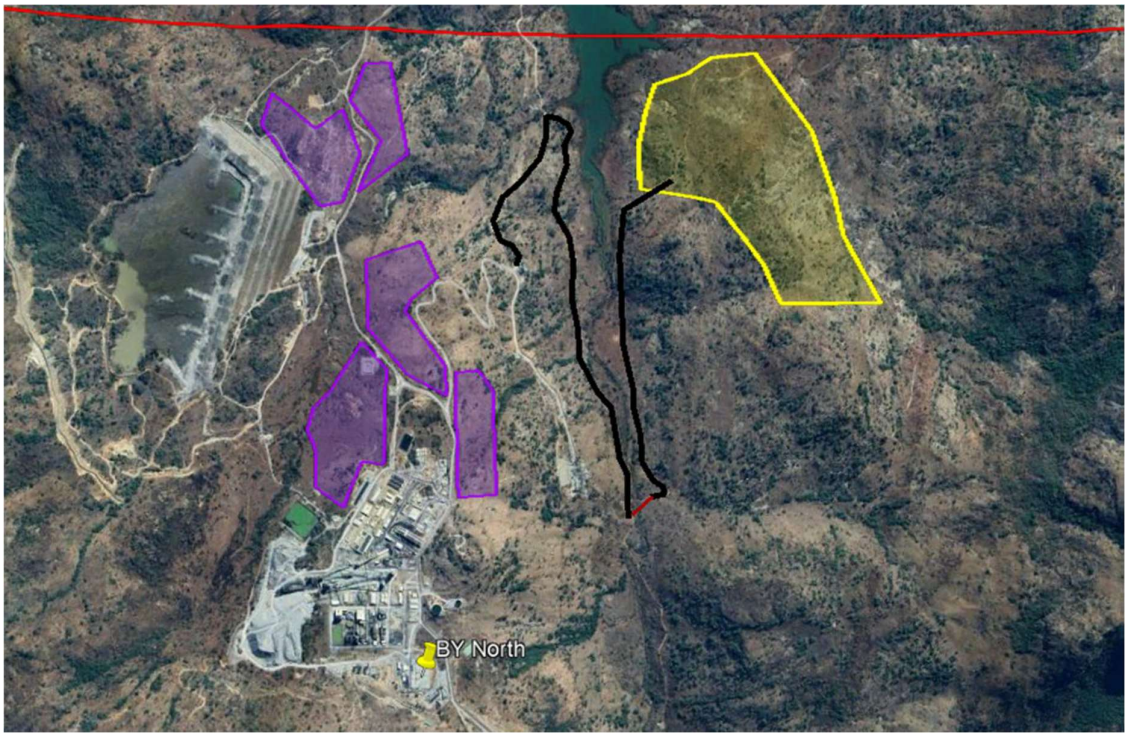


Figure 7-1: Site alternatives considered (Site Selection Screening Process for Northam PV Integration, November 2025)

7.1.1 Preferred Site

The preferred site is situated east of the Groot Dwars River, northeast of the existing BN Mine

[7] Required as per the EIA Regulations Appendix 2 (3) (2) (g) a full description of the process followed to reach the proposed preferred activity, site and location of the development footprint within the site, including (i) details of all the alternatives considered.

infrastructure. The site comprises a relatively consolidated development area and was identified as technically suitable due to its less rocky terrain, favourable solar resource and sufficient available land to accommodate the proposed solar PV facility.

The initial Screening Tool identified High agricultural sensitivity, Very High aquatic biodiversity sensitivity associated with a FEPA sub-catchment, High Animal Species sensitivity and Very High terrestrial biodiversity sensitivity associated with a Critical Biodiversity Area and the National Protected Area Expansion Strategy.

Despite these sensitivities, the preferred site was selected because it offers comparatively favourable technical conditions and avoids an identified cicada breeding area associated with Alternative Site 1. The site has subsequently been taken forward for specialist investigations and development of the proposed infrastructure layout, which includes the solar PV facility, associated operational infrastructure and an overhead power line extending towards the existing Mine infrastructure.

The preferred site remains subject to further environmental assessment and layout refinement, particularly in relation to sensitive Mountain Bushveld, protected and threatened plant species, natural watercourses and associated ecological features.

7.1.2 Alternative Site 1

Alternative Site 1 comprises several separate development areas situated west of the Groot Dwars River, in closer proximity to the existing BN Mine infrastructure, including the tailings facilities and explosive magazine.

Although the alternative offers proximity to existing mining infrastructure, the site selection assessment identified several constraints, including rocky terrain, mixed soil conditions and potential limitations associated with the surrounding operational infrastructure. The Screening Tool also identified Very High aquatic and terrestrial biodiversity sensitivities and High Animal Species sensitivity.

Importantly, the site selection assessment identified a cicada breeding area within Alternative Site 1, which was considered a significant environmental constraint and potential fatal flaw. Consequently, the alternative was considered less suitable for development and was not recommended for further assessment.

7.1.3 Comparison and Selection of the Preferred Site

Table 7-1 summarises the principal considerations informing the selection of the preferred site.

Table 7-1: Comparison of Site Alternatives

Consideration	Preferred Site (Yellow)	Alternative Site 1 (Purple)
Location	East of Groot Dwars River	West of Groot Dwars River
Site configuration	Consolidated development area	Several separate development areas
Terrain	Less rocky terrain	Rocky terrain with mixed soils
Solar resource	Preferred solar resource	Less favourable relative to preferred site
Available development area	Sufficient area available	Greater development constraints

Consideration	Preferred Site (Yellow)	Alternative Site 1 (Purple)
Mining infrastructure	Located northeast of existing mine infrastructure	Adjacent to existing mining infrastructure, tailings facilities and explosive magazine
Environmental sensitivity	High and Very High sensitivities identified	High and Very High sensitivities identified
Cicada breeding area	Avoids identified breeding area	Located within identified breeding area
Outcome	Preferred for further assessment	Not recommended for further development

Based on the site selection screening process, the preferred site was selected for further investigation because it provides favourable technical conditions, sufficient development area and avoids the identified cicada breeding area. Although the preferred site contains environmental sensitivities, these will be further assessed during the EIA Phase, with appropriate layout refinement and mitigation measures identified to minimise potential impacts.

The preferred site is therefore considered the most suitable of the two alternatives investigated, subject to confirmation of its environmental acceptability through the detailed specialist assessments and EIA process.

7.2 Overhead Power Line Alternatives

Two overhead power line alignment alternatives, referred to as OHL1 and OHL2, have been identified to connect the proposed Project to the existing electrical infrastructure at BN Mine. Both alternatives are located within the broader mining area and are intended to provide the electrical connection required for the proposed development.

The alternatives are illustrated in **Figure 3-2**, which also identifies indicative power transmission structure locations and a corridor. The proposed alignments must be considered in relation to the existing mining infrastructure, terrain, natural vegetation and watercourses, including the Groot Dwars River.

The assessment of the two alternatives will consider their respective infrastructure requirements, engineering feasibility, extent of vegetation clearance, potential impacts on terrestrial and aquatic biodiversity, avifaunal collision and electrocution risks, and requirements for construction and maintenance access. Particular consideration will be given to the location of transmission structures and the potential disturbance of watercourses and associated riparian habitats.

The two OHL alternatives will be assessed during the EIA Phase, taking into account the findings of the relevant specialist studies. The preferred alignment will be selected based on technical feasibility and the avoidance or minimisation of environmental impacts.

7.3 Access Road Alternatives

Two access road alternatives, referred to as Access Road 1 and Access Road 2, have been identified to provide access to the proposed Project. The alternatives illustrated in **Figure 3-2** and will be considered in conjunction with the existing Mine road network and the proposed electrical infrastructure.

The selection of an appropriate access route is important to minimise additional land disturbance

and ensure safe access during construction and operation. The assessment will consider opportunities to use existing roads and disturbed areas, while limiting the construction of new road infrastructure through natural vegetation and environmentally sensitive areas.

The two alternatives will be evaluated in relation to their respective lengths, terrain conditions, construction requirements, potential vegetation clearance, soil erosion risks and proximity to watercourses and drainage features. Consideration will also be given to construction traffic, road safety, maintenance requirements and potential impacts on existing mining activities.

The preferred access road alignment will be determined during the EIA Phase following consideration of the specialist findings, engineering requirements and opportunities to minimise environmental disturbance.

7.4 Technology Alternatives

The principal renewable energy technology alternatives considered for the proposed Project were solar PV technology and concentrated solar power technology. The selected technology must be capable of providing renewable electricity primarily for use by the BN Mine, while remaining compatible with the available land, environmental conditions, water availability and existing Mine infrastructure.

7.4.1 Solar Photovoltaic versus Concentrated Solar Power

Considering the available development area, favourable solar resource, suitable terrain and proximity to the Mine's electricity infrastructure, solar PV technology is considered the most appropriate technology for the proposed Project.

Solar PV systems convert solar radiation directly into electricity through PV modules. The technology is modular and allows individual components to be positioned and micro-sited in response to terrain, existing infrastructure and environmental sensitivities.

Concentrated solar power uses mirrors or heliostats to concentrate solar radiation and produce heat, which is subsequently used to generate electricity. Depending on the technology selected, a concentrated solar power facility may require extensive mirror fields, heat-transfer systems, steam-generation infrastructure, cooling systems and thermal-energy storage infrastructure.

Solar PV technology is considered more suitable for the proposed Project because it:

- Has substantially lower operational water requirements;
- Can be accommodated within a modular and comparatively flexible layout;
- Allows individual infrastructure components to be micro-sited around sensitive environmental features;
- Has shorter and less complex construction and commissioning requirements;
- Requires fewer thermal and process-related systems;

- Has a comparatively lower infrastructure profile;
- Is compatible with the proposed embedded-generation arrangement;
- Can make use of driven-pile foundations for much of the panel-support infrastructure; and
- Can be integrated with the existing Mine access, security and electrical infrastructure.

The comparatively low water demand of solar PV technology is particularly relevant because wetlands, drainage features and associated hydrological processes occur within and near the proposed Project area and require protection.

The proposed Project will use bifacial PV panels mounted on single-axis tracking systems. Bifacial modules are capable of generating electricity from solar radiation received on both sides of the panel, while the tracking system allows the panels to follow the movement of the sun during the day. This combination supports increased electricity generation within the available development footprint.

Based on the technical, environmental and operational considerations described above, solar PV technology is considered the preferred and most feasible technology alternative for the proposed Project. Concentrated solar power was not carried forward for detailed assessment because it would introduce comparatively greater water, infrastructure, construction and operational requirements and would be less compatible with the available site and the proposed electricity supply arrangement.

7.5 "No-Go" Alternative

The no-go alternative represents the scenario in which the proposed Project is not developed. Under this alternative, the affected properties would remain under their existing land uses, and the proposed solar PV facility, overhead power line, access roads and associated infrastructure would not be constructed.

The no-go alternative would avoid the additional environmental impacts associated with the construction and operation of the proposed Project, including vegetation clearance, habitat fragmentation, soil disturbance, visual impacts and potential disturbance to sensitive terrestrial and aquatic ecosystems. The existing natural vegetation, protected plant species and watercourses within the proposed development footprint would remain unaffected by the proposed Project.

However, the no-go alternative would also mean that the anticipated benefits of renewable electricity generation would not be realised. The BN Mine would remain more dependent on its existing electricity supply arrangements, and the potential benefits associated with improved energy resilience, reduced reliance on grid-supplied electricity, electricity cost management and lower indirect greenhouse gas emissions would not be achieved through the proposed Project.

The no-go alternative will be retained for comparative assessment during the EIA Phase to determine whether the anticipated benefits of the proposed development outweigh its potential environmental

impacts, taking into consideration the findings of the specialist assessments and proposed mitigation measures.

8 POLICY AND LEGISLATIVE CONTEXT[8]

The South African environmental regulatory framework was promulgated with the aim of environmental protection. The regulatory framework provides requirements and guidelines for environmental and social management.

Table 8-1 provides a list of applicable legislative requirements, guidelines as well as a description of how the proposed Project complies with and responds to the policy and legislation context.

[8] Required as per the EIA Regulations Appendix 3 (3) (1) (e) a description of the policy and legislative context within which the development is located and an explanation of how the proposed development complies with and responds to the legislation and policy context.

Table 8-1: Applicable Legislation, Policies and Guidelines Applicable to the proposed Project

Applicable Legislation and Guidelines used to compile the Report	Description	How Does This Development Comply with and Respond to The Policy and Legislative Context
Legislation		
Chapter 2, Section 24 and Section 32 of the Constitution of the Republic of South Africa, 1996 (Act No. 108 of 1996).	Chapter 2 of the Constitution is the cornerstone of democracy in South Africa. The Chapter enshrines the rights of all people living in South Africa and affirms the democratic values of human dignity, equality and freedom. Section 24 of the Constitution states that everyone has the right to an environment that is not harmful to their health or wellbeing; and to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that – • Pollution and ecological degradation; • Promote conservation; and • Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development. Section 24 guarantees the protection of the environment through reasonable legislative (and other measures), and such legislation is continuously in the process of being promulgated. Section 32 provides for access to information, held by any person or organ of state, where such information is required to exercise or protect the rights of any other person. The Promotion of Access to Information Act (Act No. 2 of 2000) gives effect to the provisions of this right.	A Scoping and Environmental Impact Reporting (S&EIR) process will be undertaken to identify and assess potential impacts associated with the proposed Project.
National Environmental Management Act, 1998 (Act No. 107 of 1998) (NEMA)[9]. • EIA Regulations, 2014 (Government Notice Regulation (GN R) 982 of 2014, as amended in June 2021)[10]. • EIA Regulations Listing Notice 1 of 2014 (GN R 983 of 2014, as amended)[11]. • EIA Regulations Listing Notice 2 of 2014 (GN R 984 of 2014, as amended)[12]. • EIA Regulations Listing Notice 3 of 2014 (GN R 985 of 2014, as amended)[13]. • Financial Provisioning Regulations, 2015 (GN R 1147 of 2015, as amended)[14].	The NEMA can be regarded as the most important piece of general environmental legislation. The overarching principle of the Act is sustainable development. It defines sustainability as meaning the integration of social, economic and environmental factors into planning, implementation and decision-making so as to ensure the development serves present and future generations. The Act provides a framework for environmental law reform and covers three areas, namely: • Land, planning and development; • The use and conservation of natural and cultural resources; and • Pollution control and waste management. Section 24 of the NEMA sets out the provisions which are to give effect to the general objectives of Integrated Environmental Management (IEM) and laid down in Chapter 5 of the NEMA. In terms of Section 24(1), the potential impact on the environment of listed activities must be considered, investigated, assessed and reported on to the Competent Authority (CA) charged by the NEMA with granting of the relevant Environmental Authorisation (EA). In terms of Section 24F(1) of the NEMA no person may commence an activity listed or specified in terms of Section 24(2)(a) or (b) unless the CA has granted an EA for the activity. The Minister published the EIA Regulations comprising the EIA Regulations GN R 982, and three Listing Notices namely GN R 983 (Listing Notice 1), GN R984 (Listing Notice 2) and GN R 985 (Listing Notice 3) in terms of sections 24(2) and 24D of the NEMA. The Regulations make provision for the regulation of the procedure and criteria as contemplated in Chapter 5 of the Act relating to the preparation, evaluation, submission, processing and consideration of, and decision on, applications for EA for the commencement of activities, subjected to EIA, in order to avoid or mitigate detrimental impacts on the environment, and to optimise positive environmental impacts, and for matters pertaining thereto.	In terms of Section 24(1) of NEMA, the potential consequences or impacts of proposed activities—particularly those identified as listed activities—must be considered, investigated, assessed and reported to the CA before they may commence (unless expressly excluded). Accordingly, an application for EA for the listed activities contemplated in Listing Notices 1, 2 and 3 (GN R 983, GN R 984 and GN R 985, as amended) will be submitted to the Department of Mineral and Petroleum Resources (DMPR) as the CA. The potentially triggered listed activities are set out in **Table 4-2** of this Report. During the EIA Phase, the project's environmental and socio-economic impacts, risks, reasonable alternatives and cumulative effects will be assessed. Practicable mitigation and management measures, together with a monitoring and reporting programme, will be developed and captured in the Environmental Management Programme (EMPr). The process will include public participation and specialist studies, as required by the EIA Regulations, 2014.
National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008) (NEMWA)[15]. • List of waste management activities that have, or are likely to have, a detrimental effect on the environment (GN 921 of 2013, as	The NEMWA commenced on 1 July 2009 and as a result of its commencement the relevant provisions in the Environment Conservation Act, 1989 (Act No. 73 of 1989) (ECA) in respect of waste management, were repealed. The Act sets out to reform the law regulating waste management and deals with waste management and control more comprehensively than was dealt with in the ECA. It also introduces new and distinct concepts never canvassed within the realm of waste management in South Africa, such as the concept of contaminated land and extended producer responsibility. It also provides for more elaborate definitions to assist in the interpretation of the Act.	Activities associated with the proposed Project do not require an WML.

[9] The National Environmental Laws Amendment Act, 2022 (Act No 2 of 2022) was signed into law on 24 June 2022. Except for sections 11, 35(a), 57, 60, 61(c), 61(j), 61(k), 62, 63, 64, 65, 66, 72, 76, 77, 86, 87 and 88 pertaining mostly to changes to the NEMWA, the NEMLAA came into effect on 30 June 2023 as per Proclamation Notice 125 of 2023, published in GG 48869.

[10] GN R 982 of 4 December 2014 as amended by GN R 326 of 7 April 2017, GN 706 of 13 July 2018, GN 599 of 29 May 2020 and GN 517 of 11 June 2021.

[11] GN R 983 in GG 38282 of 4 December 2014 as amended by GN R 327 in GG 40772 of 7 April 2017, GN 706 in GG 41766 of 13 July 2018 and GN 517 in GG 44701 of 11 June 2021.

[12] GN R 984 in GG 38282 of 4 December 2014, as amended by GN R 325 in 40772 of 7 April 2017 and GN 517 in GG 44701 of 11 June 2021.

[13] GN R 985 in GG 38282 of 4 December 2014, as amended by GN R 324 in 40772 of 7 April 2017, GN 706 in GG 41766 of 13 July 2018 and GN 517 in GG 44701 of 11 June 2021.

[14] The *Regulations Pertaining to the Financial Provision for Prospecting, Exploration, Mining or Production Operations* published in GN R 1147 in GG 39425 of 20 November 2015 as amended by GN 1314 in GG 40371 of 26 October 2016; GN R 452 in GG 41584 of 20 April 2018; GN 991 in GG 41921 of 21 September 2018; GN 24 in GG 42956 of 17 January 2020; GN 495 in GG 44698 of 11 June 2021.

[15] As amended by the National Environmental Management: Waste Amendment Act 26 of 2014. As stated above, the National Environmental Laws Amendment Act, 2022 (Act No 2 of 2022) was signed into law on 24 June 2022 and will come into operation on a date to be fixed and proclaimed by the President. Once the amendment act comes into operation residue stockpiles and residue deposits will be removed from NEMWA and regulated in terms of the provisions of NEMA. Residue stockpiles and residue deposits will therefore no longer be regarded as waste for which a waste management licence is required. Residue stockpiles and residue deposits will in future be authorized in terms of the NEMA under the EIA Listing Notices. In terms of the transitional provisions any approval granted, or waste management licence issued in relation to residue deposits and residue stockpiles remain valid until it lapse or replaced under the provisions of the NEMA.

Applicable Legislation and Guidelines used to compile the Report	Description	How Does This Development Comply with and Respond to The Policy and Legislative Context
amended)[16]. • National Waste Information Regulations, 2012 (GN R 625 of 2012)[17]. • Regulations Regarding the Planning and Management of Residue Stockpiles and Residue Deposits, 2015 (GN R 632 of 2015, as amended)[18]. • Waste Classification and Management Regulations, 2013 (GN R 634 of 2012)[19]. • National Norms and Standards for the Assessment of Waste for Landfill Disposal (GN R 635 of 2012)[20]. • National Norms and Standards for the Disposal of Waste to Landfill (GN R 636 of 2012)[21]. • National Norms and Standards for the Storage of Waste (GN 926 of 2013)[22]. • National Norms and Standards for the Remediation of Contaminated Land and Soil Quality – GN 331 in Government Gazette No. 37603 dated 2 May 2014.	In terms of Section 19(1) of the NEMWA, the Minister, published in GN R 921, a list of waste management activities that have, or are likely to have a detrimental effect on the environment. Section 20 of the NEMWA pertains to the consequences of listed waste management activities and states that no person may commence, undertake or conduct a waste management activity, except in accordance with the requirements or standards for that activity as determined by the Minister or in accordance with a Waste Management Licence (WML) issued in respect of that activity, if a licence is required. In accordance with Section 19(3), the Schedule to GN R 921 provides that a WML is required for those activities listed in Category A and B thereof and compliance with the Norms and Standards is required for those activities listed in Category C thereof prior to the commencement, undertaking or conducting of same. In addition, GN R 921 differentiates between Category A, B, and Category C waste management activities. Category A waste management activities are those which require the conducting of a basic assessment process as stipulated in the EIA Regulations, (GN R 982) promulgated in terms of the NEMA as part of the WML application and Category B waste management activities are those that require the undertaking of S&EIR process stipulated in the GN R 982 as part of the WML application. Category C waste management activities do not require a WML, however a person who wishes to commence, undertake or conduct a waste management activity listed under this category, must comply with, amongst others, the relevant National Norms and Standards for the Storage of Waste (GN R 926 of 29 November 2013) published in terms of the NEMWA.	
National Environmental Management: Air Quality Act, 2004 (Act No. 39 of 2004) (NEMAQA). • Listed Activities and Associated Minimum Emission Standards Identified in terms of Section 21 of the NEMAQA (GN R 893 of 2013, as amended)[23]. • National Dust Control Regulations, 2013 (GN R 827 of 2013)[24]. • National Atmospheric Emission Reporting Regulations, 2015 (GN R 283 of 2015)[25]. • Atmospheric Dispersion Modelling Regulations, 2014 (GN R 533 of 2014)[26]. • National Greenhouse Gas Emission Reporting Regulations (GN R 275 of 2017 as amended)[27].	The Act aims to regulate and protect the environment, by "providing reasonable measures for the prevention of air pollution and ecological degradation, and for securing ecologically sustainable development while promoting justifiable economic and social development; to provide for national Norms and Standards regulating air quality monitoring, management and control by all spheres of government; for specific air quality measures; and for matters incidental thereto". The Minister published Listed Activities and Associated Minimum Emission Standards Identified in terms of Section 21 of the NEMAQA in 2013. Part 3 of the Notice makes provision for a list of activities in the following categories which the Applicant must review to determine whether an application for an Air Emissions Licence (AEL) is required: • Category 1: Combustion Installations; • Category 2: Petroleum Industry, the production of gaseous and liquid fuels as well as petrochemicals from crude oil, coal, gas or biomass; • Category 3: Carbonisation and Coal Gasification; • Category 4: Metallurgical Industry; • Category 6: Organic Chemicals Industry; • Category 7: Inorganic Chemicals Industry; • Category 8: Thermal Treatment of Hazardous and General Waste; • Category 9: Pulp and Paper Manufacturing Activities, including By-Products Recovery; and • Category 10: Animal Matter Processing.	Activities associated with the proposed Project do not require an AEL. The project will need to comply with the National Dust Control Regulations, 2013.
National Environmental Management: Biodiversity Act, 2004 (Act No. 39 of 2004)	The Act aims to provide for the management and conservation of South Africa's biodiversity within the framework of the NEMA. The Act allows for the protection of species and ecosystems that warrant national protection; the sustainable use of	As part of the project, Terrestrial Biodiversity, Plant and Animal Species Assessment will be undertaken during the EIA Phase to establish baseline

[16] GN 921 in GG 37083 of 29 November 2013 as amended by GN 332 in GG 37604 of 2 May 2014; GN R 633 in GG 39020 of 24 July 2015; and GN 1094 in GG 41175 of 11 October 2017.
[17] GN R 625 in GG 35583 of 13 August 2012.
[18] GN R 632 in GG 39020 of 24 July 2015 as amended by the Planning and Management of Residue Stockpiles and Residue Deposits Amendment Regulations, 2018 published under GN 990 in GG 41920 of 21 September 2018. Once the relevant sections in the National Environmental Laws Amendment Act, 2022 (Act No 2 of 2022) comes into effect, residue stockpiles and residue deposits will be excluded from NEMWA and will be regulated in terms of the provisions of NEMA. The Residue Regulations will remain operational and will be deemed to have been made under NEMA.
[19] GN R 634 in GG 36784 of 23 August 2012.
[20] GN R635 in GG 36784 of 23 August 2012.
[21] GN R636 in GG 36784 of 23 August 2012.
[22] GN 926 in GG 37088 of 29 November 2013.
[23] GN R 893 in GG 37054 of 22 November 2013, as amended by GN 551 in GG 38863 of 12 June 2015; GN 1207 in GG 42013 of 31 October 2018; GG 687 in GG 42472 of 22 May 2019; GN 421 in GG 43174 of 27 March 2020.
[24] GNR 827 in GG 36974 of 1 November 2013.
[25] GN R 283 in GG 38633 of 2 April 2015.
[26] GN R 533 in GG 37804 of 11 July 2014.
[27] GN R 275 in GG 40762 of 3 April 2017 as amended by GN R 994 in GG 43712 of 11 September 2020.

Applicable Legislation and Guidelines used to compile the Report	Description	How Does This Development Comply with and Respond to The Policy and Legislative Context
(NEMBA). • Threatened or Protected Species Regulations, 2007 (GN R 152 of 2007)[28]. • Alien and Invasive Species Regulations (GN R 1020 of 2020)[29]. • Alien and Invasive Species Lists, 2020 (GN 1003 of 2020)[30].	indigenous biological resources; the fair and equitable sharing of benefits arising from bioprospecting involving indigenous biological resources; the establishment and functions of a South African National Biodiversity Institute; and for matters connected therewith. In terms of Section 57 of the Act, no person may carry out any restricted activity involving any species which has been identified by the Minister as "critically endangered species", "endangered species", "vulnerable species" or "protected species" without a permit. The Act defines "restricted activity" in relation to such identified species so as to include, but not limited to, "hunting, catching, capturing, killing, gathering, collecting, plucking, picking parts of, cutting, chopping off, uprooting, damaging, destroying, having in possession, exercising physical control over, moving or translocating". The Minister has made Regulations in terms of Section 97 of the NEMBA with regards to Threatened and Protected Species which came into effect on 1 June 2007. Furthermore, the Minister published lists of critically endangered, endangered, vulnerable, and protected species in terms of Section 56(1) of the NEMBA.	conditions, map sensitive habitats, identify species of conservation concern, and assess ecosystem processes including riparian and wetland function. The results will inform avoidance-led design, delineate no-go areas and buffers, and define mitigation to prevent or minimise impacts. The assessments will be conducted in accordance with the NEMBA and its Regulations, as well as relevant provincial guidelines. The outputs will include impact significance ratings, recommended mitigation and monitoring measures, and rehabilitation and adaptive management actions for incorporation into the EMPr.
National Forests Act (Act No. 84 of 1998). • Latest list of protected tree species in South Africa (GN 4496 (Government Notice 50291 of 13 March 2024)). • Specifies exemptions under Sections 7(1) and 15(1) of the Act (GN 25 of 2014 (Government Gazette No. 37246 of 24 January 2014)).	The Act provides for special measures to protect certain forests and tree species while promoting the sustainable use of forests for environmental, economic, educational, recreational, cultural, health, and spiritual purposes. In terms of Section 15(1), no protected tree species may be cut, damaged, destroyed, disturbed, or possessed (including products thereof), unless under licence granted by the relevant authority.	Permits will be obtained for any protected tree species.
Limpopo Environmental Management Act 2003, Act 7 of 2003.	Provides for the management and protection of the environment in Limpopo Province. Objectives include securing ecologically sustainable development, ensuring the responsible use of natural resources, contributing to the progressive realisation of Section 24 of the Constitution of the Republic of South Africa, 1996, and giving effect to international environmental agreements.	The project will be designed and implemented in alignment with the objectives of the Act, ensuring ecologically sustainable development, responsible natural resource use, and protection of environmental rights.
National Water Act, 1998 (Act No. 36 of 1998) (NWA). Regulations on the use of water for mining and related activities aimed at the protection of water resources (GN 704 of 1999)[31]. • Water Use Licence Application and Appeals Regulations, 2017 (GN R 267 of 2017)[32]. • Regulations regarding the safety of dams in terms of Section 123(1) of the NWA (GN R 139 of 2012)[33]. • General Authorisations: o General Authorisation: 21(c) and (i) water use for the purpose of rehabilitating a wetland for conservation purposes (GN 1198 of 2009)[34]. o General Authorisation: 21(c) and (i) water uses (GN 509 of 2016)[35]. o Revision of General Authorisation for the Taking and Storing of Water (GN 538 of 2016)[36].	The national government, acting through the Minister of Water and Sanitation (previously the Minister of Water Affairs), is the public trustee of South Africa's water resources, and must ensure that water is protected, used, developed, conserved, managed, and controlled in a sustainable and equitable manner for the benefit of all persons (Section 3(1)). Section 19 of the NWA places an obligation on landowners, persons in control of land, occupants of land and land users of land on which: • Any activity or process is or was performed or undertaken; or • Any other situation exists, which causes, has caused or is likely to cause pollution of a water resource, to take all reasonable measures to prevent any such pollution from occurring, continuing, or recurring. In terms of the NWA a person may only use water without a licence under certain circumstances. All other use, provided that such use qualifies as a use listed in Section 21 of the Act, require a Water Use Licence (WUL). A person may only use water without a licence if such water use is permissible under Schedule 1 (generally domestic type use) if that water use constitutes a continuation of an existing lawful water use (water uses being undertaken prior to the commencement of the NWA, generally in terms of the Water Act of 1956), or if that water use is permissible in terms of a general authorisation issued under Section 39 (general authorisations allow for the use of certain Section 21 uses provided that the criteria and thresholds described in the general authorisation is met). The Minister published Regulations Regarding the Procedural Requirements for Water Use Licence Applications and Appeals in GN R 267 of 2017. The Regulations serve to prescribe the procedure and requirements of Water Use Licence Applications (WULAs) as contemplated in Sections 41 of NWA, as well as an appeal against a decision made by a Responsible Authority in terms of Section 41(6) of the NWA. The Regulations provide the requirements for the WULA and state that consideration and decision for a WUL must be undertaken within a period of 300 days of submitting such application. A procedure for public participation must also be	The proposed Project will trigger one or more water uses as defined in Section 21 of the NWA and will therefore require authorisation. A WULA will be submitted to the Department of Water and Sanitation for the Section 21 water uses identified for the project. The specific water uses applicable to the proposed activities are set out in **Table 4-3.** As part of the EIA Phase, Fresh Water Ecology and Hydropedological assessments will be undertaken to establish baseline conditions, assess potential direct and cumulative impacts, confirm buffers and crossing requirements. The recommended mitigation measures will be incorporated into the EIA Phase and reflected in the EMPr.

[28] GN R 152 in GG 29657 on 23 February 2007.
[29] GN R 1020 in GG 43735 of 25 September 2020.
[30] GN 1003 in GG 43726 of 18 September 2020. Notice replaced the previous Alien and Invasive Species Lists (GN 864 in GG 40166 of 29 July 2016).
[31] GN 704 in GG 20119 of 4 June 1999.
[32] GN R 267 in GG 40713 of 24 March 2017.
[33] GN R 139 in GG 35062 of 24 February 2012.
[34] GN 1198 in GG 32805 of 18 December 2009.
[35] GN 509 in GG 40229 of 26 August 2016.
[36] GN 538 in GG 40243 of 2 September 2016.

Applicable Legislation and Guidelines used to compile the Report	Description	How Does This Development Comply with and Respond to The Policy and Legislative Context
○ Revision of General Authorisation in terms of Section 39 of the National Water Act 36 of 1998 (GN 665 of 2013)[37].	conducted as contemplated in Section 41(4) of the NWA, as part of the WULA process.	
National Heritage Resources Act, 1999 (Act No. 25 of 1999) (NHRA).	The NHRA established the South African Heritage Resources Agency (SAHRA) as well as provincial heritage resources agencies. In terms of the NHRA, no person may destroy, damage, deface, excavate, alter, remove from its original position, subdivide, or change the planning status of any heritage site without a permit issued by the heritage resources authority responsible for the protection of such site. Section 38 of the NHRA states that any person who intends to undertake developments categorised in Section 38 of the NHRA must at the very earliest stages of initiating such development, notify the responsible heritage resources authority and furnish it with details regarding the location, nature and extent of the proposed development. By way of example, the developments referred to in Section 38 of the NHRA include: The construction of a road, wall, powerline, pipeline, canal or other similar form of linear development or barrier exceeding 300 metres in length; The construction of a bridge or similar structure exceeding 50 metres in length; • Any development or other activity which will change the character of a site – ○ Exceeding 5000 m^2 in extent; or ○ Involving three or more existing erven of 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 (PHRA); or ○ The rezoning of a site exceeding 10 000 m^2 in extent; or • Any other category of development provided for in the Regulations by SAHRA or the PHRA.	In terms of Section 38(1) of the NHRA, any person proposing (i) a development that will change the character of a site exceeding 5,000 m^2 in extent, or (ii) the construction of a road, powerline or pipeline exceeding 300 m in length, must notify the responsible heritage resources authority (SAHRA and/or the relevant PHRA) at the earliest stage of project initiation. A case for the proposed Project will be registered with SAHRA. An Archaeological Impact Assessment and a Palaeontological Impact Assessment will be undertaken. The findings, significance ratings, and recommended mitigation measures will be incorporated into the EIA Phase and reflected in the EMPr. No disturbance of heritage resources will occur without the necessary authorisations or permits.
Section 25 of the Environment Conservation Act, 1989 (Act No. 73 of 1989) (ECA). Noise Control Regulations (GN R 154 of 1992)[38].	These Regulations set out rules relative to the control of noise as provided for in Section 25 of the ECA. The Regulations, among other things: define powers of local authorities to control noise; define general prohibitions in relation with activities that produce noise; define and prohibit noise nuisance; and concern the use of noise measuring instruments.	Booysendal will have to ensure that employees, contractors and subcontractors adhere to the requirements of this Act.
Hazardous Substances Act, 1973 (Act No. 15 of 1973) (HAS).	The Act aims to provide for the control of substances which may cause injury or ill-health to or death of human beings by reason of their toxic, corrosive, irritant, strongly sensitising or flammable nature or the generation of pressure thereby in certain circumstances, and for the control of certain electronic products; to provide for the division of such substances or products into groups in relation to the degree of danger; to provide for the prohibition and control of the importation, manufacture, sale, use, operation, application, modification, disposal or dumping of such substances and products; and to provide for matters connected therewith.	Booysendal will have to ensure that employees, contractors and subcontractors adhere to the requirements of this Act.
Civil Aviation Act, 2009 (Act No. 13 of 2009) (CAA).	Governs civil aviation in South Africa and establishes the South African Civil Aviation Authority (SACAA), mandated to control, promote, regulate, support, develop, enforce, and continuously improve aviation safety and security. The SACAA fulfils this mandate by aligning with the Standards and Recommended Practices of the International Civil Aviation Organisation, while adapting them to the South African context through the South African Civil Aviation Regulations (CARs) and the South African Civil Aviation Technical Standards (CATs). All proposed developments or activities that may affect civil aviation must be assessed in terms of these regulations to ensure aviation safety.	The proposed Project will be assessed for potential impacts on civil aviation in accordance with the CARs and CATs. Any submissions or approvals required by the SACAA will be obtained to ensure compliance with aviation safety standards.
National Road Traffic Act, 1996 (Act No. 93 of 1996) • National Road Traffic Regulations, 2000.	Provides for the regulation of road traffic in South Africa, including limitations on vehicle dimensions, axle loads, and vehicle masses for vehicles using public roads. Certain vehicles or loads that exceed the prescribed limitations and cannot reasonably be dismantled without disproportionate effort, cost, risk, or damage are classified as abnormal loads. Such loads may only be transported on public roads under an exemption permit issued in terms of Section 81 of the Act.	Transportation of key infrastructure components and machinery to the project site during the construction phase may require abnormal load permits. Permit applications will be submitted in terms of Section 81 of the Act to ensure compliance with road traffic regulations.
Policies and Plans		
National Development Plan, 2011 (NDP)[39].	Development in South Africa is guided by the NDP, which presents a shared long-term strategic framework within which more detailed development planning can take place to advance the long-term goals adopted in the NDP. The plan aims to ensure that all South Africans attain a decent standard of living through the elimination of poverty and the reduction of inequality. The NDP 2030 sets a target of creating approximately 11 million new jobs and achieving an annual average economic growth rate of 5.4 % by 2030.	The NDP is applicable in guiding Booysendal to ensure that all adjacent and affected communities attain a decent standard of living through the elimination of poverty and the reduction of inequality. The project is in alignment with the NDP through its potential to create employment and its plans to develop infrastructure.
Provincial Notice 1 of 2019 (No. 2966): Waterberg District Bioregional Plan.	The bioregional plan informs land use planning, environmental assessments and authorisations, and natural resource management. It identifies biodiversity priority areas, namely Critical Biodiversity Areas (CBAs) and Ecological Support Areas (ESAs) and provides guidelines for land use planning and decision-making.	Terrestrial and aquatic ecological assessments will be undertaken to identify CBAs and ESAs in the project area. The results will inform avoidance-led design, delineate no-go areas and ecological buffers, and define mitigation measures to align with the bioregional plan.
Fetakgomo Tubatse Local Municipality and	The Integrated Development Plans (IDPs) of the Fetakgomo Tubatse Local Municipality and Sekhukhune District Municipality	The proposed Project is broadly aligned with the economic development

[37] GN 665 in GG 36820 of 6 September 2013.
[38] GN R 154 of January 1992.
[39] https://www.nationalplanningcommission.org.za/National_Development_Plan

Applicable Legislation and Guidelines used to compile the Report	Description	How Does This Development Comply with and Respond to The Policy and Legislative Context
Sekhukhune District Municipality Integrated Development Plans (IDPs)	provide strategic frameworks for local and regional development, focusing on economic growth, employment creation, infrastructure development, improved service delivery and sustainable environmental management. The IDPs recognise the importance of mining, agriculture, tourism and associated industries in supporting economic development and employment opportunities within the region. They further emphasise infrastructure investment, skills development, support for Small, Medium and Micro Enterprises (SMMEs), poverty reduction and the sustainable management of natural resources.	objectives of the municipal IDPs through its potential contribution to continued mining activities, employment opportunities, local procurement and socio-economic development. This alignment is subject to the implementation of appropriate environmental management measures and compliance with applicable municipal planning and development requirements.
Tools, Standards and Guidelines		
Department of Forestry, Fisheries and the Environment (DFFE) Environmental Screening Tool.	The DFFE requires that their National Environmental Screening Tool be utilised prior to undertaking an application for any EA and that the report generated by the tool be submitted with the EA application. The tool is a geographically based web-enabled application which allows a proponent intending to submit an application for an EA to pre-screen their proposed site for any environmental sensitivities. Regulation 16(1)(b)(v) of the requires a screening report to accompany an application for an EA.	The S&EIR process has been undertaken in respect of the authorisation process of the project and is in compliance with the NEMA requirements read with the EIA Regulations, 2014. An EA application together with the Screening Tool Report was submitted to the DMPR, on 26 October 2026.
Waste management standards: SANS 10234:2019, Edition 2: Globally Harmonised System of Classification and Labelling of Chemicals (GHS)[40].	***SANS 10234:2008*** South Africa has moved a step forward in regard to mandating that Globally Harmonised System (GHS) of Classification and Labelling of Chemicals, be implemented within the country. Standard SANS 10234:2019 (edition-2) was published through the South Africa Bureau of Standards on December 17, 2019. This Standard supersedes Standards: SANS 10265 edition-1 of 1999 and SANS 10234 edition-1.01 of 2008. This Standard is aligned with the 4th revision of the UN GHS Purple book and is cross referenced in the NEM: WA and National Health Act, 2003 (Act No. 61 of 2003). The National Committee for Standards for Dangerous Goods, including hazardous chemical substances and dangerous goods, is in charge of preparing this Standard. The Committee has decided to permanently remove the Supplement (List of Classification and Labelling of Chemicals in Accordance with GHS), to the SANS 10234:2008 (edition-1), since the Committee believes that the chemicals on this list are constantly changing. This Standard is also mandated by the DFFE and Department of Health. This Standard will be considered a minimum requirement to adhere to when the draft Regulation of Hazardous Substances Agents (2018) is published, which is projected for 2020, under the authority of the Department of Labour. The Standard provides guidelines for classifying chemicals based on their physical, health, and environmental hazards, as well as standardised labelling elements such as pictograms, signal words, hazard statements, and precautionary statements.	The Guidelines will be consulted when compiling the EMPr.
Air quality: • National Ambient Air Quality Standards (NAAQS), 2009[41]. • GN 486 dated 2 July 2012: National Ambient Air Quality Standard for Particulate Matter with Aerodynamic Diameter less than 2.5 Micron Metres ($PM_{2.5}$)[42].	***NAAQS*** The NAAQS provide comprehensive guidelines and Regulations to safeguard air quality across South Africa. These standards outline permissible concentrations of various air pollutants, including particulate matter, sulphur dioxide, nitrogen dioxide, carbon monoxide, ozone, and lead, aimed at protecting public health and the environment. The NAAQS serves as a benchmark for assessing and monitoring air quality levels nationwide, guiding government agencies, industries, and other stakeholders in implementing measures to mitigate air pollution and minimise its adverse impacts. ***NAAQS – $PM_{2.5}$*** The National Ambient Air Quality Standard for Particulate Matter with Aerodynamic Diameter less than 2.5 Micron Metres ($PM_{2.5}$) establishes regulatory guidelines to control and monitor fine particulate pollution in the ambient air across South Africa. $PM_{2.5}$ refers to tiny particles suspended in the air, which can penetrate deep into the lungs and pose significant health risks, including respiratory and cardiovascular problems. The standard sets permissible concentration limits for $PM_{2.5}$ in ambient air, serving as a crucial tool for protecting public health and the environment.	The Guidelines will be consulted when compiling the EMPr.
Noise standards: • SANS 10103:2008 The measurement and rating of environmental noise with respect to annoyance and to speech communication[43].	SANS 10103:2008 outlines guidelines for the measurement and assessment of environmental noise concerning its potential to cause annoyance and disrupt speech communication. This standard provides a framework for objectively evaluating noise levels in various environments to ensure they meet acceptable thresholds for human comfort and communication.	The Guidelines will be consulted when compiling the EMPr.
IEM guidelines: • Integrated Environmental Management Information Series – Impact Significance. Information Series 5, 2004[44].	The IEM guidelines serve as a comprehensive framework for managing environmental considerations across various sectors and activities. These guidelines emphasise the integration of environmental considerations into decision-making processes at all stages of planning, implementation, and monitoring. By adopting an integrated approach, IEM seeks to balance socio-economic development with environmental protection, ensuring that development activities are sustainable and minimise adverse environmental impacts. Key components of IEM include stakeholder engagement, EIA, environmental management	The S&EIR process for the project will be undertaken in accordance with the principles of IEM. A detailed impact assessment together with the recommended mitigation and management measures will be provided. The Need and Desirability of the project will be considered and discussed

[40] Standard SANS 10234:2019 (edition-2), South African Bureau of Standards
[41] GN 1210 in GG 32816 of 24 December 2009.
[42] GN 486 in GG 35463 of 29 June 2012.
[43] South African Bureau of Standards - SANS 10103:2008 The measurement and rating of environmental noise with respect to annoyance and to speech communication, 2008.
[44] DEAT (2002) Impact Significance, Integrated Environmental Management, Information Series 5, Department of Environmental Affairs and Tourism (DEAT), Pretoria.

Applicable Legislation and Guidelines used to compile the Report	Description	How Does This Development Comply with and Respond to The Policy and Legislative Context
• Integrated Environmental Management Information Series – Cumulative Effects Assessment. Information Series 7, 2004[45]. • Integrated Environmental Management Information Series – Criteria for Determining Alternatives in EIA. Information Series 11, 2004[46]. • Review in EIA, Integrated Environmental Management, Information Series 13, 2004[47]. • Public Participation guideline in terms of NEMA EIA Regulations, 2017[48]. • Guidelines on Need and Desirability, 2017[49]. • Guideline on the Administration of Appeals, 2015[50].	plans, monitoring, and adaptive management strategies.	following the guidelines provided by the DFFE. The Public Participation Process (PPP) will be facilitated as recommended in the Public Participation guidelines.

[45] DEAT (2004) Cumulative Effects Assessment, Integrated Environmental Management, Information Series 7, Department of Environmental Affairs and Tourism (DEAT), Pretoria.
[46] DEAT (2004) Criteria for determining Alternatives in EIA, Integrated Environmental Management, Information Series 11, Department of Environmental Affairs and Tourism (DEAT), Pretoria.
[47] DEAT (2004) Review in Environmental Impact Assessment, Integrated Environmental Management, Information Series 13, Department of Environmental Affairs and Tourism (DEAT), Pretoria.
[48] Department of Environmental Affairs (2017), Public Participation guideline in terms of NEMA EIA Regulations, Department of Environmental Affairs, Pretoria, South Africa.
[49] DEA (2017), Guideline on Need and Desirability, Department of Environmental Affairs (DEA), Pretoria, South Africa.
[50] Department of Environmental Affairs (2015), Guidelines on the Administration of Appeals, Department of Environmental Affairs, Pretoria, South Africa.

9 SCOPING AND ENVIRONMENTAL IMPACT ASSESSMENT REPORTING PROCESS

The following sections outline the Scoping and EIA phases, including the specialist investigations, public participation activities, reporting requirements and decision-making process that will follow.

9.1 Application

An application for EA was submitted to the DMPR on 28 October 2026 in terms of NEMA and the EIA Regulations, 2014. The application relates to the proposed Project at BN Mine, within the Fetakgomo Tubatse Local Municipality, Limpopo Province.

The application initiates the formal S&EIR process and establishes the basis for the subsequent environmental assessment and public participation activities. The assessment will consider the proposed development footprint, associated infrastructure, applicable listed activities and potential environmental and social impacts. The process will be undertaken in accordance with the prescribed regulatory requirements, with the findings presented in the Scoping Report and subsequent EIR.

9.2 Scoping Phase

The Scoping Phase will establish the scope and level of detail required for the environmental assessment and identify the key environmental and social issues associated with the proposed Project. The process will be undertaken in accordance with Appendix 2 of the EIA Regulations, 2014, and will provide the framework for the detailed investigations to be completed during the EIA Phase.

The Scoping Phase will consider the proposed development in relation to the receiving environment, applicable legislative requirements, environmental sensitivities, existing land uses and potential interactions with surrounding communities and infrastructure. Particular attention will be given to identifying environmental constraints that may influence the development layout, determining the need for additional specialist investigations and identifying potential impacts requiring further assessment.

The principal objectives of the Scoping Phase will be to:

- Establish the applicable legislative, policy and regulatory framework and motivate the need and desirability of the proposed Project.
- Identify and evaluate feasible and reasonable development alternatives, including the no-go alternative.
- Identify environmental and social sensitivities, constraints and potential impacts associated with the proposed development.
- Determine the scope and methodology of specialist investigations required during the EIA Phase.
- Identify preliminary avoidance, mitigation and management measures for further assessment.

- Prepare a Plan of Study for EIA, setting out the proposed assessment approach, specialist investigations and public participation requirements.

The findings will be documented in the Scoping Report, which will provide an overview of the proposed Project, the receiving environment, identified environmental sensitivities and the proposed approach to the detailed environmental assessment.

9.2.1 Public Participation

Public participation will form an integral component of the Scoping Phase and will provide I&APs, relevant organs of state and authorities with an opportunity to review the proposed Project and identify issues requiring consideration during the environmental assessment.

The Draft Scoping Report (DSR) will be made available for a minimum 30-day public review and comment period, subject to the applicable regulatory provisions. Registered I&APs and relevant authorities will be notified of the availability of the Report through appropriate communication channels, including written correspondence, electronic notifications, newspaper advertisements and site notices, as applicable. The Report will be made accessible through suitable electronic and physical locations to facilitate stakeholder participation.

Comments received during the review period will be documented in a Comments and Responses Report (CRR), together with responses indicating how the issues raised have been considered. Relevant comments will inform the finalisation of the Scoping Report and the identification of matters requiring further investigation during the EIA Phase. Particular consideration will be given to issues raised by surrounding communities and stakeholders who may be directly affected by the proposed development.

9.2.2 Submission and Acceptance

Following completion of the public review period, the DSR will be updated to incorporate relevant stakeholder and authority comments. The Final Scoping Report (FSR), including the Plan of Study for EIA and CRR, will subsequently be submitted to the DMPR within the prescribed regulatory timeframe.

The DMPR will review the FSR to determine whether the proposed scope of assessment adequately addresses the potential environmental and social impacts of the Project and complies with the requirements of the EIA Regulations. The Competent Authority (CA) will consider the adequacy of the identified alternatives, proposed specialist investigations, PPP and Plan of Study for EIA before determining whether the Scoping Report may be accepted.

Where the FSR is accepted, the assessment will proceed to the EIA Phase in accordance with the accepted Plan of Study. Should the CA identify deficiencies or grounds for refusal, the application will be dealt with in accordance with the applicable regulatory provisions.

9.2.3 Outcome of Scoping

The principal outcome of the Scoping Phase will be an accepted FSR and Plan of Study for EIA,

establishing the framework for the detailed assessment of the proposed Project. The accepted Plan of Study will guide the specialist investigations, assessment of development alternatives, evaluation of potential impacts and preparation of the EIR and EMPr.

The Scoping Phase will therefore provide the basis for ensuring that the EIA focuses on the environmental and social issues of greatest relevance to the proposed development and that the assessment is sufficiently detailed to inform decision-making by the DMPR.

9.3 Environmental Impact Assessment Phase

Following acceptance of the FSR and Plan of Study for EIA, the EIA Phase will be undertaken to assess the potential environmental and social impacts associated with the proposed Project. The assessment will build on the findings of the Scoping Phase and will incorporate the results of detailed specialist investigations, stakeholder engagement and the evaluation of feasible and reasonable alternatives.

The EIA Phase will consider the potential impacts associated with the construction, operation and eventual decommissioning of the proposed solar PV facility and associated infrastructure, as applicable. Both positive and negative impacts will be evaluated, including direct, indirect and cumulative impacts. Particular attention will be given to the identification of sensitive environmental features, the avoidance or minimisation of adverse impacts and the development of appropriate mitigation and management measures.

The findings will be consolidated into a Draft EIR and EMPr, which will be made available for public review before finalisation and submission to the DMPR. These documents will provide the CA with the information necessary to evaluate the environmental acceptability of the proposed Project and determine whether EA should be granted.

9.3.1 Specialist Studies

9.3.1.1 Commissioning and Standards

Specialist investigations will be undertaken to provide a detailed understanding of the environmental and social conditions within the proposed development area and to assess the potential impacts associated with the Project. The scope of these investigations will be informed by the Screening Tool, SSVRs, existing environmental information and issues identified during the Scoping Phase.

Existing specialist studies and baseline information will be reviewed and updated, where necessary, to ensure that the assessments adequately address the proposed development footprint and associated infrastructure. Additional field investigations will be undertaken where required to address information gaps, confirm environmental sensitivities or assess areas not adequately covered by previous investigations.

The specialist assessments will comply with the applicable Procedures for the Assessment and Minimum Criteria for Reporting on Identified Environmental Themes, published under Government

Notice No. 320 of 20 March 2020, as amended. Where no specific environmental theme protocol applies, the relevant requirements of Appendix 6 of the EIA Regulations, 2014 will be followed.

- **1.3.1.2 Purpose and Outputs**

The specialist studies will establish the environmental baseline, verify the presence and significance of sensitive environmental features and assess the potential impacts of the proposed development. The investigations will consider the proposed infrastructure layout, construction activities, operational requirements and potential interactions with the surrounding environment.

Each specialist assessment will, where applicable, identify environmental constraints, assess direct, indirect and cumulative impacts, and recommend measures to avoid, minimise, rehabilitate or manage adverse impacts. The studies will also consider relevant development alternatives, identify appropriate buffer requirements and provide recommendations for environmental monitoring and management.

The specialist reports will document the assessment methodologies, baseline conditions, impact findings, assumptions and limitations, together with recommendations for incorporation into the EIR and EMPr. These findings will inform the refinement of the development layout and the identification of the environmentally preferred alternative.

9.3.1.2 Integration and Review

The EAP will review and integrate the specialist findings to ensure that the environmental assessment presents a coordinated and consistent evaluation of the proposed Project. This will include consideration of interactions between environmental themes, overlapping sensitivities and the potential for cumulative impacts.

Where specialist recommendations identify constraints or opportunities for avoiding environmental impacts, these will be considered in consultation with the Project design team. The proposed development layout and associated mitigation measures may be refined, where feasible, to respond to the findings of the assessments.

The specialist reports will also be reviewed for consistency with the proposed development footprint, assessment methodology and applicable regulatory requirements. Any identified information gaps or inconsistencies will be addressed, where necessary, before the findings are incorporated into the Draft EIR.

9.3.2 Environmental Impact Assessment

The EIA will be undertaken using a structured methodology aligned with Appendix 3 of the EIA Regulations, 2014. The assessment will evaluate the potential environmental and social consequences of the proposed Project and determine the significance of identified impacts before and after the implementation of mitigation measures.

The assessment will consider the nature, extent, duration, magnitude and probability of potential impacts, together with their reversibility, potential for mitigation and implications for sensitive

environmental resources. The evaluation will address direct, indirect and cumulative impacts and will consider both positive and negative consequences associated with the proposed development.

Impact significance will be determined using a consistent rating methodology to enable comparison between environmental themes and development alternatives. Residual impacts will be evaluated following the application of proposed mitigation measures to establish the anticipated level of environmental risk associated with the proposed Project.

The findings will be presented in the EIR, together with an evaluation of feasible and reasonable alternatives, including the no-go alternative. The assessment will provide a reasoned opinion on the environmental acceptability of the proposed Project and identify the measures required to manage potential impacts should EA be granted.

9.3.3 Environmental Management Programme

An EMPr will be prepared in accordance with Appendix 4 of the EIA Regulations, 2014, to establish the environmental management requirements applicable to the proposed Project. The EMPr will translate the findings and recommendations of the EIA and specialist investigations into practical management measures for implementation during the relevant Project phases.

The EMPr will identify environmental management objectives, mitigation measures, implementation responsibilities, monitoring requirements, performance indicators and reporting procedures. It will also establish procedures for environmental inspections, incident management, corrective actions and compliance monitoring to support effective implementation of the proposed measures.

The EMPr will address relevant environmental management requirements associated with vegetation clearance, biodiversity protection, soil and erosion management, stormwater management, waste management, heritage protection, rehabilitation and other identified environmental risks. Measures will be structured to be practical, measurable and capable of verification through environmental monitoring and auditing.

The EMPr will be submitted with the EIR for consideration by the DMPR. Should EA be granted, the approved EMPr will form part of the environmental management obligations applicable to the proposed Project.

9.3.4 Public Participation

Public participation during the EIA Phase will provide stakeholders and relevant authorities with an opportunity to review the detailed assessment findings, specialist recommendations and proposed environmental management measures. The process will build on the issues identified during the Scoping Phase and provide an opportunity for further engagement on matters of environmental and social concern.

The Draft EIR and EMPr, together with the relevant supporting specialist reports, will be made available for a minimum 30-day public review and comment period, subject to the applicable regulatory provisions. Registered I&APs, relevant organs of state and authorities will be notified of

the availability of the documents through appropriate communication channels.

Stakeholder engagement activities, including focus group meetings where appropriate, will be undertaken to facilitate discussion of the assessment findings and address concerns raised by affected communities and other stakeholders. Particular attention will be given to matters relating to land use, cultural heritage, access arrangements, potential construction disturbances and other issues identified during the assessment process.

All comments received will be recorded and addressed in an updated CRR. The EIR and EMPr will be revised, where necessary, to incorporate relevant stakeholder and authority inputs before submission of the final documents to the DMPR.

9.3.5 Decision-Making and Appeals

9.3.5.1 Decision-Making

Following completion of the EIA PPP, the Final EIR and EMPr, together with the updated CRR and supporting specialist reports, will be submitted to the DMPR for consideration. The CA will evaluate the application in accordance with NEMA and the EIA Regulations, 2014.

The decision-making process will consider the potential environmental and social impacts of the proposed Project, the effectiveness of proposed mitigation measures, the environmental acceptability of feasible and reasonable alternatives, and the findings and recommendations of the specialist assessments. The DMPR will also consider the outcomes of public participation, comments received from relevant authorities and the Applicant's proposed environmental management commitments.

Following its assessment, the DMPR will determine whether EA should be granted or refused. Where EA is granted, the authorisation may include conditions relating to environmental management, monitoring, reporting and other measures considered necessary to manage the potential impacts of the proposed Project.

The Applicant and registered I&APs will be notified of the decision in accordance with the applicable regulatory requirements. The notification will include information on the outcome of the application and the procedures available to parties wishing to appeal the decision.

9.3.6 Appeals

Following notification of the DMPR's decision, any person entitled to appeal may lodge an appeal in accordance with the National Appeal Regulations, 2014, within the prescribed timeframe. The appeal process provides an opportunity for the relevant appeal authority to reconsider the decision in accordance with the applicable legislative requirements.

The appeal authority may confirm, vary or set aside the decision, subject to the provisions of the applicable legislation. The Applicant and relevant stakeholders will be informed of the outcome of any appeal and any implications for the proposed Project.

10 DETAILS OF THE PUBLIC PARTICIPATION PROCESS FOLLOWED[51]

Public participation is an integral component of the S&EIR process for the proposed Project. The PPP will provide I&APs, relevant organs of state, local communities and other stakeholders with opportunities to obtain information about the proposed Project, raise concerns and comment on the environmental assessment documentation.

The EA application was submitted to the DMPR on 28 October 2026. Public participation will be undertaken during both the Scoping and EIA phases, in accordance with the NEMA, and the EIA Regulations, 2014. Stakeholder comments will be considered throughout the assessment and documented for consideration by the CA.

10.1 Objectives of the Public Participation Process

The objective of the PPP is to provide stakeholders who may be affected by, or have an interest in, the proposed Project with a reasonable and meaningful opportunity to participate in the environmental assessment process. The PPP will facilitate the identification of environmental and social concerns, support transparent communication and ensure that stakeholder input informs the assessment and decision-making process.

The specific objectives are to:

- Identify and notify affected landowners, lawful occupiers, adjacent landowners, traditional authorities, local communities, relevant organs of state and other potential I&APs.
- Establish and maintain a register of I&APs throughout the S&EIR process.
- Provide accessible information regarding the nature, location and scope of the proposed Project and the applicable environmental assessment process.
- Provide opportunities to review and comment on the DSR, Draft EIR, Draft EMPr and supporting specialist reports.
- Identify environmental, social, cultural heritage and land use concerns requiring consideration during the assessment.
- Record and respond to stakeholder comments through a CRR.
- Demonstrate how relevant stakeholder issues have been considered in the assessment, Project layout and proposed mitigation measures.

The PPP will be undertaken in a manner that recognises the interests of surrounding communities and the importance of accessible communication, particularly where the proposed development

[51] Required as per the EIA Regulations Appendix 2 (2) (1) (g) (ii) details of the public participation process undertaken in terms of regulation 41 of the Regulations, including copies of the supporting documents and inputs and (iii) a summary of the issues raised by interested and affected parties, and an indication of the manner in which the issues were incorporated, or the reasons for not including them.

may interact with existing land uses, cultural heritage resources or community access arrangements.

10.2 Legal Framework

The PPP will be undertaken in accordance with Chapter 6 of the EIA Regulations, 2014, which establishes the requirements for stakeholder notification, consultation, access to information and opportunities to comment on environmental assessment documentation.

The process will provide for the identification and notification of potential I&APs, maintenance of an I&AP register, publication of appropriate notices and availability of relevant reports for public review. Comments received from stakeholders and organs of state will be recorded, addressed and included in the documentation submitted to the DMPR.

Public participation will be undertaken during both the Scoping and EIA phases. The DSR and Draft EIR, together with the relevant supporting documentation, will each be made available for a minimum 30-day public review and comment period, subject to the applicable regulatory provisions.

10.3 Previous Stakeholder Engagement

Stakeholder engagement relating to the proposed renewable energy infrastructure at Booysendal Mine was previously undertaken as part of the PPP for the broader Booysendal Mine Projects for 2026. Focus group and open meetings were held between 25 February and 6 March 2026, involving local communities, traditional authorities, community forums, landowners, municipalities and relevant government departments. During these engagements, stakeholders were informed of the proposed Project, including the intended role in supporting the Mine's electricity requirements. The meetings provided opportunities for stakeholders to raise questions and concerns relating to employment, local procurement, project safety, environmental management and cultural heritage. The previous engagement process provides an important foundation for the proposed solar PV developments; however, further public participation will be undertaken as part of the current S&EIR process to ensure that stakeholders have an opportunity to review and comment on the proposed Project and its associated infrastructure.

10.4 Public Participation Activities

The PPP will include stakeholder identification and notification, placement of site notices, publication of a newspaper advertisement, distribution of project information, public review of environmental assessment reports and opportunities for stakeholders to submit comments.

The initial notification activities are scheduled for November 2026, following submission of the EA application on 28 October 2026. Further consultation will be undertaken during the Scoping and EIA phases as the assessment progresses.

The planned activities are summarised in **Table 10-1**.

Table 10-1: Planned Public Participation Activities

Activity	Planned Date or Period
Submission of EA application to the DMPR	28 October 2026
Publication of newspaper advertisement	5 November 2026
Placement of site notices	5-6 November 2026
Distribution of Background Information Document (BID) and stakeholder notifications	November 2026
Public review of Draft Scoping Report	9 November 2026 to 9 December 2026
Submission of Final Scoping Report to the DMPR	Following completion of Scoping public participation, within the prescribed timeframe
Public review of Draft EIR and EMPr	During the EIA Phase
Stakeholder and focus group meetings	During the EIA Phase, as required
Submission of Final EIR and EMPr	Following completion of EIA public participation, within the prescribed timeframe

10.4.1 Development of the Stakeholder Database

An existing stakeholder database for the Booysendal Mine and surrounding area will be reviewed and updated to identify stakeholders who may have an interest in, or be affected by, the proposed Project. Additional stakeholders will be identified through the environmental assessment, engagement with local representatives and responses to the initial project notifications.

The stakeholder database will include relevant national and provincial authorities, the Sekhukhune District Municipality, Fetakgomo Tubatse Local Municipality, ward councillors, traditional authorities, affected and adjacent landowners, lawful occupiers, surrounding communities, community representatives, environmental organisations and other interested stakeholders.

An I&AP register will be maintained throughout the S&EIR process and updated as additional stakeholders register, submit comments or participate in engagement activities. The database and register will support the distribution of project information and notifications during the Scoping and EIA phases.

10.4.2 Public Participation Media and Notification

A combination of notification methods will be used to inform stakeholders of the proposed Project and opportunities to participate in the environmental assessment. These methods will include newspaper advertisements, site notices, written and electronic notifications, the BID and Registration and Comment Form.

The notification approach will consider the communication needs of surrounding communities, including the use of English and Sepedi where appropriate. Information will be provided through accessible channels to encourage participation by stakeholders who may not have reliable access to electronic communication.

10.4.3 Newspaper Advertisement

A newspaper advertisement is scheduled for publication on 5 November 2026 in the Steelburger/Lydenburg News. The advertisement will be prepared in English and Sepedi to notify the broader public of the proposed Project and the S&EIR process.

The advertisement will provide an overview of the proposed development, its location, the EA application and opportunities for public participation. It will also provide contact details for stakeholders wishing to register as I&APs, obtain additional information or submit comments.

The advertisement will notify stakeholders of the availability of the DSR and the applicable public review arrangements, where these have been confirmed.

10.4.4 Site Notices

Site notices are scheduled to be placed on 5 and 6 November 2026 at conspicuous and publicly accessible locations within and surrounding the proposed Project area. The notices will be prepared in English and Sepedi and will provide information regarding the proposed development, the S&EIR process and opportunities for stakeholder participation.

10.4.5 Background Information Document and Registration and Comment Form

A BID will be prepared to provide stakeholders with an accessible overview of the proposed Project and S&EIR process. The document will describe the proposed Project location, principal infrastructure components, purpose of the development, applicable EA process and opportunities for public participation.

The BID will be prepared in English and Sepedi and distributed to identified stakeholders through appropriate communication channels. A Registration and Comment Form will accompany the BID to enable stakeholders to register as I&APs and submit comments, concerns or information relevant to the proposed development.

10.4.6 Availability of the Draft Scoping Report

The DSR for the proposed Project will be made available to I&APs, relevant organs of state and other stakeholders for a 30-day public review and comment period, from 9 November 2026 to 9 December 2026.

The DSR provides an overview of the proposed Project, the receiving environment, applicable listed activities, environmental sensitivities, feasible and reasonable alternatives, and key environmental and social issues identified for further assessment. The Report also includes the Plan of Study for EIA, which outlines the proposed specialist investigations, assessment methodology and public participation activities to be undertaken during the EIA Phase.

To facilitate access to the documentation, hard copies of the DSR will be made available at the locations listed in **Table 10-2**. An electronic copy will also be available on the GCS website throughout the public review period.

Table 10-2: Locations Where the Draft Scoping Report Will Be Available for Public Review

Place	Address
Phasha Royal Kraal	D1392 Road, Phasha Village Steelpoort
Batlokwa Ba Magolego Traditional Authority at Mapodile Thusong Centre	Mapodile Village, Fetakgomo Tubatse Local Municipality, Limpopo
Boeketlong Lodge	5050 Mogoroane, Ga-Moloi, Jane Furse, 1085
Phokwane Clinic	Stand No X1, Phokwane, Nebo, Ngwaritsi, 1059

Place	Address
Maseven Clinic	Maseven Village, Fetakgomo Tubatse Local Municipality, Limpopo
Ngwaabe Home Based Care	Ga-Rantho/Ga-Masha, Ngwaabe area, Limpopo
Chrome Valley Lodge	Tweefontein Farm, Tweefontein Road, Steelpoort, 1133 *Reports are available at this venue Monday to Friday 08h00 to 16h00.*
GCS Website	https://www.gcs-sa.biz/public-documents/

Stakeholders will be invited to review the DSR and submit written comments to GCS by 9 December 2026. Comments may address the proposed development, environmental and social concerns, potential impacts, development alternatives or matters requiring further investigation. All comments received during the public review period will be recorded and addressed in the CRR.

Relevant comments and recommendations will be considered in finalising the Scoping Report and refining the scope of specialist investigations and impact assessments to be undertaken during the EIA Phase. The FSR, together with the CRR and supporting public participation documentation, will subsequently be submitted to the DMPR for consideration.

Stakeholders will be invited to submit written comments during the public review period. Comments received will be considered in finalising the Scoping Report and identifying matters requiring further assessment during the EIA Phase.

10.4.6.1 SMS Notifications

SMS notifications will be distributed to identified stakeholders for whom valid mobile telephone numbers are available, where appropriate. The messages will provide concise information regarding opportunities for participation, availability of the DSR and contact details for submitting comments or requesting additional information.

10.4.6.2 E-mail and Written Notifications

Written and electronic notifications will be distributed to identified stakeholders, registered I&APs and relevant organs of state. The notifications will provide information on the proposed Project, the S&EIR process, public review arrangements and opportunities to submit comments.

10.4.7 Public Participation During the EIA Phase

Following acceptance of the FSR by the DMPR, further public participation will be undertaken during the EIA Phase. The Draft EIR, EMPr and supporting specialist reports will be made available for a minimum 30-day public review and comment period, subject to the applicable regulatory provisions.

The EIA PPP will provide stakeholders with an opportunity to review the detailed impact assessment findings, development alternatives and proposed mitigation measures. Stakeholder engagements, including focus group meetings where appropriate, will be arranged to address issues requiring further discussion, particularly matters relating to cultural heritage, land use, community access and potential environmental or social impacts.

Comments received during the EIA Phase will be documented and addressed in the CRR. Relevant comments will inform the finalisation of the EIR and EMPr before submission to the DMPR.

10.4.8 Comments and Responses Report

A CRR will be maintained throughout the S&EIR process to provide a transparent record of comments, concerns and issues raised by stakeholders and relevant authorities. The CRR will document the comments received, responses provided and, where applicable, how the matters raised have been considered in the environmental assessment.

The CRR will be updated following each public review period and will accompany the FSR and Final EIR submitted to the DMPR. Matters requiring specialist input or further investigation will be referred to the relevant specialists and addressed through the assessment process, where appropriate.

Stakeholder submissions and supporting consultation records will be included in the PPP documentation, subject to the appropriate protection of personal information.

10.5 SUMMARY OF ISSUES RAISED BY INTERESTED AND AFFECTED PARTIES

During the PPP undertaken between February and May 2026, stakeholders were also introduced to the proposed solar PV developments and their intended role in supporting the Mine's electricity requirements. The associated CRR records a range of questions, concerns and expectations relating to renewable energy infrastructure, environmental protection, cultural heritage, community livelihoods and stakeholder engagement. Although these comments were raised earlier, several matters are directly relevant to the proposed Project and provide important context for the current S&EIR process.

The principal issues raised during the previous engagements are summarised below.

10.5.1 Cultural Heritage, Graves and Traditional Practices

Stakeholders expressed concerns regarding the potential disturbance of graves, ancestral burial grounds and other culturally significant sites within the broader Project area. Community representatives emphasised the importance of protecting these resources and maintaining access for traditional and cultural practices. Specific requests were made for traditional leaders and local elders to participate in identifying heritage resources, particularly where burial grounds and culturally significant sites may not be formally recorded.

These concerns highlight the importance of undertaking appropriate heritage investigations and maintaining consultation with affected communities to ensure that heritage resources are identified, avoided or appropriately managed during Project planning and implementation.

10.5.2 Biodiversity and Land Disturbance

Stakeholders raised questions regarding the potential disturbance of land and environmentally sensitive areas associated with the proposed developments. Particular interest was expressed in the measures that would be implemented to minimise environmental impacts and protect the surrounding natural environment.

These concerns are relevant to the proposed solar PV development, particularly regarding vegetation clearance, habitat disturbance and the placement of infrastructure within

environmentally sensitive areas. The findings of the terrestrial biodiversity, aquatic biodiversity and other relevant specialist assessments will inform the identification of development constraints and appropriate mitigation measures.

10.5.3 Water Resources and Community Livelihoods

Concerns were raised regarding the potential contamination of water resources and the implications for surrounding communities and livestock. Stakeholders highlighted existing challenges relating to water availability and the reliance of certain communities on local water sources for domestic and agricultural purposes.

Stakeholders also requested clarification on the measures that would be implemented to manage water-related impacts and monitor environmental performance. These concerns reinforce the importance of assessing potential impacts on drainage features, water quality, stormwater runoff and erosion during the construction and operational phases.

10.5.4 Waste Management and Project Safety

Stakeholders requested information regarding the management, recycling and disposal of solar panels, particularly where damaged or redundant equipment may present environmental risks.

The comments highlight the importance of appropriate waste management, pollution prevention and operational safety measures. The environmental assessment will consider waste generation and management requirements associated with the proposed solar PV development and its supporting infrastructure.

10.5.5 Project Purpose and Electricity Supply

Stakeholders sought clarification on the relationship between the proposed solar PV and Battery Energy Storage System developments, including how the electricity generated would support mining operations and reduce reliance on the national electricity grid. Questions were also raised regarding whether the proposed infrastructure would provide electricity directly to surrounding communities.

During the previous engagements, it was explained that the renewable energy developments are primarily intended to support the Mine's electricity requirements and improve energy supply reliability. Stakeholders nevertheless expressed an interest in understanding the broader benefits of the developments for surrounding communities.

10.5.6 Employment, Skills Development and Local Procurement

Employment opportunities and local economic participation were recurring concerns during the previous engagements. Stakeholders highlighted unemployment within surrounding communities and requested that local residents, particularly young people, be considered for employment and skills development opportunities associated with the proposed developments.

Concerns were also raised regarding access to procurement opportunities, the participation of local businesses and transparency in recruitment processes. Stakeholders requested clear communication regarding potential employment opportunities and the mechanisms through which local communities

could participate during Project implementation.

10.5.7 Stakeholder Engagement and Access to Information

Stakeholders emphasised the importance of continued consultation, transparent communication and regular feedback throughout the development process. Concerns were raised regarding access to Project information and the extent to which community comments are considered during planning and environmental decision-making.

Requests were made for further engagement with traditional authorities, community representatives and other affected stakeholders, particularly where proposed infrastructure may affect cultural heritage resources, land use or existing community interests. Stakeholders also requested opportunities to review the findings of environmental investigations and obtain clarification on proposed mitigation measures.

10.5.8 Consideration of Previous Comments in the Current S&EIR Process

The concerns raised during the previous consultation provide relevant background for the current S&EIR process. Particular attention will be given to cultural heritage protection, biodiversity sensitivities, water resource management, land disturbance, waste management and potential social impacts. These matters will be considered through the relevant specialist assessments and incorporated into the assessment of environmental impacts and development alternatives.

The previous stakeholder engagements do not replace the statutory public participation requirements applicable to the proposed Project. The DSR will be made available for public review and comment from 9 November to 9 December 2026, providing stakeholders with an opportunity to comment specifically on the proposed development and associated infrastructure. Further consultation will be undertaken during the EIA Phase, and relevant comments will be documented and addressed in the CRR.

11 THE ENVIRONMENTAL ATTRIBUTES ASSOCIATED WITH THE PROJECT AREA[52]

This section describes the environmental attributes associated with the proposed Project. The environmental baseline provides an understanding of the existing conditions within the proposed development area and its broader surroundings. It establishes the context for identifying environmental sensitivities, assessing development alternatives and evaluating potential environmental and social impacts during the S&EIR process.

The baseline has been informed by the Screening Tool Report generated on 26 October 2026, together with SSVRs prepared for terrestrial biodiversity, plant and animal species, avifauna, aquatic biodiversity, agricultural resources and landscape sensitivity. These investigations provide

[52] Required as per the EIA Regulations Appendix 2 (2) (1) (g) (iv) the environmental attributes associated with the alternatives focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.

site-specific information on the environmental characteristics and sensitivities of the proposed development area.

Historical environmental information associated with the broader Booysendal mining operations has also been considered to provide regional context, particularly regarding hydrology, geology, traffic, noise, socio-economic conditions and cultural heritage. Where historical information is used, it is presented as background to the receiving environment rather than as a current site-specific measurement.

The environmental baseline will be refined during the EIA Phase through updated specialist investigations, consideration of the final development layout and engagement with I&APs.

11.1 Climate and Rainfall

The Project area is situated within the Groot Dwars River Valley in the Steenkampsberg mountain range and experiences a summer rainfall climate characterised by warm to hot summers and cool, dry winters. Rainfall occurs predominantly between October and March, with the highest rainfall generally recorded during November, December and January. The winter months are comparatively dry, with limited precipitation and reduced soil moisture (SDG Consulting cc, 2009).

Historical hydrological investigations undertaken for the broader Booysendal area indicate a mean annual precipitation of approximately 722 mm, with the highest average monthly rainfall recorded in January (133.4 mm), November (133.3 mm) and December (120.5 mm). The lowest average monthly rainfall occurs in June (7.2 mm) and July (5.0 mm). Mean annual evaporation is approximately 1,756 mm, substantially exceeding annual rainfall and reflecting the relatively high evaporative demand of the region (GCS, 2009).

Temperature conditions are characterised by warm summers and relatively cool winters. Historical meteorological information indicates that average daily maximum temperatures approach 30°C during December to February, while average daytime temperatures generally remain above 20°C during June and July. Winter conditions are typically dry, with low relative humidity and limited rainfall (SDG Consulting cc, 2009).

Prevailing winds are generally from the south-east and north-west, influenced by regional atmospheric circulation and the surrounding mountainous terrain. Wind conditions are generally calm to moderate, although occasional gusts exceeding 8 m/s have been recorded. The combination of dry winter conditions and wind contributes to the potential for dust mobilisation from exposed soils and disturbed surfaces (SDG Consulting cc, 2009).

The seasonal distribution of rainfall and evaporation influences vegetation growth, soil moisture, surface runoff and the functioning of drainage systems within the surrounding catchment. Intense summer rainfall may generate rapid runoff and sediment transport, particularly on steep slopes and areas with shallow soils or exposed bedrock. These climatic characteristics contribute to the hydrological functioning of the Groot Dwars River and its associated drainage features (GCS, 2009).

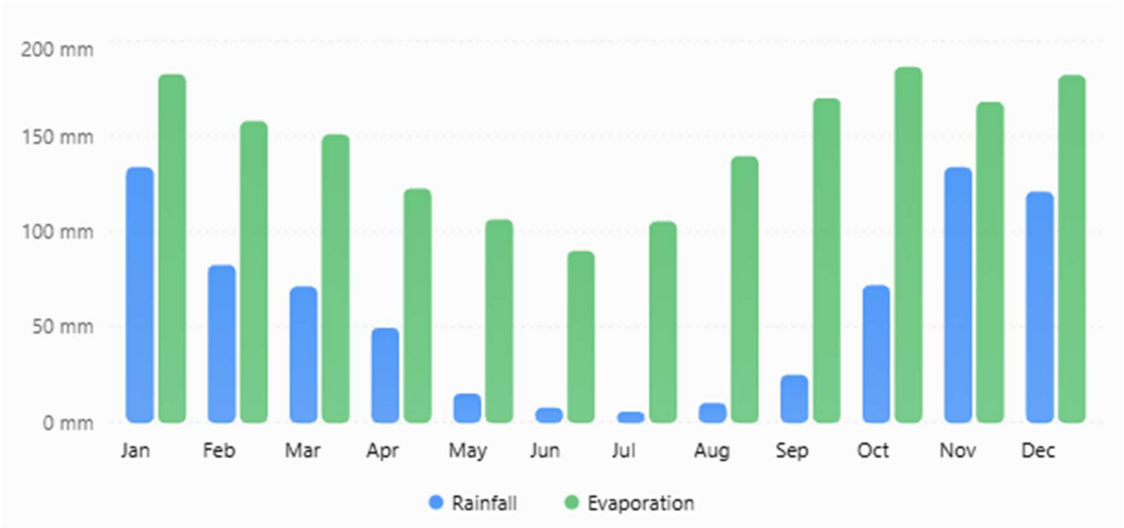


Figure 11-1: Historical Average Monthly Rainfall and Evaporation for the Booysendal Area (GCS, 2009)

11.2 Topography and Landscape

The Project area is situated within the mountainous terrain of the Eastern Limb of the Bushveld Igneous Complex, characterised by elevated ridges, steep rocky slopes, undulating hillsides and valleys associated with the Groot Dwars River and its tributaries. The surrounding landscape exhibits considerable variation in elevation, with prominent ridgelines and natural drainage corridors forming distinctive features of the receiving environment. These topographical characteristics influence the distribution of vegetation, soil types, watercourses and existing land uses (The Biodiversity Company, 2026a).

Steeper slopes are generally characterised by shallow soils, exposed bedrock and natural Mountain Bushveld vegetation, while deeper soils and more densely vegetated habitats occur in certain lower-lying areas and drainage corridors. The combination of steep gradients, variable soil depths and seasonal rainfall influences surface runoff, infiltration and erosion processes. Natural drainage systems convey runoff from the surrounding slopes towards the valley-bottom watercourses, with the potential for sediment transport during intense rainfall events (The Biodiversity Company, 2026a).

The mountainous terrain also contributes to the visual character of the area, with prominent ridgelines, natural slopes and valleys forming important landscape features. Existing mining infrastructure has modified portions of the surrounding landscape, although extensive areas retain a predominantly natural character. The topography (**Figure 11-2**Figure 5-9) provides varying degrees of visual screening, depending on elevation, slope orientation and the location of surrounding receptors (Donaway Environmental, 2026).

The relationship between the proposed development footprint, slope gradients, drainage features and visually prominent areas will be considered during the assessment of alternatives and the

evaluation of potential environmental impacts.

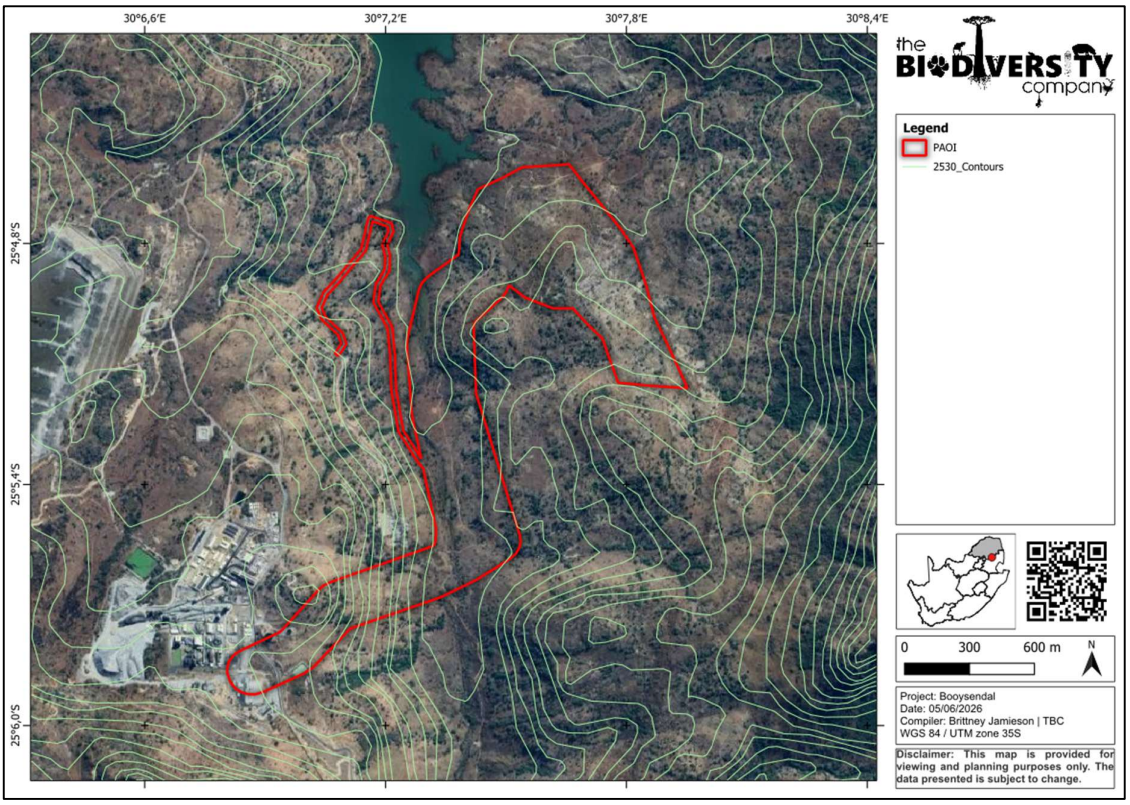


Figure 11-2: Topography and Slope Characteristics of the Project area (The Biodiversity Company, 2026a)

11.3 Geology

The Project area is situated within the Eastern Limb of the Bushveld Igneous Complex, which is characterised by layered mafic and ultramafic intrusive rocks associated with the Rustenburg Layered Suite. The regional geology comprises predominantly norite, pyroxenite, anorthosite and gabbro, which contribute to the distinctive mountainous topography and mineral resources of the region. The geological formations are associated with the platinum group metal deposits that support mining activities within the broader Booysendal area.

The geological setting influences the development of soils, groundwater occurrence and the distribution of rocky outcrops across the landscape. Resistant rock formations contribute to steep slopes and exposed bedrock, while weathering processes result in variable soil depths and characteristics. Groundwater movement is influenced by the degree of weathering and fracturing of the underlying rock, with infiltration and subsurface flow varying according to local geological and topographical conditions.

The geology of the Project area is therefore an important influence on soil development, drainage characteristics and the distribution of natural habitats.

11.4 Soils, Land Capability and Agricultural Potential

The soils within the Project area are influenced by the underlying geology, mountainous topography, drainage conditions and historical land disturbance. The Agricultural Site Sensitivity Verification Report undertaken by The Biodiversity Company (2026d) identified several soil forms within the proposed development area, including Mispah, Valsrivier, Swartland, Spioenberg, Kroonstad, Johannesburg, Stilfontein and Witbank. The distribution of these soils reflects variations in soil depth, parent material, drainage and landscape position.

The Mispah soil form dominates the proposed development area, particularly across the northern and central portions of the site. These soils are generally shallow and associated with underlying bedrock, resulting in limited soil-water storage capacity and restricted agricultural potential. Valsrivier and Swartland soils occur in more localised areas and are characterised by contrasting soil horizons, while Kroonstad soils exhibit hydromorphic characteristics associated with periodic saturation. Other soil forms occur in smaller, isolated areas, including portions of the proposed access and infrastructure corridors. The spatial distribution of the identified soil forms is illustrated in **Figure 11-3** (The Biodiversity Company, 2026d).

Agricultural land potential is influenced by soil depth, texture, drainage, rockiness and slope. The agricultural assessment identified predominantly low to moderate agricultural potential, with most of the proposed development area classified as Land Potential 7 (LP7). Smaller areas of Land Potential 6 (LP6) and Land Potential 8 (LP8) were also identified, as illustrated in **Figure 11-4**. The relatively shallow soils, rocky terrain and steep slopes constrain the suitability of substantial portions of the Project area for intensive cultivation. Nevertheless, these soils continue to support natural vegetation, grazing and associated ecological functions (The Biodiversity Company, 2026d).

The soil characteristics also influence the movement and storage of water within the landscape. Shallow soils and areas of exposed bedrock may generate surface runoff during rainfall events, while differences in soil permeability and the presence of contrasting soil horizons can promote lateral subsurface flow. Hydromorphic soils are particularly relevant to the functioning of drainage features and associated wetland environments.

Disturbance of natural soil profiles through vegetation clearance, excavation, grading and construction activities may alter infiltration and drainage characteristics and increase erosion susceptibility, particularly on steeper slopes. The combination of shallow soils, steep slopes and variable drainage conditions is an important characteristic of the receiving environment, particularly in relation to soil stability, agricultural land capability and hydrological functioning.

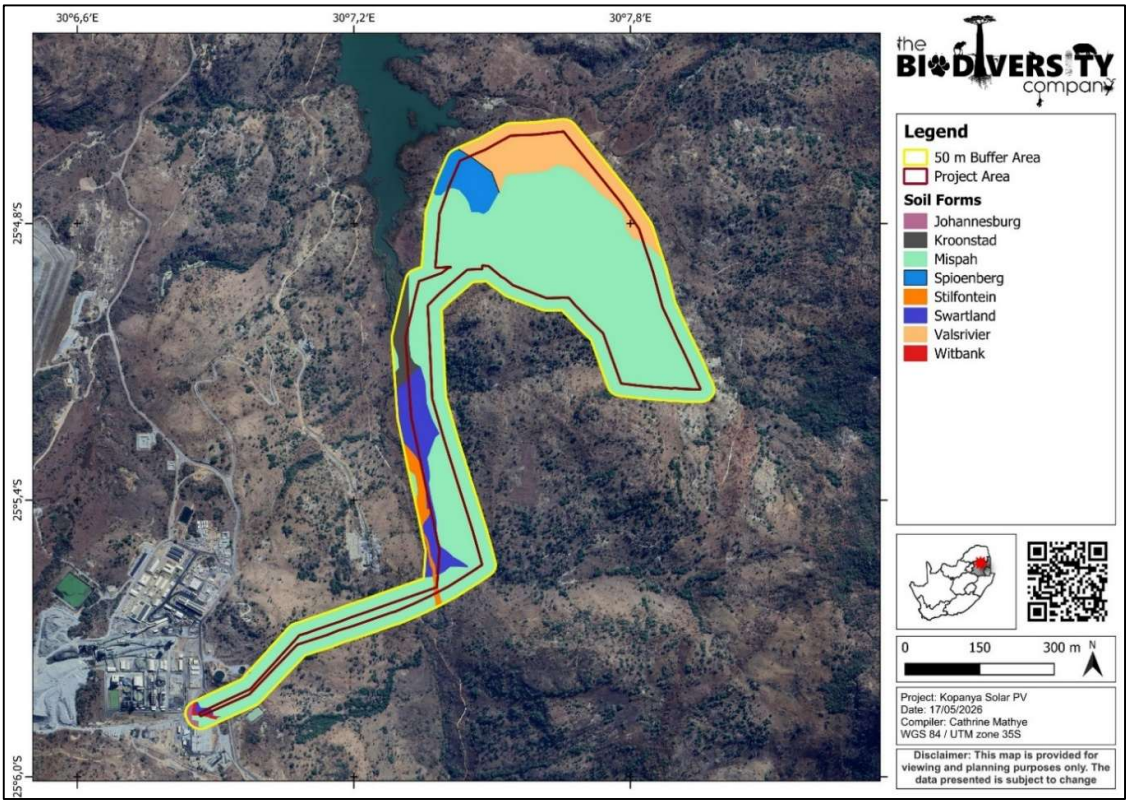


Figure 11-3: Distribution of Soil Forms within the proposed Project area (The Biodiversity Company, 2026d)

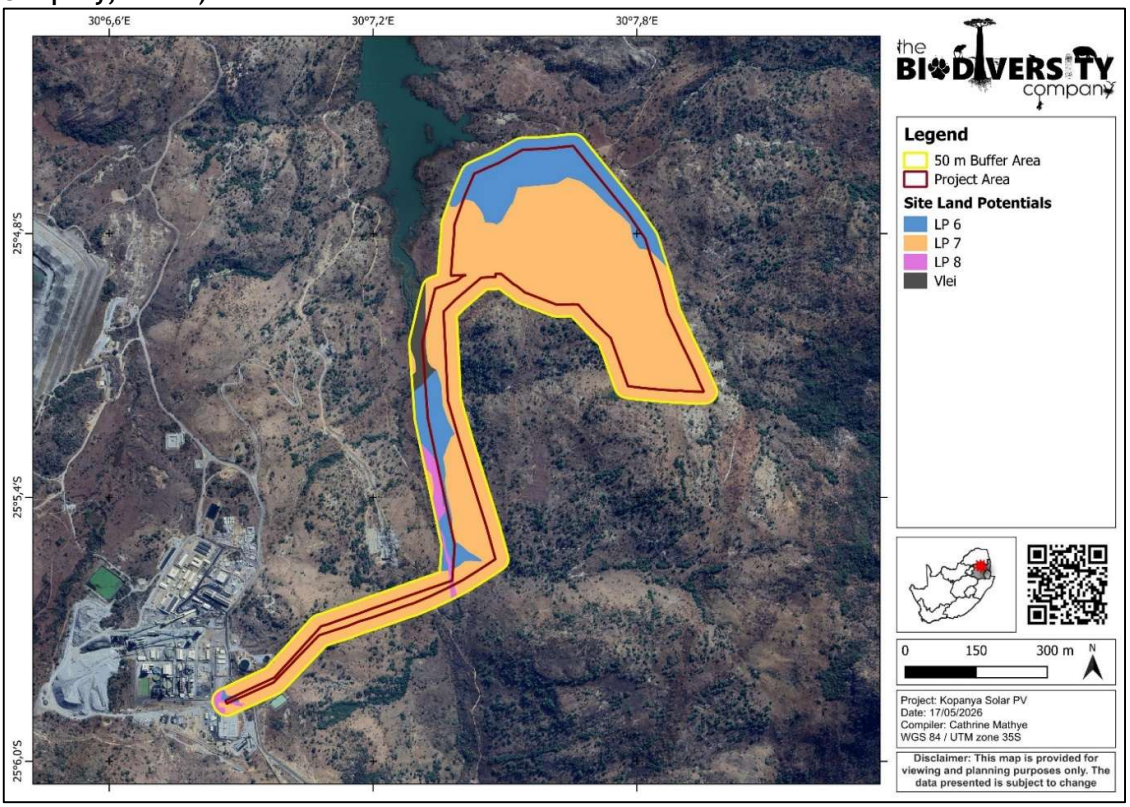


Figure 11-4: Agricultural Land Potential within the proposed Project Area and 50 m Buffer (The Biodiversity Company, 2026d)

11.5 Surface Water and Drainage

The Project area is situated predominantly within quaternary catchment B41G of the Olifants River catchment. The principal surface water feature within the broader receiving environment is the Groot Dwars River, which drains the surrounding mountainous terrain and receives runoff from tributaries and smaller drainage features. Historical hydrological investigations undertaken for the Booysendal mining area indicate a mean annual rainfall of approximately 722 mm and mean annual runoff of approximately 66 mm for quaternary catchment B41G (GCS, 2009).

The drainage network comprises the perennial Groot Dwars River, non-perennial drainage lines and localised drainage features influenced by existing mining infrastructure and historical land disturbance. Smaller drainage lines convey runoff from the surrounding hillslopes towards the main river system, particularly during and following rainfall events. Artificial drainage channels and wet areas associated with existing mining operations were also identified during the specialist verification (The Biodiversity Company, 2026c).

The mountainous terrain, steep slopes and variable soil depths influence runoff generation and sediment transport within the catchment. Areas characterised by shallow soils and exposed bedrock may experience concentrated surface runoff during intense rainfall events, while existing roads, earthworks and mining infrastructure may locally modify natural drainage patterns. These characteristics are relevant to understanding the movement of water through the Project area and its interaction with the proposed development footprint.

The Aquatic Biodiversity SSVR identified and mapped the watercourses within and surrounding the Project area, together with recommended precautionary buffer zones. An initial 32 m buffer was identified around natural watercourses, as illustrated in **Figure 11-5** (The Biodiversity Company, 2026c).

The mapped drainage features and their associated buffers provide a spatial reference for understanding the relationship between the proposed development area and the existing freshwater environment. The 32 m buffer represents an initial precautionary measure, subject to refinement through the relevant specialist investigations.

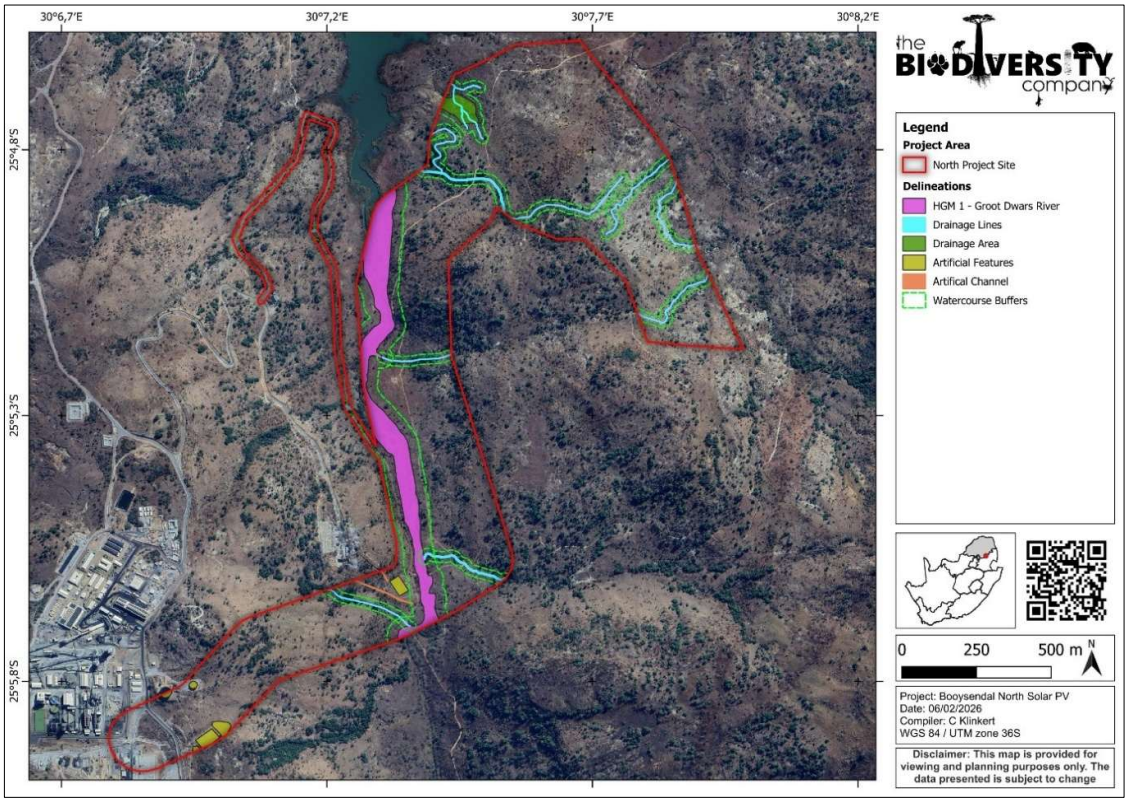


Figure 11-5: Identified Watercourses and Recommended Freshwater Buffer Zones within and Surrounding the Project area (The Biodiversity Company, 2026c)

11.6 Wetlands and Aquatic Ecosystem Functioning

The freshwater environment within and surrounding the Project area includes wetland habitats associated with the Groot Dwars River, non-perennial drainage features and artificial wet areas associated with historical mining activities. These systems contribute to the ecological functioning of the broader catchment through water conveyance, sediment retention, water quality regulation and the provision of aquatic and riparian habitats. Their functioning is influenced by seasonal rainfall, topography, soil characteristics and the movement of surface and subsurface water through the landscape (The Biodiversity Company, 2026c).

Historical freshwater investigations undertaken within the broader Booysendal mining area indicate that sections of the Groot Dwars River and associated wetland systems have experienced modification as a result of mining activities, infrastructure development and other land use disturbances. Despite these historical disturbances, the freshwater systems continue to contribute to hydrological connectivity and ecological functioning within the catchment.

Wetland functioning is closely associated with the surrounding terrestrial environment, particularly the movement of water through soil profiles and along hillslopes. Soil depth, permeability, underlying bedrock and slope gradients influence infiltration, lateral subsurface flow and the accumulation of water in lower-lying areas. These processes contribute to the maintenance of

wetland hydrology and demonstrate the importance of considering freshwater ecosystems within their broader catchment context (The Biodiversity Company, 2026c).

Changes to vegetation cover, soil profiles, surface runoff and subsurface drainage may affect wetland functioning, even where development activities do not directly intersect a freshwater feature. The EIA Phase will therefore consider potential effects on wetland hydrology, sedimentation, water quality and ecological connectivity, with particular attention to infrastructure located near freshwater features and associated drainage pathways.

11.7 Terrestrial Biodiversity and Ecology

11.7.1 Regional Vegetation

The Project area falls within the Sekhukhune Mountain Bushveld vegetation type, which forms part of the Savanna Biome. This vegetation is associated with the distinctive geology and mountainous terrain of the Sekhukhune region and is characterised by indigenous trees, shrubs, grasses, succulents and herbaceous plants. Vegetation composition and structure vary according to slope, soil depth, underlying geology, rock cover and moisture availability, resulting in a diversity of habitats across the landscape (The Biodiversity Company, 2026a).

Sekhukhune Mountain Bushveld supports important botanical diversity, including endemic and range-restricted plant species associated with specialised geological and soil conditions. Rocky slopes, outcrops and shallow soils provide distinctive microhabitats, while vegetation associated with natural drainage features contributes to habitat diversity and ecological connectivity. These characteristics contribute to the conservation importance of the remaining natural vegetation within the broader Sekhukhune landscape.

The Project area comprises a combination of natural and modified vegetation. Relatively intact Mountain Bushveld occurs across portions of the mountainous terrain, while other areas have been altered by existing mining infrastructure, roads and historical land disturbance. The ecological condition of these areas varies according to the extent of disturbance, vegetation composition and the retention of natural habitat features (The Biodiversity Company, 2026a).

11.7.2 Terrestrial Habitats and Ecological Condition

The terrestrial biodiversity investigations identified several habitat types within the Project area, including Mountain Bushveld, riverine habitats, natural drainage features, Degraded Bushveld, artificial water resources and modified areas. These habitats differ in vegetation structure, species composition, ecological condition and their contribution to broader ecological processes (The Biodiversity Company, 2026a).

Mountain Bushveld occurs predominantly on natural slopes and rocky terrain and supports indigenous vegetation associated with the region's geological and topographical characteristics. Rocky outcrops and areas of relatively undisturbed vegetation provide habitat for terrestrial fauna, while riverine vegetation associated with the Groot Dwars River and other drainage features contributes to habitat connectivity and supports species associated with riparian environments.

Degraded Bushveld comprises areas where historical disturbance has altered vegetation structure or composition, although elements of the natural vegetation remain. Modified areas include existing roads, mining infrastructure and other substantially transformed land where natural habitat has been reduced or replaced. Artificial water resources associated with mining activities also form part of the existing landscape and may provide localised habitat for certain species (The Biodiversity Company, 2026a).

The distribution of these habitats is illustrated in **Figure 11-6**. The distinction between natural, degraded and modified habitats provides an important basis for understanding the ecological characteristics of the Project area.

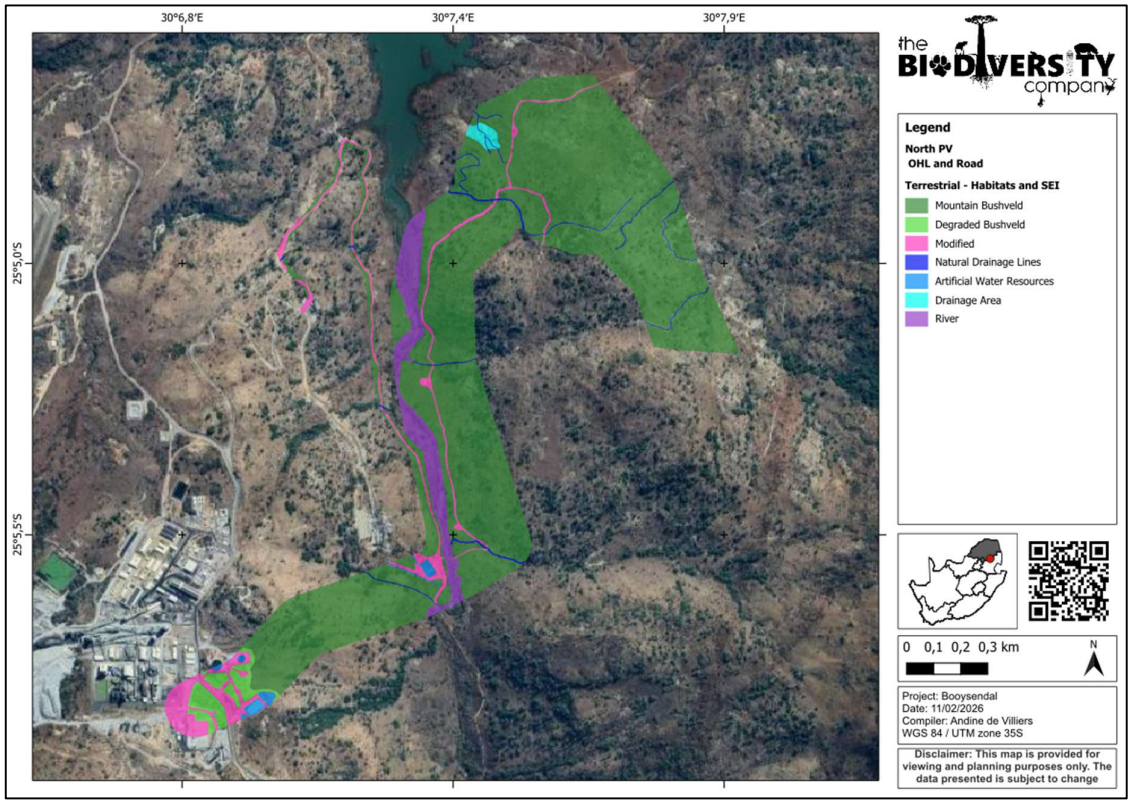


Figure 11-6: Terrestrial Habitat Types within the proposed Project area (The Biodiversity Company, 2026a)

11.7.3 Flora and Plant Species of Conservation Concern

The natural vegetation within the Project area supports a diversity of indigenous plant species, including protected and threatened species associated with Sekhukhune Mountain Bushveld. Botanical investigations recorded 94 plant species within the broader assessment area, with plant species of conservation concern occurring predominantly within natural Mountain Bushveld habitat (The Biodiversity Company, 2026a).

Species recorded during the investigations include *Aloe barbara-jeppeae* (Tree Aloe), *Lydenburgia cassinoides* (Sekhukhune Bushwillow) and *Xerophyta rehmannii* (Rehmann's Xerophyta), together

with an Endangered sensitive plant species whose identity has been withheld for conservation purposes. The occurrence of these species reflects the botanical importance of the remaining natural vegetation, particularly rocky habitats and areas characterised by specialised soil and geological condition (The Biodiversity Company, 2026a).

In addition to supporting individual species of conservation concern, natural vegetation contributes to ecosystem functioning through soil stabilisation, nutrient cycling, habitat provision and the maintenance of ecological connectivity. The removal or fragmentation of vegetation may affect these processes, particularly where development activities extend into relatively intact habitats.

The recorded plant species of conservation concern are associated primarily with natural Mountain Bushveld, highlighting the botanical importance of the remaining relatively intact habitats within the Project area.

11.7.4 Terrestrial Fauna

The Project area provides habitat for terrestrial fauna associated with Mountain Bushveld, rocky outcrops, riverine vegetation and natural drainage corridors. Habitat availability and species distribution are influenced by vegetation condition, topography, water resources and the extent of existing disturbance. Relatively undisturbed bushveld provides foraging and shelter opportunities, while rocky slopes and outcrops offer microhabitats for reptiles and smaller mammals.

The terrestrial biodiversity investigations recorded eight common mammal species and identified suitable habitat for additional species of conservation concern. Although threatened terrestrial fauna were not confirmed during the field investigations, the specialist identified habitats potentially suitable for threatened mammal and reptile species (The Biodiversity Company, 2026a).

Riverine vegetation and natural drainage corridors contribute to ecological connectivity by providing potential movement routes between habitats. The retention of these connections is particularly relevant within a landscape where existing mining infrastructure and other disturbances have altered portions of the natural environment.

The availability of natural bushveld, rocky habitats and drainage corridors contributes to the suitability of the Project area for terrestrial fauna, notwithstanding the existing mining-related disturbance.

11.7.5 Avifauna

The Project area contains a range of habitats potentially suitable for bird species, including Mountain Bushveld, rocky slopes, riverine vegetation, natural drainage features and modified areas. Habitat suitability varies according to vegetation structure, topography, water availability and the extent of existing disturbance. Natural bushveld provides opportunities for foraging, nesting and roosting, while rocky outcrops and elevated terrain may support species associated with mountainous landscapes (The Biodiversity Company, 2026b).

Riverine habitats and water resources contribute additional habitat diversity and may provide

movement corridors for birds within the broader landscape. The avifaunal verification considered the potential occurrence of species of conservation concern and the ecological importance of habitats within the proposed development area. The findings indicate that habitat suitability and ecological importance vary spatially, with natural habitats generally providing greater ecological value than substantially modified areas (The Biodiversity Company, 2026b).

The proposed overhead power line infrastructure introduces additional considerations relating to potential bird collisions and electrocution, particularly where power lines traverse natural habitats or areas used by sensitive bird species.

The existing distribution of avifaunal habitats and potential occurrence of species of conservation concern provide the baseline against which the proposed PV and overhead power line infrastructure will be assessed.

11.7.6 Ecological Sensitivity and Conservation Importance

The Project area occurs within a landscape containing important terrestrial biodiversity features, including natural Sekhukhune Mountain Bushveld, riverine habitats and areas recognised through regional biodiversity conservation planning. The terrestrial biodiversity investigations identified ecologically important landscape features, including Critical Biodiversity Areas and the broader Steelpoort Key Biodiversity Area (The Biodiversity Company, 2026a).

The specialist verification identified differences in ecological sensitivity across the Project area, reflecting variations in habitat condition, species occurrence and ecological functioning. Natural Mountain Bushveld was assigned Very High sensitivity because of its relatively intact condition, ecological importance and the presence of plant species of conservation concern. Riverine habitats were assigned High sensitivity because of their ecological functioning, habitat connectivity and potential to support sensitive fauna (The Biodiversity Company, 2026a).

Degraded Bushveld and modified areas generally exhibit lower ecological integrity than relatively intact natural habitats, although their ecological importance depends on the extent of disturbance and the retention of natural vegetation and habitat features. The presence of existing mining infrastructure does not eliminate the conservation importance of remaining natural habitats, which continue to support indigenous biodiversity and ecological processes within the broader landscape.

The spatial distribution of terrestrial biodiversity features and the specialist-verified ecological sensitivity is illustrated in **Figure 11-7**. The sensitivity mapping demonstrates the spatial variation in ecological importance across the Project area and identifies the remaining natural habitats as important components of the broader biodiversity landscape.

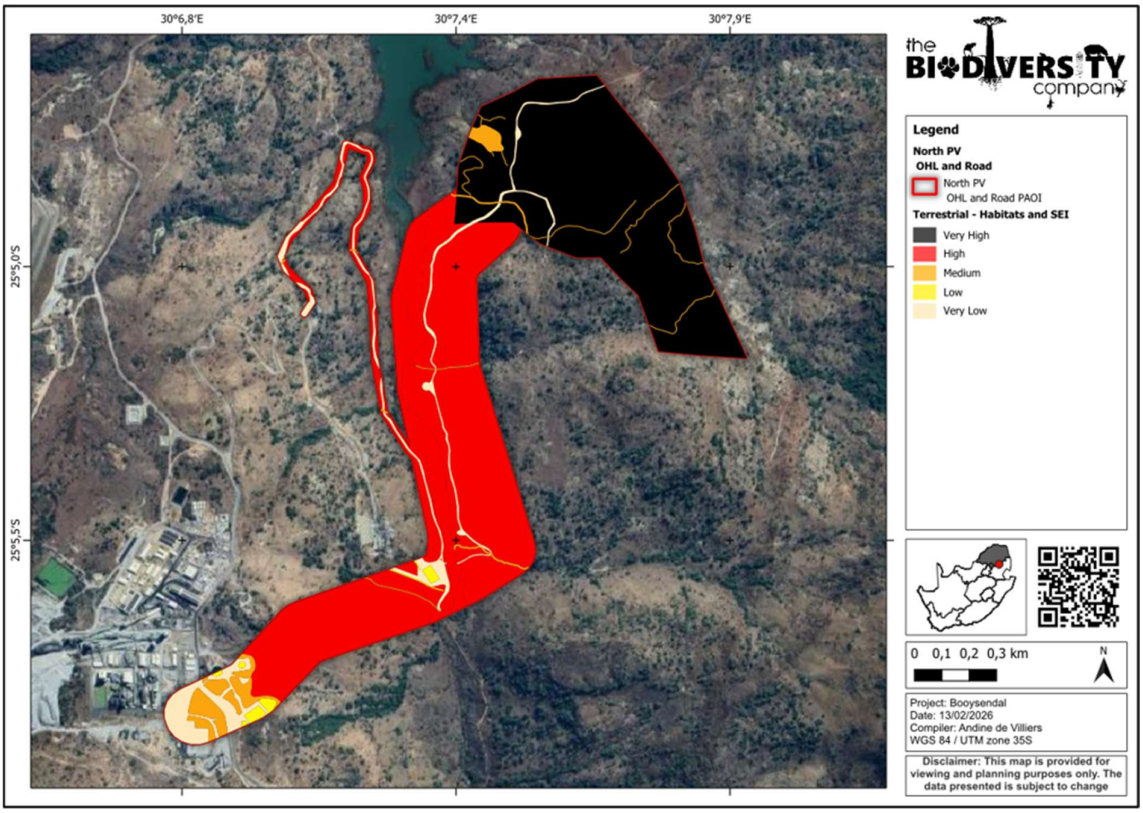


Figure 11-7: Terrestrial Habitat Site Ecological Importance within the proposed Project area (The Biodiversity Company, 2026a)

11.8 Existing Noise Environment

The existing acoustic environment within and surrounding the Project area is influenced by a combination of mining activities, road traffic and natural background sounds. Mining-related noise sources include operational machinery, ventilation infrastructure, vehicle movements and associated industrial activities. Natural background sounds, including wind, birds and insects, also contribute to the ambient acoustic environment, particularly in areas removed from active mining infrastructure.

Historical noise investigations undertaken within the broader Booysendal mining area identified residential receptors in and around the Groot Dwars River valley. Ambient noise conditions vary according to the proximity of mining infrastructure, local traffic movements, topography and prevailing environmental conditions. The mountainous terrain influences the propagation of sound, with ridgelines and valley slopes providing varying degrees of acoustic screening, depending on the relative positions of noise sources and receptors.

The existing acoustic environment therefore varies between areas influenced by active mining operations and locations where natural background sounds predominate. The distribution of surrounding residential receptors and the screening effects of the mountainous terrain are important characteristics of the receiving environment.

11.9 Existing Road Network and Traffic

The Project area is served by the existing regional and local road network associated with the Booysendal mining operations, including the R577 and connecting provincial, local and Mine access roads. These routes accommodate a combination of mining-related traffic, employee transport, service vehicles and general community movements. The existing Mine access infrastructure provides established transport routes within the broader area, although the suitability of individual roads for construction-related traffic will depend on their condition, capacity and the final access arrangements.

Historical traffic investigations undertaken within the broader Booysendal mining area identified road condition, traffic safety and interactions between heavy mining vehicles and other road users as relevant considerations. Local road conditions may be influenced by heavy vehicle movements, road surface characteristics, steep terrain and seasonal rainfall, particularly where drainage infrastructure is limited. These factors may affect accessibility and road safety during periods of increased traffic activity.

The existing road network provides access to the mining operations and surrounding communities, with traffic conditions influenced by heavy vehicle movements, road characteristics and the mountainous terrain. These conditions form the baseline for assessing the potential transport-related effects of the proposed development.

11.10 Social and Economic Environment

11.10.1 Regional Socio-Economic Context

The proposed Project is situated within an established mining region characterised by platinum group metal mining, associated industrial activities, rural settlements and traditional communities. Mining and its supporting industries contribute to regional employment, infrastructure development and economic activity, while the surrounding landscape also supports livestock grazing, small-scale agriculture and other livelihood activities. The interaction between mining operations, rural communities and traditional land uses forms an important part of the regional socio-economic setting.

Historical socio-economic investigations undertaken within the broader Booysendal mining area identified several surrounding communities, including Phetla, Shaga, Choma and Stageng/Makua. These settlements provide historical context regarding community distribution and social conditions within the mining landscape.

The regional economy is influenced by mining and associated services, while household livelihoods may also depend on informal trading, subsistence agriculture, livestock and the use of natural resources. Employment opportunities, access to land and community infrastructure are therefore important considerations in understanding the socio-economic characteristics of the receiving environment.

11.10.2 Population and Settlement Characteristics

Settlement patterns within the broader Booysendal area are characterised by dispersed rural communities and residential areas associated with traditional settlements. The distribution of settlements is influenced by the mountainous terrain, road accessibility, availability of water, land tenure arrangements and proximity to employment opportunities. Residential areas occur alongside natural landscapes, agricultural activities and existing mining infrastructure.

Historical community investigations identified extended-family household structures and a relatively young population within the communities surveyed. Sepedi and isiNdebele were identified among the languages spoken within the broader study area, reflecting the cultural diversity of surrounding communities.

The distribution of settlements, community facilities and traditional authority areas forms an important component of the social receiving environment. Historical information will be supplemented through stakeholder engagement to establish the current characteristics of potentially affected communities.

11.10.3 Land Use, Land Tenure and Livelihoods

Land use within the broader Project area comprises existing mining operations, natural vegetation, livestock grazing, small-scale cultivation and settlement-related activities. The surrounding landscape includes areas subject to traditional and communal land use arrangements, together with other forms of landholding. Land use is influenced by the mountainous terrain, accessibility and the availability of suitable land for settlement and agricultural activities.

Historical socio-economic investigations identified livestock ownership, subsistence cultivation and the collection of natural resources, including firewood and medicinal plants, as activities contributing to household livelihoods. Access to grazing areas, water resources and natural vegetation may therefore have economic, social and cultural significance for surrounding communities.

The proposed Project will be considered in relation to existing land uses, land tenure arrangements and established access routes. The EIA Phase will assess potential interactions with grazing activities, resource utilisation and other livelihood practices, where relevant to the proposed development footprint and associated infrastructure.

11.10.4 Community Infrastructure and Services

The broader region is served by provincial and local roads, community facilities and infrastructure associated with existing mining operations. Access to essential services varies between settlements, particularly in rural areas where topography, distance and infrastructure availability may influence access to water, sanitation, electricity, healthcare, education and transport.

Historical socio-economic investigations identified challenges relating to reliable water supply, sanitation and transport infrastructure in certain communities within the broader Booysendal area.

Rivers, springs and other local water sources were also identified as important for domestic use, livestock watering and small-scale agricultural activities in some of the communities surveyed. These findings highlight the historical relationship between community livelihoods, infrastructure provision and the surrounding natural environment.

11.10.5 Employment and Local Economic Opportunities

Mining and associated industries are important sources of employment and economic activity within the broader region. Nevertheless, historical socio-economic investigations identified unemployment, limited livelihood diversification and access to economic opportunities as concerns within surrounding communities. These conditions may influence community expectations regarding employment, procurement and other potential benefits associated with new developments.

Previous stakeholder engagements associated with renewable energy developments in the broader area highlighted community interest in local employment, skills development and procurement opportunities. Stakeholders also emphasised the importance of transparent communication regarding recruitment processes, eligibility requirements and opportunities for local businesses to participate in project activities.

Employment availability, access to economic opportunities and expectations regarding local participation in development projects are therefore important characteristics of the surrounding socio-economic environment.

11.11 Heritage and Cultural Environment

11.11.1 Historical and Cultural Landscape

The broader Booysendal and Dwarsrivier landscape has a long history of human occupation and land use, encompassing Stone Age activity, Iron Age settlement, historical farming and early mining exploration. The archaeological record of the surrounding Steelpoort and Olifants River valleys reflects successive periods of occupation, with evidence of prehistoric stone-tool industries, Iron Age agricultural communities and later historical settlement. The availability of water, rocky shelters, natural resources and suitable grazing and cultivation areas influenced settlement patterns and the distribution of heritage resources (Wits Heritage Contracts Unit, 2009).

Historical investigations identified the Late Iron Age as a particularly important component of the regional archaeological landscape. Archaeological evidence includes stone-walled settlements, ceramic material, grinding stones and shelters associated with past occupation. The 2009 assessment also records the historical presence of Pedi and Roka communities in the region, together with later European settlement and mining exploration associated with the discovery of platinum during the early twentieth century. These successive periods of occupation have contributed to a cultural landscape containing archaeological, historical and burial resources (Wits Heritage Contracts Unit, 2009).

The heritage assessment undertaken in August 2009 for the historical Booysendal Platinum Mine development on the farms Booysendal 43 JT and Der Brochen 7 JT identified 31 sites of heritage

significance. These included Late Iron Age occupation sites, archaeological findspots, a cemetery, historical dwellings and mining-related features (Wits Heritage Contracts Unit, 2009). The historical survey covered the mining development area assessed at the time and should not be interpreted as a comprehensive survey of the current proposed Project development footprint.

11.11.2 Archaeological and Historical Resources

The archaeological environment of the broader Booysendal area includes resources associated with the Stone Age, Iron Age and historical periods. The 2009 Archaeological Impact Assessment identified a moderate potential for archaeological and cultural heritage resources within its historical study area, with Late Iron Age remains considered particularly likely to occur. Stone Age resources, including Middle and Later Stone Age artefacts, were also recognised as possible, particularly in association with rocky shelters and suitable occupation areas (Wits Heritage Contracts Unit, 2009).

The historical field survey recorded eight Late Iron Age sites, including rock shelters containing ceramic fragments, stone-walled enclosures and associated occupation material. One recorded site comprised a stone-walled cattle enclosure approximately 20 m in diameter, with ceramic material and grinding features. The assessment also identified historical dwelling remains, former mining shafts and associated archaeological material, reflecting the range of activities undertaken within the landscape over time (Wits Heritage Contracts Unit, 2009).

The historical assessment identified a number of heritage resources that were potentially affected by the mining layout assessed in 2009 and recommended site-specific measures, including preservation, recording, archaeological investigation and monitoring where required. These findings provide an important reference for the current Project. The recorded sites demonstrate the archaeological and historical importance of the broader Booysendal landscape, although their relationship to the current development footprint requires confirmation.

11.11.3 Graves and Burial Grounds

Graves and burial grounds represent an important component of the cultural heritage environment within the broader Booysendal landscape. The 2009 Archaeological Impact Assessment recorded a cemetery designated Site 31, comprising at least five graves aligned approximately east–west. The site was associated with nearby stone enclosures, a cattle kraal and midden deposits. The specialist recommended preservation of the cemetery, with fencing, continued family access and a minimum 10 m protective buffer in the context of the historical mining development (Wits Heritage Contracts Unit, 2009).

A separate community graves investigation was undertaken on 21 October 2009, during which community representatives assisted in identifying ancestral burial locations within the broader Booysendal area. The investigation documented numerous family graves and burial locations, including marked graves, stone-covered graves and sites where burial evidence was difficult to distinguish because of vegetation growth or historical disturbance. The records also identified burial sites associated with former homesteads and areas of traditional occupation (Wits Heritage

Contracts Unit, 2009).

These investigations demonstrate that burial resources within the broader landscape may not be limited to formally established cemeteries or clearly visible grave markers. Community knowledge, family histories and oral accounts are therefore important sources of information for identifying and protecting burial grounds. The location of previously recorded graves will need to be considered in relation to the current development layout, while engagement with relevant traditional authorities, affected families and community representatives will assist in identifying any additional burial sites.

The EIA Phase will prioritise the avoidance and protection of graves and burial grounds, including the maintenance of access for affected families where relevant. Any activities that may affect burial sites will be subject to the applicable requirements of the NHRA and consultation with the relevant heritage authorities and affected parties.

11.11.4 Palaeontological Environment

The palaeontological characteristics of the Project area are influenced by the underlying geology of the Eastern Limb of the Bushveld Igneous Complex. The regional geological environment is dominated by intrusive igneous rocks, which generally have limited potential for fossil preservation. The 2009 Archaeological Impact Assessment did not establish the presence of fossil-bearing deposits within the historical mining study area, and the palaeontological context was not investigated in detail (Wits Heritage Contracts Unit, 2009).

The palaeontological potential of the current development footprint will be considered during the EIA Phase through the relevant specialist assessment. Particular attention will be given to any geological units or superficial deposits that may warrant further investigation, together with appropriate procedures for managing unexpected fossil discoveries during construction.

11.11.5 Cultural Practices and Community Heritage

The cultural environment of the broader Booysendal area includes tangible heritage resources and intangible values associated with ancestral connections, traditional settlement patterns, burial practices and customary relationships with the landscape. The historical archaeological investigations identified evidence of Iron Age settlement, livestock enclosures, domestic occupation and agricultural activities, demonstrating the longstanding relationship between communities and the surrounding natural environment (Wits Heritage Contracts Unit, 2009).

The 2009 community graves investigation further demonstrated the importance of community participation in identifying culturally significant locations. Local representatives assisted in locating family burial grounds, including graves that were unmarked, overgrown or associated with former homesteads. These findings highlight the value of oral history and local knowledge in understanding the cultural landscape, particularly where physical heritage features are difficult to identify.

The EIA Phase will consider the relationship between the proposed Project, existing land uses and culturally significant locations. Consultation with relevant traditional authorities, affected families

and surrounding communities will assist in identifying heritage resources and cultural practices that may be affected by the proposed infrastructure. Where heritage resources are identified, avoidance and protection will be prioritised, with appropriate management measures developed in consultation with the relevant heritage authorities.

11.12 Visual and Landscape Environment

The visual character of the Project area is defined by the mountainous terrain of the Eastern Limb of the Bushveld Igneous Complex, characterised by prominent ridgelines, steep rocky slopes, valleys and natural vegetation. These natural landscape features contrast with the established mining infrastructure, including processing facilities, access roads, power lines and other industrial structures. The receiving environment therefore comprises a combination of natural mountain scenery and an existing industrial landscape associated with the Booysendal mining operations.

The Landscape Site Sensitivity Verification Report identified topography as a key factor influencing the visual characteristics of the Project area. The surrounding mountains and intervening ridgelines provide natural screening, restricting views into certain portions of the development area and limiting the extent of potential visual exposure. However, elevated slopes and areas visible from surrounding valleys may be more exposed, depending on the location and elevation of proposed infrastructure and surrounding visual receptors (Donaway Environmental, 2026).

The specialist verification considered the landscape characteristics identified by the national Screening Tool and found that certain areas initially classified as having Very High sensitivity warranted a Medium classification. This was informed by the existing mining-related transformation of the landscape, the screening effects of the mountainous terrain and the characteristics of potentially affected visual receptors. The resulting landscape sensitivity reflects the relationship between natural landscape features, existing industrial development and the visibility of the Project area from surrounding locations (Donaway Environmental, 2026).

The existing visual environment is therefore characterised by varying degrees of natural landscape integrity and industrial transformation. The mountainous terrain provides screening in certain locations, while elevated ridgelines and exposed slopes remain visually prominent. These characteristics establish the baseline for assessing potential changes to landscape character and visual amenity associated with the proposed development.

12 POTENTIAL IMPACTS ON THE ENVIRONMENT AND COMMUNITY IDENTIFIED DURING THE SCOPING PHASE[53]

In accordance with Appendix 2, Regulation 2(1)(g)(vii) of the EIA Regulations, 2014, this section identifies the potential positive and negative impacts associated with the proposed Project The

[53] Required as per the EIA Regulations Appendix 2 (2) (1) (g) (vii) positive and negative impacts that the proposed activity and alternatives will have on the environment and on the community that may be affected focusing on the geographical, physical, biological, social, economic, heritage and cultural aspects.

identification of potential impacts considers the geographical, physical, biological, social, economic, heritage and cultural characteristics of the receiving environment, as well as the proposed construction, operational and decommissioning activities.

The potential impacts have been identified through consideration of the proposed development activities, the environmental baseline, the findings of the SSVRs, the alternatives under consideration and issues raised during previous stakeholder engagements. At this stage, the impacts are preliminary and will be investigated further during the EIA Phase. The assessment will consider the nature and extent of potential impacts, including cumulative effects associated with existing mining operations and infrastructure, and identify measures to avoid, minimise or manage adverse effects.

12.1 Potential Positive Impacts

12.1.1 Improved Electricity Supply Reliability and Energy Security

The proposed 25 MWac solar PV facility is intended to supplement the electricity requirements of BN Mine, reducing its dependence on grid-supplied electricity during periods of solar generation. The Project has the potential to improve electricity supply resilience and reduce exposure to electricity supply constraints and increasing electricity tariffs. Improved energy security may support continuity of mining and mineral processing operations, thereby contributing to the longer-term operational sustainability of the Mine.

12.1.2 Reduction in Greenhouse Gas Emissions and Contribution to Renewable Energy Generation

The generation of electricity from solar energy will reduce the quantity of grid-supplied electricity required by the Mine and may consequently reduce indirect greenhouse gas emissions associated with electricity consumption. The proposed Project will contribute to the diversification of the Mine's energy supply and support national objectives relating to renewable energy development and climate change mitigation. During normal operation, solar PV generation does not involve the combustion of fossil fuels, providing an environmental benefit relative to electricity generated from conventional fossil-fuel sources.

12.1.3 Employment Creation and Skills Development

The construction phase is expected to create temporary employment opportunities associated with civil works, site preparation, installation of solar panels, electrical infrastructure, access roads, security and related activities. These opportunities may benefit surrounding communities through the employment of local labour, where suitable skills and resources are available. The Project may also provide opportunities for skills development and practical experience in renewable energy construction and maintenance, although the number of permanent employment opportunities during operation is expected to be comparatively limited.

12.1.4 Local Procurement andd Economic Activity

The proposed Project may stimulate local economic activity through the procurement of

construction materials, transport, accommodation, catering, security and other supporting goods and services. Opportunities for local contractors and businesses may arise during construction and, to a lesser extent, during operation and maintenance. The extent of these benefits will depend on the final construction arrangements, procurement requirements and availability of suitable local suppliers.

12.1.5 Support for Existing Regional Economic Activity

By supplementing the Mine's electricity requirements, the proposed development may contribute indirectly to the continuity of existing mining operations and their associated economic activities. Improved electricity supply resilience and potential reductions in operating costs may assist the Mine in maintaining its contribution to regional employment, procurement and economic activity. These benefits would be indirect and should not be interpreted as a guarantee of additional employment or expansion of mining operations.

12.2 Potential Negative Impacts

12.2.1 Loss and Disturbance of Terrestrial Vegetation and Biodiversity

Construction of the solar PV facility and associated infrastructure will require vegetation clearance, earthworks and the establishment of permanent and temporary infrastructure footprints. These activities may result in the loss, degradation or fragmentation of natural Sekhukhune Mountain Bushveld and associated terrestrial habitats. The specialist investigations identified ecologically important habitats within the proposed Project area, including relatively intact Mountain Bushveld, rocky habitats and riverine vegetation. Potential impacts include the loss of indigenous vegetation, disturbance of ecological processes and reduced habitat connectivity, particularly where infrastructure extends into previously undisturbed areas.

12.2.2 Impacts on Protected and Threatened Plant Species

The terrestrial biodiversity investigations recorded plant species of conservation concern within the broader assessment area, including species associated with rocky habitats and specialised geological and soil conditions. Vegetation clearance, excavation, grading and the establishment of infrastructure may result in the direct loss or damage of individual plants and their supporting habitats. The potential effects on protected and threatened plant species will depend on their distribution relative to the final development footprint and the extent to which sensitive areas can be avoided.

12.2.3 Disturbance and Displacement of Terrestrial Fauna

Construction activities may result in the disturbance or displacement of terrestrial fauna through vegetation clearance, increased human activity, vehicle movements, noise and the alteration of natural habitats. The removal or fragmentation of vegetation may reduce the availability of shelter, breeding and foraging habitats, while construction excavations and vehicle movements may result in injury or mortality of smaller animals. The potential disruption of movement corridors associated with natural bushveld and drainage features will also require consideration.

12.2.4 Impacts on Avifauna

The proposed solar PV facility and associated overhead power lines may affect bird species through habitat loss, disturbance and the introduction of electrical infrastructure. Vegetation clearance and construction activities may affect nesting, roosting and foraging habitats, while overhead power lines may introduce collision and electrocution risks. These potential impacts are particularly relevant where infrastructure traverses natural habitats, elevated terrain or areas utilised by bird species of conservation concern. The avifaunal assessment will consider the proposed infrastructure alternatives and identify potential risks to sensitive species.

12.2.5 Impacts on Surface Water Resources, Wetlands and Aquatic Ecosystems

The proposed development may affect natural drainage features, wetlands and associated aquatic ecosystems through vegetation clearance, earthworks, access road construction, cable trenching and the establishment of overhead power line infrastructure. Activities within or near watercourses may alter natural drainage patterns, increase runoff concentration and sediment transport, or affect the physical characteristics of watercourses. Disturbance of soils and vegetation may also influence infiltration and subsurface drainage processes that contribute to wetland functioning. Accidental releases of fuels, oils, concrete wash water or other construction-related pollutants may adversely affect surface water quality. Particular consideration will be required where infrastructure intersects or approaches the Groot Dwars River, non-perennial drainage lines and associated freshwater features.

12.2.6 Soil Disturbance, Erosion and Changes to Land Capability

Construction activities, including vegetation clearance, excavation, grading and vehicle movements, may disturb natural soil profiles and increase susceptibility to erosion and sediment loss. These impacts may be more pronounced on steep slopes and in areas characterised by shallow soils and exposed bedrock. Soil compaction and changes to surface drainage may reduce infiltration and alter existing soil-water movement, while the permanent occupation of land by infrastructure may affect its future agricultural or grazing potential. The extent of these impacts will depend on the location and design of infrastructure, the scale of earthworks and the effectiveness of soil conservation and rehabilitation measures.

12.2.7 Changes to Topography, Slope Stability and Natural Drainage

The mountainous terrain of the Project area presents potential physical constraints associated with steep gradients, rocky slopes and variable soil depths. Site preparation, foundation excavations, access road construction and localised shallow blasting, where required, may result in changes to existing ground profiles and slope conditions. Earthworks and the creation of compacted or impermeable surfaces may also modify runoff pathways, potentially increasing localised erosion, sediment transport and instability where drainage is not adequately managed.

12.2.8 Visual and Landscape Impacts

The establishment of solar PV panels, supporting structures, electrical equipment, access roads and

overhead power lines will introduce additional infrastructure into a landscape characterised by natural mountainous terrain and existing mining operations. Potential visual impacts include changes to landscape character, the visibility of infrastructure from surrounding roads and settlements, and possible skyline intrusion where overhead power lines or other structures cross prominent ridgelines. Although the mountainous terrain provides natural screening in certain areas, elevated and exposed locations may remain visible from surrounding viewpoints. The cumulative visual effects of the proposed development in combination with existing mining and electrical infrastructure will require assessment.

12.2.9 Noise, Dust and Air Quality Impacts

Construction activities may generate temporary increases in noise and dust emissions associated with vegetation clearance, earthworks, excavation, localised shallow blasting where required, construction machinery and vehicle movements. Dust generated from exposed soils, access roads and material handling may affect local air quality, particularly during dry and windy conditions. Construction noise may cause temporary disturbance to surrounding receptors and fauna, while operational noise may arise from inverters, transformers and other electrical equipment. These impacts will depend on the location of infrastructure, prevailing environmental conditions and proximity to sensitive receptors.

12.2.10 Traffic, Road safety and Access Impacts

The transportation of solar panels, mounting structures, electrical equipment, construction materials and personnel may result in increased traffic volumes on existing regional, local and Mine access roads. Heavy vehicle movements may affect road safety, contribute to road surface deterioration and cause temporary delays or disruptions to other road users. The mountainous terrain, existing mining-related traffic and potential interactions with community transport routes may increase the importance of appropriate traffic management. Construction of new or upgraded access roads may also affect existing land access arrangements and local movement patterns.

12.2.11 Waste Generation and Potential Contamination

Construction activities will generate waste materials, including packaging, scrap metal, surplus construction materials, excavated material and potentially hazardous waste associated with fuels, oils and other chemicals. Inappropriate storage, handling or disposal of these materials may result in soil and water contamination, littering and localised environmental degradation. During operation, waste streams may include damaged or replaced solar panels, electrical components, maintenance materials and other equipment requiring appropriate management. The decommissioning phase may generate additional waste associated with the removal of solar PV infrastructure and supporting structures.

12.2.12 Impacts on Land Use, Access and Community Livelihoods

The proposed development may affect existing land uses and access arrangements where infrastructure occupies or crosses areas used for grazing, natural resource collection or other

livelihood activities. Construction activities and the establishment of permanent infrastructure may temporarily or permanently restrict access to portions of the landscape, depending on existing land rights and access arrangements. Potential impacts on surrounding communities may include disruption of customary land uses, changes to established movement routes and reduced access to natural resources. The extent of these effects will depend on the final development layout and the relationship between proposed infrastructure, land tenure arrangements and existing community activities.

12.2.13 Impacts on Archaeological, Historical and Palaeontological Resources

Vegetation clearance, excavation, trenching, foundation construction and access road development may disturb or damage archaeological and historical heritage resources, including stone-walled structures, occupation sites, artefacts and other remains associated with historical settlement and land use. Historical heritage investigations within the broader Booysendal area identified archaeological and historical resources, although their relationship to the current solar PV development footprint requires confirmation. Ground disturbance may also expose previously unidentified archaeological material or, where fossil-bearing deposits are present, palaeontological resources. The potential for direct or indirect impacts will be investigated through the relevant heritage and palaeontological assessments.

12.2.14 Impacts on Graves, Burial Grounds and Cultural Heritage

The broader Booysendal landscape contains recorded graves and burial grounds associated with historical settlements and traditional communities. Construction activities may affect known or previously unidentified burial sites, particularly where graves are unmarked, overgrown or associated with former homesteads. Potential impacts may include physical disturbance, restricted family access and effects on the cultural and spiritual significance of burial locations. The Project may also affect culturally significant places or customary practices associated with the surrounding landscape. These matters will require consideration through heritage investigations and engagement with relevant traditional authorities, affected families and community representatives.

12.2.15 Community Health, Safety and Construction-Related Disturbance

Construction activities may introduce potential health and safety risks associated with increased vehicle movements, excavation works, heavy machinery, electrical infrastructure and the movement of construction personnel. Temporary disturbances may arise from dust, noise, traffic and changes to local access arrangements. Inadequate management of construction areas, waste, hazardous materials or public access could create risks for surrounding communities and other land users. The nature and extent of these impacts will depend on the proximity of construction activities to settlements, community facilities and existing access routes.

12.2.16 Socio-Economic Impacts and Community Expectations

Although the Project may create employment and procurement opportunities, the limited duration of construction activities and the specialised nature of certain works may constrain the extent of

direct local economic benefits. Unmet expectations regarding employment, recruitment, skills development and local procurement may contribute to community dissatisfaction or disputes. Previous stakeholder engagements highlighted the importance of transparent recruitment processes, fair access to opportunities and continued communication with surrounding communities. The potential for social impacts associated with employment expectations, stakeholder engagement and perceptions of unequal benefit distribution will therefore require consideration.

12.2.17 Cumulative Environmental and Social Impacts

The proposed development will occur within an established mining landscape containing existing roads, electrical infrastructure, industrial facilities and areas of historical land disturbance. The addition of solar PV infrastructure may contribute to cumulative habitat loss and fragmentation, landscape transformation, traffic movements and pressure on natural drainage systems. Conversely, the use of existing access routes and previously disturbed areas may provide opportunities to reduce the extent of additional disturbance. Cumulative effects will be considered in relation to existing mining activities, associated infrastructure and other reasonably foreseeable developments within the surrounding area.

The potential impacts identified during the Scoping Phase will be investigated further through the specialist studies and EIA undertaken during the EIA Phase. The assessment will consider the preferred development layout and reasonable alternatives, including alternative sites, overhead power line alignments, access routes and the no-go alternative. Particular attention will be given to opportunities to avoid sensitive habitats, watercourses, heritage resources and other environmental or social constraints before considering mitigation measures.

The findings will inform the refinement of the proposed development layout, the assessment of potential residual impacts and the preparation of the EMPr

13 PLAN OF STUDY FOR THE ENVIRONMENTAL IMPACT ASSESSMENT PROCESS[54]

The purpose of the EIA Phase is to thoroughly investigate the potential negative and positive impacts of the Project's activities on the environment. This phase involves quantifying the potential impacts to evaluate their significance and the extent to which they may affect the receiving environment.

The objectives of the EIA Phase are to:

- Ensure comprehensive consideration of impacts: assess both the biophysical and socio-economic impacts of the Project to inform the decision-making process.
- Minimise environmental harm: propose management and mitigation measures to avoid or reduce significant negative impacts, ensuring that Project activities do not have a substantial detrimental effect on the environment.

[54]Required as per the EIA Regulations Appendix 2 (2) (1) (h) a plan of study for undertaking the environmental impact assessment process to be undertaken.

- Facilitate stakeholder engagement: inform I&APs about the Project and the PPP that will be followed.
- Provide a platform for public input: offer I&APs the opportunity to voice their concerns and contribute to the assessment process.
- Enable informed decision-making: provide authorities with a robust process that ensures environmental and social considerations are integrated into their decisions, meeting their obligations to safeguard both the environment and the affected communities.

13.1 Description of Alternatives to be Considered, Including the No-Project Option

The alternatives identified during the Scoping Phase are described in Section 7 of this Report. These include the preferred development site, an alternative site, overhead power line alignments, access road alternatives, technology alternatives and the no-go alternative.

The EIA Phase will further evaluate these alternatives in relation to the environmental sensitivities, technical requirements and potential impacts identified through the specialist investigations. Particular consideration will be given to the avoidance of sensitive habitats, watercourses, heritage resources and areas where construction may result in unnecessary disturbance. Additional alternatives or refinements to the proposed layout may be considered where supported by specialist findings or stakeholder input.

The no-go alternative will provide the baseline against which the potential environmental and socio-economic consequences of proceeding with the Project can be compared.

13.2 Description of the Aspects to be Assessed as Part of the Environmental Impact Assessment

The EIA will assess the potential impacts identified during the Scoping Phase, taking into account the characteristics of the receiving environment, the proposed infrastructure and the findings of the specialist studies.

The assessment will focus on the following environmental and socio-economic aspects:

- Terrestrial biodiversity: Potential loss and fragmentation of natural vegetation, disturbance of sensitive habitats and impacts on protected, endemic or threatened plant and animal species.
- Avifauna: Potential loss of bird habitats, disturbance during construction and collision or electrocution risks associated with overhead electrical infrastructure.
- Freshwater ecosystems: Potential impacts on wetlands, watercourses, drainage patterns, freshwater ecological functioning and water quality arising from construction and operational activities.
- Soils and agricultural resources: Soil disturbance, compaction, erosion, changes to soil-water

movement and potential loss of agricultural or grazing potential.

- Landscape and visual character: Changes to the existing landscape resulting from solar panels, associated electrical infrastructure, access roads and overhead power lines.
- Heritage and cultural resources: Potential disturbance of archaeological sites, historical features, graves, burial grounds and other culturally significant resources.
- Palaeontological resources: Potential disturbance of fossil heritage associated with excavation and other ground-disturbing activities.
- Social and economic environment: Potential employment and procurement benefits, impacts on existing land uses and access arrangements, community safety, construction-related disturbance and stakeholder concerns.
- Construction and operational impacts: Potential effects associated with dust, noise, traffic, waste generation, stormwater runoff and the handling of hazardous materials.
- Closure and rehabilitation: Potential impacts associated with infrastructure removal, waste management, soil rehabilitation, revegetation and post-closure land use.

The assessment will consider direct, indirect and cumulative impacts, including potential interactions with existing mining activities and infrastructure. The findings will be used to determine the significance of identified impacts before and after mitigation and to establish appropriate environmental management requirements.

13.3 Description of Aspects to be Assessed by Specialists

Specialist investigations will be undertaken to address the environmental themes identified during the Scoping Phase and to provide the technical information required for the assessment of potential impacts. The studies will combine desktop reviews, field investigations, spatial analysis and impact assessments, as appropriate to the relevant discipline.

The specialist findings will inform the evaluation of development alternatives, refinement of the proposed infrastructure layout and identification of mitigation and monitoring measures for incorporation into the EMPr.

13.3.1 Agricultural Potential Assessment

The Agricultural Potential Assessment will evaluate existing land uses, soil characteristics, land capability and agricultural potential within the proposed development area and associated infrastructure corridors. The assessment will include a review of available agricultural and spatial information, supported by aerial imagery interpretation and field verification. Existing land uses, including cultivated areas, grazing land, natural vegetation, mining areas, built-up areas and waterbodies, will be identified and mapped.

The assessment will consider potential impacts associated with the loss or disturbance of agricultural land, changes to land capability and restrictions on existing agricultural activities arising from the proposed development. The findings will inform the evaluation of development alternatives and provide recommendations to minimise impacts on agricultural resources, including appropriate soil conservation, rehabilitation and land management measures.

13.3.2 Hydropedological Assessment

The Level 2 Hydropedological Assessment will investigate the soil characteristics and hydrological processes within the proposed development area, with particular emphasis on the movement of water through the soil profile and the interaction between surface water, subsurface flow and freshwater ecosystems. The assessment will include desktop investigations and field-based soil surveys to identify and classify soil forms, assess soil drainage characteristics and determine the hydrological functioning of the landscape.

The assessment will identify hydrologically sensitive soils, potential subsurface flow pathways and areas susceptible to waterlogging, erosion or changes in drainage conditions. The findings will inform the assessment of potential impacts associated with vegetation clearance, earthworks, foundations, access roads and other infrastructure, and provide recommendations for infrastructure placement, stormwater management and measures to maintain natural soil-water processes.

13.3.3 Freshwater Ecology Assessment

The Freshwater Ecology Assessment will identify, delineate and assess wetlands, rivers, drainage lines and other freshwater ecosystems within the proposed development area and associated infrastructure corridors. The study will include a review of existing hydrological and ecological information, spatial analysis and field investigations to determine the extent, ecological condition, functionality and importance of identified freshwater resources.

The assessment will evaluate potential impacts associated with vegetation clearance, earthworks, access roads, cable crossings and overhead power line infrastructure, with particular consideration given to changes in surface and subsurface drainage, erosion, sedimentation, water quality and hydrological connectivity. The findings will inform the evaluation of development alternatives, determination of appropriate watercourse buffers and identification of avoidance, mitigation and management measures. The assessment will also inform the identification of potential water uses requiring authorisation under the NWA.

13.3.4 Terrestrial Biodiversity, Plant and Animal Species Assessment

The Terrestrial Biodiversity, Plant and Animal Species Assessment will investigate the vegetation communities, terrestrial habitats and plant and animal species occurring within the proposed development area and associated infrastructure corridors. The assessment will include desktop investigations and field surveys to identify, classify and delineate vegetation units, habitat types

and ecologically sensitive features, including rocky outcrops and areas supporting protected, endemic or threatened species.

The botanical assessment will identify plant species of conservation concern, including nationally and provincially protected species, and evaluate their distribution in relation to the proposed development footprint. Faunal investigations will document species recorded through direct observations and ecological indicators, including tracks, calls and other evidence of occurrence. Habitat suitability will also be assessed to determine the potential presence of threatened or protected species not detected during field surveys.

The assessment will evaluate potential impacts associated with vegetation clearance, habitat loss and fragmentation, disturbance to species of conservation concern and disruption of ecological connectivity. The findings will inform the evaluation of development alternatives, identification of sensitive habitats and species requiring protection, and development of appropriate avoidance, mitigation and management measures for the construction and operational phases.

13.3.5 Avifaunal Impact Assessment

The Avifaunal Impact Assessment will investigate bird species occurring or potentially occurring within the proposed development area and associated infrastructure corridors, with particular emphasis on species of conservation concern and habitats supporting nesting, roosting and foraging activities. The assessment will include desktop investigations and field surveys comprising standardised point counts and incidental observations to document species composition, relative abundance, habitat utilisation and flight behaviour. Raptor nests and other important avifaunal features will be identified and recorded where encountered.

The assessment will evaluate potential impacts associated with vegetation clearance, habitat loss and fragmentation, construction-related disturbance and the introduction of overhead electrical infrastructure. Particular attention will be given to potential bird collisions and electrocution risks associated with the proposed overhead power lines, including the influence of infrastructure alignment, habitat characteristics and bird movement patterns.

The findings will inform the evaluation of development alternatives, identification of sensitive avifaunal habitats and recommendations for infrastructure placement, bird-safe electrical design, mitigation and monitoring measures during construction and operation.

13.3.6 Heritage Impact Assessment

The Heritage Impact Assessment will investigate archaeological, historical and cultural heritage resources within the proposed development area and associated infrastructure corridors. The assessment will include a desktop review of previous heritage investigations, relevant literature and records available through the South African Heritage Resources Information System (SAHRIS), supported by pedestrian field surveys to identify, map and document heritage resources, including

archaeological sites, historical structures, graves, burial grounds and culturally significant features.

The assessment will evaluate the heritage significance of identified resources and potential impacts associated with vegetation clearance, earthworks, excavation, access roads and infrastructure construction. Particular attention will be given to the protection of graves and burial grounds and the potential effects on culturally significant sites. The findings will inform the evaluation of development alternatives, identification of heritage exclusion areas and appropriate avoidance, mitigation and management measures. A Chance Finds Procedure will also be developed to address previously unidentified heritage resources encountered during construction.

13.3.7 Palaeontological Impact Assessment

The Palaeontological Impact Assessment will investigate the geological setting and potential occurrence of fossil heritage within the proposed development area and associated infrastructure corridors. The assessment will include a desktop review of available geological and palaeontological information, including the palaeontological sensitivity mapping available through SAHRIS, to determine the likelihood of fossil-bearing formations occurring within the proposed development footprint.

The assessment will evaluate potential impacts on palaeontological resources associated with excavation, trenching, foundation construction and other ground-disturbing activities. The findings will establish whether further field investigations are required and inform appropriate avoidance, mitigation and management measures, including procedures for the identification and protection of previously undiscovered fossil material during construction.

13.3.8 Socio-economic Assessment

The Socio-Economic Impact Assessment will assess the potential positive and negative socio-economic impacts associated with the proposed Project, including implications for local communities, employment, economic development and livelihoods. The assessment will build on the existing Socio-Economic Impact Assessment undertaken for the Booysendal South Expansion Project in 2023, with the baseline information updated using recent demographic and economic statistics, municipal planning documents and relevant socio-economic data.

The assessment will include telephonic engagement with key stakeholders to identify changes in local socio-economic conditions, as well as economic modelling to estimate the potential direct, indirect and induced economic impacts, including employment creation and Gross Value Added. Potential impacts will be assessed in the context of the proposed solar development, with consideration given to both construction and operational activities. The findings will inform appropriate mitigation measures to minimise adverse socio-economic impacts and enhancement measures to maximise local economic and community benefits.

13.3.9 Visual Impact Assessment

The Visual Impact Assessment will evaluate the potential effects of the proposed solar (PV) facility and associated infrastructure on the surrounding landscape character and visual environment. The assessment will consider the mountainous terrain, topography, existing land uses and visual characteristics of the Project area, including the influence of existing mining infrastructure. Desktop investigations, spatial analysis and field verification will be used to identify sensitive visual receptors, important viewpoints and areas from which the proposed development may be visible.

The assessment will evaluate potential visual impacts associated with solar panels, supporting structures, access roads and overhead power lines, including changes to landscape character, visual intrusion and cumulative effects in combination with existing infrastructure. The findings will inform the evaluation of development alternatives, infrastructure placement and appropriate mitigation measures to minimise visual impacts, where practicable.

13.3.10 Closure and Rehabilitation Assessment

The Closure and Rehabilitation Assessment will evaluate the anticipated decommissioning requirements, rehabilitation obligations and potential post-closure land uses associated with the proposed solar PV facility and supporting infrastructure. The assessment will include a review of the proposed development layout, infrastructure components, anticipated disturbance areas and relevant specialist findings to establish appropriate closure assumptions and identify feasible rehabilitation options.

The assessment will consider infrastructure removal, waste management, soil rehabilitation, revegetation and the restoration of disturbed areas, including measures to address residual environmental risks following decommissioning. A high-level evaluation of closure alternatives will be undertaken, and estimated closure and rehabilitation costs will be calculated using quantified disturbance areas and applicable unit rates. The findings will inform the development of appropriate closure and rehabilitation measures for incorporation into the EMPr.

13.3.11 Integration of Specialist Findings

The findings of the specialist investigations will be integrated into the EIR to provide a consolidated assessment of the potential environmental and socio-economic impacts associated with the proposed development and its alternatives. Particular attention will be given to interactions between environmental disciplines, including the relationship between soil-water processes, freshwater ecosystems, terrestrial biodiversity, heritage resources and the proposed infrastructure layout.

The integrated findings will inform the refinement of the development footprint, identification of sensitive areas requiring avoidance or protection, and development of appropriate mitigation, rehabilitation and monitoring measures. The assessment will also consider cumulative impacts associated with existing mining operations and other developments within the surrounding area. Residual impacts will be identified and evaluated to inform the EMPr and support decision-making

by the DMPR.

13.4 Methodology for Assessing Impacts

Potential impacts will be assessed and rated using the methodology described below, which has been developed to align with the requirements of Appendix 1 of the EIA Regulations, 2014. The assessment will follow a structured approach comprising four key activities:

- Identification and assessment of potential impacts likely to result from the Project activities.
- Prediction of the nature, magnitude, extent, and duration of these impacts, with specific focus on those that may be significant.
- Identification of appropriate mitigation measures to reduce, avoid, or manage the severity or significance of the potential impacts.
- Evaluation of residual impacts to determine the significance of the impact after implementation of mitigation measures.

The assessment of significance was guided by a set of criteria, including:

- Cumulative impacts in the broader environmental and social context.
- Nature of the impact, i.e., whether it is positive, negative, direct, or indirect.
- Extent of the impact, ranging from localised to regional or national scale.
- Probability of occurrence of the impact.
- Reversibility of the impact, i.e., whether it can be restored to pre-impact conditions.
- Irreplaceability of affected resources, considering whether resources lost can be substituted or recovered.
- Potential for mitigation, i.e., the extent to which the impact can be avoided, minimised, or offset.

The evaluation of significance followed a consequence–probability approach:

Consequence = (Duration + Extent + Irreplaceability of resource) × Severity

The overall significance of an impact was then determined using the formula:

Significance = Consequence × Probability

A summary of the criteria used to assess the significance of impacts is provided in **Figure 13-1**, with detailed explanations presented in **Figure 13-2**.

Figure 13-1: Criteria and Rating Scales to be used in the Assessment of the Potential Impacts

Criteria	Rating Scales	Notes
Nature	Positive (+)	An evaluation of the effect of the impact related to the proposed development.
	Negative (-)	

Criteria	Rating Scales	Notes
Duration	Temporary (1)	The duration of the activity associated with the impact will last 0 - 6 months.
	Short-term (2)	The duration of the activity associated with the impact will last 6-18 months.
	Medium-term (3)	The duration of the activity associated with the impact will last 18 months - 5 years.
	Long-term (4)	The duration of the activity associated with the impact will last more than 5 years.
Extent	Footprint (1)	The impact only affects the area in which the proposed activity will occur.
	Site (2)	The impact will affect only the development area.
	Local (3)	The impact affects the development area and adjacent properties.
	Regional (4)	The effect of the impact extends beyond municipal boundaries.
	National (5)	The effect of the impact extends beyond more than 2 regional/ provincial boundaries.
	International (6)	The effect of the impact extends beyond country borders.
Severity	Low (1)	Where the impact affects the environment in such a way that natural, cultural, and social functions and processes are minimally affected.
	Moderate (2)	Where the affected environment is altered but natural, cultural, and social functions and processes continue albeit, in a modified way, and valued, important, sensitive, or vulnerable systems or communities are negatively affected.
	High (3)	Where natural, cultural, or social functions and processes are altered to the extent that the natural process will temporarily or permanently cease, and valued, important, sensitive, or vulnerable systems or communities are substantially affected.
Potential for impact on irreplaceable resources	No (0)	No irreplaceable resources will be impacted.
	Yes (1)	Irreplaceable resources will be impacted.
Consequence	Extremely detrimental (-25 to -33)	A combination of extent, duration, intensity, and the potential for impact on irreplaceable resources.
	Highly detrimental (-19 to -24)	
	Moderately detrimental (-13 to -18)	
	Slightly detrimental (-7 to -12)	
	Negligible (-6 to 0)	
	Slightly beneficial (0 to 6)	
	Moderately beneficial (13 to 18)	
	Highly beneficial (19 to 24)	
	Extremely beneficial (25 to 33)	
Probability (the likelihood of the impact occurring)	Improbable (0)	It is highly unlikely or less than 50% likely that an impact will occur.
	Probable (1)	It is between 50 and 70% certain that the impact will occur.
	Definite (2)	It is more than 75% certain that the impact will occur or the impact will occur.
Significance	Very High – negative (-49 to -66)	A function of Consequence and Probability.
	High – negative (-37 to -48)	
	Moderate – negative (-25 to -36)	
	Low – negative (-13 to -24)	
	Neutral - Very low (0 to -12)	
	Low positive (0 to 12)	
	Moderate - positive (13 to	

Criteria	Rating Scales	Notes
	24) High – positive (37 to 48) Very High – positive (49 to 66)	

Figure 13-2: Explanation of Assessment Criteria

Criteria	Explanation
Nature	This is an evaluation of the type of effect the construction, operation, and management of the proposed development would have on the affected environment. Will the impact of change on the environment be positive, negative, or neutral?
Extent or Scale	This refers to the spatial scale at which the impact will occur. The extent of the impact is described as footprint (affecting only the footprint of the development), site (limited to the site), and regional (limited to the immediate surroundings and closest towns to the site). The extent of scale refers to the actual physical footprint of the impact, not to the spatial significance. It is acknowledged that some impacts, even though they may be of a small extent, are of Very High importance, e.g., impacts on species of very restricted range. To avoid "double counting," specialists have been requested to indicate spatial significance under "intensity" or "impact on irreplaceable resources" but not under "extent" as well.
Duration	The lifespan of the impact is indicated as temporary, short, medium, and long-term.
Severity	This is a relative evaluation within the context of all the activities and the other impacts within the framework of the Project. Does the activity destroy the impacted environment, alter its functioning, or render it slightly altered?
Impact on irreplaceable resources	This refers to the potential for an environmental resource to be replaced should it be impacted. A resource could be replaced by natural processes (e.g., by natural colonisation from surrounding areas), through artificial means (e.g., by reseeding disturbed areas or replanting rescued species) or by providing a substitute resource, in certain cases. In natural systems, providing substitute resources is usually not possible, but in social systems, substitutes are often possible (e.g., by constructing new social facilities for those who are lost). Should it not be possible to replace a resource, the resource is essentially irreplaceable, e.g., red data species that are restricted to a particular site or habitat to a very limited extent.
Consequence	The consequence of the potential impacts is a summation of the above criteria, namely the extent, duration, intensity, and impact on irreplaceable resources.
Probability of occurrence	The probability of the impact occurring is based on the professional experience of the specialist with environments of a similar nature to the site and/or with similar projects. It is important to distinguish between the probability of the impact occurring and the probability that the activity causing a potential impact will occur. Probability is defined as the probability of the impact occurring, not as the probability of the activities that may result in the impact.
Significance	Impact significance is defined to be a combination of the consequence (as described below) and the probability of the impact occurring. The relationship between consequence and probability highlights that the impact (or impact significance) must be evaluated in terms of the seriousness (consequence) of the impact, weighted by the probability of the impact occurring. In simple terms, if the consequence and probability of an impact are high, then the impact will have a high significance. The significance defines the level to which the impact will influence the proposed development and/or environment. It determines whether mitigation measures need to be identified and implemented and whether the impact is important for decision-making.
Degree of confidence in predictions	Specialists and the environmental team were required to indicate the degree of confidence (low, medium, or high) that there is in the predictions made for each impact based on the available information and their level of knowledge and expertise. The degree of confidence is not considered in the determination of consequence or probability.

Criteria	Explanation
Mitigation measures	Mitigation measures are designed to reduce the consequence or probability of an impact or to reduce both consequence and probability. The significance of impacts has been assessed both with mitigation and without mitigation.

13.4.1 Cumulative Assessment

In terms of the EIA Regulations, 2014, cumulative impacts refer to: "*The past, current and reasonably foreseeable future impact of an activity, considered together with the impact of activities associated with that activity, that in itself may not be significant, but may become significant when added to the existing and reasonably foreseeable impacts eventuating from similar or diverse activities.*"

The cumulative impact assessment for the proposed Project will be undertaken using a structured qualitative methodology, supported where possible by quantitative indicators and spatial analysis. The purpose of the assessment is to determine the extent to which the proposed Project may contribute to existing or future environmental pressures when considered together with other developments occurring within the broader landscape.

The assessment will consider existing developments, authorised developments, and reasonably foreseeable future activities within the surrounding area that may interact with the proposed Project to create cumulative environmental effects.

13.5 The Stages at which the Competent Authority will be Consulted

The EAP will engage with the DMPR throughout the following subsequent phases:

- Application Submission and Acknowledgment: submit the application and receive a Letter of Acceptance from the DMPR.
- DSR: distribute the DSR during the public comment period to gather initial feedback and comments.
- FSR: submit the FSR to the DMPR for review and acceptance.
- Draft EIR and EMPr: distribute the Draft EIR and EMPr during the public comment period to collect comments.
- Final EIR and EMPr: submit the Final EIR and EMPr to the DMPR for review and a final decision.

13.6 Particulars of the PPP

The PPP during the EIA Phase will provide I&APs and relevant authorities with an opportunity to review and comment on the findings of the specialist investigations, assessment of potential impacts, proposed mitigation measures and EMPr.

Registered I&APs and relevant authorities will be notified of the availability of the Draft EIR and EMPr through appropriate communication channels, including e-mail, SMS and other methods where necessary. The reports will be made available for a minimum 30-day public review and comment period, in accordance with the EIA Regulations, 2014.

The Draft EIR and EMPr will be made available at the same public review locations used for the DSR, as identified in Section 10.4 of this Report. Electronic copies will also be available on the GCS website at https://www.gcs-sa.biz/public-documents/. This approach will maintain consistency and accessibility for stakeholders who participated during the Scoping Phase.

Stakeholder engagement during the EIA Phase will include targeted focus group meetings, where required, to discuss the specialist findings, development alternatives and matters raised during previous consultations. Particular attention will be given to issues concerning biodiversity, water resources, cultural heritage, graves and burial grounds, existing land uses, employment opportunities and community interests.

All comments received during the EIA Phase will be recorded and addressed in a CRR. The Draft EIR and EMPr will be updated, where necessary, to incorporate relevant stakeholder input before the Final EIR and EMPr are submitted to the DMPR for consideration. Registered I&APs will subsequently be notified of the competent authority's decision and the applicable appeal procedures.

Table 13-1: Stakeholder Engagement Activities Planned for the Environmental Impact Assessment Phase

Activity	Details
Update of Stakeholder Database	Review and update the existing stakeholder database to include additional I&APs identified during the Scoping and EIA phases.
Notification of Draft Environmental Impact Assessment Report (EIR) and Environmental Management Programme (EMPr)	Notify registered I&APs and relevant authorities of the availability of the Draft EIR and EMPr through e-mail, SMS and other appropriate communication channels.
Public Review of Draft EIR and EMPr	Make the reports available for a minimum 30-day public review period at the same public review locations used for the DSR, as identified in Section 10.4.
Online Access	Make electronic copies of the Draft EIR and EMPr available on the GCS website for the duration of the public review period.
Authority Consultation	Distribute the Draft EIR and EMPr to relevant commenting authorities for review and comment.
Focus Group Meetings	Undertake targeted stakeholder and focus group meetings, where required, to discuss specialist findings, development alternatives and key environmental and social concerns.
Comments and Responses Report	Record and respond to all comments received during the EIA Phase and consolidate these in the CRR.
Final EIR and EMPr	Update the reports to address relevant stakeholder and authority comments and submit the Final EIR and EMPr, including the CRR, to the DMPR.
Notification of Decision	Notify registered I&APs of the competent authority's decision and provide information on the applicable appeal procedures.

14 MEASURES TO AVOID, REVERSE, MITIGATE OR MANAGE IDENTIFIED IMPACTS AND THE EXTENT OF RESIDUAL RISKS THAT NEED TO BE MANAGED OR MONITORED[55]

The Scoping Phase has identified potential environmental and socio-economic impacts associated with the proposed Project. These include potential effects on terrestrial biodiversity, plant and

[55] Required as per the EIA Regulations Appendix 2 (2) (1) (ix) identify suitable measures to avoid, reverse, mitigate or manage identified impacts and to determine the extent of the residual risks that need to be managed and monitored.

animal species, avifauna, freshwater ecosystems, soils, agricultural potential, heritage resources, landscape character and surrounding land uses. The nature, significance and extent of these impacts will be investigated further during the EIA Phase through the identified specialist studies and integrated impact assessment.

The assessment will apply the mitigation hierarchy, prioritising the avoidance of sensitive environmental features and the prevention of impacts through appropriate development planning and infrastructure placement. Where impacts cannot reasonably be avoided, measures will be identified to minimise disturbance, rehabilitate affected areas and manage any remaining environmental risks. Particular consideration will be given to the protection of sensitive habitats, watercourses, protected species, heritage resources and areas susceptible to erosion or changes in drainage conditions.

The specialist assessments will identify appropriate mitigation and management measures for the construction, operational and decommissioning phases of the Project. These measures will be incorporated into the EMPr, together with relevant monitoring requirements, implementation responsibilities and performance measures.

Residual impacts will be assessed following the application of proposed mitigation measures to determine their significance and acceptability. Where residual risks remain, appropriate management, rehabilitation and monitoring requirements will be identified to inform the competent authority's decision on the proposed development.

15 OTHER INFORMATION REQUIRED BY THE COMPETENT AUTHORITY[56]

15.1 Impact on the Socio-Economic Conditions of the Directly Affected Person

The proposed Project is situated within the existing BN Mine area, where mining activities and associated infrastructure form part of the established land use context. The development of the proposed solar PV facility is intended to support electricity supply to the Mine and reduce reliance on conventional grid-supplied electricity.

Potential positive socio-economic effects include temporary employment opportunities during construction, procurement opportunities for local businesses and improved energy supply resilience for existing mining operations. The extent of these benefits will depend on the Project's implementation arrangements, procurement requirements and availability of suitably qualified local labour.

Potential adverse effects may include temporary construction-related disturbance, increased vehicle movements, noise, dust and restrictions on access to areas required for infrastructure development. The assessment will also consider potential effects on existing land uses and any community interests identified through stakeholder engagement, including concerns relating to

[56] Required as per the EIA Regulations Appendix 2 (2) (1) (l) any other matter required in terms of section 24 (4) (a) and (b) of the Act.

access, cultural heritage and graves or burial grounds.

The socio-economic implications of the proposed development will be considered further during the EIA Phase, taking account of specialist findings and comments received from I&APs. Appropriate measures will be identified to minimise adverse effects and support potential socio-economic benefits, where practicable.

15.2 Impact on any National Estate Referred to in Section 3(2) of the National Heritage Resources Act

The NHRA, provides for the identification, protection and management of heritage resources forming part of the national estate. These may include archaeological and palaeontological resources, historical structures, graves and burial grounds, cultural landscapes and places of cultural or historical significance.

The proposed development may result in disturbance to heritage resources through vegetation clearance, earthworks, trench excavation, foundation construction and the installation of associated infrastructure. The presence, location and significance of heritage resources within the proposed development footprint will be investigated through the Heritage Impact Assessment and Palaeontological Impact Assessment.

The assessments will identify heritage resources requiring protection and evaluate the potential impacts of the proposed development. Where heritage resources are identified, appropriate avoidance, mitigation and management measures will be recommended in consultation with the relevant heritage authorities, as required. Provision will also be made for the management of previously unidentified heritage or fossil material encountered during construction through appropriate Chance Finds Procedures.

The findings of these investigations will be incorporated into the EIR and EMPr to ensure that heritage considerations are adequately addressed in development planning and environmental management.

15.3 Other Matters Required in terms of Sections 24 (4)(a) and (b) of the Act

The environmental assessment process will be undertaken in accordance with the NEMA, and the EIA Regulations, 2014. The process will provide for the identification and assessment of potential environmental impacts, consideration of reasonable and feasible alternatives, public participation and the development of appropriate environmental management measures.

The EIA Phase will include an assessment of the potential direct, indirect and cumulative impacts associated with the proposed development, taking into account the existing mining operations and other relevant activities within the surrounding area. The assessment will also consider the environmental implications of the proposed infrastructure layout, the no-go alternative and other reasonable and feasible alternatives identified during the Scoping Phase.

The specialist findings, stakeholder comments and proposed mitigation measures will be

consolidated into the EIR and EMPr. These documents will provide the DMPR with the information necessary to evaluate the potential environmental consequences of the Project and determine whether EA may be granted, subject to appropriate conditions.

16 PERIOD FOR WHICH THE ENVIRONMENTAL AUTHORISATION IS REQUIRED

The EA is sought for the life of the proposed Project, encompassing the construction, operation and eventual decommissioning of the solar PV facility and associated infrastructure.

The EA is requested to remain valid for the operational life of the Project, including any necessary maintenance, refurbishment and replacement of infrastructure, subject to the conditions of the authorisation and applicable legislative requirements. Upon cessation of operations, decommissioning and rehabilitation will be undertaken in accordance with the approved EMPr and relevant regulatory requirements.

17 CONCLUSION AND WAY FORWARD

17.1 Conclusion

The Scoping Phase has identified the principal environmental and socio-economic issues requiring consideration in the assessment of the proposed Project at BN Mine. The identification of these issues has been informed by available environmental information, preliminary specialist investigations, the existing mining and land use context, and the PPP.

The proposed development presents an opportunity to support the electricity requirements of the existing mining operation through renewable energy generation. However, the construction and operation of the solar PV facility and associated infrastructure may result in environmental impacts requiring further investigation, particularly in relation to terrestrial biodiversity, avifauna, freshwater ecosystems, soils, heritage resources and visual impacts. These matters will be addressed through the specialist investigations and integrated impact assessment undertaken during the EIA Phase.

The purpose of the Scoping Phase is to identify the key environmental issues, determine the scope of further investigations and establish an appropriate approach for assessing the potential impacts of the proposed development. Accordingly, the significance of identified impacts and the effectiveness of proposed mitigation measures will be evaluated in greater detail during the EIA Phase.

The Plan of Study for the EIA provides the framework for the required specialist investigations, assessment of alternatives, evaluation of potential impacts and continued stakeholder engagement. The outcomes of these investigations will inform the EIR and EMPr and provide the DMPR with the information necessary to make an informed decision regarding the proposed development.

17.2 Way Forward

The DSR will be made available to registered I&APs and relevant commenting authorities for a

minimum 30-day public review and comment period. The Report will be accessible electronically through the GCS website and at the identified public review locations. All comments received during this period will be recorded and addressed in a CRR, which will be incorporated into the FSR.

Following completion of the public review process, the FSR, including the Plan of Study for the EIA, will be submitted to the DMPR for consideration. Subject to acceptance of the FSR, the specialist investigations and EIA will be completed in accordance with the accepted Plan of Study and any additional requirements communicated by the DMPR.

The findings of the specialist assessments will be consolidated into the Draft EIR and EMPr, which will be made available for a further minimum 30-day public review and comment period. Stakeholder engagement during this phase will include targeted consultations and focus group meetings, where required, to address the assessment findings, development alternatives and environmental or socio-economic concerns raised during the process.

Comments received on the Draft EIR and EMPr will be considered and addressed, and the reports will be updated accordingly. The Final EIR and EMPr, together with the CRR and supporting specialist reports, will then be submitted to the DMPR for consideration and decision-making. Registered I&APs will be notified of the competent authority's decision and the applicable appeal procedures.

18 UNDERTAKING OR AFFIRMATION BY THE ENVIRONMENTAL ASSESSMENT PRACTITIONER[57]

I, Paula Tolksdorff, declare that:

- I confirm that the information provided in this Report is correct and accurate to the best of my knowledge.
- I will ensure that all relevant information pertaining to the application is distributed or made available to I&APs and the public. Furthermore, I will facilitate participation by I&APs to provide them with a fair and reasonable opportunity to engage and comment on the documents produced in support of the application.
- I will ensure that all comments from I&APs are taken into consideration and documented in reports submitted to the DMPR as part of the application process.
- I will ensure that the Plan of Study for the EIA is clearly communicated to I&APs, ensuring transparency and mutual understanding of the study's objectives and methodology.
- I will ensure that all specific information required by the DMPR is thoroughly included and addressed in the reports.
- I will ensure compliance with all additional requirements as stipulated in Section 24(4)(a) and (b) of the NEMA.

Paula Tolksdorff

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Date: 2026.11.02 19:43:36 +02'00'

Signature

Date: 1 November 2026

[57] Required as per the EIA Regulations Appendix 2 (2) (1) (i) (j) an undertaking under oath or affirmation by the EAP.

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APPENDIX A: ENVIRONMENTAL ASSESSMENT PRACTITIONER'S CURRICULUM VITAE, QUALIFICATIONS, PROFESSIONAL REGISTRATIONS

APPENDIX B: SCREENING TOOL REPORT

APPENDIX C: TERRESTRIAL SITE SENSITIVITY VERIFICATION REPORT

APPENDIX D: AVIFAUNA SITE SENSITIVITY VERIFICATION REPORT

APPENDIX E: AQUATIC BIODIVERSITY SITE SENSITIVITY VERIFICATION REPORT

APPENDIX F: AGRICULTURAL SITE SENSITIVITY VERIFICATION REPORT

APPENDIX G: VISUAL IMPACT ASSESSMENT SITE SENSITIVITY VERIFICATION REPORT