Appendix G.11

SOCIAL ASSESSMENT

Mulilo Renewable Project Developments

VERKYKERSKOP WIND ENERGY GROOTHOEK FACILITY

Social Impact Assessment

SEPTEMBER 2024

CONFIDENTIAL

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VERKYKERSKOP WIND ENERGY GROOTHOEK FACILITY

Social Impact Assessment

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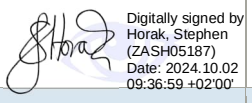
Signature	 Digitally signed by Horak, Stephen (ZASH05187) Date: 2024.10.02 09:36:59 +02'00'			
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Acronyms

Abbreviation	Definition
BESS	Battery Energy Storage System
CBD	Central Business District
EGI	Electrical Grid Infrastructure
EIA	Environmental Impact Assessment
EMPr	Environmental Management Programme
ESIA	Environmental and Social Impact Assessment
GVA	Gross Value Add
HV	High Voltage
IDP	Integrated Development Plans
IFC	International Finance Corporation
LED	Local Economic Development
TMDM	Thabo Mofutsanyane District Municipality
PLM	Phumelela Local Municipality
MSDF	Municipal Spatial Development Framework
PS	Performance Standards
SAPS	South African Police Services
SIA	Social Impact Assessment
STI	Sexually Transmitted Infections
WEF	Wind Energy Facility
WSP	WSP Africa Group Africa

1 INTRODUCTION

WSP Group Africa (Pty) Ltd (WSP) has been appointed to undertake an Environmental Impact Assessment (EIA) to meet the requirements under the National Environmental Management Act (Act 107 of 1998) (NEMA), for the various applications associated with the proposed Verkykerskop Wind Energy Facility (WEF) located at Groothoek in the Free State Province.

1.1 PROJECT BACKGROUND

Groothoek Wind Power (Pty) Ltd, (Project SPV) has commissioned WSP Group Africa (WSP) to apply for Environmental Authorisation for the Project near Verkykerskop in the Free State Province.

1.2 PROJECT DESCRIPTION

The construction activities required are the construction camp, site offices, material laydown area, construction of internal roads, Operations and Management Office Building, batching plants, Battery Energy Storage System (BESS) and excavations of turbine foundations.

The proposed project consists of:

- Groothoek WEF (up to 300 MW), maximum 55 turbines, 6170 ha extent.

Project specifications:

- The hub height of each turbine is 140 m.
- The rotor diameter is up to 200 m.
- The hard-standing dimensions are a maximum of 0,8 ha per turbine.

A 33kV cabling will be installed to connect the wind turbines to the onsite collector substations, laying underground where practical. The three substations are estimated to have 33kV/132kV capacity and will average 2 ha in area extent. The project will establish a construction camp and laydown area of approximately 8 ha. The site office is planned to be 4 ha. The Battery Energy Storage System (BESS) will be housed in containers covering approximately 7 ha. The total storage capacity is estimated to be between 6 to 8 hours at a capacity of 200 MW.

1.3 PROJECT LOCATION

The proposed project is 15km southeast of Verkykerskop, in the Free State Province, and 40km west of Danhauser which is located in Kwa-Zulu Natal Province. The project boundary situated in the Groothoek WEF area which covers 6 farm portions, See **Figure 1-1** for the locality map. The proposed project is located on the farms shown in the table **Table 1-1.**

Table 1-1 - Groothoek WEF Farm Portions

PROJECT	FARM NAME	PORTION NUMBER	SG 21 CODE
Groothoek WEF	Farm Schoonzicht No.80	0	F01500000000008000000
	Farm Groothoek No. 89	0	F01500000000008900000
	Farm Kromdraai No. 273	0	F01500000000027300000
	Farm Kransbank No.288	0	F01500000000028800000
	Farm Kranspunt No.459	0	F01500000000045900000
	Farm Van Kope No.1319	0	F01500000000131900000

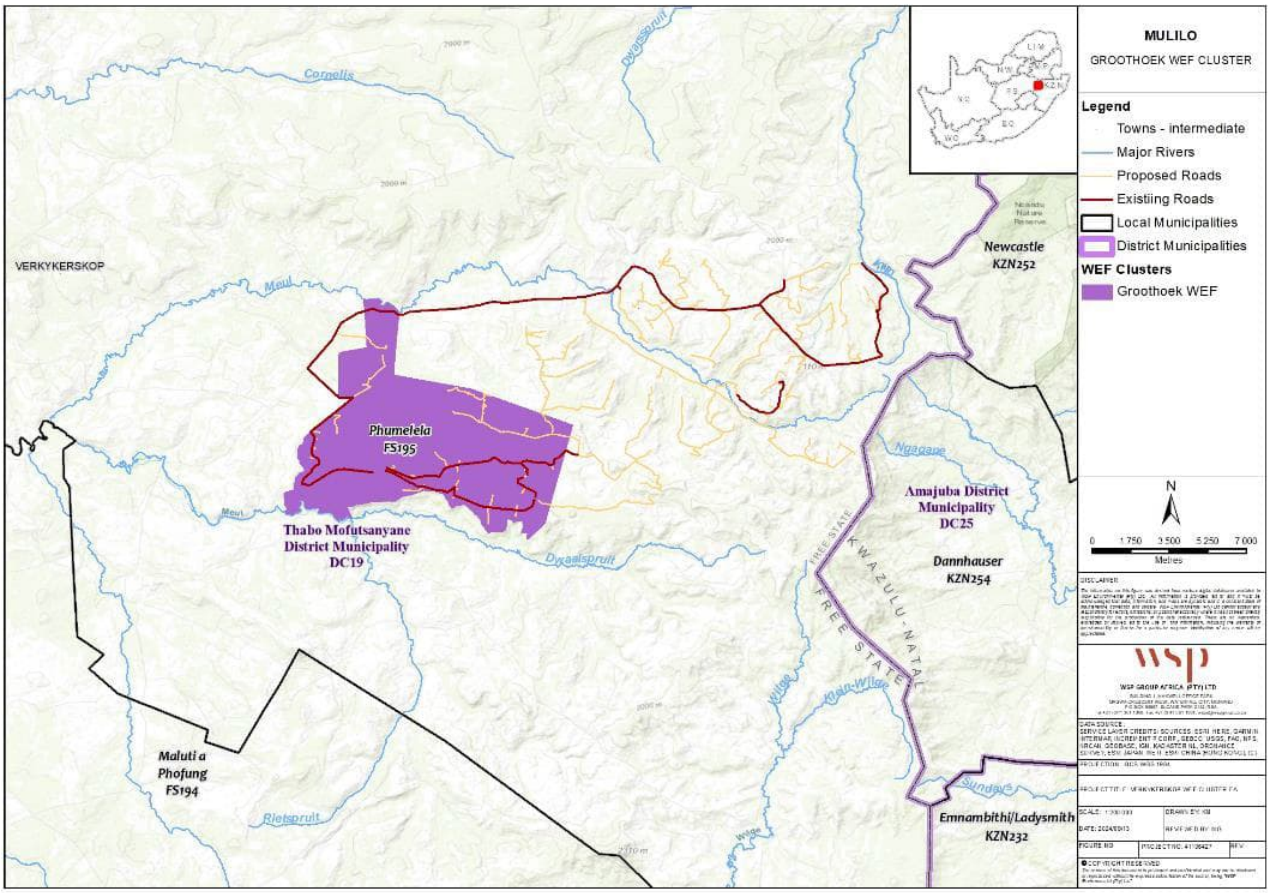

Figure 1-1 – Locality Map

2 SOCIAL IMPACT METHODOLOGY

The Social Impact Assessment (SIA) methodology will be integrated into the environmental assessment process. The SIA will combine primary qualitative data collection and secondary research. The SIA process will piggyback on the public participation events and interactions to source qualitative social information required for the impact assessment.

2.1 DATA COLLECTION

To understand the socio-economic baseline conditions of the project-affected areas and the socio-economic implications of the proposed project to the receiving environment, WSP conducted secondary desktop data collection (desktop review) and will conduct primary data collection as part of the stakeholder consultation process.

2.1.1 SECONDARY DATA COLLECTION

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

- Recent Integrated Development Plans (IDPs) and Spatial Development Frameworks of the Phumelela Local Municipality and Thabo Mofutsanyane District Municipality.
- Socio-economic and demographic statistics sourced from Statistics South Africa, 2022, and the Statistics South Africa, Community Survey 2016
- Documents concerning the proposed project, which included the project description document.
- Available maps and satellite imagery.

These documents were used to develop the project's social baseline and identify any potential social impacts.

2.1.2 PRIMARY DATA COLLECTION

Public participation will be a primary data collection tool. The comments and response reports from the Environmental Impact Assessment (EIA) process will be essential input into the SIA. The social team will provide specific information requirements for inclusion in the public participation process. An online focus group meeting will be conducted when required, and the public engagements will be used to inform the SIA further.

2.2 ASSUMPTIONS AND LIMITATIONS

WSP noted the following assumptions and limitations during the SIA:

- The information provided by the applicant is up-to-date and accurately represents the project.
- At the time of the compilation of this SIA report, the estimated number of people employed in the project was not disclosed.
- WSP was not provided with the estimated period of each project phase, namely the construction, operational and decommissioning phases.
- The public participation process has not been conducted yet and will form part of the scoping process for the EIA. Once this process is completed, it will inform this SIA further.
- The secondary data is assumed to reflect the local social context accurately.

2.2.1 APPLICABLE POLICIES, LEGISLATION, STANDARDS, AND GUIDELINES

The social baseline study for this project considers the relevant South African legislative requirements. **Table 2-1** summarises the appropriate guiding regulations, legislation, and best practices for the SIA.

Table 2-1 - Policy, Legislation, Guidelines or Standard

Policy, Legislation, Procedures, or Standard	Description	Relevance to Project
National Legislation		
Constitution of the Republic of South Africa, Act 108 of 1996, Chapter 2: Bill of 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.	The project needs to consider human rights in every phase of the project life cycle and not infringe on any human rights.
National Environmental Management: Protected Areas Act, 57 of 2003	The Act protects and conserves ecologically viable areas representing South Africa's biological diversity, natural landscapes, and seascapes.	The project will undertake an ecological impact assessment to mitigate negative impacts and conserve the ecology within their operating area.
National Environmental Management Act, 107 of 1998 (NEMA).	The Act provides the legislative framework for integrating good environmental management practices into all development activities in South Africa. The National Environmental Management Act broadly states that the participation of all interested and affected parties in environmental governance must be promoted, achieving equitable and effective participation and ensuring the involvement of vulnerable and disadvantaged persons.	The project is applying for environmental authorisation in this Act to practice good environmental management. A public participation process will form part of the environmental authorisation process.
National Water Act (Act 36 of 1998).	The National Water Act ensures that projects and future interventions maintain water resources' capability to meet basic human needs. It seeks to support equitable water access and efficient, sustainable, and beneficial use. Future developments must reduce and prevent the	There are several water sources on and surrounding the proposed project.

Policy, Legislation, Procedures, or Standard	Description	Relevance to Project
	pollution and degradation of water resources.	
Promotion of Administrative Justice Act, Act 3 of 2000 (PAJA).	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 project will undertake a public participation process to ensure the affected public can access information regarding the proposed project.
Protection of Personal Information Act, 4 of 2013 (POPI).	The Act promotes the protection of personal information and balances the right of privacy recognised by the Constitution with various needs and interests, like economic and social progress. POPI regulates how personal information may be processed and establishes voluntary and compulsory measures, including 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 the Public Participation Process, the participant's information will not be published unless permitted by the participant.
Local Guidelines		
Thabo Mofutsanyana Final IDP (2024/2025) 2022 – 2027 Financial year (TMIDP)	The plan serves as a strategic plan document for the municipality. It details the district municipality's short-term and long-term objectives and strategies aligned with	The project will utilise the MIDP to identify the social profile of the municipality and align the project activities with the applicable municipal current and planned infrastructure and objectives.

Policy, Legislation, Procedures, or Standard	Description	Relevance to Project
	the Provincial and National Development Plan.	
Phumelela Local Municipality Integrated Development Plan 2022-27 (MIDP).	The plan serves as a strategic plan document for the municipality. It details the municipality's short-term and long-term objectives and strategies aligned with the Provincial and National Development Plan.	The project will utilise the MIDP to identify the social profile of the municipality and align the project activities with the applicable municipal current and planned infrastructure and objectives.
Phumelela Local Municipality Spatial Development Framework.	The PSDF is a required tool to address historically distorted, unviable, and unsustainable spatial patterns and challenges caused by apartheid planning.	The project will utilise PSDF to align the municipality's spatial planning with its proposed activities.

3 SOCIAL BASELINE

The social baseline describes the social profile of the project-affected area based on desktop research. The regional, district and local context describes the geographical setting of the project. The demography of the project-affected area is provided and its leadership structures.

3.1 REGIONAL CONTEXT

The proposed project is in the Free State Province, located in the eastern part of the province at the boundary of Kwa-Zulu Natal Province. The whole project area covers an area of 6170 ha.

The province is divided into five district municipalities: Fezile Dabi, Mangaung, Xhariep, Lejweleputswa, and Thabo Mofuntsanyane, where the proposed project is located. These five districts are further subdivided into 19 Local Municipalities. The proposed project is situated in the Phumelela Local Municipality (PLM).

3.2 DISTRICT CONTEXT

Thabo Mofutsanyane District Municipality is a Category C municipality located in the eastern part of the Free State Province. It is bordered by the Dannhauser local municipality in KwaZulu-Natal Province.

The district comprises six local municipalities: Dihlabeng, Mantsopa, Nketoana, Phumelela, Setsotso, and Maluti-A-Phofung (Coorperative Governance Traditional Affairs, 2022).

3.3 LOCAL CONTEXT

Phumelela Local Municipality covers an area of 8197 km². It is one of the six local Municipalities within the Thabo Mofutsanyane District Municipality. It has a population of 52,224 people (Statistics South Africa, 2022). PLM is the least populated municipality of the six local municipalities in Thabo Mofutsanyane District Municipality.

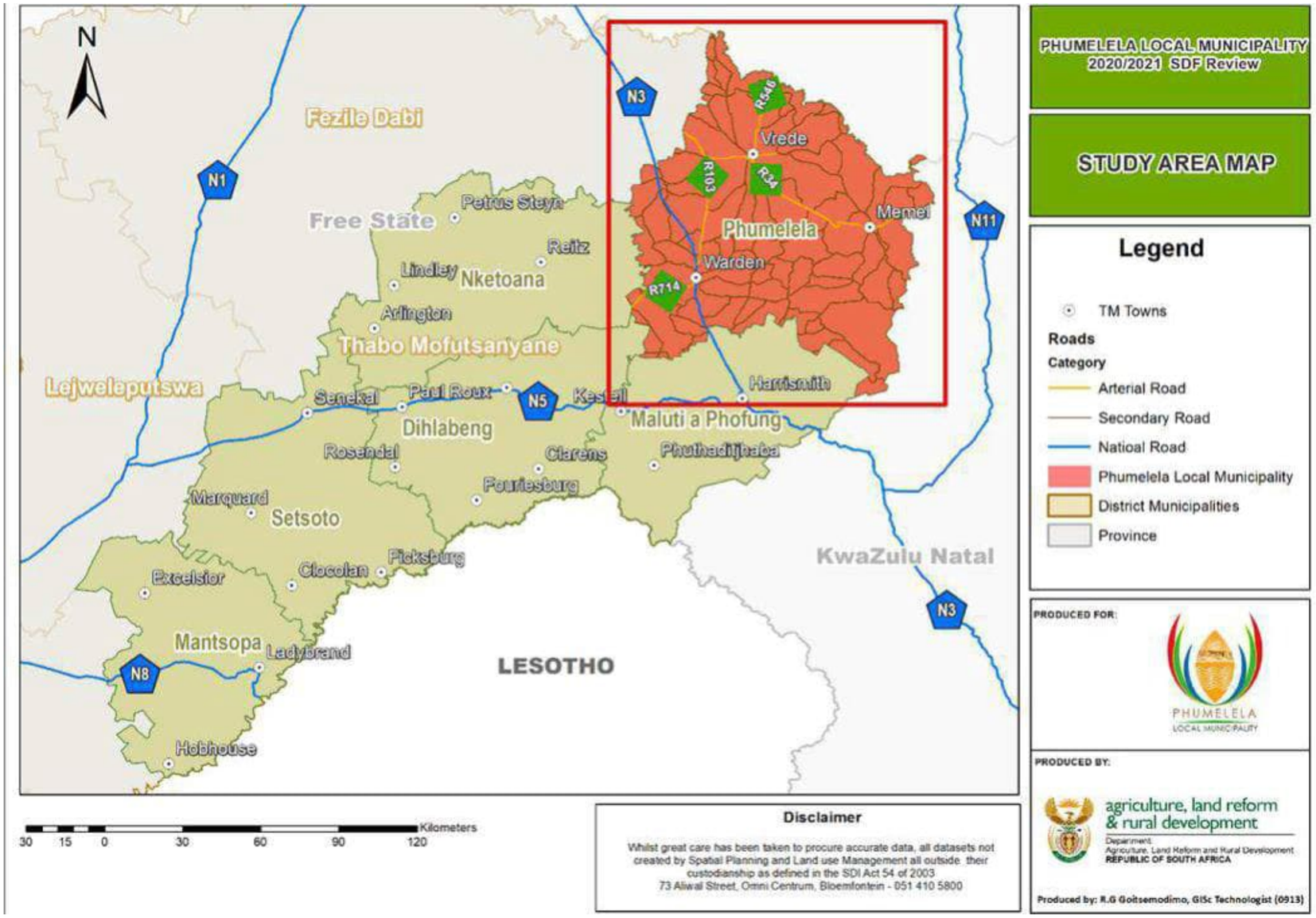

Figure 3-1 - Local Context Source: (Agriculture ,Land Reform and Rural Development, 2021)

Phumelela Local Municipality is accessible through two National Roads and four Provincial main roads, which are R34, R714, R103, R722, N11, and N3. **Figure 3-1** (Agriculture ,Land Reform and Rural Development, 2021)below depicts the local context. It comprises three towns, namely Vrede, warden and Memel, which is 5 km North of the Project area (Coorperative Governance Traditional Affairs, 2022) **.**

3.4 DEMOGRAPHIC OVERVIEW

Trends in demography are fundamental driving forces for any development of an area in terms of housing, retail, engineering services, community and government services, safety, and security. The demographic profile influences the type of goods and services, their level of demand and the pressure on local services, infrastructure, and public transport. The demography informs the project of potential social context that may influence the project either negatively or positively. When the project is aware of the local social contexts, better informed decision making is enhanced. This will create a healthy social license to operate and create a conducive environment for both the local community and the project to co-exist.

3.4.1 POPULATION

According to the 2016 Community Survey by Statistics South Africa, the municipality had a population of 50054. However, according to the recent statistics released in 2022, the population has increased to 52,224. (Statistics South Africa, 2022). This indicates that the population is growing and may mean a higher energy demand in the area. Therefore, a WEF can be considered a viable solution to meet the energy demand.

3.4.1.1 GENDER AND AGE PROFILE

The population pyramid below is a graphic representation of the population categorised by gender and age for PLM. The horizontal axis depicts the share of people, with the male population charted on the right-hand side and the female population on the left-hand side of the vertical axis. The vertical axis is divided into 5-year age categories. The figures below show Phumelela's population pyramid/structure based on the Census Community Survey 2016. See **Figure 3-2** for the population pyramid.

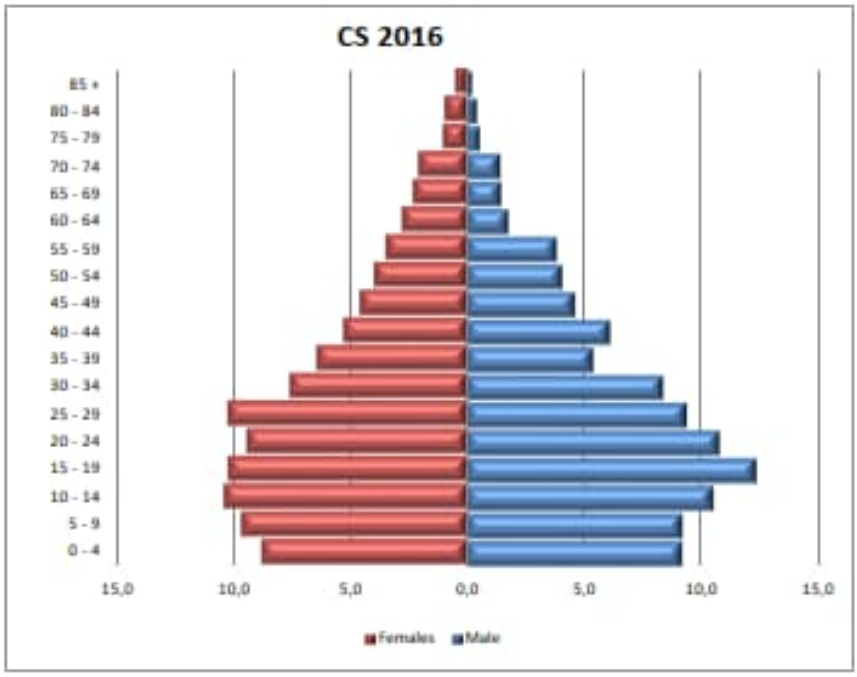

Figure 3-2 - Population Pyramid, 2016

The figure above shows that, in 2016, PLM males had the highest proportions for the age group 15-19 than females. As age increases, the population decreases. Female numbers started to decrease from age 30-34, whereas males decreased from age 20-24. In 2016, the municipality had the lowest population in the age group (0-4) for both males and females compared to the Census 2011, which had the highest population proportion for the age group 0-4 years. In 2016, the pyramid showed that fertility rates decreased as the 0-4 age group decreased, and more male children were born than female children. (Phumelela Local Municipality, 2022-2027, p. 57).

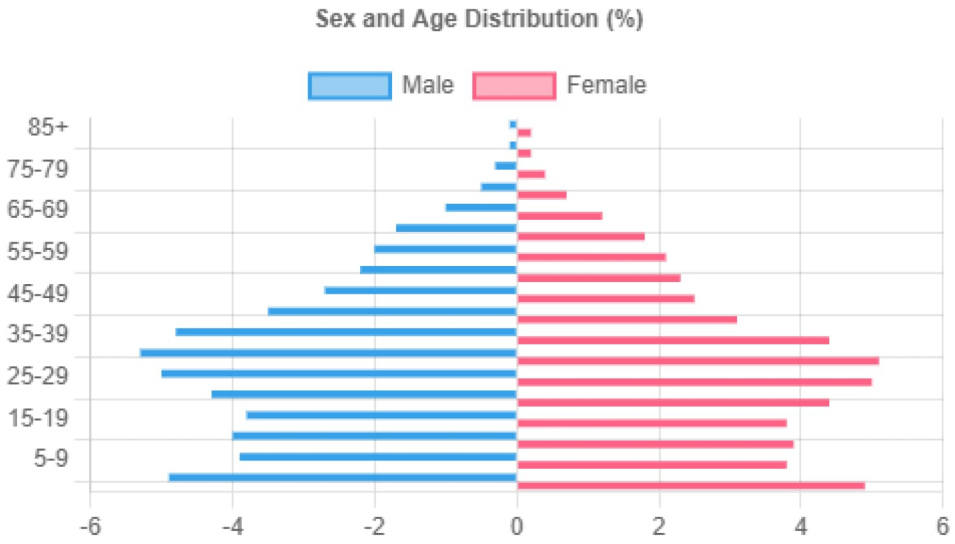

Figure 3-3 - Sex and Age Distribution, 2022

Source: (Statistics South Africa, 2022)

In 2022, the total male population was 47.8 % and females at 52.1 %. The working age (15-64) increased by approximately 4 % from 2011 to 2022. These figures may impact the project positively as the pyramid indicates available human resources that the project can employ. See **Figure 3-3** above.

3.4.2 HOUSEHOLD LIVING CONDITIONS

The project is situated on a farmland. According to (Statistics South Africa, 2022) 60% of the population within the municipality uses electricity from the main grid as an energy source (see Figure 3-4 below).

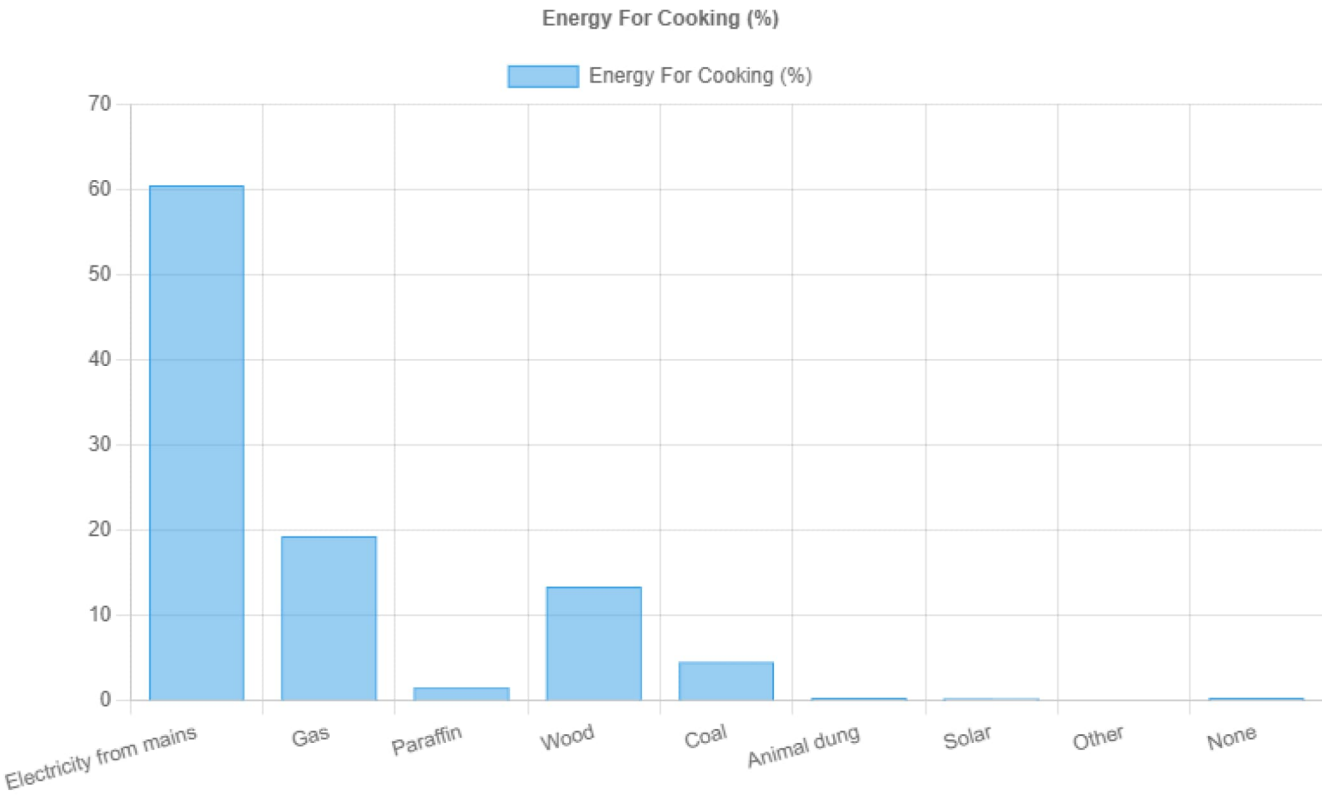

Figure 3-4 - Energy for Cooking

Source: (Statistics South Africa, 2022)

The graph above shows that out of the population, 20% rely on gas for cooking, 12% rely on wood, and less than 1% use renewable energy. By implementing the project, the pressure on non-renewable energy use will decrease, and the usage of green energy will be promoted. This is necessary as the graph indicates that there is more reliance on the grid for energy. The grid will be powered by wind renewable energy.

3.4.3 EDUCATIONAL PROFILE

Education is important to a country's economic growth and its industries' development, providing a trained workforce and skilled professionals. The education measure represents an individual's highest level of education, using those aged five years and older. See **Figure 3-5**

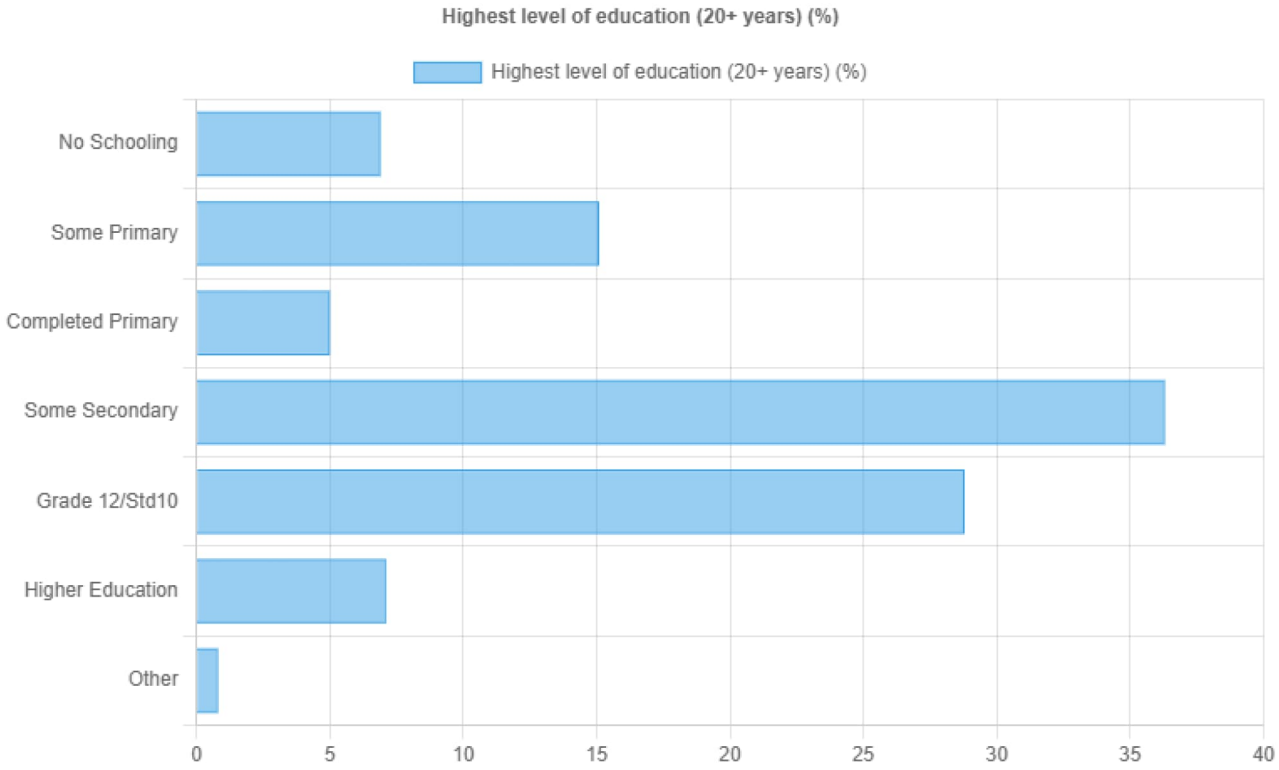

Figure 3-5 - Highest Level of Education (20 + years) (%)

Source: (Statistics South Africa, 2022)

According to (Statistics South Africa, 2022) 74.1 % of people aged 5 to 24 have attended educational institutions. Of these, only 7.1 % have obtained higher education beyond matric. This may indicate a shortage of skilled labourers for the project and a potential surplus of low- to semi-skilled labourers.

3.4.4 LABOUR PROFILE

A country's labour force consists of all working-age individuals who are either seeking employment or are employed. See **Figure 3-6 below.**

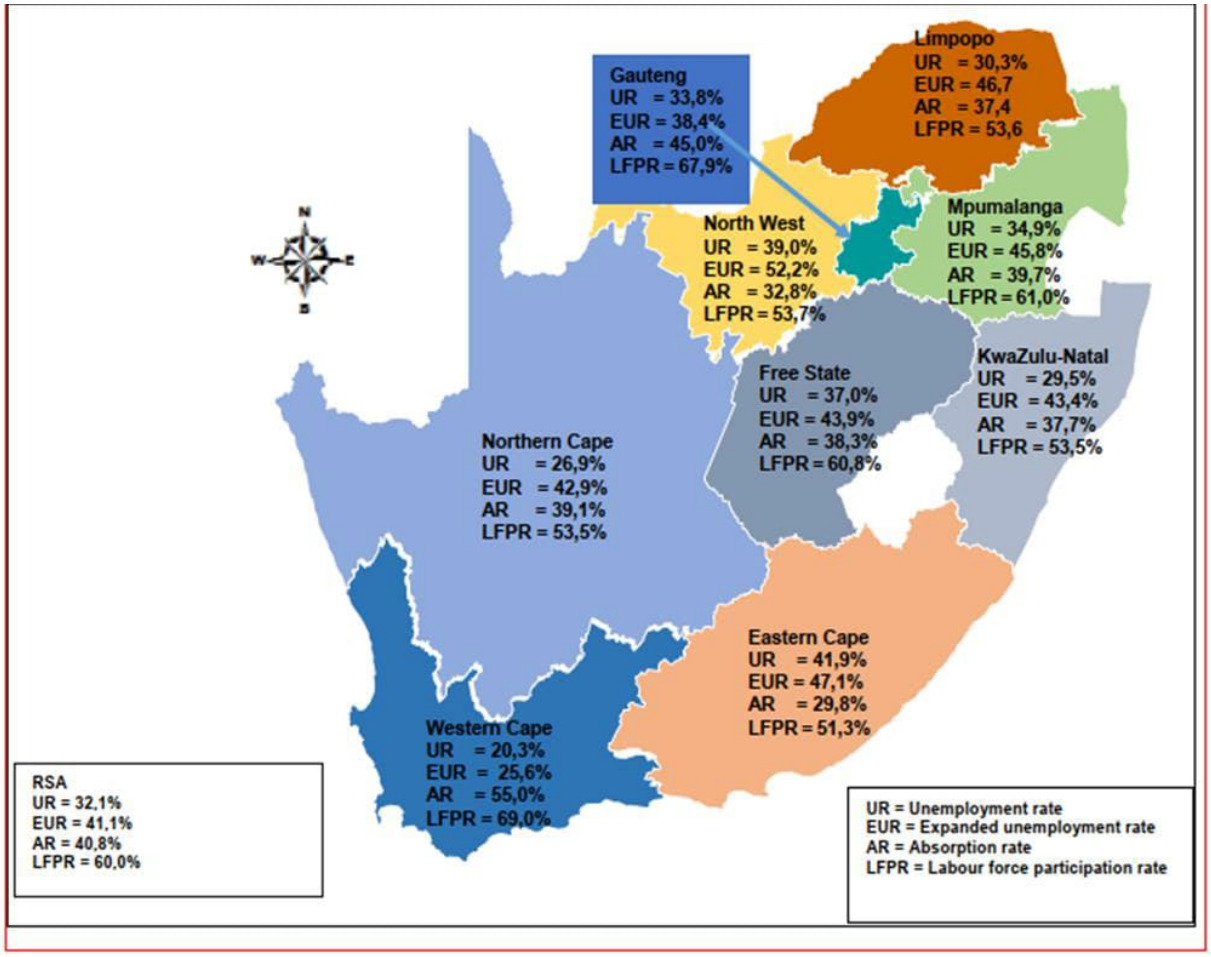

Figure 3-6 - Summary of the Labour Market Measures at a Glance, Q4:2023

Source: (Statistics South Africa, 2023)

According to (Statistics South Africa, 2011), the unemployment rate for Free State Province is 25.3 % lower than the country's overall 32.1 % unemployment rate and 37.0 % unemployment rate of the Free State Province. (Stats SA, 2023)

3.4.5 COMMUNITY HEALTH

According to the Phumelela Municipality, IDP indicates a shortage of health facilities, with one hospital located at Vrede. Four clinics, three mobile clinics, and two community care centres (Phumelela Local Municipality, 2022-2027). (See **Table 3-1)**

Table 3-1 – Health Facilities

Area	Hospital	Clinic	Mobile Clinic	Community Care Centre
Vrede	1	1	0	0
Thembalihle	0	1	1	1 (Disability Centre)

Warden	0	1	1	1 (Soup Kitchen)
Ezenzeleni	0	0	0	0
Memel	0	1	1	0
Zamani	0	0	0	0

(Phumelela Local Municipality, 2022-2027)

4 SPECIALIST REPORT REQUIREMENT IN TERMS OF NEMA

This report is compiled to adhere to the EIA Regulation requirements detailed in Appendix 6 of the amended NEMA EIA Regulations of 2014 illustrated on **Table** 4-1 below.

Table 4-1 – Appendix 6: Specialist Protocol

Section	Requirements	The section addressed in the report
(a)	Details of	
	(i) the specialist who prepared the report; and	Quality Control
	(ii) the expertise of that specialist to compile a specialist report, including a curriculum vitae;	Appendix A
(b)	A declaration that the specialist is independent in a form as may be specified by the competent authority;	**Section 10**
(c)	An indication of the scope of and the purpose for which the report was prepared, the quality and age of base data used for the specialist report and a description of existing impacts on the site, cumulative impacts of the proposed development and levels of acceptable change;	**Section 5**
(d)	The duration, date and season of the site investigation and the relevance of the season to the outcome of the assessment;	N/A
(e)	A description of the methodology adopted in preparing the report or carrying out the specialised process inclusive of equipment and modelling used;	**Section 5**
(f)	Details of an assessment of the specific identified sensitivity of the site related to the proposed activity or activities and its associated structures and infrastructure, inclusive of a site plan identifying site alternative;	**Section 8**
(g)	An identification of any areas to be avoided, including buffers (if and where applicable);	**Section 8**
(h)	A map superimposing the activity, including the associated structures and infrastructure on the environmental sensitivities of the site, including areas to be avoided, including buffers (if and where applicable);	**Figure 8-1**
(i)	A description of any assumptions made and any uncertainties or gaps in knowledge;	**Section 2.2**

(j)	A description of the findings and potential implications of such findings on the impact of the proposed activity or activities;	**Section 6**
(k)	Any mitigation measures for inclusion in the EMPr;	**Section 6**
(l)	Any conditions for inclusion in the environmental authorisation;	N/A
(m)	Any monitoring requirements for inclusion in the EMPr or environmental authorisation;	**Section 6**
(n)	A reasoned opinion—	
	(i) whether the proposed activity, activities or portions thereof should be authorised regarding the acceptability of the proposed activity or activities; and	**Section 8**
	(ii) if the opinion is that the proposed activity, activities, or portions thereof should be authorised, and avoidance, management and mitigation measures that should be included in the EMPr, and where applicable, the closure plan;	**Section 8**
(o)	A description of any consultation process that was undertaken while preparing the specialist report;	N/A no consultation has taken place yet.
(p)	A summary and copies of any comments received during any consultation process and, where applicable, all responses thereto; and	N/A
(q)	Any other information requested by the competent authority.	NA

5 SCOPING IMPACT ASSESSMENT

The screening impact assessment identifies potential social impacts during the project's construction, operational, and decommissioning phases, and cumulative effects are assessed. For the screening phase, impacts are assessed for pre-mitigation only. The post-mitigation impact assessment will be conducted during the EIA phase of the project.

5.1 SCOPING ASSESSMENT METHODOLOGY

Appendix 2 of GNR 982, as amended, requires the identification of the significance of potential impacts during scoping. To this end, the scoping phase has used an impact screening tool. The screening tool is based on two criteria, probability scores and descriptors (**Table 5-3)**, where the latter is based on a general consideration of the impact's intensity, extent, and duration.

The scales used for scoring probability and consequence are detailed in **Table 5-1** and **5-2,** respectively.

Table 5-1 – 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 5-2 – Consequence Score Descriptions

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 real alternative to achieving this benefit.
3	Severe: A long-term impact on the affected system(s) or party(ies) that could be mitigated. However, this mitigation would be difficult, expensive, time-consuming or some combination of these.	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.

Score	Negative	Positive
1	Negligible: A short to medium-term impact on the affected system(s) or party(ies). Mitigation is straightforward, cheap, less time-consuming, and unnecessary.	Negligible: A short to medium-term impact and negligible benefit to the affected system(s) or party(ies). Other ways of optimising beneficial effects are easier, cheaper, quicker, or combination.

Table 5-3 – Significance Screening Tool

	Consequence Scale				
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	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 (**Table 5-4)** has been applied according to the nature and significance of the identified impacts.

Table 5-4 – Impact Significance Colour Reference System

NEGATIVE IMPACTS (-VE)	POSITIVE IMPACTS (+VE)
Negligible	**Negligible**
Very Low	**Very Low**
Low	**Low**
Medium	**Medium**
High	**High**
Very High	**Very High**

6 IDENTIFICATION OF IMPACTS

Based on the collected secondary data and expert knowledge, impacts were identified and categorised according to the project phase in which they are likely to occur, i.e., construction, operational, and decommissioning.

6.1 CONSTRUCTION PHASE

The project's construction phase is labour-intensive, and the project environment has a high potential for social change. The construction activities required are the construction camp, site offices, material laydown area, construction of internal roads, Operations and Management Office Building, batching plants, Battery Energy Storage System (BESS) and excavations of turbine foundations. These construction activities will require a labour force. **Table 6-1** summarises the impact assessments during the construction phase.

6.1.1 JOB CREATION

The construction phase is estimated to be 36 months per 240 MW wind farm.. The number of employees for the construction phase is estimated to be approximately 2000 spread across the development of the Verkykerskop WEF cluster. Furthermore, the project requires predominantly local South Africans to be employed during construction. Most workers will be low-skilled, with approximately 60% low-skilled and 40 % for semi-skilled and skilled, respectively.

The job creation projection indicates that many low-skilled persons will be employed. Job creation will have a potential **very high positive impact.**

6.1.1.1 Job Creation Enhancement Measures

To enhance job creation, the project should prioritise local recruitment for low-skilled work and invest in skills development for locals to improve their competitiveness in the job market.

6.1.2 THE INFLUX OF JOB SEEKERS

Based on a report by Statistics South Africa in 2023, the unemployment rate during 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 development to secure employment opportunities. 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 an increase in traffic, water usage and housing demands. Additionally, the influx of people from different cultures and languages may impact the local culture, and family structures, leading to a sense of displacement for locals. The impact significance is rated as **highly negative**.

6.1.2.1 Influx of Job Seekers Mitigation Measures

Recruitment procedures should prioritise local employment to limit influx. Local skill development programmes must be implemented to improve the local skill pool and make it competitive in the labour market. The project could partner with the municipality to implement community programmes and facilities to ease the pressure on municipal services and infrastructure.

6.1.3 PROCUREMENT FROM LOCAL BUSINESSES FOR SUPPLIES AND SERVICES

The project and its employees will require procurement of goods and services for construction. This procurement will increase local economic growth. Local economic growth has the potential to have a medium positive impact.

6.1.3.1 Local Procurement Enhancement Measures

The project could partner with local suppliers through procurement programmes to develop local suppliers and enhance this positive impact. Furthermore, the procurement programmes should prioritise local procurement for locally available goods and services.

6.1.4 LOSS OF AGRICULTURAL LAND

The project is located within agriculturally active farm portions. 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. The loss of farmland could potentially negatively impact the local agricultural sector. The impact is rated as **low negative** as the disturbed areas will be relatively small**.**

6.1.4.1 Loss of Agricultural Land Mitigation Measures

The project should limit the construction of infrastructure during planting and harvesting season. Disturbed areas should be kept as small as possible and rehabilitated post-construction phase.

6.1.5 GENERATE INCOME FOR AFFECTED LANDOWNERS

The proponent will enter into lease agreements with the affected landowners to use the land to construct 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 the project. The added income is a substantial benefit to the impacted landowner. The impact is rated as **medium positive**.

6.1.5.1 Income for Affected Landowners Mitigations

Implement agreements with affected landowners. Where possible, the loss of high-quality agricultural land should be avoided and minimised as far as possible by careful planning in the final layout of the proposed energy-generating facilities.

6.1.6 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 movement of construction vehicles and increased human activity by workers may have a **low negative impact** on the community's health, safety and security.

6.1.6.1 Community Health, Safety and Security Mitigation Measures

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.

6.1.7 INTRUSION IMPACTS

The construction activities will result in increased noise and dust and alter the visual aesthetics of the area. The effect is rated to be a **medium negative impact**.

6.1.7.1 Environmental Health Impact Mitigation Measures

The project must implement the measures in the EMPr to mitigate dust emission, noise, and visual impacts. Furthermore, the project must establish onsite complaints register to record and address complaints regarding noise and dust impacts from the facility's construction.

6.1.8 SUMMARY OF CONSTRUCTION PHASE IMPACTS

Table 6-1 summarises the impacts of the construction phase.

Table 6-1 – Construction Phase Impacts

IMPACT	IMPACT SIGNIFICANCE
Job Creation	Positive - Very High
The influx of Job Seekers	**Negative - Medium**
Procurement from Local Businesses	**Positive - Medium**
Loss of Farmlands	**Negative - Low**
Income for Affected Landowners	**Positive - Medium**
Community Health, Safety, and Security	**Negative - Low**
Intrusion Impacts	**Negative - Low**

6.2 OPERATIONAL PHASE

The project activities will be operational during this phase, whereby renewable energy will be produced, stored, and supplied to the consumers. See **Table 6-2** for the operational phase's summary of the Impact Assessment.

6.2.1 JOB CREATION

The total number of employments generated during the operational phase is estimated at 30. Furthermore, the project requires that local South Africans be employed during construction. Most workers will be low-skilled, with approximately 30 – 40 % semi-skilled.

The job creation projection indicates that many low-skilled persons will be employed. The impact significance is rated as a potentially **high positive impact**.

6.2.1.1 Job Creation Enhancement Measures

To enhance job creation impact, the project should prioritise local recruitment for low-skilled workers and invest in skills development for locals to improve their competitiveness in the job market.

6.2.2 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. The significance is rated as a **negative medium impact**.

6.2.2.1 Influx of Job Seekers Mitigation Measures

Recruitment procedures should prioritise local employment to limit influx. Local skill development programmes must be implemented to improve the local skill pool and make it more competitive in the labour market. The project could partner with the municipality to implement community programmes and facilities to ease the pressure on municipal services and infrastructure.

6.2.3 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. Local economic growth has the potential to have a **medium positive impact.**

6.2.3.1 Local Procurement Mitigation Measures

Local businesses should be prioritised to supply goods and services to the project during operations.

6.2.4 COMMUNITY HEALTH, SAFETY AND SECURITY

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

6.2.4.1 Community Health, Safety and Security Mitigation Measures

The project should employ security personnel onsite during the operational phase to secure the project and its assets. The project should train its personnel in health and safety. The staff should also receive training on how to interact with locals.

6.2.5 INTRUSION IMPACTS

The operational activities will increase noise and alter the visual aesthetics of the area. The effect is rated to be a **medium negative impact.**

6.2.5.1 Intrusion Impacts Mitigation Measures

The project must refer to the approved EMPr to mitigate noise and visual impacts. Furthermore, the project must establish complaints register onsite to record and address complaints about noise and visual impacts arising from the project.

6.2.6 ENERGY GENERATION

The wind energy generated will be an alternative to coal-powered energy. Energy generation will have a **high positive impact** because the project will produce renewable energy, less air pollution emissions, and a more reliable energy source for the energy consumer.

6.2.6.1 Enhance Mitigation Measures

Operations Management Systems must be planned, monitored, and evaluated regularly to ensure that production, financial, human resources and other Key Performance Indicators targets are routinely achieved.

6.2.7 SUMMARY OF OPERATIONAL PHASE IMPACTS

Table 6-2 represents a summary of the impacts of the operational phase.

Table 6-2 – Operational phase impacts

IMPACT	IMPACT SIGNIFICANCE
Job Creation	**Positive - High**
An influx of Job Seekers	**Negative - Medium**
Procurement from Local Businesses	**Positive - Medium**
Community Health, Safety and Security	**Negative - Low**
Environmental Health	**Negative - Low**
Energy Generation	**Positive - High**

6.3 DECOMMISSIONING PHASE

The Decommissioning Phase is a phase in the project where the projection operational activities cease to operate. Refer to **Table 6-3** for a summary of the decommissioning phase and social impact assessment.

6.3.1 LOSS OF EMPLOYMENT

Employees will have to lose their jobs during the decommissioning phase due to retrenchment, which is unavoidable during this phase. Retrenchment will result in a decrease in employment. The impact is rated as a **negative medium** impact on employment.

6.3.1.1 Loss of Employment Mitigation Measures

It is recommended that the project establish a structured employment forum consisting of representatives of employees and organised labour, i.e., labour unions and human resource

experts. For effectiveness, the forum must be established during the operational phase. The forum will be responsible for planning fair retrenchment compensation packages, including financial compensation or alternative employment opportunities elsewhere for the retrenched employees. Furthermore, skills development programmes must be incorporated within the retrenchment packages for eligible retrenched employees.

6.3.2 LOSS OF LIVELIHOOD

Employees, business owners, and entrepreneurs will likely lose their livelihoods during the decommissioning phase. The impact is predicted to have a **high negative impact** on the livelihoods of the receptors.

6.3.2.1 Livelihood Mitigation Measures

It is recommended that skills development programmes be included in the retrenchment packages offered to eligible employees. Skills development will enable them to compete fairly with other job seekers in the market. To facilitate this process, the forum discussed in section 7.3.1 of this report will coordinate with companies looking for employees with the skills retrenched workers possess.

In addition, creating a community engagement forum comprising community leaders, municipal Local Economic Development representatives, and local business representatives could be effective. This forum will be a structured organisation that will ensure that affected businesses are developed to continue trading even after the decommissioning phase of the project, enabling these businesses to sustain the market and support economic growth in the area.

6.3.3 SUMMARY OF DECOMMISSIONING IMPACTS

Table 6-3 presents a summary of the decommissioning impacts.

Table 6-3 – Decommissioning Impacts Summary

IMPACT	IMPACT SIGNIFICANCE
Loss of Employment	**Negative - Medium**
Loss of Livelihoods	**Negative - High**

6.4 CUMULATIVE IMPACTS

Cumulative impacts with existing and planned facilities may occur during construction and operation of the proposed Verkykerskop WEF Cluster. While one project may not have a significant negative impact on sensitive resources or receptors, the collective impact of the projects may increase the severity of the potential impacts.

Therefore, a number of projects within the surrounding area which have submitted applications for environmental authorisation (some of which have been approved) have been considered. The projects considered are from the latest REEA database from the DFFE (2023 Quarter 3). It is important to note that the existence of an approved EA does not directly equate to actual development of the project.

The proposed Verkykerskop WEF Cluster is not located within one of the promulgated Renewable Energy Development Zones (REDZ). The projects located within a 50km radius of the site that should be considered in the cumulative impact assessment is included in **Table 6-4 Error! Reference source not found.** and illustrated **Error! Reference source not found.** Projects within 50 km of the Verkykerskop WEF Cluster.

Table 6-4 – Projects within 50km of the Verkykerskop WEF Cluster.

PROJECT NAME	APPLICANT	STATUS	REFERENCE NUMBER	DISTANCE AWAY (KM)
Newcastle Gas Engine Power Plant (NGEPP), Newcastle, KwaZulu-Natal Province.	Newcastle Energy (Pty) Ltd	Refused	14/12/16/3/3/2/2074	36
Proposed Upgrade of Karbochem boilers and electricity project in Newcastle	Distributed Energy Generation (Pty) Ltd	In process	14/12/16/3/3/1/1164	37
Proposed Upgrade of Karbochem boilers and electricity project in Newcastle - Amendment	Distributed Energy Generation (Pty) Ltd	Approved	14/12/16/3/3/1/1164/AM1	37
Proposed Newcastle solar energy facility near Newcastle, KwaZulu-Natal Province	Building Energy (Pty) Ltd	Refused	14/12/16/3/3/1/1225	38
Proposed Newcastle WEF 2 and associated grid infrastructure near Newcastle, KwaZulu-Natal Province	Mulilo Newcastle Wind Power 2 (Pty) Ltd	Refused	14-12-16-3-3-2-2213	32
Proposed Newcastle WEF and associated grid infrastructure near Newcastle, KwaZulu-Natal Province	Mulilo Newcastle Wind Power (Pty) Ltd	Approved	14-12-16-3-3-2-2457	35
Proposed Newcastle WEF 2 and associated grid infrastructure near Newcastle, KwaZulu-Natal Province	Mulilo Newcastle Wind Power (Pty) Ltd	Approved	14-12-16-3-3-2-2457	32

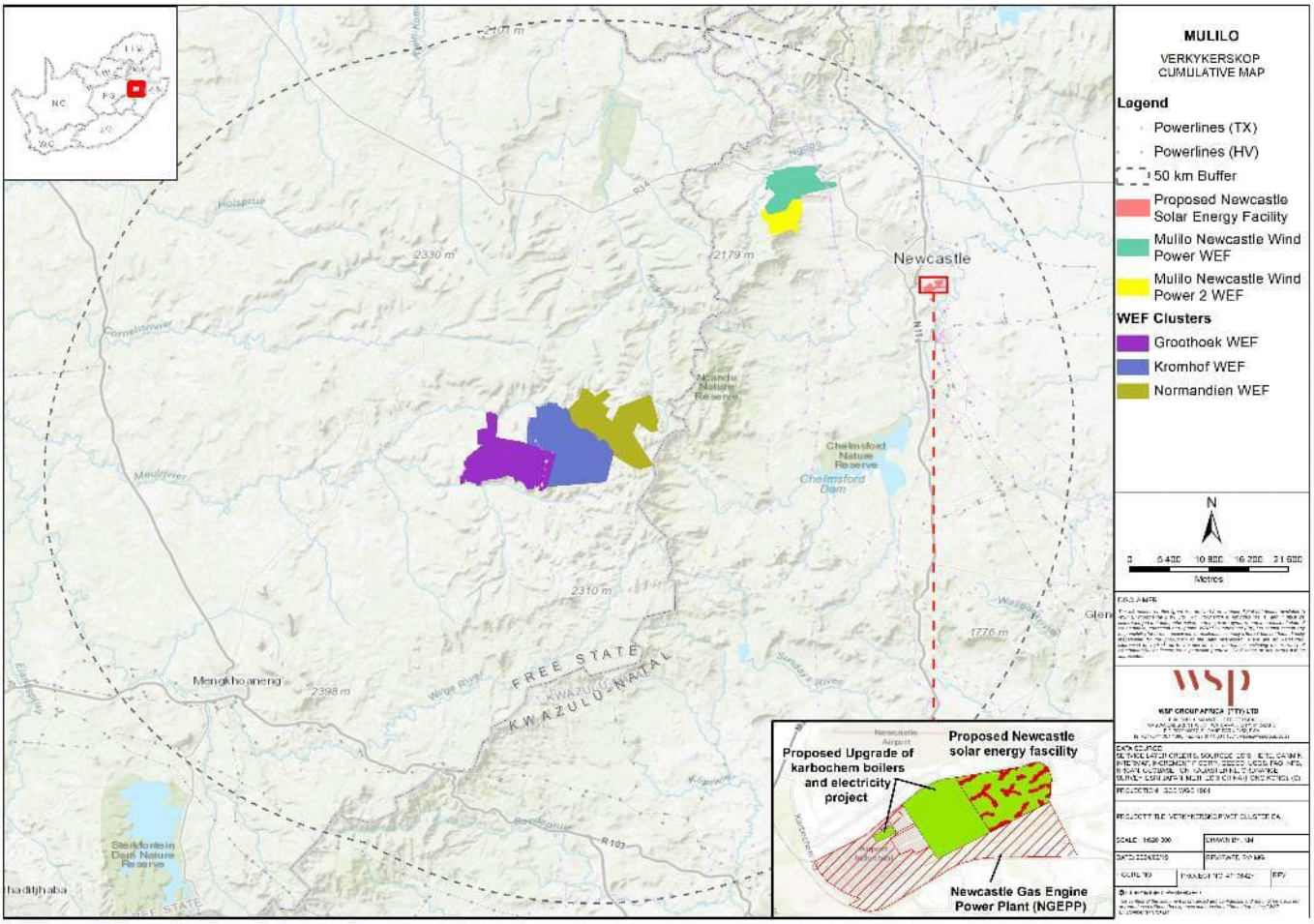

Figure 6-1 - Projects within 50km of Verkykerskop WEF Cluster

6.4.1 SENSE OF PLACE

The potential cumulative impacts on the area's sense of place will be linked mainly to potential visual impacts. These issues relate to wind energy facilities and their associated infrastructure. The relevant issues identified include:

- Combined visibility (whether two or more wind farms will be visible from one location).
- Sequential visibility (e.g. the effect of seeing two or more wind farms along a single journey, e.g. road or walking trail).
- The visual compatibility of different energy facilities in the same vicinity.
- Perceived or actual change in land use across a character type or region.
- Loss of a characteristic element (e.g. viewing type or feature) across a character type caused by developments across that character type.

Cumulative impacts need to be considered from dynamic and static viewpoints. For example, the experience of driving along a tourist road is regarded as a dynamic sequence of views and visual impacts, not just as the cumulative impact of several developments on one location. The viewer may only see one renewable energy facility and the associated infrastructure at a time. Still, each successive views of renewable energy facilities, can be argued to have a cumulative visual impact ((Environmental Protection and Heritage Council, 2010).

Approximately 4 renewable energy projects are located within a 50 km range of the project site. The approved projects are illustrated in **Figure 6-1**.

There is, therefore, the possibility of combined and sequential impacts. However, given the site's location, the potential impact of the proposed energy-generating facilities and associated infrastructure on the area's sense of place is likely to be limited. The significance of this impact is rated **Negative-Medium**.

6.4.1.1 Sense of Place Mitigation Measures

The recommendations in the Visual Impact Assessment, which will be undertaken as part of the EIA, should be implemented.

6.4.2 LOCAL SERVICES AND ACCOMMODATION

The development of multiple renewable energy projects has the potential to put a strain on local services and accommodations, particularly during the construction phase. The goal will be to source as many un-skilled and semi-skilled employees from the local municipality as possible during the construction and operational phases of the Project. Sourcing skills locally will relieve the strain on local services, accommodations, and the nearby town of Harry Smith. However, considering the construction phase's brief duration, the potential impact is expected to be limited.

The potential impact should also be considered in light of the possible beneficial cumulative effects on the local economy linked with the planned facilities and accompanying renewable energy projects in the local municipality. Such benefits will generate opportunities for investment in the municipality,

such as upgrading and expanding existing services and building new residences. The significance of this impact is rated **Negative-Low.**

6.4.2.1 Local Services and Accommodation Mitigation Measures

The proponent should liaise with the Msukaligwa local municipality to address potential impacts on local services.

6.4.3 LOCAL ECONOMY

In addition to the potential negative impacts, establishing renewable energy facilities and associated infrastructure will create several socio-economic opportunities for the Msukaligwa local municipality. The positive cumulative economic opportunities include the creation of employment, skills development and training opportunities, and downstream business opportunities.

The potential cumulative benefits for the local and regional economy are associated with the construction and operational phases of renewable energy projects and related infrastructure, extending over 20-25 years. However, steps must be taken to maximise employment opportunities for local community members and support skills development and training programmes. This impact's significance is **positive and rated Medium.**

6.4.3.1 Local Economy Enhancement Measures

The proponent should liaise with the Msukaligwa local municipality to identify potential local economy and business opportunities.

6.4.4 SUMMARY OF CUMULATIVE IMPACTS

The cumulative impacts are identified as a sense of place resulting from the visual change of scenic views because of several solar PV and wind energy facilities within the viewer's sight. Due to limited resources, local services and accommodation could negatively affect the local municipality service delivery. Socio-economic opportunities may rise due to increased renewable energy facilities within the municipality. **Table 6-5** indicates a summary of the cumulative impacts.

Table 6-5 – Summary of cumulative impacts

CUMULATIVE IMPACT	IMPACT SIGNIFICANCE
Sense of place	**Negative - Medium**
Local Services and Accommodation	**Negative - Low**
Local Economy	**Positive - Medium**

7 TERMS OF REFERENCE FOR SOCIAL IMPACT ASSESSMENT EIA PHASE

The assessment will consider the social issues and aspects based on secondary and primary research. The results and recommendations of the various specialist studies will be used to identify potential impacts on sensitive social receptors. The alternatives will be assessed, probable social consequences will be forecast, and measures to avoid or mitigate adverse impacts and enhance any positive effects related to the project will be provided. The mitigation measures will be included in the Environmental Management Programme (EMPr), which will be developed for the project.

8 SENSITIVITY VERIFICATION

WSP was appointed to conduct an SIA as part of the Scoping and Environmental Impact Assessment (EIA) (S&EIA) process for the proposed Verkykerskop.

This section of the report provides the proposed project's Social Impact Site Sensitivity Verification.

The DFFE Screening Tool was used to identify site sensitivities from a social perspective. The report was completed for the site. The specialists conducted a satellite imagery analysis on 08 April 2024 to inform the specialist reports required for the proposed project and confirm the site sensitivity. Furthermore, public participation may inform the SIA specialist further on the potential sensitivities on the social receptors.

The Table **8-1** below provides information regarding the outcome of using the DFFE's screening tool in terms of the social assessment theme sensitivities associated with the proposed project and the specialist sensitivity verification.

Table 8-1 – Social Impact theme sensitivity for the Verkykerskop WEF

Environmental Theme	DFFE Screening Tool Sensitivity	Applicable protocol	Specialist Sensitivity Verification
Groothoek			
Socio-Economic Assessment	Not declared	A desktop analysis using satellite imagery;	Low Sensitivity

The sensitivity verification table above was created based on the screening tool report. The purpose of the screening tool was to identify environmentally sensitive themes on site at Groothoek, While the screening tool report does not rate social themes for sensitivity, it does provide ratings for other environmental themes that may impact the social aspect of the area. The social assessment rating was analysed based on the rating of other key environmental themes in the report. It must be noted that the rating is conducted on a screening level and will be investigated in detail during the impact assessment phase. The applicable specialist protocol is illustrated in **Table 4-1**, derived from Appendix 6 of the EIA regulations. **Figure 8-1** illustrates a map that considers environmentally sensitive areas to avoid and less sensitive areas potentially suitable for developing the project infrastructure.

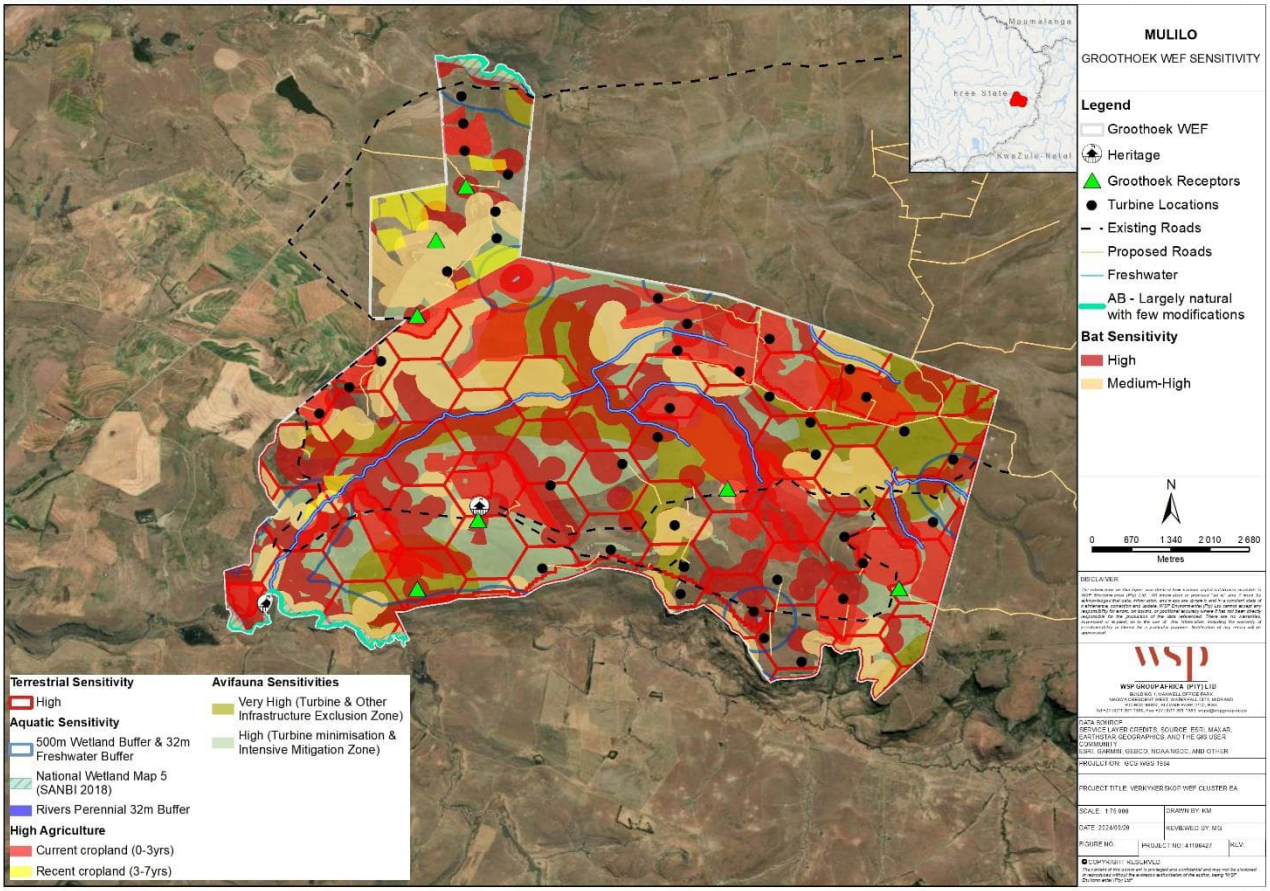

Figure 8-1 – Groothoek WEF Sensitivity Map

9 CONCLUSION

The SIA baseline findings show that the project will positively impact the social environment in terms of power generation, employment, and economic benefits. The negative impacts include visuals, loss of livelihood, community health, safety, and security. It must be noted that the impacts identified are based on secondary data collection. Mitigation measures are mentioned in the report; however, impact rating post-mitigation measures will be assessed during the EIA phase. The SIA will piggyback on the Public Participation Process during the scoping phase. The assessments and mitigations of the impacts are based on secondary data and will be updated after consultations with interested and affected parties. See **Table 9-1** for the summary of all the project phases' impacts.

Table 9-1 – Summary of all phases Impacts

IMPACT	IMPACT SIGNIFICANCE
Construction Phase	
Job Creation	**Positive - Very High**
The influx of Job Seekers	**Negative - Medium**
Procurement from Local Businesses	**Positive - Medium**
Loss of Farmlands	**Negative - Low**
Income for Affected Landowners	**Positive - Medium**
Community Health, Safety, and Security	**Negative - Low**
Environmental Health	**Negative - Low**
Operational Phase	
Job Creation	**Positive - High**
An influx of Job Seekers	**Negative - Medium**
Procurement from Local Businesses	**Positive - Medium**
Community Health, Safety and Security	**Negative - Low**
Environmental Health	**Negative - Low**
Energy Generation	**Positive - High**
Decommissioning Phase	

IMPACT	IMPACT SIGNIFICANCE
Loss of Employment	**Negative - Medium**
Loss of Livelihoods	**Negative - High**
Cumelative Impacts	
Sense of place	**Negative - Medium**
Local Services and Accommodation	**Negative - Low**
Local Economy	**Positive - Medium**

10 DECLARATION OF INDEPENDENCE BY SPECIALIST

I, Yvette Mmanasoe I –

- Act as the independent specialist for the undertaking of a specialist section for the Verkykerskop Environmental Authorisation Applications;
- 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.

11 BIBLIOGRAPHY

Agriculture ,Land Reform and Rural Development. (2021). *Phumelela Local Municipality SDF Review.*

Coorperative Governance Traditional Affairs. (2022). Municipalities of South Africa. Retrieved from https://demo.municipalities.co.za/

Environmental Protection and Heritage Council. (2010, July). *National Wind Farm Development Guidelines - Draft.* Retrieved from https://www.nepc.gov.au/sites/default/files/2022-09/draft-national-wind-farm-development-guidelines-july-2010.pdf

Msukaligwa Municipality. (2022). Msukaligwa Local Municipality Final Integrated Development Plan 2022-2023. Mpumalanga.

Phumelela Local Municipality. (2022-2027). *Phumelela Local Municipality Integrated Development Plan.*

Phumelela Local Municipality. (2022-2027). *Phumelela Local Municipality Integrated Development Plan.*

Statistics South Africa. (2011). 2011 Population Census.

Statistics South Africa. (2016). *Community Survey .*

Statistics South Africa. (2022). Census. Retrieved from https://census.statssa.gov.za/#/province/8/2

Statistics South Africa. (2023). Quarterly Labour Force Survey.

Statistics South Africa. (2023). *Quarterly Labour Force Survey.*

Stats SA. (2023). *Quaterly Labour Force Survey Quater 4.* Retrieved from https://www.statssa.gov.za/publications/P0211/P02114thQuarter2023.pdf#page=9&zoom=100,53,947

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