

Appendix G.11

SOCIAL ASSESSMENT





ABO Uvemvane Wind Energy Facility 1 (Pty)
Ltd

ABO UVEMVANE WIND ENERGY FACILITY 1, LOCATED NEAR HEIDELBERG AND BALFOUR IN THE GAUTENG AND MPUMALANGA PROVINCES

Social Impact Assessment





ABO Uvemvane Wind Energy Facility 1 (Pty) Ltd

**ABO UVEMVANE WIND ENERGY FACILITY 1,
LOCATED NEAR HEIDELBERG AND
BALFOUR IN THE GAUTENG AND
MPUMALANGA PROVINCES**

Social Impact Assessment

TYPE OF DOCUMENT (VERSION) PUBLIC

PROJECT NO. 41106304

DATE: AUGUST 2026



ABO Uvemvane Wind Energy Facility 1 (Pty) Ltd

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LOCATED NEAR HEIDELBERG AND
BALFOUR IN THE GAUTENG AND
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Social Impact Assessment

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QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
Remarks	Draft			
Date	August 2026			
Prepared by	Tumelo Mathulwe			
Signature	 Digitally signed by Mathulwe, Tumelo (ZATM05158) Date: 2026.10.23 10:49:41 +02'00'			
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Project number	41106304			
Report number				
File reference	\\corp.pbwan.net\za\Central_Data\Projects\41100xxx\41106304 - ABO Uvemvane WEF\41 PA\01-Reports\05-Specialists			

Abbreviations	Definition
BESS	Battery Energy Storage System
DFFE	Department of Forestry, Fisheries and Environment
DLM	Dipaleseng Local Municipality
EA	Environmental authorisation
EAP	Environmental Assessment Practitioner
EIA	Environmental Impact Assessment
GBV	Gender-Based Violence
GSDF	Gauteng Spatial Development Framework
GSDM	Gert Sibande District Municipality
GW	Giga Watt
IDP	Integrated Development Plans
IPP	Independent Power Producer
IRP	Integrated Resource Plan
LILO	Loop-in-Loop-out
LLM	Lesedi Local Municipality
MLM	Midvaal Local Municipality
MSDF	Mpumalanga Spatial Development Framework
MTS	Main Transmission Substation
NDP	National Development Plan
NEMA	National Environmental Management Act
NWA	National Water Act
POPI	Protection of Personal Information
POWA	People Opposing Women Abuse
PPP	Public Participation Process
REIPPP	Renewable Energy Independent Power Producer Programme
SAHRA	South African Heritage Resources Agency
SAPS	South African Police Service



SDF	Spatial Development Frameworks
SDM	Sedibeng District Municipality
SIA	Social Impact Assessment
SPLUMA	Spatial Planning and Land-Use Management Act
WEF	Wind Energy Facility
WULA	Water Use Licence Authorisation

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DETAILS OF THE SPECIALIST AND SPECIALIST DECLARATION

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- Act as the independent specialist in this application;
- Do not have and will not have any financial interest in the undertaking of the activity other than remuneration for work performed;
- Do not have nor will have a vested interest in the proposed activity proceeding;
- Have no, and will not engage in, conflicting interests in the undertaking of the activity; and
- Undertake to disclose to the competent authority any information that has or may have the potential to influence the decision of the competent authority or the objectivity of any report, plan or document.

1 INTRODUCTION

ABO Uvemvane Wind Energy Facility (Pty) Ltd, proposes to develop ABO Uvemvane Wind Energy Facility 1 (WEF) near Balfour, on the border between Mpumalanga and Gauteng provinces. The WEF consisting of up to 20 turbines and with a total generation capacity of up to 170 MW and associated infrastructure.

For the proposed Project to proceed, it will require an environmental authorisation (EA) from the Competent Authority (CA), i.e., the National Department of Forestry, Fisheries and Environment. WSP Group Africa (Pty) Ltd (WSP) has been appointed by ABO Uvemvane Wind Energy Facility 1 (Pty) Ltd as the independent Environmental Assessment Practitioner to undertake an Environmental Impact Assessment (EIA) as per the requirement for an EA application in terms of the National Environmental Management (NEMA) Act (Act 107 of 1998), for the proposed Wind Energy Facility.

To compile a comprehensive EIA, various specialist studies are required; a social impact study was identified as one of them. This social impact baseline report will therefore be submitted, together with the EIA mentioned above, as a social impact specialist study to support the EA application.

2 PROJECT DESCRIPTION

The proposed Project extends across two provinces, Mpumalanga and Gauteng, covering a wide development footprint that includes both district and local municipalities. Specifically, it spans the Gert Sibande District and Dipaleseng Local Municipality in Mpumalanga, as well as the Sedibeng District, Lesedi Local Municipality, and Midvaal Local Municipality in Gauteng. It is located approximately 14km south-east of the town of Heidelberg in the Gauteng Province (**Figure 2-1**).

It is anticipated that the proposed WEF would have a total (permanent) development footprint of up to 67.2 ha, which is approximately 1.12% of the total site (i.e., affected properties) area. The development footprint includes the wind turbines and all associated infrastructures.

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3 SOCIAL IMPACT ASSESSMENT METHODOLOGY

3.1 DATA COLLECTION

To understand the social baseline conditions of the Project-affected areas and the social implications of the proposed Project on the receiving environment, WSP conducted secondary data collection (desktop review). Primary data collection formed part of the stakeholder consultation process in the scoping phase. The desktop review is further elaborated in the following section.

3.1.1 DESKTOP REVIEW

WSP reviewed available documents to obtain information regarding the social conditions in the study area. The documents reviewed include the following:

- Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs) of the affected local and district municipalities.
- Socio-economic and demographic statistics (sourced from Statistics South Africa's 2022 census data, municipal reports, provincial data, and the 2016 community survey).
- Documents concerning the proposed Project included previous studies conducted in the area, available maps, and satellite imagery.

4 ASSUMPTIONS AND LIMITATIONS

The following assumptions have been made for this assessment:

- The conclusions and findings of the Social Impact Assessment (SIA) are limited by the information available for the desktop assessment (Stats SA, municipal reports, etc.).
- Information was gathered from the IDPs, updated every five years; thus, the information can be outdated.
- Information was gathered from the SDFs and updated every 5 years; thus, it may be outdated.
- It is assumed that the client's information is current and correct.
- The Public Participation Process (PPP) in the EA process has been undertaken in the scoping phase and continue throughout the EA process. Comments, opinions and concerns received from Interested and Affected Parties will be considered in the impact assessment phase of the SIA.
- Secondary data are assumed to reflect the local social context accurately.

5 SOUTH AFRICAN LEGISLATIVE REQUIREMENTS

The legislation related to the Project provides the legislative framework for its implementation and helps identify associated potential social impacts. This section provides a summary of the relevant legislation.

5.1 THE CONSTITUTION OF SOUTH AFRICA

The Constitution of South Africa was adopted in 1996 and serves as the overarching law governing the Republic of South Africa. It outlines the rights and responsibilities of its citizens, establishes the republic's legal foundation, and defines the structure of the Government (Republic of South Africa, 1996).

It also contains a Bill of Rights that enshrines the fundamental human rights of all people in the country. The state must respect, protect, promote and fulfil the rights in the Bill of Rights. In summary, the Constitution contains the following elements.

The South African Constitution represents a commitment to democracy, human rights, and social justice, addressing the historical injustices of apartheid and building a more inclusive and equitable society. It is a cornerstone of South Africa's legal and political system, shaping the country's governance and protecting its citizens' rights. Section 24 of the Constitution states that everyone has the right to an environment that is not harmful to their health or well-being (Republic of South Africa, 1996).

The Bill of Rights is relevant to this Project, as it must ensure the right to an environment that is not harmful to health or well-being.

5.2 NATIONAL ENVIRONMENTAL MANAGEMENT ACT, 1998 (ACT NO. 107 OF 1998)

According to the National Environmental Management Act (107 of 1998) (NEMA), sustainable development requires integrating social, economic, and environmental factors into planning, implementation, and decision evaluation to ensure that development serves present and future generations. Chapter 6 of NEMA also outlines the PPP process. The Act also outlines the EA requirements and procedures for development within South Africa (South African Government, 2023). NEMA is the vehicle with which the right to a healthy environment, as stipulated in the Constitution, is ensured.

The principles of NEMA include the state's responsibility to respect, protect, promote, and fulfil the social and economic rights set out in the Constitution, and to position development as socially, environmentally, and economically sustainable.

5.3 NATIONAL ENVIRONMENTAL MANAGEMENT: AIR QUALITY ACT (ACT NO. 39 OF 2004)

The National Environmental Management: Air Quality Act (Act No. 39 of 2004) (NEM: AQA) promotes the enhancement and protection of air quality in the country. Future projects should refrain from contributing to air pollution and ecological degradation. It also promotes justifiable economic and social development while securing ecologically sustainable development. The proposed Project will not require an Air Emissions Licence.

5.4 NATIONAL ENVIRONMENTAL MANAGEMENT: WASTE ACT (ACT 59 OF 2008)

The Act seeks to increase awareness of the impact of waste on the health, well-being and environment of affected communities. The Act also provides for an application for waste management; however, the Project will not require a waste management licence.

5.5 THE NATIONAL HERITAGE RESOURCES ACT (NO. 25 OF 1999)

The National Heritage Resources Act (25 of 1999) (NHRA) provides for the protection of all archaeological and palaeontological sites, the conservation and care of cemeteries and graves by the South African Heritage Resources Agency (SAHRA). The Act lists activities that require any

person who intends to undertake an activity that might impact heritage resources to notify the responsible heritage resources agency. The Project needs to furnish details regarding the location, nature, and extent of the proposed development. The Project has the potential to impact heritage resources; therefore, the Act is relevant to the Project. The Project will notify SAHRA of its intention to develop the Project and the potential impacts on heritage resources.

5.6 THE NATIONAL WATER ACT (NO. 36 OF 1998)

The National Water Act (NWA) (No. 36 of 1998) aims to provide a framework for the equitable allocation and sustainable management of water resources. Both surface and groundwater sources are national resources that no one can own. The rights are not automatically coupled to land rights. However, prospective users must apply for authorisation and register as water users. The NWA also provides measures to prevent, control, and remedy the pollution of surface and groundwater sources.

The Act aims to regulate water use and activities (as defined in Part 4, Section 21) which may impact water resources by categorising listed water uses. Defined water use activities require approval from the Department of Water and Sanitation, in the form of a General Authorisation or a Water Use Licence Authorisation. Water resources in and around the Project location may be impacted and must be protected.

5.7 NATIONAL ENERGY ACT (ACT NO. 34 OF 2008)

The Electricity Regulation Act gives the Minister of Energy the power to determine the need for new generation capacity and to take the initiative to procure it. It also states that one needs a generation licence to produce more than 1 megawatt of electricity.

The Act aims to strengthen energy planning in the Electricity Regulation Act (Act No. 4 of 2006), Second Amendment (2011). The Act gives the Minister of Energy the power to determine new generation capacity and approve the generation and procurement of electricity. A licence for generation capacity is subject to ministerial approval. The Electricity Regulations on new generation capacity were amended in 2015. This amendment provides for renewable energy generation, including wind. The Act outlines the application process for a licence to generate electricity, which the facility will require.

5.8 NATIONAL DEVELOPMENT PLAN

The National Development Plan (NDP) seeks to eliminate poverty and reduce inequality by 2030. The NDP aims to achieve its goal by growing an inclusive economy, building capabilities, enhancing the state's capacity, and promoting leadership and partnerships. A key focus of the NDP is the country's ability to restore a continuous, uninterrupted electricity supply. An uninterrupted electricity supply was to be achieved by increasing the electricity generation reserve margin from 1% (2014) to 19% in 2019, requiring the development of 10 Giga Watts (GW) of additional electricity capacity by 2019 against the 2010 baseline of 44 GW. Five of the 10 GW were to be sourced from renewable Energy, with 2 GW operational by 2020. The NDP aims to acquire 2 GW of renewable energy to move the country toward less carbon-intensive energy production by 2030. The aim of the plan will be aided by projects such as this.

5.9 RENEWABLE ENERGY INDEPENDENT POWER PRODUCER PROGRAMME

In 2010, the South African Government developed the Renewable Energy Independent Power Producer (IPP) Programme (REIPPPP) to contract with private power producers to supply energy to the national grid. This programme was developed to enhance electricity supply during shortages, to encourage generation from renewable sources, and to stimulate manufacturing through the procurement of capital goods for the new plants. Many of the significant inputs for renewable generation are designated for local procurement (South African Government, 2023).

5.10 INTEGRATED RESOURCE PLAN 2023

The Integrated Resource Plan (IRP) is an electricity infrastructure development plan based on the least-cost electricity supply and demand balance, considering security of supply and environmental impacts to minimise harmful emissions and water use. The first plan was promulgated in March 2011. The plan is a living plan and was last updated in 2025.

Table 5-1 presents the IRP 2025.

Table 5-1 - Draft IRP 2025

	Coal	Gas – IPP Programme	Gas – Eskom	Nuclear	Hydro	Pumped Storage	CSP	Solar PV	Wind	Hybrid IPP Programme	Distributed Generation	Energy Storage	BESS - Eskom	Other private projects (includes Diesel, Bioenergy etc.)
Current Base (MW)	40 960	1 005	2 825	1 860	1 600	2 732	600	3 546	5 344	428	7 065	513	199	104
2026								3 553	964		900		114	35
2027								2 886	2 847		900		150	332
2028								1 760	770		900	615		
2029			3 000					1 314	760		900	2 615		
2030		3 000						800	2 000		900	200		
Total (2026 – 2030)	-	3 000	3 000	-	-	-	-	10 313	7 341	-	4 500	3 723		367
2031								1 000	2 500		900	200		
2032		1 250						1 200	2 600		900	200		
2033		1 250						1 400	2 600		900	200		
2034		1 250						1 600	3 000		900	200		
2035		1 000						2 000	3 000		900	200		
2036		1 250		1 250				1 600	2 000			500		
2037		1 500		1 250		1 332		1 600	3 000			500		
2038		1 250		1 250				1 600	3 000			500		
2039		1 250		1 250				1 600	3 500			500		
2040		1 250						1 600	3 500			500		
2041		500						1 600	3 500			500		
2042		500						1 600	3 500			500		
Total (2031 – 2042)	-	12 250	-	5 200	-	1 332	-	18 400	35 700	-	4 500	4 500		-
Grand Total		15 250	3 000	5 200	-	1 332	-	28 713	43 041	-	9 000	8 223		367
New Capacity														
Distribution Generation Capacity for own use														
Current base (includes installed capacity, capacity under construction and deemed to come online 2025)														

5.11 NATIONAL SPATIAL DEVELOPMENT PERSPECTIVE

According to the National Spatial Development Perspective, spatial development should, where appropriate, accommodate and promote private economic ventures, which can aid sustainable economic growth, relieve poverty, increase social investment, and improve service delivery. Consequently, municipal-level spatial planning has been considered where relevant.

5.12 SPATIAL PLANNING AND LAND-USE MANAGEMENT ACT (ACT 16 OF 2013)

The Spatial Planning and Land-Use Management Act (SPLUMA) seeks to ensure that projects continue to promote social and economic inclusion. Future interventions should promote the efficient and sustainable use of interventions and contribute towards redressing equity concerns in the affected communities through land-use management systems.

5.13 MPUMALANGA SPATIAL DEVELOPMENT FRAMEWORK

The Mpumalanga Spatial Development Framework (MSDF) emanates from the SPLUMA. It outlines the role of transparent developmental, regulatory, and development management.

The MSDF plans to explore renewable energy generation. It intends to use land with low agricultural potential and unused for renewable energy production, namely solar and wind (Mpumalanga Provincial Government, 2019).

5.14 GAUTENG SPATIAL DEVELOPMENT FRAMEWORK

The Gauteng Spatial Development Framework (GSDF) emanates from the SPLUMA. It outlines the role of transparent developmental, regulatory, and development management.

The GSDF aims to integrate environmental considerations into sustainable urban planning, and, if properly implemented, renewable resources will benefit communities and cities in perpetuity (Gauteng Provincial Government, 2022).

5.15 PROMOTION OF ADMINISTRATIVE JUSTICE ACT (ACT NO. 3 OF 2000)

Under the provisions of the Public Administrative Justice Act, 3 of 2000 (PAJA), an administrative action also includes a decision made by an organ of the state or by a person or body exercising a public power or performing a public function that adversely affects the rights of any person. Therefore, the public has a right to a lawful, reasonable, and procedurally fair administrative process and to be given the reasons for administrative actions.

The application process will include a PPP to ensure the affected public can access information regarding the proposed Project.

5.16 PROTECTION OF PERSONAL INFORMATION (ACT NO 4 OF 2013)

The Protection of Personal Information (POPI) Act promotes the protection of personal information. It balances the right of privacy recognised by the Constitution with various needs and interests, such as economic and social progress. POPI regulates how personal information may be processed and establishes voluntary and compulsory measures, including the establishment of an Information Regulator. POPI is concerned with collecting, storing, using, and destroying personal information.

Unless part of a regulatory process that requires the rightful notification of interested and affected parties or to protect the rights of third parties, personal information may be used only with stakeholders' expressed permission. During public participation and stakeholder sessions, the participant's information will not be published unless the participant permits it.

5.17 GERT SIBANDE DISTRICT MUNICIPALITY INTEGRATED DEVELOPMENT PLAN

The Municipal Systems Act 32 of 2000 requires municipal planning to be developmentally oriented and for municipalities to undertake an integrated development planning process to produce IDPs. The IDP highlights the Gert Sibande District Municipality's (GSDM) vision to be "A Community Driven District of Excellence and Development," as well as its mission: To support and co-ordinate our local municipalities to provide excellent services and development" (Gert Sibande District Municipality, 2020).

5.18 DIPALESENG LOCAL MUNICIPALITY INTEGRATED DEVELOPMENT PLAN

The Dipaleseng Local Municipality (DLM) strives to be "a centre of quality, affordable services, good governance and sustainable economic opportunities." It intends to achieve this by "providing sustainable services to communities and ensuring that they are served by accountable and effective Municipality" (Dipaleseng Local Municipality, 2025).

5.19 SEDIBENG DISTRICT MUNICIPALITY INTEGRATED DEVELOPMENT PLAN

The Sedibeng District Municipality (SDM) seeks to be a "leading and developmental Metropolitan River City in 2030 with a strong, diverse economy and high-quality standard of living". It intends to achieve this by "promoting and sustaining Integrated Service Delivery that Enhances and Supports the municipality to achieve growth and development for its community" (Sedibeng District Municipality, 2025).

5.20 LESEDI LOCAL MUNICIPALITY INTEGRATED DEVELOPMENT PLAN

The Lesedi Local Municipality (LLM) aims to be a "smart, innovative, efficient, people-centred and performance-driven municipality providing a safe and healthy living environment and high-quality municipal services for its communities by 2030." It intends to achieve this by "improving the quality of life of its people by providing sustainable high-quality service delivery mandates through innovation, good governance, continuous capacity building, integrated planning and applying batho pele principles" (Lesedi Local Municipality , 2021).

5.21 MIDVAAL LOCAL MUNICIPALITY INTEGRATED DEVELOPMENT PLAN

The Midvaal Local Municipality seeks to "achieve excellence in service delivery" and to achieve this, it strives to (Midvaal Local Municipality , 2023):

- Enhance service delivery through innovative technologies

- Enable a safe, healthy community and environment
- Promote local economic development and tourism
- Adopt clean, renewable energy
- Build strong partnerships, and
- Be a people-centred, compassionate institution.

6 SOCIAL BASELINE

The social baseline describes the social profile of the Project-affected area based on desktop research. The regional, district, and local contexts describe the Project's geographical setting. The demography of the Project-affected area is provided. Community health and safety is part of the social baseline and describes the municipality's health and safety statistics. The local governance arrangements are provided, along with how the municipality is governed and its leadership structures.

As detailed in Section 2, the proposed Project extends across two provinces, Mpumalanga and Gauteng, covering a wide development footprint that includes both district and local municipalities. Specifically, it spans the Gert Sibande District and Dipaleseng Local Municipality in Mpumalanga, as well as the Sedibeng District, Lesedi Local Municipality, and Midvaal Local Municipality in Gauteng. It is located approximately 14km south-east of the town of Heidelberg in the Gauteng Province (**Figure 2-1**).

6.1 MPUMALANGA PROVINCE

Mpumalanga Province is located in the north-eastern part of South Africa. The province borders two of South Africa's neighbouring countries, Mozambique and Swaziland, and four other South African provinces: Gauteng, Limpopo, KwaZulu-Natal, and the Free State (Figure 6-1). Mpumalanga is characterised by the high plateau grasslands of the Middleveld, which roll eastwards for hundreds of kilometres. It rises towards mountain peaks in the northeast and terminates in an immense escarpment (Mpumalanga Provincial Government, 2022).

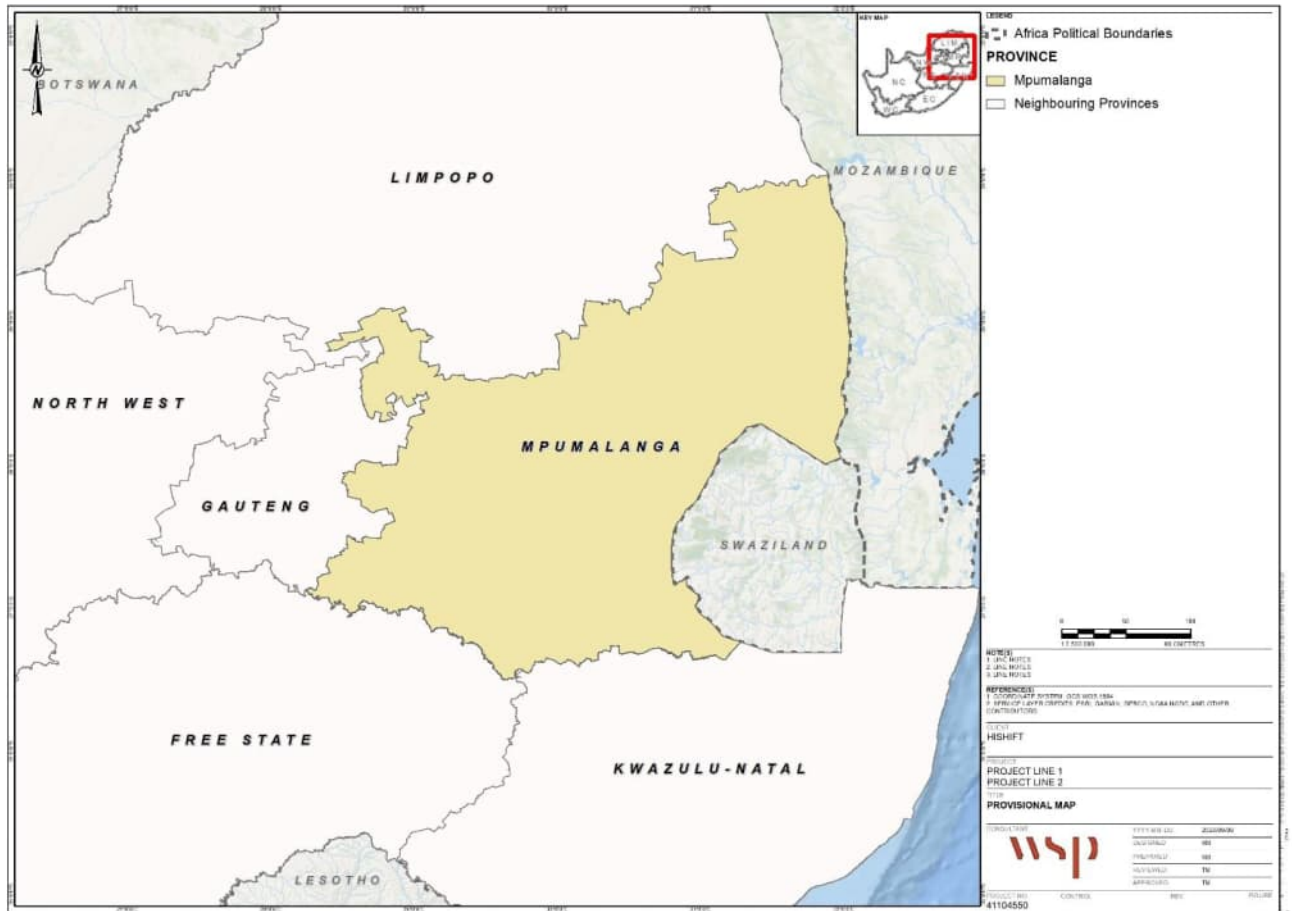


Figure 6-1 - South African regional map

Mpumalanga Province covers an area of 76,495 km² and has a population of approximately 4,300,000 (Statistics South Africa, 2022). The capital city of Mpumalanga is Mbombela, and other major cities and towns include Emalahleni, Standerton, eMkhondo, Malelane, Ermelo, Barberton and Sabie. The province is divided into three district municipalities: Gert Sibande, Ehlanzeni, and Nkangala. These three districts are further subdivided into 17 Local Municipalities. The proposed development falls within the GSDM. The Project falls within the Dipaleseng Local Municipality (DLM).

6.2 GERT SIBANDE DISTRICT MUNICIPALITY

The GSDM has municipal executive and legislative authority in an area that includes more than one municipality, making it a Category C municipality in the Mpumalanga Province. It is one of three district municipalities in the province, comprising nearly half of the province's area. The GSDM includes the Chief Albert Luthuli, Dipaleseng, Dr Pixley Ka Isaka Seme, Govan Mbeki, Lekwa, Mkhondo and Msukaligwa local municipalities (Figure 6-2). The GSDM is headquartered in Ermelo (Municipalities of South Africa, n.d.).



Figure 6-2 - Dipaleseng District Municipality (Municipalities of South Africa)

6.3 DIPALESENG LOCAL MUNICIPALITY

DLM is approximately 2,607 square kilometres in extent, representing 3.4% of the GSDM's landmass. It is bordered by the Govan Mbeki and Lekwa Local Municipalities to the east, and the Sedibeng and Fezile Dabi District Municipalities to the northwest and southwest, respectively (Municipalities of South Africa, 2025).

6.3.1 POPULATION

The DLM population decreased from 42,390 to 35,980 between 2011 and 2022, representing a 15.1% decline over 11 years. The gender distribution of the municipality was almost equal, with females representing 51.0% and males 49.0% of the population in 2022 (**Figure 6-3**). People aged 15 to 64 years represent 68.2% of the population, with 25.4% representing the young and 6.4% the elderly (Stats SA, 2024).

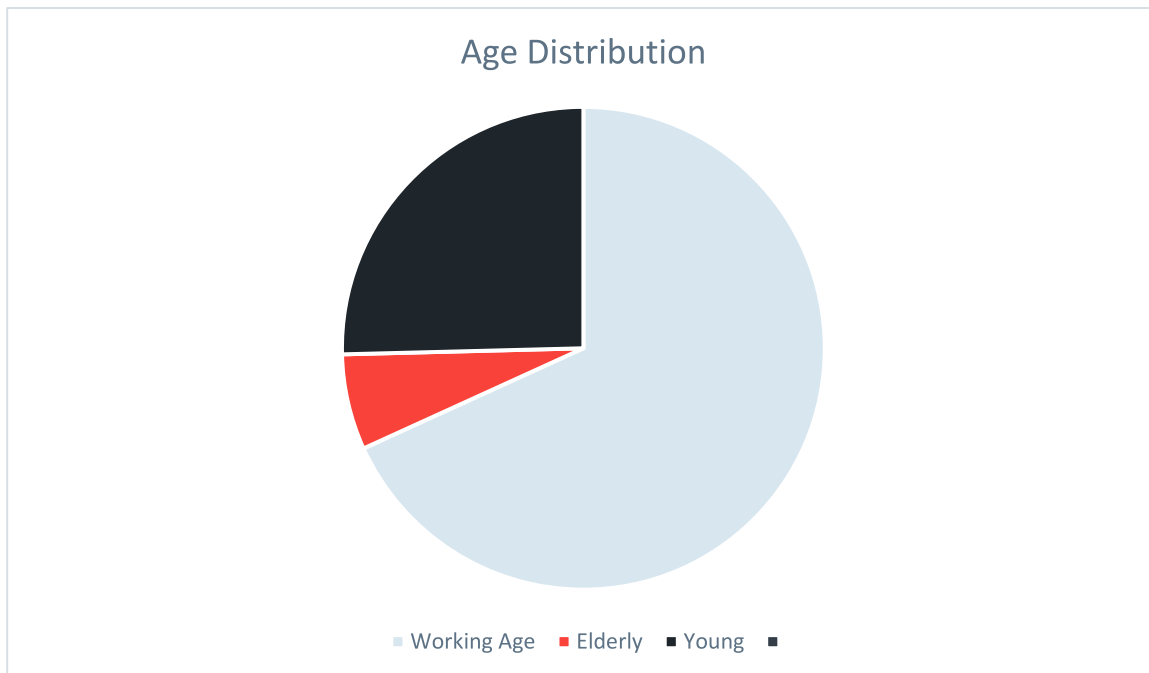


Figure 6-3 - DLM age distribution (Stats SA, 2024)

6.3.2 ETHNICITY AND LANGUAGE

Over 91% of the municipality is represented by Black African people, followed by 7.6% White, with smaller ethnic groups accounting for the remaining ethnicities, as shown in Table 6-1.

Table 6-1 - Dipaleseng Local Municipality Distribution by Population Group (Stats SA, 2024)

Group	Percentage
Black African	91.6%
Coloureds	0.5%
Indian or Asian	0.3%
White	7.6%
Other	0.0%

Isizulu is the language most spoken in the municipality, followed by Sesotho, Afrikaans, isiXhosa and others in smaller proportions (Table 6-2).

Table 6-2 - Distribution of Dipaleseng Local Municipality by language spoken (Stats SA, 2024)

Language	Percentage
IsiZulu	58.1%
Sesotho	25.9%
Afrikaans	6.9%
isiXhosa	1.7%
Others	6.1%

6.3.3 EDUCATION

In 2022, approximately 8,581 people over 20 had completed some secondary education, and about 7,373 had completed secondary education. About 5.4% (1 227) had received higher education.

Table 6-3 shows the educational levels represented in the municipality.

Table 6-3 - Distribution of the levels of education represented in the municipality (Stats SA, 2024)

Group	Percentage
No Schooling	7.7%
Some Primary	11.9%
Completed Primary	4.3%
Some Secondary	37.7%
Completed Secondary	32.4%
Higher Education	5.4%
Not Applicable	0.5%

6.3.4 EMPLOYMENT AND INCOME PROFILE

The unemployment rate in DLM was 37.2% in 2011, leading youth to leave the municipality in search of better opportunities. Youth unemployment was higher than the national average of 43.5% and is at 45.2% (Dipaleseng Local Municipality, 2025).

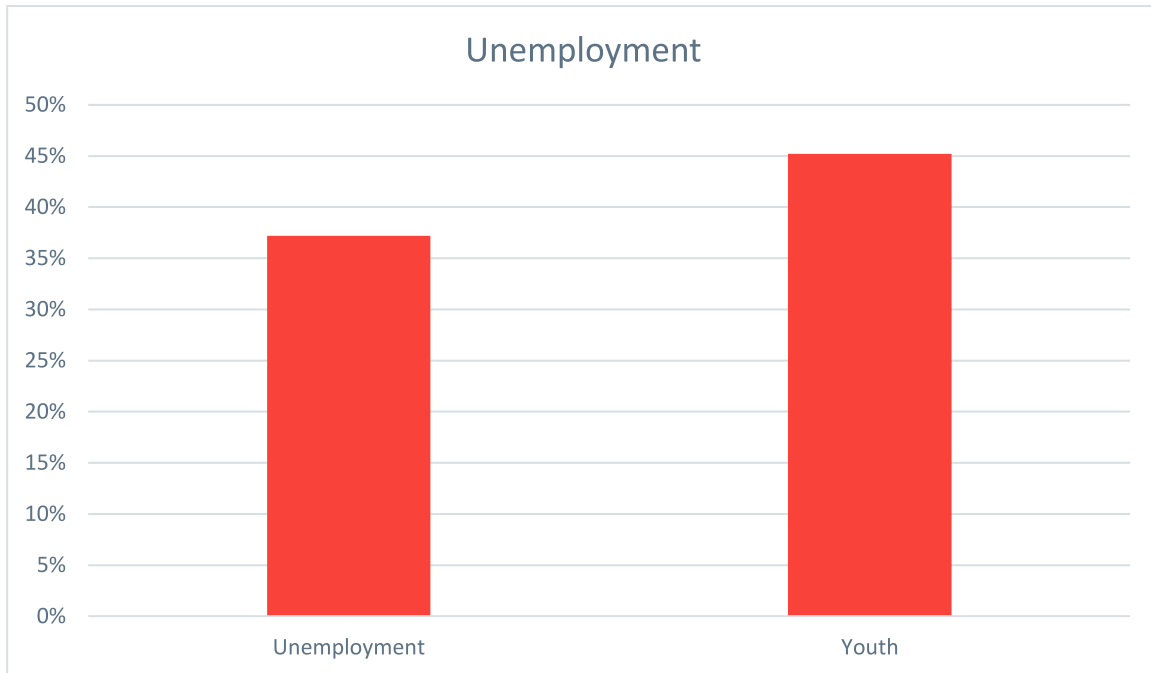


Figure 6-4 - DLM unemployment distribution

6.3.5 HOUSING

The number of households in the DLM increased from 12,637 in 2011 to 13,129 in 2022. The DLM provides these households with water, electricity and waste services. The average household size decreased from 3.4 to 2.7 people over the same period (Stats SA, 2024).

6.3.6 SECURITY AND SAFETY

The Balfour Police Station is the closest to the Project site. The crime statistics published for the fourth quarter of the 2024/2025 financial year by the South African Police Service (SAPS) indicated that 94 crimes were committed. Theft and Burglary of a residence are the most prevalent crimes, accounting for 34.0% of crimes.

The Project will either provide or contract for security during construction and operation. These will be trained professionals who must sign a code of conduct to protect the local communities.

6.3.7 GENDER-BASED VIOLENCE

Regarding gender-based violence, i.e. Rape, Sexual assault, and contact sexual offences, one case was recorded at the Balfour Police Station during the first quarter of the 2024/2025 financial year.

No organisation in the Balfour area offers Gender-Based Violence (GBV) services to victims. However, the Department of Social Development established a GBV command centre in 2013, allowing survivors to contact the centre and be assigned a nearby social worker. Some national NGOs offer services to GBV victims: People Opposing Women Abuse (POWA), Sonke Gender Justice and Shukumisa.

6.3.8 SOCIAL AND PHYSICAL INFRASTRUCTURE

6.3.8.1 SCHOOLS

As of 2022, 73.3% of children within the municipality were enrolled in some form of school, including early childhood development centres, primary schools, and secondary schools. However, 26.7% of children were not attending any formal schooling (Dipaleseng Local Municipality, 2025).

6.3.8.2 HEALTHCARE

There are two health care facilities in the municipality, the largest of which is the Balfour Community Health Centre (Dipaleseng Local Municipality, 2025).

6.3.8.3 WATER AND SANITATION

In the DLM, 64.9% of households have access to piped water inside their dwellings, and 97.1% have access to water through the municipality or other water service providers (Stats SA, 2024).

6.3.8.4 ELECTRICITY

As of 2022, 90.2% of households had access to electricity, however, 1,286 households had no electrical connection (Dipaleseng Local Municipality, 2025).

6.3.8.5 ACCESS TO SANITATION

Nearly 90% of MLM households have access to flush toilets, and 7.5% use pit or bucket toilets. The rest of the households rely on other sanitation facilities (Stats SA, 2024).

6.3.8.6 ACCESS TO WASTE REMOVAL

In 2022, the municipality removed refuse at least once weekly for 83.7% of households. Communal containers are the second most common method of refuse disposal with 5.7% of households utilising them (Stats SA, 2024).

6.3.8.7 TELECOMMUNICATIONS

Heidelberg, the largest town near the Project location, is serviced by all the major network providers in the country. It has access to 4G/LTE coverage and limited 5G networks via the service provider Rain.

6.4 GAUTENG PROVINCE

The Gauteng Province is located in the north-eastern part of South Africa. The province borders four other provinces: Mpumalanga, Limpopo, North West and Free State Provinces (**Figure 6-5**).

The Gauteng Province covers an area of 18,178 km² and has a population of approximately 15,100,000, the largest in the country (Statistics South Africa, 2024). The capital city is Johannesburg, and other major cities and towns include Pretoria, the West Rand, the East Rand,

and the Vaal.

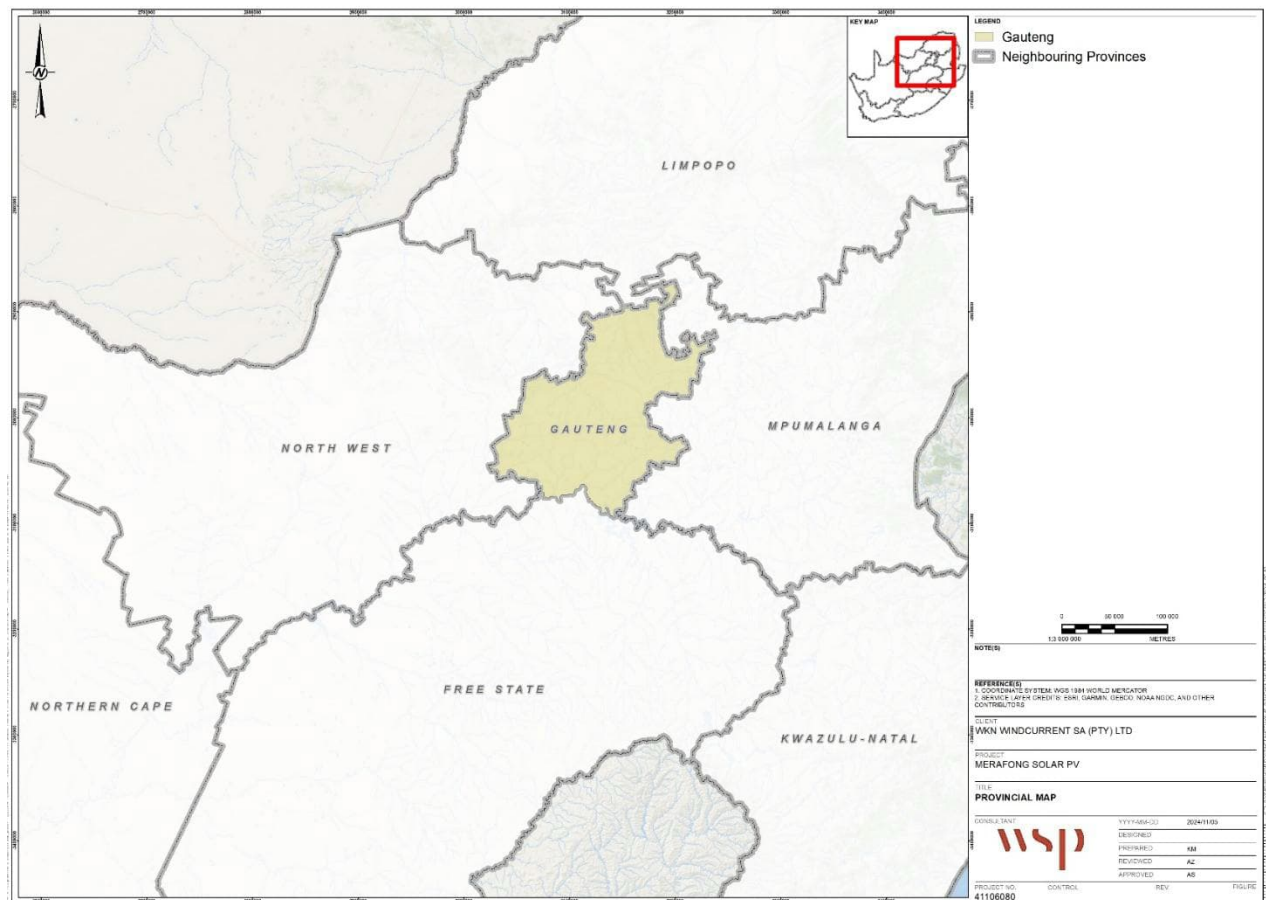


Figure 6-5 - South African regional map

The province is divided into three metropolitan municipalities —the City of Ekurhuleni, the City of Johannesburg, and the City of Tshwane —and two district municipalities, Sedibeng and West Rand. These two districts are further subdivided into six local municipalities. The proposed development falls within the SDM. The Project falls within the Lesedi Local Municipality (LLM) (Municipalities of South Africa, 2024).

6.5 SEDIBENG DISTRICT MUNICIPALITY

The SDM has municipal executive and legislative authority in an area that includes more than one municipality, making it a Category C municipality in the Gauteng Province. It is one of two district municipalities in the province, which also contains three metropolitan municipalities. The SDM includes the Emfuleni, Midvaal and Lesedi local municipalities (Figure 6-6). The SDM is headquartered in Vereeniging (Municipalities of South Africa, n.d.).

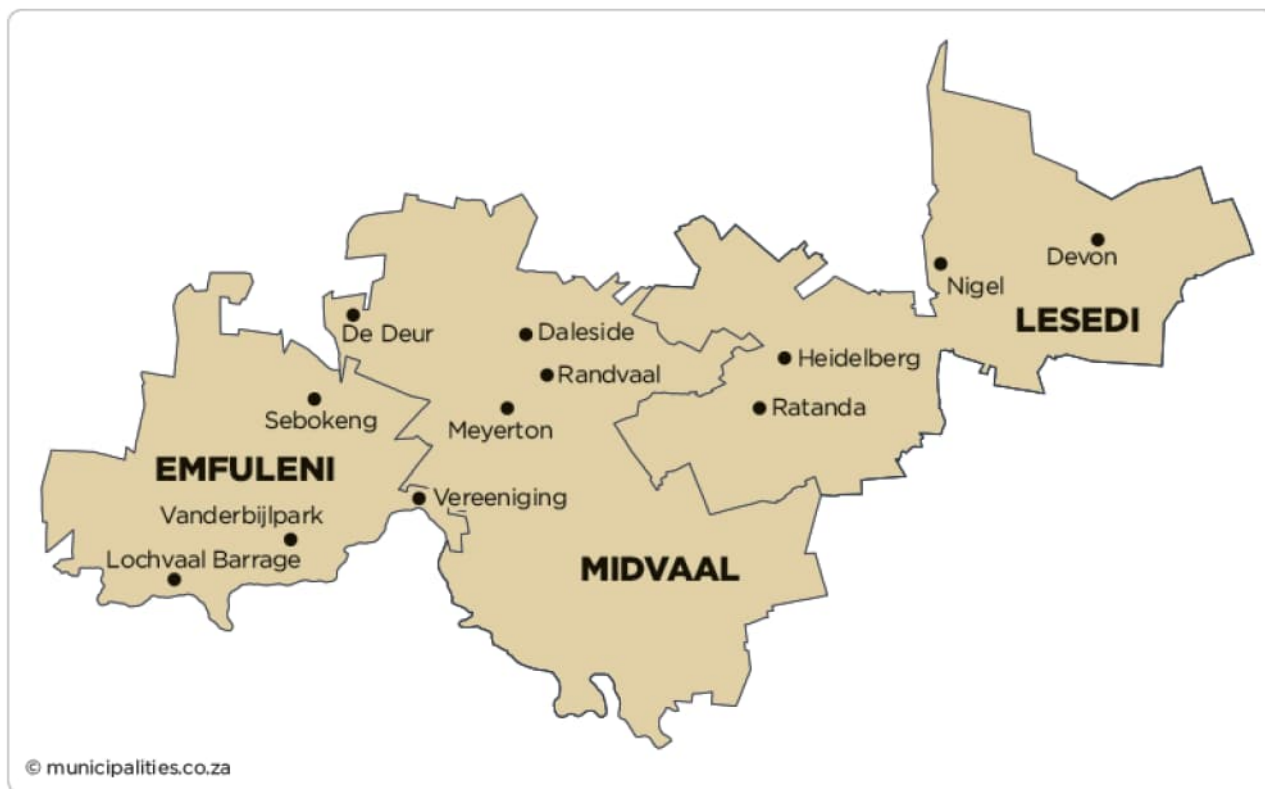


Figure 6-6 - Sedibeng District Municipality (Municipalities of South Africa, 2025)

6.6 LESEDI LOCAL MUNICIPALITY

LLM is approximately 1,484 square kilometres in extent, representing 44.3% of the SDM's land mass. To the west, it is bordered by the Midvaal Local Municipality, the City of Ekurhuleni Metropolitan Municipality to the north, the DLM to the south and the Victor Khanye and Govan Mbeki Local Municipality to the east (Municipalities of South Africa, 2025).

6.6.1 POPULATION

The LLM population increased to 132,783 between 2011 and 2022, representing a 33.4% increase over 11 years. The growth rate was 2.66% over the same period. The gender distribution in the municipality was equal, with females and males representing 50.0% of the population in 2022 (Figure 6-7). People aged 15 to 64 years represent 66.9% of the population, with 23.8% representing the young and 6.3% the elderly (Stats SA, 2024).

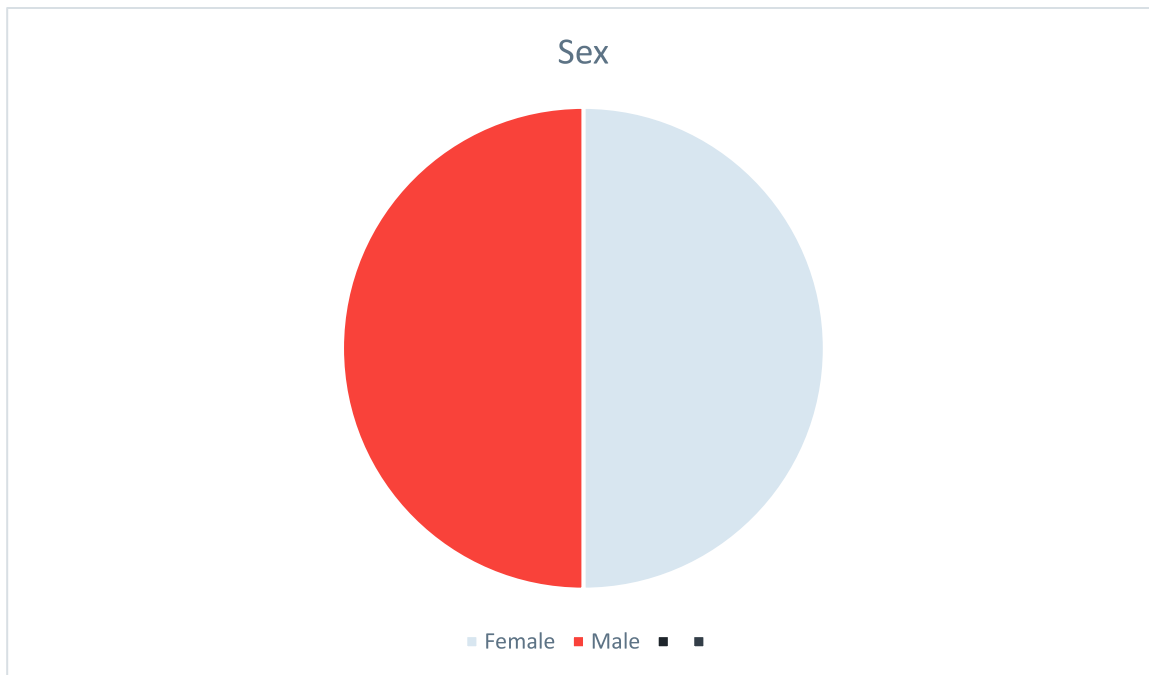


Figure 6-7 - LLM gender distribution (Stats SA, 2024)

6.6.2 ETHNICITY AND LANGUAGE

Most of the municipality (86.0%) is represented by Black Africans, followed by 12.3% White, with the remaining ethnicities represented by smaller groups, as shown in Table 6-4.

Table 6-4 - Lesedi Local Municipality Distribution by Population Group (Stats SA, 2024)

Group	Percentage
Black African	86.0%
Coloureds	0.8%
Indian or Asian	0.7%
White	12.3%
Other	0.02%

Isizulu is the most spoken language in the municipality, followed by Sesotho, Afrikaans, English, and others in smaller proportions (**Table 6-5**).

Table 6-5 - Distribution of Lesedi Local Municipality by language spoken (Stats SA, 2024)

Language	Percentage
IsiZulu	50.1%
Sesotho	23.8%
Afrikaans	11.5%
English	3.1%
Others	11.4%

6.6.3 EDUCATION

In 2022, approximately 4,024 people aged 20 or older had no formal education, and about 31,993 had completed secondary education. About 11.7% (9,934) had received higher education. **Table 6-6** shows the educational levels represented in the municipality.

Table 6-6 - Distribution of the levels of education represented in the municipality (Stats SA, 2024)

Group	Percentage
No Schooling	10.9%
Some Primary	7.1%
Completed Primary	3.3%
Some Secondary	32.4%
Completed Secondary	38.7%
Higher Education	1.1%
Not Applicable	0.5%

6.6.4 EMPLOYMENT AND INCOME PROFILE

In 2011 the unemployment rate for LLM was 11.1%, which was much lower than the national rate (26.5%). Discouraged work seekers accounted for 2.9% (Lesedi Local Municipality , 2021).



Figure 6-8 - LLM unemployment distribution

6.6.5 HOUSING

The number of households in the LLM increased from 29,664 in 2011 to 42,597 in 2022. The LLM provides these households with water, electricity and waste services. The average household size decreased from 3.4 to 3.1 people over the same period (Stats SA, 2024).

6.6.6 SECURITY AND SAFETY

The Ratanda Police Station is the closest to the Project site. The crime statistics published for the fourth quarter of the 2024/2025 financial year by the SAPS indicated that 236 crimes were committed. Assault with intent to inflict grievous bodily harm and burglary at residential premises are the most prevalent, representing 38.6% of crimes.

The Project will either provide or contract for security during construction and operation. These will be trained professionals who must sign a code of conduct to protect the local communities.

6.6.7 GENDER-BASED VIOLENCE

Regarding gender-based violence, i.e. Rape, Sexual assault, and contact sexual offences, one case was recorded at the Ratanda Police Station during the first quarter of the 2024/2025 financial year.

No organisation in the Project area offers GBV services to victims specifically for the area. However, the Department of Social Development established a GBV command centre in 2013, allowing survivors to contact the centre and be assigned a social worker nearby. Some national NGOs offer services to GBV victims: POWA, Sonke Gender Justice and Women for Change.

6.6.8 SOCIAL AND PHYSICAL INFRASTRUCTURE

6.6.8.1 SCHOOLS

In 2022, approximately 4,024 people aged 20 or older had no formal education, and about 31,993 had completed secondary education. About 11.7% (9 934) had received higher education training.

6.6.8.2 HEALTHCARE

There are three healthcare facilities close to the Project site, the largest being Heidelberg Hospital.

6.6.8.3 WATER AND SANITATION

In the LLM, 72.8% of households have access to piped water inside their dwellings, and 99.3% have access to water through the municipality or other water service providers (Stats SA, 2024).

6.6.8.4 ELECTRICITY

As of 2022, 95.8% of households had access to electricity; however, 3.2% had no electrical connection (Stats SA, 2024).

6.6.8.5 ACCESS TO SANITATION

Most LLM households (97%) have access to flush toilet facilities, and the remaining 3% use pit toilets, bucket toilets, and other sanitation facilities (Stats SA, 2024).

6.6.8.6 ACCESS TO WASTE REMOVAL

In 2022, the municipality removed refuse at least once weekly for 91.3% of households. Own refuse dumps are the second most common refuse disposal method, with 3.8% of households using them.

6.6.8.7 TELECOMMUNICATIONS

Heidelberg, the largest town near the Project location, is serviced by all the major network providers in the country. It has access to 4G/LTE coverage and limited 5G networks via the service provider Rain.

6.7 MIDVAAL LOCAL MUNICIPALITY

MLM is approximately 1,723 square kilometres in extent, representing 41.3% of the SDM's land mass. To the west, it is bordered by the Emfuleni Local Municipality to the east, the LLM to the south, the City of Johannesburg and the City of Ekurhuleni Metropolitan Municipalities to the north, and the Metsimaholo Local Municipality in the Free State province to the south (Municipalities of South Africa, 2025).

6.7.1 POPULATION

The MLM population increased to 6,572,721 between 2011 and 2022, representing a 21.6% increase over 11 years. The growth rate was 1.79% over the same period. The gender distribution of the municipality was almost equal, with females representing 52.8% and males 47.2% of the population in 2022 (**Figure 6-3**). People aged 15 to 64 years represent 61.4% of the population, with 31.6% representing the young and 6.9% the elderly (Stats SA, 2024).

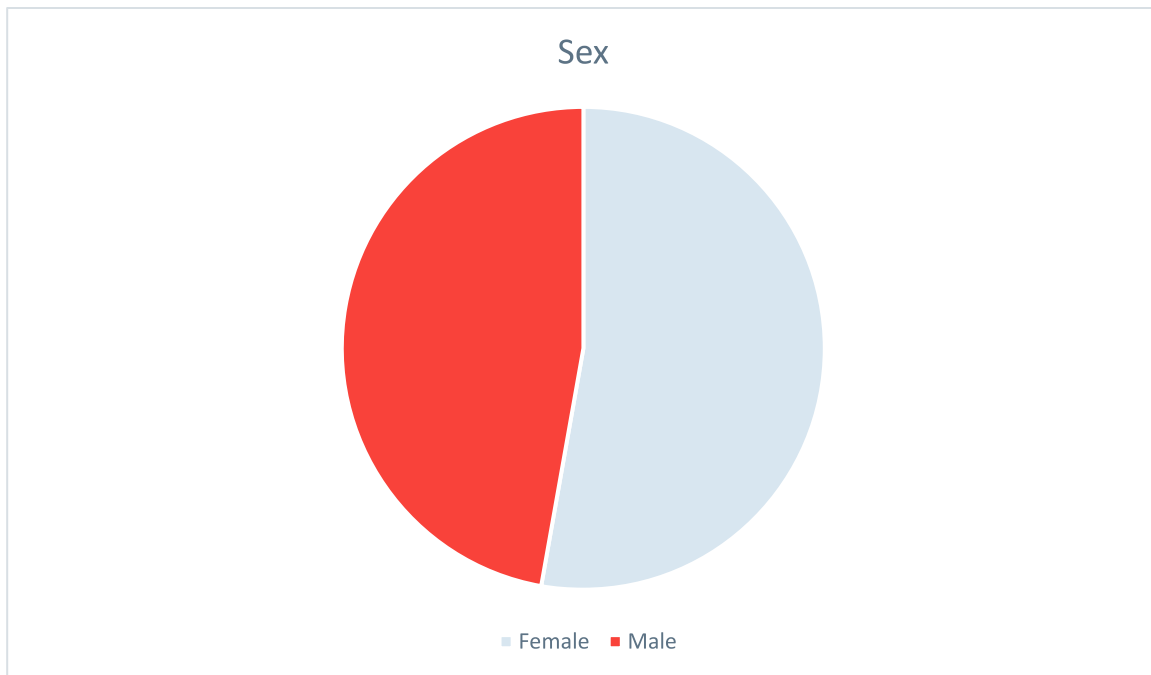


Figure 6-9 - MLM gender distribution (Stats SA, 2024)

6.7.2 ETHNICITY AND LANGUAGE

Over 96% of the municipality is represented by Black African people, followed by 2.5% White, with smaller portions representing the remaining ethnicities, as shown in Table 6-7.

Table 6-7 - Midvaal Local Municipality Distribution by Population Group (Stats SA, 2024)

Group	Percentage
Black African	96.5%
Coloureds	0.3%
Indian or Asian	0.5%
White	2.5%
Other	0.1%

Sesotho is the language most spoken in the municipality, followed by Afrikaans, isiZulu, English, and others in smaller proportions (Table 6-2).

Table 6-8 - Distribution of Midvaal Local Municipality by language spoken (Stats SA, 2024)

Language	Percentage
IsiZulu	15.7%
Sesotho	35.4%
Afrikaans	19.6%
English	11.8%
IsiXhosa	5.4%
Others	12.1%

6.7.3 EDUCATION

In 2016, approximately 7.8% of people aged 20 and older had no formal education, and about 77.1% had completed secondary education. About 9.1% had received higher educational training. **Table 6-9** shows the educational levels represented in the municipality.

Table 6-9 - Distribution of the levels of education represented in the municipality (Stats SA, 2024)

Group	Percentage
No Schooling	7.8%
Completed Primary	6.1%
Completed Secondary	77.1%
Higher Education	9.1%

6.7.4 HOUSING

The number of households in the MLM increased from 1,418,085 in 2011 to 1,811,565 in 2022. The MLM provides these households with water, electricity and waste services. The average household size decreased from 3.8 to 3.6 people over the same period (Stats SA, 2024).

6.7.5 SECURITY AND SAFETY

The Ratanda Police Station is the closest to the Project site. The crime statistics published for the fourth quarter of the 2024/2025 financial year by the SAPS indicated that 236 crimes were committed. Assault with intent to inflict grievous bodily harm and burglary at residential premises are the most prevalent, representing 38.6% of crimes.

The Project will either provide or contract for security during construction and operation. These will be trained professionals who must sign a code of conduct to protect the local communities.

6.7.6 GENDER-BASED VIOLENCE

Regarding gender-based violence, i.e. Rape, Sexual assault, and contact sexual offences, one case was recorded at the Ratanda Police Station during the first quarter of the 2024/2025 financial year.

No organisation in the Project area offers GBV services to victims specifically for the area. However, the Department of Social Development established a GBV command centre in 2013, allowing survivors to contact the centre and be assigned a social worker nearby. Some national NGOs offer services to GBV victims: POWA, Sonke Gender Justice and Women for Change.

6.7.7 SOCIAL AND PHYSICAL INFRASTRUCTURE

6.7.7.1 SCHOOLS

In 2016, approximately 7.8% of people aged 20 and older had no formal education, and about 77.1% had completed secondary education. About 9.1% had received higher educational training (Statistics South Africa, 2024).

6.7.7.2 HEALTHCARE

There are three healthcare facilities close to the Project site, the largest being Heidelberg Hospital.

6.7.7.3 WATER AND SANITATION

In the MLM, 87.1% of households have access to piped water inside their dwellings, and 97.5% have access to water through the municipality or other water service providers (Stats SA, 2024).

6.7.7.4 ELECTRICITY

As of 2022, 94.4% of households had access to electricity; however, 5.2% had no electrical connection (Stats SA, 2024).

6.7.7.5 ACCESS TO SANITATION

Nearly 94% of MLM households have access to flush toilet facilities, while the remaining 6% use pit toilets, bucket toilets, and other sanitation facilities.

6.7.7.6 ACCESS TO WASTE REMOVAL

In 2022, the municipality removed refuse at least once weekly for 85.8% of households. Communal collection points are the second most common refuse disposal method, with 8.9% of households using them.

6.7.7.7 TELECOMMUNICATIONS

Heidelberg, the largest town near the Project location, is serviced by all the major network providers in the country. It has access to 4G/LTE coverage and limited 5G networks via the service provider Rain.

7 SENSITIVE SOCIAL RECEPTORS

Potential sensitive social receptors are local people within a 5 km radius of the proposed Project who may be influenced by the Project's activities due to their proximity to the proposed Project area (**Figure 7-1**).

7.1 PRIMARY RECEPTORS (WITHIN 1 KM)

The proposed project site is surrounded by farmland, and some hospitality establishments, such as guesthouses and lodges, are within 1 km.

7.2 SECONDARY RECEPTORS (WITHIN 3 KM)

There are beverage bottling facilities located within 3 km of the Project area. Farmlands and hospitality establishments largely characterise this region. The primary social receptors are the residents of the farms and workers at the hospitality establishments.

7.3 TERTIARY RECEPTORS (WITHIN 5 KM)

This region includes more farmland, the Grootvlei Power Station and Thaba-Kgwali, a residential area. The primary social receptors are the residents of Thaba-Kgwali. Examples of receptors include, but are not limited to, schools, shopping centres, residential areas, and, in more remote locations, individual farmhouses or farmsteads.

8 IMPACT ASSESSMENT APPROACH

GNR 982 requires the identification of the significance of potential impacts during the assessment phase. To this end, an impact screening tool has been used to assess the impacts in the assessment phase. The screening tool is based on two criteria: probability and consequence, where the latter is based on a general consideration of the intensity, extent, and duration.

Table 8-1 - Significance screening tool

Probability Scale		1	2	3	4
	1	Very Low	Very Low	Low	Medium
	2	Very Low	Low	Medium	Medium
	3	Low	Medium	Medium	High
	4	Medium	Medium	High	High

Table 8-2 - Probability scores and descriptors

Score	Descriptor
4	Definite: The impact will occur regardless of any prevention measures.
3	Highly Probable: It is most likely that the impact will occur.
2	Probable: There is a good possibility that the impact will occur.
1	Improbable: The possibility of the impact occurring is Very Low.

Table 8-3 - Consequence score description

Score	Negative	Positive
4	Very severe: An irreversible and permanent change to the affected system(s) or party(ies) which cannot be mitigated.	Very beneficial: A permanent and substantial benefit to the affected system(s) or party(ies), with no natural alternative to achieving this benefit.
3	Severe: Long-term impacts on the affected system(s) or party(ies) could be mitigated. However, this mitigation would be difficult, expensive, time-consuming, or a combination.	Beneficial: A long-term impact and substantial benefit to the affected system(s) or party(ies). Alternative ways of achieving this benefit would be difficult, expensive, time-consuming, or a combination.
2	Moderately severe: A medium to long-term impact on the affected system(s) or party (ies) that could be mitigated.	Moderately beneficial: A medium to long-term impact of real benefit to the affected system(s) or party(ies). Other ways of optimising the beneficial effects are equally as difficult, expensive, and time-consuming (or some

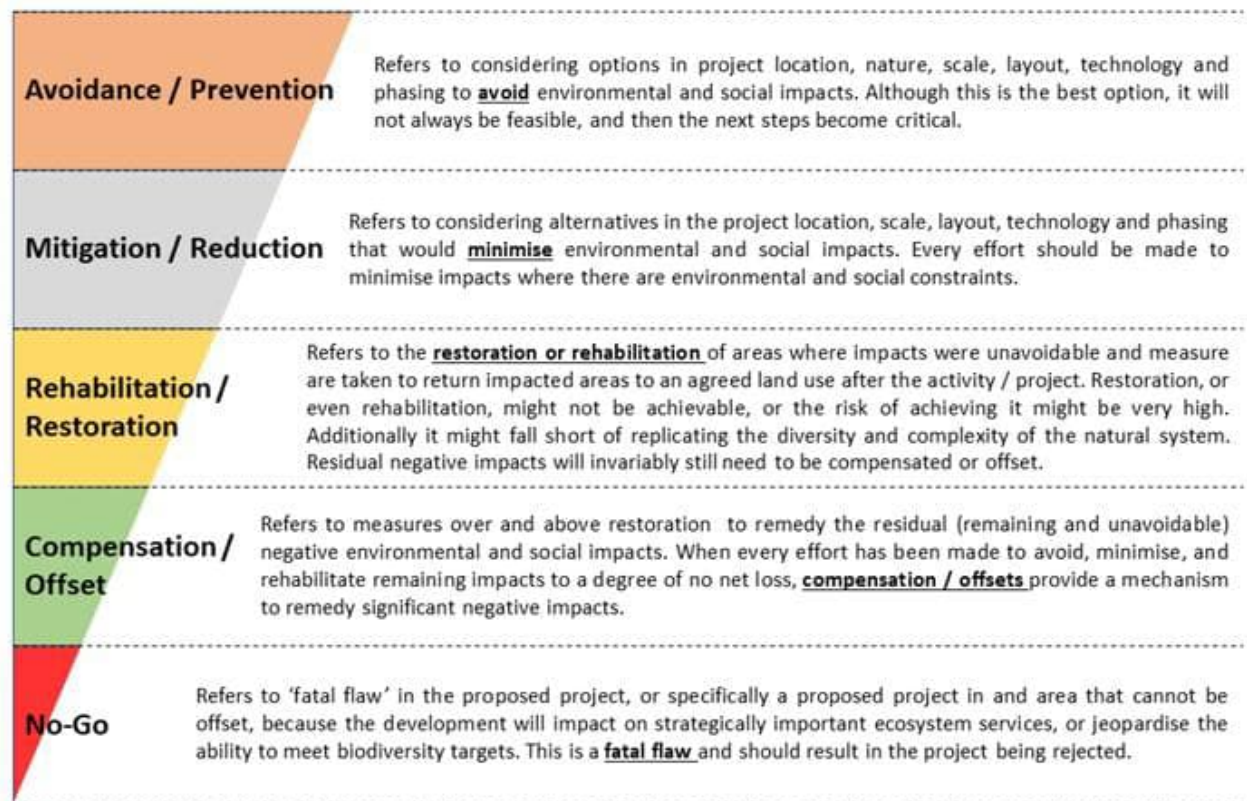
		combination of these) as achieving them in this way.			
1	Negligible: A short to medium-term impact on the affected system(s) or party(ies). Mitigation is straightforward, cheap, less time-consuming and not necessary.	Negligible: A short to medium-term impact and negligible benefit to the affected system(s) or party(ies). Other ways of optimising the beneficial effects are more accessible, cheaper, and quicker, or some combination of these.			
Significance (S) determined according to the formula:	$[S = (E + D + R + M) \times P]$ <i>Signifance = (Extent + Duration + Reversibility + Magnitude) \times Probability</i>				
IMPACT SIGNIFICANCE RATING					
Total Score	4 to 15	16 to 30	31 to 60	61 to 80	81 to 100
Environmental Significance Rating (Negative (-))	Very Low	Low	Moderate	High	Very High
Environmental Significance Rating (Positive (+))	Very Low	Low	Moderate	High	Very High

The nature of the impact must be characterised as to whether the impact is deemed to be positive (+ve) (i.e. beneficial) or negative (-ve) (i.e. harmful) to the receiving environment/receptor. For ease of reference, a colour reference system. The key objectives of the risk assessment methodology are to identify any potential social issues and associated social impacts likely to arise from the proposed Project and propose a significance ranking. Issues/aspects will be reviewed and ranked against a series of significance criteria to identify and record interactions between activities, factors, resources, and receptors, providing a detailed discussion of the impacts. The assessment considers direct, indirect, secondary and cumulative impacts.

8.1 MITIGATION SEQUENCE/HIERARCHY

The mitigation sequence/hierarchy is shown in Figure 8-1. The mitigation hierarchy is used to guide measures suitable to mitigate each impact after assessment.

Figure 8-1 - Mitigation sequence/hierarchy



9 IDENTIFICATION OF KEY IMPACTS

Based on the primary and secondary data collected, as well as expert knowledge, impacts were identified and categorised by project phase in which they are likely to occur: construction, operation, closure, and decommissioning.

9.1 CONSIDERATION OF ALTERNATIVES

The Project site was selected primarily based on the availability of a strong wind resource, which is the key determinant of project viability. The site was identified through a pre-feasibility assessment that considered available wind energy. This wind resource provides the opportunity to maximise energy generation, improve project efficiency, and support the delivery of cost-competitive renewable energy, with associated benefits for the South African economy.

Additionally, the site was influenced by the availability of suitable land and proximity to existing Eskom transmission infrastructure. The site provides sufficient space to accommodate the proposed development footprint, while agreements with the affected landowners demonstrate their willingness to support the development of the Project. Furthermore, the location allows for a feasible connection to the national grid, which is a key requirement for the transmission of generated electricity.

The site is also accessible via the existing road network, which supports both construction and operational activities. The associated transport assessment found that project-related traffic can be accommodated on existing roads with minimal upgrades required. Collectively, these factors contribute to the technical and economic feasibility of the proposed development and support the selection of the site as the preferred location for the Project.

9.1.1 NO-GO ALTERNATIVE

While the No-Go Alternative would maintain the current social environment and avoid the impacts associated with the Project, it would also result in the loss of potential socioeconomic benefits that may accrue to affected communities and stakeholders. These benefits include employment and procurement opportunities during the construction phase, increased expenditure within the local economy, and contributions towards regional development, as outlined in the sections below.

The No-Go Alternative would also mean that the Project would not contribute to South Africa's ongoing transition towards a more diversified energy mix. As demand for electricity continues to increase due to population growth and economic development, the need for reliable and secure sources of energy remains a key national priority. The proposed Project would contribute additional renewable energy generation capacity to the national grid and support the strengthening of the existing electricity network, thereby contributing to long-term energy security.

The following section analyses the social impacts of the Proposed Project, including the preliminary impacts of the facility's construction, operation, and closure phases.

9.2 CONSTRUCTION PHASE

9.2.1 JOB-CREATION

The construction phase is estimated to be 24 months for the 170 MW wind farm. There will be four wind farms in total. The Project undertakes to employ predominantly local South Africans during the construction phase. Construction is expected to create approximately 250 to 350 employment

opportunities, comprising 140 to 195 unskilled workers, 75 to 105 semi-skilled workers, and 35 to 50 skilled workers.

There will be a localised social benefit to the communities in the area, considering the relatively high unemployment levels and few employment opportunities. Potential for local businesses is probably constrained due to the regional financial diversification. Therefore, it is likely that contractors and engineering firms based outside of the municipality will reap most of the benefits. The development phase will also be advantageous to the area's service industry. The potential prospects would be related to the site's transportation, security, cleaning, catering, and lodging for the construction employees.

Mitigations

- Preparation and implementation of a Stakeholder Engagement Plan (SEP) and Grievance Mechanism before and during construction.
- Where reasonable and practical, the Project should apply a 'locals first' policy, especially for semi and un-skilled jobs. The majority of skilled positions, however, are likely to be filled by individuals from outside the area due to the low skill levels in the area.
- Communities near the Project should be given special consideration regarding the benefits arising from it, as they will be most affected.
- The engineering, procurement, and construction contractor should prefer appropriate subcontractors in the surrounding communities, followed by those in the municipal area and those outside the province.
- Resources required during construction should be sourced, preferably from local businesses. Accommodation needed for contractors should favour local guesthouses and hotels.
- Wherever possible, the hiring process should promote gender equality and women's employment.
- The proponent should liaise with the municipality regarding establishing a database of local companies, specifically BBEE companies, which qualify as potential service providers (e.g., construction companies, catering companies, waste collection companies, security companies, etc.) before the commencement of the tender process for construction service providers. These companies should be notified of the tender process and invited to bid for project-related work.

Significance Rating

As a positive impact, the impact's significance rating increases from **Moderate** to **High** after mitigation.

9.2.2 THE INFLUX OF JOB SEEKERS

According to a 2023 Statistics South Africa report, the unemployment rate in the first quarter of the year stood at 32.9% (Statistics South Africa, 2023). This unemployment rate poses a significant challenge for job seekers, who may feel compelled to relocate to areas experiencing growth to secure employment. However, such a move can potentially negatively affect the local community. There will also be added pressure on the existing municipal infrastructure and services. This pressure includes increases in traffic, water use, and housing demand. Additionally, the influx of

people from different cultures and languages may impact local culture and family structures, leading to a sense of displacement among locals.

The influx of labour could result in the development of informal dwellings and possibly informal settlements in the area. It is unlikely that all these people will be employed during construction, thus resulting in increased unemployment. The increased number of unemployed people may lead to increased social ills such as crime, alcohol abuse, Gender Based Violence (GBV), and growing pressure on local resources, infrastructure and social services.

Construction activities can also take much longer than initially planned at the beginning of a project. These delays can result in extended stays away from home for the labourers, generally men, which may lead to increased sex work.

Mitigations

- A community awareness campaign will be implemented in the surrounding communities to sensitise community members to traffic safety risks and infectious disease awareness.
- As part of onboarding workers, training should be provided on preventing GBV, Sexual Assault (SEA) and Sexual Harassment (SH).
- The Project must engage with communities using a dedicated community liaison officer and have an effective SEP, including a grievance mechanism for communities to access and lodge complaints.
- Local employment should be a priority for the construction contractor to lessen the number of workers away from their homes.
- Training programmes must be implemented to enable local participants to take advantage of employment opportunities.
- No recruitment should occur at the Project gate to prevent informal settlements around the Project site.
- Increased security in the Project area should be provided to regulate access to the site and prevent informal settlements.

Significance Rating

As a negative impact, the impact's significance decreases from **Moderate** before mitigation to **Low** after mitigation.

9.2.3 PROCUREMENT FROM LOCAL BUSINESSES FOR SUPPLIES AND SERVICES

The Project and its employees will require various goods and services to support construction activities. Goods and services will include construction supplies and contracting services like transportation, equipment rental, and skilled labour.

The Project will bolster the local economy by involving local suppliers and service providers. Involving local suppliers and service providers will stimulate economic growth by creating job opportunities, increasing demand for local products and services, and enabling the development of small and medium-sized enterprises. Additionally, the increased economic activity can lead to improved infrastructure, enhanced community services, and overall economic growth in the region.

Mitigations

- The Project could partner with local suppliers through procurement programmes to develop local suppliers.
- Procurement programmes should prioritise local procurement for locally available goods and services.

Significance Rating

As a positive impact, the impact's significance decreases from **Low** before mitigation to **Moderate** after mitigation.

9.2.4 LOSS OF AGRICULTURAL LAND

The Project is located within agriculturally active farms. The physical construction of the infrastructure discussed in the Project description will require vegetation clearance. The Project proponent intends to develop a small portion of the area. A portion of the area will be within the croplands.

Mitigations

- The Project should limit construction infrastructure during planting and harvesting season.
- Disturbed areas should be rehabilitated post-construction phase.
- Preparation and implementation of a SEP before and during the construction phase.
- The Project should agree with the local farmers in the area on how they will be compensated for damages. An agreement should be entered into before the construction phase starts.
- All farm gates must be closed after passing through.
- Contractors appointed by the Project should provide daily transport for low and semi-skilled workers to and from the site.
- The Project should hold contractors liable for compensating farmers and communities in full for any losses or damage to farm infrastructure that can be linked to construction workers.
- The Project should implement a Grievance Mechanism that provides locals with an effective and efficient mechanism to address issues related to the Project.

Significance Rating

As a negative impact, the impact's significance decreases from **Moderate** before mitigation to **Low** after mitigation.

9.2.5 GENERATE INCOME FOR AFFECTED LANDOWNERS

The proponent will enter into lease agreements with affected landowners to use the land for the construction of the proposed wind energy facilities. The affected landowners will be paid an annual sum based on the area affected under the terms of the lease agreement. The extra revenue will mitigate the landowner/farmer's livelihood risk posed by droughts and fluctuating market prices for farm outputs and inputs. The added income is a substantial benefit to the impacted landowners.

Mitigations

- The loss of high-quality agricultural land should be avoided and minimised where possible.

Significance Rating

As a positive impact, the impact's significance rating increases from **Low** to **High** after mitigation.

9.2.6 COMMUNITY HEALTH, SAFETY AND SECURITY

The Project workers could damage farm fences and buildings, increase crime, theft or killing of livestock, and theft of farm produce. While the creation of jobs is positive, it may also introduce changes in lifestyle, such as multiple sexual relations, which could lead to a higher infection rate of HIV/STIs within the Project area.

The goal will be to hire as many un-skilled and semi-skilled people locally as possible. These employees will be local community members, and family networks will be kept intact—this task will lower the risks of social ills.

Mitigations

- The Project should employ security personnel onsite during construction to implement security. The Project should include monthly health talks and coordinate health and safety campaigns to educate personnel and the community on general health, safety and security issues.
- The proponent and the contractor should implement an HIV/AIDS and Tuberculosis (TB) awareness programme for all construction workers at the outset of the construction phase.
- The contractor should transport workers to and from the site daily.
- The contractor should supervise and manage the entrance and exit of the construction site to ensure no interaction with communities at the site.
- No construction workers, except security personnel, should be permitted to stay overnight on the site.

Significance Rating

As a negative impact, the impact's significance rating decreases from **Low** to **Very Low** after mitigation.

9.2.7 TRAFFIC

The construction and decommissioning phases will generate additional traffic including transportation of people, construction materials, water, and equipment (abnormal trucks transporting turbine components). The exact number of trips generated will be determined by the appointed haulage company (iWink Consulting, 2026).

Mitigation

- Stagger component delivery to site.
- Stagger the construction phase.
- Use of licensed quarries in close proximity to the site to decrease the impact on the surrounding road network if possible.
- Staff and general trips to occur outside of peak traffic periods as much as possible.
- Monitoring and maintenance of haulage routes.
- Maintenance of internal roads.
- Provide several access points to the site to split construction vehicle trips and reduce the risk of congestion at a single access.
- Maintenance and repairs of any road sections of the district road being used by construction vehicles.

- Any road surface damage needs to be closely monitored to decide on the responsible party to repair it.

Significance Rating

As a negative impact, the impact's significance rating decreases from **Moderate** to **Low** after mitigation.

9.2.8 INTRUSION IMPACTS

9.2.8.1 Noise

During construction, noise affects people differently; the new noise will come from the WEF facility. Road traffic, transportation of materials and equipment, and construction activity are expected to generate noise filtering to nearby receptors (Enviro Acoustic Research, 2026).

Mitigation

- Significance of road construction activities is low for the scenario as conceptualized and additional mitigation measures are not required.

Significance Rating

As a negative impact, the impact's significance remains **Low** after mitigation.

9.2.8.2 Dust

The construction of facilities will result in traffic as construction materials and turbines are being transported to the Project site. Increased road traffic and cleared vegetation for site establishment and construction activities will increase the dust levels in the area.

Mitigations

- Implement environmentally and crop-friendly dust suppression measures on unpaved road surfaces.
- Roads must be adequately maintained to prevent deterioration of road surfaces due to heavy vehicle traffic.
- Reduce and control construction dust using approved dust suppression techniques when required (i.e. whenever dust becomes apparent).

Significance Rating

As a negative impact, the impact's significance decreased from **Moderate** before mitigation to **Low** after mitigation.

9.2.8.3 Visual

Visual impact of construction activities on residents of homesteads, visitors to tourist accommodation and Protected Areas within 5km to the proposed WEF (Logis, 2026).

Mitigations

- Retain and maintain natural vegetation in all areas outside of the development footprint, but within the project site.

- Existing roads should be utilised wherever possible. New roads should be planned taking due cognisance of the topography to limit cut and fill requirements. Construction/upgrade of roads should be undertaken properly, with adequate drainage structures in place to forego potential erosion problems.
- In terms of onsite ancillary buildings and structures, it is recommended that it be planned so that the clearing of vegetation is minimised. This implies consolidating this infrastructure as much as possible and making use of already disturbed areas rather than undisturbed sites wherever possible.
- Ensure that vegetation is not unnecessarily cleared or removed during the construction period.
- Reduce the construction period through careful logistical planning and productive implementation of resources.
- Ensure that the placement of laydown areas and any potential temporary construction camps are within the areas planned in order to minimise vegetation clearing (i.e. in already disturbed areas).
- Restrict the activities and movement of construction workers and vehicles to the immediate construction site and existing access roads.
- Ensure that rubble, litter, and disused construction materials are appropriately stored and then disposed of regularly at licensed waste facilities.
- Reduce and control construction dust using approved dust suppression techniques as and when required (i.e. whenever dust becomes apparent).
- Restrict construction activities to daylight hours whenever possible in order to reduce the visual impacts associated with lighting.

Rehabilitate all disturbed areas immediately after the completion of construction works. If necessary, an ecologist should be consulted to assist or give input into rehabilitation specifications.

Significance Rating

Construction activities may result in a **High** temporary visual impact that may be mitigated to **Moderate** after mitigation.

9.2.9 CONSTRUCTION PHASE - IMPACT SUMMARY

Table 9-1 summarises the impacts of the construction phase.

Table 9-1 – Construction Phase Impacts

Aspect	Character	Pre-Mitigation							Post-Mitigation						
		(M+	E+	R+	D)x	P=	S	Rating	(M+	E+	R+	D)x	P=	S	Rating
Job Creation	Positive	4	3	3	3	3	39	P3	5	4	3	4	4	64	P4
Significance		P3 - Moderate							P4 - High						
Population Influx	Negative	3	3	3	3	4	48	N3	2	2	2	2	2	16	N2
Significance		N3 - Moderate							N2 - Low						
Procurement From Local Businesses	Positive	2	2	2	2	2	16	P2	2	2	3	4	3	33	P3
Significance		P2 - Low							P3 - Moderate						
Loss of Agricultural Land	Negative	2	2	4	3	3	33	N3	2	1	3	3	3	27	N2
Significance		N3 - Moderate							N2 - Low						
Generate Income for Affected Landowners	Positive	2	1	3	4	3	30	P2	4	1	3	5	5	65	P4
Significance		P2 - Low							P4 - High						
Community Health, Safety and Security	Negative	2	3	3	1	2	18	N2	2	2	1	2	2	14	N1
Significance		N2 - Low							N1 - Very Low						
Traffic	Negative	3	3	3	2	4	44	N3	2	3	2	2	3	27	N2
Significance		N3 - Moderate							N2 - Low						
Noise	Negative	5	1	1	1	2	16	N2	5	1	1	1	2	16	N2
Significance		N2 - Low							N2 - Low						
Dust	Negative	2	3	3	1	4	36	N3	2	3	2	3	2	20	N2
Significance		N3 - Moderate							N2 - Low						
Visual	Negative	10	4	1	2	5	80	N4	8	4	1	2	4	60	N3
Significance		N4 - High							N3 - Moderate						

9.3 OPERATIONAL PHASE

9.3.1 JOB-CREATION

The facility's operation will create employment opportunities. It is assumed that unskilled labour will be sourced from the local community, and as far as possible, skilled labour will also be sourced from the local community. During the operational phase, the facility is expected to employ approximately 17 to 30 personnel, comprising 8 to 15 unskilled employees, 7 to 12 semi-skilled employees, and 2 to 3 skilled employees.

Mitigations

- Where reasonable and practical, the Project should apply a 'locals first' policy, especially for semi and low-skilled jobs. The majority of skilled positions, however, are likely to be filled by individuals from outside the area due to the low skill levels in the area.
- Communities near the Project should be given special consideration regarding the benefits arising from it, as they will be most affected.
- The proponent should liaise with the municipality regarding establishing a database of local companies, specifically BBEE companies, which qualify as potential service providers (e.g., maintenance companies, catering companies, waste collection companies, security companies, etc.) before the commencement of the tender process for construction service providers. These companies should be notified of the tender process and invited to bid for project-related work.

Significance Rating

As a positive impact, the impact's significance rating increases; however, it remains **Moderate** after mitigation.

9.3.2 THE INFLUX OF JOB SEEKERS

As discussed in the construction phase, there will also likely be an influx of job seekers during the operational phase.

An increase in job seekers may increase pressure on the existing municipal infrastructure and services. An influx of job seekers includes increased road traffic, water usage and housing demands. The influx of people from different cultures and languages may impact the local culture, language, and family structures, leading to a sense of displacement for the locals. The influx of job seekers can potentially affect the local community negatively.

Mitigations

- A community awareness campaign will be implemented in the surrounding communities to sensitise community members to traffic safety risks and infectious disease awareness.
- As part of onboarding workers, training should be provided on preventing GBV, SEA and SH.
- The Project must engage with communities using a dedicated community liaison officer and have an effective SEP, including a grievance mechanism for communities to access and lodge complaints.
- Local employment should be a priority for the operations contractor to lessen the number of workers away from their homes.
- Training programmes must be implemented to enable local participants to take advantage of employment opportunities.

- No recruitment should occur at the Project gate to prevent informal settlements around the Project site.
- Increased security in the Project area should be provided to regulate access to the site and prevent informal settlements.

Significance Rating

As a negative impact, the impact's significance decreases from **Moderate** before mitigation to **Low** after mitigation.

9.3.3 PROCUREMENT FROM LOCAL BUSINESSES FOR SUPPLIES AND SERVICES

The Project and its employees will require procurement of goods and services for operations. It increases local economic growth when local entrepreneurs and businesses are procured for supplies and services.

Mitigations

- The Project could partner with local suppliers through procurement programmes to develop local suppliers.
- Procurement programmes should prioritise local procurement for locally available goods and services.

Significance Rating

As a positive impact, the impact's significance increases from **Low** before mitigation to **Moderate** after mitigation.

9.3.4 COMMUNITY HEALTH, SAFETY AND SECURITY

The movement of vehicles and increased human activity may damage infrastructure and increase crime, livestock theft, and farm produce theft or death. It could have a **Low negative impact** on the community's health, safety and security.

Mitigations

- The Project should employ security personnel onsite during operations to implement security.
- The Project should include monthly health talks and coordinate health and safety campaigns to educate personnel and the community on general health, safety and security issues related to the Project.
- The workers should be transported to and from the site daily.
- The contractor should efficiently supervise and manage the entrance and exit of the site to ensure no interaction with communities at the site.
- No workers, except security personnel, should be permitted to stay overnight on the site.

Significance Rating

As a negative impact, the impact's significance rating decreases; however, it remains **Low** after mitigation.

9.3.5 ENERGY GENERATION

The facility's operation will allow the renewable energy facility to produce electricity without waste or emissions during the operational phase. South Africa's per capita greenhouse emissions are the highest in Africa (Jainb, 2017). The Project will aid in reducing the carbon footprint and emissions.

Mitigations

- The power generated from the proposed project should be used to provide for homes, farms, and businesses in the surrounding communities.
- The proposed Project should be used to encourage more renewable sources of energy.

Significance Rating

As a positive impact, the impact's significance increases from **Low** before mitigation to **Moderate** after mitigation.

9.3.6 TRAFFIC

Increase in traffic due to permanent staff traveling to site and irregular maintenance trips. The traffic generated during this phase is expected to have a nominal impact on the surrounding road network (iWink Consulting, 2026).

Mitigations

None Required

Significance Rating

As a negative impact, the significance remains **Low** after mitigation.

9.3.7 INTRUSION IMPACTS

9.3.7.1 Visual

Potential visual impact on residents of homesteads visitors to tourist accommodation and Protected Areas within 5km to the proposed WEF (Logis, 2026).

Mitigations

- Retain/re-establish and maintain natural vegetation in all areas outside of the development footprint/servitude, but within the project site.
- Existing roads should be utilised wherever possible. New roads should be planned taking due cognisance of the topography to limit cut and fill requirements. Construction/upgrade of roads should be undertaken properly, with adequate drainage structures in place to forego potential erosion problems.
- In terms of onsite ancillary buildings and structures, it is recommended that it be planned so that the clearing of vegetation is minimised. This implies consolidating this infrastructure as much as possible and making use of already disturbed areas rather than undisturbed sites wherever possible.
- Ensure that the maintenance of the turbines and ancillary structures and infrastructure must be undertaken to ensure that the facility does not degrade, therefore aggravating the visual impact.

- Roads must be maintained to forego erosion and to suppress dust, and rehabilitated areas must be monitored for rehabilitation failure. Remedial actions must be implemented as and when required.
- Monitor rehabilitated areas for rehabilitation failure or concerns and implement remedial action as and when required.

Significance Rating

As a negative impact, the significance remains **High** after mitigation.

9.3.7.2 Noise

Wind turbines operating simultaneously during the day. Increases in residual noise levels due to air-borne noise from the Wind Turbine Generators (WTGs). The noise from the operating WTG will exceed the potential ambient sound levels (Enviro Acoustic Research, 2026).

As a negative impact, the significance remains **Very Low** before and after mitigation for daytime operation and decreases from **Medium** to **Low** after mitigation during nighttime operation.

Mitigations

- The developer can implement serrated trailing edges (STE) on the blades of selected WTG.
- The developer to develop and implement a noise monitoring programme.

The developer can design a noise abatement programme (NAP) – operating the WTGs in a reduced noise mode during certain times at night, during certain wind speeds/directions or operating conditions.

9.3.8 OPERATIONAL PHASE - IMPACT SUMMARY

Table 9-2 represents a summary of the impacts of the operational phase.

Table 9-2 – Operational phase impacts

Aspect	Character	Pre-Mitigation							Post-Mitigation						
		(M+)	E+	R+	D)x	P=	S	Rating	(M+)	E+	R+	D)x	P=	S	Rating
Job Creation	Positive	4	3	3	4	3	42	P3	4	3	3	4	4	56	P3
Significance		P3 - Moderate							P3 - Moderate						
Population Influx	Negative	4	3	3	4	3	42	N3	2	2	3	3	2	20	N2
Significance		N3 - Moderate							N2 - Low						
Procurement From Local Businesses	Positive	2	2	2	2	2	16	P2	2	2	3	4	3	33	P3
Significance		P2 - Low							P3 - Moderate						
Community Health, Safety and Security	Negative	2	2	3	4	2	22	N2	2	2	3	3	2	20	N2
Significance		N2 - Low							N2 - Low						
Energy Generation	Positive	1	2	3	4	2	20	P2	4	3	3	4	4	56	P3
		P2 - Low							P3 - Moderate						
Traffic	Negative	1	2	1	4	2	16	N2	1	2	1	4	2	16	N2

Aspect	Character	Pre-Mitigation							Post-Mitigation						
		(M+	E+	R+	D)x	P=	S	Rating	(M+	E+	R+	D)x	P=	S	Rating
Significance		N2 - Low							N2 - Low						
Visual	Negative	10	4	1	4	5	85	N5	10	4	1	4	5	85	N5
Significance		N5 – Very High							N5 – Very High						
Noise - Day	Negative	4	2	1	4	1	11	N1	4	2	1	4	1	11	N1
		N1 - Very Low							N1 - Very Low						
Noise - Night	Negative	4	3	1	4	4	48	N3	2	3	1	4	3	30	N2
Significance		N3 - Moderate							N2 - Low						

9.4 DECOMMISSIONING PHASE

9.4.1 LOSS OF EMPLOYMENT

During this phase, the operational workforce will lose their jobs, and it may lead to adverse social consequences in the municipality, such as:

- Increase or return the unemployment rate to previous levels within the Project area.
- Financial hardship.
- Family tensions and breakdown.
- Unemployment can result in alienation, shame and stigma.
- Crime.

It should be noted. However, wind energy facilities usually employ two maintenance employees per 30 wind turbines (Wind Energy The Facts, n.d.) or, depending on capacity, seven to eleven personnel per 100 MW (Adelman).

Mitigations

- Timely and adequate consultation with employees dependent on the Project for employment should occur.
- Assisting employees seeking alternative employment at other wind power plants or related facilities.
- Training, educating and re-skilling employees to equip them with skills that could benefit them in other industries should occur.

Significance Rating

As a negative impact, the significance decreases from **Moderate** before mitigation to **Low** after mitigation.

9.4.2 REDUCED COMMUNITY INVESTMENT

There will be reduced local spending by the Project and its staff and contractors. Consequently, local business revenue may be affected, and tax payments will decrease.

Mitigations

- Engage local and regional government concerning the decommissioning phase.
- Develop alternative projects which can support the local economy.

Significance Rating

As a negative impact, the impact's significance decreased from **Moderate** before mitigation to **Low** after mitigation.

9.4.3 ASSOCIATED INFRASTRUCTURE

Structures used during operation will be abandoned and might attract criminal activity or house social ills. Maintenance of these structures might decrease after the Project operation, leading to hazards to the health and welfare of the community.

Mitigations

- An end-of-life shutdown procedure must be undertaken, including a risk assessment of the activities involved.
- End-of-life, which is affected by temperature and time, cycles, etc., should be predefined, and monitoring should be in place to determine if it has been reached.
- The proponent shall develop exit strategies for all its community development initiatives.

Significance Rating

As a negative impact, the impact's significance decreased from **Moderate** before mitigation to **Low** after mitigation.

9.4.4 TRAFFIC

The construction and decommissioning phases will generate additional traffic including transportation of people, construction materials, water, and equipment (abnormal trucks transporting turbine components). The exact number of trips generated will be determined by the appointed haulage company (iWink Consulting, 2026).

Mitigation

- Stagger component delivery to site.
- Stagger the construction phase.
- Use of licensed quarries in close proximity to the site to decrease the impact on the surrounding road network if possible.
- Staff and general trips to occur outside of peak traffic periods as much as possible.
- Monitoring and maintenance of haulage routes.
- Maintenance of internal roads.
- Provide several access points to the site to split construction vehicle trips and reduce the risk of congestion at a single access.
- Maintenance and repairs of any road sections of the district road being used by construction vehicles.
- Any road surface damage needs to be closely monitored to decide on the responsible party to repair it.

Significance Rating

As a negative impact, the impact's significance rating decreases from **Moderate** to **Low** after mitigation.

9.4.5 INTRUSION IMPACTS

9.4.5.1 Visual

Visual impact of decommissioning activities on sensitive visual receptors within 5km to the proposed WEF (Logis, 2026).

Mitigations

- Reduce the decommissioning period through careful logistical planning and productive implementation of resources.
- Plan the placement of laydown areas and temporary equipment camps in order to minimise vegetation clearing (i.e. in already disturbed areas) where possible.
- Restrict the activities and movement of workers and vehicles to the immediate site and existing access roads.
- Ensure that rubble, litter, and disused materials are appropriately stored and then disposed of regularly at licensed waste facilities.
- Reduce and control dust using approved dust suppression techniques as and when required (i.e. whenever dust becomes apparent).
- Restrict activities to daylight hours whenever possible in order to reduce the visual impacts associated with lighting.
- Remove infrastructure not required for the post-decommissioning use of the site.
- Rehabilitate all areas as per the rehabilitation plan undertaken. Consult an ecologist regarding rehabilitation specifications.
- Monitor rehabilitated areas post-decommissioning and implement remedial actions as required.

Significance Rating

This negative impact remains **Moderate** after mitigation.

9.4.5.2 Noise

Various infrastructure decommissioning activities may increase ambient sound levels due to air-borne noise. Noise levels during decommissioning is generally less than construction noises, and the potential significance of the noise impact would be similar to daytime construction activities (Enviro Acoustic Research, 2026).

Mitigations

- Significance of the noise impact is low for decommissioning activities and additional mitigation measures are not required.

Significance Rating

This negative impact remains **Very Low** after mitigation.

9.4.6 DECOMMISSIONING PHASE - IMPACT SUMMARY

Table 9-3 presents a summary of the decommissioning impacts.

Table 9-3 – Decommissioning Impacts Summary

Receptor	Character	Pre-Mitigation								Post-Mitigation						
		(M+	E+	R+	D)x	P=	S	(M+		E+	R+	D)x	P=	S		
Loss of Employment	negative	4	4	3	4	3	45	N3	2	1	2	4	3	27	N2	
Significance		N3 - Moderate								N2 - Low						
Reduced Community Investment	negative	3	4	3	3	3	39	N3	2	1	2	4	3	27	N2	
Significance		N3 - Moderate								N2 - Low						
Associated Infrastructure	negative	3	3	3	3	4	48	N3	2	2	1	3	2	16	N2	
Significance		N3 - Moderate								N2 - Low						
Traffic	negative	4	3	3	2	4	48	N3	3	3	2	2	3	30	N2	
Significance		N3 - Moderate								N2 - Low						
Visual	negative	8	4	1	1	4	58	N3	6	4	1	1	3	41	N3	
Significance		N3 - Moderate								N3 - Moderate						
Noise	negative	1	2	1	2	1	6	N1	1	2	1	2	1	6	N1	
Significance		N1 – Very Low								N1 – Very Low						

9.5 CUMULATIVE IMPACTS

9.5.1 EMPLOYMENT

One positive short-term social impact will be the creation and retention of jobs at the facility. Construction activities will create several temporary employment opportunities. Other social impacts include increased demand for local services, the influx of job seekers, social problems arising from population growth in the area, changes in land-use, and the effect on the sense of place.

9.5.2 TRAFFIC

To assess a cumulative impact, it is generally assumed that all currently approved and authorized renewable energy projects within a 30 km radius would be constructed at the same time.

This is a precautionary approach as in reality, these projects would be subject to a highly competitive public bidding process or a similarly competitive private market, and not all the projects may be selected to enter into a Power Purchase Agreement. Even if all the facilities are constructed and/or decommissioned at the same time, the roads authority will consider all applications for abnormal loads and work with all project companies to ensure that loads on the public roads are staggered and staged to ensure that the impact will be acceptable.

The construction and decommissioning phases of a renewable energy project are the only significant traffic generators. The duration of these phases is short term, i.e., the potential impact of the traffic generated during the construction and decommissioning phases on the surrounding road network is temporary and wind energy projects, when operational, do not add any significant traffic to the road network.

9.5.3 ECONOMIC BENEFITS

Increased expenditure during the construction of the proposed facility will contribute to the local economy. The workers' income will likely increase spending in the local community, thereby stimulating the formal and informal sectors and secondary industries, with a positive multiplier effect.

10 CONCLUSION

Based on the findings of the assessment, the proposed ABO Uvemvane Wind Energy Facility 1 is expected to make a positive contribution to South Africa's renewable energy objectives while supporting economic growth within the affected municipalities. The Project has the potential to generate a range of social benefits, including employment opportunities during the construction and operational phases, increased procurement opportunities for local businesses, income generation for participating landowners, and the provision of renewable energy. These benefits are particularly significant in an area where unemployment and limited economic opportunities remain key socio-economic challenges.

The assessment also identified several potential negative social impacts that may arise during the different phases of the Project. These include the influx of job seekers, increased pressure on local infrastructure and services, community health and safety concerns, the loss of agricultural land, and visual and noise-related impacts on surrounding communities. However, with the implementation of the recommended mitigation and management measures, most of these impacts are expected to be reduced to low or moderate levels of significance.

Based on the findings of this Social Impact Assessment, the proposed Project is considered socially acceptable, provided that the recommended mitigation and management measures are implemented throughout the Project lifecycle. Continued engagement with affected communities, prioritisation of local employment and procurement opportunities, and effective grievance management will be essential to maximise social benefits and minimise adverse impacts.

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