APPENDIX F8: Social Impact Assessment

PROPOSED GROOTVLEI 600MW SOLAR PLANT, BATTERY ENERGY STORAGE SYSTEMS & GRID CONNECTION PROJECT NORTHWEST OF VENTERSDORP, JB MARKS LOCAL MUNICIPALITY, NORTHWEST PROVINCE

Draft Social Impact Assessment Report

August 2026

Prepared for: LTM Green Energies (Pty) Ltd

Title and Approval Page

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Report Title:	Social Impact Assessment Report
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Amendments Page

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28 August 2026	Draft Social Impact Assessment	00

Executive Summary

Caroline Tanhuke and Ciaran Chidley from Nemai consulting were appointed to conduct a Socio-economic Impact Assessment study for the proposed Grootvlei 600MW Solar Plant, Battery Energy Storage Systems and Grid Connection Project in Northwest of Ventersdorp, JB Marks Local Municipality, Northwest Province.

The study evaluates the potential social risks, impacts, and benefits associated with the proposed Grootvlei 600MW Solar PV Plant, Battery Energy Storage System (BESS), and associated grid connection infrastructure project. The assessment forms part of the environmental authorisation process and considers the receiving social and economic environment; affected properties; land-use context; stakeholder views; community infrastructure; employment; procurement opportunities, and potential impacts across the planning, construction, operational, and decommissioning phases of the project.

The receiving environment is predominantly rural and agriculture-based, with commercial farming, livestock production, game farming, seasonal agricultural employment, limited mining activity, tourism, and community services forming the main livelihood base. The project area is characterised by dispersed farm settlements, reliance on gravel access roads, limited public transport, dependency on landowners for certain basic services, and varying levels of access to water, sanitation, electricity, healthcare, and community facilities.

Stakeholder engagement and primary data collection indicate that the project is generally viewed as having potential to contribute positively to the local and regional socio-economic environment, particularly through temporary construction employment, local procurement, skills development, enterprise development, and broader participation in the renewable energy value chain. The benefits would be most meaningful if employment and procurement opportunities are communicated transparently, targeted toward nearby communities where feasible, and supported by training initiatives that improve participation by youth, women, unemployed persons, and local small enterprises.

Key potential negative social impacts relate to the loss or restriction of agricultural land, construction-related disturbance, increased traffic and deterioration of gravel access roads, safety and security concerns associated with contractor access and worker movement, potential conflict linked to employment expectations, influx of job seekers, pressure on local infrastructure and services, and risks to farm operations, livestock, game, equipment, and private property. These impacts are considered manageable, considering that mitigation measures are implemented through the Environmental Management Programme, contractor management procedures, a stakeholder communication process, controlled site access, road maintenance arrangements, local labour protocols, worker codes of conduct, and a responsive grievance mechanism.

Overall, the proposed Grootvlei Solar PV Project is considered socially acceptable, provided that the identified mitigation and enhancement measures are incorporated into the Environmental Management Programme and implemented throughout the project life cycle. The project could contribute to national renewable-energy generation, local employment, procurement, skills

development and broader economic participation in the surrounding communities and the North West Province. The principal adverse social impacts are associated with agricultural land use, construction disturbance, traffic, road deterioration, safety and security, labour expectations and an influx of job seekers. These impacts are expected to be manageable through effective contractor control, transparent local recruitment and procurement processes, continued stakeholder engagement, access and road-management measures, and a responsive grievance mechanism.

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List of Abbreviations

AIDS	Acquired immunodeficiency syndrome
BESS	Battery Energy Storage System
CRR	Comments and Response Report
DEA	Department of Environmental Affairs
DFA	Development Facilitation Act (Act 67 of 1995)
DMRE	Department of Mineral Resources and Energy
DWAF	Department of Water Affairs and Forestry
DLM	Ditsobotla Local Municipality
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
GIS	Geographic Information System
HIV	Human Immunodeficiency Virus
IAP	Interested and Affected Party
ILO	International Labour Organisation
IRP	Integrated Resource Plan
ISO	International Organisation for Standardization
km	Kilometre (1 000m)
NDP	National Development Plan
NEMA	National Environmental Management Act (No. 107 of 1998)
JBLM	JB Marks Local Municipality
MW	Mega Watt (one million watts)
OHS	Occupational Health and Safety
PAJA	Promotion of Administrative Justice Act ((PAJA) Act 3 of 2000)
PV	Photovoltaic
SIA	Social Impact Assessment
STI/STD	Sexually Transmitted Infections / Sexually Transmitted Disease

1 INTRODUCTION

The team of Caroline Tanhuke and Ciaran Chidley of Nemai Consulting have been appointed to undertake the Social Impact Assessment (SIA) as part of the environmental authorisation process for the proposed 600MW Grootvlei Solar Photovoltaic Project.

This solar PV generator aims to provide 600MW of electricity to the electrical grid. The project is being prepared for submission to bid for the current and future Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) bid windows and/or other renewable energy markets within South Africa. The proposed project is located to the west of the town of Ventersdorp in the eastern North-West Province.

On 13 December 2023, the Applicant received Environmental Authorisation (EA) for the development of the Grootvlei 600MW Solar Plant, BESS and Grid Connection Project (DFFE Reference Number: 14/12/16/3/3/2/2386).

Following engineering optimisation of the proposed layout, the Applicant determined that the previously authorised land parcel would be insufficient to accommodate the planned generation capacity. To avoid incremental decision-making, as guided by DFFE, the Applicant applied for an amendment to the existing EA. The amendment was granted on 07 April 2026 (DFFE Reference Number: 14/12/16/3/3/2/2386/AM1). The Applicant is now applying for EA for the entire project site, including the originally authorised site and the proposed expansion area.

One of the specialist studies required by the Environmental Impact Assessment (EIA) is a Social Impact Assessment. This report fulfils the requirements of the Social Impact Assessment, and its recommendations will be included into the EIA.

1.1 Terms of Reference

The terms of reference for the study are as follows:

- Describe the social baseline conditions that may be affected by the project;
- Describe the approach proposed for assessing the potentially significant issues that should be addressed by the SIA during the EIA phase;
- Determine the specific local social impacts of the project;
- Identify the potential social issues associated with the project;
- Suggest suitable mitigation measures to address the identified impacts; and
- Make recommendations on preferred options from a social perspective.

1.2 Structure of the report

The remainder of the report is structured as follows:

Section 2: Project Description – This section provides an introduction and motivation to the project. It includes a description of the study area.

Section 3: Legislation – A description of the statutory and regulatory requirements that informed this report.

Section 4: Definition of the Study Area – Defines the studies areas for the SIA.

Section 5: Methodology – Outlines the methodology used to determine the social impacts of the proposed project.

Section 6: Status Quo Analysis – A desktop analysis of the baseline situation in the regional study area.

Section 7: Local Study Area Overview – Provides an analysis of the social aspects of the local study area. The section includes a discussion on the findings that resulted from community engagement, site visits and stakeholder participation.

Section 8: Identification of Impacts - Aspects and Impacts – The identification of the project activities and an investigation into what aspects of these activities will result in social impacts.

Section 9: Cumulative Impacts – A discussion of the cumulative impacts generated by the proposed project.

Section 10: Analysis of Alternatives – Decision making with regards the preferred project alternatives from a social perspective.

Section 11: Site Sensitivity Verification – Decision making with regards the preferred project alternatives from a social perspective.

Section 12: Impact Statement – Contains a concise statement of the anticipated impacts generated by the proposed project.

1.3 Specialists' Details

This report is written by Caroline Tanhuke and Ciaran Chidley. Ciaran Chidley obtained bachelor's degrees in civil engineering, economics and philosophy, and holds a Master of Business Administration. His experience over the past 26 years includes economic and social assessments for a wide variety of linear and site-based infrastructure and industrial projects. Caroline Tanhuke is an Environmental and Social Specialist holding a BA Honours Degree in Environmental Management. She has over five years of experience in environmental and social assessment, stakeholder engagement, public participation, and compliance monitoring for infrastructure development projects. Her project experience spans renewable energy, water supply, power generation, urban development, healthcare, transportation, and community infrastructure projects throughout South Africa. She has facilitated engagement processes with government authorities, municipalities, communities, traditional authorities, and other interested and affected parties in support of environmental authorisation and infrastructure development processes.

1.4 Specialist Declaration

Nemai Consulting operates as an independent consultant conducting environmental impact assessments and associated specialists' studies. We declare that we have no affiliation with or vested financial interests in the proponent, other than for work performed under the Environmental Impact Assessment Regulations, 2017. We have no conflicting interests in the undertaking of this activity and have no interests in secondary developments resulting from the authorisation of this project. We have no vested interest in the project, other than to provide a professional service within the constraints of the project (timing, time and budget).

2 PROJECT DESCRIPTION

Electricity demand is increasing in South Africa, and a diversified energy mix that includes renewable energy technologies is required to support security of supply. These technologies include solar, wind, small-scale hydropower, biomass, biogas, and energy storage, as identified in the approved Integrated Resource Plan (IRP) 2019.

To this end the proponent has proposed the subject of this report, a solar photovoltaic generation facility.

2.1 Project Locality

The Project is located approximately twenty kilometres to the northwest of Ventersdorp central business district (CBD) and falls within Ward 34 of the JB Marks Local Municipality (JBMLM), in the Northwest Province. Option 1 of the transmission line falls within Ward 17 of the Ditsobotla Local Municipality.

The project area is considered to have favourable solar irradiation levels of 263.37 ± 7.13 Wm^2 which makes it ideal to generate solar energy using PV Panels (World bank, 2019). The site is accessible off the N14, followed by the R53 to the site gate. The R53 is a gravel road.

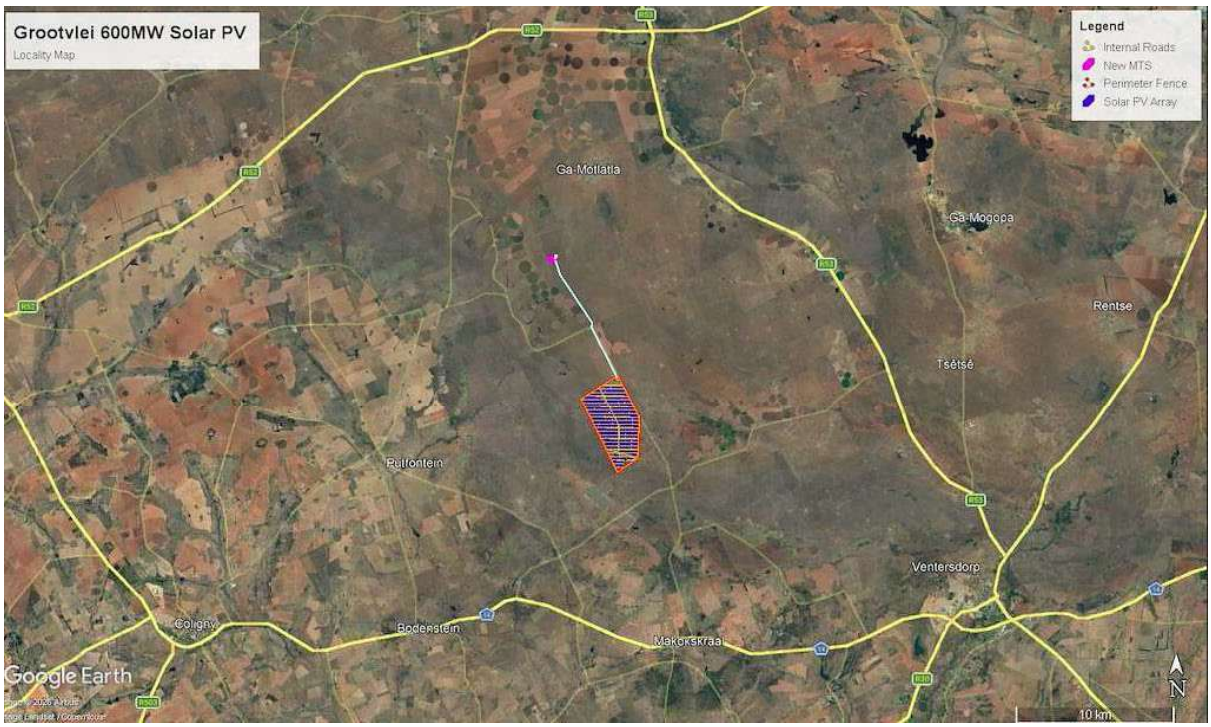

Figure 1: Grootvlei Solar Facility - Locality

The details of the affected properties are provided in Table 1 below.

Table 1:Details of the affected properties

Farm Details	21-digit Surveyor General No.
Solar Plant	
Portion number 0 of the farm Grootvlei 161 IP	T0IP00000000016100000
Powerline Route	
Portion 0 of Farm Grootvlei 161 IP	T0IP00000000016100000
Portion 1 of Farm Roodepoortje 154 IP	T0IP00000000015400001
Portion 12 of Farm Houtkop 152 IP	T0IP00000000015200012
Portion 11 of Farm Houtkop 152 IP	T0IP00000000015200011
Portion 9 of Farm Houtkop 152 IP	T0IP00000000015200009
Portion 1 of Farm Houtkop 152 IP	T0IP00000000015200001
MTS	
Portion 1 of Farm Houtkop 152 IP	T0IP00000000015200001

The coordinates of the approximate centre point of the site are 26°12'56.12"S 26°°35'9.18"E.

2.2 Project Components

LTM Green Energies (Pty) Ltd has proposed the development of the Grootvlei 600MW Solar Plant, Battery Energy Storage System (BESS), and associated grid connection infrastructure northwest of

Ventersdorp. The property earmarked for the solar project covers a combined area of approximately 1 300 hectares.

LTM Green Energies intends to bid for the current and future Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) bid windows and/or other renewable energy markets within south Africa, in compliance with the National Energy Act was promulgated in 2008 (Act 34 of 2008)

The solar energy functions by the conversion of solar energy into electricity. The generation of electricity using solar energy is a non-consumptive use of a natural resource that requires no fuel for continued operation. In comparison to typical coal-fired power plants, solar energy creates a negligible amount of greenhouse gases during its existence. And in the operational phase of solar power, it does not emit carbon dioxide, sulphur dioxide, or any other kind of air-pollution.

Photovoltaic technology generates direct current, which is converted to alternating current through power electronic inverters. Figure 2 provides an overview of a typical Solar PV power plant.

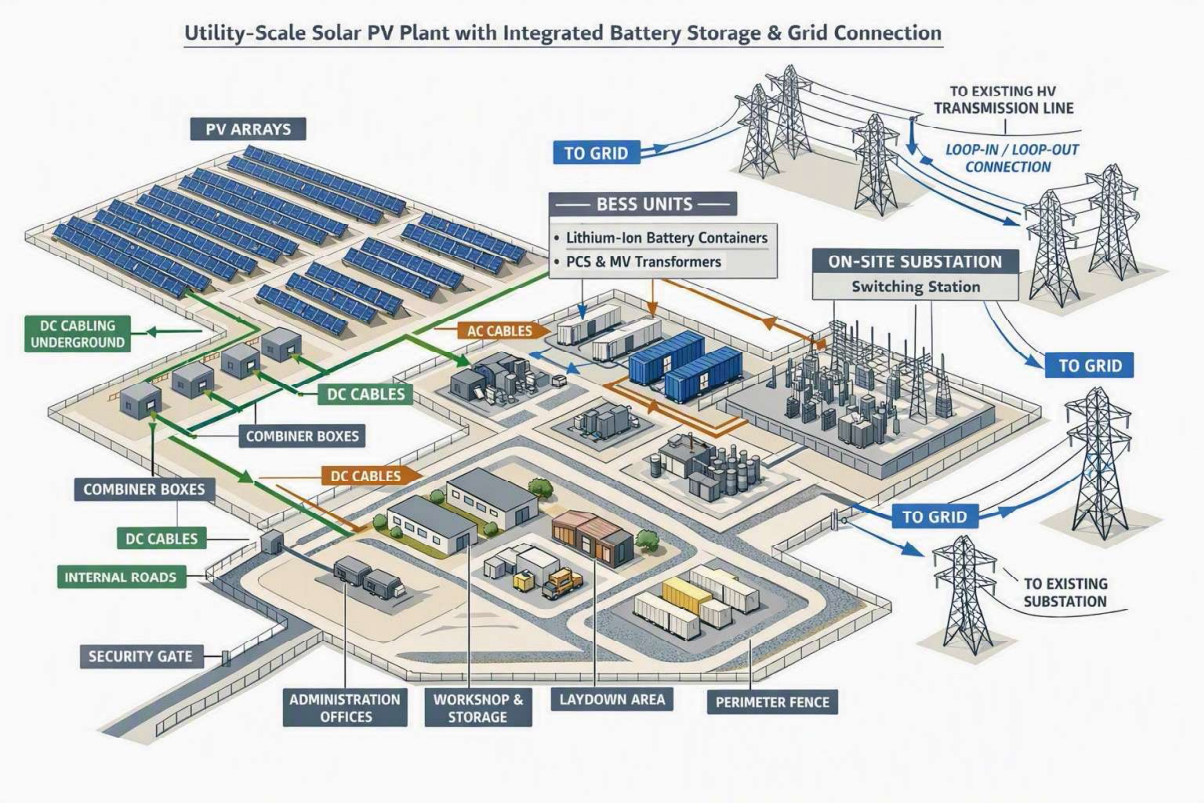

Figure 2:Overview of a Solar Power Plant

(Source: CSIR. 2025. Utility-Scale Solar Photovoltaic Power Plants)

Energy is harvested from the solar modules, which are angled toward the sun using mounting racks. The energy harvested is in the form of direct electrical current, which is processed through the inverters to convert this electrical power into alternating electrical current which can be used by the national electrical system. The alternating current is transferred via the facility substation onto the national grid.

The proposed Grootvlei 600MW Solar Plant consists of the following systems; sub-systems or components (amongst others):

- 600MW PV solar panels or modules (arranged in arrays);
- Mounting structures to support the PV panels;
- DC-AC current inverters stations, transformers, and internal electrical reticulation (underground cabling);
- Transmission Line: The Project includes transmission infrastructure with an installed capacity at both distribution (132 kV) and transmission (2x 275 kV) levels. The transmission line infrastructure comprises:
    - a 132/33 kV collector substation and a 132 kV switching station
    - three 132 kV overhead lines linking the switching station to the new 400/132 kV substation, 8.5 kilometres long
    - two 275 kV tie-in lines connecting to the existing Pluto-Watershed 275 kV line, thereby facilitating connection to the national grid with potential for electricity wheeling to off-site off takers;
- New 400/132kV Main Transmission Substation, located approximately 8.5 km north-west of the site on Portion 1 of the farm Houtkop 152 IP;
- Administration Buildings (Offices);
- Workshop areas for maintenance and storage;
- Temporary laydown areas;
- Internal access roads and perimeter fencing of the footprint area;
- Lithium-ion battery energy storage system (BESS), occupying 11 hectares;
- Security Infrastructure; and
- Site access from unnamed gravel road via the N14 and/or R53.

Figure 3 provides an overview of the direct study area and the proposed development.

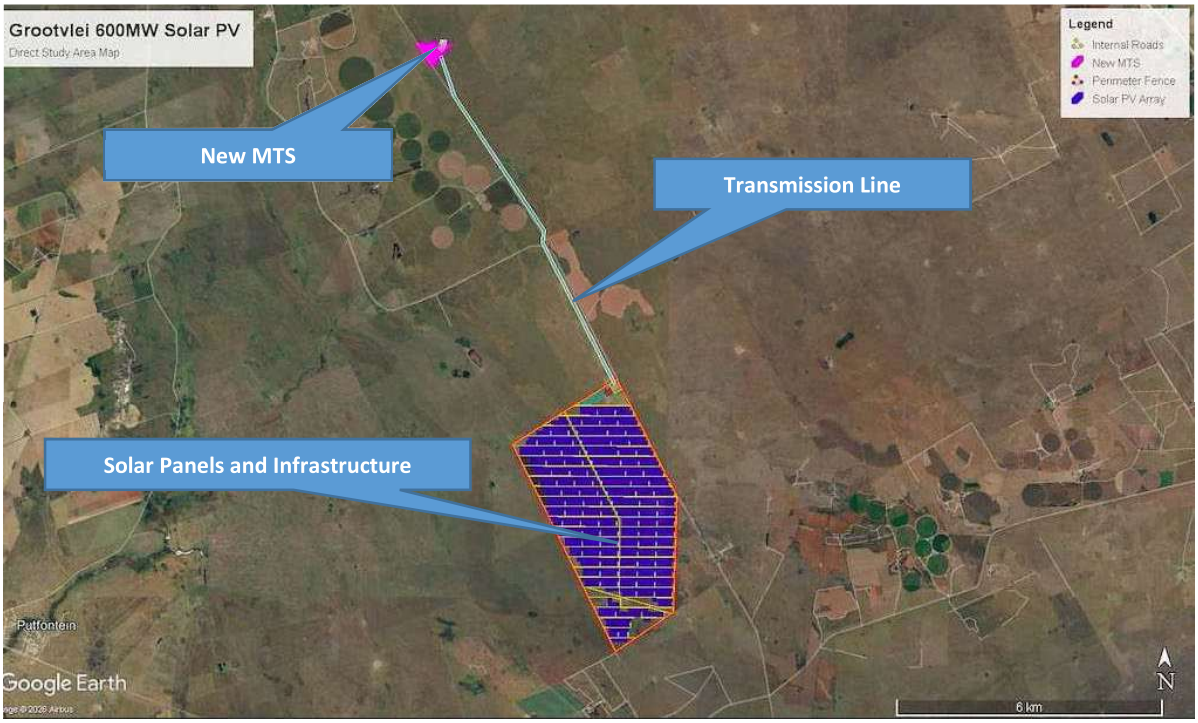

Figure 3: Grootvlei Solar Layout

The proposed Solar PV Projects have a design life of a minimum of 25 years. The extension of the life of the plant will be considered when assessing the plant's economic viability to remain operational after its end of life.

2.3 Social Stimulus

Solar PV projects create a range of social impacts at different stages of the project value chain. These impacts extend from project planning and development through manufacturing, construction, grid connection, operation and maintenance, and ultimately decommissioning. The value chain can be conceptualised as comprising the following activities:

- **Project Planning** – specialist consulting services, environmental assessments, engineering design, permitting and project management activities;
- **Manufacturing** – sourcing of raw materials and the manufacture and assembly of photovoltaic modules, inverters, transformers, electrical cabling, mounting structures and associated components;
- **Installation and Construction** – labour-intensive activities involving civil engineering works, module installation, electrical reticulation and supporting infrastructure development;
- **Grid Connection** – specialised electrical engineering works required to connect the facility to the national grid, thereby supporting energy security and electricity supply reliability;
- **Operations and Maintenance** – long-term employment opportunities associated with plant monitoring, equipment inspections, repairs, security, vegetation management and other operational services; and

- **Decommissioning** – activities undertaken at the end of the facility's operational life, including dismantling, refurbishment, reuse, recycling and the disposal of photovoltaic modules and associated infrastructure.

The social value generated by a solar PV facility is influenced by the level of participation within the local and regional economy. While certain components, such as photovoltaic modules, inverters and specialised equipment, may be imported, opportunities exist for local procurement of electrical systems, construction materials, services and labour. The construction, installation and grid connection phases typically generate significant employment opportunities for local skilled, semi-skilled and unskilled workers, while the operational phase provides longer-term technical and maintenance employment opportunities. Additional social benefits may include skills development, capacity building, enterprise development and increased economic activity within surrounding communities.

At the end of the project life cycle, decommissioning activities may provide further opportunities for employment and value creation through the recovery, reuse and recycling of solar PV components. However, inadequate management of photovoltaic waste may result in environmental, health and safety concerns. Consequently, appropriate planning for end-of-life management is required to maximise social and economic benefits while minimising potential adverse impacts on surrounding communities.

As South Africa's level of development in the renewable energy field increases, so the value captured within the country will increase all along the value chain.

2.3.1 Job Creation

An indication of the employment opportunities associated with utility-scale Solar PV developments can be derived from official Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) reporting for the North West Province. According to the Independent Power Producer (IPP) Office, six operational Solar PV projects in the province, representing a combined procured capacity of 395 MW, had created approximately 4 079 job years for South African citizens by 31 December 2025. Of these, approximately 3 024 job years were attributable to individuals from local communities (IPP Office, 2025).

These figures demonstrate the significant employment contribution that Solar PV projects can make at both provincial and local levels. However, these employment outcomes reflect the cumulative performance of multiple projects implemented under different procurement rounds and should therefore be regarded as contextual benchmarks rather than direct predictors of employment creation for the proposed project (IPP Office, 2025).

At a programme level, the REIPPPP had created 91 788 job years for South African citizens by 31 December 2025, comprising 59 942 construction job years and 31 846 operational job years (IPP Office, 2025). Analysis of the provincial employment data indicates that approximately 59% of these job years were attributable to local community members, highlighting the programme's contribution to local economic development (IPP Office, 2025).

The programme also reported 16 840 employment opportunities for women (18% of the total) and 45 412 (49% of the total) job years for youth, although the IPP Office notes that these categories are not mandatory. reporting indicators for all bid windows and should therefore be interpreted with caution (IPP Office, 2025). These programme-level trends provide a reasonable indication of the potential distribution of employment benefits associated with the proposed project.

Table 2: Job Creation Estimate

Indicator	REIPPPP Programme Outcome (South Africa)-	North West Province Solar PV Projects – 395 MW
Number of Projects	Multiple projects across all REIPPPP bid windows	6 Solar PV projects
Total Job Years Created	91 788 job years	4 079 job years
Construction Job Years	59 942 job years	Not separately reported
Operations Job Years	31 846 job years	Not separately reported
Local Community Job Years	Approximately 54 106 job years (59%)	3 024 job years
Female Employment	16 840 job years	Not reported at provincial level
Youth Employment	45 412 job years	Not reported at provincial level

The North West Province provides a useful benchmark for assessing the potential employment benefits associated with the proposed Solar PV development. Experience from operational Solar PV projects in the province demonstrates that renewable energy developments can generate substantial employment opportunities throughout both the construction and operational phases of a project. The construction phase is typically the most labour-intensive, while long-term operations and maintenance activities provide sustained employment over the life of the facility.

REIPPPP employment outcomes in the province also indicate strong participation by local communities, highlighting the potential for local economic benefits through targeted recruitment and procurement initiatives. Furthermore, the programme has contributed to broader socio-economic development objectives by creating opportunities for women and youth to participate in the renewable energy sector, supporting workforce transformation and skills development (IPP Office, 2025).

2.3.2 Economic Value Creation

The latest official IPP Office reporting indicates that, by 31 December 2025, the REIPPPP had attracted R239 billion in investment into South Africa's renewable-energy infrastructure from projects that reached financial close, including R43.1 billion in foreign funding (IPP Office, 2025). Across the broader IPPPP portfolio, investment attracted from projects that reached financial close amounted to R298.9 billion, of which R52.7 billion was foreign investment (IPP Office, 2025). These figures show that independent power producer procurement continues to mobilise private capital for electricity infrastructure while supporting broader industrial and development policy objectives.

The IPP Office reports that REIPPPP projects that reached financial close had made local-content commitments of R77.5 billion, equivalent to 45% of total project value, and had achieved R76.0 billion

in actual local-content spend by 31 December 2025, equivalent to 50% of realised project value (IPP Office, 2025). For the 97 REIPPPP projects that had reached commercial operation by that date, actual local-content spend amounted to R71.8 billion, slightly exceeding the committed amount of R71.6 billion (IPP Office, 2025). These programme-level outcomes indicate that renewable-energy procurement can support domestic supply chains and local manufacturing and service industries.

The North West Province provides a relevant provincial benchmark for Solar PV development. As at 31 December 2025, the IPP Office reported six solar PV projects in the North West Province under the REIPPPP, representing 395 MW of procured capacity, of which 275 MW was online and 120 MW was in construction (IPP Office, 2025). The IPP Office further reported North West REIPPPP procurement spend of R3.7 billion, including R3.2 billion in BBBEE procurement spend, R0.9 billion in procurement from QSEs and EMEs, and R0.2 billion in procurement from women-owned vendors (IPP Office, 2025). This provides evidence that renewable-energy projects in the province have already generated procurement and preferential-procurement activity, although they represent cumulative programme outcomes rather than a direct estimate of the proposed project's future economic contribution.

The REIPPPP has also generated broader socio-economic and enterprise-development benefits. By 31 December 2025, REIPPPP projects had realised R3.7 billion in socio-economic development contributions and R1.1 billion in enterprise development contributions (IPP Office, 2025). The programme requires IPPs to report quarterly on economic-development obligations, including local content, procurement, ownership, management control, enterprise development, socio-economic development and employment outcomes (IPP Office, 2025). For the proposed project, similar benefits would depend on the final contractual economic-development commitments, the identification of beneficiary communities, and the ability of local enterprises and workers to participate meaningfully in construction and operations.

The social stimulus of the project can be summarised by:

- The project could mobilise private investment into renewable-energy infrastructure in the North West Province, consistent with the broader REIPPPP trend of attracting substantial domestic and foreign capital;
- It could create procurement opportunities for local and regional suppliers, particularly where construction materials, services, labour and operational support can be sourced locally;
- It could support local employment during construction, grid connection, operations and maintenance, with potential benefits for skilled, semi-skilled and unskilled workers;
- It could contribute to skills development and capacity building through training, construction-phase experience and long-term technical exposure in the renewable-energy sector;
- It could stimulate enterprise development by creating opportunities for qualifying small enterprises, emerging contractors and local service providers to participate in the project value chain;
- It could support community-focused socio-economic initiatives where economic-development commitments are targeted toward beneficiary communities near the project area; and
- The scale of these benefits should not be quantified until the proponent confirms the project cost, procurement strategy, local-content commitments and economic-development obligations.

3 RELEVANT LEGISLATION, STANDARDS AND GUIDELINES

Legislation, policy, plans and strategy provide an important framework and governance of the SIA. This section provides a summary of the prevailing acts, policies, plans and strategy which were considered by this study.

3.1 The Constitution of South Africa (Act 7 of 1996)

The Constitution emphasizes human rights with the intention of establishing a society based on democratic values; social justice and fundamental human rights. Furthermore, The Constitution recognizes the general need to improve the quality of life of all citizens. These constitutional rights can be used to support reasonable environmental demands. Other fundamental rights in the Constitution which support environmental demands include:

- The right to life (Section 11).
- The right to human dignity (Section 10).
- The right to privacy (Section 14).
- Certain socio-economic rights.

Socio-economic rights relevant to environmental rights:

- The right of access to adequate housing (Section 26).
- The right of access to sufficient food and water (Section 27).
- The right of access to health care services (Section 27).
- The rights of children to basic nutrition and shelter, and to be protected from maltreatment; neglect; abuse or degradation (Section 28).

3.2 National Development Plan (2011)

The National Development Plan (NDP) of 2010 proposes to “invigorate and expand economic opportunity through infrastructure, more innovation, private investment and entrepreneurialism.

The Plan aims to ensure that all South Africans attain a decent standard of living through the elimination of poverty and reduction of inequality. The core elements of a decent standard of living identified in the Plan are:

- Housing, water, electricity and sanitation;
- Safe and reliable public transport;
- Quality education and skills development;
- Safety and security;
- Quality health care;
- Social protection;
- Employment;

- Recreation and leisure;
- Clean environment; and
- Adequate nutrition.

3.3 National Energy Act (Act 34 of 2008)

The National Energy Act was promulgated in 2008 (Act 34 of 2008); and one of the key objectives of the Act was to promote diversity in the supply of energy and its sources. The development of a National Integrated Energy Plan (IEP) was envisaged in the White Paper on the Energy Policy of the Republic of South Africa of 1998 and; in terms of the National Energy Act, 2008 (Act No. 34 of 2008), the Minister of Energy is mandated to develop and; on an annual basis; review and publish the IEP in the Government Gazette. The purpose of the IEP is to provide a roadmap of the future energy landscape for South Africa which guides future energy infrastructure investments and policy development.

The IEP notes that South Africa needs to grow its energy supply to support economic expansion and in so doing, alleviate supply constriction and supply-demand deficits. In addition, it is essential that all citizens are provided with clean and modern forms of energy at an affordable price. As part of the Integrated Energy Planning process; eight key objectives were identified; namely:

- Objective 1: Ensure security of supply.
- Objective 2: Minimize the cost of energy;
- Objective 3: Promote the creation of jobs and localization.
- Objective 4: Minimize negative environmental impacts from the energy sector.
- Objective 5: Promote the conservation of water.
- Objective 6: Diversify supply sources and primary sources of energy;
- Objective 7: Promote energy efficiency in the economy; and
- Objective 8: Increase access to modern energy.

3.4 National Environmental Management Act (Act 107 of 1998)

The National Environmental Management Act (NEMA) and the principles contained therein have a significant influence on the need to identify and assess social impacts. The NEMA principles are based on the basic rights as set out in Chapter 2 (Bill of Rights) of the Constitution as referred to above.

According to Barber (2007:16) the following NEMA principles have an important impact on social issues:

- Environmental management must place people and their needs at the forefront of its concern, and serve their physical, psychological, developmental, cultural and social interests equitably;
- Development must be socially, environmentally and economically sustainable;
- Environmental management must be integrated, acknowledging that all elements of the environment are linked and interrelated, and it must consider the effects of decisions on all

aspects of the environment and all people in the environment by pursuing the selection of the best practicable environmental option;

- Environmental justice must be pursued so that adverse environmental impacts shall not be distributed in such a manner as to unfairly discriminate against any person, particularly vulnerable and disadvantaged persons;
- Equitable access to environmental resources, benefits and services to meet basic human needs and ensure human well-being must be pursued and special measures may be taken to ensure access thereto by categories of persons disadvantaged by unfair discrimination;
- The participation of all interested and affected parties in environmental governance must be promoted, and all people must have the opportunity to develop the understanding, skills and capacity necessary for achieving equitable and effective participation, and participation by vulnerable and disadvantaged persons must be ensured;
- Decisions must consider the interests, needs and values of all interested and affected parties, and this includes recognising all forms of knowledge, including traditional and ordinary knowledge;
- Community well-being and empowerment must be promoted through environmental education, the raising of environmental awareness, the sharing of knowledge and experience and other appropriate means;
- The social, economic and environmental impacts of activities, including disadvantages and benefits, must be considered, assessed and evaluated, and decisions must be appropriate in light of such consideration and assessment;
- The right of workers to refuse work that is harmful to human health or the environment and to be informed of dangers must be respected and protected;
- Decisions must be taken in an open and transparent manner, and access to information must be provided in accordance with the law;
- The environment is held in public trust for the people. The beneficial use of environmental resources must serve the public interest and the environment must be protected as the peoples' common heritage; and
- The vital role of women and youth in environmental management and development must be recognised and their full participation therein must be promoted.

3.5 Guideline for Involving Social Assessment Specialists in EIA Processes (Barbour, 2007)

These guidelines direct the role of social assessment specialists in the Environmental Impact Assessment (EIA) process within the South African context.

3.6 Social Impact Assessment: Guidance document (2015) (Vanclay, Esteves, Aucamp, and Franks, 2015)

This document encapsulates the core values of the international SIA community providing a set of principles to guide SIA practitioners in incorporating the social element into environmental impact assessments.

3.7 International Labour Organisation

A guide on gender issues in employment and labour market policies: working towards women's economic empowerment and gender equality.

"The objective of this resource guide is to strengthen the capacities of International Labour Organisation (ILO) constituents and development policy makers in the formulation of employment policies. There is a well-known proclivity among many policymakers and practitioners to treat employment as a "residual" of economic growth" (Otobe, 2014).

3.8 International Organisation for Standardization, ISO 14001:2004

The International Organisation for Standardization (ISO) is used for identifying impacts. The ISO 14001: 2004 – Environmental Management Systems definitions for aspect, activity and impact are used in keeping with best practice.

ISO 14001:2004 specifies requirements for an environmental management system to enable an organization to develop and implement a policy and objectives and information about significant environmental aspects. It applies to those environmental aspects that the organization identifies as those which it can control and those which it can influence.

4 DEFINITION OF THE STUDY AREA

A study area is defined by the International Finance Corporation (IFC) as "an area that is likely to experience impacts from, or exert influence over, the Project or activity being evaluated" (IFC World Bank, 2012). For the purposes of this study, a study area that conforms to existing administrative boundaries, has been identified.

Three study areas have been delineated for the purposes of analysing the project and its social impacts: a regional study area which comprises the affected local municipality; and a local study area which is the Ward in which the project is located, and a direct study area which is the site's close neighbours upon which the project will be located. For the purposes of the study, five kilometres from the site has been selected as the direct study area, using the centre of the solar park as the centre of the eleven kilometre circle.

4.1 Regional Study Area

The regional study area is the JB Marks and the Ditsobotla Local Municipalities within the Northwest Province. The regional study will experience the highest effects of the stimulus created by the project, in terms of economic development, inwards migration of workers and multiplier effects in the economy due to the proximity of the project footprint. Figure 4 shows the regional study area of Grootvlei Solar PV project.

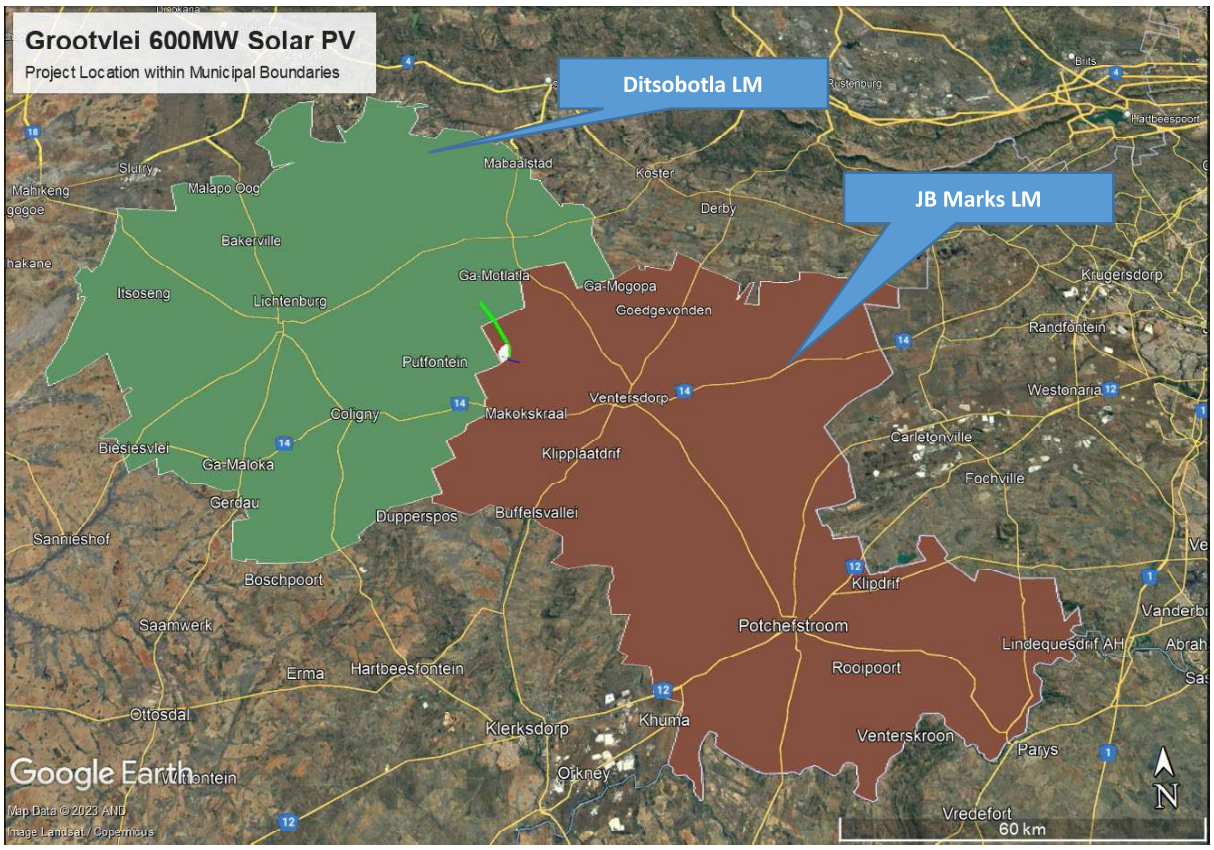

Figure 4: Grootvlei Solar in the Municipality Context

The location of the site is such that the labour sending area for the project are likely to Coligny, Lichtenburg, and Ga-Motlatla, both in Ditsobotla Local Municipality and Ventersdorp and Makokskraal in the JB Marks Local Municipality. The economic impacts will be felt in both local municipalities.

4.2 Local Study Area

The local study area is Ward 34 of the JB Marks Local Municipality and Ward 17 of the Ditsobotla Local Municipality, as shown in Figure 5 below.

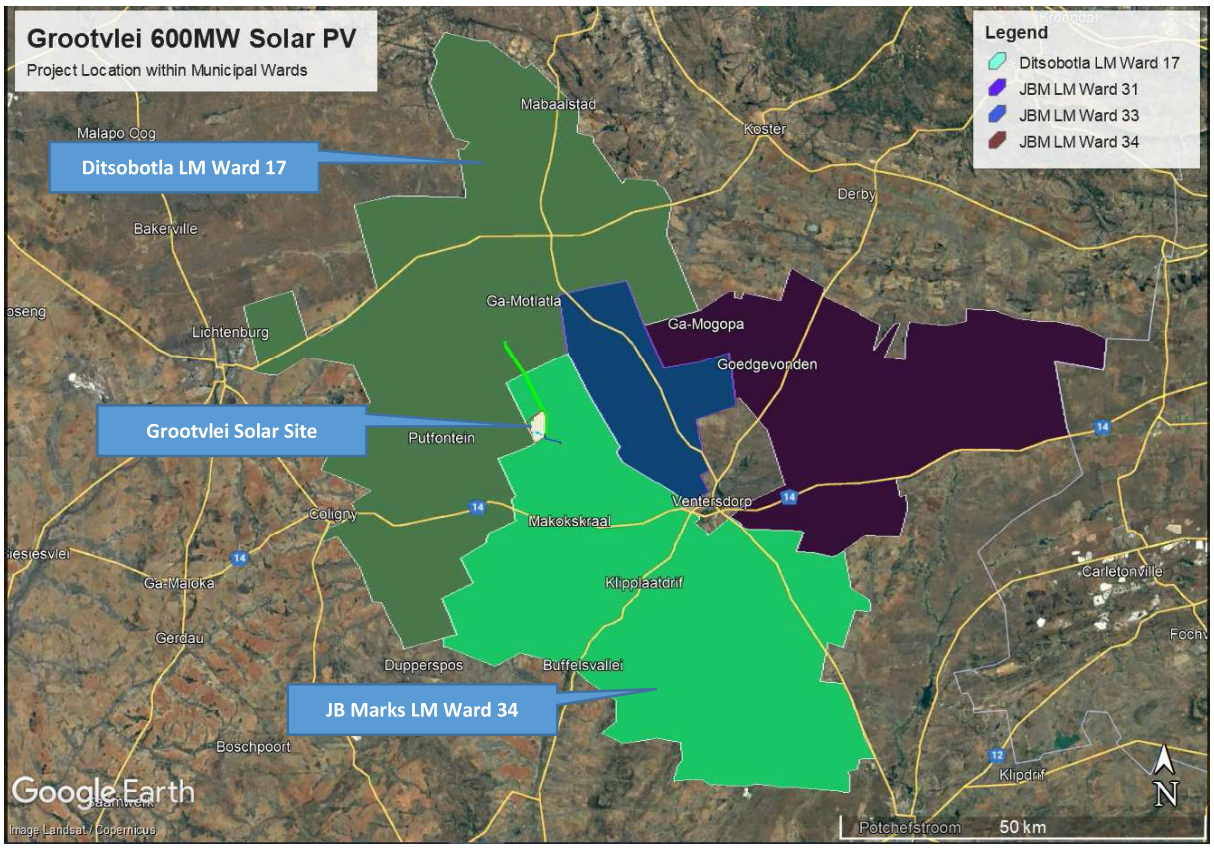

Figure 5: Grootvlei Solar PV in Ward 34

4.3 Direct Study Area

The direct study area is the area immediately adjacent to the project. This study area is shown in the Google Earth map below.

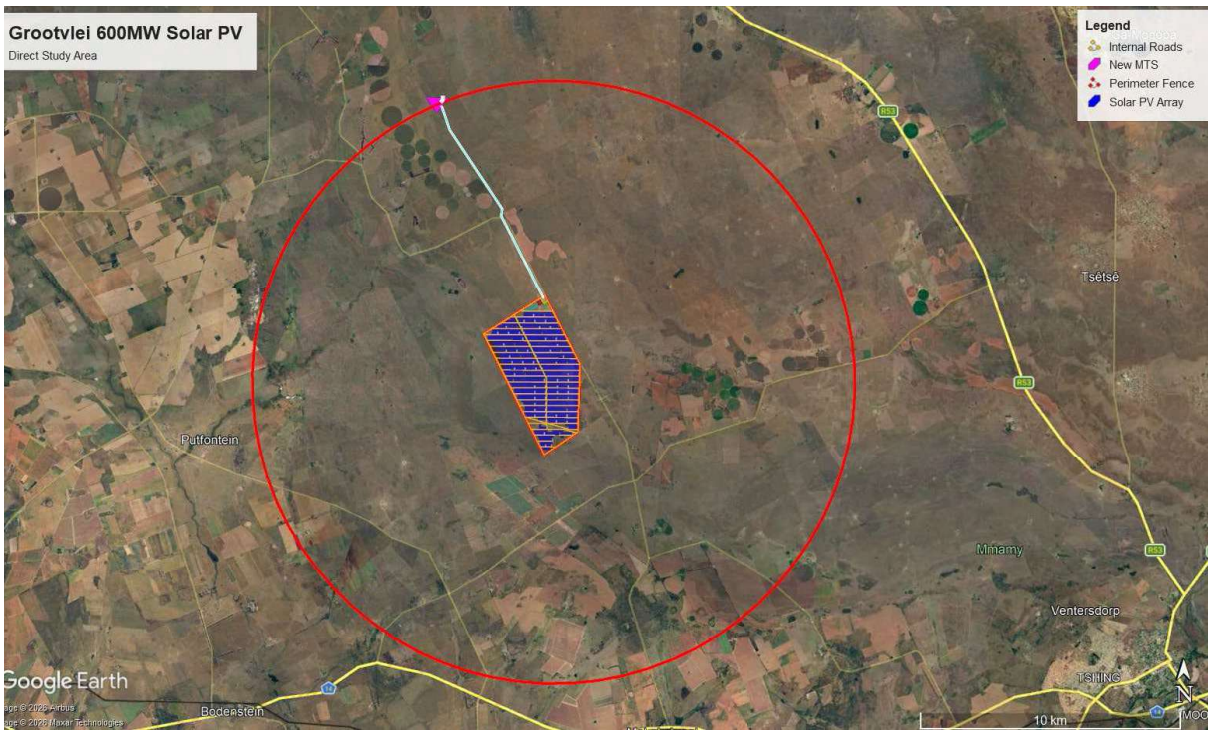

Figure 6: Grootvlei Solar Direct Study Area

The direct study area was used for the possible impactor assessment carried out using Google Earth and documented in Appendix One of this report. The radius of the direct study area was used as a guide when compiling social receptors, with local features being decisive as to whether they were selected as part of the analysis. This assessment provided information as to the possible social receptors for the project.

5 METHODOLOGY

The information presented in this report was obtained through the following data collection methods.

5.1 Sourcing of Information and Data Analysis

The Socio-Economic Impact Assessment sets out the socio-economic baseline of the study area; predicts social and economic impacts and makes recommendations for mitigation of negative social and economic impacts and measures which can be taken to enhance the positive social and economic impacts.

The baseline study is based on both primary and secondary data. Primary data was collected directly from engagements with community members, landowners and business owners. Secondary data was accessed through South African economic and social databases. Articles and internet searches were also used and are referenced in the text and in the reference sections of this report.

The profile of the baseline conditions includes describing the current status quo of the community; including information on several social and economic issues such as:

- Demographic data.
- Socio-economic factors such as income and population data.
- Access to services.
- Institutional environment.
- Social Organization (Institutional Context); and
- Statutory and Regulatory Environment.

5.2 Primary Data

5.2.1 Public Participation

The Public Participation Process granted Interested and Affected Persons an opportunity to comment on the project during the Scoping and EIA phase. Comments and responses used during this process have formed one of the bases of the analysis of the socio-economic impacts considered in this report.

Further primary data was collected for the purposes of the study; these were collected using the following approaches:

- Rapid Rural Assessment: A survey was conducted to capture visual observations on the social dynamics, community proceedings, community resources and infrastructure.
- Stakeholder Consultations: Consultations with the affected communities carried out by members of the project team along each project component to discuss the proposed project and to gather their concerns and feedback on the project; and
- Key Informant Interviews: Informal discussions with the IAP's to help inform the baseline were conducted during site visits and as well as during the scoping phase. These included community members and authority members.

5.3 Secondary Data

An assessment of the EIA and Scoping phase was conducted to provide an understanding of the project detail, location, and possible impacts.

The required information was collected from a range of secondary sources, including Statistics South Africa Census 2022 data, relevant municipal and district planning documents, and other publicly available literature. Where older datasets were used because more recent ward-level or municipal-level variables were unavailable, this limitation is stated in the relevant subsection. The ward and municipal data were extracted using the project Geographic Information System, and the data for the affected areas are presented in tables and figures throughout the report.

5.4 Geographic Information System

A Geographic Information System (GIS) was used to conduct an analysis of the area. The use of GIS brings together demographic and socio-economic data to enable a thorough analysis of the project area.

5.5 Impact Assessment

The determined impacts are clustered around a common-issue and are assessed before and after mitigation. The identification of the socio-economic impacts associated with the project is issues-based, with the main headings referring to a common theme addressing several related impacts. Under each of these issues, the specific impacts and potential mitigation strategies are discussed for pre-construction, construction, operation and decommissioning phases.

5.6 Assumptions and Limitations

The following assumptions and limitations underline this socio-economic impact assessment:

- The information obtained during the public participation phase provides a comprehensive account for the community structure and community concerns for the project.
- The study was done with the information and the time frames available to the specialist at the time of executing the study. The specialist took an evidence-based approach in the compilation of this report and did not intentionally exclude information which is relevant to the assessment; and
- No relocation of families will take place for this project.

6 STATUS QUO ANALYSIS

This section has been compiled from research of the regional study area Integrated Development Plan, Statistics South Africa and Wazi Map have also been used as a resource for the statistical information. The following section presents the socio-economic profile of the study areas.

6.1 Project Locality Context

The North West Province is one of South Africa's nine provinces and comprises of four district municipalities, namely Bojanala Platinum District Municipality, Ngaka Modiri Molema District Municipality, Dr Ruth Segomotsi Mompati District Municipality, and Dr Kenneth Kaunda District Municipality. According to Stats SA (2022) the current structure reflects the reduction from 19 local municipalities in 2011 to 18 local municipalities by 2018, following the merger of the former Ventersdorp Local Municipality and Tlokwe City Council into JB Marks Local Municipality.

Dr Kenneth Kaunda District Municipality is the third-largest district in North West by the Census 2022 municipal baseline with 734 203 people and 220 146 households. Stats SA (2024) district estimates place the district at 807 057 people representing 19.3% of the province's estimated population. The district comprises three local municipalities namely City of Matlosana Local Municipality, Maquassi Hills Local Municipality and JB Marks Local Municipality. At local-municipality level, City of Matlosana is the district's largest population centre with 431 231 people in Census 2022, followed by JB Marks with 212 670 and Maquassi Hills with 90 302. JB Marks Local Municipality remains the largest municipality in the district by land area at approximately 6 398 km².

Ngaka Modiri Molema District Municipality is the second-largest district in North West by the Census 2022 municipal baseline with 937 723 people and 257 552 households. The district comprises five local municipalities, namely Ratlou Local Municipality, Tswaing Local Municipality, Mahikeng Local Municipality, Ditsobotla Local Municipality and Ramotshere Moiloa Local Municipality. Within the district, Mahikeng Local Municipality is the largest local municipality with a population of 354 504 people, followed by Ditsobotla at 164 176, Ramotshere Moiloa at 161 605, Ratlou at 128 766 and Tswaing at 128 672 respectively (StatsSA, 2022).

6.2 JB Marks Local Municipality

JB Marks Local Municipality is one of three local municipalities within the Dr Kenneth Kaunda District Municipality in the North West Province. According to Statistics South Africa Census 2022, the municipality has a population of 212 670 people, 66 719 households, and covers approximately 6 398 km², with a population density of 33 persons per km² (Stats SA, 2024).

The municipality comprises a mix of urban, peri-urban, and rural agricultural areas. Potchefstroom and Ventersdorp serve as the municipality's principal urban and economic centres, with Potchefstroom functioning as the main administrative, educational, commercial, and industrial centre, while Ventersdorp remains an important agricultural service centre.

The municipality is located along key transport corridors, including the N12 national route, which links Johannesburg to Kimberley and Cape Town, and the N14 national route, which connects Gauteng with the western regions of South Africa. In addition, the main railway corridor linking Gauteng with the Northern and Western Cape provinces passes through Potchefstroom, supporting regional transport and economic activities (Stats SA, 2024).

6.3 Ditsobotla Local Municipality

Ditsobotla Local Municipality is one of five local municipalities within the Ngaka Modiri Molema District Municipality in the North West Province. The municipality has a population of 164 176 people living in 42 416 households, covering an area of approximately 6 215 km² with a population density of about 26 persons per km² (Stats SA, 2024). The municipality is predominantly rural in character, with agriculture remaining a key economic activity. Lichtenburg serves as the principal urban centre and economic link of the municipality, providing commercial, industrial, and agricultural support services to the surrounding farming communities.

Other important settlements include Coligny, Biesiesvlei, and Bodenstein, which contribute to the municipality's agricultural economy and settlement network. Ditsobotla is strategically located along the N14 national route, which traverses the municipality and provides a critical transport corridor linking Gauteng with the western regions of South Africa, thereby supporting regional trade, mobility, and agricultural logistics (Ditsobotla Local Municipality, 2024).

6.4 Demographics

Statistics South Africa's Census 2022, published in 2024, remains the latest official municipal-level population dataset for both JB Marks and Ditsobotla Local Municipalities. The data indicate that both municipalities experienced slight population decline between 2011 and 2022, with annual growth rates of approximately -0.3%. JB Marks remained the larger municipality, with a population of 212 670 people compared to 164 176 people in Ditsobotla.

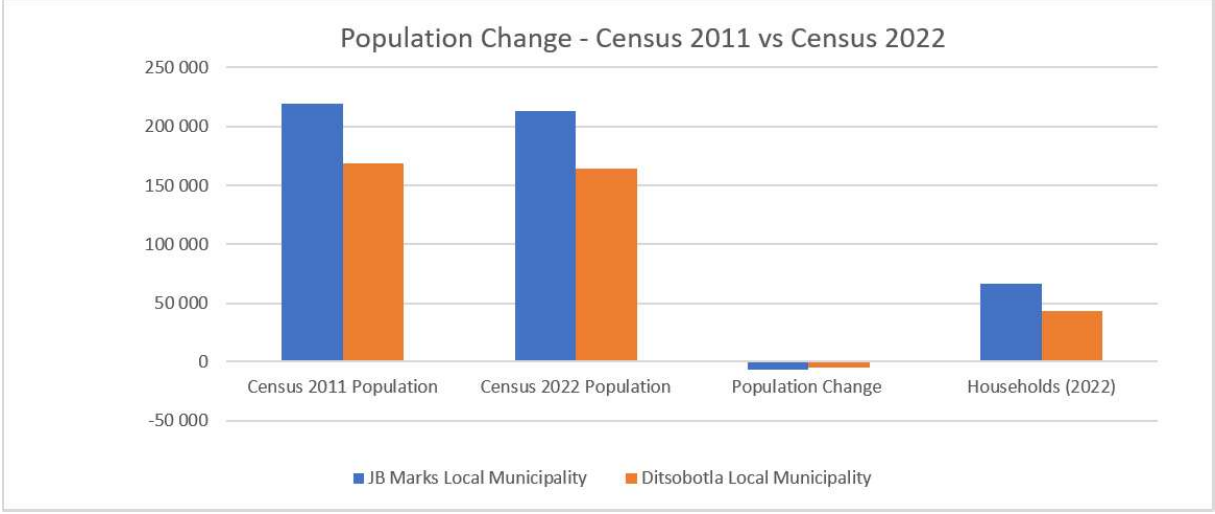

Figure 7: Regional Population Comparison between JB Marks and Ditsobotla Local Municipalities

Statistics South Africa's Census 2022, published in 2024, remains the latest official municipal-level demographic dataset for both JB Marks Local Municipality and Ditsobotla Local Municipality. The age profile of the regional study area indicates differences between the two municipalities.

JB Marks Local Municipality has a larger working-age population, with approximately 68.0% of residents falling within the economically active age group of 15–64 years, compared to 64.4% in Ditsobotla Local Municipality. Conversely, Ditsobotla has a younger population structure, with 29.6% of its population aged 0–14 years compared to 25.4% in JB Marks. This contributes to a higher dependency ratio in Ditsobotla which is shown by 55 dependents per 100 working-age people, than in JB Marks that has 47 dependents per 100 working-age people. These demographic characteristics suggest that Ditsobotla may experience greater demand for education, healthcare, and social-support services, while JB Marks benefits from a relatively larger labour-force base and lower dependency burden (StatsSA, 2024).

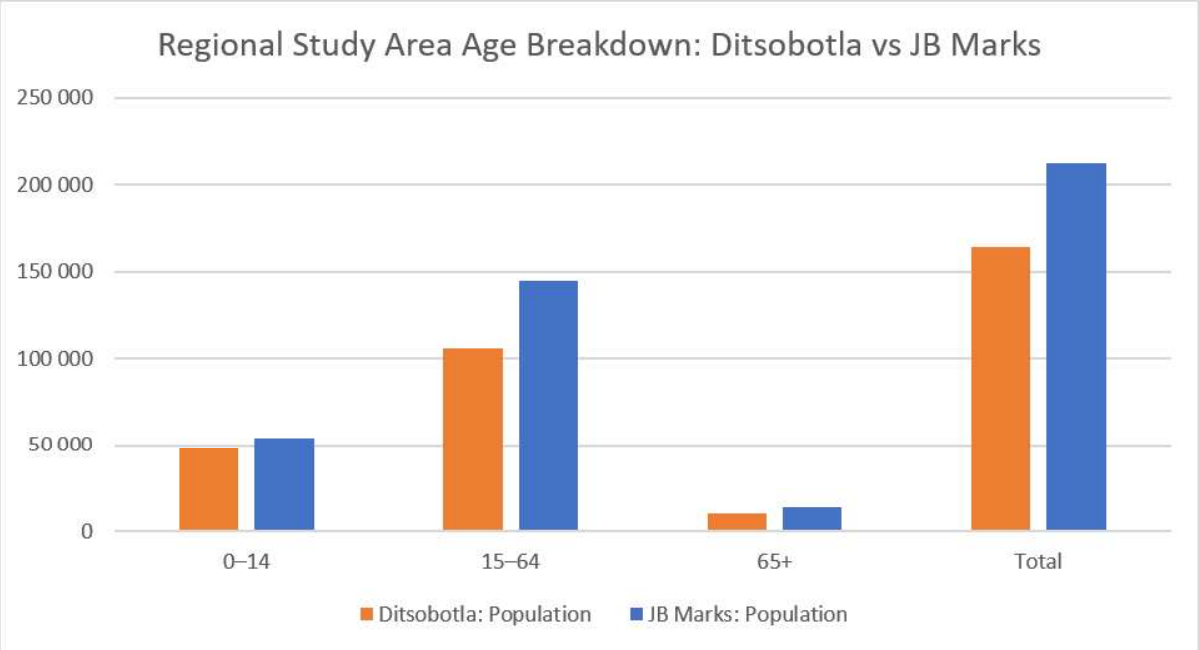

Table 3: Regional Study Area Age Breakdown

Source: Statistics SA:2024

6.5 Household Dynamics

Statistics South Africa's Census 2022, published in 2024, indicates varying household trends across the regional study area. While both JB Marks Local Municipality and Ditsobotla Local Municipality experienced a slight decline in the number of households between 2011 and 2022, the district municipalities recorded different trends. Ngaka Modiri Molema District Municipality increased from 227 001 households in 2011 to 257 552 households in 2022, whereas Dr Kenneth Kaunda District Municipality recorded a marginal decline from 223 052 to 220 146 households over the same period.

Table 4: Regional Study Area Household Formation

Administrative Area	Census 2011 Households	Average Household Size (2011)	Census 2022 Households	Average Household Size (2022)
Ditsobotla Local Municipality	44 500	3.8	42 416	3.9
Ngaka Modiri Molema District Municipality	227 001	3.7	257 552	3.6
JB Marks Local Municipality	67 098	3.3	66 719	3.2
Dr Kenneth Kaunda District Municipality	223 052	3.1	220 146	3.3
Northwest Province	1 061 998	3.3	1 141 284	3.3

At municipal level, Ditsobotla declined from 44 500 to 42 416 households, while JB Marks declined from 67 098 to 66 719 households. Household size increased slightly in Ditsobotla from 3.8 to 3.9 persons per household, whereas JB Marks decreased from 3.3 to 3.2 persons per household, suggesting larger household structures in Ditsobotla and a trend toward smaller household units in JB Marks. Overall, North West Province recorded growth in total households, increasing from 1.06 million households in 2011 to 1.14 million households in 2022, while maintaining an average household size of approximately 3.3 persons per household (StatsSA, 2024).

Statistics South Africa's Community Survey 2016 indicated that 37.1% of households in JB Marks Local Municipality and 33.5% of households in Ditsobotla Local Municipality were female-headed. Census 2022 did not publish updated municipal figures for this indicator.

The dwelling profile of the regional study area is predominantly formal, but the two municipalities show different housing conditions. Ditsobotla Local Municipality has a stronger formal-dwelling profile, with 90.0% of households living in formal dwellings, compared with the North West provincial average of 88.0%. JB Marks Local Municipality is more exposed to informal dwelling conditions, with 14.7% of households living in informal dwellings, compared with 10.8% provincially and 7.6% in Ditsobotla.

Table 5 Regional Study Area - Dwelling Type

Administrative Area	Formal (%)	Informal (%)	Traditional (%)	Other (%)
Ditsobotla LM	90.0	7.6	1.6	0.8
JB Marks LM	84.4	14.7	0.4	0.5
North West Province	87.3	6.2	5.5	1.0

Source: Statistics SA: Community Survey (2024)

Traditional dwellings form a small component of the dwelling profile in both municipalities, although they are more visible in Ditsobotla Local Municipality, where 1.6% of households live in traditional dwellings compared with 0.7% in North West Province and 0.4% in JB Marks Local Municipality.

The Sesotho language is the most frequently spoken at home by most inhabitants of the North West Province.

6.6 Education

The South African constitution has made access to quality basic education; including adult basic education a right that should be made available and accessible to everyone irrespective of race and gender. Table 5 shows that secondary education is the most common highest level of education among people aged 20 years and older in both Ditsobotla and JB Marks local municipalities. In Ditsobotla Local Municipality, 62.8% of persons aged 20+ had secondary-level education as their highest level, compared with 65.5% in JB Marks Local Municipality and 65.7% across North West Province (StatsSA, 2024).

The table below presents the education profile of the regional study area below.

Table 6: Education Profile for Those above 20 Years of Age

Area	Total persons aged 20+	No Schooling	Primary School	Secondary School	Higher Education	Other
Ditsobotla Local Municipality	98 381	9 043	15 938	61 806	10 846	748
		9.2%	16.2%	62.8%	11.0%	0.8%
Ngaka Modiri Molema District Municipality	549 113	55 580	88 299	330 084	71 083	4 067
		10.1%	16.1%	60.1%	12.9%	0.7%
JB Marks Local Municipality	138 368	8 244	16 900	90 598	21 697	929
		6.0%	12.2%	65.5%	15.7%	0.7%
Dr Kenneth Kaunda District Municipality	467 746	30 621	56 496	313 064	64 384	3 180
		6.5%	12.1%	66.9%	13.8%	0.7%
Northwest Province	2 350 003	176 667	326 546	1 543 065	286 842	16 884
		7.5%	13.9%	65.7%	12.2%	0.7%

Source: Statistics SA: Census 2022

Ditsobotla has a comparatively higher proportion of residents with lower education attainment. Approximately 9.2% of people aged above 20 in Ditsobotla had no schooling and a further 16.2% had primary school as their highest level of education. This means that 25.4% of persons aged above 20 in Ditsobotla had primary education or lower, compared with 18.2% in JB Marks and 21.4% in North West Province (StatsSA, 2024).

JB Marks Local Municipality has a comparatively stronger education profile. The municipality recorded 6.0% of persons aged above 20 with no schooling and 15.7% with higher education, compared with 7.5% and 12.2% respectively for North West Province. This suggests that JB Marks has a relatively larger base of residents with post-school educational attainment, while Ditsobotla may require more targeted skills development and entry-level training support in the context of project-related employment and community benefit planning (StatsSA, 2024).

6.7 Employment

Census 2022 did not publish the detailed municipal employment-status variables available from Census 2011. The most recent official and methodologically consistent source for current employment conditions is therefore Statistics South Africa's Quarterly Labour Force Survey (QLFS). The QLFS provides statistically reliable estimates at provincial level. Thus the latest North West provincial statistics have been used as the current labour-market benchmark for the regional study area and are provided in the table below.

Table 7 Benchmark Employment Profile

Indicator	North West Province	South Africa
Official unemployment rate	38.1%	33.6%

Indicator	North West Province	South Africa
Annual employment change	Decrease by 2% over the previous year	Increase of 0.4% over the previous year
Combined rate of unemployment and potential labour force (LU3)	56.0%	43.8%
Youth unemployment rate, ages 15–34	Not published at provincial level	47.4%

Source: Statistics South Africa, Quarterly Labour Force Survey, Quarter 2 of 2026

The Q2 2026 results show a weaker labour market in North West Province than in South Africa overall. The province's official unemployment rate of 38.1% was 4.5 percentage points above the national rate when measured using the official definition of unemployment. When people are willing to work but who have not been actively searching for work are included, the provincial labour-underutilisation rate increased to 56.0%, compared with 43.8% nationally. North West lost an estimated 15 000 jobs during the quarter. These indicators point to limited labour absorption, substantial discouragement among potential workers and strong competition for available employment.

The provincial figures are not fully representative of the conditions in the Ditsobotla Local Municipality since the QLFS sample since the municipality is largely rural where agriculture, seasonal work and a smaller share of working-age residents limit the number of full-time employment opportunities. JB Marks Local Municipality has a larger working-age population and a more diversified economy, centred on Potchefstroom and Ventersdorp, hence the provincial figures are more likely to represent employment conditions in that municipality.

The employment baseline indicates that construction recruitment will attract interest from surrounding communities and from job seekers outside the immediate area.

6.8 Household Income

An understanding of household income is necessary for a complete Social Impact Assessment. Census 2022 does not provide household-income figures or income-band distributions. Household income figures have therefore been taken from Census 2011 for the regional study area. Judging from the site rapid rural assessment conducted as part of this study, there is no reason to believe that the economic conditions have changed materially in the 10 years since the census taken in 2011. The figure below shows the Household Income result for the JB Marks Local Municipality.

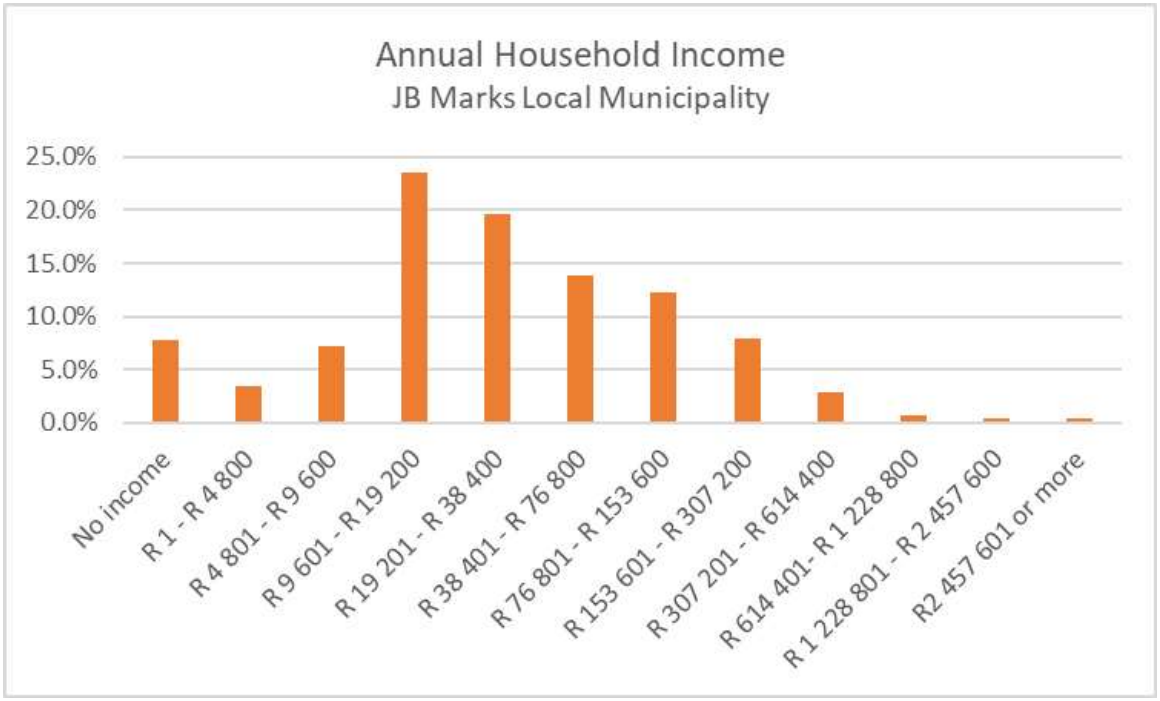

Figure 8: Annual Household Income – JB Marks Local Municipality

The figure demonstrates that 62% of the population had an annual household income of less than R38 000 in 2011. This is equivalent to R8 700 per household per month in 2026, assuming a wage growth rate of 7% per annum. Sixty seven percent of this population had an annual household income of just half that, at R19 200 per annum (or R4 400 per month in 2026, using a 7% wage growth rate).

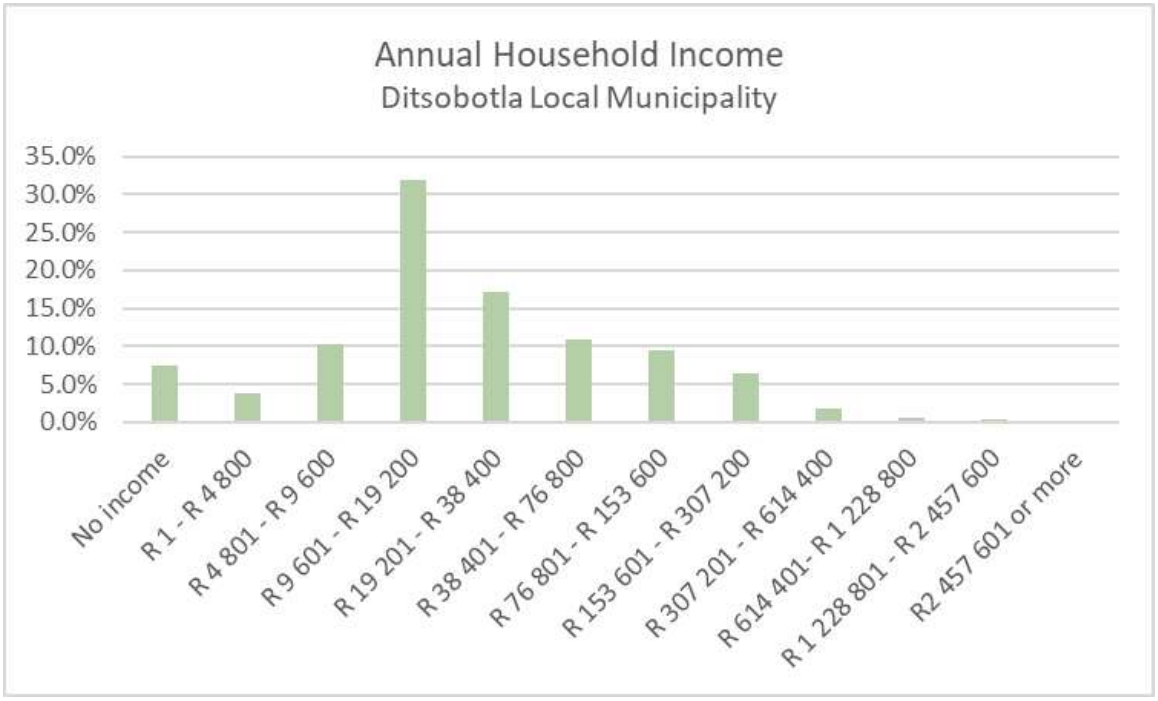

Figure 9: Annual Household Income – Ditsobotla Local Municipality

The figure above is provided for the Ditsobotla Local Municipality. It shows that 71% of the population had an annual household income of less than R38 000 in 2011. This is equivalent to R8 700 per

household per month in 2026, assuming a wage growth rate of 7% per annum. Three quarters of this population had an annual household income of just half that, at R19 200 per annum (or R4 400 per month in 2026, using a 7% wage growth rate).

The national minimum wage for farm workers, which is the most common occupation in the direct study area, is R30.23 per hour, equivalent to R4 837 per month for a 160-hour month. The figures derived show that most households have an income equivalent of less than the wages of one and a half farm workers. Just less than three quarters of households in the regional study area survive on income of less than a single farm worker.

The analysis is supplemented by data from the Community Survey 2016, which indicate the percentage of households which have skipped a meal in the past 12 months owing to a shortage of resources to take that meal.

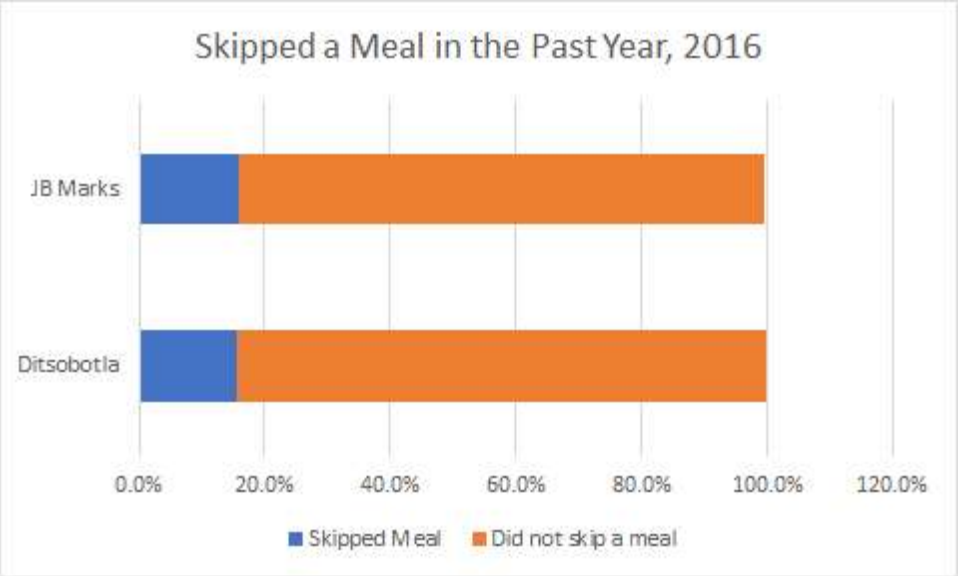

Figure 10: Households Skipping a Meal

The results show that 15% of the residents of both JB Marks and Ditsobotla Local Municipalities skipped a meal in the previous 12-months.

These figures illustrate the high level of poverty, and hence vulnerability, in the local municipality.

6.9 Access to Basic Services

Households in JB Marks Local Municipality generally have better access to basic services than the provincial average. Access to piped water within the dwelling or yard, 88.4%, flush toilets, 80.2%, and weekly refuse removal, 76.2%, exceeds the corresponding North West provincial averages of 74.5%, 58.5%, and 54.0%, respectively (StatsSA, 2024).

Table 8: Household Electricity Connections

Service Indicator	Ditsobotla Local Municipality (%)	JB Marks Local Municipality (%)	Northwest Province (%)
Piped Water Inside Dwelling/Yard	77.3	88.4	74.5
Flush Toilet Access	66.3	80.2	58.5
Electricity for Lighting	92.7	89.8	93.9
Weekly Refuse Removal	29.5	76.2	54.0
Water Supply Interruptions	71.0	40.3	65.2

Water service reliability is also comparatively better in JB Marks, with 40.3% of households reporting water supply interruptions compared to 65.2% across the province. The only indicator where JB Marks performs slightly below the provincial average is access to electricity for lighting, with 89.8% of households using electricity compared to 93.9% provincially (StatsSA, 2024).

More than 89% of households in Ditsobotla Local Municipality, JB Marks Local Municipality and the North West Province use electricity as their primary source of lighting, indicating a strong dependence on the national electricity grid (StatsSA, 2024). Despite these relatively high connection levels, households and businesses in the province continue to experience challenges related to electricity supply reliability, network constraints and rising energy costs. In this context, the proposed renewable energy project could contribute to strengthening South Africa's electricity generation capacity and supporting long-term energy security objectives. By increasing the availability of renewable energy within the national grid, the project may assist in alleviating electricity supply constraints and contribute indirectly to improved energy reliability and broader socio-economic development in the region (StatsSA, 2024).

Overall, the results suggest that JB Marks has relatively favourable levels of service delivery and infrastructure provision compared to the broader provincial context, although challenges relating to water reliability and household vulnerability remain evident.

7 LOCAL STUDY AREA OVERVIEW

This section gives an overview of the local study area and its receiving environment within an eleven-kilometre radius of the proposed project cluster.

7.1 Demographics

The local study area comprises Ward 34 of the JB Marks Local Municipality and Ward 17 of the Ditsobotla Local Municipality. Census 2022 generated ward-level population estimates. Ward 34 contains approximately 6 916 residents and Ward 17 approximately 3 202 residents (StatsSA, 2024).

The local study area population of approximately 10 000 residents is small when compared to the broader regional study area population. Consequently, while local recruitment opportunities should be prioritised for residents of Ward 34 and Ward 17, the majority of specialised and semi-skilled labour requirements are likely to be sourced from the wider municipal labour market, including Ventersdorp, Lichtenburg, Makokskraal and Ga-Motlatla.

7.2 Land Use and Infrastructure

The project land use is commercial agriculture, dotted with low density homesteads in the direct project area.

The project site can be accessed from the below labour sending areas and points;

- Makokskraal village - located eleven kilometres to the south of the project site;
- Lichtenburg town - located at forty kilometres to the west of the site;
- Bodenstein - located along N14 at approximately 15km to the south-west of the project site;
- Ga-Motlatla Village - is located at approximately 5km to the north of the project site; and
- Ventersdorp - located at approximately twenty-four kilometres to the south east of the project site.

This section of the report relies upon a census of the infrastructure and land-use impacts that has been conducted for this study. The results of the census are contained in Appendix 1.

7.3 Profile of the Receiving Environment

The receiving environment is agricultural land. The identified components of agriculture in this area are livestock, game, and crop farming. Mining activities were also identified in the nearby properties.

7.3.1 Cultural Background

The study area is characterised by a well-established rural cultural landscape shaped by longstanding relationships between agricultural landowners and local communities. Stakeholder engagement revealed that employment and social ties between Afrikaans farming families and BaTswana communities have, in many instances, been maintained across several generations. These enduring relationships have contributed to the development of strong social networks, mutual respect, and a shared cultural history within the area.

Community members indicated that cultural heritage, traditional values, and local customs remain important aspects of community life. The interaction between farming communities and local residents over an extended period has fostered a sense of social cohesion and interdependence, which continues to influence community dynamics and livelihoods.

Traditional leadership structures remain relevant within the broader social environment of the study area. Ga-Motlatla Village, located approximately 5 km north of the proposed project site, is served by a tribal administration office that works in collaboration with local municipal structures on matters affecting the community. The village accommodates a portion of the labour force employed on

surrounding farms and therefore maintains both social and economic linkages with the agricultural sector within the study area.

7.3.2 Access to basic services

Access to basic services within the study area is largely dependent on the farming operations and landowners who accommodate farm workers and their families. Farm dwellers generally rely on landowners for the provision and maintenance of essential services, including water supply, electricity, and sanitation facilities.

Electricity within the area is supplied primarily by Eskom. However, stakeholders indicated that electricity interruptions can negatively affect the reliability of water supply systems. Prolonged power outages often prevent borehole and reservoir pumps from operating effectively, resulting in difficulties pumping and storing sufficient water for household use and livestock requirements.

Sanitation infrastructure within the farming communities is generally limited, with pit latrines being the most common form of sanitation facility available to lower-income and farmworker households. During stakeholder engagement, concerns were raised regarding the condition and safety of some sanitation facilities, particularly in relation to hygiene, maintenance, and user safety. Inadequate sanitation infrastructure has the potential to pose health, environmental, and safety risks if not properly maintained.

7.3.3 Identified Economic Activities

The economy within the project area and surrounding rural settlements is primarily centred on agriculture, which remains the dominant land use and source of livelihood. Residents are dependent on a combination of crop production, livestock farming, and seasonal agricultural employment. Several agricultural enterprises operate within the broader area, including Motlana Farming Bodenstein, Vooruitzicht Simmentalers, Matiti Agri Farms (Boshoek Plaas), Lourens Boerdery, and the NWK Grootpan 2 Grain Silo.

In addition to commercial farming activities, some landowners have made portions of their land available for subsistence farming, enabling local households to supplement their income and food security. Community members also participate in seasonal farm work, which provides temporary employment opportunities during planting and harvesting periods. The presence of McCain's regenerative agriculture operations in the area contributes positively to the local economy through the provision of casual and seasonal employment. Employment opportunities are largely dependent on operational requirements and seasonal production cycles, the initiative provides an important source of income for surrounding communities. McCain currently leases a portion of the Goedvooruitzicht Farm for these agricultural activities.

A private mining operation located approximately 4 km north-east of the proposed substation site provides additional, albeit limited, employment opportunities for local residents. However, mining is not considered a dominant economic sector within the study area when compared to agriculture.

Tourism and hospitality also contribute to the local economy on a smaller scale. Private game farming is also present within the broader area.Facilities such as Buitehof Gasteplaas, Wawiel Country Lodge,

and the Rietspruitdam Holiday Resort attract visitors to the area and support employment opportunities associated with accommodation, recreation, fishing, and leisure activities. Recreational facilities and community gathering venues, including Hoefslagfees Park and Perdehoek Venue, further contribute to local economic activity.

The study area exhibits a predominantly agricultural rural economy, supplemented by tourism, community services, education, and limited mining activities. Employment opportunities are largely seasonal and concentrated within the agricultural sector, making farming the principal contributor to local economic sustainability.

7.3.4 Community Facilities

The study area is served by a range of social and community facilities that support local residents and contribute to community development. Educational facilities within and surrounding the study area include Dinareng Primary School, Morweng Primary School, Borithi Primary School, Leruntse Primary School, Phiri Secondary School, Gaborone Secondary School, Toevlug Primary School, and Makokskraal Primary School, with the latter two schools located within approximately 10 km of the proposed project area.

Additional community support infrastructure includes facilities such as the Welgevonden Community Hall and the Tsetse Youth Club, which provide venues for social services, community gatherings, youth development initiatives, and local events. While these facilities are not significant economic drivers, they play an important role in enhancing social cohesion and service delivery within the area.

Healthcare services are primarily concentrated within nearby towns and settlements, including Ventersdorp, Lichtenburg, Putfontein, Makokskraal, Bodenstein, and Ga-Motlatla. Access to healthcare remains a significant challenge for many residents, particularly those living on remote farms and agricultural holdings. Due to the dispersed rural settlement pattern, community members are often required to travel considerable distances to access medical facilities, emergency services, and specialised healthcare services. Consequently, accessibility to healthcare infrastructure remains a key socio-economic concern for farming communities within the study area.

7.3.5 Road infrastructure

The project area is primarily accessed via the R53 and N14 provincial routes, which provide connectivity to surrounding towns and agricultural areas. These roads serve as the main transportation corridors for local communities, farming operations, and commercial activities within the region.

Access to the project site is provided through a network of secondary gravel roads, many of which are underdeveloped and vulnerable to deterioration after rainfall. Local farmers reported recurring erosion, potholes, and surface damage, and in some instances landowners undertake temporary repairs using sand and gravel to maintain access for agricultural vehicles, farm workers, and residents.

7.3.6 Transport

Transport services within the study area are limited, reflecting the predominantly rural nature of the surrounding communities. Public transport options are generally not readily accessible to farm

residents and workers. As a result, many local farmers provide transportation for their employees and, in some instances, other residents living on or near the farms. Community members without access to private transport frequently rely on hitchhiking or walking long distances to access services and economic opportunities in nearby towns such as Lichtenburg and Ventersdorp.

School learners are largely dependent on organised school transport services to travel to and from educational facilities. School buses play a critical role in ensuring access to education for children residing on farms and within dispersed rural settlements. Buses were observed transporting learners from Makokskraal Primary School, which is situated within Makokskraal Village to the south of the project area.

Rail infrastructure is also present within the broader study area, with a major railway line passing through Makokskraal. However, observations during the site visit indicated that the railway is likely no longer operational. This is evidenced by the dilapidated condition of the railway station, abandoned infrastructure, and visibly rusted railway tracks. Consequently, rail transport does not currently contribute to passenger mobility or freight transportation within the study area.

7.3.7 Livelihoods

The local economy within the project area is predominantly driven by agriculture, with commercial crop farming, livestock production, and seasonal farm employment serving as the primary economic activities. Agricultural enterprises, including commercial farms, livestock breeders, and grain storage facilities, contribute significantly to local livelihoods and economic sustainability.

Additional employment opportunities are provided through McCain's regenerative agriculture operations, which offer seasonal and casual work to local residents. Limited economic contributions are also derived from a nearby private mining operation, tourism and hospitality establishments, and community services such as schools and public facilities. Overall, the area is characterised by a rural, agriculture-based economy with supplementary support from tourism, education, and small-scale service sectors.

7.3.8 Crime, Safety and Security

Crime, safety and security concerns within the project area relate mainly to property access, the movement of construction workers and contractors, potential intrusion onto private farms, and the protection of farm assets, livestock, game, equipment, and residents. These concerns should be managed through controlled access arrangements, clear communication with landowners, worker codes of conduct, security protocols, and a responsive grievance mechanism.

7.4 Stakeholder Engagement

The World Bank's Environmental and Social Framework (2018) defines stakeholder engagement as an inclusive process that is undertaken throughout the project life cycle. Effective stakeholder engagement facilitates the development of strong, constructive, and responsive relationships between the project proponent and affected and interested parties, thereby supporting the successful identification and management of environmental and social risks and impacts.

The stakeholder engagement activities undertaken for this project incorporated inputs from the public participation processes conducted during the earlier Scoping Phase, as well as direct engagement with affected and interested parties. The following stakeholder engagement methods were implemented to ensure that stakeholders were informed of the project and provided with meaningful opportunities to participate in the environmental assessment process.

7.4.1 Comments Made by the Public

Site notices were placed around the project area to inform residents of the project, and a comment period was opened. This comment period closed on 11 August 2026 with no comments relating to the social aspects of the project were received. A database of the potentially affected parties and community elected representatives were sent email notifications which included a Background Information Document (BID). This document provided an overview and description of the proposed project and invited comments from the public

7.4.2 Primary Data Collection Report

A baseline study of the area's infrastructure was conducted on Google Earth prior to the site visit. The analysis of properties and infrastructures were observed within an eleven-kilometre radius around the project site and around the proposed new substation. The image in the following table depicts the observations of the key places visited.



Senwes Grain link Silo: Makokskraal



Grootvlei Farm settlement

Figure 11 Primary Data Collection Images

McCain regenerative farm, the diamond mine and the farm settlement are located within portion of the Goedvooruitzicht farm. The Makokskraal Senwes grain silos are amongst the companies that offers economic opportunities to the local communities.

7.5 Rapid Rural Assessment Process.

An initial site visit was conducted on 24 January 2023, a subsequent site visit was undertaken on 20 August 2026. The purpose of these site visits was to collect primary baseline information on the receiving social environment, verify existing socio-economic conditions, and engage directly with local

stakeholders to gain an understanding of community perceptions and expectations regarding the proposed project.

The site visits provided an opportunity to observe settlement patterns, land uses, access to services, transportation infrastructure, community facilities, economic activities, and other social characteristics within the study area. Discussions with local residents, farm workers, landowners, and community representatives further assisted in identifying key socio-economic opportunities, challenges, and potential areas of concern associated with the proposed development.

During the site visits, several socio-economic features of the receiving environment were observed and documented, as discussed in the sections below.

The following figure provides images captured during the site visits.

Figure 12: Images Captured During Site Visits



Game Farm



Rural Road Condition

7.5.1 Social Assessment Informant Survey

Barrow (2000) notes that the purpose of random interviews is to promote inclusive participation by ensuring that a diverse range of stakeholders, including marginalised and less vocal groups, are afforded an opportunity to contribute to decision-making processes. In support of this objective, a series of face-to-face interviews were undertaken with stakeholders identified within the study area, as listed in the stakeholder engagement register.

The primary purpose of these engagements was to obtain and document stakeholder views, concerns, expectations, and perceptions regarding the proposed development. A structured questionnaire was utilised to facilitate discussions and to ensure the consistent collection of information from affected and interested parties. Information gathered during the interviews informed the Social Impact Assessment (SIA) and assisted in identifying potential social risks, impacts, and opportunities associated with the proposed project.

The primary engagement findings should be interpreted as qualitative baseline information rather than a statistically representative survey of all affected communities. The interviews and site observations provide important insight into local perceptions, concerns, and socio-economic

conditions, but they should be read together with the formal public participation record, municipal data, and other specialist inputs.

Overall, stakeholder perceptions towards the proposed development were largely positive, particularly with respect to anticipated economic benefits. Several stakeholders indicated that the proposed solar facility could contribute to local economic development through employment creation and associated business opportunities. The co-existence of the proposed solar facility and the nearby regenerative farming operations was also viewed positively by some participants, who believed that the development could enhance the area's profile and potentially contribute to agri-tourism and eco-tourism initiatives.

A recurring theme raised during consultations was the need for local employment opportunities, particularly for young people. Stakeholders noted that limited economic opportunities within the area have resulted in many young residents relocating to larger towns and cities in search of employment. As such, there is an expectation that the proposed project may contribute towards reducing unemployment by creating temporary and, where possible, long-term employment opportunities for local communities.

Notwithstanding the generally positive sentiment, several concerns were also raised. One stakeholder expressed concern regarding the potential loss of productive agricultural land, suggesting that renewable energy infrastructure should rather be developed on previously disturbed or degraded land, such as the defunct mine area located near Ga-Motlatla. In addition, some stakeholders questioned the extent to which local communities would benefit from the proposed development, expressing concern that the economic benefits may accrue primarily to landowners, with limited direct socio-economic benefits reaching surrounding communities.

Table 9: Summary of the Community Attitudes

Key Needs / Issues Identified	Recommended Mitigation / Enhancement Measures
Limited livelihood and economic opportunities within surrounding farming communities, particularly for women and youth.	Prioritise local employment and procurement opportunities during the construction and operational phases. Encourage the participation of women, youth, and historically disadvantaged individuals in project-related employment and supplier opportunities. Support community development initiatives that promote economic diversification and sustainable livelihood opportunities beyond seasonal agricultural employment. Communicate employment and procurement opportunities transparently to surrounding communities.
Limited skills development opportunities for youth and unemployed community members.	Develop and implement skills development and training programmes targeting matriculants, school leavers, unemployed youth, and women. Where feasible, provide technical training, apprenticeships, internships, or mentorship opportunities linked to project activities.

Key Needs / Issues Identified	Recommended Mitigation / Enhancement Measures
	Promote exposure to renewable energy technologies and other sustainable industry skills that may improve future employability.
Poor road infrastructure and accessibility. Local roads are predominantly gravel and are prone to erosion, potholes, and deterioration following rainfall events.	Ensure that project-related traffic does not unnecessarily damage existing road infrastructure. Implement Road maintenance measures where project activities contribute to road deterioration. Liaise with local authorities and landowners regarding access routes and road condition management during construction. Where practicable, support improvements to road safety and accessibility along frequently used project access routes.
Concerns regarding the well-being of elderly residents within farming communities, including access to services, healthcare, and suitable living conditions.	Support community investment initiatives that contribute to the well-being of vulnerable groups, including the elderly. Facilitate engagement with local stakeholders to identify priority community needs. Promote safe working and living environments and ensure that community development initiatives consider the needs of elderly and vulnerable residents.

8 IDENTIFICATION OF IMPACTS

8.1 Impacts and Mitigation Framework

Socio-economic impacts are expected to arise from the proposed project during its planning, construction, operational, and decommissioning phases. The impacts discussed in this section are assessed in terms of their nature, extent, magnitude, duration, probability, and significance, both before and after the application of mitigation measures.

For the purposes of this assessment, an impact is understood in line with ISO 14001:2004 as any change to the environment, whether adverse or beneficial, that results wholly or partially from an organisation's activities, products, or services.

The criteria used to assess and quantify the identified socio-economic impacts, together with the approach to mitigation and monitoring, are summarised in Table 12 below.

Table 10: Impact and Mitigation Quantification Framework

Nature	The project could have a positive, negative, or neutral impact on the environment.
Extent	**Local** – extend to the site and its immediate surroundings. **Regional** – impact on the region but within the province. **National** – impact on an interprovincial scale.

	International – impact outside of South Africa.
Magnitude	Degree to which impact may cause irreplaceable loss of resources: **Low** – natural and socio-economic functions and processes are not affected or minimally affected. **Medium** – affected environment is notably altered; natural and socio-economic functions and processes continue albeit in a modified way. **High** – natural or socio-economic functions or processes could be substantially affected or altered to the extent that they could temporarily or permanently cease.
Duration	**Short term** – 0-5 years. **Medium term** – 5-11 years. **Long term** – impact ceases after the operational life cycle of the activity either because of natural processes or by human intervention. **Permanent** – mitigation either by natural process or by human intervention will not occur in such a way or in such a time span that the impact can be considered transient.
Probability	**Almost certain** – the event is expected to occur in most circumstances. **Likely** – the event will occur in most circumstances. **Moderate** – the event should occur at some time. **Unlikely** – the event could occur at some time. **Rare/Remote** – the event may occur only in exceptional circumstances.
Significance	Provides an overall impression of an impact's importance, and the degree to which it can be mitigated. The range for significance ratings is as follows- **0** – Impact will not affect the environment. No mitigation necessary. **1** – No impact after mitigation. **2** – Residual impact after mitigation. **3** – Impact cannot be mitigated.
Mitigation	Information on the impacts together with literature from socio-economic science journals, case studies and field work will be used to provide mitigation recommendations to ensure that any negative impacts are decreased, and positive benefits are enhanced.
Monitoring	Monitoring usually involves developing and implementing a monitoring programme to identify deviations from the proposed action and to manage any negative impacts. The recommended mitigation measures will also include monitoring measures.

A well-designed, well implemented, professionally managed solar park can bring significant socio-economic benefits to the communities that it serves. If configured or operated in a way that ignores significant socio-economic needs or potential impacts, the proposed project may have significant socio-economic costs or liabilities for the stakeholders and affected communities.

Therefore, assessing socio-economic impacts is a complex process due to the multi-dimensional nature of the human interactions. This occurs in situations where a particular impact affects a group of stakeholders differently. An inter-connection of impacts can also be encountered whereby several impacts are related and when assessed cumulatively; their impacts may be of significance.

The impact assessment scores both before and after mitigation were arrived at by the specialist team engaging in a modified version of the Delphi technique, where the team discussed the scores, and through a process of iteration arrived at a consensus for each of the values. Where additional information was needed to decide, the technique would be halted, the necessary information would be uncovered and included in the report, and the technique would be recommenced.

8.2 Identification of Activities and Aspects

An activity refers to a distinct process, task, facility, or item of infrastructure associated with the proposed project for which responsibility can be assigned. In this assessment, project activities include land and servitude acquisition, construction, operation, maintenance, grid connection, rehabilitation, and decommissioning activities.

An aspect refers to an element of an organisation's activities, products, or services that can interact with the social or receiving environment. These aspects may result in either positive or negative socio-economic impacts, depending on the nature, location, duration, scale, and management of the activity.

To identify the potential socio-economic impacts associated with the proposed infrastructure, an activity–aspect–impact table was compiled. Table 13 summarises the main project activities, associated aspects, and potential positive and negative social impacts that may arise during the project life cycle.

Table 11: Activity, Aspects and Impacts of the Project

Activity	Aspect	Potential Impact – Positive	Potential Impact – Negative
Land and Servitude Rights Acquisition	Land Acquisition		Loss of agricultural production
			Loss of land (including, structures and cultivated areas) through project infrastructure
			Community dissatisfaction
	Servitude Rights		Some restrictions on use of productive land
Scheme Operations	Electricity generation	Economic growth and induced impacts.	
	Supply of goods and services to the project	Opportunity for local business	
		Opportunity for local labour force	
	Administration and Technical Input	Employment of staff locally	
		Skills development	

Activity	Aspect	Potential Impact – Positive	Potential Impact – Negative
Construction Phase	Access into properties		Security concern
			Risk of intrusion
	Solar Park Construction – piling, frame erection and solar panel mounting, electrical installation and rehabilitation	Employment of people locally	
		Sourcing of equipment, machinery, and services locally	
			Noise
			Dust
		Employment of local people	
			Injuries on site
			Increased community conflicts due to employment of outsiders
			Influx of people seeking employment and associated impacts (e.g., cultural conflicts, squatting, demographic changes, anti-social behaviour, and incidence of HIV/AIDS)
		Sourcing of equipment, machinery, and services locally	
			Livestock and game animal safety
	Transport of goods to site and employment of staff		Increased traffic
	Transmission Line	Employment of people locally	
			Security concerns when contractor's access private property
		Sourcing of equipment, machinery, and services locally	
	Rehabilitation		Damage or wear to access roads
			Security Concerns
			Damage to property or equipment

8.3 Impact and Mitigation Assessment

Taking these impacts into account and based on the project description as well as the applicable legislation and policy and planning issues, the following socio-economic impact variables have been identified as being associated with the project. These impacts are in accordance with Vanclay's list of socio-economic impact variables (Vanclay, 2002; Wong, 2013) clustered under the following seven main categories as follows:

Health and Well-Being Impacts

- Risk of intrusion;
- Injuries;
- Health risks; and
- Social pathologies.

Quality and the Living Environment Impacts

- Risk of intrusion;
- Dust; and
- Noise.

Economic and Material Well-Being Impacts

- Loss of land;
- Restrictions on land;
- Economic and social stimuli;
- Informal settlements; and
- Damage to property.

Cultural Impacts

- Cultural resistance;
- Influx of job seekers; and
- Community conflict over non-local employment.

Gender Relations Impacts

- Cultural resistance; and
- Risk to the vulnerable.

These categories are not exclusive, nor fully inclusive of the project specific impacts, and at times tend to overlap as certain processes may have an impact within more than one category.

Cumulative impacts can be both positive and negative. Cumulative impacts refer to the impacts that are incremental on the environment that results from the impacts of the proposed action when added to the existing and near future actions. These impacts can also be temporary in nature (by being restricted to the construction phase) and permanent (occurring in both the construction and operation phase).

8.4 Impacts during the Planning Phase

The planning phase of any project ensures the analysis of potential impacts, this allows the assessment of any risk to be measured from a scale of high, medium, or low. This pro-active approach ensures the identification of key socio-economic issues that can be mitigated before moving further to other phases of development in the project.

The assessment of the key social issues for the proposed project was identified based on the project related information including specialist studies, primary data collection methodologies, project team's familiarity with the project area and experience with similar project studies.

8.4.1 Institutional, Legal, Political, and Equity

- Loss of land through project infrastructure; and
- Some restrictions on use of productive land.

During the planning phase of the project, it is expected that there will be some legal and institutional challenges that affect both the local community and the project implementers. With the nature of the project being construction, it is understood that a predetermined portion of land will be made available for the purposes. However, since this is farm area, the loss of land to the project will come with economic downsides for those in the community who generally realise agricultural benefits. There will also be restrictions subjected on the use of otherwise productive land because of the infrastructure to be installed. Although these impacts will likely only be felt once the project is operational, the legal aspect that tenders the land acquisition would be made known at the planning phase.

There are mitigation measures that can be planned to account for the negative impacts so that the social experience is not too distressful. These are shown in the table below:

Table 12: Planning Phase Impacts - Institutional, Legal, Political and Equity

Environmental Feature	Institutional, Legal, Political and Equity					
Project life cycle	All Phases					
Potential Impact	Proposed Management Objectives / Mitigation Measures					
Loss of land through project infrastructure	• Where the construction takes place will result in the land being acquisitioned and so adequate steps must be taken to ensure that the owner is not treated unfairly in the process.					
	• Promptly address any concerns raised by the public in a transparent manner.					
	• Include all relevant community members in decisions affecting them.					
Some restrictions on use of productive land	• Once the project is operational, the land will be dedicated exclusively to the project and so its prior productivity will no longer apply. This must be clearly communicated, and the owner should be adequately compensated.					
	Nature	Extent	Magnitude	Duration	Probability	Significance

Environmental Feature		Institutional, Legal, Political and Equity				
Before Mitigation	Negative	Site	Moderate	Long Term	High	2
After Mitigation	Negative	Site	Low	Long Term	High	1
Significance of Impact and Preferred Alternatives	The impact on project progress could be significant if grievances are not addressed. This can be effectively mitigated through the establishment of a grievance procedure and adherence to local by-laws. The impact has no consequence for project alternatives.					

8.5 Impacts During the Construction Phase

The construction activity will impact the social environment both positively and negatively. Given the nature of the project area, construction activity is likely to cause several social nuisances as well as possible economic implications on the communities and commercial activities. With a project of this nature, most social impacts are experienced during the construction phase, as this is when construction related activities, relating to the influx of labour and the use of construction machinery occurs.

8.5.1 Economic Opportunities

- Economic and social stimuli; and
- Informal trading.

The project is expected to bring economic benefit to the local community through employment opportunities for labourers and locally owned businesses.

In addition to the economic value added, the construction phase was estimated to produce some 6 200 job years for South African citizens, of which 4 600 job years will accrue to local work seekers. Considering experience with renewable project implementation in South Africa, 1 116 job years (18%) are likely to accrue to females, and a total of 2 790 years (45%) are likely to accrue to youth.

The official youth unemployment rate in the region is likely higher than the general unemployment rate, this being the trend nationwide. This project has the potential to impact positively on this rate should employment practises targeted at workers (male and female) under 35 years old be adopted.

The high number of impoverished households shows that there are vulnerable communities in the study area. It is recommended that the appointed contractor use local SMME's and local unskilled labour as far as possible during the construction phase to enhance any local economic impact. In addition, this would increase the skills in the area after construction is completed.

In this way more project revenue will stay in the area, raising economic activity and increasing welfare, resulting in induced economic opportunity. In South Africa, most employment is generated through small and medium business. Given the size of the proposed project, should contracts between local SMMEs be implemented, it is likely that there will be an increase in employment by SMMEs for the duration of the contracts.

In particular, the project has the potential to create several opportunities for existing and new local SMMEs. These opportunities range from site clearing, to fencing, parts of the construction scope and supply of materials. There are also opportunities for community members to provide labour, catering, accommodation, and other services to the new workers.

Where possible, the project proponent should support and encourage the procurement of SMMEs and local or regional suppliers in line with government policy.

Education levels provide an indication of the level of skill in the community and the degree to which the community skills base can be increased. Attempts to break the poverty cycle of the project areas will require more than secondary school education. Higher education or further skills training is required. It is therefore important that the community members under-go skills development. It is recommended that the project proponent institute a skills development program during construction.

The project proponent should monitor the employment process. Employment audits should be conducted. It is important that women are also provided employment opportunities. Audits should pay attention to the employment process of women to ensure that exploitation does not take place.

As a result of the analysis above, the following impact/mitigation table has been generated.

Table 13: Construction Phase Impacts - Economic Opportunities

Environmental Feature		Economic Opportunities				
Project life-cycle		Construction phase				
Potential Impact		Proposed Management Objectives / Mitigation Measures				
Economic and social stimuli arising from the developmental initiative of the project.		• Local SMMEs should be given an opportunity to participate in the construction of the project through the supply of services, material or equipment.				
		• Youth development should be considered as an initiative so that there is a benefit of transferring skills to the community. This can be achieved through the assistance of the local municipality.				
		• The main contractor should employ non-core labour from the regional study area as far as possible during the construction phase.				
Informal trading being established at the site boundaries		• Spaza/informal trader shops may open next to the site to cater for construction workers. These should be controlled by the contractor to limit their footprint and to ensure that the MLM By-laws are complied with.				
	Nature	Extent	Magnitude	Duration	Probability	Significance
Before Mitigation	Positive	Regional	Medium	Short Term	Likely	1
After Mitigation	Positive	Regional	Large	Short Term	Likely	3

Environmental Feature	Economic Opportunities
Significance of Impact and Preferred Alternatives	Individuals who will benefit during the construction are limited to those who actively participate in the construction activity through employment, sub-contracting or other economic opportunities. Active participation should be encouraged. The benefits on such a construction will take place irrespective of which site alternative is preferred.

8.5.2 Gender Relations

- Cultural resistance to female workers.

Gender relations are recognised as an important factor in efforts to achieve equity across society. Women should be provided with equitable access to project employment, procurement and skills-development opportunities, particularly because women remain underrepresented in the construction industry. Skills-development initiatives directed at women could support more equitable representation in the industry.

Although equal access to employment across gender lines is a recognised right, the application of this right is often executed without careful consideration of the factors that may frustrate this right amongst women in the workplace. In this regard women are often subjected to cultural factors within the workforce from both peers on the job and from management who may resist both employing and promoting women, often based on cultural prejudices. Consequently, the International Labour Organisation points out that:

“Societies therefore have an obligation to create conducive social environments for all their citizens to be able to exercise their right to work, fully utilizing their human potential. Furthermore, evidence has shown that when women are employed and have their own income in their hands, there exist both direct and indirect social benefits for themselves and their households” (Otobe, 2014, p. 1).

With the employment of women during the construction and operational phases of the project it is important to ensure that cultural factors do not hinder the process of employing women and ensuring that they enjoy equal opportunities to men in the workforce.

Following on from the above, the division of labour is a critical aspect that will also lead to various impacts during both the construction and operational phases of the project. During the construction and operational phases of the project women will be integrated into the workforce, however, this will come with various challenges. Women and men work on different tasks, have different biological, sex, gender and health needs, and have different roles within the family, all of which need to be considered in order to create a workplace, without discrimination, that is accessible to both women and men on an equal basis (World Health Organization, 2006).

In introducing women into the workforce, it must be noted that women are over-represented amongst the poorer sectors of society, particularly within the more rural communities, and under-represented, both vertically in terms of responsibility and seniority as well as horizontally in respect of certain functional areas and job categories (Otobe, 2014, p. 22). This is especially the case in the local project

area where the proportion of women to men is higher than the provincial average. Thus, the potential labour force is dominated by women.

As a result of the analysis above, the following impact/mitigation table has been generated.

Table 14: Construction Phase Impacts - Gender Relations

Environmental Feature		Gender Relations				
Project life-cycle		All phases				
Potential Impact		Proposed Management Objectives / Mitigation Measures				
Cultural resistance towards women because of increased gender representation in the workforce		• Sensitise staff in respect of gender sensitive issues that are pertinent to the workplace. • Ensure gender inclusivity and equity with respect to all compensation. • Prioritise gender inclusivity and equity in access to resources, goods, services and decision making with the aim of empowering women. • Promote equal job opportunities for women and men during the construction and operational processes. • Prioritise and articulate gender inclusivity and equity in the project documents by including specific strategies and guidelines for implementation. • The project documents should also include clear mechanisms through which the actual implementation of the activities and the impact on the ground can be monitored and evaluated. • Develop a grievance procedure to specifically address gender matters. • Factors such as culture should be considered when planning for gender activities since they play a great role in influencing gender relations.				
	Nature	Extent	Magnitude	Duration	Probability	Significance
Before Mitigation	Negative	Site	Moderate	Short term	High	2
After Mitigation	Negative	Site	Low	Short term	High	1
Significance of Impact and Preferred Alternatives	The impact on project equity promotion would be moderate if this impact were not addressed. This can be effectively mitigated through the design of a specific gender-focused. The impact has no impact on alternative project layouts.					

8.5.3 Property and Production

- Risk of intrusion;
- Livestock and game animal safety;
- Loss of agricultural production; and
- Damage to property.

During the construction phase, it is expected that there will be impacts on the agriculture, livestock, and game animals, as well as on the property of locals. As the area of development and its surrounds is farmland, where crops, livestock, and game are kept, the productivity there will inevitably be affected. There is a risk of construction workers intruding on the neighbouring farms, not necessarily with intent to cause harm, but which could nevertheless be dangerous. The livestock and game in the area are valuable and so it is necessary to ensure that there is no chance of them wandering close to the construction site. It is also important to communicate well with the local community about the construction schedule so that farming activities are not unduly interrupted. Also, there is the chance that local property may be damaged during construction.

In relation to the analysis above, the impacts and mitigation measures are presented below:

Table 15: Construction Phase Impacts - Property and Production

Environmental Feature		Property and Production				
Project life-cycle		Construction phase				
Potential Impact		Proposed Management Objectives / Mitigation Measures				
Risk of intrusion		• The project proponent should ensure entrance management and control.				
Livestock and game animals Safety		• There should be clear demarcation of the area in development so that livestock and game animals are prevented from wandering nearby.				
Loss of agricultural production		• The project proponent should ensure that the schedule for construction is made available to the local community so that they can suitably prepare.				
Damage to property		• If a risk exists of damage taking place on a property as a result of construction, a condition survey should be undertaken prior to construction; • The contractor is to make good and acknowledge any damage that occurs on any property as a result of construction work; • Where crops and agricultural machinery are damaged, compensation is to be paid to the farmer for the proven loss of these crops; • The farmer should be compensated for any loss of income experienced at the account of the contractor.				
	Nature	Extent	Magnitude	Duration	Probability	Significance
Before Mitigation	Negative	Local	Medium	Short Term	Likely	1

Environmental Feature		Property and Production				
After Mitigation	Positive	Local	Minor	Short Term	Likely	3
Significance of Impact and Preferred Alternatives	Costs related to damage and theft should be borne by the developer. There are no alternatives suggested.					

8.5.4 Disturbances Arising from Construction

- Increase in dust; and
- Noise impacts.

During the construction phase, there is a potential for communities to be exposed to increased dust, noise, and other disturbances. The site is in an isolated area where the number of community receptors is limited.

The generation of dust stems from activities such as clearing of vegetation, piling and vehicle movement during the construction phase. This situation will be worse during the dry season and during windy seasons. Airborne particulates may pose a hazard to residents downwind of the construction site that suffer from upper respiratory tract problems. Mitigation through dust suppression will allow for this impact to be effectively managed.

During the construction, equipment will be required for the site clearance, and during piling and trench excavation for electrical connections. A degree of noise generation will be unavoidable. The degree of noise, frequency of noise and individual perception are all important considerations when determining the impact on noise. Adequate warning of high noise events such as blasting (if required owing to the nature of the subsoil material) should be communicated to the affected communities prior to carrying out such activities. Construction times should be limited to normal working hours.

As a result of the analysis above, the following impact/mitigation table has been generated.

Table 16: Construction Phase Impacts - Disturbances Arising from Construction

Environmental Feature	Disturbances Arising from Construction
Project life-cycle	Construction phase
Potential Impact	Proposed Management Objectives / Mitigation Measures
Increase in Dust	• Dust and disturbance can be mitigated through the use of appropriate dust suppression mechanisms. • Adherence to road signage can be added as an advantage and a measure to manage the increase in dust levels; • Mitigation measures management should be adhered to according to the relevant specialist studies.

Environmental Feature		Disturbances Arising from Construction				
Noise impacts		• Prior notice should be given to surrounding communities of noisy event such as blasting. • Construction work should take place during working hours – defined as 07h00 to 17h00 on weekdays and 07h00 to 14h00 on Saturdays. Should overtime work be required, that will generate noise, consultation with the affected community or landowner should take place.				
	Nature	Extent	Magnitude	Duration	Probability	Significance
Before Mitigation	Negative	Local	Medium	Short Term	Likely	2
After Mitigation	Negative	Local	Low	Short Term	Moderate	1
Significance of Impact and Preferred Alternatives	Disturbances and irritation during construction is to be expected. These can then be successfully mitigated through contractor specifications that are issued at a tender stage and through the continuous monitoring of contractor proceedings and performance during construction phase. Negative impacts owing to the construction will unfortunately be experienced irrespective of the site and routing alternative that is most preferred and chosen.					

8.5.5 Worker Health and Safety

- Injuries on site
- Protecting the vulnerable

The impacts of construction can affect the health and safety of those working on the construction site. These impacts can be mitigated in the Environmental Management Programme (EMPr) and through adherence to the Occupational Health and Safety Act 85 of 1993.

Given that the project will employ females are part of the workforce, gender considerations should enjoy priority. The workplace should be free of harassment and employment practises should be transparent and free from any coercion or trading. The workplace should make adequate provision for separate gender changing areas and ablution facilities.

As a result of the analysis above, the following impact/mitigation table has been generated.

Table 17: Construction Phase Impacts - Worker Health and Safety

Environmental Feature	Worker Health and Safety
Project life cycle	Construction Phase
Potential Impact	Proposed Management Objectives / Mitigation Measures
Injuries on Site	• The provisions of the OHS Act 85 of 1993 and the Construction Regulations of 2014 should be implemented on all sites;

Environmental Feature		Worker Health and Safety				
		• Account should be taken of the safety impacts on the local community when carrying out the longitudinal aspects of the project, such as the powerline; • Contractors should establish HIV/AIDS awareness programmes at their site camps. • Gender sensitive work place practises should be planned for and adopted on site. Employment practises should be demonstrated free of coercion or harassment.				
Protecting the Vulnerable		• There should be a policy on harassment that is well understood by all. • There should be separate changing facilities for men and women, and they should be clearly marked as such. • There should separate toilet facilities for men and women, and they should be clearly marked as such.				
	Nature	Extent	Magnitude	Duration	Probability	Significance
Before Mitigation	Negative	Local	Medium	Short Term	Likely	2
After Mitigation	Negative	Local	Low	Short Term	Moderate	1
Significance of Impact and Preferred Alternatives	The significance of the impact is high as community attitudes can be altered. The implementation of the overall mitigation measures is essential and necessary to minimise the impact from workers' health and safety and community impacts.					

8.5.6 Influx of Job Seekers

- Job seekers influx into the community
- Community conflict over employment of non-locals
- Increased health risk
- Increased social pathologies

It is expected that this influx will be limited owing to the large pool of potential workers for the project being available in the JB Marks Local Municipality. The fact that Ventersdorp and Lichtenburg are close to the construction site will ensure that labour is able to live at home for the duration of the construction project.

An influx of workers is often characterised by higher health risks, particularly if the influx is male dominated. These include a higher disease burden and rise in HIV/AIDS rates. There is an increased risk associated with the gathering of construction workers in a concentrated area and the availability of disposable income which may attract prostitution. In this regard the World Bank (Gender in Agriculture Sourcebook, 2009, pp. 367-368) indicates that there is a strong link between infrastructure projects and health as:

"Transport, mobility, and gender inequality increase the spread of HIV and AIDS, which along with other infectious diseases, follow transport and construction workers on transport networks and other infrastructure into rural areas, causing serious economic impacts."

It is expected that this influx will be limited owing to the large pool of potential workers for the project being available in the JB Marks Local Municipality. The fact that Ventersdorp and Lichtenburg are close to the construction site will obviate the need for communal living that may increase the chances for the spread of disease.

There should also be awareness and education campaigns on health and social risks such as HIV/AIDS, and crime prevention. Furthermore, social pathologies, such as alcohol abuse, risky sexual behaviour, and gambling should be considered, and appropriate measures taken to limit adverse consequences from this.

The above discussion above has generated the below impact table.

Table 18: Construction Phase Impacts - Influx of Job Seekers

Environmental Feature	Influx of Job Seekers
Project life cycle	Construction Phase
Potential Impact	Proposed Management Objectives / Mitigation Measures
Job seekers influx into the community.	• All employment of locally sourced labour should be controlled and formalised. No employment should take place from the project gate and contracts of employment should be entered into taking into account the Labour Relations Act; • If possible, and if the relevant Ward Councillors deems it necessary, the employment process should include the affected Ward Councillors and their ward committee. • To limit the growth of informal settlements in the project area, labour should be sourced from existing labour sending areas, from people who resided in the area prior to appointment. This process should include the Ward Councillor to ensure that only local residents are employed, rather than labour migrants. • No staff accommodation should be allowed on site; • To limit the growth of settlements near the project site the project proponent should provide worker transport to and from the work site for the duration of construction.
Increased community conflicts due to employment of local and non-local labourers	• Programmes should be developed to boost the local economy. These can be in the form of Corporate Social Responsibility (CSR) that will favour local empowerment.
Increase health risk	• Measures should be taken to provide condoms and, where necessary, access to counselling to address any risks to health.
Increased social pathologies such as crime, drug abuse and sexual behaviours.	• The mitigation method will require a change in community values and attitudes; This can be done through creating social awareness, and educating the workforce with regards crime awareness and social pathology prevention

Environmental Feature		Influx of Job Seekers				
	Nature	Extent	Magnitude	Duration	Probability	Significance
Before Mitigation	Negative	Site	Moderate	Short term	High	2
After Mitigation	Negative	Site	Low	Short term	High	1
Significance of Impact and Preferred Alternatives	The significance of the impact is high as community attitudes can be altered. The implementation of the overall mitigation measures is essential and necessary to minimise the impact from job-seekers influx and community impacts.					

8.5.7 Security

- Ensuring the security of the project site

There are safety concerns related to the construction activity. Landowners adjacent to similar projects, generally express security concerns, including an increase in crime rates once an area experiences an increase in population owing to the number of construction workers on site.

Mitigation measures include the project proponent, prior to construction, planning for the management of workers by taking measures such as readily identifiable clothing, having the site fenced and secured and taking measures to ensure workers do not congregate outside the site before or after working hours. A security policy must be drafted and strictly enforced by the contractors.

As a result of the analysis above, the following impact/mitigation table has been generated.

Table 19: Construction Phase Impacts - Security

Environmental Feature		Security				
Project life cycle		Construction Phase				
Potential Impact		Proposed Management Objectives / Mitigation Measures				
Ensuring the security of the project site		• The camp site for the project and the longitudinal construction sub-site laid down areas should be fenced for the duration of construction; • All contractors' staff should be easily identifiable through their respective uniforms; • A project policy on management of workers should be developed. This would include education and awareness to be conducted with regards crime, trespassing and not gathering outside the site could be conducted. • Security staff should only be allowed to reside at contractor camps and no other employees.				
	Nature	Extent	Magnitude	Duration	Probability	Significance
Before Mitigation	Negative	Local	Medium	Short Term	Likely	2
After Mitigation	Negative	Local	Low	Short Term	Moderate	1

Environmental Feature	Security
Significance of Impact and Preferred Alternatives	Disturbances and irritation during construction are to be expected. These can then be successfully mitigated through contractor specifications that are issued at a tender stage and through the continuous monitoring of contractor proceedings and performance during construction phase.

8.6 Impacts on Operational Phase

8.6.1 Economic Impact

- Economic
- Local procurement
- Job creation and skills development

Jobs created during the operational phase of the project will be limited when compared to the construction phase, but 350 jobs will be created directly by the project over its 20-year operational lifespan. In total it was estimated that 193 jobs in total will be created in this timeframe in the rest of the South African economy as a result of the project.

Economic opportunities will range from the supply of labour and skills to the project, supply of materials and equipment and an increase in wholesale and retail trade in the regional economy.

To ensure that economic activity derived from the project is localised as far as possible, measures should be adopted to increase local procurement of the human resources.

As a result of the analysis above, the following operational phase impact/mitigation table has been generated.

Table 20: Construction Phase Impacts - Economic Impacts (positive)

Environmental Feature	Economic Impacts (positive)
Project life-cycle	Operational Phase
Potential Impact	Proposed Management Objectives / Mitigation Measures
Economic	• The solar park will stimulate the local economy through the provision of jobs and through local procurement. • It will contribute to the improvement of the national electricity supply at a price that has been set by a competitive bidding process
Local Procurement	• Local SMMEs should be given an opportunity to participate in the operation of the project through the supply of services, material or equipment.
	• A procurement policy promoting the use of local business where possible, should be put in place and applied throughout the operational phases of the project.

Environmental Feature	Economic Impacts (positive)
Job Creation and Skills Development	• Women should be given equal employment opportunities and encouraged to apply for positions.
	• A skills transfer plan should be put in place at an early stage and workers should be given the opportunity to develop skills whilst in employment.

	Nature	Extent	Magnitude	Duration	Probability	Significance
Before Mitigation	Positive	Regional	High	Long Term	Likely	3
After Mitigation	Positive	Regional	High	Long Term	Likely	3
Significance of Impact and Preferred Alternatives	The solar park in the regional study area will provide economic stimulus to the regional study area for the long-term. The solar park should adopt policies that are supportive of local procurement and support for local enterprises. Economic impact considerations require that the most cost-effective transmission power line route be adopted to service the project.					

8.7 Economic and material well-being (negative)

There are indirect impacts from the project that may have economic impact. Impacts in this class for the project are:

- Loss of productive agricultural land/ grazing land.

Loss of productive / grazing land

The implementation of the proposed project will have an impact on landowners in that land that would otherwise have been used for agriculture would now be re-purposed for use as a solar farm.

The authors view this as a low impact, given that the economic value of the agricultural yield from the land in the area is very much lower than the yield from a solar park. The economic impact – both in terms of contribution of the Gross Value Added to the regional study area, and in terms of jobs created, of the land being used as a solar park will outweigh any likely agricultural use.

The results of the agricultural specialist studies related to agriculture will be relied upon when assessing this impact.

As a result of the analysis above, the following impact/mitigation table has been generated. It applies to the planning phase of the proposed project.

Table 21 :Operational Phase Economic Well Being (Negative) Impact/Mitigation Table

Environmental Feature	Economic and material well-being (negative)
Project life-cycle	Operational Phase

Environmental Feature		Economic and material well-being (negative)				
Potential Impact		Proposed Management Objectives / Mitigation Measures				
Loss of productive land		• The agricultural specialist report is definitive in this regard, but there is a very low social impacts that does not require mitigation.				
Loss of grazing land		• The agricultural specialist report is definitive in this regard, but there is a very low social impacts that does not require mitigation.				
	Nature	Extent	Magnitude	Duration	Probability	Significance
Before Mitigation	Negative	Local	Low	Short Term	Low	1
After Mitigation	Negative	Local	Low	Short Term	Low	1
Significance of Impact and Preferred Alternatives	This impact is not considered significant. It should be noted that this study defers to the agricultural specialists with regards the impact of the project on regional production.					

9 CUMULATIVE IMPACTS

For the purposes of this study, cumulative impacts were assessed within a 30 km radius of the proposed project area. The assessment considered existing land uses, socio-economic conditions, settlement patterns, agricultural activities, community facilities, transportation infrastructure, and other ongoing economic activities that may interact with the proposed development over time.

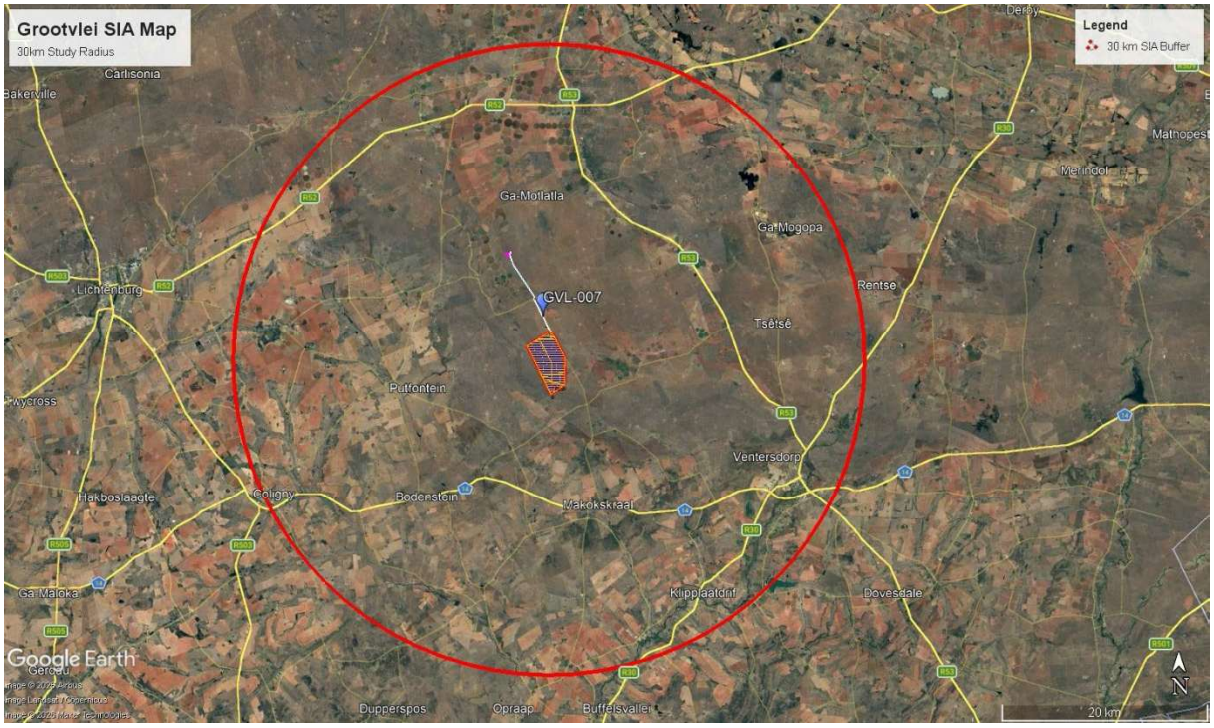

Figure 13: 30km Buffer SIA Study Area

The broader study area is characterized by a predominantly agricultural economy, limited economic diversification, seasonal employment opportunities, and vulnerable groups, including the elderly, women, and unemployed youth. In this context, the proposed project has the potential to contribute to both positive and negative cumulative social impacts.

From a positive perspective, the project may contribute to cumulative employment creation, skills development, and local procurement opportunities when considered alongside existing agricultural operations and other economic activities within the surrounding area. The project may further support economic diversification within a region that is heavily dependent on agriculture and seasonal employment. Improved household incomes and increased opportunities for youth and women could contribute positively to local socio-economic resilience if local recruitment and procurement commitments are effectively implemented.

Potential adverse cumulative impacts relate primarily to existing socio-economic vulnerabilities within the surrounding communities. If economic benefits are not distributed equitably, perceptions of exclusion may be reinforced, particularly among women, youth, and non-landowning households. Similarly, unmet expectations regarding employment opportunities could contribute to community dissatisfaction. Additional project-related traffic, when combined with existing agricultural and mining traffic, may place further pressure on already deteriorating rural road infrastructure. The project may also contribute to increased demand for employment, training, and community development initiatives in an area where such opportunities are currently limited. Mitigation measures are to be applied as discussed earlier in this report.

Overall, the cumulative social impacts are anticipated to be predominantly positive, provided that the project priorities local employment, skills development, and procurement opportunities, and maintains ongoing engagement with communities located within the 30 km area of influence. Effective implementation of these measures would contribute to enhanced socio-economic benefits while reducing the potential for adverse cumulative effects related to inequality, unemployment, and community expectations.

10 Analysis of Alternatives

An analysis of the project alternatives is carried out below.

10.1 No-Go Alternative

The No-Go alternative will present the following implications:

- There will be no contribution employment and skills development to the local community.
- The local economy will remain unchanged as the area and will not attract new economic investment.
- The opportunity to improve the overall supply of electricity in the regional will be missed; and

- The economic stimulus presented by the project will be foregone.

There will be less economic development as there will be no opportunities for SMMES and local labourers. Having taken into consideration the project aims of electricity generation using renewable power sources and considering the assessment above which does not indicate any fatal socio-economic flaws, the benefits from the project going ahead, from a socio-economic perspective, will be larger than not proceeding. The "No-go" option is not supported by this study.

10.2 Technical Alternatives

No site alternatives are proposed for this project, and minor layout changes were proposed for the site.

11 Site Sensitivity Verification

The site sensitivity was verified by means of the methodology and findings of this report. There is no social theme for this project in the screening tool, hence this report conforms with the Environmental Impact Assessment regulations requirements.

The methodology establishes existing land use and includes motivation and evidence of such land use. The nature of this study and its impacts dictate that a larger study area than the immediate site and its adjoining properties be assessed. In this sense, the precise nature of the land development on the site is not relevant in this case.

12 Impact Statement

An impact statement is required as per the NEMA regulations with regards to the proposed development.

The project site has few social receptors surrounding the site, and the project has a low footprint on the social environment. The social and economic impacts of the project are expected to be positive in the sense that the local economy will be stimulated and broadened. The negative impacts are limited in nature and scope and can be successfully mitigated to an acceptable level. The second, environmental impact report, layout alternative is preferred from a social assessment perspective. It is therefore found that the project, once the recommended mitigation measures have been implemented, has a nett positive impact on the social environment of the regional study area.

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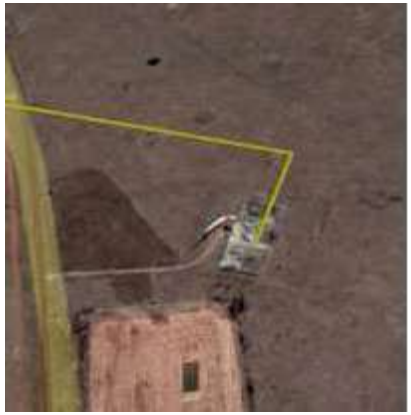
APPENDIX ONE: CENSUS OF POSSIBLE SOCIAL RECEPTORS

5km Boundary - Google Flyover of Project Site				
No	**Description**	**Coordinates**	**Satellite Image**	**Actual**
1	Project Site	26°13'13.00" S 26°35'11.50" E		 Entrance to the project area
2	Water Structure	26°13'04.99" S 26°36'17.92" E		

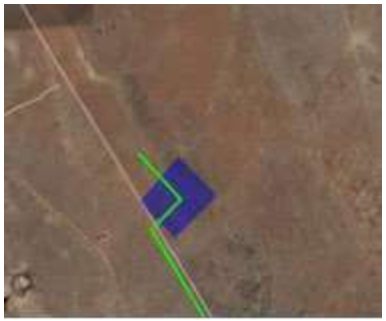
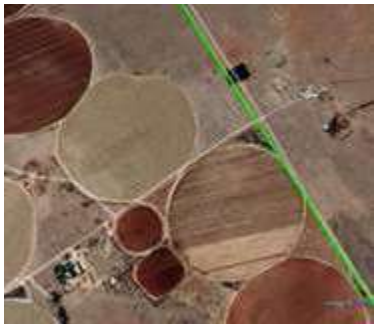
3	Dwellings	26°13'22.76" S 26°36'42.69" E		 Dwellings from the entrance viewpoint
4	Dwellings	26°13'32.97" S 26°36'37.63" E		  Main entrance to the area of the assigned dwellings.

5	White structures around the water catchment area	26°13'33.26" S 26°36'29.92" E		 Water reservoir,
6	Main substation	26°14'32.77" S 26°37'13.97" E		
7	Dwellings	26°14'49.70" S 26°37'41.21" E		Residence

8	Farm Workers dwellings	26°18'44.80" S 26°37'15.85" E		
9	Dwellings	26°15'24.43" S 26°34'49.07" E		Farm Residential
10	Structures	26°15'12.67" S 26°34'02.92" E		no structure.

11	Dwellings	26°14'57.95" S 26°33'13.18" E		 Farm Dam
12	Farm structures	26°14'39.26" S 26°34'01.17" E		No access
13	Farm Structure	26°12'41.42" S 26°33'31.28" E		No access

14	Powerline	26°11'38.63" S 26°35'21.61" E		
15	Water Structure	26°11'36.89" S 26°35'41.63" E		 

16	Water catchment area	26°11'02.13" S 26°36'51.54" E		No access
6km New Substation Boundary- Google Flyover SIA from Project Boundary				
1	New substation Boundary	26°07'25.34" S 26°32'41.30" E		No image
2	Two properties- Dwellings	26°08'51.95" S 26°33'50.69" E 26°09'16.75" S 26°33'15.86" E		No access

3	Dwellings	26°09'03.01" S 26°31'46.93" E		 Dwellings from the entrance viewpoint
4	4 clustered properties	26°08'42.30" S 26°30'56.81" E		  

5	Water structures	26°07'02.74" S 26°30'50.59" E		 Mining area
6	Cluster of properties	26°06'49.30" S 26°31'05.14" E		 Local Community Residential Area
7	Commercial Farming Area	26°06'11.20" S 26°30'56.02" E		 McCain Farm

8	Ga-Motlatla Village • Ga-motlatla Cemetery • Boundary 1 • Boundary 2			 Clinic  Local Church  School

forestry, fisheries
& the environment

Department:
Forestry, Fisheries and the Environment
REPUBLIC OF SOUTH AFRICA

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SPECIALIST DECLARATION FORM – AUGUST 2023

Specialist Declaration form for assessments undertaken for application for authorisation in terms of the National Environmental Management Act, Act No. 107 of 1998, as amended and the Environmental Impact Assessment (EIA) Regulations, 2014, as amended (the Regulations)

REPORT TITLE

PROPOSED GROOTVLEI 600MW SOLAR PLANT, BATTERY ENERGY STORAGE SYSTEMS & GRID CONNECTION PROJECT NORTHWEST OF VENTERSDORP, JB MARKS LOCAL MUNICIPALITY, NORTHWEST PROVINCE

Kindly note the following:

1. This form must always be used for assessment that are in support of applications that must be subjected to Basic Assessment or Scoping & Environmental Impact Reporting, where this Department is the Competent Authority.
2. This form is current as of August 2023. It is the responsibility of the Applicant / Environmental Assessment Practitioner (EAP) to ascertain whether subsequent versions of the form have been published or produced by the Competent Authority. The latest available Departmental templates are available at https://www.dffe.gov.za/documents/forms.
3. An electronic copy of the signed declaration form must be appended to all Draft and Final Reports submitted to the department for consideration.
4. The specialist must be aware of and comply with '*the Procedures for the assessment and minimum criteria for reporting on identified environmental themes in terms of sections 24(5)(a) and (h) and 44 of the act, when applying for environmental authorisation - GN 320/2020*', where applicable.

1. SPECIALIST INFORMATION

Title of Specialist Assessment	Social Impact Assessment
Specialist Company Name	Nemai Consulting (PTY) Ltd
Specialist Name	Ciaran Chidley
Specialist Identity Number	[redacted]
Specialist Qualifications:	B.Sc (Eng)> B.A (Econ), MBA
Professional affiliation/registration:	ECSA
Physical address:	147 Bram Fischer Drive, Ferndale
Postal address:	PO Box 1673
Postal address	Sunninghill, 2157
Telephone	011 781 1730
Cell phone	[redacted]
E-mail	CiaranC@nemai.co.za

3. UNDERTAKING UNDER OATH/ AFFIRMATION

I, _ Ciaran Chidley_____, swear under oath / ~~affirm~~ that all the information submitted or to be submitted for the purposes of this application is true and correct.

Signature of the Specialist

Nemai Consulting (PTY) Ltd

Name of Company

Click or tap here to enter text.

Date

20261103

Click or tap here to enter text.

Signature of the Commissioner of Oaths

Capt Hattingh

Click or tap to enter a date. 2026/11/3.

Date

SOUTH AFRICAN POLICE SERVICE
COMMUNITY SERVICE CENTRE
2026 -11- 03
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SUID-AFRIKAANSE POLISIEDIENS